

ANNUAL REPORT 2021

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ROMATSA'S MANAGEMENT IN 2021

BOARD OF DIRECTORS

Aniței Mihai Daniel	chairman (from 30.03.2021)
Nedelcu Corvin	chairman (until 30.03.2021)
Ilie Laurențiu Andrei	interim member (until 24.02.2021)
Costescu Dan Marian	interim member (until 18.02.2021)
Paraschiv Cristian	interim member (until 27.02.2021)
Ardelean Felix Corneliu	interim member (from 03.03.2021)
Mănăsescu Valentina Sorina	interim member (from 03.03.2021)
Postolea Iulia Daniela	interim member (from 03.03.2021)
Nicolescu Ana Maria Raluca	interim member (from 03.03.2021 until 03.09.2021)
Nichifor Cătălin Mihai	interim member (from 03.09.2021)

MANAGEMENT TEAM

Cojoc Marius Adrian	CEO
Florea Valeriu Laurențiu Adrian	Operational department manager
Cimpuiaru Valentin	Technical development department manager
Radu-Cîtu Cristian	for CFO
Căținean Pavel	Safety and quality manager
Cosmin Dumitrescu	Technical manager
Titea Dragoș-Virgil	Legal and administrative director (until 12.05.2021)

OPERATIONAL, TECHNICAL, SECURITY AND QUALITY OF THE SERVICES PROVIDED

OPERATIONAL ACTIVITY

Route Activity Management

Basic activities

- Activities amending the ATS route structure in FIR Bucharest by eliminating fixed ATS route structure over FL105, as a last step in the implementation of FRA H24 operation in FIR Bucharest and to comply with the European Route Network Improvement Plan-ERNIP - current edition:
 - coordination document elaboration Operational concept for the elimination of ATS routes above the flight level FL105;
 - development of an activity plan for the elimination of ATS routes above FL105;
 - preparing the documentation to obtain approval from CMSA;
 - coordination fine ATS Instructions for ACC Bucharest sectors;
 - amendment of coordination procedures (LoAs) between ACC Bucharest and adjacent ATS units (within ROMATSA and adjacent FIRs);
 - preparing the documentation for AACR's acceptance of the ATM system change by eliminating ATS routes above FL105 – safety assessment, checklist, change notification;
 - notification to air operators regarding the elimination of ATS routes over FL105;
 - amendment based development;
 - development, in collaboration with ACC Bucharest, of training documentation for CTA ACC and CITA staff for the change in FIR Bucharest generated by the elimination of ATS routes over FL105.

- Sector optimization activities in FIR/CTA Bucharest: participation in simulation activities organized at ACC Bucharest - traffic analysis, delivery of traffic samples, design of sectorized scenarios simultaneously with fast-time simulations etc., drafting the documentation on the modified sectorization at ACC Bucharest (checklist, safety assessment, operational procedures update - LoAs between ROMATSA ATS units, implementation plan, operational concept - draft development - etc.) The activities were launched in November 2019, with an initial estimated implementation date of April 2020. Due to COVID-19 pandemic, implementation has been postponed to a later date.
 - SAAM/NEST analyses of capacity, instantaneous load, CTA workload, potential conflicts for preliminary sectorisation variants proposed by working group (WG) members;

- preparing presentations with the conclusions of the above-mentioned analyses for discussion in the DSA WG meetings;
 - organisation of webex/physical meetings of the Airspace Design WG (ASD) to discuss the conclusions of the above analyses, intended to identify eligible sectorisation variants for the in-house RTS simulation and to determine the optimal sectorisation variant to be implemented in FIR Bucharest;
 - development of material for the review of preliminary sectoring solutions for the in-house RTS, and configuration of environment and traffic data related to RTS qualified versions, in order to introduce them into the DR Bucharest simulator system.

- optimisation of the ATS route structure to comply with the applicable ERNIP structure - European Route Network Improvement Plan:
 - further activities for implementation of the projects/activities foreseen in the ERNIP - European Route Network Improvement Plan - current edition;
 - change of ATS route segments in the vicinity of CTRs so as to ensure the continuous movement of aircrafts in continuously controlled airspace.

- review of FIR Bucharest flow development in the context of the development of international air traffic and implementation by NM EUROCONTROL of ATFM measures for the 2022 summer season to identify the effects of their application on air traffic flows in FIR Bucharest using SAAM/NEST airspace design applications in the context of the COVID-19 pandemic.

- medium-term operational capacity planning:
 - strategic level planning of ACC Bucharest capacity in the context of the COVID-19 pandemic by ensuring the necessary procedures for the continuity of air traffic control services at ACC Bucharest and the regular provision of capacity availability information in the context of the NOP rolling seasonal plan implemented by the network manager at European ATM network level. The expected route performance has been and is regularly assessed by NM for each ACC, including Bucharest ACC, with respect to planned/maximum openings of routing sectors in relation to the estimated traffic demand;
 - participation and traffic analysis for the preparation of meetings with NM on strategic capacity planning of ACC Bucharest for 2022-2024: development of medium and long term capacity model, considering the scenario with/without CTA recruitment as proposed in the PP RP3 Performance Plan.

- Involvement in activities coordinated by the ATM Systems experts for the implementation of the EEA FRA project, i.e. the extension of the EEA FRA operation in the South East European airspace between Bratislava-Budapest-Bucharest-Sofia control regions (CTA) by including the Chisinau CTA, with implementation deadline February 24, 2022. LoAs between ATS units affected by FRA H24 implementation have been updated by including CTA Chisinau and AIP amendment base.
- Regular weekly reviews of the estimated short-term traffic development in FIR Bucharest, using European traffic data received from the Network Manager in the context of the COVID-19 pandemic.
- Review of proposals for instrument flight procedures related to some CTRs and TMAs in FIR Bucharest submitted by route management specialists and formulation of comments and proposals on the subject matter (12 procedures).
- Participation, in line with the scope of activity, in the analysis of draft legislation and regulations submitted for consultation by the AACR, MTI (RACR-ATS Regulation, amendment proposals for PIAC-ATS, RACMR-MSA-UFSA Regulation, HG 859/2021, etc.), respectively providing, in line with responsibility, the opinion on new legislative proposals. Participation in the review of draft documents elaborated by international organizations to which Romania is part - EASA, EUROCONTROL, ICAO.
- Coordination, development or update, as appropriate, of operational procedures applicable mainly in the field of en-route air traffic services and Class G airspace, and coordination procedures between ROMATSA ATS units and ACC Bucharest and adjacent ACC units (LoAs). Six procedures (PINs), two amendments to a PIN and 37 amendments to LoAs have been prepared.
- Coordinating risk assessments for ATM system in terms of changes related to the provision of en-route air traffic services and follow up the implementation of risk mitigation measures. Four safety assessments and three checklists have been developed.
- Performance indicators. In this context, route management specialists also participated in the revision of the Romanian part of the DanubeFAB Performance Plan for the second reference period (2015-2019) and in the elaboration of the Performance Plan for the third reference period - RP3:
 - traffic evolution analysis and review of the medium and long term capacity plan in the context of the revision of PP RP3 due to come into force from November 5, 2020, implementing Regulation (EU) no. 1627/2020 of the Commission regarding the exceptional measures

- for the third reference period (2020-2024) of the Single European Sky performance and charging scheme taken in the context of the COVID-19 pandemic, which amended certain provisions of the Regulation (EU) No 317/2019. Under the new Regulation, the European Commission has set revised Union-wide performance targets for RP3 through the Implementation decision no. 891/2021;
- contribution to the PP RP3 Monitoring Report for the year 2020 on capacity and environment topics.
 - Participation in the development of the ACE Benchmarking Report 2020 documentation in terms of competence.
 - Danube FAB development from an operational perspective. The cooperation with Bulgarian partners for operational analysis to identify optimal ways of collaboration, in terms of air traffic safety and fluidity of traffic flows, including the extension of Free Route Airspace operations in H24 regime continued.
 - Civil-military collaboration to implement the concept of flexible use of airspace - ongoing activity. The development or updating, as appropriate, of civil-military cooperation protocols and/or procedures, pre-tactical and tactical airspace management procedures, and participation in military activities with an impact on en-route activity have been discussed in this context.
 - Development of proposals for corrective measures in the area of activity following internal and external inspections and audits and following up their implementation.
 - Analysis of reported safety events (REAC) and follow-up on implementation of corrective actions, if any. Participation of experts in the subsequent research committees of ATM events.
 - Coordinating the creation of setting up new restricted areas for specific hail control activities and appropriate development and/or completion/updating of specific procedures. Given the increasing impact of 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 of other methods of anti-hail agent dissipation (ground generators or specialized aircraft) by the operators of these systems.
 - Preparing AIP Romania amendment bases according to airspace changes associated to the competence of route management specialists. Five AIP amendment bases were issued, regarding the activity object.

- Participating in the conclusion of protocols, procedures, regulations in collaboration with internal institutions and airspace users.
- participation in ATM 2015+ System development and implementation specialist teams. participation in ATM 2015+ System development and implementation testing specialist teams.
- Coordination of objective implementation FCM06 – Traffic Complexity Assessment, defined in the European ATM Master Plan – Implementation Plan 2016 (ESSIP 2016), applicable to Romania, with an initial completion date of December 2021:
 - finalizing the specifications for the air traffic complexity management ROMATSA automated system – ROMAirTCM. Equally, the Activity Report on the development of the ROMATSA automated system for air traffic complexity management ROMAirTCM specifications was completed.
- Activities in line with the scope of work on the implementation of Regulation (EU) No. 469/2020 amending Regulation (EU) No. 373/2017 laying down common requirements for air traffic management/air navigation service providers and other air traffic management network functions and for their oversight, the deadline for completion is January 2022: updating and development of procedures to comply with the requirements of the Regulation, applicable to the ATS area (one procedure, i.e. procedure on problematic use of psychoactive substances, edition 3), development of the Policy on Problematic Use of Psychoactive Substances Policy edition 2.0 to comply with the requirements of the Regulation.
- Running planned operational audits at ACC Bucharest according to the approved annual schedule.
- Participation in the implementation of the Integrated Computerized System AIS - activities carried out in accordance with the decision of the general director, respectively:
 - review of documents received from the IDS Contractor intended for preparing the presentation of the system capabilities
 - attending webex meetings with the members of the working group designated for the overview of the AIS Integrated System capabilities within ROMATSA.
- Attending EUROCONTROL/ICAO RNDSDG (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 (Capacity Planning Group), subordinate to NETOPS, CECM/CANSO meetings.

- Specialists attending CTA Ab-Initio staff training activities, in their field of competence.
- Participation in the ACC Bucharest CTA staff review for advancement/promotion.
- Mentoring students of the Aircraft Department during the mandatory internship (14 students). Mentoring five students of the Aircraft Department to prepare the bachelor's thesis - activity started in October 2021 and completed in June 2022.
- Participating in activities for the amendment of the Accounting Cost Allocation Methodology: traffic and airspace data analysis, as requested by the consulting firm Helios.
- Other permanent activities:
 - participating in the continuous optimization of SAAM/NEST applications developed by EUROCONTROL/NM;
 - use of NEST application for analysis of sector closure/opening schemes and in the context of capacity plans for LSSIP (material prepared for CAPLAN group work);
 - airspace structure optimization through the use of dedicated applications, as follows:
 - NEST (Network Strategic Tool) – preliminary analysis
 - RAMS (ISA Software) – Fast Time simulation
 - drafting/update of protocols, procedures, regulations in collaboration with internal institutions and airspace users;
 - conducting specific civil-military collaboration activities and unmanned flight execution (RPA) programmes.

Terminal Activity Management

The primary activities carried out in 2021 in the field of terminal activity management were the following:

- Optimizing the airspace structure
 - CTR Iasi and CTR Bacău expansion project
 - Baia Mare CTR expansion project and amendment of LRTRA70;
 - TMA Constanța expansion project.
- Optimization of instrument flight procedures
 Coordination of implementation or optimization of instrument flight procedures for all 16 airports for which ROMATSA provides air traffic services:
 - coordination of operational requirements of CTA/air operators/SMAF/airfield operator;
 - coordination with the design organization;

- coordination with geodetic agents, airport operators for terrain/obstacles database clarifications;
- coordination of stakeholder agreements, approval of concepts, final documentation;
- developing safety assessments;
- in-flight validation coordination;
- AACR approval process coordination;
- publication process coordination;
- developing AIP amendment bases;
- CTA training coordination.

Two contracts have been implemented, including:

- review/optimisation of all the AIP instrument flight procedures for the 16 airports;
 - design and implementation of RNP APCH procedures for both directions of the 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 validation for GNSS sensor (8 airports);
 - redesign of all Minimum Radar Vectoring Altitude maps (8 airports).
- Airport modernization projects:
 - coordination/development of specific documents for airport modernisation projects (instrument approach procedures, risk analyses, plan coordination);
 - Airport coordination - implementation of Regulation 139/2014, as amended and supplemented:
 - coordination and finalisation/update of Air Navigation Services agreements and common local procedures with most aerodrome operators.
 - ATM 2015+ Project
 - participating in the ATM 2015+ work group: completion of adaption data for system configuration (introduction of AIP amendment changes) and providing GMT secretarial activities.
 - Consolidation of the movements in FIR Bucharest and in the terminal area:
 - monthly consolidation of the movements in all airports in Romania;
 - monthly consolidation of the movements in Bucharest FIR;
 - quarterly/annual transmission of data to AACR;
 - daily consolidation of the movements in all airports in Romania;

- CTA training/information:
 - informing the CTA of the entry into force of new regulations or their amendment, establishing the CTA training level;
 - informing the CTA on the entry into force of operational changes, establishing MBI level;
 - providing theoretical and practical examination for CTA candidates;
 - participation in evaluation committees for CTA promotion or advancement.

- Operational audits
 - monitoring the implementation of the action plans set out following audits or operational inspections carried out by AACR, DSC - ROMATSA and the Terminal Activity Management Service/ROMATSA;
 - conducting operational audits and audit reports.

- Specific activity documentation development.
 - preparing risk assessment and mitigation reports for the installation of new radio navigation equipment or their replacement;
 - coordinating AIP amendment bases;
 - issuance of NOTAM bases;
 - update of TWR, APP Operational Manuals;
 - attending consultations on legislative changes and proposed amendments (air code, RACMR MSA UFSA, PIAC ATS, European regulations, etc.);
 - coordinating preparation of cooperation procedures between DSNA sub-units and airports and obtaining the AACR's acceptance for commissioning;
 - coordinating the development of procedures, collaborating aerial shows/contests, balloon launches;
 - participating in the development of collaborative procedures for military exercises taking place in terminal airspace;
 - coordination of the development of procedures for collaboration between TWR units and VFR operators;
 - coordinating the development/updating of RWY INC and EXC procedures;
 - coordinating amendment procedures for implementation of 3NM in TMA BUC;
 - coordination/analysis/proposals for updating documentation (operational procedures, operational manuals, ROF, etc.) for compliance with Regulations 373/469/1177/665 and ASM/ATFM certification;
 - collaboration on the update of ROMATSA expozeu;
 - coordinating LoA update among subunits.

- Other operational activities
 - monitoring risks related to the specific activity of aerodrome control towers (TWR) and approach control units (APP), analysis of Civil Aviation Occurrence Reporting (CAER), formulating requirements or recommendations for risk mitigation;
 - consultations with AACR: organising meetings to establish the means of implementing GNSS procedures in Romania (approval of design documentation, discussions on the use of GPS, discussions on in-flight check of GNSS procedures, etc.)
 - consultations with air operators;
 - attending CTA TWR/APP advancement/promotion examination committees;
 - participating in the Braşov Airport working group;
 - participating in Regulation 373 working group;
 - participating in the working group for the identification of project proposals eligible for funding from European funds;
 - participating in AMAN working group;
 - participating in the Airspace optimization working group;
 - participating in DG no. 74/1991 working group;
 - participation in the terminal activity improvement working group;
 - participation in ROMATSA Strategy working group regarding the provision of air navigation services at Romanian airports;
 - attending RP3 meetings and providing support for the preparation of documentation;
 - development/verification of documentation to AACR for acceptance of ATM system changes (checklists, requests for acceptance of ATM system changes, risk analyses, operational concepts, etc.);
 - coordination of student trainees;
 - collaboration on the implementation of Clearance Delivery Otopeni;
 - design activity coordination and implementation of PBN procedures in Romania, included in the EU-funded SPICE program. Participation in the SPICE working group, completion of progress reporting documentation, coordination with AAR (Association of Romanian Airports) to synchronise programme activities (design vs. development of field studies and obstacles);
 - reply forms to judges' requests = flight delays/cancellations;
 - reply forms/notice to requests on launching fireworks/drone flight activities;
 - consultations with air operators, AACR and DSC on noise complaints in the airport area - reply forms for complainants;
 - GL participation – Harmonization of GRF implementation (analysis of GRF related documents, CO creation, implementation plan, safety analysis, AACR correspondence, etc.).

- Operations and infrastructure news

- collaboration on ATM/ANS Plan implementation and PBN transition in Romania;
 - development of the Operational and Technical Concept regarding implementation of GNSS instrument flight procedures;
 - development of the Safety evaluation implementation of GNSS instrument flight procedures.
- collaboration with the County Council Braşov - support for the establishment of Brasov Airport (elaboration of points of view, requirements, attending GL meetings, analysis of operational concept/ specifications/ technical concept, collaboration in drafting the operational concept for the provision of air traffic services at Brasov Airport - ROMATSA, etc.).

Vocational Training Management and Organization of CTA resources

Basic activities

- Organisation of the Basic Course and the Qualification Courses for the CTA Trainee licence.
- Development, amendment and verification of Unit Training Plans (UTP), Competence Maintenance Schemes (UCS), Refresher Training Plans for ROMATSA sub-units (TWR Arad, TWR Bacău, TWR Constanța, TWR Baia Mare, TWR Băneasa, TWR Cluj, TWR Craiova, TWR Iași, TWR Oradea, TWR Otopeni, TWR Sibiu, TWR Suceava, TWR Satu-Mare, TWR Târgu Mureș, TWR Timișoara, TWR Tulcea, ACC Bucharest, APP Bucharest, APP Arad, APP Constanța).
- Development of the professional training plan for CTA within the ROMATSA subunits for 2022 - considering their training needs.
- Organisation of courses for obtaining/maintaining trainer (OJTI) and assessor (CCA) authorisations.
- Development of the course on recurrent training in English.
- Organisation of the English language proficiency test - ELPAC - for all air traffic controllers and CTA Ab-Initio within ROMATSA.
- Starting the process of amending the CTA Training Management Manual.

Recurring activities

- Ongoing coordination with local managers with training according to the Functional Scheme.
- Ongoing coordination on CTA preparation with AACR representatives in terms of their activity.

- Operational audits in each of the ROMATSA subunits in order to ensure the maintenance of the appropriate training level and compliance with the applicable procedures and regulations.
- Development of proposals for corrective measures in the area of activity following internal and external inspections and audits and following up their implementation.
- Attending CANSO, RMTG of EASA meetings for the amendment of Regulation (EU) 340/2015.
- Participation of specialists in CTA and CTA Ab-Initio staff activities.
- Participation in the examination of CTA staff of within ROMATSA subunits for advancement/promotion.
- Development of the documentation of the CTA ROMATSA Training Organization.
- Centralization, maintenance and implementation of CTA staff dynamics.
- Monitoring the maintenance of the correct indicator of CTAs and OJTIs and assessors.
- Management of requests to move from one sub-unit to another.
- Managing staff planning for different activities, taking into account operational service assurance.
- Participation in the development of RA ROMATSA welfare cases Regulation.

Aeronautical Information Management

The primary activities carried out in 2021 in the field of Aeronautical Information Management (AIM) were the following:

1. AIS management:

- Participation in the development of the SEE FRA project.
- Modification (reduction) of the work schedule of the ARO/Briefing Constanța unit:
 - developing the assessment in support of safety;
 - modification of work procedures;
 - coordinating the update of work procedures/collaboration ARO/Briefing Bucharest Otopeni and ARO/Briefing Constanta;
 - development of the proposal to update the Presentation briefing of R.A. ROMATSA;
 - notification to the Romanian Civil Aeronautical Authority (AACR) in view of obtaining approval;
 - drafting the basis of amendment, obtaining approval for publication from AACR and publication in AIP Romania;
 - after obtaining approval for the notified change, coordinating its implementation starting October 7, 2021.

