



# ANNUAL REPORT 2020



# Croatia Control Ltd. Annual Report 2020







A-SMGCS in Zagreb Airport



# CONTENTS

Message from the Director General .....	4
Company Profile .....	6
History .....	6
Mission .....	7
Vision .....	7
Organizational Values .....	7
Core Business .....	8
Organizational Structure .....	9
International Cooperation .....	10
Corporate Governance .....	17
Operations and Infrastructure .....	18
Operational Units .....	18
Traffic Flow .....	19
Operational Improvements .....	20
Civil-Military Coordination .....	21
Environment .....	22
Technical Infrastructure .....	23
Safety and Management Systems .....	26
Safety Management .....	26
Quality Management .....	28
Environment Management System .....	30
Security Management .....	31
Enterprise Risk Management .....	31
Additional Services .....	34
Aeronautical Meteorology (MET) .....	34
AIM/AIS .....	35
Performance .....	36
Traffic .....	36
Controlled Operations and ATFM Delays .....	37
Service Units and Unit Rate .....	38
Financial Situation in 2020 .....	39
Cost Effectiveness .....	42
Human Resources .....	46
Employees .....	46
Employment and Recruiting .....	47
Training .....	47
Protecting the Health of Employees During the COVID 19 Pandemic .....	49
Outlook and Priorities for 2021 .....	50
Financial Statements and Auditor's Report .....	52
Independent Auditor's Report .....	54
Abbreviations .....	66

# MESSAGE FROM THE DIRECTOR GENERAL



The COVID-19 pandemic dominated the year 2020, causing unprecedented global economic disruptions as well as major disturbances to private lives. The result of repeated waves of COVID-19 infections and consequential restrictions on the movement of people is that air transport has been the hardest-hit global industry since the beginning of the pandemic.

## COVID-19

The air traffic data for 2020 were on the level of those recorded in mid-2000s - more than 300 thousand flights, which is a drop of almost 58% when compared to 2019. The situation was the most dramatic during lockdown in April, when flight numbers were down by 92.5% in comparison to April 2019, with only 94 airplanes managed in Croatian airspace on April 19. In the case of Croatia Control (CCL), the decline in traffic led to 26.4% drop in business revenues in 2020 compared to 2019, resulting in net loss for the year of HRK 46.6 million (approx. 6.2 million EUR).

At the same time, CCL continued to provide full 24/7 air traffic control and other services. This was an important aspect of the overall national effort during the COVID-19 pandemic aimed at ensuring that our vital supply chains for medical supplies and other important goods remain open as well as at providing the repatriation flights.

CCL Crisis Management Team declared COVID-19 crisis on March 13, 2020, and it introduced numerous measures to prevent fast spread of this infectious disease in the Company and to ensure the continuity of operations throughout the pandemic.

Our Company also played a significant role in the activities that followed devastating earthquakes which hit Zagreb in March and Sisak-Moslavina County in December 2020. During that unfortunate period, AMC Portal and its mobile application did a great job in controlling the airspace and enabling all airspace users to provide their services, once again proving that it is a valuable airspace management tool specially designed for drones.

## IN-HOUSE ATCO TRAINING

To ensure the adequate response to traffic demand in the post-COVID-19 period and beyond, CCL has established in-house Training Organization (TO) aimed at optimizing ATCO training as well as providing the appropriate number of ATCOs available once the aviation industry recovers. Until June 2020, CCL's ATCO candidates had been

trained all over Europe, but now with the new TO, CCL can do the job entirely relying on its own forces, which is a prerequisite for highly customized, controlled and beneficial ATCO training process. Moreover, in the future CCL will be able to provide ATCO training for the candidates from other countries.

After receiving the privilege for the provision of basic training in June, followed by the privilege for the provision of ACS Rating Training Course in September, CCL TO was certified for the provision of ATCO Initial Training. In February 2021 CCL TO was certified for Aerodrome Control Instrument Rating for Tower, with nine candidates starting their training in March 2021. Another novelty is tower simulator in Split. We are proud that both the software and training exercises were developed by CCL employees.

This was the result of intense activities carried out by the TO experts as well as other CCL employees who made their contributions to the realization of this strategic goal of the Company. The COVID-19 crisis was an opportunity seized by CCL to re-channel the efforts made by the ATCOs in their usual operational tasks into development of the training system.

## CONTINUATION OF STRATEGIC INVESTMENTS

In order to ensure sustainable future of the Company, we proceeded with strategic investments, while at the same time some of the lower-priority investments were put off for better times. The investments made in this reporting period relate to state-of-the-art technology aimed at increasing the air traffic safety and efficiency as well as providing high-quality service to airspace users.

COOPANS ATM system, as the leading example of industry partnership in Europe, was further upgraded in cooperation with our COOPANS Alliance partners. Among the infrastructural projects in 2020, the most important are Konavle Radar Station that will contribute to the improvement of coverage of Dubrovnik TMA and the whole 'South' en route sector of Zagreb FIR, as well as the reconstruction of Osijek Regional ATC Unit and ATC Tower. Both projects were implemented in 2020 and will provide the conditions for ensuring the adequate capacities.

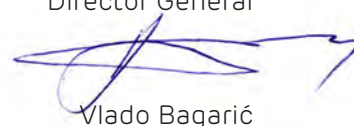
We carried on with the efforts related to environmental protection by introducing new airspace organization as well as with the implementation of Performance Based Navigation (PBN) airspace concept. However, due to the crisis, the benefits stemming from the mentioned activities are yet to be seen in the years to follow.

## EMPLOYEES - THE MOST VALUABLE ASSET

The unpredictable year 2020, as well as the crisis it has brought upon us, once again demonstrated that our employees are one of the most valuable assets of our Company, since their expert knowledge and skills had a crucial role in crisis by ensuring the continuity of business operations, thus adding to the results achieved by the Company.

This has been an extremely challenging period for our employees, therefore I would like to express my deepest gratitude to all of them for their dedication in this longest and most severe crisis in the history of aviation, the impact of which will be felt in the foreseeable future.

Director General



Vlado Bagarić



# COMPANY PROFILE

Croatia Control Ltd. (CCL) provides safe, efficient and ecologically acceptable air navigation services to civilian and military users of the Croatian airspace as well of the airspace for which the provision of air traffic services had been delegated to CCL.

CCL ensures the highest level of air traffic safety and develops and implements cutting-edge technology aimed at enhancing air traffic efficiency.

CCL is a legal entity of special interest, fully owned by the Republic of Croatia.



CCL's Headquarters

## HISTORY

- 1992** | Air Traffic Services Authority of Croatia was founded within the Ministry of Maritime Affairs, Transport and Communications
- 1998** | Act on Establishment of Croatia Control Ltd. was promulgated
- 1999** | Formal registration of Croatia Control as a limited liability company
- 2005** | Commissioning of new Zagreb ACC with new ATM system
- 2009** | Certificate for the provision of four types of services pursuant to Single European Sky legal framework
- 2011** | Republic of Croatia became FAB CE member, CCL became a full COOPANS member
- 2014** | CCL put into operation the new COOPANS ATM system and became a full member of CANSO
- 2016** | CCL introduced a 24-hour free route airspace on South-East Axis (SEAFRA)
- 2019** | New internal organization of CCL, and a record traffic of 714,000 flights
- 2020** | CCL becomes certified for the provision of two functions as well as for ATCO Basic Training and Area Control Rating Training

## MISSION

Our mission is to provide safe and quality air navigation services to the complete satisfaction of our users and owner. We will achieve our mission by cooperating with our partners in the European air traffic management network and fostering highly qualified employees and a motivating environment.

## VISION

We strive to be among the leading air navigation service providers in Central Europe. We will achieve our vision through a flexible organization, adapting to the needs of our users.

## ORGANIZATIONAL VALUES

GUARANTEE OF SAFE AND QUALITY SERVICES  
PERSONAL RESPONSIBILITY  
COMPETENCE  
EXCELLENCE  
LEADERSHIP  
RATIONAL DECISION MAKING  
MOTIVATION  
TEAM WORK  
OPEN COMMUNICATION  
MUTUAL RESPECT  
TRUST  
EMPATHY  
SOCIAL RESPONSIBILITY

## KEY SUCCESS INDICATORS

278



ATCOs holding licenses

20



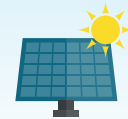
New ATCO candidates

64



Average no. of training hours per employee

100%



Energy from renewable sources

12.3 MIL



Investments

300,241



IFR GAT operations

743



Employees

## CORE BUSINESS

Pursuant to Single European Sky legal framework, CCL is certified air navigation service provider for four types of services and two functions:



1. **Operational air traffic services (ATS)** comprising: flight information service, alerting service, air traffic advisory service and air traffic control service.
2. **Communication, navigation and surveillance services (CNS)** comprising:
  - ➔ communication services enabling ground-ground and air-ground communication for ATC purposes
  - ➔ navigation services enabling forwarding the information on position and timing to aircraft
  - ➔ surveillance services enabling the determination of the position of an aircraft for the purpose of maintaining safe aircraft separation
3. **Aeronautical meteorological services (MET)** implying information on current and expected meteorological conditions, as well as provision of other meteorological information of importance for safe, regular and seamless flights
4. **Aeronautical information services (AIS)** the objective of which is to ensure the flow of aeronautical data and information necessary for the safety, regularity, and efficiency of international air navigation.

On January 2, 2020 CCL became certified provider of the following two functions:

1. **Airspace management (ASM)** function, the objective of which is to achieve its maximum efficiency by taking into account the needs of civil and military users to reduce aircraft delays and distance traveled and consequentially fuel costs and greenhouse gas emissions.
2. **Air traffic flow management (ATFM)** function, the objective of which is safe, orderly and efficient flow of air traffic.



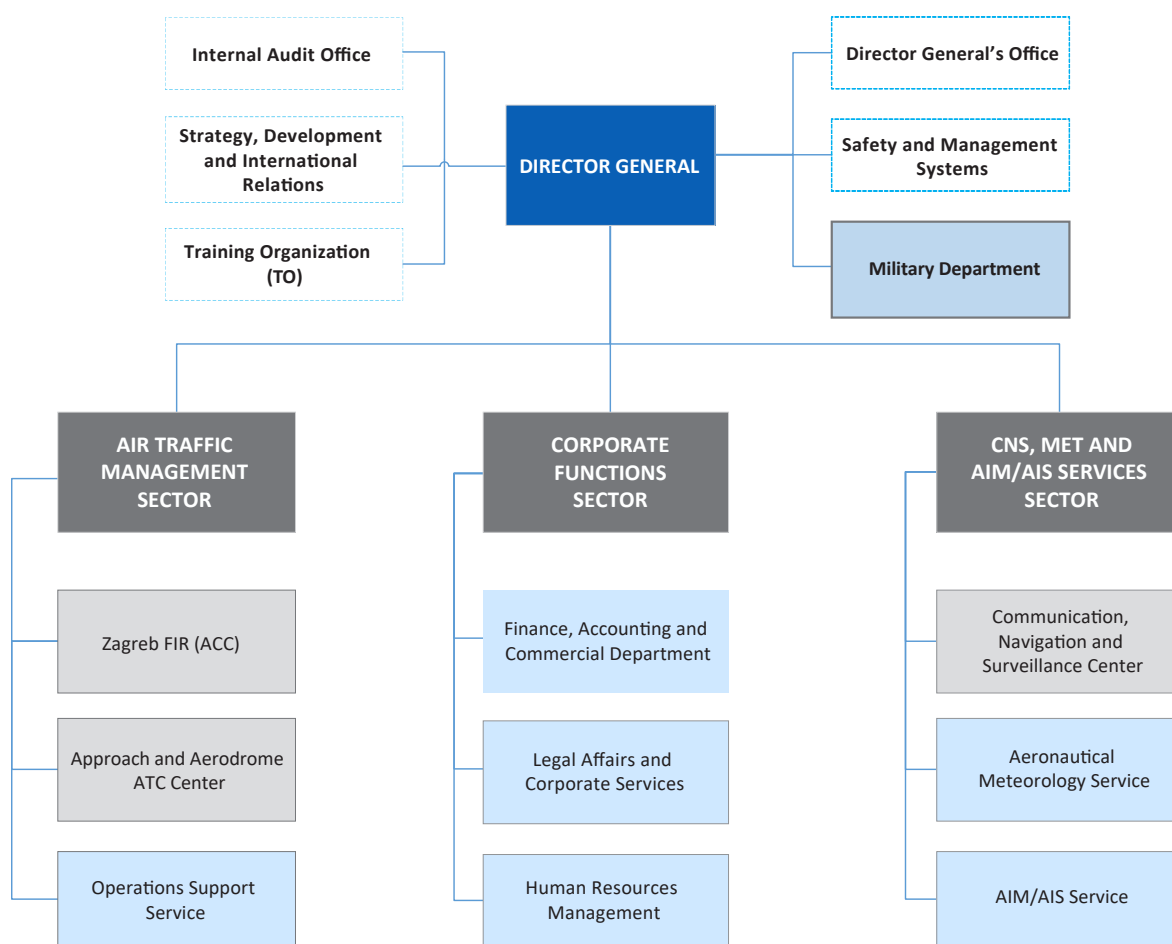
## ORGANIZATIONAL STRUCTURE

Registered office of the Company is in Velika Gorica, with five regional ATC units responsible for the provision of approach and aerodrome air traffic control services, CNS, MET and financial and legal services.

The largest organizational units are three Sectors divided in accordance with services they perform and managed by Executive Directors.

Director General's Office consists of independent offices managed by heads of office, as well as the Military Department managed by Executive Director.

Executive Directors are appointed by Director General for the period of three years which may be extended.



## ATM SECTOR

ATM sector is the main operational sector providing air traffic services, especially air traffic control service, alerting service, flight information service, pre-flight information service for the purpose of safe, regular and seamless air traffic.



**Nenad Galić** was ATM Executive Director from October 1, 2019 - July 6, 2020.



**Dubravko Meco** was appointed ATM Executive Director on July 7, 2020.

## CNS, MET AND AIM/AIS SECTOR

This Sector is responsible for the provision of CNS, MET, AIM/AIS. It is also responsible for development and modernization of technical systems aimed at ensuring air traffic safety, as well as for design, construction, inspection and maintenance of facilities and technical infrastructure.



**Alen Sajko** was appointed Executive Director of CNS, MET, AIM/AIS Services Sector on October 1, 2019.

## CORPORATE FUNCTIONS SECTOR

This Sector performs centralized functions of managing financial, legal and corporate services. It also has the central role in human resources management.



**Nino Karamatić** was appointed Executive Director of Corporate Functions Sector on October 1, 2019.

## MILITARY DEPARTMENT

The Military Department consists of: Military Operations Department, Airspace Management Cell (AMC) and Airspace Management Department (ASM).



**Nedeljko Zmajić** was appointed Executive Director of Military Department on October 1, 2019. He is also responsible for the coordination of the provision of service to military aircraft with the Ministry of Defense.

## INTERNATIONAL COOPERATION

We participate in the development of European airspace through the cooperation in multiple organizations and associations.

### EUROCONTROL

Eurocontrol is the European Organization for the Safety of Air Navigation, working to harmonize and develop air navigation services in the member states. It performs tasks within the SES legislative framework and provides technical support to the European Commission in the field of regulatory measures. It also acts as the network manager for the air traffic management network functions and collects the charges paid by airlines for using the air navigation services.

### FAB CE

The Functional Airspace Block Central Europe is a joint initiative of Croatia, Austria, Bosnia and Herzegovina, Hungary, the Czech Republic, Slovakia and their air navigation service providers.

The establishment of FABs is an obligation arising from an interstate agreement under the Single European Sky regulation.

The aim of this regional association is to increase air traffic safety, reduce delays and costs for airspace users and protect the environment.

## Countries & ANSPs



## Total number of flights: 982.331 (-59,0%) 2020

### Arrivals

141.530  
(-62,1%)

### Departures

141.370  
(-62,1%)

### Overflights

654.204  
(-58,4%)

### Internal flights

45.227  
(-38,8%)



## Flights share by market segment

Traditional Scheduled  
46%

Lowcost  
18%

Business Aviation  
15%

Charter  
6%

All Cargo  
9%

Others  
6%

## Top 10 airports Average daily movements



Wien  
Schwechat  
295  
(-61.7%)

Václav Havel  
Prague  
137  
(-66.8%)

Ferenc Liszt  
Budapest  
131  
(-61.0%)

Franjo Tuđman  
Zagreb  
58  
(-52.1%)

Salzburg  
40  
(-44.7%)

Split  
Kastela  
32  
(-59.2%)

Innsbruck  
29  
(-46.7%)

Ljubljana  
Brnik  
27  
(-64.2%)

Bratislava  
Ivanka  
25  
(-60.0%)

Dubrovnik  
Cilipi  
20  
(-70.1%)

## Traffic Forecast Base Scenario



2021  
974.581



2022  
1.563.055



2023  
1.865.871



2024  
2.144.995



## COOPANS

COOPANS is an international partnership of ANSPs from Austria (Austro Control), Croatia (Croatia Control), Denmark (Naviar), Ireland (Irish Aviation Authority), Sweden (LFV) and Portugal (NAV Portugal).

With Thales as the chosen supplier, COOPANS members implemented the same software in seven ACC centers (Zagreb, Vienna, Copenhagen, Stockholm, Malmö, Dublin and Shannon) and the implementation in Lisbon is under way.

