



CROATIA  
CONTROL



Annual Report 2014



# Croatia Control Ltd

## Annual Report 2014



January 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31  
February 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28  
March 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28  
April 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28  
May 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28  
June 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28  
July 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28  
August 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28  
September 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28  
October 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31  
November 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30  
December 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30



CROATIA  
CONTROL

2014

# CONTENTS

1.	Message from the Director General .....	4
2.	Company Profile.....	5
2.1.	History of Croatia Control Ltd.....	5
2.2.	Mission.....	6
2.3.	Vision.....	6
2.4.	Core Business .....	6
2.5.	Organisational Structure.....	7
2.6.	International Activities .....	8
3.	Corporate Governance .....	11
3.1.	Assembly .....	11
3.2.	Supervisory Board .....	11
3.3.	Management.....	11
3.4.	Division Directors .....	11
3.5.	Executive Directors.....	11
4.	Operations and Infrastructure .....	12
4.1.	Operational Units .....	12
4.2.	Traffic Flows and Seasonality.....	13
4.3.	Civil-Military Coordination .....	15
4.4.	Operational Improvements.....	16
4.5.	Environment.....	17
4.6.	Technical Infrastructure .....	18
5.	Safety, Quality and Security.....	22
5.1.	Safety Management .....	22
5.2.	Quality Management .....	24
5.3.	Environment Management System.....	25
5.4.	Security Management .....	25
5.5.	SES Certification and Safety Oversight .....	26
6.	Additional Services .....	28
6.1.	Aeronautical Meteorology (MET).....	28
6.2.	Aeronautical Information Services (AIS) .....	29
7.	Performance .....	30
7.1.	Traffic .....	30
7.2.	Delay .....	31
7.3.	Capacity Improvements .....	31
7.4.	Service Units and Unit Rate.....	32
7.5.	Costs and Income .....	33
7.6.	Cost Effectiveness.....	35
7.7.	Performance scheme .....	36
8.	Human Resources .....	38
8.1.	Human Resources Management Policy.....	38
8.2.	Employees.....	38
8.3.	Employment and Recruiting .....	39
8.4.	Training.....	39
9.	Outlook and Priorities for 2015 .....	40
10.	Financial Statements and Auditor's Report.....	41
11.	Abbreviations .....	50

# 1. Message from the Director General



Dragan Bilac

Director General

The year 2014 was successful for Croatia Control Ltd. (CCL), despite many challenges the Company was faced with, including the finalisation of the ATM system modernisation to the Top Sky COOPANS version to be in line with the version of other four partners of COOPANS alliance. This ATM system has been applied by seven ATC Centres in five European countries. It ensures CCL's permanent harmonisation with the EU standards as well as competitiveness on the European ANS market. Also, the Company had to adapt to Kosovo upper airspace transition in April as well as to BHATM transition of lower airspace which was taking place during all the year and was finalised in November.

CCL's delays in 2014 were 0,32 minute per flight, slightly above the planned value of 0,30 minute per flight. However, having in mind 5,6% more traffic in 2014 in comparison to 2013, the most extreme weather conditions during the summer as well as implementation and coping with transitions mentioned above, these data on delay were not as unfavourable since 37% of all delays were caused by weather conditions.

On 2 August 2014 we achieved a record number of 2590 IFR flights in one single day. At the same time, August 2014 was the busiest month so far with more than 67.000 IFR flights in its Area of Responsibility.

CCL takes appropriate actions to decrease fuel consumption of airspace users, and, in cooperation with its partners, continues with the implementation of the cross-border Free Route Airspace project. This project is one of the key improvements within the EU initiative on establishing the SES regardless of state borders, aiming to enhance safety and efficiency and to increase capacity of air traffic in Europe. On top of that, CCL implemented the environment management system in accordance with the ISO 14001 standard.

CCL is an active promoter of regional integration and co-operation within the SES, including participation in the COOPANS association and FAB CE. CCL became a full member of CANSO in April 2014, and in December 2014 CCL became the member of SESAR Deployment Alliance as a part of COOPANS as one of the most active contributors to the European ATM development.

2014 was specific for CCL because of development of the Performance Plan for reference period RP2, especially since CCL was not contributing to the RP1 performance management due to the fact that Croatia was not an EU member in 2012. Much effort was invested and quite mature Performance Plan was developed in cooperation with the Ministry of Transport, Maritime Affairs and Infrastructure, Croatian Civil Aviation Authority as well as with other FAB CE partners.

New challenges are ahead of us, including the implementation of some outstanding projects in order to meet all relevant safety and quality standards across all segments of CCL's activity.

Our publication presents our accomplishments which will hopefully be beneficial to our customers, airlines and their passengers, as well as to our professional partners and service providers.

## 2. Company Profile

### 2.1. History of Croatia Control Ltd

CCL is a state-owned limited liability company providing air navigation services and it was founded in 1998, a year after Croatia acceded to Eurocontrol (European Organisation for the Safety of Air Navigation). Croatia was already a member of the International Civil Aviation Organisation (ICAO) and the European Civil Aviation Conference (ECAC) since 1992.

Before 1998, the Air Traffic Services Authority as a part of Ministry of Transport was responsible for the provision of air traffic services in Croatia.

The key founding steps in the history of Croatia Control are:

- **September 1991:** the Zagreb Area Control Centre is operated within the Federal Air Traffic Control Authority;
- **January 1992:** the Air Traffic Services Authority (ATSA) of Croatia is founded as part of the Ministry of Maritime Affairs, Transport and Communications;
- **May 1992:** Croatia acceded to ICAO;
- **July 1992:** Croatia acceded to ECAC;
- **March 1997:** Croatia acceded to EUROCONTROL;
- **February 1998:** Croatia Control Ltd. (CCL) founded as a limited liability company;
- **December 1999:** CCL registered as a limited liability company at the Commercial Court;
- **March 2009:** CCL certified as air navigation service provider by the Ministry of the Maritime Affairs, Transport and Infrastructure;
- **May 2011:** Croatia signed the Agreement on the Establishment of Functional Airspace Block Central Europe (FAB CE) covering the airspace of Austria, Bosnia and Herzegovina, Croatia, Czech Republic, Hungary, Slovak Republic and Slovenia;
- **June 2011:** CCL became a full member of the initiative of ANSPs of Ireland, Denmark, Sweden and Austria called COOPANS. The COOPANS members are committed by a Framework Agreement aiming at reduced development costs, and required human and financial resources for the upgrading of their air traffic management systems;
- **April 2014:** CCL became a full member of CANSO (Civil Air Navigation Services Organisation);
- **December 2014:** CCL, as a part of COOPANS, became a member of the SESAR Deployment Alliance, which has been appointed as the SESAR Deployment Manager by the European Commission.