- Conducting internal operational audits at units providing aeronautical information services.
- Training of aeronautical information staff:
 - organization and coordination of recurrent training courses for CITA Instructor;
 - support of specialist subjects (aeronautical information) in courses for CITA and MET staff.
- 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 charts developed within the service.
- Aeronautical information service system improvement to achieve the INF 01 objective. The following activities were carried out:
 - preliminary Kick – Off Meeting and Kick – Off Meeting;
 - formation of working groups dedicated to each functionality;
 - review of the project plan and submission of proposals for improvement;
 - editing the draft of Addendum to the Contract and its submission to the partner for review;
 - participating in online meetings on safety and aeronautical security;
 - participation in ad-hoc meetings to discuss the ROMATSA team's proposals to improve the project plan and establish a plan for regular meetings to evaluate the progress of the project;
 - participation in online meetings and demo sessions during which the supplier presented to the project team the functionalities of the contracted solution;
 - analyzing the Project Management Plan and submitting comments to the supplier;
 - signature of the addendum to the contract;
 - participation of project team members in working group meetings dedicated to each functionality and discussion of first sets of test scenarios;
 - project risk setting
 - participation of managers and coordinators in project progress review meetings;
 - acceptance of the final version of the Project Management Plan (vers. 1.0 dated 24.06.2021);
 - acceptance of the Safety Plan project;
 - approval of the project plan;
 - participation of members of the technical working group in meetings necessary for the development of "Interface Control Document" and "Site Survey Report";
 - review of the proposal to update the list of hardware components following the discontinuation of some equipment

proposed in the technical solution and the addition of new equipment (2 firewalls, 16 workstations and 16 monitors);

- review, submission of comments and acceptance (once the comments have been resolved) of the test plan (FAT);
- review, submission of comments and acceptance (once the comments have been resolved) of the Site Survey Report document;
- review of the Interface Control Document and submission of comments to IDS;
- review, submission of comments and acceptance (once the comments have been resolved) of the Safety Support Assessment Report document;
- review, submission of comments and acceptance (once the comments have been resolved) of the Safety Support Case document;
- review, submission of comments and acceptance (once the comments have been resolved) of the Threat Modeling and Security Risk Assessment & Risk Mitigation document;
- review of the System Design Document and submission of comments to IDS;
- setting training periods for operational and technical staff.

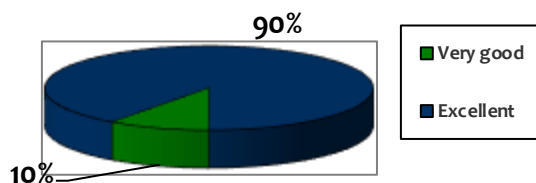
Due to COVID-19 crisis, the deadlines in the estimated work schedule were delayed by five months. The new deadline for completing the contract is September 2022.

2. Supply of AIS

- Receipt and review of AIS databases from originators, submission of comments for their correction and forwarding for AACR approval for publication.
- Publication of Aeronautical Information Documents containing, in brief, the following changes to AIP Romania:
 - publication of the VFR CARANSEBES/Banat-Caransebes airfield;
 - update of information on aerodrome infrastructure LRBC, LROP, LRBG, LRCK, LRBC, LRBS, LRCL, LROD, LRCD, LRCS, LRTC, LRAR, LRBM, LRTR, LRSB, LRTM;
 - publication of the VFR OSORHEI/Dogaru heliport;
 - update of information on the availability of Data Link/CPDLC services in Bucharest FIR;
 - update of information on ILS/DME RWY 36 – LRCK equipment;
 - publication of new anti-hail zones;
 - amendment of the itinerary structure of FIR Bucharest;
 - update of obstacle data at aerodromes: LRAR, LRTM;
 - update of sunrise time and sunset time information for all aerodromes/heliports published in AIP Romania;
 - update of en-route air navigation services rates and terminal air navigation services rates (regulated by TANC);

- update of the information on the rates applied by some airports in Romania.
- FRA map update.
- ENR 6.2 map update.
- 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, of elements of the published Integrated Aeronautical Information Package.
- Following the review of answers to the questionnaires on AIS provision by ROMATSA, filled in by subscribers to the AIS documents for the AIS service, the result published in the following diagram was obtained:

STATISTICS OF RESPONSES TO THE QUESTIONNAIRE ON THE PROVISION OF AIS BY ROMATSA IN 2020



Weather Information Management

In 2021, the following categories of activities were carried out:

Weather assistance:

- Participation in the regional eGAFOR project to implement a collaboratively developed and unified general aviation forecast. As part of the ROMATSA project, the product has been tested in operational mode starting May 2021. Airline operators have been informed of product availability starting 2022.
- In order to ensure compliance with the regulatory basis, the framework procedures regarding: (1) development and update of operational manuals, (2) coordination with traffic units, (3) collaboration with aerodrome units. On the basis of these master procedures, local working procedures have been amended.
- Participation in the European Cross Border Convection Forecast project, starting September 2021, in operational testing mode. This project ensures the collaborative and unitary development of a forecasting product intended for Network Manager (EUROCONTROL) for planning operational activities.

Implementation of the ROMATSA Annual Procurement Plan:

- For the investment objective "AWOS system at 16 airports", aiming at replacing the computer systems and software application for all Automated Warning Observation Systems (AWOS) at airports, the procurement documentation has been revised. Following the consequences of the pandemic context, the launch of the procurement procedure has been planned for the first quarter of 2022.
- For the investment objective LIDAR-based low-level wind shear detection system, work has started on the construction of a support tower for the LIDAR equipment at "Henri Coandă" Bucharest International Airport, in accordance with the agreed technical design to ensure coverage on the four approach directions. Works on securing power supply and communication lines for the system have also started. The pandemic continued to negatively influence the implementation of the contract, leading to delays in deadlines, so that the final acceptance deadline became July 2022.

Selection and training:

- Coordination of activities for the employment of MET staff at the Sibiu Aerodrome Meteorological Office and the Constanta/Mihail Kogălniceanu Aeronautical Weather Station.
- Organizing courses at the Aeronautical Meteorology Training Centre (AMTC) for the training of trainees (newly hired staff) and for maintaining the competence/ promotion of operational meteorological staff. The remote training platform of meteorological personnel was used.
- Support of aeronautical meteorology courses for other ROMATSA staff categories: ADV Rating course for ATS-TWR, ATS-ACC and ATS-APP staff respectively.

Specialist expertise:

- Update instructions for use of AWOS-APP displays by CTA staff.
- Participation in the working groups for the management of the transfer of operational activities at BMA Suceava and BMA Oradea.
- Participation in the activities associated with the implementation of the ROMAWOS 4.0 release: system testing, interoperability verification and issuance of the verification statement, development and submission of the licensing documentation.
- Participation in the activities corresponding to the commissioning of the weather radar image converter to Asterisc CAT9 format in order to feed the ATM 2015+ system: test plan, safety assessment, and operational transfer plan.
- Participation in the activities of the working group on the provision of air navigation services at Brasov/Ghimbav aerodrome.

- Analysis of reported safety events (REAC) and follow-up on implementation of corrective actions, if any.
- Review of ROMATSA's briefing (MET section) with a view to amending the Air Navigation Service Provider Certificate.
- Participation in the consultation process initiated by the AACR to amend the national legislation in this field (RACR-ASMET, RACR-LMET, PIAC-LMET).
- Attending working meetings with airline representatives of AOPA, AROPA and Aeroclubul României.
- Participating in the eGAFOR regional working group activities to develop a unified graphical forecast product for hazardous aviation weather phenomena on the general aviation route network;
- Participation in the activities related to the distribution of weather messages within the ICAO Data Management Group;
- Participation in the Expert Team on Education, Training and Skills in the Commission for Aeronautical Meteorology of the World Meteorological Organization.

Civil-military collaboration

During 2021, the civil-military collaboration specific activities in the field of air traffic management ensured the continuity and coherence necessary for the constant implementation of SES regulations in the planning and conduct of complex activities in order to fulfil the general and specific tasks established in accordance with national and international aviation legislation and regulations.

In 2021, the high level of intensity and complexity of military flights in Romania's airspace was maintained, with an increase in volume and intensity in the latter part of the year, as a reaction to the deterioration of the political-military situation in Ukraine. The context of the COVID-19 pandemic did not significantly reduce military operational activities, which continued intensive flights with combat aircrafts. Deployments of US and NATO military detachments to military bases in Romania continued. NATO E-3A AWACS aircraft continued to fly almost daily in Romania's airspace, most missions are also flown with air-to-air refuelling. At the same time, the missions carried out almost daily by US military unmanned aircraft on board the RQ-4 "Global Hawk" of the High Altitude Long Endurance - HALE class continued. In the same context, the presence of Medium Altitude Long Endurance (MALE) unmanned aircraft in Romania and their operation in an integrated environment with civil air traffic was made permanent. These complex military activities were carried out without major traffic events, demonstrating the efficiency of the whole civil-military collaboration mechanism, which includes airspace management through the allocation of specific areas and their dynamic management and coordination of civil and military traffic in real time through dedicated structures.

Complex military activities also include exercises, training, demonstration flights or flights on the occasion of national days or other holidays. In this sense, in 2021, civil-military coordination was ensured for 35 complex activities, which required the development of dedicated protocols, which agreed on actual elements for reservation and flexible use of airspace and tactical coordination of general and operational air traffic.

To ensure the conditions for the conduct of sport flying activities without affecting civil and military operational requirements, three protocols were concluded during 2021 between ROMATSA, Aeroclubul României and the Air Force Staff dedicated to undulating flights, air balloon flights to set altitude records and the National Gliding Championship.

To meet the requirements for civil-military coordination of special flights, six protocols have been concluded between ROMATSA, the Air Force Staff and private air operators for the conduct of aerial photogrammetric and atmospheric parameter measurement flights.

During 2021, civil-military collaboration specialists also carried out the following activities:

- implementation, starting 15.04.2021, of the new edition of the of Coordination Procedures for Ensuring Flight Safety during Hail Missile Launch;
- 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;
- development and implementation of the Procedure for the Operation of Unmanned Aircraft in Aerodrome Control Areas;
- continued support to implementation of the Local And sub-Regional Airspace Management System-LARA, through the installation of the new software version and the drafting of the joint ROMATSA-SMFA procedures regarding the use of LARA;
- preparation of ROMATSA's proposals and positions for Airspace Management Council decisions;
- organisation of four meetings of the ROMATSA-SMFA working group for the redefinition of military areas, in the context of FRA implementation and entry into operation of the new type of fighter aircraft;
- organisation of a ROMATSA-SMFA meeting at the level of specialists in the technical field, for the development of joint programs regarding radar, radio communications and technical systems data used in common;
- liaising with operators of unmanned aircraft on board in order to ensure that activities with these types of aircraft do not impact on the safety of flights under ROMATSA's responsibility;
- development and implementation of the Procedure for the conduct of flight activities with unmanned state aircraft operated by the Border Police in the Black Sea area within European FRONTEX and European Maritime Security programs;
- participation in the working group for the amendment of the Government Decision on the authorisation of flights and in the working

group for the definition of restricted areas for operation of unmanned aircrafts;

- representation of ROMATSA in the relevant committees for civil-military collaboration organized at EUROCONTROL and NATO level, held in 2021 in videoconference format.

ATM systems

The activities carried out in 2021 were:

- Expansion of SEE FRA – successful implementation, starting 28 January 2021 of SEE FRA H24/7, whereby air operators can plan their flights freely across the airspace of Bulgaria, Hungary, Romania and Slovakia 24/7 without the limitations of the geographical boundaries. This represents a first expansion of the SEE FRA project (South East Europe Free Route Airspace, successfully implemented on the 7th of November 2019), thus making possible cross border free route operations across the airspace of the four states. Therefore, SEE FRA becomes one of the largest free route airspace blocks in Europe where cross-border free-route operations are implemented. During 2021 the preparation of SEE FRA expansion with Chisinau CTA, starting 24 February 2022, was also done (drafting of documents, interoperability testing of ATM systems);
- ROMATSA 2015+ New ATM System Development and Implementation Programme - the specialists provided ATM 2015+ project management, project configuration, technical and operational configuration data (Adaption Data) and project documentation. They also participated in system testing preparing, entering, updating, checking configuration data in the system.

In 2021, testing sessions for the implementation of Phase 2, have been organized as follows:

- The pre-SAT Phase 2 Indra Checkpoint test session took place from 01-05 March 2021, during which the Phase 2 functionalities of the ATM 2015+ system were prevalidated. Given the COVID-19 pandemic crisis, testing was carried out both remotely and on site;
- SAT Phase 2 Indra activities took place at CDZ Bucharest seat from 10.05 to 04.06.2021. This was an exclusively on-site testing, in the presence of Indra Spain representatives and the Indra Romania team;
- the PATCH POST SAT Phase 2 Indra technical-operational test sessions were held at CDZ Bucharest, to validate the implementation of the corrected functionalities from 23-27 August 2021 until 23-24 September 2021. This was an exclusively on-site testing, with the participation of ROMATSA specialists and

the presence of the Indra Romania team. Following the successful completion in June 2021 of SAT testing and this final phase of technical-operational testing, Phase 2 system documentation has been completed and ROMATSA operational working procedures have been updated. The documentation to support the request for approval by the AACR for the change of the existing ROMATSA ATM/ANS functional system by putting into service Phase 2 of the 2015+ Indra ATM System has also been prepared and submitted to the AACR.

Following approval by the AACR, phase 2 of ATM 2015+ became operational in FIR Bucharest since 15 November. The improved functionalities implemented will allow dynamically adjusted airspace configuration, supporting an increase in capacity when air traffic returns to pre-COVID-19 pandemic levels. These will also improve civil-military coordination by providing greater flexibility according to the needs of airspace users.

ATM 2015+ system provides improved traffic and safety situational awareness and contributes to improved environmental performance, both in terms of emissions and noise, by allowing airspace users to fly their preferred itinerary and supporting continuous climb/descent operations.

The improved functionalities that have been implemented through Phase 2 of the ATM 2015+ system include:

- ASM and Safety Nets: Near Team Conflict Alerts (NTCA); additional improvements to the Tactical Tool (TCT);
 - extended AMAN support through AMA message exchange;
 - support functions: CWP Interactive Playback with extended retention time for further data analysis and playback;
 - interface with the European AIS database (EAD): The ATM 2015+ system is capable of importing data into EAD based on the AIXM data exchange model version 5.1;
 - implementing the display of MET data (Radar and Satellite Data).
-
- Implementation of DataLink – in ATM systems is one of the key improvements that decongests voice communication channels. This service is provided by ACC Bucharest air traffic controllers to all CPDLC equipped aircraft operating over FL285. Following implementation of DataLink service provision as of 17 July 2020, monitoring of specific ATM system functionalities is carried out; participation in the DataLink Support Group organised by EUROCONTROL and SESAR Deployment Manager to report, review and identify solutions to malfunctions observed in the operation of DataLink services is also ensured. At DSG#7 (6-7 October 2021) ROMATSA presented the status of Data Link services use in Bucharest FIR and the results of a survey among air traffic

controllers on the main advantages and problems encountered, and proposals for improvement.

- NIDS improvement - SIGMET graphical implementation has been achieved and will be implemented operationally once the change has been accepted by the AACR. Following the requests of ACC Bucharest, the frequency page in the NIDS system was updated and standardized. The operational and technical functional specification of the NIDS system was also updated.
- Coordination of development of the annual editions of LSSIP Romania - specific activities for LSSIP Romania 2020 have been completed; in the autumn of 2021 the LSSIP Romania 2021 development works have started, through the elaboration and dissemination of the "Plan of activities for the elaboration of LSSIP Romania ed. 2021", which includes the work schedule and responsibilities of the ROMATSA specialists involved in this process. For this purpose, the review of major changes related to the emergence of the CP1 Regulation - Commission Implementing Regulation (EU) No. 116/2021, amending the Commission Implementing Regulation (EU) No. 409/2013 (on SESAR implementation framework) and repealing Commission Implementing Regulation (EU) No. 716/2014 (PCP Regulation), with an impact on the development process of the LSSIP Romania 2021, with reference to new implementation objectives and substantially amended implementation objectives. Following the elaboration of the LSSIP Romania 2020 - which incorporates the progress made by 31.12.2020 in achieving the implementation objectives, the specialists presented the analysis of the status of their achievement, with a focus on the unplanned lines of action under ROMATSA's responsibility, at risk of delay and those reported to be behind the implementation deadlines in the European ATM master Plan Level 3 - Implementation View (Plan 2020).
- 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. During 2021, the functional requirements and specifications of the system were completed and finalised and the system procurement specification was developed. The financial status of the administration, due to the impact of the COVID-19 crisis, does not allow the commencement 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, elaboration, promotion and support for the approval of Romania's Performance Plan for the third reference period 2020-2024", ensuring its coordination. In the course of 2021, the working group was involved in analysing the impact of COVID-19 on the administration, communicating with the relevant authorities to obtain support to ensure the continued safe provision of air navigation services, reporting

to the European Commission on the key performance areas for 2020 and drafting the revised Performance Plan. The activities during 2021 focused on:

- drafting and finalizing the draft Performance Plan for the third reference period, revised in accordance with Regulation (EU) No. 1627/2020, following consultations on 25 August 2021 with airspace users, in which representatives of the Network Manager, EUROCONTROL and the Performance Review Body also participated;
 - the draft Performance Plan for the third reference period, revised in accordance with Regulation (EU) No 1627/2020 and the Revenue and Expenditure Budget for 2021 were approved. AACR approved and submitted the Performance Plan to the European Commission on October 1;
 - subsequently, the draft Performance Plan for the third reference period was completed, revised in accordance with Regulation (EU) no. 1627/2020 considering the request sent by the European Commission on October 28. The draft Performance Plan completed in this way was approved. Later, AACR endorsed the completed draft Performance Plan and sent it to the European Commission for approval on November 17, 2021.
- ACE Benchmarking reporting - given the predominantly operational nature of the information requested, the specialists took over the coordination of ACE Benchmarking reports, in collaboration with the other directorates and services within ROMATSA. In 2021, the clarifications requested regarding the 2019 reporting were submitted and the data for the ACE Benchmarking 2020 reporting were centralized.
 - Review of the proposals and the European regulatory framework - experts participated in coordination at European level through CANSO and GATE ONE to determine the position of air navigation service providers on the SES2+ legislative proposal presented by the European Commission and discussed in the EU Council's AVIA group. At the same time, internally, ROMATSA submitted to AACR the position and the proposed amendments to be submitted to the Ministry of Transport and Infrastructure, in order to be supported in the EU Council's AVIA working group meetings.

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

The experts participated in the preparation of ROMATSA's position on the Deloitte Report on the future of EUROCONTROL and coordination at

CANSO and GATE ONE level. The Deloitte study identifies a series of shortcomings and proposes recommendations with a potentially positive impact on the organisational management effectiveness. At the same time, however, we consider that some assertions and proposals are in contradiction with the international regulations and the interests of EUROCONTROL member states.

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

GATE ONE is a platform synchronising and promoting common interests, which ensures more effective lobbying 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 their activities and positions. In the context in which a process of updating the objectives, regulations and institutional framework for Single European Sky has been launched at European level, ROMATSA's presence at European level needs to be strengthened and alliances must be built to support common interests.

- Access to European funds for operational projects - a preliminary analysis of opportunities to access European funds was prepared and the internal working group set up for this purpose was coordinated. The proposals have been submitted to the Ministry of Transport and Infrastructure and will be monitored for funding calls under the Multiannual Financial Framework 2021-2027.
- NDOP Operational Excellence Program – the program started by the Network Manager in 2020 and includes a series of operational and technical fields (with operational impact). The specialists coordinate ROMATSA's participation as a leader (champion) in the field of OPS 5 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 capacity related performance ratios. CCAMS aims to overcome both the current and the 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 optimises the efficiency of SSR code management at European level by introducing dynamic transponder code allocation, allowing the same code to be used simultaneously in volumes of airspace separated by a given 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 result in a reduction in SSR code changes, thereby reducing ATC workload and allowing more flights to be handled.

Among the pioneers of the implementation of Mode S in the entire national airspace, the activity of CCAMS places ROMATSA among the first five air navigation service providers in Europe that have operationalized both concepts in accordance with the European regulations.

- Representation within the working group for the provision of support services intended to ensure the development and operation of the Braşov Ghimbav International Airport.
- Participation in the project team implementing the AIS Integrated Computerized System
- Implementation of the Traffic Complexity Tool (ROMAirTCM) – participation in the implementation of the objective FCM06 – Traffic Complexity Assessment (defined in the European ATM Master Plan – Implementation Plan 2020, applicable to Romania). In the course of 2021, the system procurement specifications and the functional, technical and safety specifications were finalized. Due to the financial difficulties of the administration, generated by the COVID-19 crisis, the deadline for the implementation of the ROMAirTCM system was postponed and 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 MoC Agreement draft. 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.

Recurring activities

- development of procedures, rules, instructions (PINs), manuals specific to the activity and processes carried out, or specific to the operation of the ATM System;
- review and approval of documentation on ROMATSA investment objectives with operational impact;

- 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 Danube FAB level, within the Danube FAB Strategic Programme 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;
- aircraft database update - the activity consists of regularly updating the Leonardo aircraft database;
- ATM system database update - the activity is permanent and consists in the coordination of the periodic update based on the AIRAC Cycle of the geography of the Indra and Leonardo systems 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 update of the local and general contingency plans. For the local Contingency Plans, their harmonization activity 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 on 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 the development of the ROMATSA Strategic Business Plan and the Annual Business Plan - participation in the correlation of the Strategic Business Plan objectives and the analysis of the impact and implementation status of the 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;
- preparation of documents and their amendments to be entered into the NIDS system;
- preparing AIP Romania amendment databases for the sections under the responsibility of the specialists;
- inspections, audits - operational inspections by business area and drafting inspection reports and maintaining records of the implementation of operational area measures established following inspections and audits;
- involvement in the activity of the ROMATSA Training Organization by participating as lecturers for CTA ACC, APP, TWR, CITA personnel courses – Briefing, Meteo;

- tutoring and mentoring 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

- Developing and reporting RA's strategic planning documents ROMATSA:
 - The report on the stage of progress /achievement of the main lines of action of the objectives assumed by the RA ROMATSA in the Annual Plan - AP 2020 on June 30, 2021;
 - The report on the stage of progress /achievement of the main lines of action of the objectives assumed by the RA ROMATSA in the Annual Plan - AP 2021 on December 31, 2021;
 - updating the planning of the basic objectives from the Business Plan BP RP3 2020-2024 ed. 1.0 of October 31, 2019 to substantiate the revision process of PP RP 3 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 Amortization Projection".