The cooperation was extended in 2015 when COOPANS became an alliance which, in addition to technical and operational cooperation, includes a joint approach and participation in SESAR 2020, SESAR DM and the A6 Alliance in which it cooperates with the largest ANSPs in Europe.

COOPANS Alliance is implementing its forward-looking, modern strategy based on four cornerstones: capacity, resilience, cost effectiveness and market.

Looking into the new decade and striving for the bigger role in the European environment, including exploiting the arising market opportunities, the main future goals are the new cutting-edge technology ATM system and the new COOPANS organization. These goals are expected to bring further synergies among COOPANS partners, with emphasis put on joint development, infrastructure and the operation of the future harmonized assets.

Despite COVID-19 crisis, COOPANS is planning ATM modernization, since from the perspective of future ATSP customers the key requirements to be implemented are automation aimed at reduction of workload per flight, lower costs for the end users, scalable capacity on demand, resilience to contribute to availability and, of course, safety and security. COOPANS is extending its ambition to cooperate on the entire ATM platform, integrating all ATM system solutions into one coherent and efficient COOPANS Digital ATM platform in the en-route and approach domains.

COOPANS Alliance is the leading example of the cooperation model, which will further benefit from the standardized and shared digital infrastructure relying on data centers working in the COOPANS cloud based on SESAR Digital backbone and jointly managed by the COOPANS Alliance. The COOPANS Digital ATM Platform will be used for the operation of the ATM systems of the six ATS providers and for the delivery model of the common ADSP.

To enable true cross-border services provision, COOPANS requires the integration of ATM systems and voice communication solutions, which has a huge potential for the further enhancement in the ATM automation. The COOPANS target Virtual center concept of services provision "work from anywhere, deliver everywhere" is seen as the ultimate step, but tangible benefits in terms of cost effectiveness are to arrive already through introduction of remote software testing and provision the new ATCO training concept based on virtualization technologies.

Artificial Intelligence (AI) powered Automation and advanced separation management, especially in the en-route operations, is expected to bring dramatic workload and operation cost reduction, and this is one of the key COOPANS' strategic goals.

## CANSO

CANSO is an association of civil air navigation service providers, established to create value for its members, to represent the interests of the industry and foster industry development globally and regionally.

## GATE ONE

Gate One is a cooperation of 13 air navigation service providers grouped into 3 functional airspace blocks (FAB CE, Baltic FAB, Danube FAB) and 2 non-EU FIRs (Belgrade and Skopje). Its purpose is promoting efficient European air traffic management, strengthening the cooperation of service providers and facilitating the stronger and better coordinated representation of the countries in European decision-making processes.

## ICAO

The International Civil Aviation Organization is a specialized agency of the United Nations which sets standards and recommended practices to enhance aviation safety. ICAO develops the principles of safety, capacity and efficiency of air navigation and promotes air traffic planning and development.

## NATO

Since Croatia's accession to NATO in 2009, CCL has a good cooperation with NATO operational bodies in the field of ATC, especially in joint flexible airspace use within CCL's area of responsibility.

## SESAR

Based on the excellent success with the technical and operational cooperation, the COOPANS partners extended the scope of the alliance to partnership in SESAR.

CCL, as a part of COOPANS and a wider A6 Alliance in which it cooperates with the largest ANSPs in Europe, is a member of:

- ➔ SESAR Joint Undertaking (SJU), which was established under Council Regulation to coordinate and concentrate all ATM relevant research and innovation ef-

forts in the EU and

- ➔ SESAR Deployment Alliance (SDA), which has been appointed by the European Commission as the SESAR Deployment Manager (SDM).

Being a member of these two organizations, CCL took an active part in the development and deployment of the newest ATM functionalities in the European ATM system in the next long-term period and gained the access to the available EU funds, which will strengthen its position in the European environment and yield positive financial results.

SESAR 2020 is a research and development part of SESAR. During 2020, the main CCL's tasks regarding this programme were to execute activities foreseen in projects of Wave 2, and to prepare activities and sign contracts for Wave 3 projects of SESAR 2020. All activities are coordinated under COOPANS Alliance to derive maximum benefit for the common COOPANS ATM system.

In 2019, the main tasks of SDM were supporting all stakeholders awarded for PCP-related projects in CEF Transport Call 2014, 2015, 2016, 2017, and 2019, and delivering the new version of Deployment Programme (CP1 proposal).



## CO-FINANCING FROM CEF FUNDS

Connecting Europe Facility (CEF) is the funding instrument for the period 2014 – 2020 intended for financing of EU infrastructure priorities in the field of transport, energy and digital technology.

It was established with the aim of strengthening and modernization of the existing infrastructure network in the EU.

It defines the requirements, types and procedures for the European financial support to the projects of common interest within the trans-European networks.

During 2020 there were no new INEA CEF Calls for Proposals for the SESAR area.

### Projects active in 2020

Project	CCL Budget (€)	EU Contribution (€)	Approved	Coordinator	Expected Deadline
VARP – VoIP ATC Radio Project	2,527,460	2,148,341	VI/2016	CCL	15/7/2021
NewPENS – Stakeholders' Contribution for the Procurement and Deployment of NewPENS	140,500	119,425	VI/2016	Eurocontrol	31/12/2020
VCS-IP – Upgrade of Voice Communication Systems to Support ATM VoIP Communications	3,500,000	2,975,000	VIII/2017	CCL	31/12/2021
Modernization of IP-based G/G Data Network in CCL – CaRT/iWAN-NG – Phase II – Implementation	1,928,300	1,639,055	VIII/2017	CCL	31/12/2021
DLS Implementation Project – Path 2	54,000	23,220	VIII/2017	ENAV	31/12/2020
eGAFOR	400,000	340,000	VIII/2017	CCL	30/6/2021
Implementing Harmonized SWIM (Y) Solution in COOPANS ANSPs and General PCP Compliance	10,437,921	5,218,960	IX/2018	COOPANS - IAA	1/7/2023
Harmonization of Technical ATM Platform in 5 ANSPs Including Support of FRA and Preparation of PCP Program (COOPANS B3.3, B3.4 and B3.5)	8,479,240	7,207,354	VI/2016	COOPANS - ACG	6/2/2020



**Co-financed by the Connecting Europe  
Facility of the European Union**











# CORPORATE GOVERNANCE

Pursuant to Articles of Association, CCL's governing bodies are the Management, the Supervisory Board and the Assembly.

## MANAGEMENT

→ Vlado Bagarić – Director General

## SUPERVISORY BOARD

- Dora Matošić – President
- Vildana Megla – Deputy President
- Saša Crnec – Member
- Željko Gojko – Member

## ASSEMBLY

- Oleg Butković, Minister of Sea, Transport and Infrastructure - President
- Zdravko Marić, Minister of Finance - Member
- Mario Banožić, Minister of Defense - Member

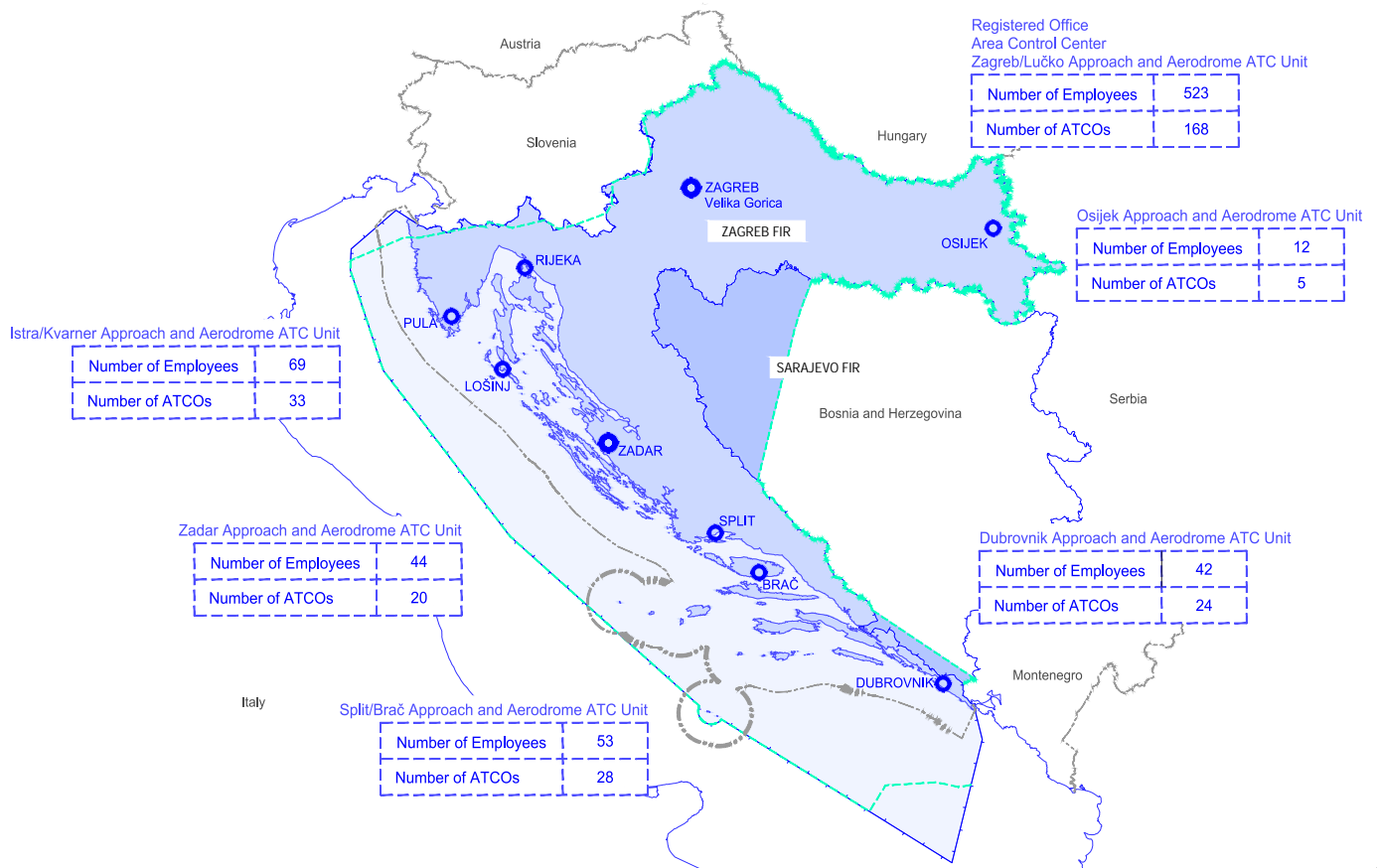


# OPERATIONS AND INFRASTRUCTURE

## OPERATIONAL UNITS

Operational units comprise:

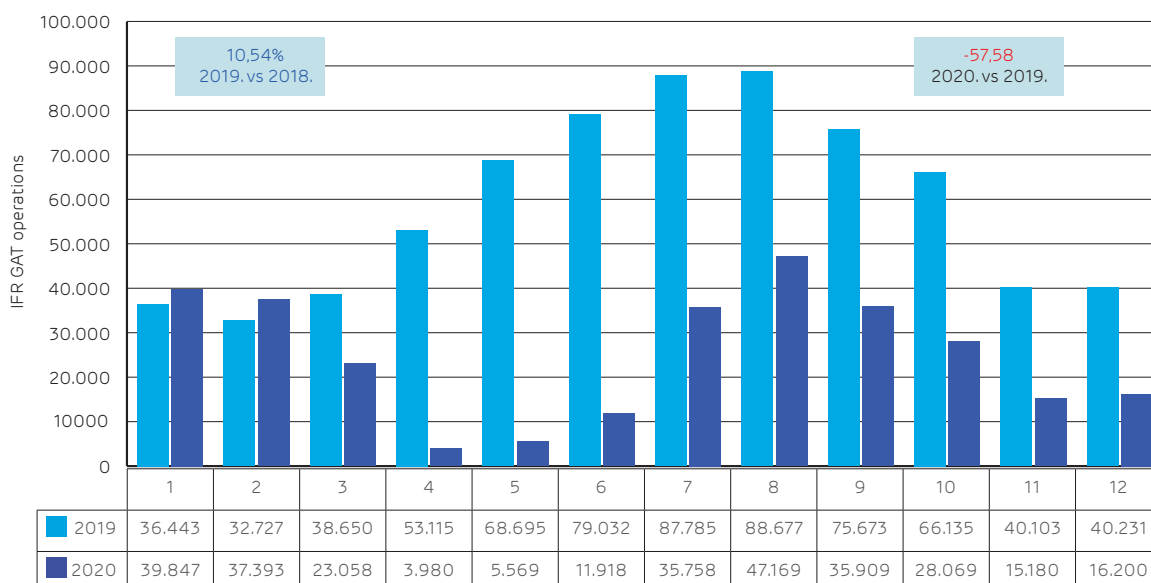
- the Zagreb Area Control Center
- six Approach and Aerodrome ATC Units (Osijek, Zagreb/Lučko, Istra/Kvarner, Zadar, Split/Brač and Dubrovnik).



## TRAFFIC FLOW

The COVID-19 pandemic had a strong impact on air traffic in 2020. Instead of expected traffic increase, air traffic in Croatia suffered a dramatic drop of 57.6%.

The busiest flight routes between United Kingdom and Greece came down to 40% of 2019 traffic, while those between Germany and Turkey had only 27% of 2019 traffic. The total drop in traffic on the busiest routes was 58%.



IFR GAT operations 2019 vs 2020

The big drop in international air travel in 2020 is the consequence of the fight against COVID-19 with the aim of preventing the spread of the infection, reducing the number of infected persons as well as keeping the population as healthy as possible. At the same time, this situation is the reminder that traffic industry is fragile, non-resilient to external factors and dependent not only on political and economic stability but also on public health.

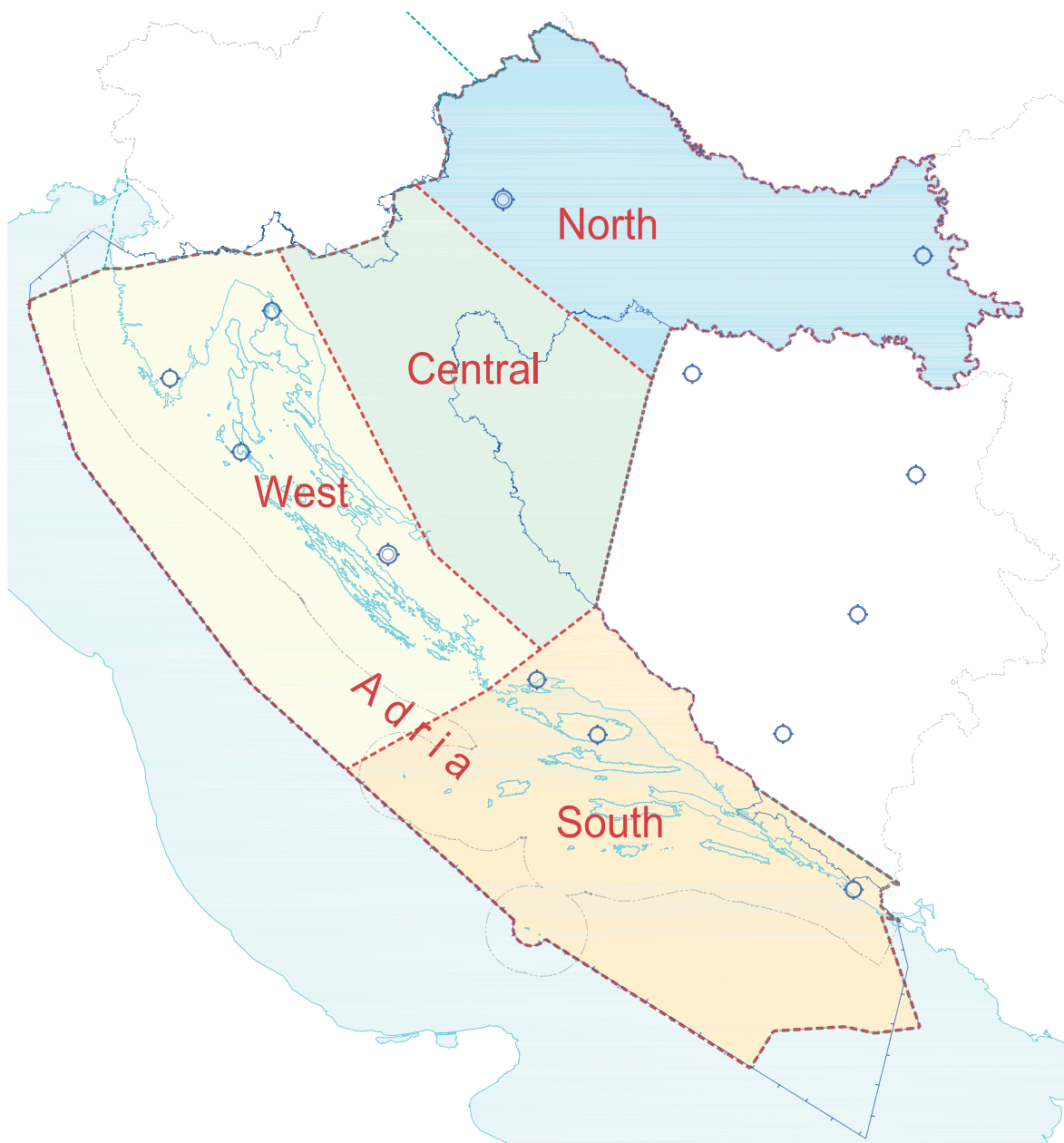




## OPERATIONAL IMPROVEMENTS

In February 2020, CCL implemented the project of changes in airspace sectorization to enable a timely response to expected trend of increasing traffic as well as to provide the airspace users with better service, while offering them improved capacities and possibilities to plan the routes.