Over the years, the traffic in Croatia was undergoing strong growth, while the equipment was becoming outdated and consequently upgraded or replaced. CCL was faced with more demanding requirements so the ATM system Eurocat 2000E (CroATMS) was put into operational use in 2005 - it was a relevant and well-planned response to these changes. The development continued along the same track with a view to finishing a multiannual investment cycle marked by the projects of improved radar coverage, CroATMS upgrade and its extension to remote units. In the last few years, intensive activities associated with the launching of a new investment cycle took place, including CroATMS upgrade and modernisation to the Top Sky COOPANS ATM system as the most significant one.

## 2.2. Mission

Our mission is to provide safe and top quality air navigation services, to full satisfaction of our users and shareholders. The mission will be achieved in cooperation with our partners in the European ATM network, with highly competent staff and a motivating work environment.

## 2.3. Vision

We aim to be among leading air navigation service providers in Central Europe. Our vision will be achieved through a flexible organisation that meets its user requirements.

## 2.4. Core Business

CCL's operation in 2014 was based on its Annual Plan and its services to the customers were provided in a genuinely transparent and non-discriminatory manner.



The core business of CCL comprises the following activities:

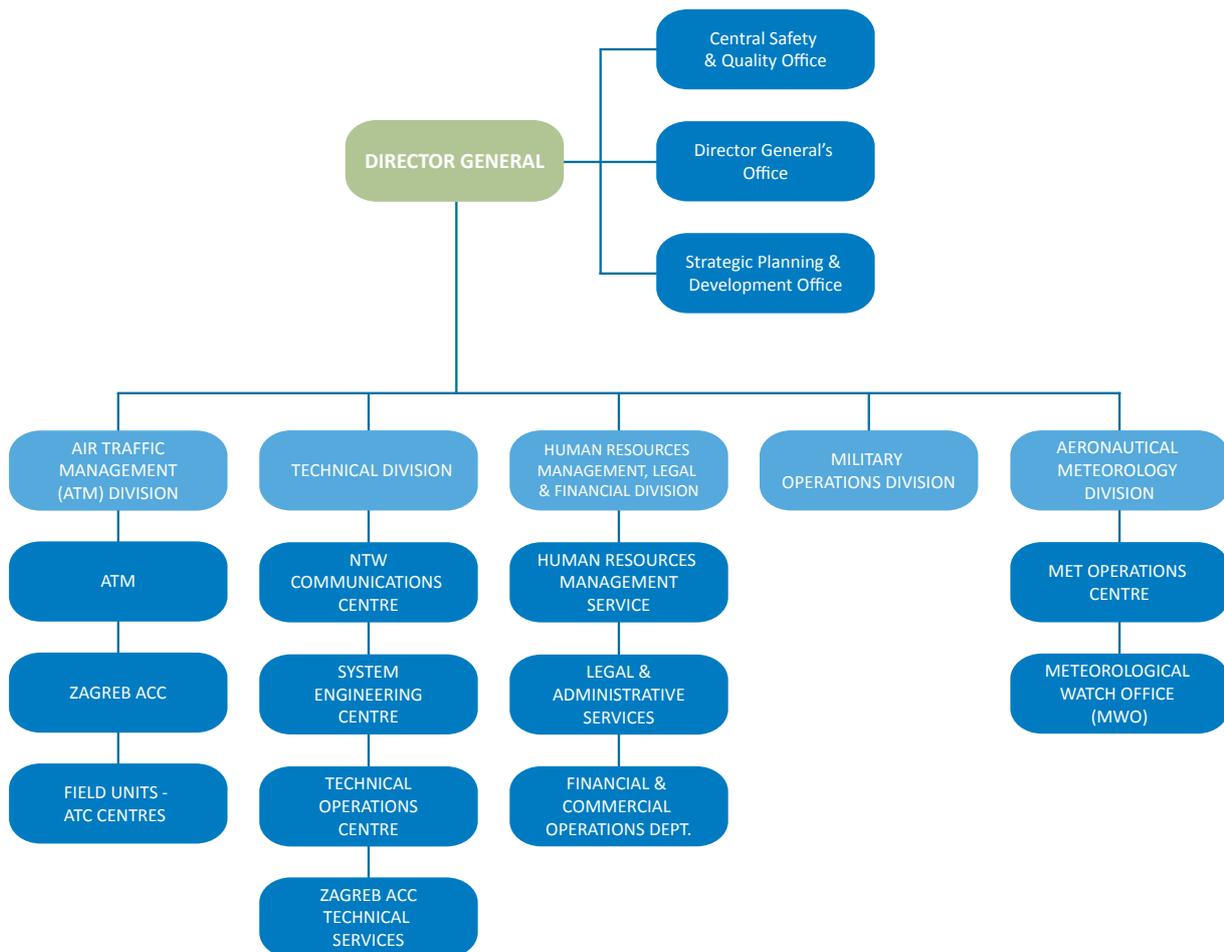
- provision of air navigation services (ANS) which includes:
  - provision of air traffic services (ATS), particularly air traffic control, alerting service, flight information and pre-flight information service, all aimed at providing a safe, orderly and smooth air traffic, as well as flight data processing and storage, promulgation of safety-related information, management of air traffic flow and airspace utilisation;
  - provision of communication, navigation and surveillance services (CNS);
  - provision of aeronautical information services (AIS);
  - provision of aeronautical meteorological services (MET).

- collecting, processing and issuing of aeronautical information, including special publications;
- specifying the operating requirements for air traffic management, control and monitoring systems, equipment, infrastructure, etc.;
- responsibility for the airspace and flight procedures design, minding the interests of military and civil users, as well as environmental protection;
- development, construction, maintenance, monitoring and checking the function of air navigation and meteorological facilities, systems and equipment;
- aeronautical meteorological and aerodrome climatology observations, as well as drafting and exchange of aeronautical meteorological reports;
- preparation of aviation weather forecasts, as well as special information and warnings for the airports and routes in Croatian airspace, preparation of aeronautical meteorological documentation and performance of other tasks as specified by the ICAO documents;
- implementation and coordination of specific engagements in various international organizations, particularly in ICAO and Eurocontrol;
- professional and life-long training of the staff;
- export and import of goods for own needs.

## 2.5. Organisational Structure

CCL's Headquarters is located in Zagreb. The company is organised into five divisions. These are: Air Traffic Management, Technical Division, Aeronautical Meteorology, Military Operations and Human Resources, Legal and Financial Affairs. The Air Traffic Management division includes, in addition to the Zagreb Air Traffic Control Centre, the regional ATC centres Pula, Rijeka, Lošinj, Split/Brač, Zadar, Dubrovnik and Osijek. These operational units are responsible for the provision of air traffic services, technical support, meteorological, ARO and administrative services required for smooth air traffic flow.