- Project management/workgroups/other projects:
 - Synchronized Performance Based Navigation Implementation Cohesion Europe – SPICE – activities 6.1 and 6.3 within the INEA call Programme
 - 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;
 - contract execution for the activity 6.3 – Improvement of DME coverage in Bucharest FIR for the purchase and installation of 15 DME pieces (12 DME within the SPICE project and 3 DME for TMA Constanța);
 - negotiation and signature of additional documents to extend the deadline for the completion of contracts until 30.06.2021 and, subsequently, until 31.12.2021 for ongoing contracts;
 - the project was planned to take place between 2016 and 31.12.2020, however, considering the delays accrued due to the COVID-19 pandemic, on February 4, 2021, the final Grant Agreement (GA) deadline was extended by 12 months, respectively until 31.12.2021, by signing Amendment #4;
 - negotiation and signature of the addenda to extend the completion dates until 30.06.2022, for ongoing contracts, according to the correspondence with EUROCONTROL for the

request to extend the GA deadline until 30.06.2022 and settlement of amounts for activities carried out and completed within the GA.

- Provision of support services for the development and operation of the Braşov-Ghimbav International Airport (AIBG)
 - conduct of activity according to the Collaboration Protocol between R.A. ROMATSA – CJ Braşov for the provision of support services for the development and operation of Braşov-Ghimbav International Airport, drafted and signed in March 2019;
 - setting-up of the working group for the provision of support services intended to ensure the development and operation of the Braşov - Ghimbav International Airport(AIBG);
 - within the SF elaborated by BAS Consulting, a multi-criteria analysis was made of the three implementation scenarios presented (Remote Tower – off site, Digital Tower – on site and Classic Tower); after review of the identified advantages, risks and constraints, the economic and traffic aspects and expenses for the training and authorization of the staff from 6 internal locations (Cluj, Arad, Constanţa, Bacău, Sibiu and Craiova) and the ATS unit, CA ROMATSA approved on 13.05.2021 the implementation of the REMOTE TOWER solution from the CDZ Arad location, with a number of 10 employees and with the request that all costs be fully borne by CJ Braşov;
 - running in the third quarter of 2021 by the Braşov County Council (CJBV), with the support of technical experts co-opted and provided by ROMATSA, of the open tenders for the contracting of airspace design and flight procedures services, with a 12-month execution period and the provision of navigation services air at the Braşov-Ghimbav International Airport, through the development of the specific physical and digital infrastructure. The purpose of the investment is the development of a virtual Control Tower and the acquisition of the related communication, navigation, surveillance and weather equipment, design, technical assistance and execution of the contingency building, including fiber optic ring/network, including infrastructure works for the location of the equipment in the field, according to the Feasibility Study, with an execution period of 14 months;
 - the signing of the ROMATSA – CJBV (AIB) – AACR Agreement, on August 16, 2021, regarding the coordinated management of the "Air Navigation Services at AIB" project and implementation of the agreement by participating in the coordination meetings of the project;
 - completion of the procurement procedure for airspace design services and flight procedures at AIB in November 2021, by

awarding the contract to RAS Air Design, a designer authorized by AACR. The technical experts co-opted for the completion of the procedure were provided by ROMATSA (bid analysis, preparation of technical analysis reports, participation in the opening meeting and technical bid analysis);

- completion of the procurement procedure for the provision of air navigation services at Braşov-Ghimbav International Airport, through the development of the specific physical and digital infrastructure on 29 December 2021, by awarding the contract to the UTI Facilities Management and BOG'ART association, having as main subcontractors and technology suppliers established companies in the field (SAAB - for Remote Tower, METEO and Audio and Video Recording Systems; THALES - for ILS/DME and DVOR/DME navigation systems and ROHDE & SCHWARZ - for SOL/AER and SOL/SOL voice communication systems). The technical experts co-opted for the completion of the procedure were provided by ROMATSA (bid analysis, preparation of technical analysis reports, participation in the opening meeting and technical bid analysis);
 - development and distribution for analysis of the draft ROMATSA – AI Brasov, specific Agreement defining the economic and financial mechanism through which the Braşov International Airport Autonomous Authority ensures the costs for the provision of ATS, MET and CNS services at the Braşov International Airport.
- Post-warranty maintenance services of the E-Management System
 - activities conducted as decided by the Director General of the Region as Contract Manager, BI Module and HYPERION Module Manager;
 - Participation in the activities of various working groups/project teams in terms of the development/implementation of specific directing projects:
 - 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 by Regulation (EU) no. 373/2017;
 - The working group for updating the GD no. 74/1991 on setting up the (Autonomous Authority "Romanian Administration of Air Traffic Services") „Administrația Română a Serviciilor de Trafic Aerian” RA ROMATSA and GD no. 46/1998 implementing measures to fulfill the obligations assumed by Romania by joining the EUROCONTROL International Convention;

- The project team for the Automated Air Traffic Management Application – ROMAirTCM;
- The working group identifying ways to obtain additional income from consultancy and services in the field of directing, as well as from the capitalization of internally developed products and applications, in order to improve financial ratios;
- ROMATSA Project Team – ESA/NAVSIP Project – GNSS Monitoring and Interference Detection Study and Pilot System Deployment at Romanian Airports (ECHO);
- The project team for the implementation of the S-GENERATION Project 2019/104278 Photovoltaic panel system intended for self-consumption, project financed under the EEA and Norway Financial Mechanisms 2014-2021;
- The working group aiming at the identification and development of project proposals eligible for financing from European funds;
- The working group updating the Methodology of accounting allocation of costs by activities;
- The project team for the implementation of SWIM Common PKI and policies & procedures for establishing a Trust framework;
- Project team for Automated Air Traffic Complexity Management Application - ROMAirTCM;
- The working group for the analysis of the final recommendations of the CCR following the mission Performance of the specific activity carried out by ROMATSA, on the degree of achievement of the performance indicators specific to ROMATSA's activity established for the audited period.

Other activities:

- preparation of quarterly reports on the activity of executive management and on the progress of RA ROMATSA;
- providing the necessary data and information for reporting to the PRU in order to produce the ATM Cost Effectiveness Report - ACE 2020;
- secretarial activities for the meetings of the Internal Managerial Control System Monitoring Commission within ROMATSA;
- activities within the Central Commission for the inventory of material values, monetary means, other values and settlement costs of ROMATSA
- preparation of the non-financial Statement for 2020, included in the Administrators' Report on the financial statements on 31.12.2020.

Single European Sky and SESAR

General context

The year 2021 was a year of change for the Single European Sky (SES), especially in terms of recovering from the impact of the pandemic, the European goals for the Green Pact, the prospect of reforming the SES legislative framework and, not least, the creation of new partnerships for research and industrialisation and the implementation of the SESAR programme.

In terms of reform of the SES regulatory framework, in 2021 the activities of the Council and the European Parliament to review the SES legislative framework started since 2014 continued, thus proposing an update of the legislation that takes into account recent developments and the compromises already made by the Council.

The European context is also dominated by new partnerships that are the object of research and industrialization, and implementation of the SESAR Program (Single European Sky ATM Research), as technological and operational pillar of the SES initiative. Thus, in 2021, ROMATSA joined the SESAR 3 Joint Undertaking and continued its activities with a view to joining the new SESAR Deployment and Infrastructure Partnership - SDIP.

SESAR programme

SESAR Joint Undertaking

In 2021, ROMATSA joined the SESAR 3 Joint undertaking SESAR (SESAR JU) as a result of the steps taken between August and December 2021, which were finalized with the approval by ROMATSA's Board of Directors of the company's participation in the future SESAR 3 JU partnership. As a result of the above-mentioned steps, on December 2, 2021, the Director General of ROMATSA signed the Letter of Commitment to SESAR Joint Undertaking, by this act the company became, for the first time, a founding member of SESAR 3, which confers a number of advantages such as direct participation in SESAR research and development activities, the funding of projects in which ROMATSA will participate as a founding member, new industrial partnerships and, last but not least, the right to be represented in the SESAR 3 JU Governing Board, set up following the publication on 30 November 2021 of Regulation (EU) 2021/2085 establishing the Joint Undertakings under the Horizon Europe Programme (SBA Regulation)

SESAR Deployment

Regarding ROMATSA's contribution at the governance level of SDA AISBL, in 2021 ROMATSA representatives participated in strategic seminars and decision-making meetings within the General Meeting of Members, and

getting involved in preparatory correspondence at the level of the PHRC Consortium.

In the context of renewal of the SDM position starting June 2022, the European Commission launched in October 2021 the request for submission of offers for the selection of the new SDM. Given that ROMATSA signed the New Partnership Principles (High Level Principles (HLP) - Deployment and Infrastructure Management) in 2020, in December 2022, the administration will participate in the New SDIP Partnership (SESAR Deployment and Infrastructure Partnership) for the role of the SDM and, implicitly, undertaking the necessary steps for the submission of the administrative documentation, signature of the Consortium Agreement and the subsequent signature of the FPA and SGA Agreements, in the case of European Commission awarding contracts to the New SDIP Consortium.

The new SESAR Deployment and Infrastructure Partnership – SDIP will boost the implementation of joint projects and other initiatives requiring synchronisation, coordination and support within the pan-European ATM network to ensure an efficient, performance-based approach.

SESAR Implementation Programme

ROMATSA participates in the Stakeholder Consultation Platform (SCP) mechanism organised by SESAR Deployment Manager as a tool to consult operational stakeholders on the consultation campaigns (cycles 1 and 2) related to 2021 by coordinating activities at the level of the Region for the submission of comments on the 2021 SDP documents developed in accordance with the new CP1 Regulation, by coordinating activities at the level of the Region for reporting on the status of implementation of ATM functionalities.

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

ROMATSA participates in the SESAR implementation phases, through the SWIM COMMON PKI and SPICE projects, while the NewPENS and eGAFOR projects were completed in 2021. ROMATSA equally participates in the IRIS with IOC project, part of the IRIS Programme (ARTES Satellite Communication for Air Traffic Management) which is being carried out under the aegis of cooperation between ESA (European Space Agency) and the European Union and which is due to end in May 2022.

NewPENS – „2015_174_AF5_B NewPENS Stakeholders contribution for the procurement and deployment of NewPENS – Part B: Cohesion Call”

The project was coordinated by EUROCONTROL and RA ROMATSA took part as a contributor/beneficiary alongside BULATSA, Croatia Control, Slovenia Control, ANS CR. The purpose of this project was the joint procurement of services and the implementation of the NewPENS

network by EUROCONTROL in cooperation with ANSPs, airports, MET suppliers and military bodies.

The project took place between 16.02.2016 and 31.12.2020, and is currently in the final reporting process from both a financial and technical perspective.

eGAFOR – Electronic General Aviation Forecast/2016-EU-TMC-0075-S

ROMATSA participated in the eGAFOR project under the coordination of Croatia Control LTD - initiator of the project and aimed to provide harmonized and consolidated aviation meteorological services, related to the meteorological information of flights intended for aeronautical beneficiaries who perform flights at low levels by providing the meteorological product called eGAFOR.

The project took place between 30.07.2017-30.06.2021.

SPICE – Synchronised Performance Based Navigation Implementation Cohesion Europe

The project takes place simultaneously in four states: Cyprus, Portugal, Romania, Slovakia, under the coordination of EUROCONTROL. R.A. ROMATSA participates in the "PBN Deployment in Romania" activity as a beneficiary, together with the Romanian Civil Aviation Authority and the Romanian Airports Association, and the Romanian air operators Blue Air and Regional Air Services are part of the project for the equipment composition of an aircraft. Following 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. 12 high-precision equipment, DME, will be installed to support the implementation of the concepts of performance-based navigation (PBN) in the Bucharest FIR flight information region. Upon completion of the project, Romania will become the first European country to have Performance Based Air Navigation (PBN) implemented at all levels: airports, air operators, supervisory authority and air navigation service provider. Air transport users on Romanian territory will thus benefit from high performance services at the highest standards of safety and efficiency, and the number of flights served in FIR Bucharest will increase through airspace optimization.

The project was planned to take place between 17.02.2016 and 31.12.2020, however, considering the delays accrued due to the COVID-19 pandemic, on February 4, 2021, the final GA deadline was extended by 12 months, respectively until 31.12.2021, by signing Amendment #4;

SWIM Common PKI – ~SWIM Common PKI (Public Key Infrastructure) and policies & procedure for establishing a Trust Framework”.

The project was implemented 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 project family "5.1. 4 – Common SWIM PKI and Cybersecurity". R.A. ROMATSA participates as a contributor/beneficiary in this project, coordinated by the SESAR Deployment Manager (SDM) and EUROCONTROL, together with 28 other stakeholders in the field of aviation.

The project aims at developing and implementing a common framework both for the integration of local implementations of public key infrastructure (PKI) in an interoperable manner, and at the provision of interoperable digital certificates to SWIM users.

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

IRIS WITH IOC (Initial Operational Capability).

In 2021, activities were carried out 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 at providing 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 progress

Common DLS governance for Europe (CoDE project)

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 data link governance within the SES Digital Backbone by signing a Memorandum of Cooperation (MoC) between interested DLS users (Q1 2021) and by selecting the European Data Link Service Provider (DSP) by Q3 2022 and establishing the DSP in early 2023. During the audited period, ROMATSA took all the necessary steps internally to ensure the participation of the administration in the CoDE Project (Common DLS Governance for Europe) renamed ACDLS (ATS Common DLS Governance) by signing the Cooperation Agreement and sending the original document to the DFS officers.

GNSS Monitoring and Interference Detection Study and Pilot System Deployment at Romanian Airports.

The representatives of the administration took steps by submitting the administrative/technical and financial documentation to Romanian

InSpace Engineering SRL, respectively EASA/European Space Agency (as funder of the project), for participating in this project. The purpose of this project is to monitor the quality of the GNSS signal, to assess risks and vulnerabilities at Romanian airports and to implement a pilot monitoring system at airports where vulnerabilities such as interference and/or jamming are identified.

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

The process of compliance with the means, procedures and other arrangements established and/or used and described by the written organisational exposition shall be carried out in accordance with the provisions of Implementing Regulation (EU) 2017/373 laying down common requirements for air traffic management/air navigation service providers and other air traffic management network functions and for their oversight.

In 2021, ROMATSA undertook specific actions on compliance with the provisions of the Implementing Regulation (EU) 2017/373 and, implicitly, the process of updating the ROMATSA briefing 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, following the ROMATSA certification documentation update, on 30 August 2021, the CAA issued the Amendment No. 1 to the Service Provider Certificate No. CN11/18 December 2020. It became effective on October 7, 2021 and was requested by ROMATSA because of the reduction in the number of personnel at ARO/Briefing Constanța through the retirement of a CITA Briefing and the consequent reduction of the working hours of ARO/Briefing Constanta.

SES regulatory framework reform (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, at the end of 2020 the European Commission proposed the merging of the existing SES regulations into a single regulation and the elimination of overlaps with the EASA basic regulation.

In this respect, throughout 2021, ROMATSA continued its internal consultancy 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. ROMATSA's main interventions were the drafting of comments and proposals for amendments to the SES2+ compromise text, and proposals for mandate elements to be supported within the AVIA Group of the Council of the European Union and within the TTE Council by the Transport Attaché of the Permanent Representation of Romania to the European Union.

Goals for 2022

With respect to the amendment of the Single European Sky regulatory framework, ROMATSA aims to react pragmatically and in a timely manner to the Commission proposals that may have an impact on the administration.

Access to European funds can be one of the tools to strengthen ROMATSA's position at regional and European level and an effective lever for developing new opportunities. Based on the participation as a founding member of SESAR 3 JU and SDIP, ROMATSA proposes to continue and intensify its efforts in 2022 to ensure participation in European projects related to the research, industrialisation, development, and implementation phases of SESAR.

In terms of ongoing compliance with the common requirements for the provision of air navigation services, ROMATSA aims at complying with the specific requirements and the common requirements set out in the Implementing Regulation (EU) 2017/373.

Systems development

In 2021, in terms of systems development, the following activities were carried out:

- Activities related to the implementation of the ATM 2015+ (INDRA) and AviBit projects
 - analysis of Indra specifications and participation in the Checkpoint Pre-SAT Phase 2 testing of the ATM 2015+ system;
 - analysis of the Indra specifications and participation in the SAT Phase 2 testing of the ATM 2015+ system;
 - analysis of Indra specifications and participation in ATM 2015+ Post-SAT Phase 2: versions 1 and 2 system patch testing;
 - participation in testing the exchange of messages between the ATM 2015+ system and CCAMS;
 - participation in OLDI interoperability testing between the ATM 2015+ system and external partners' systems in Budapest, Chisinau, Lvov and Otopeni in order to extend the set of OLDI messages used, i.e. route activation;
 - ensuring coordination with BULATSA for the operational reactivation of OLDI LOF and NAN messages;
 - providing the necessary configuration to display the integrated weather radar image on CWP ATM 2015+ displays;
 - development of scripts for the transmission of DLFEF Traces (DataLink) logs in order to monitor the performance of DataLink links (ATN and FANS) at ROMATSA level;
 - development of scripts to facilitate the inspection of logs/reports obtained from the ATM 2015+ System, related to OLDI and DataLink messages;
 - analysis of complaints of incorrect functioning of the ATM 2015+/Indra System (OLDI and DataLink).

- Internal SDS projects
 - finalising the development of the weather radar data converter in order to transmit the ASTERISC Cat009 national integrated weather radar image to the ATM 2015+/CWP system, SAT testing of the ConvCAT9 converter system, training of the technical staff who will maintain the ConvCAT9, preparation of the technical file for authorisation;
 - initiating the development of the application to calculate DataLink performance monitoring ratios, based on the trace logs of the DL-FEP servers and the ATM 2015+ system logs (DLS_Stat);
 - optimization of the PASACT system for the automatic transmission of civil-military authorizations in the ATM 2015+ system;
 - configuration and technical support for the installation of a new PASACT-SMG station generating military approvals;
 - modification of the SRS-WIND application to provide additional data and implementation of a ModS data quality check algorithm in the application;
 - development of the new ICD version for the SRS WIND 1.0 application (using ModS radar data for real-time calculation of wind and temperature information in airport areas);
 - maintenance of the invoicing application for air traffic services in the terminal area, an application developed within DSNB Bucharest and taken over by the Systems Development Service, ensuring the necessary configurations for compliance with AIP Romania;
 - coordinating the entry and updating of technical and operational configuration data for the SNA support IT systems (Leonardo, RSUR, charge systems);
 - documentation for the development of applications for the Linux operating system using the Poco open source libraries for Windows 10 workstations;
 - adding new functionalities to the SO6 file processing application used in the Operational Department 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, aimed at including 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 in the RomAirTCM (Traffic Complexity Management) project team – development of the operational concept, functional specifications and specifications;
 - participation in the RAMANS project team in order to purchase an AMAN system for Otopeni airport;
 - participation in the ROMATSA team established for the acquisition of an AIM system;
 - participation in the development of LSSIP Romania, ed. 2020;
 - 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 goals

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

- procurement activities for design services, construction works, assembly and products from the list of capital expenditures for the year 2021;
- the contracts signed with suppliers from the country and abroad for the investment objectives were finalized and followed up;
- members of the evaluation commissions for the procurement procedures related to the investment objectives were provided;
- site handover activities were carried out for the construction and erection works and investment objectives were inspected in order to follow up and coordinate implementation 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 Council of ROMATSA were organized and carried out;
- 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;
- implementation of the activity improvement actions plan was followed.

Implementation of the Investment Program

The list of capital expenditures, approved for 2021 by the Board of Directors of R.A. ROMATSA is broken down into chapters, as follows:

- Chapter A – Further investment objectives: lei 38,904.429672
- Chapter B – New investment objectives: lei 462,752
- Chapter C – Endowments and other investment expenses: lei 7,424,349
- Chapter D – Loan repayments: lei 0

Find below the status of achievements, for each individual objective, per chapters of the investment program:

Ref. n.	Investment objective	Deadline	Completed (%)
<i>FURTHER OBJECTIVES</i>			
1	Wind shear detection system at AIHCB (LIDAR)	Dec. 2022	Not applicable. Approved value 0 lei in 2021
2	Modernization of the ACC hall in CDZ Bucharest (console upgrade)		
2.1	Console upgrade	Dec. 2024	Not applicable. Approved value 0 lei in 2021
2.2	Power supply system, equipment, racks and working positions in the ACC room upgrade	Dec. 2024	98.59%
3	ATM System 2015+ (SW, HW) Phase 2	February 2022	91.91%
4	Annex building CDZ Constanța outfitting	Dec. 2021	1.45%
5	Concrete platform at the VHF Reception Center in the AIHCB premises	Dec. 2022	Not applicable. Approved value 0 lei in 2021
6	DSNA Timisoara Control Tower upgrade	Dec. 2023	Not applicable. Approved value 0 lei in 2021
7	Integrated AIS computerized system	September 2022	0.00%
8	Rest room and the control room at DSNA Oradea upgrade	Dec. 2021	55.47%
9	Implementation of PBN agreement		
9.1	Purchase of INEA DMEs	Dec. 2021	94.79%
9.2	Implementation of PBN Constanta	Dec. 2021	99.96%
10	Traffic control tower set-up and equipment at TWR Cluj	December 2021	87.69% Objective completed.