Due to significant drop in traffic which started in mid-March 2020 and continued until the end of the year, the capacities of area air traffic control were not exposed to overload, and there were no delays measured in minutes per flight in 2020.



New airspace sectorization

## CIVIL-MILITARY COORDINATION

In Croatian airspace CCL is also responsible for the provision of services to the Ministry of Defense of the Republic of Croatia and its Air Force.

For the purpose of maintaining a high level of safety and quality, relevant air traffic data are regularly exchanged between these two parties, which is the basis for creating the conditions for an efficient protection of the airspace without affecting the safety of all users.

### AMC PORTAL

As CCL recognizes the importance of ASM, it is one of the few ANSPs that developed their own ASM system, the AMC Portal.

Following the international trends and expansion of UAS operations, CCL identified the new type of user and safety impact of UAS operations on ATM earlier than most ANSPs, and it continuously makes efforts in safe integration of UAS operations in ATM environment with the aim of guarding achieved levels of flight safety and current standards.

AMC Portal and its mobile application did a great job in controlling the airspace and enabling all airspace users to provide their services after devastating earthquakes that hit Zagreb and Sisak-Moslavina County in 2020.

The AMC Portal had once again proven to be a valuable airspace management tool. The Airspace Management Cell (AMC) in Zagreb ACC directly communicated with all UAS operators and pilots.

The AMC provided protected airspace to emergency services, which enabled the use of UAS for better overview of the affected area, thus supporting ground forces in rescuing the affected population.

Real-time coordination was established among the emergency services in order to harmonize and make safe the operations of the UAS as well as helicopter rescue and evacuation flights in the area.



AMC in Zagreb ACC

## ENVIRONMENT

According to Eurocontrol's assessment, the impact of ANSPs' activities related to planning and provision of efficient airspace organization amount to approx. 6% of total fuel consumption along the planned route. Airspace design and aircraft mode will, together with the use of new technologies, make a significant contribution to the protection of the environment as well as to the control of emission of harmful greenhouse gases.

### AIRSPACE AND ROUTE NETWORK OPTIMIZATION



By its participation in SECSI FRA initiative, CCL directly contributes to lowering KEA inefficiency and enables its service users to take the shortest paths in a wider geographical area, thus reducing the fuel consumption and consequently CO<sub>2</sub> and NO<sub>x</sub> emission.

The savings are being measured four times a year pursuant to predefined parameters. In this process the Eurocontrol's tool for post-operative analysis, NET Strategic Tool, is used since it has the capacity to simulate savings based on the possibilities which CCL makes available for the users.

In 2020 the emission of CO<sub>2</sub> and fuel consumption per day were lower 5.5% in comparison to 2019.

### PERFORMANCE BASED NAVIGATION

In 2020 CCL continued with the implementation of the performance-based navigation (PBN) concept of airspace based on performance requirements of aircraft, with the aim of creating the interface between the upper airspace and the network of new approach/departure routes for area navigation in lower airspace and their connection to published approach procedures.

PBN procedures within AoR of Zadar approach control have been implemented as of April 2020, while the procedures were also planned for Lošinj but are delayed due to RWY reconstruction.

The expected benefits of PBN implementation are traffic flow optimization, reduction of emission of greenhouse gases, reduction of costs for the airline operators, reduction of workload for ATCOs, and increasing the predictability of flight operations.

## TECHNICAL INFRASTRUCTURE

### OVERVIEW OF INVESTMENTS

CCL makes significant investments every year to comply with regulatory requirements, to achieve high level of safety and quality of services as well as to achieve performance targets. Due to the pandemic and ensuing financial crisis, the extent of investment has been reduced taking into account priorities, especially safety of services.

The following table shows the list of main investment project which were implemented during 2020, compared with the revised annual business plan developed at the beginning of pandemic in the spring 2020:

Investment Project	Revised Business Plan 2020	Implemented in 2020 / mil HRK
Upgrade of ATM Systems	1.65	1.44
Upgrade of COOPANS ATM System (ATM C1)	19.47	26.33
Upgrade of DATA-COM Infrastructure (Data-COM-MAGnet)	17.23	16.42
Voice Communication Domain Projects	7.00	9.21
A/G Voice Communications Systems Upgrade	6.50	2.81
Navigation Systems Domain Projects	3.02	2.39
Konavle Radar	16.05	14.79
Reconstruction of Buildings and Infrastructure	7.80	6.84
Modernization of ATCO Working Positions (tower & approach)	5.20	3.46
Other Investments (less than 1 million HRK each in 2020)	29.64	8.40
<b>TOTAL Investments in 2020</b>	<b>113.56</b>	<b>92.09</b>

### INVESTMENT HIGHLIGHTS

#### New Konavle Radar Station

The Konavle radar station is installed on the mountain peak Ilin vrh, approx. 10 km South-East from the Dubrovnik airport. The new radar service will contribute to the improvement of coverage of Dubrovnik TMA and the whole 'South' enroute sector of Zagreb FIR, which is an important prerequisite for the continuity and safety of provision of the air traffic service. This radar system shall enable further increase of traffic capacity and improve safety and quality of the service.





The new Konavle radar station is a part of a multifunctional infrastructure facility, the first of its kind in Croatia, and probably beyond. In addition to its primary function, air traffic surveillance, it also supports services of the national telecommunication infrastructure operator Digital Signals and Networks (OIV) and other mobile operators, thus reducing the cost of CCL's project.

The radar system was supplied and integrated by Indra. The operational use of radar data from the new Konavle radar station started in May 2021.

### **Reconstruction of the Facilities of Osijek Regional ATC Unit and ATC Tower**

As of May 2021, CCL provides aerodrome ATC and procedural approach ATC from newly refurbished facilities of Osijek regional ATC unit and a control tower, which had not been in function since 1991.

The building was constructed in 1980, but it was abandoned at the beginning of the war in Croatia.

In the meantime ATC services were provided from ancillary facilities situated on the roof of Osijek Airport building.



The reconstruction of the building with tower was conducted mostly in 2020 when the old building was reconstructed. The control tower is equipped with cutting-edge ATCOs' working position consoles, ATC equipment as well as with the system intended for traffic situation display in the tower without radar surveillance service, developed by CCL.

The new facilities will significantly improve the working conditions for ATCOs and other personnel, while reconstruction will enhance quality and safety of services provided at Osijek Airport. This investment worth nearly 7 million HRK has also created the preconditions for the provision of adequate capacities in the future development of Osijek Airport.

### Guslica VHF Site



VHF site "Northern Adriatic Radio Center" situated on Guslica mountain peak on the edge of Risnjak National Park is the infrastructure facility for air-ground radio communication to be used by Zagreb ACC as well as by radar approach centers Pula and Zadar.

It will significantly improve radio coverage, especially on lower altitudes. The largest portion of this investment worth almost 7 million HRK was realized in 2020, while its commissioning is planned for June 2021.





# SAFETY AND MANAGEMENT SYSTEMS



Air traffic safety is of paramount importance to CCL. In order to further improve the quality of service provided to our users, Safety and Management Systems were established at the corporate level. This organizational unit reports directly to the Director General.

Safety and Management Systems is responsible for the organization-wide management system including:

- safety management
- quality management
- environment management
- security management
- risk management
- performance management
- change and project management
- compliance monitoring
- occupational health and safety management
- internal control and auditing.

## SAFETY MANAGEMENT

High level of safety of ANS provided by CCL has priority over commercial, operational, social and any other aspects of business.

CCL's Safety Management System (SMS) is aimed at systematic and proactive achievement of an acceptable level of safety, thus making valuable contribution towards the safety of European air traffic in general.

## SAFETY MANAGEMENT SYSTEM

The main component of SMS is the Safety Management Manual which defines SMS organization and processes as well as basic SMS procedures, in order to comply with the SMS requirements laid down in national regulations, SES requirements and European safety standards.

## SAFETY PERFORMANCE

Measuring and monitoring safety performance constantly helps us improve our safety level and service. CCL key safety performance areas are in line with the Commission Implementing Regulation (EU) No. 2019/317 laying down a performance and charging scheme in the single European sky and repealing Implementing Regulations (EU) No 390/2013 and (EU) No 391/2013 the purpose of which is:

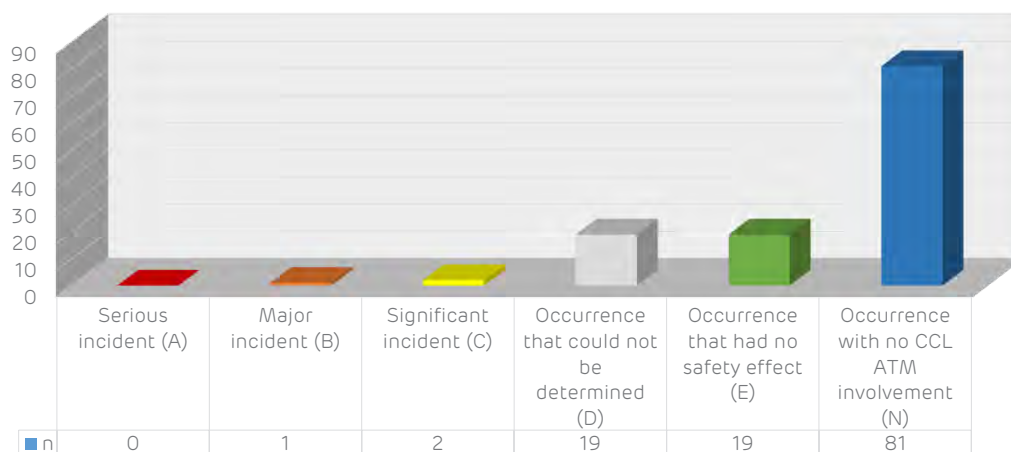
### Level of Efficiency of Safety Management (EoSM).

All Key Performance Indicator (KPI) targets defined in the Performance Plan for 2020 have been met, and the trends in Performance Indicators (PIs) that are being monitored are positive.

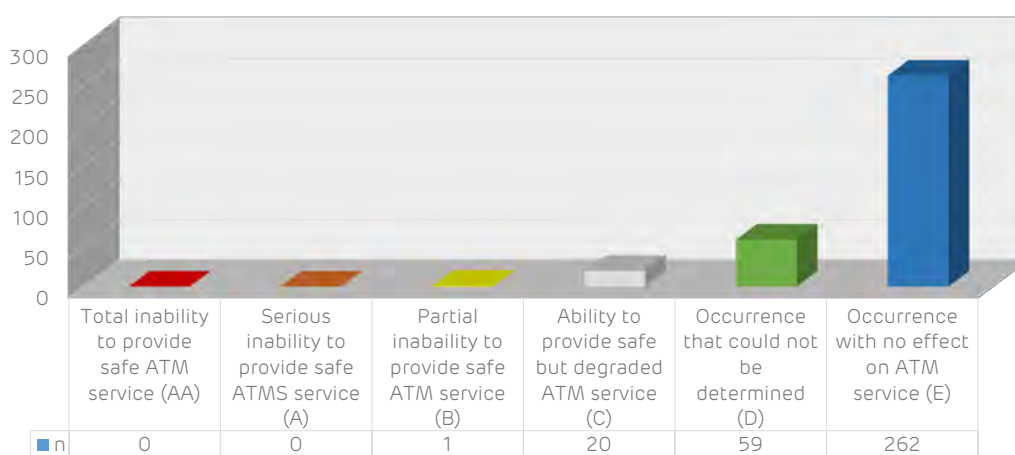
### Classification of Severity of Occurrences Using Toolkit for ATM Occurrence Investigation (TOKAI)

In 2020 there were 464 reported safety occurrences, 121 of which were ATM occurrences and 343 specific occurrences in ATM.

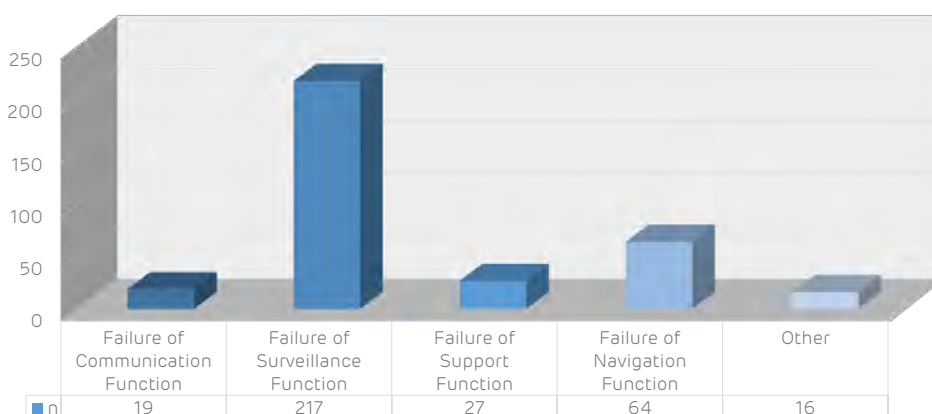
Severity of ATM occurrences were classified as follows:



There were no cases of SMI and there were 2 cases of RI; CCL was indirectly involved in 1 case of RI while the other was without ATM involvement.



Specific ATM (SATM) occurrences were classified as follows:



## JUST CULTURE

JC Policy and special JC procedures are set up in CCL. The JC concept has been disseminated to the staff and the management through the Intranet and safety promotion workshops in order to develop culture in

which front line operators and others are not punished for actions, omissions or decisions they took, and which are commensurate with their experience and training, while gross negligence, willful violations and destructive acts are not tolerated.



## QUALITY MANAGEMENT

CCL has implemented Quality Management System (QMS) for which it is certified in compliance with the ISO 9001:2015 international standard requirements.

QMS helps CCL to improve its overall performance and it provides a solid base for sustainable development. In addition, it enhances the continuous provision of services aimed at meeting customer, organizational and regulatory requirements through continuous improvement, in addressing associated risks, opportunities and ability to show conformity to specified requirements.

The quality of our services is guaranteed through the integrated QMS, which is periodically reviewed and assessed for its long-term suitability, effectiveness and efficiency.



## CONSULTATION WITH SERVICE USERS

The main focus of information monitoring is on the users' opinion on whether CCL as the air navigation service provider fully meets their requirements. The information on user satisfaction are collected in direct communication as well as by surveys that are published on the official web site or delivered by e-mail, as well as on forums/meetings.

A Plan of consultations with users is drafted at the end of each year for the next year. The Quality Manager collects the proposals and incorporates them into a single plan. Based on the sector results analysis, the Quality Manager proposes the improvements for operations and quality of services and includes them as input materials for discussion as well as for possible revision of goals when implementing the Company Management assessment for the purpose of making the appropriate decisions and allocating the resources.

In 2020 three consultations with users were planned in the form of a survey, and twelve in the form of regular meetings and forums. All consultations planned in the form of a survey were held. The users gave high ratings to the provision of MET and AIM/AIS services, and there have been no negative comments. PBN survey was on the aircraft equipped for PBN. Croatia Airlines stated in the survey its opinion on PBN and conventional procedures.

### Consultations realized in the form of a survey

Type of service	Survey conducting period	User profile	Subjects
MET	November 2020	General Aviation	Upgrading of MET services, users' remarks and demands
AIS	December 2020	All stakeholders in aviation, users of aeronautical information products	Users' feedback on quality of publishing and distribution of aeronautical data and information and of related products
ATS	November 2020	CA, CCAA, EasyJet	Improvements and adjustments of IFP (user experience with PBN and conventional procedures)



### Consultations realized in the form of forums/consultations/meetings

Subjects	Held in (month)	Site	Participants	User profile
<p>The use of MoD sites for the installation of WAM sensors, UHF/VHF center on Papuk radar station</p> <p>Upgrade/replacement of MoD network for radar data transmission, possible plans</p> <p>Modernization of the radar system FPS-117 (PSR and MSSR); the interest of MoD for the integration of radar Konavle; proposed Plan of the reduction of number of NDBs</p> <p>CNS coordination in preparation of military exercises and lessons learned</p>	April - November 2020	Croatia Control	12	Ministry of Defense, Croatian Armed Forces, Croatian Air Force, Air Space Surveillance and Control Battalion
Monitoring the implementation of the Contract on the provision of radar data	April 2020	Sarajevo/Velika Gorica (via teleconference)	4-6	BHANSA
Enlarged Committee for Route Charges	<p>24 – 26 June 2020 (CER 114)</p> <p>23 – 25 November 2020 (CER 115)</p>	Bruxelles (via teleconference)	200	IATA, AIRE
Feedback on quality of publishing and distribution of aeronautical data and information				
Possible changes in contacts or procedures, including those related to amendments of SLAs	December 2020	Croatia Control	15	Airports
Instructions to originators				

## ENVIRONMENT MANAGEMENT SYSTEM

CCL recognizes the importance of environmental protection, so it endeavors to reduce the negative impact on the environment by providing safe and quality ANS.

CCL's Environmental Management System (EMS) also covers environmental aspects, and it is ISO 14001:2015 certified.

CCL has defined significant environment aspects that are being continuously monitored and updated in case of any major change, or at least once a year. The environmental aspects are among the most significant elements of CCL's development which are a part of organization management:

### → **Electromagnetic radiation**

Electromagnetic fields are measured periodically, in 2-years cycles, as well as upon the initial commissioning of a device.