Main divisions and departments of CCL

## 2.6. International Activities

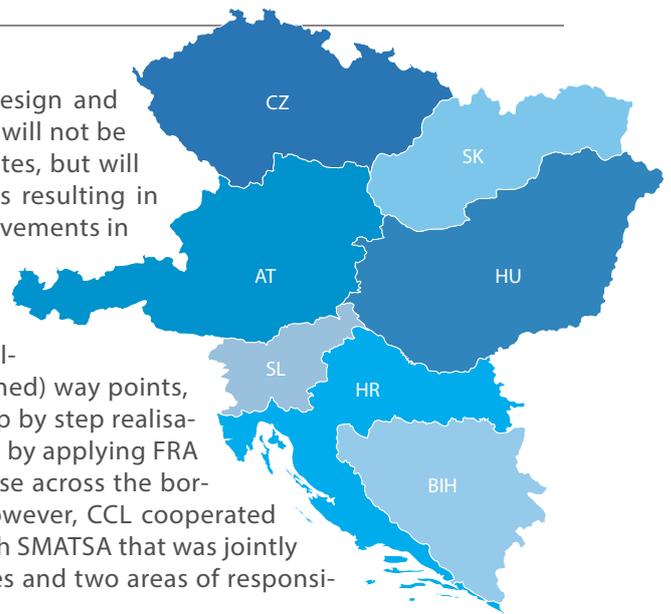
### Services for Bosnia and Herzegovina

CCL is providing air traffic services in the western part of the airspace of Bosnia and Herzegovina. For last 15 years CCL had provided services in entire lower airspace until BHANSA took over the responsibility for service provision in most of the airspace below FL 325. The BHATM transition of lower airspace was completed by November 2014 and bilateral agreement has been developed.

### Regional Co-operation

Functional Airspace Block (FAB CE) is a joint initiative of seven states: Austria, Bosnia and Herzegovina, Croatia, Czech Republic, Hungary, Slovak Republic and Slovenia, with their respective ANSPs, including CCL. To meet the future needs of growing air travel and transport industry, the European ATM needs to become more flexible, harmonised and seamless. The European Commission's SES initiative aims at the unification of European airspace so the creation of FABs independent of national boundaries optimises airspace usage and capacity, making the flow of air traffic over Europe more efficient. The FAB CE Agreement as well as FAB CE ANSP Cooperation Agreement were signed in May 2011. The implementation of FAB CE maintains and, wherever possible, improves the current level of safety notwithstanding the increased traffic, through the establishment of a common safety management procedures and practices. The ATM services within the FAB CE should be provided in an environ-

ment characterised by the cross-border airspace design and sectorisation. The airspace design process therefore will not be constrained by the borders between the FAB CE States, but will be based on operational needs and air traffic flows resulting in better horizontal and vertical flight efficiency, improvements in productivity and the consequent increase in capacity. With the FRA concept (Free Route Airspace), the users are able to freely plan the route between a defined entry and a defined exit point, with the possibility to route via intermediate (published or unpublished) way points, without reference to the ATS route network. The step by step realisation within FAB CE will result in incremental benefits by applying FRA structures and principles and deploying FRA stepwise across the borders to a FAB CE-wide implementation by 2018. However, CCL cooperated beyond FAB limits and implemented FRA project with SMATSA that was jointly coordinated with BHANSA, encompassing four States and two areas of responsibility so far.



Functional Airspace Block (FAB CE)

## COOPANS



REAL COOPERATION, REAL RESULTS

The COOPANS stands for “COOPeration of ANS Providers”. COOPANS framework agreement between CCL, IAA, LfV, NaviAir and Austro Control (providers from Sweden, Denmark, Ireland, Austria and Croatia) has gone further than the traditional relationship between Air Navigation Service Providers and the ATM supply industry and has set the foundations for a strong and long-term partnership. COOPANS has adopted a common managerial approach where the five ANSPs act as one organisation together with the supplier Thales, focusing on common success. The harmonisation of functionalities and joint investments enable the implementation of an advanced and unified ATM system. Activities include, inter alia, common stepwise operational and technological evolution optimisation of life cycle costs, sharing the same system and support baseline for operation and maintenance. COOPANS members maximise benefits using common tools, methods, and operational procedures throughout the system life cycle.

From a financial perspective, common procurement is defined for all major programme steps: development, integration, deployment and maintenance. COOPANS' highest priority is to provide a customer-oriented solution supporting economic efficiency and environmental protection, with a focus on maintaining the required level of safety whilst increasing capacity to meet our customers' demands. COOPANS intends to be at the forefront of the European standards, implementing the latest proven ATM tools to minimise CO<sub>2</sub> emissions and improve situational awareness. CCL launched into operation the new ATM system based on the latest COOPANS version in February 2014, by which Zagreb Area Control Centre became a part of big COOPANS family consisting of seven ATC centres in five European countries that use the same ATM system with the same version of software. It ensures CCL's permanent harmonisation with the EU standards and competitiveness on the European market of ANS. Through joint development and cooperation with Thales, all five ATM systems are harmonized, including all upgrades, usually twice a year. The members make joint investments and share expenses, thus realizing cost savings and safety benefits.



## SESAR 2020, SESAR DM, JU

CCL joined the SESAR Deployment Alliance, which has been appointed by the European Commission as the SESAR Deployment Manager (SDM). Joining the Alliance will enable CCL to take an active part in the development of the European ATM system in the next long-term period as well as to have the access to the available EU funds, which will strengthen its position in the European environment and yield positive financial results. On 5 December 2014 the European Commission signed the Framework Partnership Agreement with the SESAR Deployment Alliance, aiming at enhancing the performance of the European ATM system, resulting in an increased number of safer and cheaper flights, reduced effects on the environment and accomplishment of the goals set by the Single European Sky initiative. In the next five years the airlines, airport operators and air navigation service providers will receive approx. EUR 3 billion from the EU funds for the development and implementation of joint projects and for the modernisation of the European ATM system.

SESAR (Single European Sky ATM Research) is a technological part of Single European Sky initiative. After the SESAR 2020 programme has been launched, the SESAR Joint Undertaking (SJU, a public-private partnership between the European Union and aviation stakeholders) announced in July 2014 the call for expression of interest to become a candidate member of the SJU. CCL together with COOPANS partners founded the COOPANS SESAR Consortium, which applied to the call for expression of interest in September 2014. SJU accepted the application. In the meantime the dialogue phase for SESAR 2020 began, in which the content of the programme was defined through the Definitions of Work.

In both SESAR Deployment Manager and SESAR 2020 activities, CCL and COOPANS cooperate with A6 partners, spreading the cooperation to other partners, depending on particular activity.



# 3. Corporate Governance

CCL's governance structure comprises the Assembly, the Supervisory Board and the Management.

## 3.1. Assembly

The Assembly consists of the Chairman - Minister of Maritime Affairs, Transport and Infrastructure and two members - Minister of Finance and Minister of Defence.

## 3.2. Supervisory Board

The Supervisory Board monitors the activities of the Company. The Supervisory Board appoints the Director General of the Company on the basis of open competition for a period of five years.