11	Extension of WAM surveillance in EST FIR Bucharest	Dec. 2023	Not applicable. Approved value 0 lei in 2021
12	ATM system preparation for AMAN implementation at APP Bucharest	Dec. 2024	Not applicable. Approved value 0 lei in 2021
13	Air traffic load and complexity analysis and estimation application (ROMAirTCM)	June 2024	Not applicable. Approved value 0 lei in 2021
14	AWOS semi-automatic meteorological observation system at 16 airports	Dec. 2023	Not applicable. Approved value 0 lei in 2021
15	Expansion of the VoIP Recording facility to 5 NICE Inform systems (Constanța, Arad, DR Bucharest, Tulcea, Timisoara)	Dec. 2024	Not applicable. Approved value 0 lei in 2021
16	A/G VHF radio communication stations (ENR)	Dec. 2024	Not applicable. Approved value 0 lei in 2021
17	Photovoltaic panel system for self-consumption CDZ Bucharest	May 2022	0.99%
18	SOC (Security Operations Center)	Dec. 2027	Not applicable. Approved value 0 lei in 2021
19	Strengthening the operational capacity of the CC SAR – replacement of SAR infrastructure	Dec. 2023	Not applicable. Approved value 0 lei in 2021
20	CDZ Bucharest primary electrical equipment monitoring system	September 2022	Not applicable. Approved value 0 lei in 2021
21	Realization of TGU CDZ Bucharest coupling	February 2021.	100% Objective completed
<i>NEW OBJECTIVES</i>			
1	Operational TDE load voltage and current monitoring	Dec. 2021	99.87% Objective completed
2	Installation of power supply cable ILS GP 11 – Weather Garden DSNA Timișoara	Dec. 2021	80.32% Objective completed
3	Expansion of the VoIP Recording facility to 13 ATIS UHER systems (Sibiu, Cluj, Tg Mures, Baia Mare, Satu Mare, Oradea, Suceava, Iași, Bacău, Băneasa, Otopeni, PNA Cluj - DR Bucharest - PNA Bacău - DR Bucharest)	Dec. 2024	Not applicable. Approved value 0 lei in 2021
4	Radar PSR/MSSR Mode S SITORMAN (Constanța)	Dec. 2025	Not applicable. Approved value 0 lei in 2021

5	CA System and BMS System CDZ Bucharest upgrade	Dec. 2022	0.00%
6	CDZ Bucharest lighting modernization	Dec. 2023	Not applicable. Approved value 0 lei in 2021
7	GNSS signal monitoring system	Dec. 2025	Not applicable. Approved value 0 lei in 2021
8	Air conditioning system equipment technical and operational room APP Constanța	Dec. 2022	0.00%
9	FO STS sewage diversion to DSNA Suceava	February 2021.	97.35% Objective completed.
10	Power supply TWR Baia Mare	Dec. 2022	100%
INDEPENDENT FACILITIES AND OTHER EXPENSES			
1	Independent facilities	Dec. 2021	74.83%
2	Other expenditures – education	Dec. 2021	48.37%

Differences recorded in relation to the objectives

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

- cancellations and resumptions of procedures for investment objectives with large values due to non-compliant offers or non-presentation of bidders;
- facing difficulties in validating documents in SEAP due to changes in procurement legislation;
- impossibility of obtaining building permits for certain investment objectives, and preparation of addenda delaying the completion dates for technical-operational reasons;
- difficulties in obtaining the required CAA approvals for investment objectives before commencement of works.

AVIATION SAFETY, QUALITY, ENVIRONMENT AND SECURITY

The primary objective for the year 2021 of the activities in the field of safety and quality was the improvement and strengthening of the Safety, Quality, Environment, Aviation Security and IT Management Systems in order to maintain the ATM/ANS supplier certificates and the ROMATSA Quality and Environmental Management Systems certifications (ensuring continuous compliance with the provisions of Regulation (EU) No 373/2017, ISO 9001:2015, ISO 14001:2015 and ISO 28000:2007).

Safety management activities

The primary activities carried out during 2021 in the field of safety management were:

- Safety Management System upgrade in accordance with AACR, EASA and ICAO recommendations in order to increase the safety level of air navigation services provided by ROMATSA;
- internal safety audit of the management's subunits (all 17 internal safety audit missions, planned for 2021, were carried out);
- providing expert support during AACR audit/inspection/on site/on the desk visits as part of the R.A. ROMATSA's continuing compliance monitoring process, certified as an ATM/ANS service provider;
- analysing the audit/inspection reports prepared by AACR, setting out measures to remedy the deficiencies found by the AACR through the development of action plans at ROMATSA level, following up the implementation of the established measures, collecting evidence/evidence on plans implementation;
- analysis of safety assessment or safety support assessment reports associated with the implementation of changes to the existing ROMATSA ATM/ANS functional system;
- collecting information on reported safety occurrences, investigating them and monitoring the status of implementation of safety recommendations (necessary corrective and preventive measures);
- use of the RAT methodology to assess the severity for events such as: minimum stagger violation, runway incursion and ATM specific - degradation or total loss of services or functions;
- internal training in the field of safety, provided by specialists for personnel from the safety structure and other ROMATSA departments (internal training);
- monitoring performance ratios in the field of safety, in accordance with the Performance Plan requirements for the third reference period, RP3;
- development of edition 15.1 of 16.06.2020 of the Safety Management Manual by introducing Edition 12.0 of 05.07.2021 of PIN1220 – General procedure for managing changes in the ATM/ANS field;

- development of edition 15.2 of 29.09.2021 of the Safety Management Manual by introducing Edition 5.0 of 30.08.2021 of PIN1221 – Procedure for ensuring software safety in ATM/ANS.

Between 21.09 and 31.10.2021, ROMATSA staff participated in completing the safety culture questionnaire addressed to all categories of ROMATSA staff. The collected data was analysed to identify possible system issues so that actions could be established for the continuous improvement of the Safety Management System implemented in ROMATSA.

In 2021, the "EUROCONTROL/CANSO Standard of Excellence in Safety Management Systems" and "EASA Effectiveness of Safety Management" questionnaires were completed.

Throughout 2021, special attention was paid to the functioning of the safety event reporting system and the informational content conveyed by this system, with all ROMATSA internal or external event reports being made through eTokai ROMATSA system.

In this context, it has been said that safety monitoring resulted in the registration of 1,184 safety reports, which also include 16 voluntary reports for which 1,150 civil aviation events were recorded (for one event there may be several reports). It can be considered that civil aviation events reporting continued to remain at a high level, even in the context that during the year we experienced traffic values lower by approximately 44% compared to the same period of 2019, due to the effects of the COVID-19 pandemic.

Investigation of safety occurrences is a 'expert investigation' and is carried out solely for the purpose of maintaining and improving the safety of air navigation. Research and identification to maintain and improve the safety of air navigation. Research and identification of a safety event causes are not aimed at blaming or sanctioning the participants in the provision of the ATM/ANS services involved.

At the base of the Safety Management System is the reporting system. The higher the number of low severity reports, the safer the ANS/ATM system. When the number of low severity reports increases, proactive measures can be taken to prevent major, serious events and accidents. ROMATSA, within the operation of the Safety Management System, encouraged and encourages safety events reporting (including voluntary reporting), in the spirit of the Just Culture principle.

ROMATSA, through the safety structure, consistently promotes a safety culture based on competence, reporting of safety events, fair judgement (Just Culture), flexibility and leveraging experience.

Review of these events, extracting the useful information needed to establish safety recommendations - RS (corrective and preventive measures), 42 in 2021, involved a large volume of work for experts in the field of safety and investigations in the context of a permanent collaboration with operational and technical experts and ROMATSA subunits. The stage of the implementation of the corrective and preventive measures proposed and

recorded in the safety event investigation closure reports was consistently followed up, both dedicated and during internal safety audit visits to sub-units and compartments of the Central Administration R.A. ROMATSA.

ROMATSA's safety objective is "the improvement of its safety level so that the number of accidents, serious or risk bearing incidents induced by air navigation services provided by ROMATSA do not increase and, whenever possible, decreases". Quantitatively, this objective is called Minimum Acceptable Safety Level (NmA) and was expressed by maximum acceptable values for the number of accidents, serious incidents and major incidents with ROMATSA contribution.

The following table discloses comparatively, the safety level achieved (NS) by R.A. ROMATSA in 2021 and the minimum acceptable safety level expressed by the maximum acceptable values per year (NSmA).

Performance ratios	NS (achieved 2021)	in	NSmA (maximum acceptable values per year)
Number of accidents with ROMATSA contribution	0		0
Number of serious incidents with ROMATSA contribution	0		max. 1
Number of major incidents with ROMATSA contribution	0		max. 9

The ROMATSA safety level achieved in 2021 is better than the minimum acceptable safety level, which means that the planned safety target is achieved.

Through the contribution and joint effort of the staff of the structures of the administration, with attributions in the areas of safety, quality, environment and security, the proposed objectives were achieved in 2021:

- maintaining quality and Environmental Management System certifications in accordance with ISO 9001:2015 and ISO 14001:2015 requirements and maintaining aviation cyber security standards in accordance with the National Aviation Security Programme - NSP requirements and Regulation (EU) No 373/2017.

Safety performance ratios

The following table discloses comparatively, the safety level achieved (NS) by R.A. ROMATSA in 2021 and the minimum acceptable safety level per year (NSmA):

Performance ratios	NS (achieved 2021)	in	NSmA (maximum acceptable values per year)
Number of accidents with ROMATSA contribution	0		0
Number of serious incidents with ROMATSA contribution	0		1
Number of major incidents with ROMATSA contribution	0		9

The ROMATSA safety level achieved in 2021 is better than the minimum acceptable safety level, which means that the planned safety target is achieved.

Quality and environment areas

The primary activities carried out during 2021 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);
- developing reports and action plans following internal quality and environmental audits, and state of implementation of the established measures follow-up;
- verification, as part of internal quality audits, of how risks are managed by activity within R.A. ROMATSA;
- monitoring performance ratios in the field of quality;
- monitoring environmental performance ratios, in accordance with the requirements of the National Performance Plan;
- dissemination by experts, during internal safety, quality and environmental audit activities, and 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 AACR, Bureau Veritas Certification

audit and surveillance reports and in internal safety, quality and environmental audit reports;

- monitoring and assessment of the Quality Management System and the Environmental Management System within the administration maturity degree and weaknesses, during the internal quality and environmental audit, as a management support in the continuous improvement process;
- internal (employees) and external customer satisfaction monitoring by collecting, centralising and processing data from specific questionnaires;
- Management Analysis at the highest level of the Quality and Environmental Management System in order to improve these systems;
- Local Quality and Environment Coordinators training in order to prepare the surveillance audit of Bureau Veritas Certification;
- participation in the recertification audit conducted by Bureau Veritas Certification, to reconfirm for ROMATSA the ISO 9001:2015 (field: quality - including training of specialized personnel for air navigation services) and ISO 14001:2015 (field: environment) certifications, in the Central Administration and the following sub-units of the administration: DR Bucharest, DSNA Bucharest, DSNA Iasi and DSNA Suceava;
- SMC and SMM ROMATSA recertification according to ISO 9001:2015 and ISO 14001:2015 Standards, following the external surveillance audit of Bureau Veritas Certification;
- 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.

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 recertification audit carried out by Bureau Veritas Certification.

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

The audit team ascertained a solid knowledge of the Quality Management System and the Environmental Management System by the staff involved and therefore a level of implementation appropriate to the current stage. The

continuous effort to maintain a high level of operational performance and to update documentation and procedures in line with changes in the reference standards and applicable regulations was also appreciated; even in the context of the pandemic it was possible to maintain the licences and authorisations of the operational staff, including obtaining licences for new staff. In addition, compared to the above, the operation of three management systems - Quality/Environment, Aeronautical Safety and Security and IT - with effective mechanisms for identifying, addressing and following up non-conformities, were considered to be obvious tools for improvement.

The quality of the services provided by the administration confirms that constant and continuous performance of a rigorous internal audit process for safety, quality and environment is a necessary and useful mechanism to maintain a high level of service quality.

The level of service quality is annually monitored via "service quality ratios", namely:

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

These indicators were done in 2021 at the level of ROMATSA, their analysis being done within the Management Analysis.

Aeronautical and IT security

The primary objective for the year 2021 of the activities in the field of aviation and IT security was to maintain the Aviation and IT Security Management System at an acceptable level, in order to ensure the continued validity of the certificates attesting compliance with the EU Regulation 373/2017 and the National Aviation Security Programme.

Thus, the primary activities carried out during 2021 in the field of aviation security and IT management were:

IT security

- follow up on the status of implementation of action plans obtained from internal aviation and cyber security audits/inspections in 2020;
- preparation and timely submission of the Annual Report on the activities carried out in the field of aeronautical security and information during 2020;

- preparation of files and completion of the recruitment process of persons to be appointed Local Aeronautical Security Officers for some subunits of R.A. ROMATSA;
- conducting aeronautical security training for the administration personnel with attributions in the field of aeronautical security (RLSA/security dispatch operators);
- participation in the meeting organized by AAR with aviation security officials;
- preparation and submission of "Aeronautical Security Notifications" to RA ROMATSA subunits ;
- processing access requests to CDZ Bucharest;
- conducting background checks on requests for controlled access permits;
- processing the files of employees of companies which, under commercial contracts, provide services for the Administration;
- updating the chapters contained in the ROF ROMATSA on the expert activities in aeronautical and IT security;
- review of the document regarding the "National Civil Aviation Security Committee";
- transmission of points of view for the completion of the actions by AACR of the process of amending Chapter 13 of the National Aeronautical Security Program (PNSA);
- analysis of the revised PNSA 2021 project and submission of an opinion to R.A. ROMATSA at MTI;
- amending the aeronautical security procedure - "Program of Internal Quality Control in the Field of Aeronautical Security";
- amending the aeronautical security procedure - "Aeronautical Security Training Program";
- amending test procedures in the field of aeronautical security;
- development and submission of aeronautical and IT security plans to the DSNA Târgu-Mureş and DSNA Cluj subunits;
- aeronautical and IT security audits at R.A. ROMATSA sub-units – DSNA Târgu Mureş and DSNA Cluj;
- preparation and participation in the aeronautical and IT security audit carried out by the competent authority - AACR in October 2021;
- development and approval of audit reports at the administration subunits (DSNA Târgu Mureş and DSNA Cluj).

Information security

- development and submission of cyber security requirements for the automated management system of air traffic complexity – ROMAirTCM;
- taking steps and participating in the Cydex 2021 exercise, organized by the Cyberint Center of the Romanian Intelligence Service;
- review and distribution of cyber security alerts sent by EATM-CERT EUROCONTROL);

- preparation of the 2020 Annual Report in the field of security and cybernetics;
- review and transmission of the opinion to "CANSO-Cyber Security Task Force" regarding the documents:
 - AMC/GM Part IS (the new EU Regulation in the field of cyber security in civil aviation);
 - EU Directives – Critical Entities Resilience (CER) and NIS 2;
 - CANSO Technical Operational Group – Supporting documents;
 - System Wide Information Management (SWIM);
 - Template of cyber security requirements for use in third party contracts.
- participation in the activities of the IRIS IOC Deployment working group;
- participation in the cyber security activities proposed by IDS Air Nav for the new AIS ROMATSA system;
- review of EASA documents:
 - Opinion "Management of Information Security Risks"
 - EASA Safety Master Plan (2021-2025).
- review of the document "Guidance for risk management at the supply chain - ECAC";
- review and submission of comments to EUROCAE regarding the following proposed standards and documents:
 - ED 201 (AERONAUTICAL INFORMATION SYSTEM SECURITY (AISS) FRAMEWORK GUIDANCE);
 - ED 205 (CERTIFICATION/DECLARATION OF AIR TRAFFIC MANAGEMENT/AIR NAVIGATION SERVICES (ATM/ANS) GROUND SYSTEMS);
 - Cyber Skills for Aviation Staff;
 - ED 206 (GUIDANCE ON INFORMATION SECURITY EVENT MANAGEMENT);
 - Aeronautical Information System Security Glossary;
 - UAS traffic management (UTM) – Requirements for UTM service providers;
 - Template of cyber security requirements for use in third party contracts.
- Elaboration and submission of cyber security requirements for the new AWOS (MET) system;
- Transmission of points of view for the completion of the actions by AACR of the process of amending Chapter 14 of the National Aeronautical Security Program (PNSA);
- Development and submission to AACR of the administration's point of view on the inclusion of the cyber security chapter in the "National Civil Aviation Safety Plan 2021-2025";
- Development of the cyber security section for the Inspection Reports at ROMATSA sub-units – DSNA Târgu Mureş and DSNA Cluj;
- Review and submission of comments on ICAO documents (Secretariat Study Group on Cyber-security-SSGC/10);
 - Cyber Security Policy Guidance;

- Cyber Attack Scenarios;
- Cyber Security Guidance;
- ICAO POSITION FOR THE ITU WRC-23 (protecting aeronautical spectrum for all radio communication and radio navigation systems used for ground facilities and board aircraft).
- Updating the ROMATSA briefing in the field of cyber security;
- Update of DanubeFAB Strategic Program – cyber security section;
- Development of quarterly reports;
- Transmission to MTI of the summary regarding "Actions taken by RA ROMATSA in the field of cyber security in civil aviation".

Service quality performance ratios

OBJECTIVES		INDICATORS	TARGETS (maximum acceptable annual values)	STAGE 2021	
Increasing the quality level of air traffic services	Traffic flow	Minutes en route delay due to unplanned staff related issues – code S	max. 0.05 min/flight	0	Completed
	Capacity per FIR	Number of aircrafts/hour/FIR	183	78	Completed
	Customer satisfaction	Number of complaints with ATM relevance	max. 6	6	Completed
Availability of PNA equipment (process sheet ratio)		Number of operating hours/no. total hours declared (%)	min. 95%	96.04%	Completed
Timely weather data availability index (process sheet ratio)		No. of messages sent and received/no. total number of messages to be sent (%)	min. 90%	97.90%	Completed

ROMATSA quality objectives for 2021 have been met.

Thanks to the contribution and joint effort of the safety and quality experts, the staff of ROMATSA structures with responsibilities in the areas of safety,

quality, environment (local coordinators in the field), and of all ROMATSA employees, the proposed objectives were achieved in 2021:

- maintaining the certification of R.A. ROMATSA 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. 2017/373;
- recertification of the Quality and Environmental Management Systems in accordance with ISO 9001:2015 and ISO 14001:2015 requirements.

Key performance area regarding the environment

Within the Key Environmental Area under the Performance Plan, the Key Performance Indicator - KEA - the average horizontal flight path efficiency corresponding to the actual trajectory is monitored at European level by PRU EUROCONTROL.

Romania	Target 2021	Target 2021 EU level	Completed
KEA	2.10%	2.37%	2.26%

The environmental performance indicators (KEA) registered a deviation from the target by 0.12% in 2021. According to the operational analysis, at ROMATSA internal level, the following causes were identified which, cumulatively, led to the target value being exceeded, namely:

- despite the significant reduction in traffic, the areas avoided by air operators were maintained (Black Sea, Eastern Ukraine, Crimea area), and
- the related restrictions (RAD) and applicable traffic bans (between Ukraine and Russia) in the area.

All of the above continued to keep the distance flown artificially high, even for fewer flights, with visible effects on the KEA indicator. This proves once again that the calculation methodology for the KEA indicator should be revised to eliminate the influence of external factors, outside the control of ROMATSA.

The distance flown is also the result of the preference of air operators to fly through geopolitical safe and stable areas and from the perspective of each company and its planning procedures, even if this means flying longer routes than environmentally optimal.

Conflicts or uncertain contexts in the Middle East (e.g. Syria)/Ukraine may lead airline operators to bypass these areas and, as a result, they already travel longer/atypical distances and routes before entering Romanian airspace. Equally, in the context of COVID-19, Romania has been part of the process of RAD restrictions relaxation at the level of the European ATM

network due to reduced air traffic, but there are certain RADs that are still maintained to manage traffic flows that plan flights like this to avoid, for example, the Black Sea area.

To reduce environmental impact, Romania continued the implementation of Free Route Airspace. Thus, on November 7, 2019, FRA H24 operations were extended to the SEE FRA initiative between Romania, Bulgaria and Hungary, to which Slovakia joined from January 28, 2021.