### → **Power consumption**

CCL is buying electric energy only from renewable source.

Operational consumers account for 40% of power consumption, air conditioning for 20%, and restaurant for approx. 10%. The administrative facilities account for some 30% of power consumption.

One of the major modifications to the electric power system in CCL in Velika Gorica was the installation of the new heat pumps system connected to underground wells, which was commissioned in test mode in August 2019, so that new air conditioning system is used in CCL. This system is more beneficial as far as electric energy is concerned since in summer it uses cooling heat of water from the well.

CCL is one of the first ANSPs in Europe that implemented renewable energy sources generating 345kW for the purpose of business operations. In 2020, due to the fact that work from home was introduced because of COVID-19 pandemic, solar power plant worked with reduced capacity.

### → **Noise caused by central air conditioning system**

### → **Generating of hazardous waste**

In waste management, CCL proceeds respecting the basic principles and implementing waste hierarchy. Besides the municipal waste, CCL collects, separates and ecologically disposes of hazardous and non-hazardous waste.



## SECURITY MANAGEMENT



CCL's Security Management System (SecMS) ensures the security of employees and other persons in our premises, the security of facilities, technical devices and equipment, to prevent unlawful interference with service provision. CCL also protects business data which it receives, produces or uses in any other way by making the access to these data available to authorized persons and institutions.

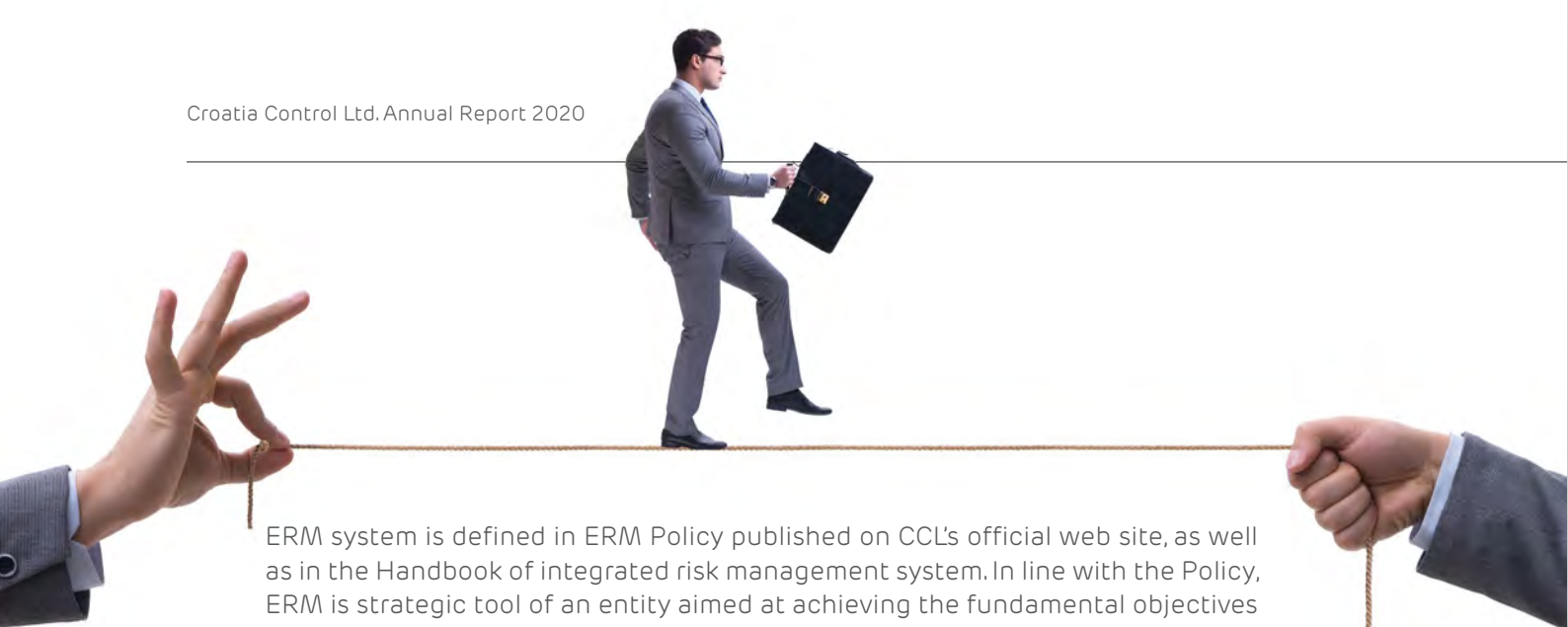
SecMS supports airspace and airport security, as regulated by the National Civil Aviation Security Program, and it plays an important role in creating plans for business/service provision continuity and business recovery. The aim of the System is prevention and acting in accordance with the Security Policy, whereby the introduced measures must not slow down or otherwise impede our core business processes.

## ENTERPRISE RISK MANAGEMENT

CCL introduced Enterprise Risk Management system (ERM). Risks may come from internal or external environment, and they may affect the efficient functioning of a company and realization of its objectives.

**Internal risks** are those related to business operations, and include risks associated with human resources management, material property, business processes, organizational culture etc. which affect main as well as other business objectives of a company.

**External risks** comprise primarily those risks related to market conditions and regulatory changes. They are out of control or under no control of the company, and it is necessary to identify them in time as well as to implement appropriate measures and strategy ensuring the best possible adjustment.



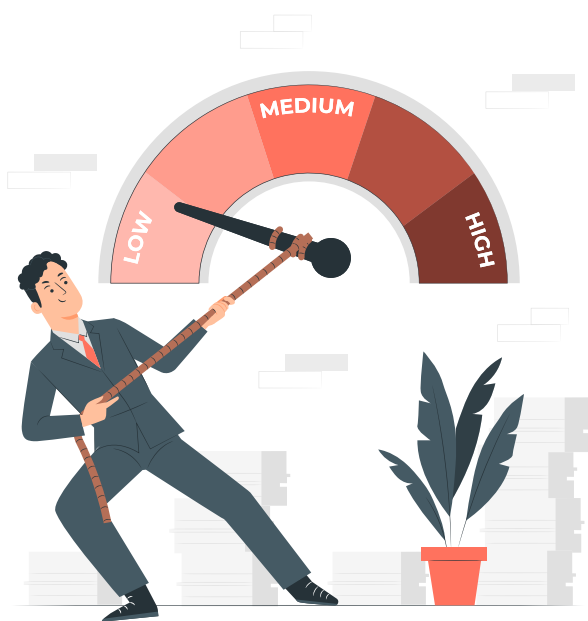
ERM system is defined in ERM Policy published on CCL's official web site, as well as in the Handbook of integrated risk management system. In line with the Policy, ERM is strategic tool of an entity aimed at achieving the fundamental objectives of business operation and providing long term sustainability of entity in all aspects of its operations.

The methodological framework for setting up and implementing ERM system includes the analysis of the entity's environment and operations, definition of its business objectives, risk identification and assessment. It also includes the analysis of the impact of risks on objectives, setting up a Risk Register, risk management measures, control, communication and reporting as well as continuous monitoring and updating of the processes.

Risk Register and Risk map for the next 5-years reference period RP3 (2020 - 2024) are implemented. Risk Register defines key risks, categories, sources and rating, risk management measures and their owners, deadlines for control of the implementation of measures and their efficiency as well as risk revision plan. The Map contains risks impact/probability charts.

In case of a crisis like the one in 2020, ERM serves as a tool to overcome with ease as well as to minimize its adverse impacts. In the first year of its operational use, the system produced good results. In 2020, COVID-19 pandemic had an unprecedented impact on air traffic, causing dramatic decline in traffic and revenue.

Consequently, the priorities related to risks, their sources and mitigation measures have been modified. In 2020 considerable progress was made in ATCO training, contributed by the crisis. Managing continuity of business was daily challenge, and 2021 is still very uncertain for air traffic, demanding constant adjustments. Therefore special attention will be paid to managing the financial risks and those related to human resources, communication, reputation, and cyber security, with the stress on provision of continuity of business operations continuity and improving resilience to external impacts that are not under CCL's control.







Konavle Radar Station



# ADDITIONAL SERVICES

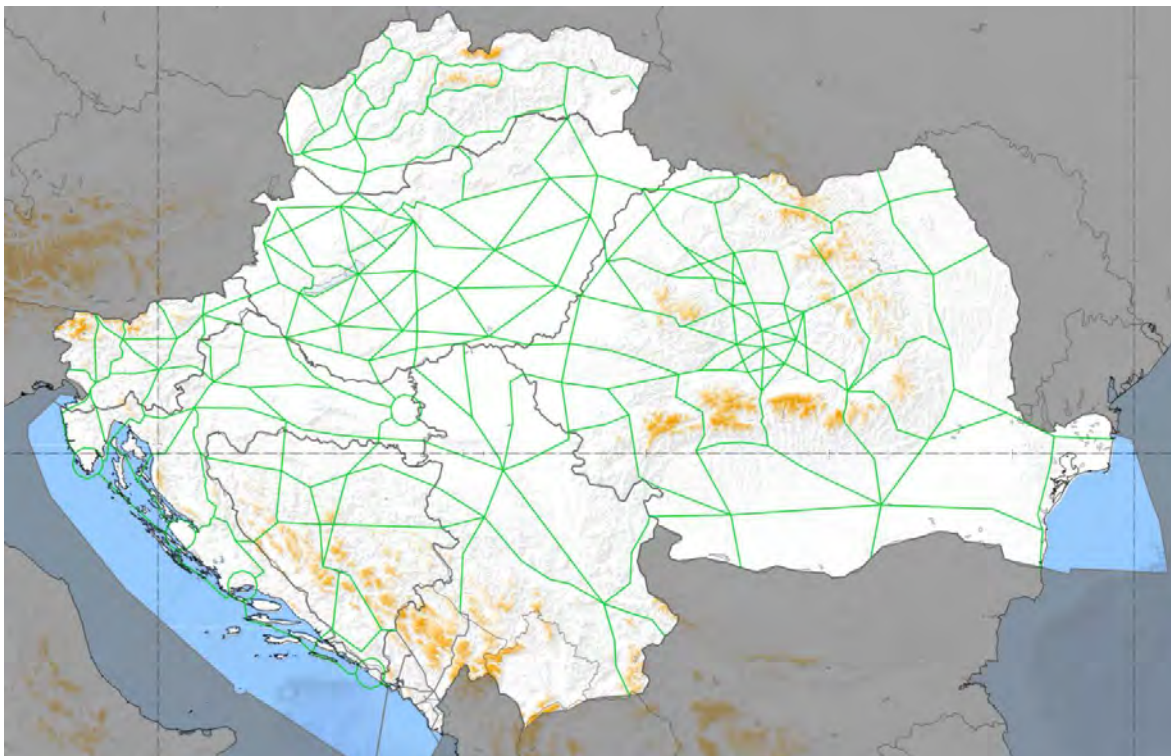
## AERONAUTICAL METEOROLOGY (MET)



In addition to the official MET products, CCL also issues additional products aimed at improving air traffic safety, but also at facilitating the planning processes.

Among these products is eGAFOR, a new product developed within eGAFOR project in which CCL was the initiator as well as the main stakeholder. It is intended for general aviation and provides probabilistic forecast of meteorological elements and phenomena that may affect

VFR flights. Its objective is to create a single eGAFOR routes network and simultaneous forecasting of meteorological elements in line with unified and harmonized criteria. That will enable better planning and safer flights, which indirectly will eventually result in reduction of costs and of CO<sub>2</sub>. On the basis of the results of eGAFOR project, the eGAFOR has become EU-METNET's module in Aviation Support Programme in the territory of eight states.



eGAFOR Routes Network

CCL also cooperates with MET services in neighboring states to improve weather forecasts for en route flights. Especially important from the point of view of air traffic safety is coordination of SIGMET (Significant Meteorological Information) weather advisory on significant en route weather phenomena covering multiple neighboring states. Harmonized criteria set down for issuing this product result in better planning of air traffic operations which indirectly contributes to the reduction of CO2 emission.

From June 2020 the CCL forecasters have been participating in the preparation of joint European aviation weather forecast intended for Network Manager, with the stress on air traffic flow management 12 to 36 hours in advance. The planned traffic flows over Europe are mostly affected by thunderstorms in summer season. Therefore timely and consistent, user (NM) oriented weather forecast contributes to air traffic safety and throughput as well as to the reduction in delay and consequently to CO2 emission.

## AIM/AIS

CCL provides aeronautical data and information necessary for the safety, regularity and efficiency of both international and national air navigation in Croatian airspace.

The current CCL certificate for all services, including the AIS, confirms the compliance with the requirements of ISO 9001.

AIM/AIS Department consists of:

- ➔ International NOTAM Office, operational 24 hours a day
- ➔ Aeronautical Publications Office.

It provides aeronautical information products - AIP AMDT/SUP, Aeronautical Charts, AIC, NOTAM as well as PIB, lists of valid NOTAMs and checklists and additional publications such as VFR Manuals and VFR Chart with recommended VFR routes.

AIM/AIS Department is rapidly preparing for the newly required provision of data sets, as per ICAO Annex 15, 16th edition and ICAO Doc 10066. All current products are available in English or as bilingual publications, except for AICs series B that are in Croatian.

All aeronautical information are available in the European Aeronautical Database (EAD) in electronic format via EAD SDO, INO and PAMS modules.

The aeronautical information products are based on the same data source in the database (SDO), except for charts that are currently provided from a separate source and are as such incorporated in the eAIP.

The electronic AIP of the Republic of Croatia is available, both in English and Croatian. AIS Department is also progressing in preparation for the transition of static data from AIXM 4.5 to AIXM 5.1 model, as well as to provide such data to the EAD SDD.

A new local AIM database was obtained and deployed for the NOTAM and PFB purposes and it is being further adapted to allow the provision of digital aeronautical data and information.

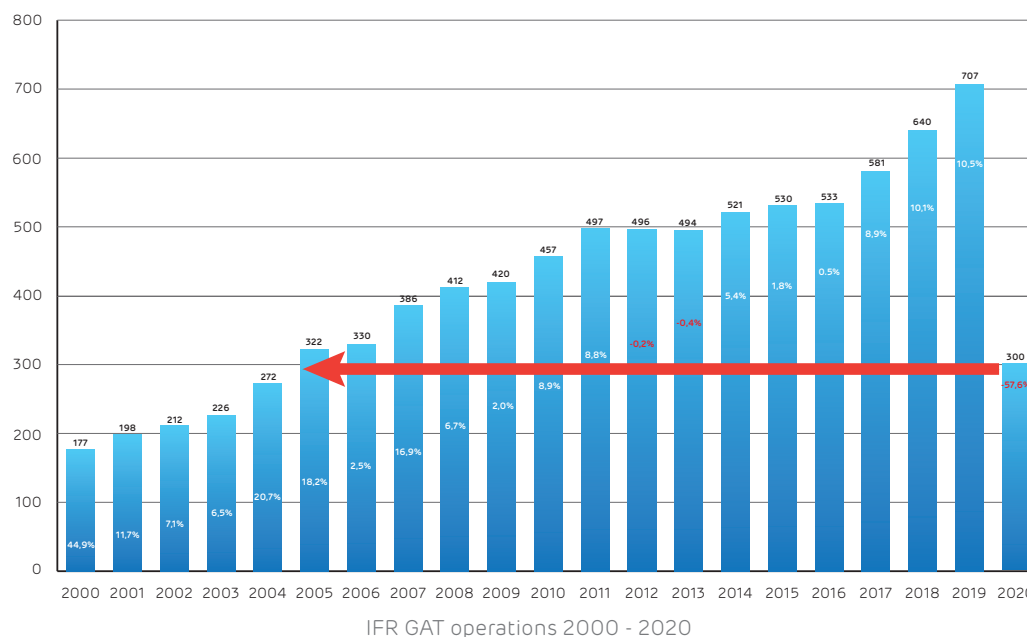
AIS has evolved in the sense of processes and integrated management systems' enhancements through the CroQADI project of this report: The originating data quality improvements as well as data sets provision is planned.

Aeronautical information is currently provided for reference purposes through the CCL/AIS web pages, while the preparation of new channels of providing the products on web pages is under way.

# PERFORMANCE

## TRAFFIC

The result of almost 302,000 flights in 2020 means that the traffic dropped to the levels of the period 2004 - 2005. Daily average no. of flights in 2020 was equal to the one before 2006.



Due to the lockdown introduced because of the pandemic, April 2020 was the month with lowest traffic - only 3980 flights, i.e. 92.5% less flights in comparison to April 2019. The day with lowest traffic in 2020 was April 19, with only 94 flights.