The Supervisory Board consists of five members, four of whom are appointed and may be recalled by the Assembly, and one is a company employee. The members are:

- **Prof. Darko Prebežac, Ph.D**  
Chairman of the Supervisory Board
- **Dinko Staničić**  
Vice Chairman
- **Željko Gojko**  
Employee Representative
- **Marijana Müller**  
Member
- **Hrvoje Filipović**  
Member

## 3.3. Management

- **Dragan Bilać**  
Director General

## 3.4. Division Directors

There are five main divisions in CCL, managed by the following directors:

- **Mihajlo Jelisavčić**  
Director, Air Traffic Management (ATM) Division
- **Dario Grgurić**  
Director, Technical Division
- **Anka Nikić**  
Director, Human Resources, Legal and Financial Division
- **Stjepan Varga**  
Acting Director, Military Operations Division
- **Alen Sajko**  
Director, Aeronautical Meteorology Division

## 3.5. Executive Directors

There are three Executive Directors within the ATM Division:

- **Ivana Baričević**  
Executive Director, Air Traffic Management (ATM)
- **Siniša Belošević**  
Executive Director, Zagreb ATCC
- **Josip Josipović**  
Executive Director, Regional ATC Centres

# 4. Operations and Infrastructure

## 4.1. Operational Units

CCL's main operational units are as follows:

- Zagreb ATCC: Zagreb Air Traffic Control Centre provides area control services for both Zagreb Control Area (CTA) and a part of the Control Area (CTA) in Sarajevo FIR. It also provides approach control services in Zagreb TMA.;
- Zagreb/Lučko Aerodrome Control: provides tower control in Zagreb Control Zone and Lučko aerodrome Control Zone (CTR);
- Eight regional ATC centres providing approach and tower control: Osijek, Rijeka, Pula, Zadar, Split, Dubrovnik, Lošinj, Brač

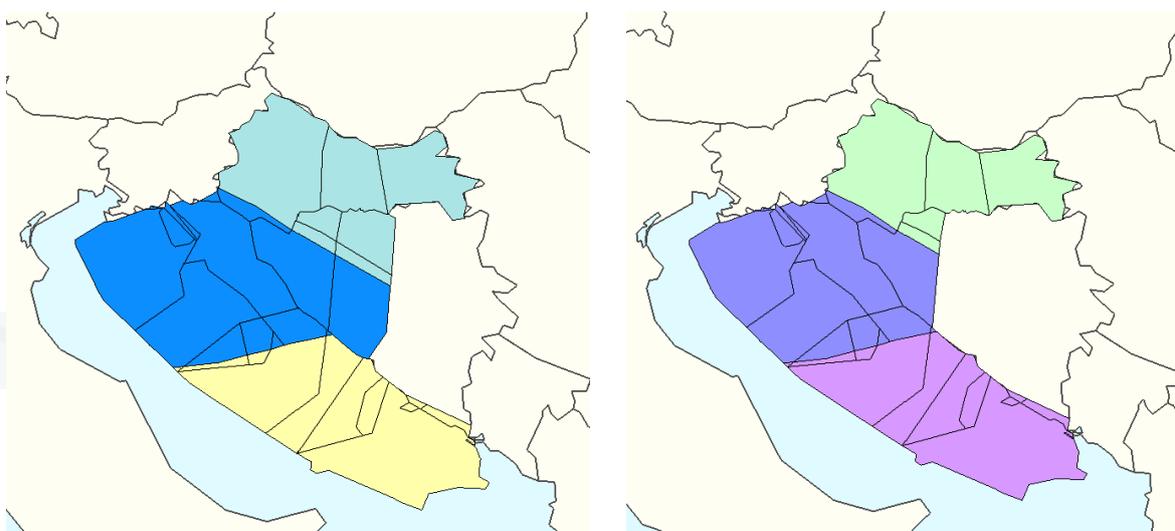


ATS operational units provide the following services:

- Air Traffic Control Services;
- Flight Information Services;
- Aeronautical Information Services;
- Traffic Flow Management Services;
- Airspace Management Service, including AMC;
- Communication Services;
- Alerting Services.

Zagreb ACC provides air traffic services in the control area of Zagreb FIR, in a part of the airspace of Bosnia and Herzegovina and in the small parts of airspace of other neighbouring countries where the responsibility for the air traffic control has been delegated to CCL under relevant international agreements. In a part of Zagreb FIR airspace the responsibility for ATS has been delegated to neighbouring countries, which has also been done in compliance with the relevant international agreements on mutual delegation of ATS provision.

According to the mutual agreements, BHANSA took over the major part of the lower airspace below FL 325, previously delegated to both CCL and SMATSA. It resulted in the changes in the Area of responsibility, as shown in the picture below:

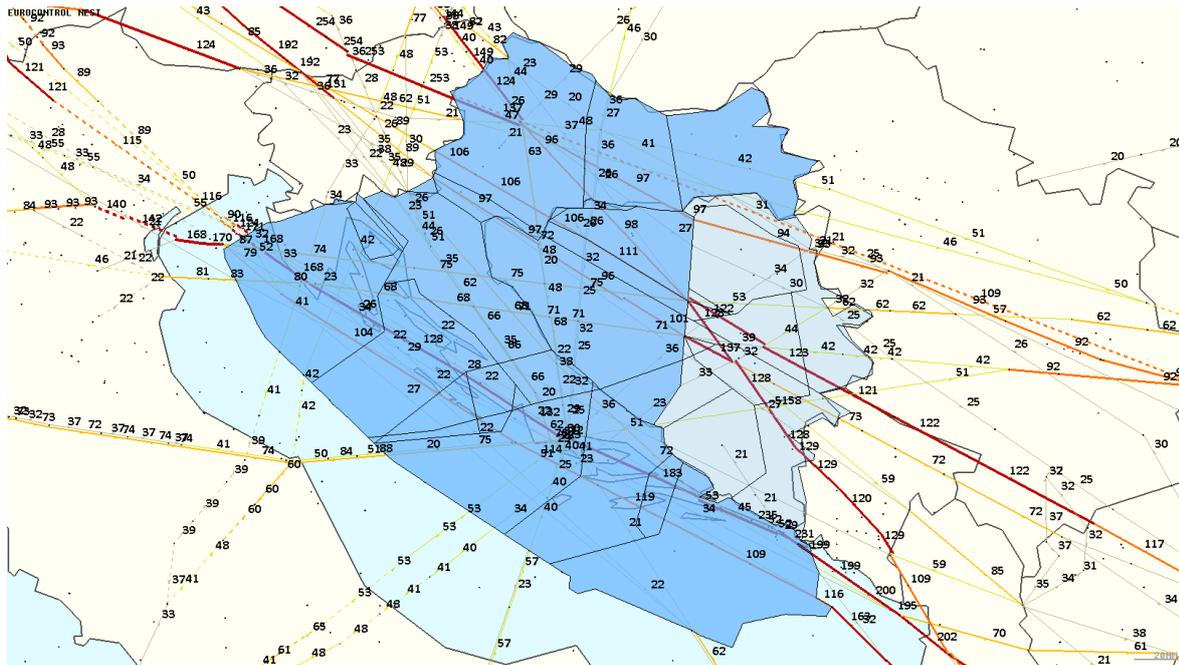


ACC Zagreb area of responsibility (AoR) after 13.11.2014. in upper and lower airspace

Through its provision of air traffic services for Bosnia and Herzegovina, CCL has been providing air navigation services in the context of an early example of the Functional Airspace Blocks that are the key features of the Single European Sky. This means that the operational borders of certain sector groups extend across national borders, thus contributing to improved efficiency and flow of international air traffic.