In conclusion, ROMATSA has taken all the measures that are in its area of responsibility for this performance area, and the deviation of the indicator from the target is not caused by the provision of air navigation services, with 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 to the calculation of the Footprint of Carbon generated from ROMATSA's current activities are monitored. The estimated calculation of the carbon footprint in recent years, revealed a downward trend, which led to a decrease in CO₂ emissions generated by ROMATSA's activities, thus demonstrating the increase in Environmental Performance.

The process of formal consultation of airspace users

The quality and environment experts lead, coordinate and analyze the activity of monitoring the level of satisfaction of External Clients of R.A. ROMATSA in terms of quality of the services provided by the administration. Monitoring of the level of satisfaction and consultation with respect to ANS and ATFM services provided is carried out annually, using at least one of the following methods:

- working 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;
- bilateral consultations with IATA on tariff issues;
- multilateral consultations with EUROCONTROL, IATA, IACA, ERA, ELFAA, IAOPA on tariff issues;
- consultations regarding Danube FAB.

The data obtained from external customer satisfaction monitoring activity are collected and centralised as follows:

At the level of R.A. ROMATSA – Central Administration:

- quality and environment experts gather and centralize the data obtained from the meetings, after completing the questionnaires;
- gathering and centralization of the questionnaires received by post, fax, e-mail from the airlines, is done by the registry and later sent to ROMATSA experts;

- when completed online, the questionnaires are directed to the quality and environment experts;
- the head of the weather department ensures the collection and centralization of questionnaires in the field of Aeronautical Meteorology at subunit level, and prepares a centralizing table of completed questionnaires and the Monitoring Report. These are submitted to the MIM specialists from the Central Administration, who later send a copy to the quality and environment experts;
- collection and centralization of questionnaires regarding the provision of AIS by RA ROMATSA is done by specialists in the field who send a copy of these questionnaires and the Monitoring Report to the quality and environment experts.

At subunit level:

- collection and centralization of questionnaires at subunit level is done by the Local Quality and Environment Coordinator and the subunit director;
- each head of office/weather station in each subunit ensures the collection and centralization of questionnaires in the field of Aeronautical Meteorology, who prepares 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;
- each head of ARO/Briefing unit ensures the collection and centralization of the External Customer Satisfaction questionnaires, who submits them to the Local Quality and Environment Coordinator along with a copy of the collected questionnaires to the quality and environment experts from the Central Administration.

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

For R.A. ROMATSA - Central Administration - The assessment of the degree of satisfaction is carried out following the review of 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 Aeronautical Information domain - Monitoring report resulting from the analysis of questionnaires on the provision of AIS by R.A. ROMATSA is prepared by AIM specialists from the Central Administration and sent annually, in copies, to the quality and environment experts.

They are also reviewed in order to be included in the Management Analysis at R.A. ROMATSA – Central Administration.

For subunits – The degree of satisfaction assessment 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 local level, a copy is sent to the quality and environment experts.

For Aeronautical Meteorology - The monitoring reports resulting from the analysis of the questionnaires distributed to the sub-units of the air operators are prepared by the Head of Office/Weather Station and copied annually to the MIM specialists and subsequently to the quality and environmental experts.

They are also reviewed in order to be included in the Management Analysis at R.A. ROMATSA level – Central Administration.

Corrections and/or corrective actions, including proposals for improvement resulting from reviews of Monitoring Reports in terms of level of satisfaction of external customers are endorsed by the Safety and Quality Manager and constitute input for the Management Review conducted at the administration level.

In 2021, given the COVID-19 pandemic context, the data collected came from the external customer satisfaction monitoring questionnaires distributed and collected through the ARO/Briefing departments within the airports.

As part of the Analysis carried out by Management at the administration level, the data collected with the help of external customer satisfaction monitoring questionnaires were reviewed and the following conclusion was drawn:

External clients appreciated the quality of the services provided by R.A. ROMATSA as very good.

The perception of external customers is considered as an important element for improving the services provided by R.A. ROMATSA. In this respect, the improvement proposals collected from external customers were analyzed and, as appropriate, measures were agreed 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 Brussels on December 12, 2011 and ratified by Law no. 192/2012, published in the Official Journal 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.

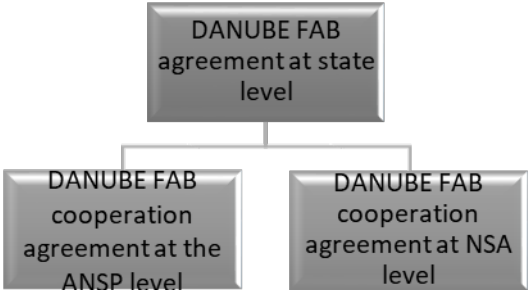


Figure2 - The structure of the main Danube FAB regulatory framework

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).

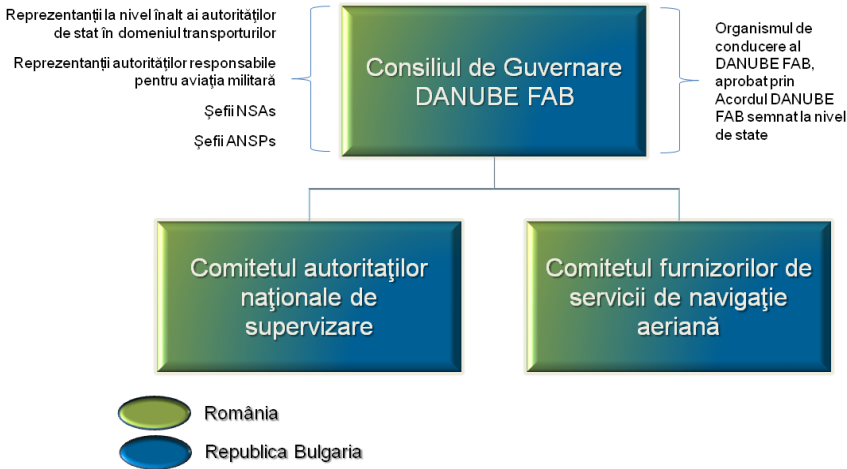


Figure3 - Organizational structure of DANUBE FAB

- DANUBE FAB Governing Council
- High level representatives of government authorities in the field of transportation
- Representatives of military aviation authorities
- NSAs manager
- ANSPs manager
- DANUBE FAB managing body, approved by interstate DANUBE FAB agreement
- National supervisory authorities committee
- Air navigation services providers committee
- Romania
- Bulgaria

At the same time, in accordance with the provisions of the Danube FAB Agreement, to carry out its duties, the Air Navigation Service Providers'

Committee set up the Strategy and Planning Standing Committee (SAPSC), which in turn set up two other supporting standing committees: Standing Operational Committee (SOC) and Safety, Quality, Environment and Security Standing Committee (SQSESC).

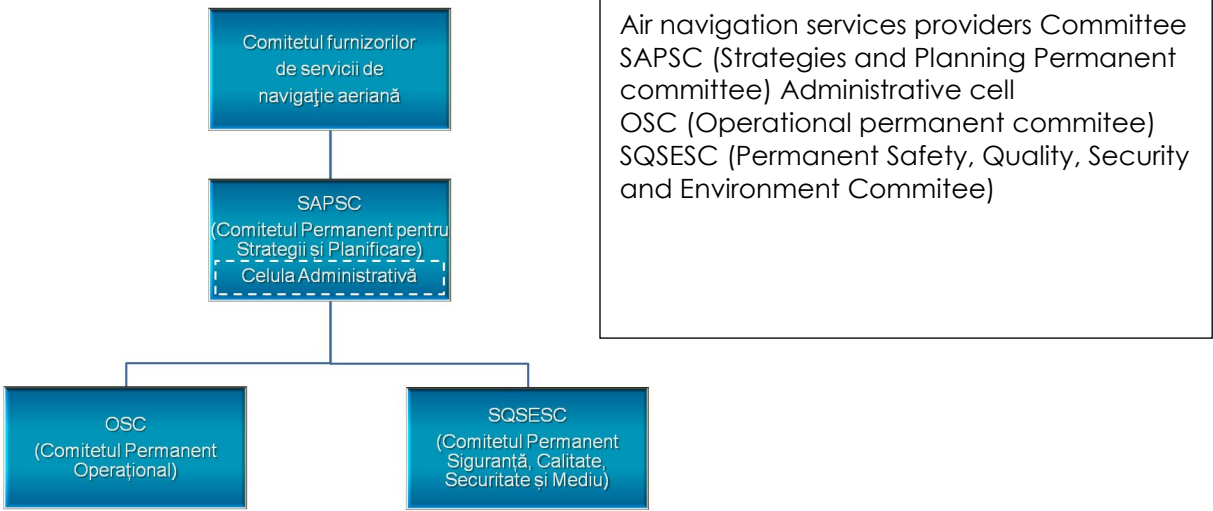


Figure4 – Support bodies created at the ANSP Board level

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

Governance Danube FAB structures

During 2021, two meetings of the Danube FAB Governing Council took place, on April 28 and November 4, respectively.

Two meetings of the Air Navigation Service Providers Board (ANSP Board) were also held during 2021: April, 27 and November, 3.

Strategic Planning

In 2021, the documents "Danube FAB Strategic Program for the period 2021-2025", "Danube FAB Annual Plan for 2021" and "Danube FAB Annual Report for 2021" were finalized and adopted, documents made in accordance with the provisions of the Danube FAB Agreement .

The documents "Danube FAB Strategic Program for the period 2022-2026" and "Danube FAB Annual Plan for 2022" were also launched. In parallel, a strategic impact study on Danube FAB of the expected new developments of the Single European Sky legislative package was completed in 2021, whose recommendations will be analysed for inclusion in the final versions of the above-mentioned strategic documents.

Consultation with the social partners

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

Two SCF meetings were held during 2021, on 19 May and 7 December respectively. On these occasions, the status of the main operational projects implemented or being implemented within Danube FAB, other priority projects, and the EU legislative developments with an impact on air navigation service providers were presented to the representatives of trade unions and professional organisations.

Priority activities:

- Free Routes Airspace (FRA)

Starting from January 28, 2021, the SEE FRA project (South East Europe Free Route Airspace, successfully implemented on November 7, 2019), has been extended with the airspace of Slovakia. This is a first extension of the SEE FRA, which makes possible free route cross border H24/7 operations in the airspace of 4 countries (Bulgaria, Hungary, Romania and Slovakia).

- Technical Rationalization and Infrastructure

The overall objective of this priority project is to extend cooperation in the technical field by identifying opportunities for coordination, rationalisation and/or joint use of technical infrastructure. In 2021, several projects were coordinated, with priority on expanding the set of OLDI messages exchanged at the FAB level.

- InterFAB coordination

Within the InterFAB coordination platform, Danube FAB has been actively involved through participation in thematic meetings and workshops. Danube FAB has also offered to host an InterFAB workshop on "Resilience in ATM" in September 2022 in Sofia, organised in collaboration with FABEC.

- Danube FAB expansion

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

- The transition to the new developments within the Single European Sky

In the context of the new European level legislative developments, the Danube FAB partners initiated a coordination in order to investigate the opportunities of joint projects eligible for the financing to be launched in 2022.

INTERNAL AUDIT

The internal audit activity conducted during 2020 was carried out in accordance with the provisions of Law no. 672/2002 on internal public audit, republished, with subsequent amendments and additions, the provisions of OMT no. 1.380/2016 approving Specific Rules on the exercise of internal audit activity within the Audit Service of the Ministry of Transport as well as within the internal audit departments of the public entities subordinated to it and on the basis of the Annual Internal Audit Plan for 2021, approved by the Director General of R.A. ROMATSA.

A. In detail, the activity carried out by the internal audit structure in the reported period is presented in the Internal audit activity report related to the year 2021 carried out at RA ROMATSA level, registered under no. 900/17.01.2022, document whose main purpose is to present the internal audit activity carried out at the level of R.A. ROMATSA during 2021 and the contribution of the specific internal audit activity to the general improvement of the administration's activity. In summary, the internal audit activity in 2021 consisted of carrying out the following internal audit missions/actions:

- internal audit mission covering "Evaluation of the self-assessment and reporting process of the Managerial Internal Control System implemented at R.A. ROMATSA"

The internal audit mission involved the SCIM Monitoring Commission, the purpose of the advisory mission being assure the Director General of ROMATSA that the SCIM self-assessment as of 31.12.2020 complies with the regulatory framework and the objectives of the administration undertaken through the SCIM Development Programme for 2020 are being met.

The objectives of the formal advisory mission granted to the commission were:

- facilitating understanding for in-depth knowledge of how to complete the self-assessment questionnaire;
- identification of obstacles encountered in the SCIM reporting process;
- providing advice to the Commission on how to monitor the fulfillment of the objectives set in the SCIM Development Program for 2020 (by the responsible structures).

The targeted period was 2020.

Conclusion

As a result of the mission to advise the SCIM Commission in the activities carried out on the self-assessment of the status of implementation of the Management Internal Control Standards and the development of the

management internal control system at the R.A. ROMATSA level, the internal audit team notes the progress made with the maintenance of internal managerial control standards at an appropriate level of quality at the level of all specialized structures within R.A. ROMATSA, under the coordination and guidance of the Commission.

In the light of the findings during the advisory mission, the review of the self-assessment questionnaires on the status of implementation of the specific standards in this field, submitted to the Commission Secretariat by the Central Administration structures and sub-units, the internal audit team considers that the internal management control system existing at the level of the Administration is COMPLIANT, an aspect also mentioned in the Internal management control system Report by the Director General of the administration, a document sent on the platform of the General Secretariat of the Government.

Opinion In the opinion of the audit team, the aspects found on the self-assessment process and reporting of the status of the Managerial Internal Control System, do not present significant risks in terms of a possible disruption, both of the system implementation and development, risks whose effects will be diminished by adapting solutions proposals identified by internal auditors.

- internal audit mission on the "Assessment of meeting the requirements of the job descriptions of all members of the executive management (directors), both at central administration and sub-unit level".

The regularity internal audit mission, of an ad hoc type, was carried out between 12.01 and 15.02.2021, at the express request of the Board of Directors of R.A. ROMATSA.

The purpose of the internal audit mission was to assure the Board of Directors and the director general of the administration that the conditions contained in the job descriptions related to the management positions (directors) held by staff currently employed at the Central Administration and sub-unit levels are established in accordance with the legal and specific requirements of the administration are uniform and complied with. *The objective* of the internal audit mission is to verify the fulfilment of the requirements of the job descriptions of all members of the executive management (directors), both at the Central Administration and sub-unit level.

Audited period - from the appointment to the position of executive management (director), at the level of the Central Administration and sub-units, held by the current staff.

The structure subject to the audit is the Human Resources Department within the Central Administration, a specialized structure that has specific responsibilities in the field of human resources at the administration level.

Conclusions

As a result of the internal audit mission regarding the verification of the fulfillment of the conditions in the Job Descriptions of all members of the executive management (directors), both at the level of the Central Administration and at the level of the subunits, the internal audit team considers that *these conditions have been met however, at the time of the occupation of these positions by the currently appointed staff*, the analysis of the documents made available and the information available to the internal auditors, underlines that *there are also deficiencies in the area of organization/ management of job descriptions*.

In this context, based on the documents review and the situation provided by the Human Resources Department - Central Administration, *the internal audit team gives assurance to the general director that the occupants of the positions related to the position of director (currently) have satisfied the conditions stipulated in the job description respectively, at the time of their appointment*.

In the view of the internal auditors, this material is one of its efforts to signal to the management of the administration the need to establish a unitary approach to human resources management (HRM) within R.A. ROMATSA. A unitary approach to human resources, including senior executive management positions, is essential to enable the executive management and the Board of Directors to create a high-performance HRM system in ROMATSA, able to attract, retain, capitalize and motivate the appropriate people who have the necessary skills to carry out the appropriate activities.

To achieve this goal, the management's attention must be directed in the following main areas:

- continuation of the steps for the speedy completion of the development of the Human Resources Strategy within R.A. ROMATSA, following the recommendation of the internal auditors in the Report prepared during the internal audit mission carried out during the first quarter of 2020, complementary recommendation to that of the Court of Auditors, formulated following the performance audit - "Performance of the specific activity carried out by the Regia Autonomă Administrația Română a Serviciilor de Trafic Aerian - ROMATSA (Romanian Air Traffic Services Administration)" reconfirmed by the Follow-up Report no. 23.343/18.12.2020;
- the development of a system procedure or an instruction applicable at the level of the entire administration, showing how job descriptions are actually drawn up, approved, updated, signed, acknowledged or contested, as recommended by the internal auditors and following the previous audit in the Human Resources Department.

Opinion

Although the internal audit makes recommendations, the internal audit team considers it appropriate to engage the management of the administration (n.b. - directorate and the Board of Directors), on the risk

of non-implementation of the recommendations, in order to avoid possible cases similar to those exposed during this report, but also in the previous ones.

We support this because the implementation process should not be difficult given that, for most of the recommendations made, there are action plans prepared by the auditees (n.b. - on the job description area) and approved by the same managerial level as the internal audit reports, but whose implementation deadlines have either been exceeded or have been rescheduled by a new deadline.

At the same time, the report reiterated the need to review at management level the opportunity of possibly appointing a Committee/Working Group coordinated with experts in organisation and relations in which employee representatives would also be co-opted in order to depreciate/update ROF provisions, compartment sheets, job descriptions and Internal Regulations.

- The internal audit mission with the theme "Evaluation of legal activity"

The regularity internal audit mission was carried out between 01.02.2021 and 02.04.2021.

The purpose of the internal audit mission is to ensure the general director of the administration that the organization and development of the legal activity within R.A. ROMATSA is carried out in compliance with the legislative framework.

Internal audit mission objectives:

- review of the organisational structure responsible for carrying out legal field specific activities;
- evaluation of how activities are carried out in order to achieve the specific objectives of the structure;
- evaluation of the managerial internal control subsystem.

Conclusions

As a result of the internal audit mission on how the legal activity is carried out at ROMATSA level, the internal audit team considers that this area is complex, is carried out, pays off and shows no significant shortcomings, although the analysis of the documents made available and the information available to the internal audit team highlights that shortcomings exist in the organisational area.

We mention this starting, first of all, from the non-existence of a management function at the level of the Legal Department within the central administration, the relations with the legal structures at the level of DR Bucharest and DSNA Bucharest which are not sufficiently revealed in practice in terms of coordination/control/methodological guidance (n.b. an aspect seen through the authority of DJA), to which is added the issue of petition management.

An important aspect highlighted during the internal audit mission is the increase, for the audited period and currently, of the number of legal advisors within the audited structure, and of their degree of involvement in most of the processes in which the administration is involved.

In this context, the internal audit team assures the Director General of ROMATSA that the legal activity at the level of ROMATSA is carried out in compliance with the legislative framework and with the mention that it is not 100% due to the area of organization and deficiencies identified that require improvement.

Opinion

Even if the previously presented conclusion is not eminently positive, we believe that by implementing the recommendations formulated in this Report and with the exercise of control levers appropriate to the reality of the activities carried out within the audited area, the legal activity will operate within normal parameters and the manifestation of risks associated with deficient activities will be maintained in an area where they can be monitored.

- The internal audit mission "Evaluation of the 2021 corruption prevention system"

The internal audit mission took place between 05 April and 04 June 2021, as a regularity audit.

The purpose of the internal audit mission is to provide assurances to the general director of the administration on the compliance with the regulations in force for the implementation of preventive measures, in terms of conflict of interests, incompatibilities and prohibitions after the end of employment within R.A. ROMATSA.

The objective of the internal audit mission is "Evaluation of the preventive measures established by Annex 3 to the National Anti-Corruption Strategy on conflicts of interest, incompatibilities and prohibitions after the end of employment in public entities (pantouflage)".

Audited period: 2019 – 2020.

Conclusion

The review of the activities carried out and the documents prepared to align the administration with the legal provisions in the field of anti-corruption, namely conflicts of interest, incompatibilities and pantouflage, highlights a relevant stage in the implementation of two preventive measures (one not applicable to the administration), leading the internal audit team to give assurance to the Director General of ROMATSA that the corruption prevention system and the implementation of the National Anti-Corruption Strategy 2016-2020 at the level of R.A. ROMATSA complies with

the existing legislative framework and is carried out under conditions of effectiveness.

Opinion

In the context of increasing anti-corruption activities at national level, the internal audit team recommends the management of R.A. ROMATSA and the anti-corruption officers to be much more proactive, to anticipate problems, prevent and manage possible critical situations, through the instruments required by the legislation in the field, arranged/transposed in the internal organizational documents, in order to prepare for the implementation of the next strategy in the field of anti-corruption.

We believe that the steps taken to implement SNA 2016-2020 requirements applicable to the administration must be intensified so as to contribute to the alignment of the R.A. ROMATSA to the legal provisions in this field, aspect taken into account including by the internal auditors by planning once every two years, some internal audit missions in this area of activity/responsibility.

- the internal audit mission "Professional training and organization of CTA resources"

The mission took place between July 3 and September 27, 2021.

The purpose of the internal audit mission was to ensure the general director of the administration that the organization and development of the professional training activity in CTA field within R.A. ROMATSA is carried out in compliance with the legislative framework.

The internal audit mission *objectives* were:

- assessment of the professional training management process and the organization of CTA resources;
- formalized analysis of the selection and employment of air traffic controllers, the procedures used, the costs generated by the professional training of the CTA and the provision of the necessary measures in line with the results of this analysis.