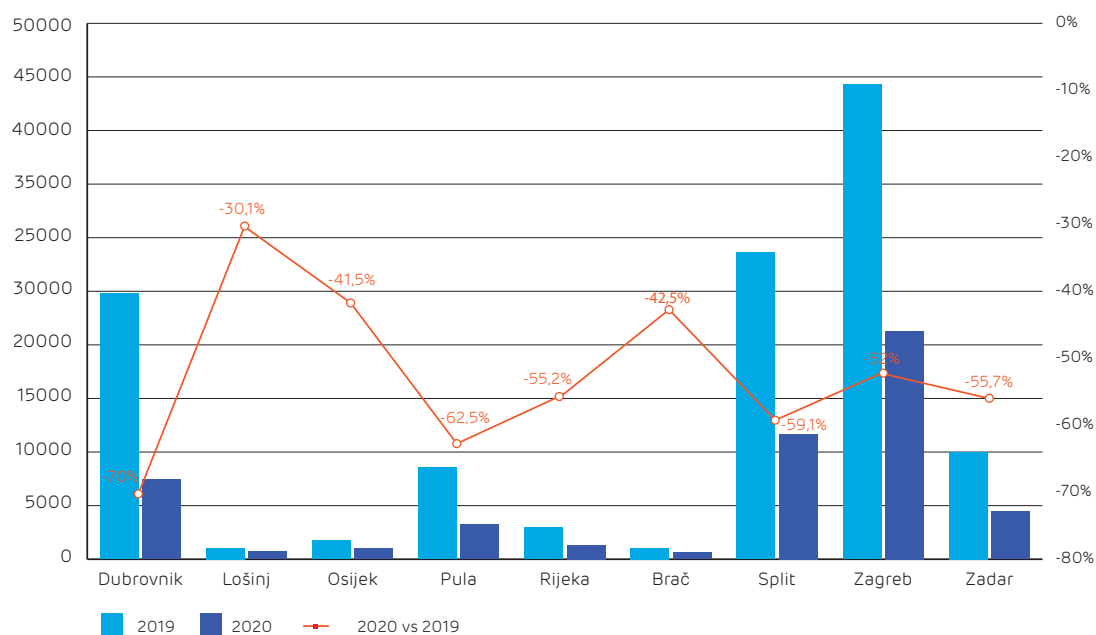
At that time, Franjo Tuđman airport in Zagreb was the only airport not only in Croatia but also in neighborhood open for repatriation flights as well as for humanitarian cargo flights for delivery of medical supplies and for delivery of humanitarian assistance after the earthquake in Zagreb in March 2020.



The Ambassador of the P.R. of China, H.E. Erwen Xu and the Croatian Minister of Health Vili Beroš welcoming the SF Airlines plane carrying protective equipment for COVID-19 for the Croatian health service on April 12, 2020



Since the airports in Croatia are oriented towards foreign markets, they were affected by decrease in the number of tourists arriving by air. In 2020 the results were (un)expectedly meager - approx. 43% of 2019 traffic.

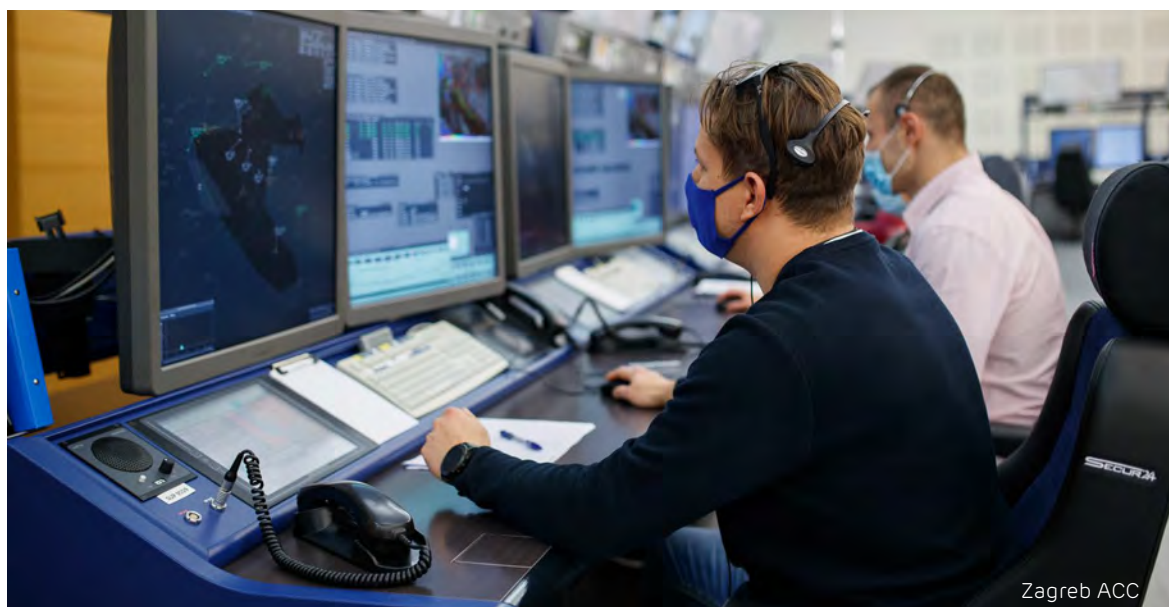


IFR GAT traffic at Croatian airports

The airports with less scheduled flights, i.e. those where the majority of flights consists of small private aircraft recorded smaller drop in traffic in comparison to 2019. On majority of Croatian airports including the one in Zagreb, which was the only airport non-stop opened for traffic in 2020, traffic totals dropped more than 50 percent in comparison to 2019.

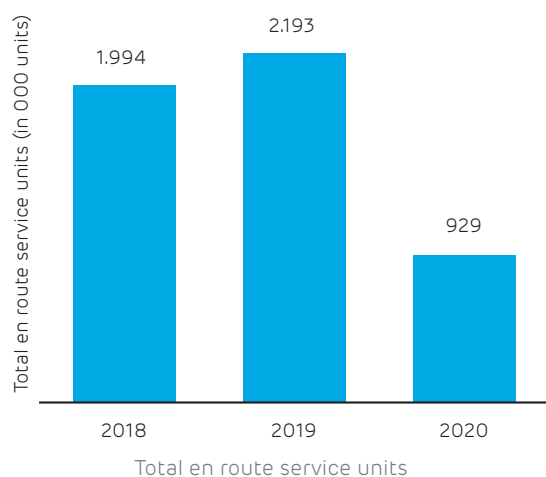
## CONTROLLED OPERATIONS AND ATFM DELAYS

Due to significant reduction in air traffic, the capacity of area air traffic control was not in danger of overload, therefore there was no need for the introduction of traffic flow restrictions or delays.

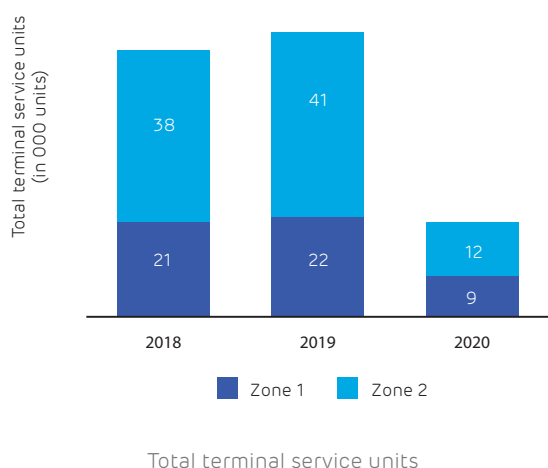


## SERVICE UNITS AND UNIT RATE

CCL has been severely affected by COVID-19 pandemic, which resulted in an unprecedented decrease in number of total IFR GAT activity and consequently in substantial contraction in number of provided total services units, both en route and terminal. In 2020, total number of 929 thousand en route service units was realized, which was -57.6 % decrease when compared to 2019 and almost the same gap compared to what had initially been expected and planned for 2020.



In regard to traffic performance recorded in Croatian terminal charging zones comprising terminal Zone 1 (LDZA and LDZL) and terminal Zone 2 (Other terminal ATCs), CCL's operations decreased even more significantly. In 2020 CCL realized approximately 21,000 terminal service units, which was -67.0 % decrease when compared to the previous year.

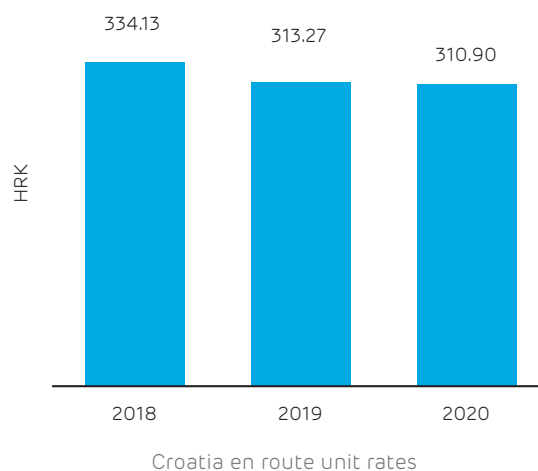


Total budgeted en route costs for 2020, based upon the draft (non-adopted) RP3 Performance Plan (PP) submitted in November 2019 were initially proposed in the amount that resulted in draft budgeted en route unit rate of HRK 310.90 for 2020 (exclusive of administrative CRCO unit rate). This initially implied further -0.8% nominal decrease compared to 2019. Finally eligible en route unit rate for 2020 is expected to be known once a revised RP3 PP will have been submitted to (not later than 1st October 2021) and adopted by the EC (which is expected in the first half of 2022).

Given the strong RP3 traffic expectations (2024D/2019B CAGR of +3.2%) disclosed within the draft RP3 PP (as of October 2019), the identified trend in budgeted en route unit rate for 2020 was characterized by:

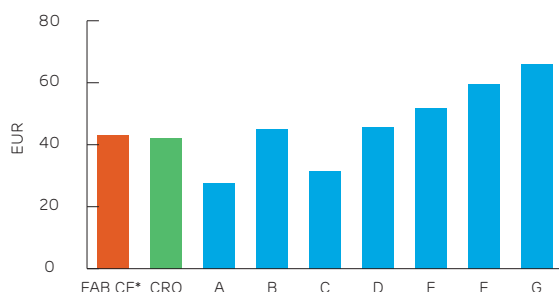
- ➔ strong focus on developing the highly needed ATCO workforce, which was identified as a critical measure in dealing with the already recorded, significant and unsustainable RP2 capacity gap (recorded 2019 ATFM delay at some 400% over the PP target),
- ➔ high commitment in expected deployment of the draft RP3 CAPEX plan which is supposed to be double in scope and complexity than RP2 Plan/actuals.

The following graph depicts the budgeted unit rates for Croatia (exclusive of administrative unit rate).



According to finally approved en route unit rates for 2020 (CER 113) based upon the draft RP3 PP assumptions and targets sub-

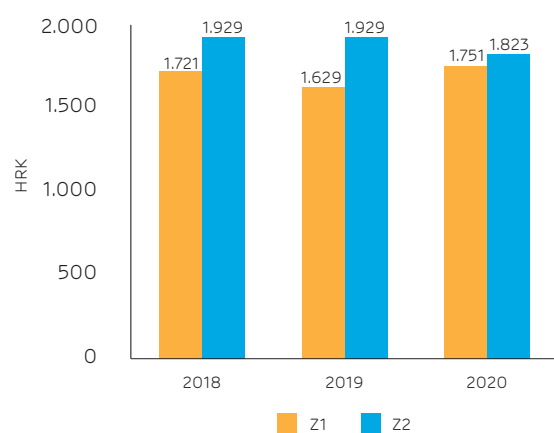
mitted to the EC for adoption (during Nov 2019), the en route unit rate for Croatia was just below the FAB CE average, and the third lowest in FAB CE region. The comparison comprises Croatia's neighboring states, the most of which are FAB CE partner states.



2020 budgeted en route unit rates

Note: Budgeted FAB CE en route unit rate for 2020 for the purpose of this comparison excludes value for Croatia

Croatia operates two terminal charging zones with two individual terminal unit rates. Budgeted 2020 terminal unit rates were HRK 1,751 (+7.5% increase compared to 2019) for terminal Zone 1 (i.e. ATC center LDZA including LDZL) and HRK 1,823 (-5.5% decrease compared to 2019) for terminal Zone 2 (other ATC centers in Croatia).



Croatia terminal unit rates

## FINANCIAL SITUATION IN 2020

Unlike in any period before and despite the unprecedented risks and uncertainties which marked the whole 2020, CCL managed to deliver safe performance and required ANS infrastructure - all at the level

of highly underestimated 2020 unit rates which in the time of adoption had omitted to acknowledge the COVID 19 2020 business downturn.

This resulted in unprecedented business losses incurred for the period, despite the profitability and liquidity savings measures put in place, which by definition could have not been fully flexed and tailored according to the "new normal" given CCL's status of critical infrastructure provider. Such requirements call for the full and safe ANS provision despite the possible significant adverse changes to business circumstances.

CCL's revenues were drastically eroded given the significantly reduced 2020 traffic dynamics as well as highly underestimated ANS charges which in a time of adoption (November 2019) failed to recognize 2020 pandemic development and couldn't have been corrected short term given the existing (2019/317) and specifically developed "exceptional measures" Performance & Charging framework (2020/1627).

Moreover, 2020 activities were further associated to the first full-year operational effects stemming from the BHANSA taking over the responsibility for ANS provision in the major part of the Bosnia and Herzegovina's upper airspace, where CCL had previously been responsible for ANS provision. As was the case in the previous years, the fundamental prerequisite for such a performance again were safety tools and processes being in place and running effectively.

## REVENUES AND BUSINESS INCOME

In 2020, CCL earned HRK 630.2 million (approx. EUR 83.6 million) in total revenues, resulting in -26.7% drop when compared to the previous year and is in substance explained below.

### Core Business Income

Taking into consideration that air traffic industry as well as ANSP industry were hit hard by COVID-19 pandemic, a significant drop in core business revenues was expected for 2020 (accounting for some 84.8% of total income and revenues).



This has proven to be true due to drastically eroded air traffic activities as well as to underestimated 2020 ANS charges which in a time of adoption (November 2019) failed to acknowledge a 2020 pandemic development and unfortunately could not be corrected in the short term due to the existing (2019/317) and specifically developed "exceptional measures" Performance & Charging framework (2020/1627).

Therefore, HRK 534.8 million (approx. EUR 71.0 million) in 2020 core business revenues, i.e. contraction of -33.0 % compared to 2019 does not come as a surprise even though by following the provisions of "exceptional measures regulation" (2020/1627) CCL has recognized additional HRK 218.4 million (approx. EUR 29 million) in 2020 "revenue gap" rights. Such asset is expected to be recovered from the airspace users during the period 2023-2027 at the earliest.

### Other Business Revenues

Other business revenues for 2020 in the amount of HRK 84.2 million (EUR 11.2 million) accounting for some 13.4% of total revenues were significantly (+94.8 %) above the previous year level. The reason for this was mostly described by unwinding of historical provisions set up in previous periods for the financial risks that had previously been anticipated in the time of recognition and were expected to occur in the future (accounting for 77.8% of 2020 total other business revenues).

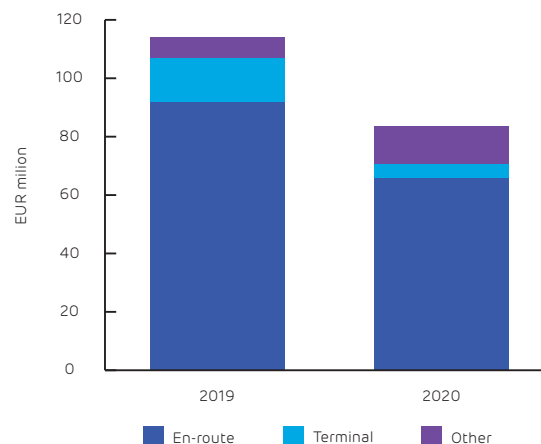
A significant part of such provisions' unwinding revenues (71.8%) specifically relates to some of previously created SES risk sharing provisions, since associated risks materialized in 2020.

Remaining business revenues, not described by movement in historical provisions' levels, mostly relate to deferred income associated to the EU funding facility received for the purpose of financing the EU supported projects (accounting for approx. 17.6% in other business revenues).

### Financial Income and Revenues

It comprises positive foreign exchange fluctuations and interest income and is consid-

ered non-operational and marginal since amounting to 1.8% in total revenues.



Total revenues development (@ 2020 average FX rate)

Total revenues composition is traditionally characterized by en route charges which are the most significant revenue source, accounting for 78.7% of total revenues, whereas terminal charges accounted for some 5.8 %. Such significant slump in terminal charges shareholding comes from the fact that 2020 en route charges do and terminal charges do not comprise "revenue gap" rights awarded by new "exceptional measures" Performance and Charging regulation (2020/1627). Other non-charges and non-core business revenues together with financial revenues accounted for 15.5% in 2020.

## COSTS AND EXPENDITURES

Actual total costs and expenditures incurred for 2020 were 15.5 % below the 2019 level. This implies total 2020 actual costs and expenditures of HRK 687.1 million (approx. EUR 91.2 million).

Given the 2020 unprecedented traffic development and redefinition of revised RP3 performance targets and status of RP3 PPs in general, the absence of additional SES "risk sharing" regulatory provisions in 2020 stemming from the Performance & Charging SES regulatory framework was the single most significant driver for recorded -15.5% push in the 2020 cost and expenditures records.

Actual total costs and expenditures incurred for 2020, once comparable records adjusted for the SES-related provisions, were still

-2.9% compared to year before despite:

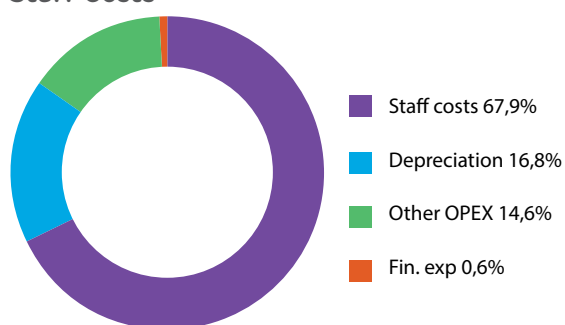
- ➔ more than three times higher 2020 severance costs, driven by 2020 accelerated retirement dynamics for unprecedented increase in 2020 risks and uncertainties of the individual workplace perspective and sustainability
- ➔ increased 2020 depreciation charge given the full and timely deployment of the RP2 investment plan which pushed up 2020 depreciation charges compared to 2019.