## 4.2. Traffic Flows and Seasonality

The main traffic flows over Croatia in 2014 are shown in the picture below. The numbers represent the total number of IFR GAT operations on a particular route on the busiest day of summer 2014.



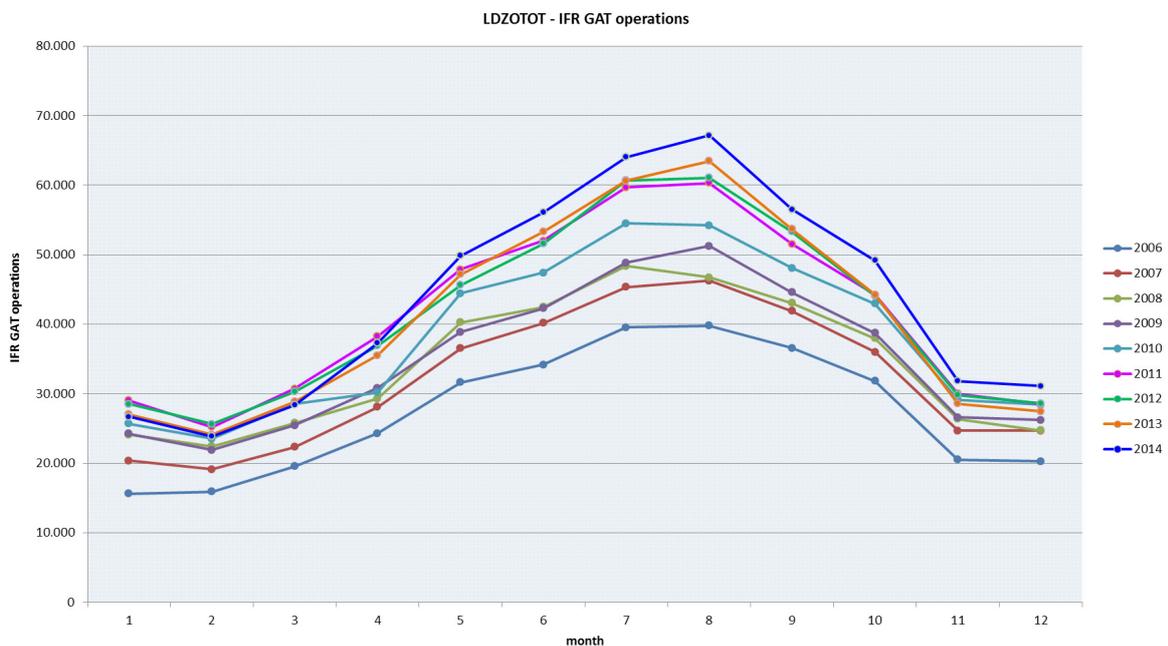
Main traffic flows over Croatia

Traffic in Croatian airspace is highly seasonal and the main flows run in South East – North West direction.

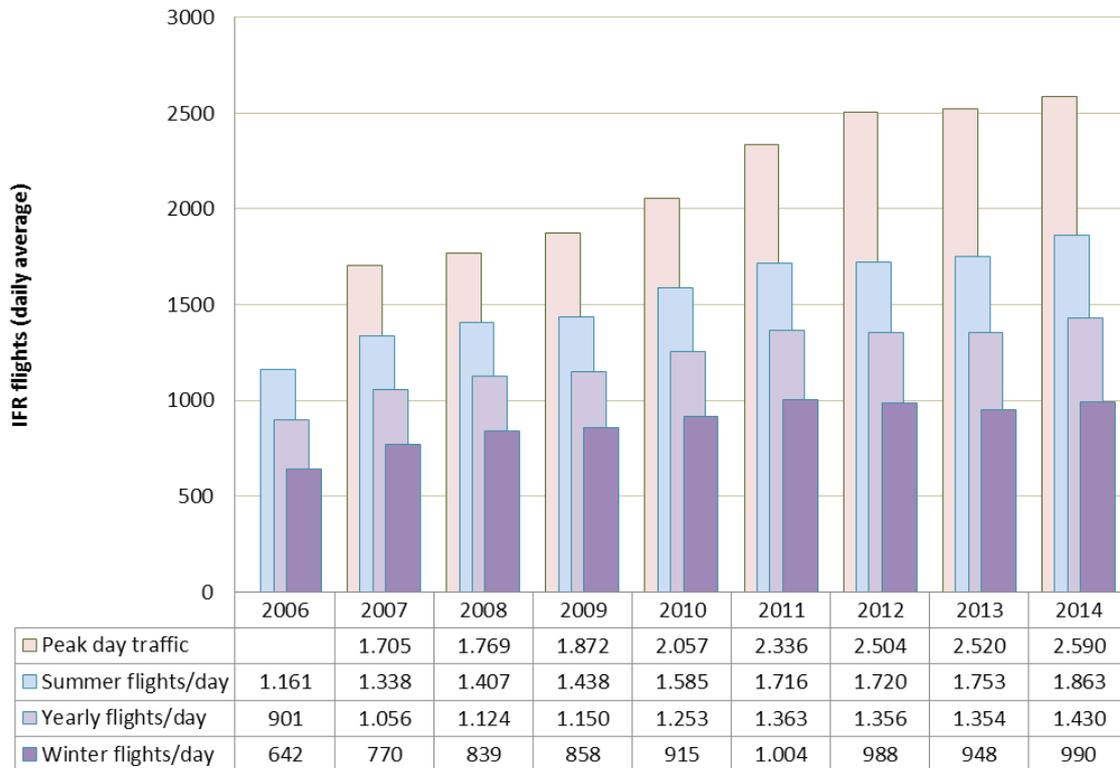
The volume of traffic in the period May-October is much greater than the volume in the rest of the year. The intense seasonality of traffic means that CCL faces particular challenges in achieving a balance between the required capacity and use of resources throughout the year.

Traffic routes over the entire South-East axis of the European airspace are already very close to the shortest routes, with Croatia in a lead position within FAB CE, which is an advantage both in terms of flight efficiency as well as of reduced harmful emissions.

The graph below shows the evolution in total number of IFR GAT flights controlled by CCL.