The audited period concerned the activity carried out by specialists in this field between 2018 and April 2021.

Conclusion

As a result of the internal audit mission on the way training activities and organisation of CTA resources are carried out at the level of R.A. ROMATSA, despite the fact that this field is a complex one and experts are currently confused with issues regarding staffing with specialized personnel, the internal audit team believes that the process runs normally, produces results and does not show shortcomings.

In this context, the internal audit team assures the general director of the administration that the activity of professional training management specialists and the organization of CTA resources is carried out in compliance with the legislative framework.

Complementarily, the solution identified for the implementation of the measure of the Court of Accounts with respect to the performance of the formalized analysis of the selection and employment of air traffic controllers is similar.

Opinion

Based on the above conclusion, the internal audit team believes that by continuing to provide effective management, in the context of a return to normal of the global context affected by the COVID-19 pandemic, the training and organisational activities of the CTA will operate efficiently, increasing the quality of services provided by RA ROMATSA.

- internal audit mission "Evaluation of the organization and conducting the licensing activity

The internal audit mission took place between 17 May - 27 August 2021, as a regularity audit.

The purpose of the internal audit mission is to ensure the general director of the administration that the organization and development of the licensing activity within R.A. ROMATSA is carried out in compliance with the legislative framework.

Internal audit mission *objective*: Review of staff licensing activity - organization, planning, development and control.

Audited period: 2018 - April 2021

Conclusion

Following the internal audit mission on the conduct of the staff licensing activity at the level of R.A. ROMATSA and following the analysis of the documents made available and the information available to the internal audit team, the auditors believe that this field is complex, develops, produces results and does not present shortcomings and emphasizes the fact that there are no deficiencies in the area of organization.

In this context, the internal audit mission ensures the general director of the administration that the licensing activity within R.A. ROMATSA is carried out in compliance with the legislative framework.

Opinion

The above conclusion is totally positive, we believe that by implementing the recommendations made in this material and by continuing and improving the control levers appropriate to the reality of the activities carried out in the audited area, the staff licensing activity is and will be operating within normal parameters and the manifestation of risks associated with licensing activities will be maintained in an area where they can be monitored.

- the audit mission "Evaluation of preparing and complying with the Job Descriptions of some employees within the CNS Department - Central Administration, respectively DSNA Suceava"

The internal audit mission took place between 02 June - 02 July 2021 as an ad-hoc regularity audit.

The purpose of the internal audit mission is to ensure the general director that the duties and responsibilities mentioned in the Job descriptions of some employees within the CNS Department - Central Administration, respectively DSNA Suceava and the Department Sheets related to these structures are established in a uniform manner, comply with the legal or specific requirements of the administration and are complied with.

Mission objectives

- evaluation and verification of how the Job descriptions and the CNS Department Sheets- Central Administration and DSNA Suceava were drawn up and complied with.
- Analysis of the evaluation, monitoring and control actions exercised by the site managers (general director, director of the technical development department, technical director, head of CNS department, DSNA Suceava director, DSNA Suceava technical officer) from an administrative point of view, on the aspects reported by the signatories of the Voluntary reporting/petition.

Audited period: 2019 - Present

Conclusions

Starting from the atypical nature of this internal audit mission and taking into account the progress/succession of the actions (n.b. - even now there are notifications addressed to the Minister of Transport and Infrastructure), the conclusion of the internal audit team is that the current internal regulations, forms of organization and/or managerial attitudes, allow the occurrence of cases like the one analyzed, given that, as said before, there is no Code of Conduct for the employees of R.A. ROMATSA, their duty is not sufficiently monitored by the heads of specialized structures, some procedures are edited but not disseminated to all the staff, other procedures are not known, etc.

In other words, similar situations may arise not because of the inefficient legal framework provided (n.b. - as in the case of the established hierarchies), but unless complied with, in which case it is no longer a question of the sufficiency of regulations but of professional conscience, fairness and work/professional discipline.

Opinion

In the opinion of the internal audit team, the situation examined in this mission is an isolated case, which should not be generalised at the level of the regie, but should be seen as an alarm signal which highlights that the functional systems at the level of the regie, in certain contexts, may be affected and which, in turn, may influence to a greater or lesser extent the operation of R.A. ROMATSA.

Therefore, starting from the premise that the situation analysed is a state of affairs, in the sense that such cases have happened, are happening and will probably happen again, the internal audit team is of the opinion that, precisely because of their consequences and effects, some of them even undesirable, there is a need for that firmness/promptness on the part of management, without hesitation and/or routine affections, for coordination, continuous monitoring and punctual/viable decisions in such cases, including updating the functional systems to the current complexity requirements related to some activities.

As such, with respect to the case in question and the purpose of the mission, the internal audit team assures the Director-General that the duties and responsibilities mentioned in the job descriptions of certain employees within the specialist structures involved and the departmental descriptions relating to these structures provide the legal framework necessary for the performance of the specific activities for which they are responsible, including in the area of established professional hierarchies, i.e. hierarchical, functional, collaboration and representation.

- the internal audit mission on "Evaluation of the general heritage inventory process"

The internal audit mission took place between 01 September - 29 October 2021, as a regularity audit

The purpose of the internal audit mission is to ensure the general director of the administration that the organization and development of the inventory activity within R.A. ROMATSA is carried out in compliance with the legislative framework.

Mission objectives:

- assessment of the process of organizing and carrying out the activity of inventorying and evaluating the assets of the administration;
- review of how the inventory results are reflected in accounting.

Audited period: 2019 – May 2021.

Conclusion

Following the internal audit mission on the inventory operation at the level of R.A. ROMATSA, the internal audit team's conclusion revolves around the fact that this complex process is properly addressed. Based on the relevant legislation, it was considered appropriate at the level of the administration to proceed with inventory activities, an important element in the understanding of all the steps to be followed, an action that has brought added value since 2015.

However, the problem of staffing in the sub-units in the PAD area cannot be overlooked, which creates difficulties in carrying out activities that are mandatory under the various regulations, including the inventory

regulations, a situation that in the view of the internal audit team can only be resolved by a vertical management approach in the administration.

Given that the issues presented in this material will be reviewed by the staff responsible for the inventory operation and the management of the administration, the internal audit team assures the Director General of the administration that the inventory activity is carried out in compliance with the legislative framework.

In addition, the fact that this activity is permanently monitored both through specific control actions (with specific objectives concerning the inventory) of the service in charge of financial management control and through the inspection/audit carried out by the Court of Auditors of Romania.

Opinion

On the basis of the above conclusion, the internal audit team considers that addressing the issues raised leads to a more efficient inventory process, both in terms of quality and efficiency of this activity in terms of proper management of the assets and assets of the administration.

- internal audit mission "Analysis of the way of making the payments assumed through legal commitments, the establishment of revenues and the establishment of debt securities, and compliance with the legal/procedural framework in the exercise of financial activities"

The internal audit mission took place between 01 September - 29 October 2021, as a regularity audit.

The purpose of the internal audit mission is to ensure the Director General of the administration that payments made under legal commitments, including from Community funds - payments, receipts through banks or cashier's offices; the constitution of revenue at the level of R.A. ROMATSA, how to determine debt securities and the facilities granted for their collection;

The financial activities or with financial implications carried out by R.A. ROMATSA from the time of commitments are made until the funds are used by the end beneficiaries, including the funds from external financing, is carried out in compliance with the legislative framework.

Mission objectives:

- review of the activities carried out in order to make the payments undertaken through budgetary and legal commitments;
- assessment of how revenue is accrued and debt securities are established;
- verification of compliance with the legal and procedural framework in the exercise of financial activities or activities with financial implications.

Audited period: 2019 – May 2021

Conclusion

Following the internal audit mission, the evaluation of the above-mentioned activities and the review of their causes and consequences, a series of particularities emerged which the internal audit team deems to have both an organisational and formal scope, but which, viewed from the outside and without sufficient knowledge of the specific nature of the activities of the administration, run the risk of being interpreted and labelled in an inappropriate manner, not in line with reality and the professional way in which these activities are carried out.

Settlement of issues identified during the course of the internal audit mission, through the implementation of the recommendations made, is something we consider to be straightforward, representing only a natural alignment with what is and how the system of organising payments made under legal commitments, including from Community funds - payments, receipts through banks or cashier/planning, organisation, control; the generating revenue at the level of R.A. ROMATSA, how debt securities are established and the facilities granted for their collection; the financial activities or activities with financial implications carried out by R.A. ROMATSA from the time of commitment to the use of the funds by the end beneficiaries, including funds from external financing, based on an internal preventive financial control, within R.A. ROMATSA.

In view of all the above, and the fact that a reorganisation is currently envisaged in order to achieve an efficient and beneficial organisation in line with current requirements, the internal audit team considers that the time is right to consider the Chief Accountant's proposal to set up a structure dedicated to carrying out its own preventive financial control activity under the coordination of the Economic Director, in conjunction with the following actions:

- thorough preliminary preparation of the modification of the current organisational framework by organising the financial-accounting, human resources, procurement and administrative activities vertically;
- implementation in its integrity of the e-management system;
- review of the administration's ROF;
- redefining the coordination and subordination duties between subunits, as work points and the central administration.

Consequently, the internal audit team grants the management of R.A. ROMATSA assurance that payments made under legal commitments, including from Community funds - payments, receipts through banks or cashier/planning, organisation, control; setting up revenue at the level of R.A. ROMATSA, how debt securities are established and the facilities granted for their collection; the financial activities or activities with financial implications carried out by R.A. ROMATSA from the time of commitments are made until the funds are used by the end beneficiaries, including the funds from external financing, is carried out in compliance with the legislative framework.

Opinion

By implementing the recommendations made by the internal audit team, proper monitoring of payments made under legal commitments can be achieved, including from Community funds - payments, receipts through banks or cashier/planning, organisation, control; establishment of revenue at the level of R.A. ROMATSA, how to establish debt securities and facilities granted for their collection, in an efficient manner, in compliance with the legal regulations and the provisions of the Board of Directors.

At the same time, by implementing the guidelines set out in the report, the administration will be able to develop appropriate monitoring tools/levers to improve its overall activity, which will lead to better risk management.

Until the aspects requiring improvement noted in this report, to be resolved by implementing the recommendations made, are eliminated, greater control must be ensured so that major risks do not arise, with implications for the work and objectives of the administration.

- internal audit mission with the theme "Evaluation of the way of organizing and conducting the licensing activity"

The mission took place between 18 October - 17 December 2021, as a regularity audit.

The audited structure was the IT Systems Service (n.b. – hereinafter referred to as SIT), specialized structure within the Technical Development Department/Technical Directorate/Central Administration.

The purpose of the internal audit mission was to assure the Director-General that the organisation and conduct of IT activities at R.A. ROMATSA is carried out in accordance with the requirements of the IT field and the specifics of the administration.

Internal audit mission *objectives*:

- evaluation of the organisation and functioning of the IT Systems Service;
- analysis of IT staff security processes;
- analysis of access control procedures.

The audited period concerned, the activity carried out by SIT between 2019 and September 2021.

Conclusion

In the context of the IT Strategy update, an important aspect is that the alignment of the IT Strategy with the objectives of the Region can substantially contribute to reducing risks in achieving the objectives. As such, it exists and must always be borne in mind that the IT strategy must

always be part of the regio's strategy and, by supporting it, contribute effectively to achieving the objectives.

With reference to updating the existing one, it should be mentioned that an IT strategy generally refers to over a three-year period, as it is difficult to estimate the dynamics of technological change in the field, as the rapid pace of change in IT means that the IT strategy needs to be reviewed annually and updated, if necessary.

Moreover, IT investments must be expenditure to be "justified" by the effects they have on the activities of the administration and, precisely from this point of view, the staff of the administration must be informed of the main aspects included in the IT strategy.

Thus, because of the conduct of the internal audit mission on the subject matter audited, the conclusion of the internal audit team is that this complex process is properly addressed. Precisely from the ever-increasing complexity of this field, the administration considered it appropriate to publish/approve a series of documents (policies, procedures, manuals, etc.), which are very important items in the correct and efficient performance of all the activities/operations of the specialist structures involved, including the SIT, and which brought added value to the field provided.

The issue of reduced staffing levels, which is observed within the SIT and which may generate difficulties in carrying out these activities, including that relating to the approval of job descriptions by the Director-General, are, in the view of the internal audit team, situations which can be easily and properly resolved.

Considering that the aspects presented in this material will be analyzed by the audited structure, the internal audit team ensures the director general of the administration that the activities carried out at the level of the IT Systems Department in relation to the IT systems used at the level of the administration are effective and lead to the achievement of the objectives in this area.

Opinion

In terms of regularity (n.b. – examination of the actions taken, in terms of compliance with all the principles, procedural and methodological rules applicable to the audited area and the extent to which their application leads to an efficient and effective functioning of the activities carried out, including the identification of deficiencies and the formulation of recommendations for their correction), the auditee has carried out/carries out activities beyond its limit, highlighting the proven professionalism and performance in the prevention and protection of information, including access to it, in the current context of increasing cyber-attacks, coupled with the increasing complexity of IT due to the accelerating pace of change.

Given that the internal audit mission was one of regularity, the review of specific activities and the circumstances in which they are carried out

leads the internal audit team to appreciate that there are cases in which the performance of a mission may (due to the complexity of the area audited) change the internal auditors' attitude to the type of internal audit, i.e. to establish a higher type (performance, system) in the future.

- Internal audit mission "Analysis, at the level of August 2021, of the way/stage of fulfillment by the structures within the RA ROMATSA, of the Internal Audit Department recommendations as a result of the missions carried out in the period 2018 - 31.07.2021, and of the recommendations/ measures ordered by the Court of Accounts, ANAF, the Ministry of Finance, the Ministry of Transport and Infrastructure, under the attention/monitoring of the management of the administration"

The purpose of the internal audit mission - ensuring the general director of R.A. ROMATSA and the Board of Directors, on the appropriateness of the implementation by the specialized structures responsible within the administration, of the recommendations/measures ordered by the Reports internal audit missions carried out by the Internal Audit Department in the period 2018 – July 31, 2021, and the recommendations/measures ordered by the Court of Accounts, ANAF, the Ministry of Finance, the Ministry of Transport and Infrastructure, under the attention/ monitoring of the management of the administration, thus contributing to the fulfillment of its specific/general objectives, and providing the management with an independent assurance that the implementation of the recommendations formulated in the internal audit reports drawn up between 2018 and July 31, 2021 and approved by the general director, led to the improvement of the audited activities.

The objective of the internal audit mission – assessment/analysis carried out in August 2021 of the actions taken by the responsible specialized structures, for the implementation within ROMATSA of the recommendations/measures adopted by the management of the administration following the external audit missions or the control actions/ internal audit carried out.

Conclusion: the issues mentioned in the report, regarding a certain organizational situation at some specialized structures (n.b - which, in some cases, date back to about 4-5 years), also had an impact on the real possibility for some structures to implement the recommendations made. Also, as a result of the analysis carried out within the mission, based on the data provided by the audited specialist structures regarding the stage of implementation of the recommendations formulated by the Internal Audit Department within the missions carried out in the period 2018 - the first semester of 2021, we can record the following:

- the volume of the current activity of these structures (often having to work overtime), did not allow additional tasks to be carried out;

- the formulation of some parts of the recommendations was difficult to understand and apply by some specialized structures (n.b. - although, at the time, they were accompanied) and in some places redundant;
- recommendations to more than one structure was used in situations where two or more structures were involved on the same issue, but this was sometimes used by these structures as an argument for non-implementation;
- part of the aspects reported by the internal audit, for which recommendations were formulated, in the opinion of the audited structures "were not relevant enough to help us in making decisions aimed at eliminating the identified deficiencies";
- the number of recommendations was high, the implementation work is difficult for the reasons mentioned in the first indent.

Aspects on some arguments of the specialized structures in motivating the postponement of the implementation of the recommendations.

Some structures have specified/motivated in their reply messages (emails) to the Internal Audit Department, with reference to the situation regarding the implementation of the recommendations made by the internal auditors in the audit reports prepared or by the CFG, ANAF, Court of Auditors that the main obstacles that led to the request for postponement of the implementation of the recommendations were:

- the consequences of the COVID-19 pandemic both at personal and institutional level;
- insufficient human resources (adding additional tasks to the existing staff may lead to non-fulfilment of current tasks, with consequences for the liability of the administration, e.g. pending in court), including the large number of cases to be argued in court by legal advisers (insufficient working time);
- the formulated recommendations are extensive and their implementation requires high amount of work, which must be staggered over time, correlated with the current activities;
- there were obstacles in the process of implementing the recommendations, caused a discontinuity in the management of certain specialised structures, a situation that has persisted to this day;
- some specialized structures face a shortage of human resources, with insufficient staff, which is why the accountability of employees who carry out the activity at the level of some departments/directorates with additional tasks related to the implementation of the recommendations, was not possible, a consequence of this being both their overload and the non-implementation of the recommendations;
- at administration level, work is being done to change the organizational structure, an aspect may have a major impact on the

implementation (recommendations regarding the revision of the ROF/Compartment Sheets/Job descriptions).

Conclusions

- the conclusions were expressed in the context in which the perception of the Internal Audit Department, and of the Management Financial Control, regarding the specific activities carried out, has become an important component in the management internal control structure of the regia, constituting an additional guarantee of compliance with corporate governance standards;
- the internal audit team is of the opinion that the analysis of the degree of implementation of the recommendations/measures ordered by various control bodies (CCR, ANAF - DGAMC), and the causes of failure thereof, presented in this report, will lead to a more active involvement of the audited structures officers, together with the internal audit team, in the removal of the difficulties they faced, without exceeding the limits of competence or processing the duties of the management to make decisions to correct the deviations or remove the risks;
- the establishment, together with the audited specialist structures, of reasonable implementation terms of the recommendations and their compliance, is a condition for the development of internal control tools/lever suitable for improving the activity. This will also lead to better management of risks that may arise, allowing all processes to run smoothly at the level of R.A. ROMATSA;
- the identification of the difficulties encountered, will allow the Internal Audit Department to pay more attention to how it formulates recommendations, to ensure their pertinence, their substantiation on concrete bases and their concise expression;
- the priority based presentation, and elimination of redundancy, lack of clarity and interpretability will be followed;
- emphasis on qualitative aspects, i.e. that they are feasible and economical, is another desiderata of the internal audit team;
- the audit team formulated/substantiated its findings in the Report on the information provided by the heads of the audited structures in the period 2013-2018 in the document entitled "Centralised statement of recommendations of the Internal Audit Department following internal audit missions carried out in the period 2013-2018";
- the information gathering and processing activities during the preparatory phase of the mission and the collection and analysis of audit evidence during the on-the-spot intervention phase took the form of analysing information and formulating findings. Discussions were also held with those involved in the implementation of the recommendations, to clarify some issues;
- on the areas for improvement identified through the analysis and interpretation of the audit evidence, the internal audit team has not

produced FIAPs, as the recommendations made are part of an advisory activity, but given the progress made and the elimination of difficulties faced, implementation should be completed;

- the audit mission was carried out in accordance with the applicable legislation on internal audit, the International Standards for the Professional Practice of Internal Auditing, the Internal Audit Standards, Procedures and Charter, specific to the internal audit activity carried out within the Internal Audit Department of the R.A. ROMATSA;
- we would like to point out that all the data in the documents submitted to the audit team by the representatives of the audited structures are their responsibility. The internal audit team responsibility is that of expressing an opinion on the information related to the implementation of the recommendations, resulting from their analysis, the recommendations having the purpose of adding value to audited activities.

Thus, because of the aspects found and stipulated in this document, the internal audit team mentions the following:

- follow-up/monitoring of the implementation of the recommendations is carried out regularly by the responsible structures and the Internal Audit Department.

On certain occasions, the auditees failed to submit the recommendations for implementation within the deadline specified in the report and were asked to extend the deadline.

Therefore,

- the European and international context in which the administration operates is constantly changing, underlying the functional separation of the types of activities and services for which air navigation service providers are responsible, customer needs orientation and, last but not least, the increasing performance,
the fact that during the period considered:
- at the level of the senior management, respectively the Board of Directors, the position of CEO, that of CFO, key factors, within the managerial act of the administration there is a provisional management,
- and at the level of non-executive function specialised structures (coordinated by the department and/or directorate manager, who is also provisionally appointed),
- there are specialized structures without employees,
- specialized structures whose direct superior was appointed for the interim management of other specialized structures within the administration, thus coordinating both specialized structures;
- working groups established by Decisions of the administration's manager, which carry out responsibilities related to the depopulated specialized structures and also other attributions;
- a significant factor: the COVID-19 pandemic

All these were real causes/obstacles that contributed to the partial implementation/ non-implementation of some recommendations, already overdue and which subsequently became obsolete.

Also, as mentioned in contents of this report, some recommendations on the amendment/updating of the Organisational and Functioning Regulation were not implemented due to the fact that a new organisational structure was not approved within the proposed timeframe, which had an impact on implementation of the recommendations.