Had the 2020 running costs (excl. of SES related provisions and financial expenses) not been hit by the significantly accelerated 2020 pension costs and depreciation charge surplus, then 2020 running costs and expenditures would have been some 7% lower than recorded in 2019 for CCL overall (i.e. ENR and Terminal).

Total costs reductions were achieved through the exceptional staff costs savings measures such as salary cuts, postponement of expected ATCO students' recruitment and training, postponement or freeze of replacements for retirements, frozen business expenses related to business trips, maintenance and general utility as well as OPEX associated to frozen RP3 CAPEX investment projects.

Such business activity has proven not to be sustainable in a long run.

#### Staff Costs



In 2020 costs containment measures were implemented by means of salary cuts, postponement of expected ATCO students recruitment and training, postponement or freeze of replacements for retirements, postponement of recruitment of auxiliary staff

for which the recruitment initiatives had already been launched before the pandemic outbreak.

However, staff costs in 2020 were at the level of those in 2019 (+0.2%) because the severance costs in 2020 were three times higher than those in 2019 due to accelerated retirement dynamics following the unprecedented increase in uncertainties over individual employment perspective and sustainability.

These costs had to be absorbed during the year and were out of management control since they are the result of the rights stemming from the present collective agreement.

Had the severance costs not incurred in 2020, staff costs would have been -11.0% lower than recorded in 2019.

#### Depreciation Costs

Financial effects stemming from the use of long term, strategic and the utmost critical investment asset – CroATMS COOPANS systems, significantly contributed to 2020 depreciation costs being some +4,0 % above the 2019 actuals and reaching approx. 16.8 % in CCL's total costs and expenditures. Increased depreciation costs compared to 2019 were recorded as a consequence of a full and a timely deployment of the RP2 investment plan which increased 2020 depreciation charges.

#### Other Operating Expenditures (excl. financial costs)

Part of CCL's business costs summarized in other (non-staff) operating expenditures (OPEX) were -56.9 % below 2019, most significantly due to the absence of additional 2020 SES ("risk sharing") regulatory provisions stemming from the Performance & Charging SES regulatory framework (2019: HRK 105.4 million - approx. EUR 14.0 million). Once 2020/2019 comparables have been adjusted for the SES-related provisions, then 2020 OPEX was pushed down by -21.4% compared to previous year. However, this cost category continued recording a significant contribution towards the 2020 total costs value with a shareholding of 14.6 %.

The most significant 2020 OPEX drivers that, besides the SES related provisions, have positively contributed to 2020 OPEX savings were CCL wide OPEX push down initiatives resulting in the freeze or postponement of an entire range of normalized and necessary business activities: ATCO training, business trips, maintenance activities, associated utilities and external services. This was proven possible due to the exceptional cut in a series of business activities related to existing business operational asset as well as to postponed and redefined (both in scope and scale) "new" RP3 CAPEX/asset plan and execution.

Such business activity proves not to be sustainable in the long term.

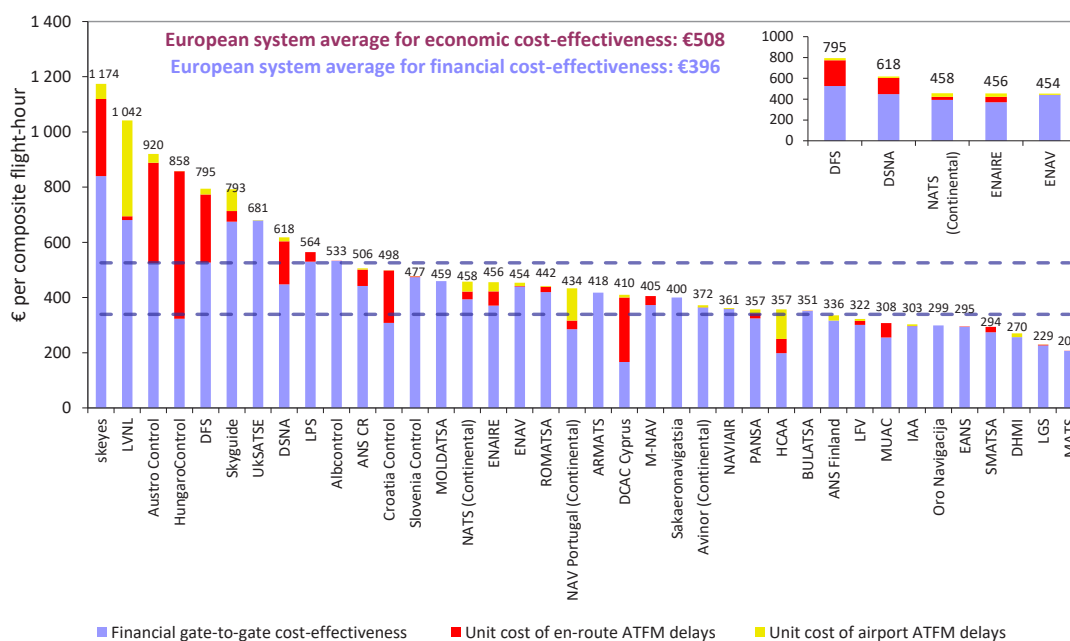
## Financial Costs and Expenditures

They comprise mostly negative foreign exchange fluctuations and interest expenses and are considered non-operational and marginal since they amount to 0.6% in total costs and expenditures.

## COST EFFECTIVENESS

European ATM performance is regularly monitored by the Performance Review Unit (PRU). PRU's economic cost-effectiveness indicator gives an indication of how well an ANSP is providing the ANS in terms of cost-effectiveness.

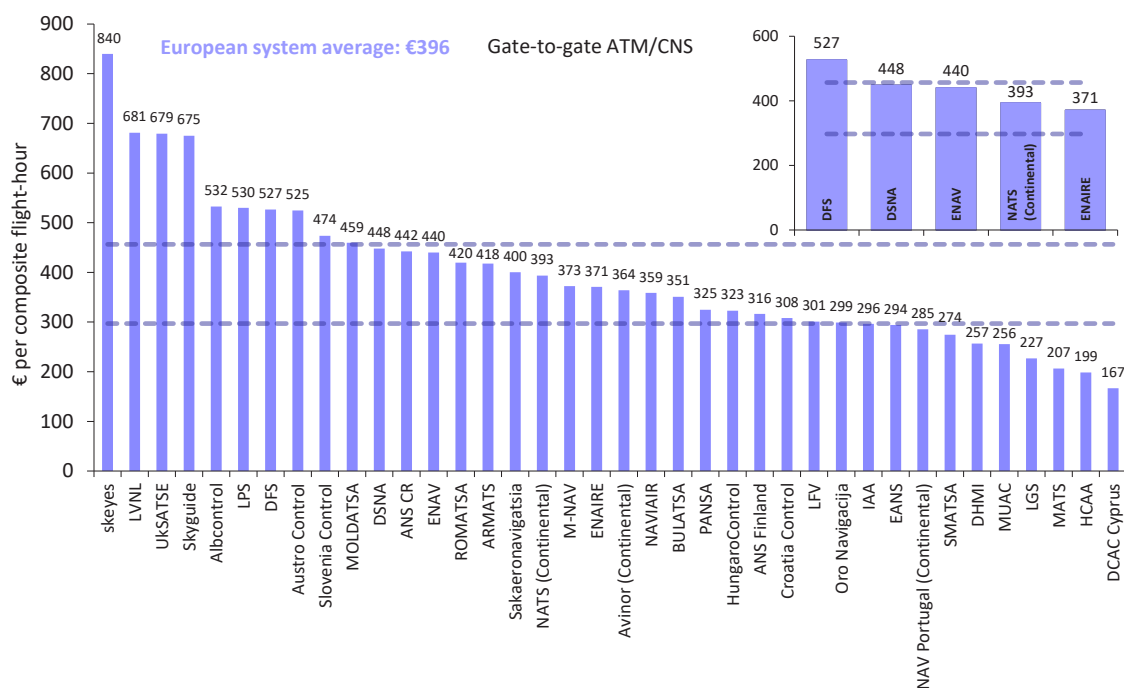
According to the latest ATM Cost-Effectiveness (ACE) 2019 Benchmarking Report dated May 2021, average Pan-European system-wide gate-to-gate economic cost-effectiveness was EUR 508 per composite flight hour. In the same period and despite the historically highest traffic dynamics which put excessive pressure over the ACC capacities and en route ATFM delay cost for 2019 (recorded ATFM delay at some 400% over the 2019 PP target), CCL still managed to perform 2.0% better than the European system average in terms of economic cost effectiveness for 2019.



Economic gate-to-gate cost-effectiveness indicator, 2019



Once normalized for the costs of the 2019 ATFM delays, CCL performed 22.2% better than the Pan-European system-wide gate-to-gate financial cost-effectiveness average. Such performance positioned CCL in the lower quartile region implying that during 2019 CCL has been providing ANS among the top 25% performing European ANSPs in terms of financial cost-effectiveness, way below the European system average of EUR 396.



Financial gate-to-gate cost-effectiveness indicator - ATM/CNS provision costs per composite flight-hour, 2019

## COST EFFICIENCY KPA AND OTHER FINANCIALS

Given the unprecedented COVID 19 2020 business environment which substantially and directly affected development and redefinition of the new, revised RP3 Performance & Charging regulation ("exceptional measures") as well as RP3 performance targets and RP3 PPs in general, no RP3 cost efficiency performance targets have been formally set nor adopted for 2020.

Nonetheless, indicative 2020 determined en route unit cost (hereinafter: ENR DUC or DUC) for CCL (i.e. for Croatia) expressed in 2017 prices (i.e. real terms) was realized in the value of HRK 641.49 / EUR 85.97 (i.e. HRK 685.26 / EUR 91.84 for Croatia) implying:

- ➔ +129.7% (i.e. +128.0%) ENR DUC increase compared to 2019A (flexed to 2017 prices) - all due to substantial decrease in en route traffic (expressed in total service units) compared to 2019A record (-57.6%) since the en route costs expressed in real terms have been reduced for both, CCL (-2.7%) and Croatia (-3.4%) despite negative inflation trend in 2020A (-0.8 pp compared to 2019A), and
- ➔ -0.1% (i.e. -1.2%) ENR DUC decrease compared to Initial revised RP3 cost data for 2020 submitted to EC in December 2020.

In terms of financial and business indicators, CCL's performance-related indicators for 2020 compared to 2019 were as follows:

Financial stability, indebtedness and liquidity indicators	2020	2019
1. Coverage of fixed assets and inventories by equity capital and long-term sources	1.57	1.68
2. Share of equity capital in the sources of funding, in %	57.40	51.57
3. Debt factor, number of years	3.2	1.9
4. Total asset turnover coefficient	0.52	0.62
5. Overall liquidity coefficient	3.28	5.35
6. Time of collection of short-term receivables, in days	68	57
7. Inventories, in days kept	1	1

Business performance indicators	2020	2019
1. Total income-expenditure ratio	0.92	1.04
2. Profit/loss share in total income, in %	-7.40	3.21
3. Profit/loss share in assets, in % 1	-3.85	1.99
4. Profit/loss share per employee, in HRK	-61,856	36,200



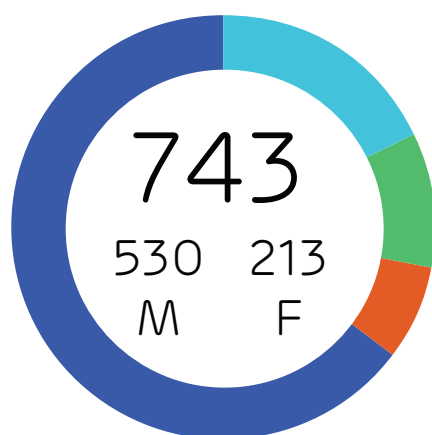


# HUMAN RESOURCES

## EMPLOYEES

CCL employs the staff with adequate qualifications, to enable safe, high quality and continuous provision of services.

It pays special attention to human resources management, with a training system geared to ensure training, acquiring and continuous maintaining of competencies and experience, to meet international and national standards.



- ATM Division
- DG Office, Other Offices and Military Operations Unit
- Corporate Functions Sector
- CNS, MET and AIM Services Sector

Air traffic controllers make a large share of the workforce. Their numbers at different operational units are shown below (status on 31 Dec 2020):



Unit	ATCOs
Zagreb ATCC - ACS	118
Zagreb ATCC - APS	23
Zagreb ATCC - ADI/ADV	27
Osijek ATCC	5
Pula ATCC	23
Split/Brač ATCC	28
Zadar ATCC	20
Dubrovnik ATCC	24
Rijeka ATCC	7
Lošinj ATCC	3
<b>TOTAL</b>	<b>278</b>

## EMPLOYMENT AND RECRUITING

On December 31, 2020, 36 persons became employed in CCL in 2020, while 42 persons left the company in the same year (37 became retired).

CCL is fully committed to pursuing the principle of equal opportunities and dignity of every individual in its recruiting and employment policy.

The selection of ATCO candidates was not conducted in 2020, as there were 33 candidates selected in 2019, who were waiting for the start of training within CCL.

The selection of technical, aeronautical support and administrative staff was conducted according to the internal procedures.

The employment was performed pursuant to the Labour Agreement, the Staff Rules, as well as the Organizational Structure and Job Classification Rules, which was enacted on 1 October 2019.

## TRAINING

In 2020 the ATCO Training Organization, established within CCL's Training Organization, was granted a certificate by the Croatian Civil Aviation Agency for the provision of:

→ **Initial Training**

- Basic Training
- ACS and ADV/ADI Rating Training

→ **Unit Training** (including 16 Unit Endorsement Courses for different locations)

→ **Continuation Training**

- Refresher
- Conversion

→ **OJTI and Assessor Training** (Initial and Refresher), which was approved in 2019.



ATCO trainees upon completion of Basic Training Course in September 2020

The training was performed in compliance with relevant EU regulations and respective training plans. In view of the COVID crisis, CCL turned to its own resources, with a great deal of training organized as distance learning:

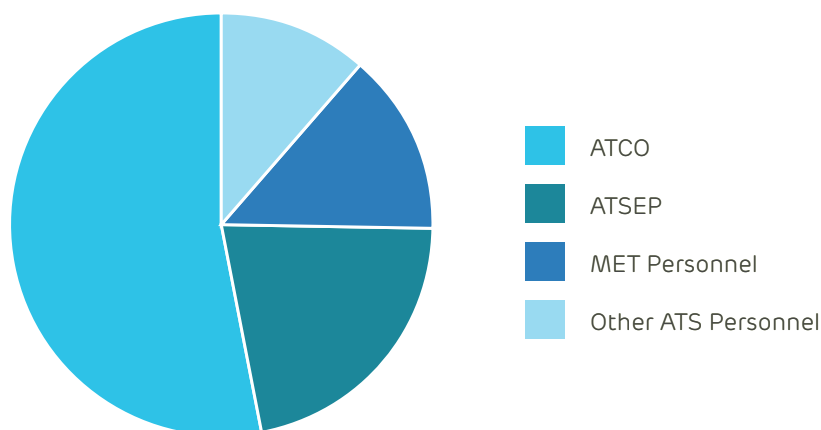


ATCO trainee

- 20 candidates completed the Basic Training
- 16 candidates started the ACS Rating Training, which is expected to be completed in March 2021
- 2 ATCO trainees completed the ADV/ADI Unit Training and obtained the licenses
- 5 ATCO trainees continued the Unit Training at Zagreb ACC, and are expected to get licenses in 2021
- 26 OJT instructors and 12 assessors completed the relevant refresher courses.

The candidates remaining from the 2019 selection process will be trained in 2021.

The initial and refresher training of ATSEP, MET and other aeronautical support staff, and courses relating to different fields of expertise of other staff were also held at CCL, many of them as distance learning.



Licensed personnel



## PROTECTING THE HEALTH OF EMPLOYEES DURING THE COVID 19 PANDEMIC

On March 13, 2020, Director General declared COVID-19 crisis in his capacity of the head of the Company's Crisis Management Team (CMT).

CMT, in cooperation with the Crisis Intervention Team, has introduced the following measures aimed at the protection of health of employees and ensuring the continuity of operations:

- ➔ Guidelines for employees focusing on measures taken in the operational and other facilities and Procedures for Communicable Disease Prevention, Management and Control were issued
- ➔ 24/7 team for psychosocial support was organized
- ➔ Corporate intranet site on COVID-19 information was created
- ➔ Guidelines for working from home were published (remote work in teams whenever possible)
- ➔ Regular disinfection of facilities is performed; face masks were distributed to the employees; employees' body temperature is measured daily
- ➔ Mandatory use of face masks indoors; when outdoors, wearing masks is not mandatory only when physical distance of at least 2m can be kept
- ➔ Live meetings are to be avoided; use of web conference applications is strongly advised
- ➔ Only necessary business trips are allowed; Guidelines for business trips by car were published
- ➔ Mandatory form is to be completed by all employees one day before their return from holidays as well as by all visitors at least one day before visiting CCL premises
- ➔ In case of quarantine not advised by a family doctor but based on the arrangement between the employer and the employee, the employee works from home, while the salary is not reduced as in the case of sick leave (CCL bears all wage costs).