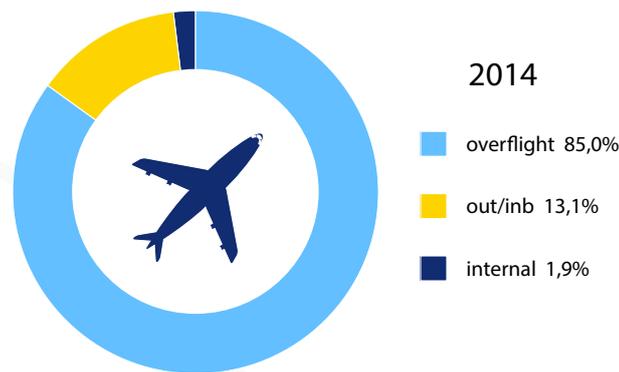


Peak day traffic has been continuously growing together with summer daily averages, and in 2014 the average daily traffic was 1430 operations per day, while the summer peak day counted for 2590 flights.



LDZOTOT Peak day traffic, Summer, Yearly and Winter daily averages

In 2014, 85% of the flights in Croatia were overflights, 1,9% were domestic flights and the remaining 13,1% were international flights, arriving at or departing from Croatian airports.



Distribution of flights in Croatia

### 4.3. Civil-Military Coordination

In Croatian airspace CCL is also responsible for the service provision to the Ministry of Defence of the Republic of Croatia pursuant to the Air Traffic Act and other applicable regulations. For the purpose of maintaining a high level of safety and quality, relevant air traffic data is 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. In order to enable more efficient and flexible use of the airspace, the civil-military Airspace Management Cell has been established.

## 4.4. Operational Improvements

In 2014, CCL in cooperation with SMATSA has extended the validity of the previously implemented 30 night DCT's to 24H operation and increased the number of DCT options with the aim of further increasing the efficiency of ATM and in line with other developments within the EATMN. This extended the positive impact on AOs, increased the quality of our service and contributed to the reduction of the greenhouse emissions. Due to its geographical position in the South-East Axis flow, Croatia is located en-route which is expected to grow even further. Adequate capacity planning is thus the paramount in the overall planning as Croatia has further potential for growth arising from the shortest as well as the cheapest route options.

### Free Route Airspace Concept

The utilisation of DCT routes has a direct impact on the efficiency of CCL, while reducing adverse impacts on the environment. Continuous monitoring of the use of these planning options (routes) and comparing the results with those related to the flights along RNAV routes, allow us to track the changes in fuel consumption, which in turn means less harmful emissions. Connecting to other Free Route initiatives within the FAB CE, as well as other FABs, will be done through an overall network coordination.

Step 1	Time limited implementation of FRA / DCT in a defined airspace
Step 2	H24/7 implementation of direct connections in a defined airspace <ul style="list-style-type: none"> <li>•2.a. DCT within ATC units</li> <li>•2.b DCT Cross border between 2 or more ATC units within FAB CE / with adjacent FABs</li> <li>•2.c FRA entry / exit within ATC Units (based on conditional entry/exit points)</li> <li>•2.d FRA Cross border between 2 or more ATC units within FAB CE / with adjacent FABs</li> <li>•2.e FRA/DCT cross border FABCE wide</li> </ul>
Step 3	FAB CE cross border FRA (based on conditional entry / exit points) according to EC regulation at least FL310+
Step 4	FAB CE cross border FRA plus additional seamless operations

### Capacity

Capacity is defined as the ability to provide ATS in a defined volume of airspace, taking into consideration the high safety standards achievable without significant operational changes, impact on the environment and economy. It is the maximum number of aircraft which can safely transit through airspace within a defined time frame.

Capacity planning is one of the most important aspects in the provision of ATS and an important factor reflecting on the overall performance.

### Baseline Capacity

Baseline capacity is defined as an effective capacity which can be delivered and maintained in peak traffic periods and is determined annually by NM ACCESS process. This is done based on the recordings of a two week period during summertime and collection of all relevant inputs, such as exact sector opening times, DELAY produced as well as the number of operations and other relevant factors. On the basis of these information the ACC Baseline capacity is calculated using the reverse CASA method.

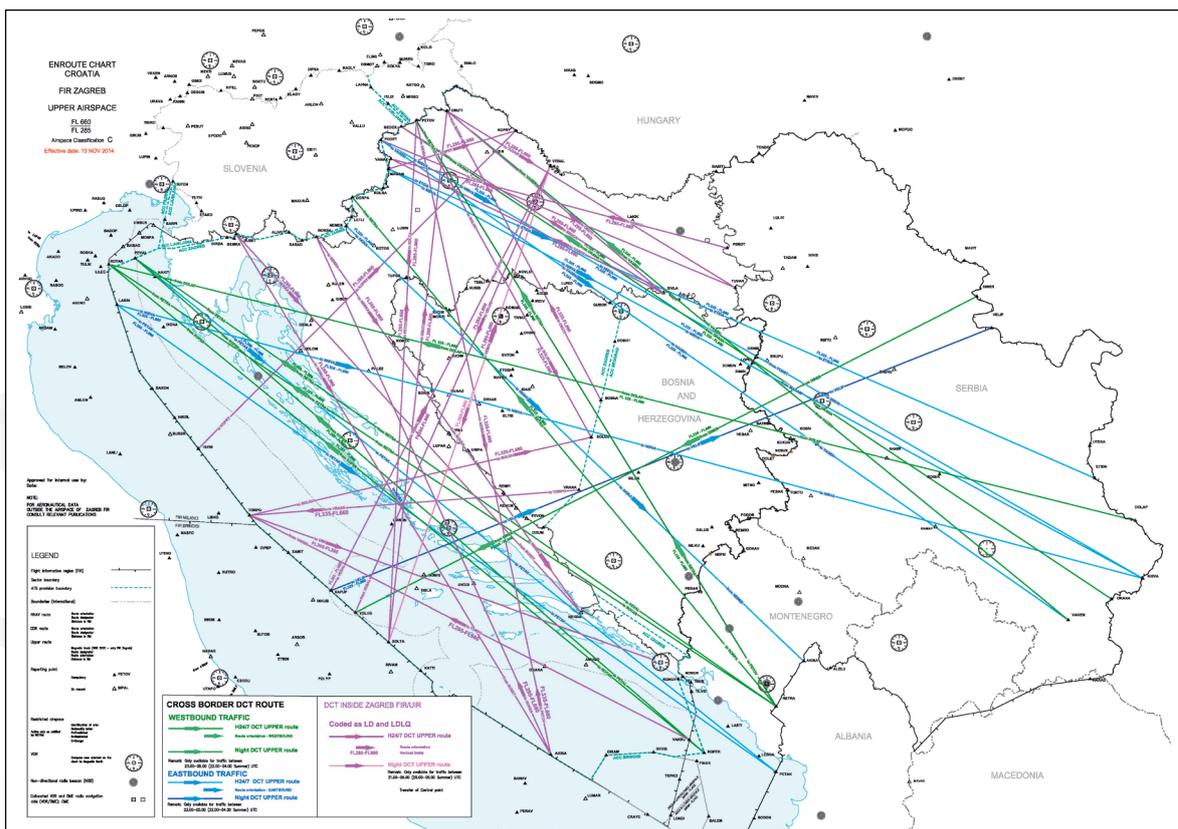
## Delays

Delay is measured for all regulations used throughout the year, and basically reflects a lack of capacity. The year 2014 ended with a delay of 0.32 min/flight although the target was 0,30 min/flight. Compared with the year 2013, delay increased almost 4 times, mainly due to increase of traffic and limited capacity which is 42,2% of delays or 71,093 minutes, and partly due to unexpectedly adverse weather that produced around 37% or 59.069 minutes of delay. More information about delays can be found in the chapter 7 (Performance) of this report.