In the above mentioned context, corroborated with the context generated by the COVID-19 pandemic, the internal audit team found that the management of the administration focused/directed its efforts, mainly:

- in the direction of making staff aware and anchored as a priority in professional and other relationships created within the company, through internal procedures/ instructions/ rules approved by the management, by adhering to values and which can define and/or establish the character of integrity of the employee and/or qualities characterized by honesty, honor, probity, and the creation of a sense of dignity, justice and conscientiousness, which serve as a clause in the conduct of the employee;
- in the procedural approach to the activity in general and in particular, by the management of the administration, towards maintaining a balance in terms of the general attitude of the staff towards their responsible conduct, also demonstrated by the low number of integrity incidents in the organisation as a whole;
- in identifying/accessing sources of funding for the administration's work in the pandemic context;
- in the harmonization/correlation of the national regulatory framework with the European one, regarding revenues and expenses of R.A. ROMATSA;
- development of a number of multiple responsibilities regarding the administration's personnel policy, the management and organisation of employees' professional careers, the existence of a personnel strategy that provides for changes that will occur in its structure in the medium or long term (including how to act in the event of fortuitous issues involving the continuation of work in situations where a specialised structure faces, for various reasons, an acute shortage of staff) and/or measures for participation in professional development programmes, even the reconversion of a specialist's work with a view to his/her employment/promotion to a specific position within the administration in the not too distant future;
- last but not least, towards the development of a specific organizational culture and the policies developed and implemented by the management, (n.b. - the quality, environmental, safety, aeronautical and IT security policy operates within the company, which promotes

commitment to the company, respect for management positions (held by competent people responsible for the coordinated process), and the requirements of their areas of activity. All these aspects allow expression of the creativity of the employed staff, respectively the use of their energies in order to achieve the proposed objectives.

Based on the analysis of the information and documents submitted by the audited structures, the internal audit team ensures the general director of R.A. ROMATSA that the implementation/ monitoring process of the recommendations formulated in the internal audit reports drawn up between 2018 and the first semester of 2021 is taking place within acceptable limits and has led to the improvement of the audited activities, the key condition being to continue and intensify the process of monitoring and implementing these recommendations.

B. Other actions

In 2021, internal audit experts undertook the following actions:

- according to the ROF of the Audit Committee of the Board of Directors of ROMATSA, the internal audit specialists ensured the secretarial activities of the Audit Committee, these activities being permanent, and materialized in at least one meeting per month, this activity being carried out adjacent to the department specific activities;
- permanent monitoring of the stage of implementation by the responsible structures of Court of Accounts recommendations, as a result of the performance audit carried out at the RA ROMATSA, with a role of integrator of the response to the CCR:
 - information on the status of implementation of the recommendations of the audit report following the audit mission "Performance of the specific activity carried out by Regia Autonomă Administratia Română a Serviciilor de Trafic Aerian" - ROMATSA - conducted by the Court of Accounts of Romania in June 2021 - no. 11724/30.06.2021;
 - information on the status of implementation of the recommendations of the audit report following the audit mission "Performance of the specific activity carried out by Regia Autonomă Administratia Română a Serviciilor de Trafic Aerian" - ROMATSA - conducted by the Court of Accounts of Romania in December 2021 - no. 21630/30.06.2021 and information of the Board of Directors;
- participation, as a guest, in the meetings of the Commission for the monitoring, coordination and methodological guidance of the implementation and development of the internal management control system, occasion with which, for each of the topics on the agenda, contributed to the analysis of the issues under discussion and finding optimal solutions, when appropriate;

- specific advice related to the implementation and development activities of the Management Internal Control System;
- specific advice related to the implementation activities of the National Anti-Corruption Strategy 2016 - 2020;
- advice on specific issues, as set out in the following documents;
- support/advice in identifying risks associated to management and support activities/ processes, whenever requested by the Internal Audit Department;
- support/advice in the self-assessment of the state of implementation of internal management control standards;
- in all cases where they have been consulted, Internal Audit has submitted to third parties within R.A. ROMATSA, solutions or information in the application of legal provisions to the administration specific conditions.

Within the legal framework allowed, they carried out informal advice or formalised advice actions, on issues related to the editing of specific procedures, direct management materials, points of view on the rationale of some positions within the Central Administration, representation of the administration before the audit teams of the Court of Accounts or the Prime Minister's Control Body, which led to a more correct understanding on the part of the audited specialised structures of some specific responsibilities but also to their improvement, including through proposed recommendations/ solutions.

EVOLUTION OF PERFORMANCE INDICATORS IN 2021

1) Evolution of performance indicators as required by Regulation (EU) No. 317/2019

In 2021, the evolution of the performance indicators established for ROMATSA by the Romanian Performance Plan for 2020-2024 is as follows:

1.1. Key performance area on safety

For the key performance area of safety, the target values set by the Performance Plan were met and the targets were exceeded with respect to safety risk management; safety assurance; safety promotion and safety culture.

	2021A	2021
	Current	Target
Safety policy and objectives	C	C
Safety risk management	D	C
Safety assurance	D	C
Safety promotion	D	C
Safety culture	D	C

1.2. Key environmental performance area

Within the key environmental domain, the key performance indicator is the average horizontal route flight efficiency corresponding to the actual trajectory.

Romania	Target 2021	Completed
KEA	2.10%	2.22%

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

All of the above continued to keep the distance flown artificially high, even for fewer flights, with visible effects on the KEA indicator. This proves once again that the calculation methodology for the KEA indicator should be revised to eliminate the influence of external factors, outside the control of ROMATSA.

The distance flown is also the result of the preference of air operators to fly through geopolitical safe and stable areas and from the perspective of each company and its planning procedures, even if this means flying longer routes than environmentally optimal.

Conflicts or uncertain contexts in the Middle East (e.g. Syria)/Ukraine may lead airline operators to bypass these areas and, as a result, they already travel longer/atypical distances and routes before entering Romanian airspace. Equally, in the context of COVID-19, Romania has been part of the process of RAD restrictions relaxation at the level of the European ATM network due to reduced air traffic, but there are certain RADs that are still maintained to manage traffic flows that plan flights like this so as to avoid, for example, the Black Sea area.

To reduce environmental impact, Romania continued the implementation of Free Route Airspace. Thus, on 7 November 2019, the SEE FRA H24 operations were extended to the SEE FRA initiative between Romania, Bulgaria and Hungary, joined by Slovakia starting 28 January 2021 and the Republic of Moldova from February 2022, while cross-border operations between Baltic

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

1.3. Key environmental performance on capacity

The following table shows the status of the indicator on the average number of ATFM (Air Traffic Flow Management) delay minutes per route per flight at the level of the administration:

ROMATSA	Target 2021	Completed
Average minutes of en route ATFM delay per flight (air traffic flow management) per route per flight	0.02 min/flight	0 min/flight

ROMATSA had 0 minutes of ATFM delays for both en-route and regulated terminal air navigation services at Bucharest Otopeni and Băneasa airports. The significant traffic decrease in the context of the pandemic allowed for optimized traffic flows during 2021 but, in view of future traffic recovery, ROMATSA continues the process of airspace improvement, by supporting SEEFRA expansion, by eliminating ATS routes over FL105 within CTA Bucharest in the 2021 summer season and by sectorization improvements (planned for Q1 2023). As of 15 October 2021, ROMATSA has joined the pan-European initiative CCAMS - Centralised Code Assignment and Management System, confirming its commitment to the highest safety standards and to improving capacity performance indicators.

CCAMS aims to overcome both the current and the 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 optimises the efficiency of SSR code management at European level by introducing dynamic transponder code allocation, allowing the same code to be used simultaneously in volumes of airspace separated by a given 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 result in a reduction in SSR code

changes, thereby reducing ATC workload and allowing more flights to be handled.

In the context of COVID-19 crisis, capacity as previously planned and published in the Network Operations Plan (NOP) has been adjusted accordingly through NOP Rolling Seasonal capacity plans, based on the expected traffic demand regularly provided by the Network Manager EUROCONTROL. ACC Bucharest has ensured a stable plan to open sectors without decreasing the capacity during this difficult period, with the possibility of increasing the number of sectors if the traffic is increasing.

According to the Performance Plan of Romania for the third reference period (2020-2024), for capacity indicators a financial incentive mechanism is applied for causes dependent on ATC activity ("capacity", "routing", "staffing", "equipment"), airspace management and special events (code C, R, S, T, M and P through the ATFCM manual).

According to Article 3(3)(a) of Regulation (EU) 2020/1627 for the years 2020-2021 these financial incentive schemes do not apply.

1.4. Key performance area regarding cost efficiency

For en-route air navigation services the costs recorded in 2021 raised to 96.6% of those in 2019, in real terms in lei 2017, in line with the target set by European Commission Decision 891/2021. This is the result of cost-cutting measures taken to preserve the financial liquidity of the administration and ensure the continued safe provision of air navigation services in the context of a -44% reduction in billed service units due to the impact of the COVID-19 pandemic. Under regular terms, the staff costs have increased compared to the level determined, due both to the effect of staff dynamics for the recruitment of new air traffic controllers to ensure the replacement of those over 55 years of age, and especially to the increase in pension costs. There is also an increase in depreciation and capital cost, mainly due to the commissioning in 2019 and the final acceptance in 2020 of the new ATM system.

For regulated terminal air navigation services, the costs recorded in 2021, compared to those in 2020 were 1% higher in real terms in 2017 lei. In nominal terms, the total costs were 4% lower than determined, even though there were higher costs for pensions, depreciation and cost of capital. All these were offset by lower other operating costs and non-realisation of staff expenditure in full.

The following tables show the costs of the route activity, i.e. the regulated terminal, recorded in 2021, broken down by type of cost 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)	Difference (%)
Staff	640,759	677,959	37,200	6%
including pensions	47,868	104,432	56,564	118%
Other operating costs	87,218	63,762	-23,456	-27%
Depreciation	40,189	41,047	858	2%
Cost of capital	41,385	43,796	2,411	6%
Exceptional costs	0	0	0	
Total costs	809,552	826,565	17,013	2%

Table 1- Evolution of en-route air navigation services costs in 2021

Cost category	Determined (`000 lei)	Current (`000 lei)	Difference (value) (`000 lei)	Difference (%)
Staff	69,264	68,511	-753	-1%
including pensions	4,425	9,770	5,345	121%
Other operating costs	9,862	7,208	-2,654	-27%
Depreciation	4,565	4,641	76	2%
Cost of capital	4,335	4,443	108	2%
Exceptional costs	0	0	0	
Total costs	88,027	84,803	-3,224	-4%

Table 2- Evolution of air navigation services/regulated terminal costs in 2021.

2) The process of formal consultation of airspace users

In accordance with the provisions of European regulations (Implementation Regulation (EU) 317/2019 of the Commission of February 11, 2019 establishing a performance and pricing system within the single European sky) as well as with national regulations, ROMATSA ensures annual consultation representatives of airspace users. Consultations are organized twice a year, at the level of all EUROCONTROL member states, within the extended Committee for EUROCONTROL route rates. Detailed information on cost and

traffic developments and the application of traffic and cost risk-sharing mechanisms shall be made available to user representatives, EUROCONTROL and the European Commission within the timeframes and in accordance with the reporting tables and additional information set out in the Common Charging Scheme Regulation and EUROCONTROL procedures and documents.

In 2021, the following consultation sessions took place:

- June 23-24, during the 116th session of the Enlarged Committee for EUROCONTROL Route Tariffs, multilateral consultations were held on the initial estimates regarding the cost bases and unit route tariffs for the year 2022 and the reporting of the cost bases for the year 2020;
- November 22-23 - multilateral consultations were held on the final estimates regarding the cost bases and unit route tariffs for the year 2022 during the 117th session of the Enlarged Committee for EUROCONTROL Route Tariffs.

For terminal air navigation services provided at airports subject to European legislation (Commission Implementing Regulation (EU) No 317/2019 of 11 February 2019 laying down a performance and charging scheme for the single European sky), consultation of user representatives is carried out, as a rule, annually for all EU Member States, organised by the European Commission with the support of EUROCONTROL - PRU. For these consultations, detailed cost and traffic information shall be made available to user representatives, EUROCONTROL and the European Commission within the deadlines and in accordance with the reporting tables and additional information set out in the Common Charging Scheme Regulation.

During 2021, the European Commission did not organize multilateral consultations on cost bases and unit tariffs for terminal air navigation services for the year 2021.

In accordance with the European regulations, the European Commission reviews the data and information included in the cost bases for en-route air navigation services.

As part of the Performance Plan review process according to the implementing Regulation (EU) no. 1627/2020 of the Commission of November 3, 2020 on exceptional measures for the third reference period (2020-2024) of the performance and pricing system within the Single European Sky taken in the context of the COVID-19 pandemic, on August 25 - held consultations with airspace users on the project that was to be submitted by Romania. Data on the impact of the COVID-19 pandemic on ROMATSA's activity and the measures taken to ensure the continued safe provision of air navigation services. Also, detailed information was provided on the updated assumptions underlying the revised Performance Plan for the third reference period 2020-2024.

NATIONAL AND INTERNATIONAL COOPERATION

A. Organisational activities

According to the needs in the organizational field that have emerged at the level of the administration, the process of updating the Organizational and Operational Regulations of ROMATSA sub-units has continued. Throughout the year, the secretariat of the negotiation meetings between the Employers and the ATSR Union was provided, an activity involving provision of support for the preparation and management of minutes, concluded after each meeting of the two negotiation commissions.

B. Relations activities

Internal and external cooperation

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

- In 2021, R.A. ROMATSA worked with the specialized directorates of the Ministry of Transport and Infrastructure, namely the Directorate of Air Transport, the Directorate of Communication, Relations with Trade Unions, Employers and Non-Governmental Organizations) with the Romanian Civil Aviation Authority, the Tarom Company, the Ministry of National Defence, the Air Force Staff, the Romanian Airports Association, etc.
- these collaborations have resulted in the development and improvement of relations and efforts aimed mainly at harmonizing and integrating Romania into the specialized European system (EUROCONTROL, European Union, etc.) and ensuring, together with MapN, the coordinated use of Romania's airspace by civil and military aviation.

2. travels abroad for conferences, events, working meetings, etc. in the field of air transport:

Due to the COVID-19 pandemic, these types of events were not organized.

3. objectives achieved or other results in the field

In accordance with MTI media relations regulations and with the approval of the Board of Directors, the management of the

administration has paid particular attention to promoting its image and of Romania both nationally and internationally.

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

At the same time, in line with Implementing Regulation (EU) No. 373/2017 laying down common requirements for providers of air traffic management/air navigation services and other air traffic management network functions and for their oversight, repealing Regulation (EC) No. 482/2008, Implementing Regulations (EU) No. 1034/2011, (EU) No. 1035/2011 and (EU) 2016/1377 and amending Regulation (EU) No. 677/2011, the 20th edition was published in 2021 (both in Romanian and in English) of the ROMATSA Annual Report, the content of which is a gain in the promotion of the image of the administration by being disseminated, through its website, to national and international bodies, airlines, other air traffic service providers, ministries, banks and other operators with which ROMATSA collaborates.

HUMAN RESOURCES POLICY

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

In the spirit of the requirements to accelerate implementation of the Single European Sky objectives in an efficient and effective way and in order to maintain our position as one of the best performing air navigation service providers in terms of safety, efficiency and environmental protection, we use the most advanced systems and technologies and ensure continuous staff motivation and training.

Human resources activities - complex and extensive due to the large number of employees, changes in the relevant national legislation and the specific nature of the activity (which induces additional requirements for personnel in the interest of air navigation safety) were carried out in compliance with the legal provisions and national and international aviation regulations.

Following declaration of the COVID-19 pandemic and the state of alert, it was necessary to continue organization of ROMATSA staff activity by taking the following measures:

- activity-based flexible working hours, to ensure continuity of the company's activity; planning of the teleworking activity within each structure within the administration in alternative groups, ensuring the presence on the premises of the unit of at least one PAD employee for each department/ service;
- conclusion of teleworking addenda to the Individual Employment Contract;

- suspension of attending external courses except trainings held on remote access platforms;
- cancellation of travels abroad;
- cancellation of the organisation of external competitions to fill vacancies, which will be resumed at a later date.

In 2021, 79 employees terminated their individual employment contracts due to retirement, disability or death.

ROMATSA staff structure on 31 December 2021 is as follows:

- 44.58% CTA (air traffic controllers)
- 5.33% CITA (air traffic information controllers)
- 20.45% PNA (air navigation protection personnel)
- 8.02% MET (aviation meteorological staff)
- 21.62% PAD (administration staff).

Professional training of the employees is a priority, materialised through the planning, coordination and implementation of a complex training programme - the Professional Training Plan. Although the priority is the professional training of the operational staff (CTA, CITA, PNA, MET), while ensuring the rhythm of training of the support staff, in accordance with the provisions of Law no. 53/2003, republished - Labour Code, in 2021 only online trainings or those complying with the conditions imposed by the COVID-19 pandemic have been organized.

All the necessary actions have been planned and monitored in terms of revalidation of the medical fitness of ROMATSA non-navigational aeronautical staff (air traffic control, technical and meteorological protection of air navigation and aeronautical telecommunications), and the annual medical health checks for the other employees, as provided by law, under the conditions imposed by the pandemic.

Necessary actions were planned and monitored in terms of examination/evaluation by the Romanian Civil Aviation Authority in order to obtain/revalidate the licences, qualifications and associated authorisations, under the conditions imposed by the pandemic.

The principle of equal opportunities and fair treatment of all employees has been applied to all employees, prohibiting any form of direct or indirect discrimination based on gender, sexual orientation, genetic traits, age, nationality, race, ethnicity, religion, political choice, social origin, disability, status or material accountability, trade union membership or activity.

All employees have been treated equally in terms of rights and opportunities throughout the employment relationship.

FINANCIAL STATEMENTS

FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2021

Independent Auditor's Report

Qualified Opinion

1. We have audited the financial statements of the ROMANIAN ADMINISTRATION OF AIR TRAFFIC SERVICES – RA 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, 2021 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, 2021 are identified as follows:
 - Net assets/Total equity: 422,392,171 lei
 - Net result for the financial year - profit: 50,302,057 lei
3. In our opinion, except for the effects of the matter described in paragraph 4, in the „Basis for Qualified Opinion” section of our report, the accompanying financial statements present fairly, in all material respects, the financial position of the Company as at December 31, 2021, 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.

Basis for Qualified Opinion

4. As presented in Note 10, at December 31, 2021, the Company recorded revenues from services provided in the amount of RON 335,343,607 and receivables from customers in the amount of RON 735,907,997, representing accounting estimates resulting from the application of the risk sharing mechanisms for 2020 and 2021 for the route and terminal activity, within the regulatory cycle covering the period 2020-2024, according to the Implementation Regulations (EU) 2019/31 and 2020/1627 of the European Commission. These regulations relate to exceptional measures for the third reference period (2020-2024) of the Single European Sky performance and pricing applied in the context of the COVID-19 pandemic. These values represent adjustments for the non-fulfillment of the service units forecasted in the

reference period and are determined based on the global costs recorded, according to the criteria established by the applicable European regulations. The recording of the asset represented by receivables from customers based on the above does not meet the recognition criteria provided by the International Financial Reporting Standards adopted by the European Union, as revised, approved by Ministry of Public Finance Order no. 2844/2016. Consequently, the revenues from the services provided for the financial year 2021 are overstated by RON 335,343,607, the receivables from customers are overstated by RON 735,907,997, and retained earnings the year 2021 is overstated by RON 400,564,390.

5. 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 relevant 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 sufficient and appropriate to provide a basis for our qualified opinion.

Key Audit Matters

6. Key audit 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.

In addition to the matter described in paragraph 4 of the Basis for Qualified Opinion, we considered the following as key audit matters:

KEY AUDIT MATTERS

HOW OUR AUDIT addressed the key audit matter

Provisions for pensions and similar

Our procedures regarding the level of

KEY AUDIT MATTERS

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 amounted to RON 509.619.551 and RON 517.679.545 at December 31, 2020, respectively.

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

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).

HOW OUR AUDIT addressed the key audit matter

provisions for pensions and benefits include:

- review of the judgments and assumption 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 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;

KEY AUDIT MATTERS

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

The revenues as such obtained are settled by settlement cycles and, periodically, at the end of each cycle, their amount is settled, i.e., the surcharges/undercharges are recovered. At the time of our audit opinion, the current settlement cycle covers the period 2020-2024, for which there is no performance plan in force approved by the European Commission, but which will be submitted for approval.

The Company has reviewed the settlements of revenues obtained 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.

HOW OUR AUDIT addressed the key audit matter

- 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, 2021 (including confirmation procedures for transactions with EUROCONTROL);
- review of the adequacy of disclosures 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.

Other matter

7. The financial statements of Company for the financial year ended December 31, 2020 were audited by another independent auditor who expressed a qualified opinion regarding the overstatement of revenues from services provided and of receivables from customers by

400,564,390 RON, due to non-fulfillment of the revenue recognition criteria provided by the International Financial Reporting Standards, approved by the Order of the Minister of Public Finance no. 2844/2016.

Other information – Administrators' Report and Non-Financial Statement

8. 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.
9. 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.
10. 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.
11. In connection with our audit of the financial statements for the year ended December 31, 2021, 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.
12. 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 requirements 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 inconsistent, 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, 2021, we are required to report if we have identified a material misstatement of the Administrators' report. Except for the effects of the matter described in the „Basis for qualified Opinion” section of our report, we have nothing to report in this regard.