# OUTLOOK AND PRIORITIES FOR 2021

COVID-19 pandemic caused unprecedented crisis in the air transport sector. Priority of the Company for 2021 is to implement business rationalization measures with a clear view of the future needs for the development and modernization of the Company within the existing regulatory framework.

Goals and priorities for 2021 were revised to be aligned with the revised RP3 national performance targets set in the revised RP3 draft Performance Plan (to be submitted to the EC by October 2021) and are as follows:

## SAFETY

- to reach the targets in Safety KPA as set in the revised draft PP and Business Plan for 2021
- to upgrade the ASM tool

## CAPACITY

- to realize the average annual ATFM en route delay at 0.09 minutes/flight
- to continue with the in-house (initial and unit) ATCO training

## ENVIRONMENT

- to reduce inefficiency of the actual route to 1.46% compared to great circle distance, as set in the KPI horizontal en route flight efficiency in the revised draft PP





## COST EFFICIENCY

- ➔ to realise DUC value for the combined 2020/2021 (in EUR 2017) on en route activities

## FINANCE

- ➔ to maintain the financial stability indicator less than 1

## TECHNICAL SYSTEMS

- ➔ to continue with planned development of technical system is planned by means of implementation of technical projects the scope and dynamics of which is consistent with the planned traffic development

## OTHER

- ➔ development of MET tools for ATM system
- ➔ implementation of a new national AIM database
- ➔ improvement of AMC functionality and efficiency
- ➔ further improvement of QMS effectiveness





# FINANCIAL STATEMENTS AND AUDITOR'S REPORT

## RESPONSIBILITY FOR THE ANNUAL FINANCIAL STATEMENTS

The Management Board of the Company CROATIA CONTROL LTD, Velika Gorica, Rudolfa Fizira 2 ("the Company") is responsible for ensuring that the annual financial statements of the Company for the year 2020 are prepared in accordance with the Accounting Act (Official Gazette No. 78/15, 134/15, 120/16, 116/18, 42/20, 47/20) and the International Financial Reporting Standards as adopted by the European Union and published in the Official Journal of the European Union, to give a true and fair view of the financial position, the results of business operations, the changes in equity and the cash flows of the Company for that period.

On the basis of the review, the Management Board of the Company has a reasonable expectation that the Company has adequate resources to continue in operational existence for the foreseeable future. Accordingly, the Management Board has prepared financial statements under the assumption that the Company is a going concern

In preparing these financial statements, the Management Board is responsible for:

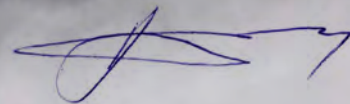
- selecting and consistently applying suitable accounting policies in line with the effective financial reporting standards;
- giving reasonable and prudent judgments and evaluations;
- preparation of the annual financial statements on the going concern principle unless such an assumption is not further appropriate.





The Management Board is responsible for keeping proper accounting records, which shall reflect with reasonable accuracy at any time the financial position, results of operations of the Company, changes in capital and cash flow of the Company, as well as their compliance with the Accounting Act and the International Financial Reporting Standards as adopted by the European Union and published in the Official Journal of the European Union. The Management Board is also responsible for safeguarding the assets of the Company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

Signed on behalf of the Management Board



Vlado Bagarić, Director General

CROATIA CONTROL LTD.  
Rudolfa Fizira 2  
10410 Velika Gorica

May 28, 2021



# INDEPENDENT AUDITOR'S REPORT

To the owner of the company CROATIA CONTROL Ltd.

## REPORT ON THE AUDIT OF ANNUAL FINANCIAL STATEMENTS

### OPINION

We have audited the accompanying annual financial statements of the company CROATIA CONTROL LTD, Velika Gorica, Rudolfa Fizira 2 ("the Company") for the year ended 31 December 2020, which comprise the Statement of Financial Position / Balance Sheet as at 31 December 2020, Statement of Comprehensive Income, Statement of Changes in Equity and the Cash Flow Statement for the year ended, and Notes to the financial statements, including a summary of significant accounting policies and other explanations.

In our opinion, the enclosed financial statements give a true and fair view, of the financial position of the Company as at 31 December 2020, its financial performance and the cash flows for the year then ended, in accordance to the Accounting Act and the International Financial Reporting Standards (IFRSs) as adopted by the European Union and published in the Official Journal of the European Union.

### BASIS FOR OPINION

We conducted our audit in accordance with the Accounting Act, Audit Act and International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Annual 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 (the "IESBA Code") 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 opinion.

### KEY AUDIT MATTERS

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the annual financial statements of the current period, and they include identified most significant risks of material misstatement due to error or fraud with the highest impact on our audit strategy, resources available and the time spent by the engaged audit team. These matters were addressed in the context of our audit of the annual financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters

### NON-CURRENT INTANGIBLE AND TANGIBLE ASSETS

#### Description

Non-current intangible and tangible assets as at 31 December 2020 amount to HRK 439,879 thousand, which represents 36% of the total assets. Total value of current assets was HRK 489,509 thousand (40% of the assets), and its largest share in the amount of HRK 351,849 thousand relates to the item Cash, which normally does not represent a complex position in



the Balance Sheet. Given the material significance of non-current intangible and tangible assets, its role as the key material resource in the functioning of the Company, as well as the complexity of recording of these assets (procurement, calculation of depreciation, measurement, costs capitalization etc.), it is our opinion that these positions in the Statement of Financial Position /Balance Sheet represent the Key Audit Matters.

During 2020, the procurement of non-current and current assets totaled HRK 92,089 thousand and related mostly to the projects of upgrading of various IT systems, infrastructure upgrade projects and procurement of IT equipment and radio navigation equipment.

Pursuant to IAS 16, a part of the gross salary in the amount of HRK 5,477 thousand in 2020 was capitalized to the projects of the ATM system upgrade, and projects of DATA-COM domains.

See Notes 2.7; 16. i 18. to the Financial Statements.

### **How these issues were addressed in the audit**

Our audit procedures included, among others, as follows:

- ➔ Assessment of the harmonization of recognition of the intangible and tangible assets with the relevant International Financial Reporting Standards
- ➔ Testing of the internal controls related to the process of procurement of tangible and intangible assets on the basis of the representative sample of procurement transactions.
- ➔ We assessed the prudence of useful life of assets used by the Company when calculating the depreciation as well as the depreciation start date for activated assets and depreciation end date for assets no longer in use.
- ➔ New procurements of tangible and intangible assets in 2020 were tested on the basis of a representative sample of procurement transactions.
- ➔ On the basis of representative transactions, we tested the disposals and write-off of tangible and intangible assets
- ➔ We examined the capitalization of own costs
- ➔ We determined that the process of arranging and registering the real estate ownership rights has not been completely settled. The settlement of these property legal issues is currently under way.

Through our audit procedures, we ascertained that the non - current tangible and intangible assets in materially significant items have been recorded and published in line with the IFRS.

## **POSTING TRANSACTIONS RELATED TO THE SES REGULATORY FRAMEWORK**

### **Description**

In the Statement of Financial Position (Balance Sheet) as at 31 December 2020, the Company stated a provision, among other, for contingent liabilities arising from the SES (Single European Sky) regulatory framework in the amount of HRK 222,038,457 (31 December 2019 in the amount of HRK 262,839,932). For more detailed information, see Note 2.18, Note 4 and Note 32 in the annual financial statements.

Also, based on the SES regulatory framework, the Company reported contractual assets and revenues in the amount of HRK 218,399,321. For more detailed information, see Note 2.3, Note 3 and Note 28 to the annual financial statements.

Revenues from core business The Company generates based on the provision of air navigation services which are subject to a common regulatory framework based on cost and turnover plans approved by the relevant authorities (RC, EC) with certain surpluses and deficits arising from the difference between planned revenues and actual income. In situations of significant

difference between planned and achieved results, the prescribed mechanism for settling the deficit or surplus of revenues arising from the regulatory framework (SES provisions,) is applied. This complex mechanism requires the Company to make complex estimates with a significant level of judgment and uncertainty as it relates to a period longer than one year, which may lead to the recording of incorrect amounts of SES reservations, ie contractual assets.

Due to the significance of the reported amounts of SES reservations and contracted assets and the complexity of the valuation process, in our opinion these positions in the Statement of Financial Position / Balance Sheet represent a key audit issue.

### **How these issues were addressed in the audit**

Our audit procedures included, among other:

- Checking the validity of the presentation of the mentioned positions by inspecting the relevant EU regulations;
- Implementing Regulations (EU) 2019/317 and 2020/1627 which prescribe a mechanism for the protection of air service providers.
- Assessment of the compliance of the policy of recognition of intangible and tangible assets with IFRS;
- Checking the accuracy of the calculation of the required amounts of SES reservations
- Checking the parameters used in the calculation
- Checking the accuracy of the calculation of the required amounts of contractual assets
- Checking the parameters used in the calculation
- Comparison of calculations with the Performance Plan

Through our audit procedures, we have verified that SES reservations as well as contractual assets in material items have been recorded and disclosed in accordance with IFRS.

## **OTHER INFORMATION IN THE ANNUAL REPORT**

The Management Board of the Company is responsible for the other information. The other information contain the information included in the Annual Report, but do not include the annual financial statements and our Independent Auditor's Report on these statements.

Our opinion on the annual financial statements does not cover the other information except inasmuch as expressly stated in a part of our Independent Auditor's Report under the title Report on other legal requirements, and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, 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. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

## **RESPONSIBILITIES OF MANAGEMENT BOARD AND THOSE CHARGED WITH GOVERNANCE FOR THE ANNUAL FINANCIAL STATEMENTS**

Management Board is responsible for the preparation and fair presentation of the annual financial statements in accordance with IFRSs, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the annual financial statements, Management Board 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 Board either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

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

## AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE ANNUAL FINANCIAL STATEMENTS

Our objectives are to obtain reasonable assurance about whether the annual 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 annual financial statements.

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 annual 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 Board.
- ➔ 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 consolidated 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 Independent 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 annual financial statements, including the disclosures, and whether the annual financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

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.



## REPORT ON OTHER LEGAL REQUIREMENTS

### Report in view of requirements of Regulation (EU) No. 537/2014

1. On 17 June 2020 we were appointed by the Assembly of the Company to carry out an audit of annual financial statements for 2020.
2. At the date of this report, we have been continuously engaged in carrying out the Company's statutory audits, from the audit of the Company's annual financial statements for 2017, up to the audit of the Company's financial statements for 2020, which is a total of 4 year.
3. Besides issues that our independent auditor's report identified as key audit matters within the subsection Report on the audit of annual financial statements, we have nothing to report regarding Article 10 item (c) of Regulation (EU) No. 537/2014.
4. By performing the audit of the Company's financial statements for 2020 as stipulated by law, we are able to detect irregularities, including fraud in accordance with Section 225 of the IESBA Code, Responding to Non-Compliance with Laws and Regulations, which requires us, in carrying out our audit engagement, to establish whether the Company complied with laws and regulations that are generally recognized to have a direct impact on the determination of significant amounts and their disclosures in annual financial statements, as well as other laws and regulations that do not have a direct effect on the determination of significant amounts and their disclosures in annual financial statements, but where observing them may be crucial for operational aspects of the Company's business, its ability to continue as a going concern or its avoidance of significant penalties.

Except where we encounter or become aware of disrespect of any of the aforementioned laws or regulations which is considered insignificant according to our judgment of its content and its influence, financial or otherwise, regarding the Company, its stakeholders and the wider public, we are obliged to inform the Company thereof and seek to investigate such case, as well as take appropriate measures to resolve irregularities and prevent the occurrence of such irregularities in the future. Should the Company fail to correct irregularities regarding the position on the date of audited balance sheet arising on the basis of incorrect disclosures in audited annual financial statements that are cumulatively equal to or greater than the amount of significance for financial statements as a whole, we are required to modify our opinion in an independent auditor's report.

In the audit of the Company's annual financial statements for the year 2020, we determined the significance for financial statements as a whole in the amount of HRK 22,000,000, representing approximately 1.63% of total assets. For the purpose of the calculation of materiality the assets were taken as a criterion because the main activity and task of the Company is rendering air navigation services to civilian and military users of the airspace of the Republic of Croatia, as well as of the airspace which has been delegated to the Company to manage, pursuant to international conventions and agreements for the provision of which the property and its technological modernity (software and equipment) are of key importance. In addition, the Company operates in a regulated activity, which includes the regulation of the unit price of the service. In line with the aforementioned, the primary goal of the Company is not to make profit or to increase the value for its owners, as it is the case with other economic operators operating on the market, therefore it is not the revenues that are the key category when reviewing the financial statements of the Company, but the assets which enable the Company to perform its function.

5. Our audit opinion is consistent with the additional audit report prepared for the Company's Audit Committee in accordance with provisions of Article 11 of Regulation (EU) No. 537/2014.
6. During the period between the initial date of the Company's audited annual financial statements for the year 2020 and the date of this report, we have not provided the Company with any prohibited non-audit services. In the business year before that period, we did not provide services regarding the design and implementation of internal control and risk man-

agement procedures related to the preparation and/or control of financial information or the design and implementation of technological systems for financial information. Moreover, we have maintained our independence in the performance of the audit in relation to the Company.

**Report in view of requirements of the Accounting Act**

1. In our opinion, based on activities we have carried out during the audit, the data contained in the accompanying management report of the Company for 2020 have been aligned with the accompanying annual financial statements of the Company for 2020.
2. In our opinion, based on activities we have carried out during the audit, the accompanying management report of the Company for 2020 was prepared in accordance with the Accounting Act.
3. Based on our knowledge and understanding of the Company's business and its environment gained within the scope of our audit, we have not established any significant misstatements in the accompanying management report of the Company.

Zagreb, May 28, 2021

Audit d.o.o.

Ulica Silvija Strahimira Kranjčevića 41/II

10000 Zagreb

Darko Karić, director

Zoran Vuk, certified auditor

INCOME STATEMENT AND STATEMENT OF OTHER COMPREHENSIVE INCOME		
	2020	2019
	in HRK	in HRK
Sales revenue	535,675,313	799,337,141
Other operating revenues	83,274,994	42,021,881
<b>Operating revenues</b>	<b>618,950,307</b>	<b>841,359,022</b>
Raw material and material costs	(8,474,224)	(10,787,806)
Other external costs	(52,495,358)	(59,705,286)
Material costs	(60,969,582)	(70,493,092)
Net salaries and wages	(243,925,985)	(242,848,164)
Costs for taxes and contributions from salaries	(144,094,995)	(144,703,843)
Contributions on gross salaries	(78,645,466)	(78,327,026)
Staff costs	(466,666,446)	(465,879,033)
Depreciation	(115,551,244)	(111,141,164)
Other costs	(27,553,150)	(34,782,132)
Impairment of short-term assets	(723,181)	(763,402)
Impairment	(723,181)	(763,402)
Provisions	(8,144,462)	(123,360,589)
Other operating expenses	(3,190,955)	(3,862,388)
<b>Operating expenses</b>	<b>(682,799,020)</b>	<b>(810,281,800)</b>
Financial income	11,271,004	4,098,863
Financial expenses	(4,308,955)	(2,522,346)
<b>TOTAL INCOME</b>	<b>630,221,311</b>	<b>845,457,885</b>
<b>TOTAL EXPENSES</b>	<b>(687,107,975)</b>	<b>(812,804,146)</b>
<b>PROFIT BEFORE TAXATION</b>	<b>(56,886,664)</b>	<b>32,653,739</b>
Profit tax	10,278,496	(5,539,949)
<b>PROFIT FOR THE PERIOD</b>	<b>(46,608,168)</b>	<b>27,113,790</b>
<b>NET OTHER COMPREHENSIVE INCOME FOR THE PERIOD</b>	<b>-</b>	<b>-</b>
<b>COMPREHENSIVE INCOME FOR THE PERIOD</b>	<b>(46,608,168)</b>	<b>27,113,790</b>



## STATEMENT OF FINANCIAL POSITION / BALANCE SHEET

	At 31 December 2020	At 31 December 2019
	in HRK	in HRK
<b>ASSETS</b>		
Concessions, patents, licenses, software and other rights	103,895,605	125,190,334
Advances for intangible assets	268,472	2,819,518
Intangible assets in progress	33,163,917	34,673,119
<b>Intangible assets</b>	<b>137,327,994</b>	<b>162,682,971</b>
Land	48,969,390	48,662,749
Buildings	46,940,411	55,509,001
Plant and equipment	113,133,972	125,924,678
Vehicles, tools and office equipment	10,710,317	12,248,920
Advances for tangible assets	4,423,334	5,824,561
Tangible assets in progress	79,098,046	57,474,705
<b>Tangible assets</b>	<b>303,275,470</b>	<b>305,644,614</b>
<b>Financial assets</b>	<b>120,590</b>	<b>119,081</b>
<b>Deferred tax assets</b>	<b>57,599,208</b>	<b>47,312,411</b>
<b>NON-CURRENT ASSETS</b>	<b>498,323,262</b>	<b>515,759,077</b>
Raw material and inventories	1,727,350	2,647,916
Advances for inventories		0
<b>Inventories</b>	<b>1,727,350</b>	<b>2,647,916</b>
Accounts receivable	103,299,791	126,635,597
Receivables from employees and shareholders	281,425	293,131
Receivables from government and other institutions	32,143,403	7,604,705
Other receivables	207,861	18,753
<b>Receivables</b>	<b>135,932,480</b>	<b>134,552,186</b>
Loans, deposits and similar	0	119,573,260
<b>Financial assets</b>	<b>0</b>	<b>119,573,260</b>
<b>Cash at bank and in hand</b>	<b>351,849,167</b>	<b>582,864,822</b>
<b>CURRENT ASSETS</b>	<b>489,508,997</b>	<b>839,638,184</b>
Prepaid expenses and accrued income	223,680,452	6,043,266
<b>TOTAL ASSETS</b>	<b>1,211,512,711</b>	<b>1,361,440,527</b>
<b>OFF-BALANCE SHEET ITEMS</b>	<b>409,376,163</b>	<b>412,910,291</b>