## 4.5. Environment

For the purpose of compliance with LSSIP requirements and in coordination with Croatia Airlines, the implementation of Continuous Descent Approach (CDA) procedures has been initiated at the Zagreb Airport.

CCL takes appropriate actions to decrease fuel consumption of airspace users. This is done by route design (introduction of direct routes) and the development of new procedures (CDA, CCA). In cooperation with its partners, CCL implemented cross-border direct routes between the areas of responsibility (AoR) of Zagreb and Belgrade Area Control Centres (ACCs) as a part of the Free Route Airspace (FRA) concept and the night FRA implementation has been initiated as well (completed early 2015).



Cross-border direct routes

This project is one of the key improvements within the EU initiative on establishing the SES regardless of state borders, aiming at enhancing safety and efficiency and increasing the capacity of air traffic in Europe. When compared to the existing structure of routes and air traffic, the establishment of these direct routes and night FRA implementation will enable a reduction in planned route distance, savings of fuel, reduction of CO<sub>2</sub> emissions and less NO<sub>x</sub>.

## 4.6. Technical Infrastructure

### Overview

Highly qualified engineers and technicians have continuously been engaged in the maintenance and upgrading of the following systems: ATM Data Processing Systems, Communications Systems, including radio-communication transceiver, Navigation Systems, Radar Systems, Electric Power Systems, Network Communications Systems and Meteorological Systems.

Croatia, as a member of EUROCONTROL, shall comply with the European Single Sky Implementation Plan (ESSIP) / Local Single Sky Implementation Plan (LSSIP), which actually represents the five-year plans that include the actions to be taken by ECAC countries with a view to achieve the ESSIP objectives and improve the performance of their respective ATM systems. These Plans also include a report to be submitted by each country on the level of its compliance with SES regulations. Furthermore, certain investments are required to be in compliance with the EC Implementation Rules and ICAO mandates.

The obsolescence of the equipment and the resulting compromised reliability make its replacement the imperative for CCL so that it would be able to proceed with the provision of its core services.

Besides the high cost of the maintenance of obsolete equipment, the impracticability of installing new software into the existing hardware makes the compliance with newly emerging requirements even more difficult. Therefore, continuous modernisation and improvement of infrastructure and equipment is needed.

CCL has a plan for the modernization and replacement of capital equipment required for the provision of its services. This plan covers critical facilities including:

- Navigation aids;
- Meteorological systems;
- Communications;
- Ground links;
- Surveillance sensors and processors; and
- Central ATM system comprising all tools used by CCL's ATCOs for the provision of ATC services.

### 2014 Investment Plan

The projects included in the investment plan for 2014 have been categorised as follows:

- CroATMS upgrade (including Emergency ATM system implementation project – ARES);
- Infrastructure replacement;
- Compliance projects;
- Projects related to performance improvements.

CroATMS upgrade projects are capital investments required for imperative hardware replacement and software upgrade of the main CroATMS system to the COOPANS Top Sky ATM system version. This system is the heart of the CCL's most important infrastructure and represents the most significant item of the capital investments to be achieved through the following projects. Further, a number of other technical systems had to be implemented or upgraded in order to adapt to COOPANS ATM system in order to facilitate the integration into other CCL's systems of the CroATMS version as updated within the COOPANS initiative. While CCL has been operating CroATMS successfully, maintaining an operational ATC system is an ongoing activity requiring well-defined arrangements for software and hardware maintenance to keep the system operating optimally, as well as carrying out upgrades to the basic functionality in response to day-to-day operational needs and newly arising regulatory requirements. The challenges faced by CCL include hardware obsolescence, sub optimal software upgradability and maintaining commonality and control of upgrades of remote tower systems.

A HW upgrade contract and SW upgrade contract with COOPANS partners were concluded in 2011. In 2012 the system was designed, hardware procured and installed and COOPANS software configured for CCL needs in accordance with initial plans.

The project has been successfully completed on time and on budget on 13 February 2014, when the new ATM system became fully operational. A number of new functionalities have been prepared to be available, such as Elementary Mode S support, CCAMS, FPL2012, GRIB2 and ATM system support for CPDLC. In parallel, common COOPANS contracts for on-going system developments in order to keep the system up-to-date and comply with new SES regulations, as well as with local requirements to enhance and harmonize operational use of the ATM system, have been concluded and are in development phase. Therefore, some of the advanced functionalities will be available already at the beginning of 2015, notably Enhanced Mode S (DAP) and support for ADS-B and WAM. The first phase of the ATM emergency system ARES project implementation, which encompassed "clear the sky" function, was successfully activated together with the new ATM system in February 2014. In the second phase planned for 2015, ARES will be upgraded with additional operational features that will enable limited service continuity in case of main ATM system failure.

Infrastructure replacement projects are capital investments required for the replacement of obsolete and worn out equipment in order to enable CCL to continue to provide ATM services and are achieved through the following ongoing projects according to the investment plan:

- Automatic Meteorological Station System Upgrade/Replacement (AMS Split, Pula, Zagreb);
- Basic Weather Observation Systems Upgrade/Replacement (VAMS50 Rijeka, Brač, Osijek);
- CCL's MW Link Transmission Network Development;
- Procurement, Commissioning and Installation of VRRS;
- NAV System Replacement and Modernisation;
- Modernisation and Replacement of VCCS and Emergency VCS Systems Aeronautical Information Database and Meteorological System Modernisation Programme

Compliance projects involve those investments that are necessary to ensure compliance with the applicable global and regional regulations currently in effect, and are to be achieved through the following projects:

- Project of AFTN/CIDIN upgrade to AMHS
- Aeronautical Data and Information Quality Compliance with the Single European Sky Requirements Project - CroQADI
- In order to enable provision of the operational procedures based on GNSS, the EDCN (EGNOS Data Collection Network) receiving and data collecting system was installed and put into operation.