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

13. 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.
14. 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.
15. Those charged with governance are responsible for overseeing the Company's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

16. 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.
17. 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 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.

18. 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.

19. 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.

20. 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 where, 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

21. 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, 2021. 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 Regulation no. 537/2014..

TGS Romania Assurance and Advisory Business Services SRL

Registered in the ASPAAS Public Electronic Register with no. FA91

STATEMENT OF FINANCIAL POSITION FOR THE YEAR THAT ENDED ON DECEMBER 31, 2021

(all amounts are expressed in RON, unless specified otherwise)

ASSETS	31 December 2021	31 December 2020
Non-current assets		
Property, plant and equipment	312,563,243	315,132,464
Intangible assets	70,073,779	80,005,656
Right-of-use assets	22,516,510	23,783,610
Investments in associates	-	-
Other investments	109,091,901	1,292,023
Deferred tax receivables	=	=
Total non-current assets	<u>514,245,433</u>	<u>420,213,753</u>
Current assets		
Other investments (short-term government bonds)	-	146,082,000
Inventories	12,113,681	12,114,439
Clients and similar accounts (Trade receivables)	875,719,853	546,354,605
Prepaid expenses	18,680,094	18,022,842
Other current assets	16,812,979	17,992,282
Income tax receivable	-	-
Cash and cash equivalents	<u>15,812,812</u>	<u>23,123,848</u>
Total current assets	<u>939,139,419</u>	<u>763,690,016</u>
Total assets	<u>1,453,384,852</u>	<u>1,183,903,769</u>
EQUITY AND LIABILITIES		
Equity		
Patrimony	376,954,042	376,954,042
Legal reserves	37,148,815	34,633,712
Retained earnings and other reserves	<u>8,289,314</u>	<u>(42,878,599)</u>

ASSETS	31 December 2021	31 December 2020
Total equity	<u>422.392.171</u>	<u>368.709.155</u>
Non-current liabilities		
Deffered revenues	10,708,651	10,205,844
Employee benefit liabilities	467,677,150	461,867,077
Other non-current liabilities	<u>340,113,432</u>	<u>154,725,068</u>
Total non-current liabilities	<u>818,499,233</u>	<u>626,797,989</u>
Current liabilities		
Trade payables	39,479,966	37,413,506
Current income tax payables	-	-
Employee benefit current liabilities	106,222,315	94,136,980
Provisions	56,758,768	45,395,310
Other current payables	<u>10,032,399</u>	<u>11,450,829</u>
Total current liabilities	<u>212,493,448</u>	<u>188,396,625</u>
Total liabilities	<u>1,030,992,581</u>	<u>815,194,614</u>
Total equity and liabilities	<u>1,453,384,852</u>	<u>1,183,903,769</u>

**STATEMENT REGARDING THE OVERALL OUTCOME
FOR THE YEAR THAT ENDED DECEMBER 31, 2021**

(all amounts are expressed in RON, unless specified otherwise)

Nr. crt.	2021	2020
Turnover	995,854,688	879,104,097
Other operating income	6,953,425	4,469,924
Salaries and other employees' benefits	(728,838,986)	(682,202,224)
Impairment and amortization/depreciation	(51,633,828)	(50,522,921)
Contribution to EUROCONTROL	(39,032,420)	(34,251,746)
Contribution to defined contribution plans	(32,681,625)	(18,782,047)
Other third party services	(25,432,800)	(26,847,156)
Other operating expenses	<u>(72,654,205)</u>	<u>(102,107,343)</u>
Operating result	<u>52,534,249</u>	<u>(31,139,416)</u>
Net financial income	<u>(2,232,192)</u>	<u>8,877,660</u>
Profit/(Loss) before income tax	<u>50,302,057</u>	<u>(22,261,756)</u>
Income tax expense	=	=
Profit/(Loss) for the period attributable to the Company's Owner	<u>50,302,057</u>	<u>(22,261,756)</u>
Other elements of the overall outcome		
Elements which will never be reclassified to profit or loss		
Actuarial gains/(losses) on determined benefit plans, next of taxes	3,380,959	(51,307,196)
Other changes	=	=
Effect of tax on other overall outcome	=	=
Other elements of the overall outcome net of taxes	<u>3,380,959</u>	<u>(51,307,196)</u>
Total overall outcome	<u>53,683,016</u>	<u>(73,568,952)</u>

**STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY FOR THE YEAR THAT ENDED
ON DECEMBER 31, 2021**

(all amounts are expressed in RON, unless specified otherwise)

	Patrimony	Legal reserves	Retained earnings	Total
Balance on January 1, 2021	376,954,042	34,633,712	(42,878,599)	368,709,155
Overall outcome for the year:				
Profit/(Loss) for the year	-	-	50,302,057	50,302,057
Other changes	-	-	-	-
Other elements of the overall outcome, of which:				
Recognition of actuarial gains/(losses), net of taxes	-	-	3,380,959	3,380,959
Increase of legal reserve	=	<u>2,515,103</u>	<u>(2,515,103)</u>	=
Total overall outcome for the year	-	2,515,103	51,167,913	53,683,016
Total contributions from and to the Romanian State:				
Distribution of profit to the Romanian State	=	=	=	=
Total transactions with the Romanian State	=	=	=	=
Balance on December 31, 2021	<u>376,954,042</u>	<u>37,148,815</u>	<u>8,289,314</u>	<u>422,392,171</u>

**STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY FOR THE YEAR THAT ENDED
ON DECEMBER 31, 2020**

(all amounts are expressed in RON, unless specified otherwise)

	Patrimony	Legal reserves	Retained earnings	Total
Balance on January 1, 2020	376,954,042	34,633,712	30,690,353	442,278,107
Overall outcome for the year:				
Profit/(Loss) for the year	-	-	(22,261,756)	(22,261,756)
Other changes	-	-	-	-
Other elements of the overall outcome, of which:				
Recognition of actuarial gains/(losses), net of taxes	-	-	(51,307,196)	(51,307,196)
Increase of legal reserve	=	=	=	=
Total overall outcome for the year	-	-	(73,568,952)	(73,568,952)
Total contributions from and to the Romanian State:				
Distribution of profit to the Romanian State	=	=	=	=

Total transactions with the Romanian State	=	=	=	=
Balance on December 31, 2020	<u>376,954,042</u>	<u>34,633,712</u>	<u>(42,878,599)</u>	<u>368,709,155</u>

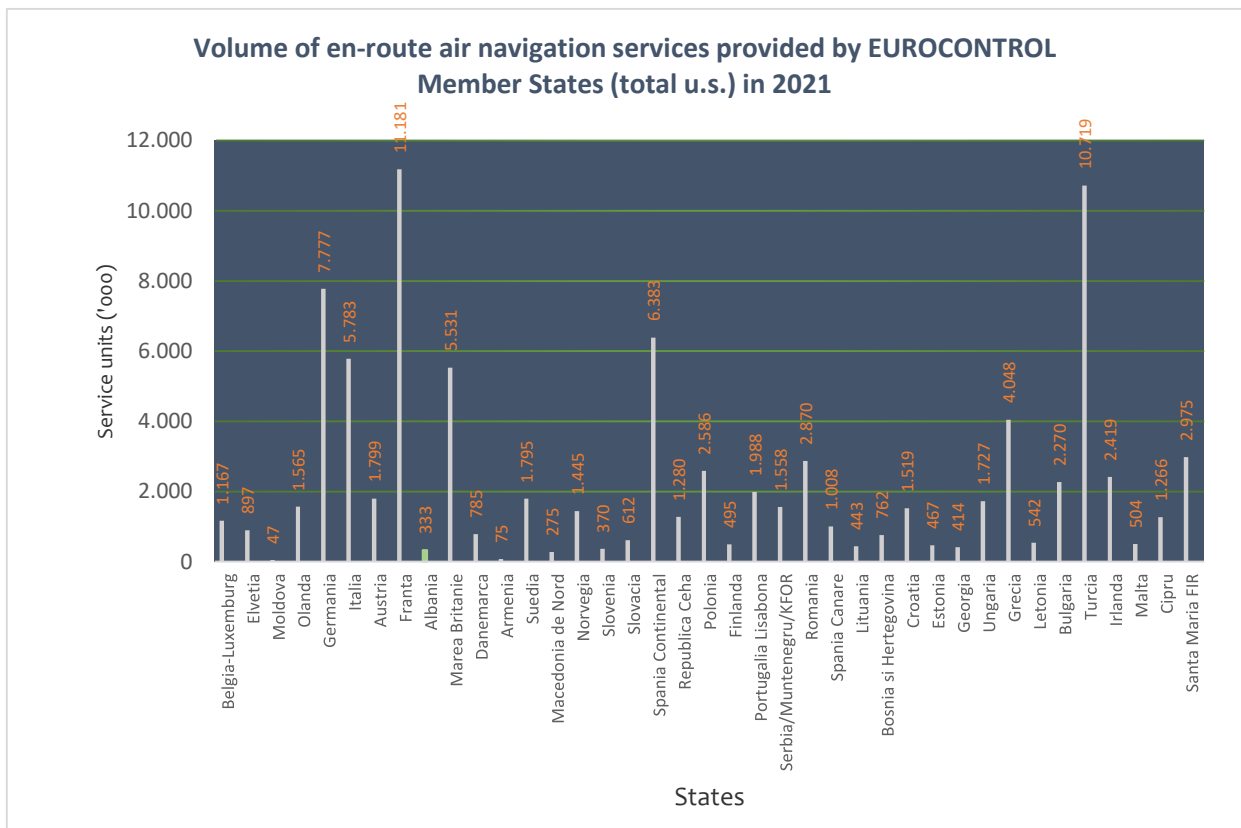
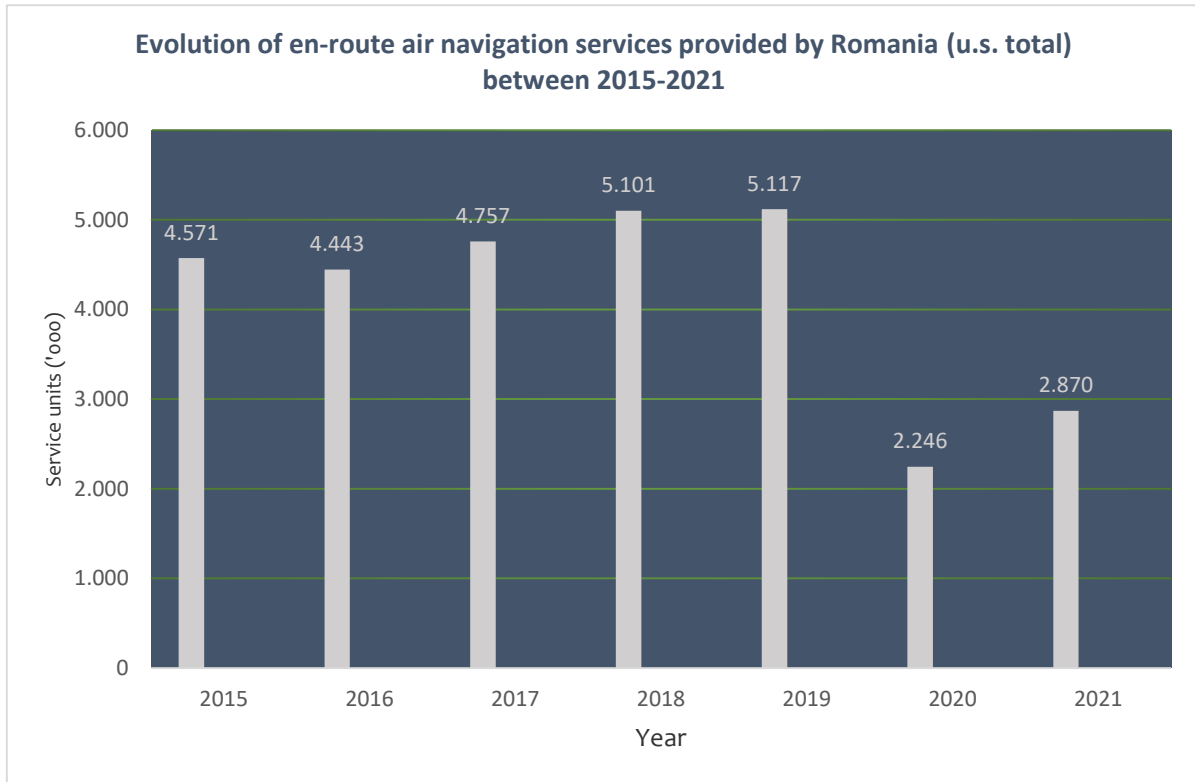
**STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY
FOR THE YEAR ENDED ON DECEMBER 31, 2021**

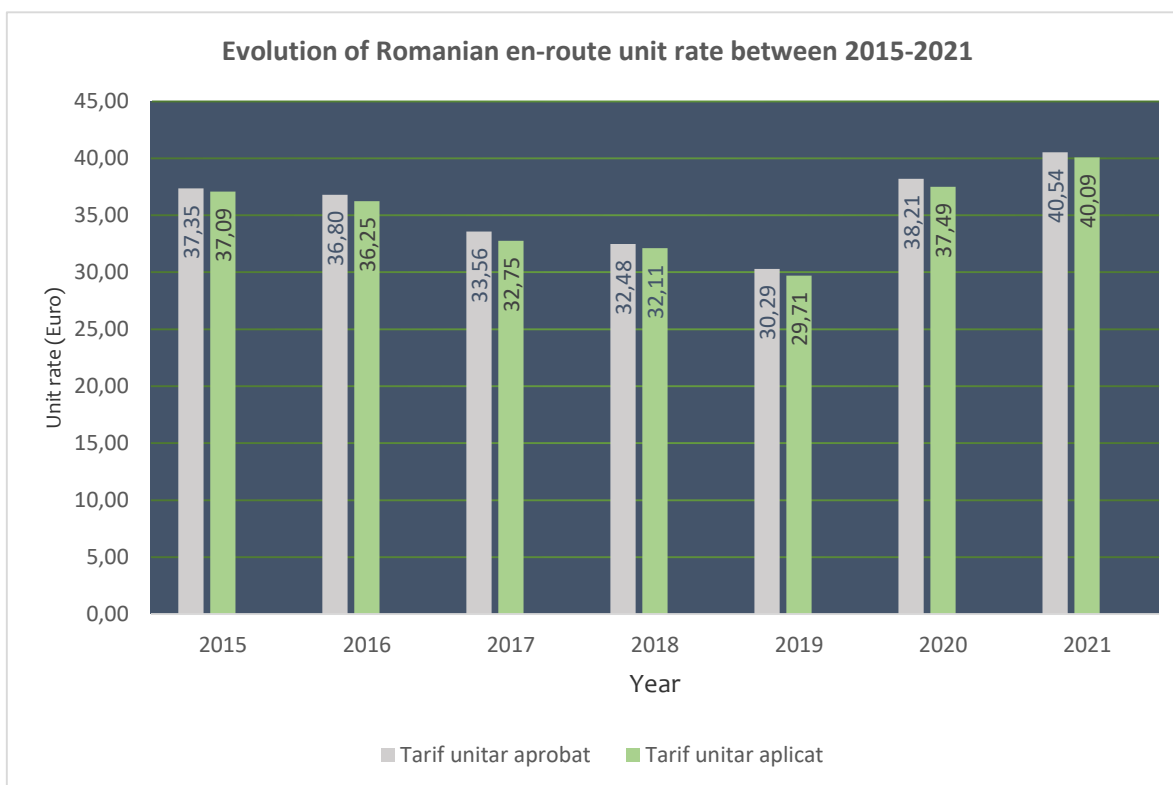
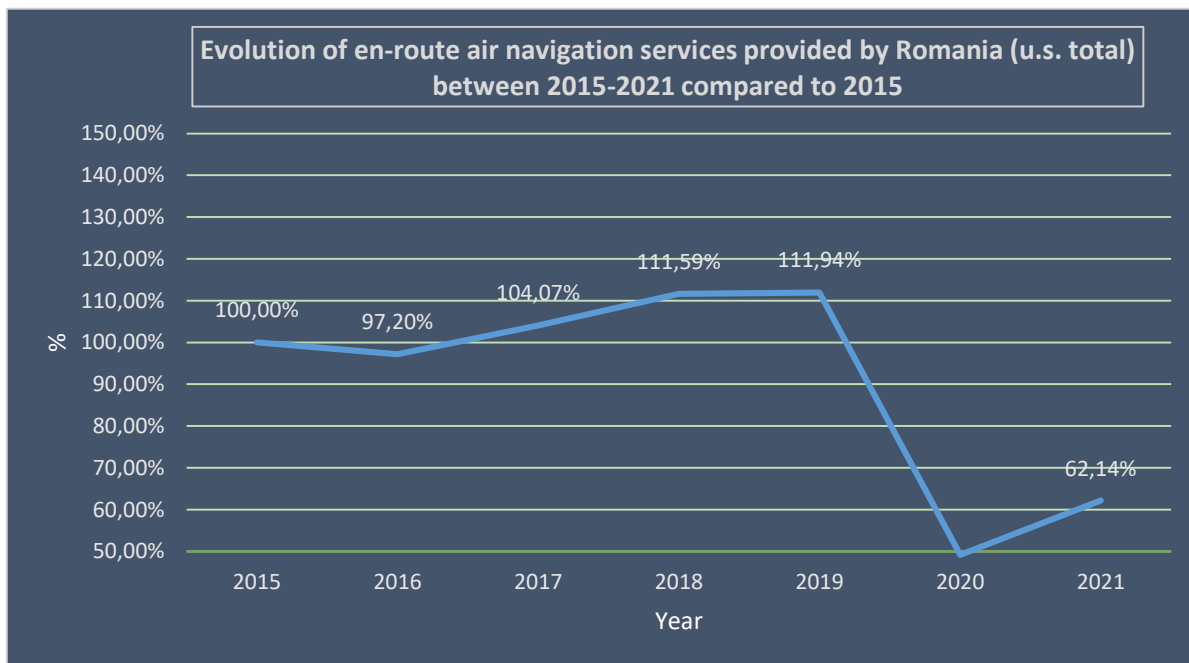
(all amounts are expressed in RON, unless specified otherwise)

	2021	2020
Cash flows from operations:		
Profit/(Loss) for the year before taxes	<u>50,302,057</u>	<u>(22,261,756)</u>
Adjustments for non-monetary elements		
Operating expenses with impairment and depreciation	48,662,084	47,547,565
Amortization of leased right-of-use assets	2,971,745	2,875,356
Net (gains)/losses on sale of tangible assets	372,405	266,434
Impairment/(reversal of provision) of receivables and similar accounts, net	(13,401,239)	10,370,418
Interest income	(926,469)	(4,236,847)
Interest expenses	6,126,265	1,201,266
Provisions	6,684,423	12,681,923
Income from subsidies	<u>(3,713,488)</u>	<u>(2,403,461)</u>
Cash flows before changes to working capital	<u>97,069,654</u>	<u>46,140,897</u>
Changes to inventories	758	(1,105,163)
Changes to receivables and similar accounts	(291,322,970)	(424,697,157)
Changes to prepaid expenses	(657,252)	(3,891,751)
Changes to other current assets	-	-
Changes to trade payables	(1,372,900)	10,169,615
Changes to deferred income	502,807	(12,143,673)
Changes to working capital	<u>(195,779,903)</u>	<u>(385,527,232)</u>
Income tax paid	-	-
Interest paid	(6,126,265)	(1,201,266)
Net cash flows used in/(generated by) opating activities	<u>(201,906,169)</u>	<u>(386,728,497)</u>
Cash flows used in investing activities		
Purchase of non-current assets	(29,547,758)	(59,291,172)
Proceeds from sale of non-current assets	720	166,350
Loans (granted)/repaid and financial assets	38,282,122	(3,773,805)
(Purchases of)/Proceeds from bonds and treasury bills,	-	-

	2021	2020
Cash flows from operations:		
deposits maturing in more than 3 months		
Interest received	<u>2,201,930</u>	<u>4,251,995</u>
Net cash flows used in/(generated by) operating activities	<u>10,937,014</u>	<u>(58,646,632)</u>
Cash flows used in investing activities:		
Lease payments	<u>(3,288,081)</u>	<u>(2,975,062)</u>
Loans received	<u>186,946,200</u>	<u>132,100,000</u>
Net cash flows used in financing activities	<u>183,638,119</u>	<u>129,124,938</u>
Net (decrease)/increase of cash and cash equivalents	<u>(7,311,036)</u>	<u>(316,250,192)</u>
Cash and cash equivalents as at January 1	<u>23,123,848</u>	<u>339,374,040</u>
Cash and cash equivalents as at December 31	<u>15,812,812</u>	<u>23,123,848</u>

GRAFICE





*începând cu anul 2008 tariful unitar de rută este stabilit în moneda națională. Tarifele unitare efectiv aplicate în perioada 2015-2021 au fost ajustate lunar în funcție de variația cursului REUTERS leu/euro mediu lunar de închidere al lunii precedente față de cursul de referință folosit la calculul tarifului unitar aprobat.

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	Secondary Surveillance Radar Radar de Supraveghere Secundar
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