## STATEMENT OF FINANCIAL POSITION / BALANCE SHEET - CONTINUED

	At 31 December 2020	At 31 December 2019
	in HRK	in HRK
<b>CAPITAL AND LIABILITIES</b>		
<b>Subscribed capital</b>	<b>450,000,000</b>	<b>450,000,000</b>
<b>Other reserves</b>	<b>273,034,433</b>	<b>245,920,643</b>
<b>Retained earnings</b>	<b>38,117,752</b>	<b>38,117,752</b>
<b>Profit for the current year</b>	<b>-46,608,168</b>	<b>27,113,790</b>
<b>CAPITAL AND RESERVES</b>	<b>714,544,017</b>	<b>761,152,185</b>
Provisions for pensions, severance pays and similar liabilities	85,054,272	80,297,378
Other provisions	136,984,185	182,542,554
<b>Provisions</b>	<b>222,038,457</b>	<b>262,839,932</b>
Liabilities to banks and other financial institutions	67,435,450	108,989,531
Lease liabilities	1,979,367	2,464,029
Deferred tax liabilities	13,944	5,642
<b>Long-term liabilities</b>	<b>69,428,761</b>	<b>111,459,202</b>
Loan liabilities and deposits	798,605	614,008
Liabilities to banks and other financial institutions	44,813,175	42,768,859
Accounts payable	49,767,775	46,431,536
Liabilities to employees	23,545,800	27,529,575
Liabilities for taxes, contributions and similar fees	21,288,174	27,639,545
Other short-term liabilities	9,223,917	11,910,611
<b>Short-term liabilities</b>	<b>149,437,446</b>	<b>156,894,134</b>
<b>Accrued expenses and deferred income</b>	<b>56,064,030</b>	<b>69,095,074</b>
<b>TOTAL CAPITAL AND LIABILITIES</b>	<b>1,211,512,711</b>	<b>1,361,440,527</b>
<b>OFF-BALANCE SHEET ITEMS</b>	<b>409,376,163</b>	<b>412,910,291</b>

STATEMENT OF CHANGES IN EQUITY					
	Share (subscribed) capital	Other reserves	Retained earnings	Profit for the current year	Total
	in HRK	in HRK	in HRK	in HRK	in HRK
<b>At 31 December 2015</b>	<b>412,759,600</b>	<b>21,527,557</b>	<b>38,481,567</b>	<b>48,640,006</b>	<b>521,408,730</b>
Share capital increase	37,240,400	(37,240,400)	-	-	-
Distribution of profit	-	48,640,006	-	(48,640,006)	-
Profit for the current year	-	-	-	68,972,956	68,972,956
<b>At 31 December 2016</b>	<b>450,000,000</b>	<b>32,927,163</b>	<b>38,481,567</b>	<b>68,972,956</b>	<b>590,381,686</b>
	Share (subscribed) capital	Other reserves	Retained earnings	Profit for the current year	Total
	in HRK	in HRK	in HRK	in HRK	in HRK
<b>At 31 December 2016</b>	<b>450,000,000</b>	<b>32,927,163</b>	<b>38,481,567</b>	<b>68,972,956</b>	<b>590,381,686</b>
Distribution of profit	-	68,972,956	-	(68,972,956)	-
Profit for the current year	-	-	-	91,318,246	91,318,246
<b>At 31 December 2017</b>	<b>450,000,000</b>	<b>101,900,119</b>	<b>38,481,567</b>	<b>91,318,246</b>	<b>681,699,932</b>
	Share (subscribed) capital	Other reserves	Retained earnings	Profit for the current year	Total
	in HRK	in HRK	in HRK	in HRK	in HRK
<b>At 31 December 2017</b>	<b>450,000,000</b>	<b>101,900,119</b>	<b>38,481,567</b>	<b>91,318,246</b>	<b>681,699,933</b>
Distribution of profit	-	91,318,246	-	(91,318,246)	-
Profit for the current year	-	-	-	52,702,277	52,702,277
<b>At 31 December 2018</b>	<b>450,000,000</b>	<b>193,218,365</b>	<b>38,481,567</b>	<b>52,702,277</b>	<b>734,402,210</b>
	Share (subscribed) capital	Other reserves	Retained earnings	Profit for the current year	Total
	in HRK	in HRK	in HRK	in HRK	in HRK
<b>At 31 December 2018</b>	<b>450,000,000</b>	<b>193,218,365</b>	<b>38,481,567</b>	<b>52,702,277</b>	<b>734,402,210</b>
First adoption of IFRS 16	-	-	(363,815)	-	(363,815)
Distribution of profit	-	52,702,277	-	(52,702,277)	0
Profit for the current year	-	-	-	27,113,790	27,113,790
<b>At 31 December 2019</b>	<b>450,000,000</b>	<b>245,920,642</b>	<b>38,117,752</b>	<b>27,113,790</b>	<b>761,152,185</b>
	Share (subscribed) capital	Other reserves	Retained earnings	Profit for the current year	Total
	in HRK	in HRK	in HRK	in HRK	in HRK
<b>At 31 December 2019</b>	<b>450,000,000</b>	<b>245,920,642</b>	<b>38,117,752</b>	<b>27,113,790</b>	<b>761,152,185</b>
Distribution of profit	-	27,113,790	-	(27,113,790)	0
Profit for the current year	-	-	-	(46,608,168)	(46,608,168)
<b>At 31 December 2020</b>	<b>450,000,000</b>	<b>273,034,432</b>	<b>38,117,752</b>	<b>(46,608,168)</b>	<b>714,544,017</b>



CASH FLOW STATEMENT			
		2020	2019
		in HRK	in HRK
<b>I</b>	<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>		
<b>A</b>	Profit before tax	(56,886,664)	32,653,739
	Adjustments:		
	Depreciation	115,551,244	111,141,164
	(Gains)/ losses from asset disposal and non-current asset revaluation	1,241,914	(736,546)
	Interest and dividend income	(1,346,365)	(1,483,944)
	Interest expense	1,378,088	1,709,952
	Provisions	(40,801,475)	100,565,484
	Foreign exchange differences (unrealized)	6,993,772	1,802,525
	Other adjustments for non-cash transactions and unrealized (gains / losses)	734,205	(1,260,053)
<b>B</b>	Adjustments	83,751,383	211,738,582
<b>C= A+B</b>	<b>NET CASH FLOWS BEFORE CHANGES IN WORKING CAPITAL</b>	<b>26,864,719</b>	<b>244,392,321</b>
	(Increase)/ Decrease in short-term liabilities	(3,149,633)	7,738,713
	(Increase) in short-term receivables	(241,557,725)	14,811,385
	(Increase)/ Decrease in inventories	10,698	430,408
<b>D</b>	<b>Changes in working capital</b>	<b>(244,696,660)</b>	<b>22,980,506</b>
<b>E</b>	Interest expenses	(1,284,487)	(1,614,646)
<b>F</b>	Profit tax paid	(23,507,399)	(26,252,702)
<b>I=Σ(A:F)</b>	<b>NET CASH FLOWS FROM OPERATING ACTIVITIES</b>	<b>(242,623,827)</b>	<b>239,505,479</b>
<b>II</b>	<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>		
	Cash inflows from sale of non-current tangible and intangible assets	13,394	213,966
	Cash inflows from interest	1,346,364	1,483,944
	Other cash inflows from investment activities	122,493,229	828,768
<b>G</b>	<b>Total cash inflows from investing activities</b>	<b>123,852,987</b>	<b>2,526,678</b>
	Cash outflows for purchase of non-current tangible and intangible assets	(88,137,037)	(105,847,619)
	Cash outflows for given loans and savings deposits for the period		-
	Other outflows from investing activities	0	(118,787,116)
<b>H</b>	<b>Total cash outflows from investing activities</b>	<b>(88,137,037)</b>	<b>(224,634,735)</b>
<b>II= G+H</b>	<b>NET CASH FLOWS FROM INVESTING ACTIVITIES</b>	<b>35,715,950</b>	<b>(222,108,057)</b>

**CASH FLOW STATEMENT**

<b>III</b>	<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>		
	Cash inflows from the loan principals, debentures, credits and other borrowings	2,335,895	-
	Other inflows from financial activities	22,443,241	31,119,494
<b>J</b>	<b>Total cash inflows from financing activities</b>	<b>24,779,136</b>	<b>31,119,494</b>
	Cash outflows from the loan principals and bonds	(43,903,992)	(42,674,545)
	Other outflows from financial activities	(4,982,922)	(239,085)
<b>K</b>	<b>Total cash outflows from financing activities</b>	<b>(48,886,914)</b>	<b>(42,913,630)</b>
<b>III = J + K</b>	<b>NET CASH FLOWS FROM FINANCING ACTIVITIES</b>	<b>(24,107,778)</b>	<b>(11,794,136)</b>
<b>I + II + III</b>	<b>TOTAL NET CASH FLOWS</b>	<b>(231,015,655)</b>	<b>5,603,286</b>
	<b>CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD</b>	<b>582,864,822</b>	<b>577,261,536</b>
	<b>CASH AND CASH EQUIVALENTS AT END OF PERIOD</b>	<b>351,849,167</b>	<b>582,864,822</b>
	<b>INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS</b>	<b>(231,015,655)</b>	<b>5,603,286</b>



Zagreb Airport



# ABBREVIATIONS

<b>ACC</b>	Area Control Centre	<b>CALMet</b>	Community for the Advancement of Learning in Meteorology and related disciplines
<b>ACS</b>	Area Control Service	<b>CANSO</b>	Civil Aviation Navigation Services Organization
<b>ACE</b>	ATM Cost-Effectiveness	<b>CAPEX</b>	Capital Expenditure
<b>ADSP</b>	ATM Data Service Provider	<b>CCAA</b>	Croatian Civil Aviation Agency
<b>ADV/ADI</b>	Aerodrome Control Visual / Aerodrome Control Instrument	<b>CCL</b>	Croatia Control Ltd.
<b>AI</b>	Artificial Intelligence	<b>CEF</b>	Connecting Europe Facility
<b>AIC</b>	Aeronautical Information Circular	<b>CER</b>	Enlarged Committee for Route Charges
<b>AIP</b>	Aeronautical Information Publication	<b>CIR</b>	Commission Implementing Regulation
<b>AIM/AIS</b>	Aeronautical Information Management / Aeronautical Information Services	<b>CMT</b>	Crisis Management Team
<b>AIXM</b>	Aeronautical Information Exchange Model	<b>CNS</b>	Communication, Navigation and Surveillance
<b>AMDT</b>	Amendment	<b>COOPANS</b>	Cooperation between Air Navigation Service providers
<b>AMC</b>	Airspace Management Cell	<b>CRCO</b>	Central Route Charges Office
<b>ANS</b>	Air Navigation Services	<b>CroATMS</b>	Croatian Air Traffic Management System
<b>ANSP</b>	Air Navigation Service Provider	<b>DLS</b>	Data Link System
<b>AoR</b>	Area of Responsibility	<b>DUC</b>	Determined En-Route Unit Cost
<b>APP</b>	Approach Control Procedure	<b>EAD</b>	European Aeronautical Information Database
<b>APS</b>	Approach Control Surveillance	<b>EC</b>	European Commission
<b>ASM</b>	Airspace Management	<b>EMS</b>	Environmental Management System
<b>A-SMGCS</b>	Advanced-Surface Movement Guidance & Control System	<b>ENR</b>	En-route
<b>ATC</b>	Air Traffic Control	<b>EoSM</b>	Efficiency of Safety Management
<b>ATCC</b>	Air Traffic Control Centre	<b>ERM</b>	Enterprise Risk Management
<b>ATCO</b>	Air Traffic Control Officer	<b>EU</b>	European Union
<b>ATFM</b>	Air Traffic Flow Management	<b>EUMETNET</b>	Network of European Meteorological Services
<b>ATM</b>	Air Traffic Management	<b>EUROCONTROL</b>	European Organization for the Safety of Air Navigation
<b>ATS</b>	Air Traffic Services	<b>FAB</b>	Functional Airspace Block
<b>ATSEP</b>	Air Traffic Safety Electronics Personnel	<b>FAB CE</b>	FAB Central Europe
<b>ATSP</b>	Air Traffic Services Provider	<b>FIR</b>	Flight Information Region
<b>BHANSNA</b>	Bosnia and Herzegovina Air Navigation Services Agency	<b>FRA</b>	Free Route Airspace
<b>CA</b>	Croatia Airlines	<b>G</b>	Ground
<b>CAGR</b>	Compound Annual Growth Rate		



<b>GAFOR</b>	General Aviation Forecast	<b>PP</b>	Performance Plan
<b>GAT</b>	General Air Traffic	<b>PRU</b>	Performance Review Unit
<b>HRK</b>	Croatian Kuna	<b>PSR</b>	Primary Surveillance Radar
<b>IFP</b>	Instrument Flight Procedure	<b>QMS</b>	Quality Management System
<b>IFR</b>	Instrument Flight Rules	<b>RI</b>	Runway Incursion
<b>ICAO</b>	International Civil Aviation Organization	<b>RP3</b>	Third Reference Period, 2020-2024
<b>IFR</b>	Instrument Flight Rules	<b>RWY</b>	Runway
<b>INO</b>	International NOTAM operations	<b>SATM</b>	Specific ATM
<b>IP</b>	Internet Protocol	<b>SDA</b>	SESAR Deployment Alliance
<b>ISO</b>	International Organization for Standardization	<b>SDD</b>	Static and Dynamic Data
<b>JC</b>	Just Culture	<b>SDM</b>	SESAR Deployment Manager
<b>KEA</b>	Key performance Environment indicator based on Actual trajectory	<b>SDO</b>	Static Data Operations
<b>KPA</b>	Key Performance Area	<b>SEAFRA</b>	South-East Free Route Airspace
<b>KPI</b>	Key Performance Indicator	<b>SeCMS</b>	Security Management System
<b>LDZA</b>	Aerodrome Zagreb	<b>SECSI</b>	South-East Common Sky Initiative
<b>LDZL</b>	Aerodrome Lučko	<b>SES</b>	Single European Sky
<b>Ltd.</b>	Limited	<b>SESAR</b>	Single European Sky ATM Research
<b>MAGNet</b>	Multiservice ATM Grade Network	<b>SJU</b>	SESAR Joint Undertaking
<b>MET</b>	Aeronautical Meteorological Services	<b>SMI</b>	Separation Minima Infringement
<b>MoD</b>	Ministry of Defense	<b>SMS</b>	Safety Management System
<b>MSSR</b>	Monopulse Secondary Surveillance Radar	<b>SUP</b>	Supplement
<b>NDB</b>	Non-Directional Beacon	<b>SWIM</b>	System Wide Information Management
<b>NET</b>	Network	<b>TMA</b>	Terminal Maneuvering Area
<b>NM</b>	Network Manager	<b>TO</b>	Training Organization
<b>NOTAM</b>	Notice to Airmen	<b>TOKAI</b>	Toolkit for ATM Occurrence Investigation
<b>OJT</b>	On the Job Training	<b>TWR</b>	Tower Control Unit (Aerodrome Control Tower)
<b>OPEX</b>	Operating Expense	<b>UAS</b>	Unmanned Aircraft Systems
<b>PAMS</b>	Published Aeronautical information publication Management Service	<b>UHF</b>	Ultra High Frequency
<b>PBN</b>	Performance Based Navigation	<b>VARP</b>	VoIP ATC Radio Project
<b>PCP</b>	Pilot Common Project	<b>VCS</b>	Voice Communication System
<b>PENS</b>	Pan-European Network Service	<b>VFR</b>	Visual Flight Rules
<b>PFB</b>	Preflight Briefing	<b>VHF</b>	Very High Frequency
<b>PIB</b>	Pre-flight Information Bulletins	<b>VoIP</b>	Voice Over Internet Protocol
		<b>WAM</b>	Wide Area Multilateration

# Impressum

## Published by

Croatia Control Air Navigation Services, Limited  
Rudolfa Fizira 2  
HR-10410 VELIKA GORICA, CROATIA, P.O.B. 103  
[www.crocontrol.hr](http://www.crocontrol.hr)

## Editor

Marina Halužan

## Translator

Nataša Briški

## Graphic design

Ivica Drusany

## Photographs

Josip Škof  
Tomislav Haraminčić  
Ivica Drusany  
Eugen Miljan  
Damir Đuranac  
Dalibor Ban  
Želimir Trifunović  
Mario Birkić  
HGSS  
Shutterstock  
Freepik

## Printed by

Printera grupa







Croatia Control Air Navigation Services, Limited  
Rudolfa Fizira 2  
HR-10410 VELIKA GORICA, CROATIA, P.O.B. 103  
T: +385 1 6259 400  
F: +385 1 6228 101  
E: [dg.office@crocontrol.hr](mailto:dg.office@crocontrol.hr)  
[www.crocontrol.hr](http://www.crocontrol.hr)