Upon putting into operation of new AMHS system in October 2013, the migration of CIDIN Rome and Vienna to IP based AMHS links started in 2014. After successfully performed Interoperability and Preoperational tests, all CIDIN traffic was moved to AMHS Vienna link in March 2014. Coordination of migration to CIDIN Rome link started with ENAV but with limited progress.

Performance-related projects cover the investments to be made by CCL in order to improve its performance in terms of improved and more efficient provision of services to its users, and they include inter alia:

- Old ACC Building Renovation
- RWY Fibre Optic Cabling Project
- ACC/TMA VHF/UHF Radio Sites Expansion Project
- DATA-COM systems modernization project

## → SUR System Upgrade

- TMA Pula: In 2014 procurement of the new radar system was conducted. Installation and commissioning of the new radar system (to be finished by the end of 2015).
- South sector and TMA Dubrovnik: TMA/En-route ground-based SUR system planned for the near future (2016+);
- Airport Zagreb: A-SMGCS Project planned for the near future (2016);

In 2014 the operational network was expanded with simulated WAN and two pseudo Remote Towers in order to provide test environment for future requirements and integration of new ATM systems. In parallel, implementation of new Information Security block (INFOSEC) which would provide appropriate levels of security to ensure real-time information exchange guaranteeing confidentiality, integrity and availability (CIA) of operational (ATM) data in the Cyberspace was started. Change procedure was initiated and approved for Controller Pilot Data Link Services (CPDLC) provision which will be implemented from 2015 to 2017.

Full list of projects scheduled for implementation in 2014 is given in the table below.

<b>Project name</b>	<b>Start</b>	<b>Operational</b>
CCL centralised technical monitoring and control system	Before 2012	2017
ACC/TMA VHF/UHF radio system expansion project	Before 2012	2014
RRL replacement project at Zagreb ACC and Split TMA	Before 2012	2015
CCL MW link transmission network development	Before 2012	2015
Old ACC building renovation project	Before 2012	2016
Flexible use of airspace (FUA) project	Before 2012	2015
Project of AFTN/CIDIN upgrade to AMHS	Before 2012	2014
CroATMS upgrade to COOPANS	Before 2012	2014
Procurement of consoles for simulator and COOPANS	Before 2012	2016
Modernisation and replacement of VCCS and emergency VCS systems	Before 2012	2015
New ACC building and TWR infrastruct. adapt. As a part of CroATM modern.	Before 2012	2014
Emergency ATM system implementation project - ARES	2012	2014
Project of modernization of AIM system and MET data processing system	2012	2016
NDB (beacons) procurement and replacement project	2012	2014
Centralised monitoring room upgrade at ATC Pula	2012	2014
Fire alarm system replacement project (RS Kozjak, ATC Rijeka and ATC Lošinj)	2012	2014
Upgrade of FPS-117 radars to EMS standard	2012	2014
CMMS software procurement and installation	2013	2014
Structured cabling upgrade: fibre optic OTE-TTE-WTE connections	2013	2014
Remote units - TMA and TWR areas approach control project	2013	2014
MWO relocation project	2013	2015
MET to ATM support system development project	2013	2017
DATA-COM systems modernization project	2014	2019
VOICE-COM systems modernization and replacement project	2014	2019
NAV systems modernization and replacement project	2014	2019
Ground-based surveillance systems upgrade	2014	2019

AWOS/MET systems modernization and replacement project	2014	2019
VAMS systems upgrade project (Rijeka, Brač, Osijek)	2014	2015
400 kW photovoltaic power plant	2014	2015
Administrative information system modernization project	2014	2014
Establishing of integrated business information system	2014	2017
3D tower simulator	2014	2014
Installation of fire escape on TWR Rijeka and TWR Split	2014	2014
Building and TWR Osijek reconstruction	2014	2014
Security and protection of sites improvement project	2014	2019



### Plans for investments in coming years

21

Projects scheduled for implementation during 2015:

Project name	Start	Operational
CCL centralised technical monitoring and control system	Before 2012	2017
CCL MW link transmission network development	Before 2012	2015
Flexible use of airspace (FUA) project	Before 2012	2015
Procurement of consoles for simulator and COOPANS	Before 2012	2016
Modernisation and replacement of VCCS and emergency VCS systems	Before 2012	2015
CMMS software procurement and installation	2013	2015
DATA-COM Systems Modernization Project	2014	2019
VOICE-COM Systems Modernization and Replacement Project	2014	2019
NAV Systems Modernization and Replacement Project	2014	2019
Ground-based Surveillance Systems Upgrade	2014	2019
AWOS/MET Systems Modernization and Replacement Project	2014	2019
VAMS systems upgrade project (Rijeka, Brač, Osijek)	2014	2015
400 kW photovoltaic power plant	2014	2015
Administrative information system modernization project	2014	2015
Security and protection of sites improvement project	2014	2019
ATM System Upgrade	2015	2019
Reconstruction of buildings and infrastructure	2015	2019
ICT Systems Modernisation Project	2015	2019
MET-ATM Domain Projects	2015	2019

# 5. Safety, Quality and Security

Air traffic safety is given the highest priority by CCL. To further improve the quality of service provided to our users, a Central Safety and Quality Office has been established at the corporate level, reporting directly to the Director General.

The Central Safety and Quality Office covers the areas of:



## 5.1. Safety Management

### Safety Management System

Safety management system (SMS), including a safety management function, has been in place since January 2007. The Safety Committee, which is the highest corporate body responsible for safety issues, meets on a monthly basis and it consists of Director General, Division Directors, Executive Directors and Safety Manager.

The main component of the SMS is the Safety Management Manual which defines SMS organisation and processes as well as basic SMS procedures, in order to comply with the SMS requirements laid down in national regulations, Single European Sky requirements and EUROCONTROL Safety Regulatory Requirements (ESARRs) setting out European safety standards.

Intensive SMS-related activities were undertaken in CCL during 2014. These included:

- Safety Occurrence Reporting and Investigations;
- Safety Surveys;
- Safety Assessments;
- External Services Safety Impact;
- Safety Monitoring;
- Competence Assurance;
- Safety Promotion;
- Safety Records;
- SMS Documentation.



### Safety Performance Indicators

As per regulations No. 691/2010 and 390/2013 on performance scheme, there are 3 KPIs in the safety key performance area:

- a) the effectiveness of safety management (Safety Maturity);
- b) the application of the severity classification of the Risk Analysis Tool (RAT);
- c) reporting of just culture.

During past years these KPIs were discussed between CCL and Croatian Civil Aviation Agency (CCAA). Based on EUROCONTROL concept and guidance, the new methodology for the Safety Maturity Study has been applied since 2011, and CCL took part in this as well.

When investigating/analysing the occurrences, CCL was applying ESARR 2 classification for years because it was a part of national regulation which applied the matrix from ESARR 2 guidance material EAM2GUI1. This means that two types of occurrences are dealt with (those relating to safe aircraft operations and those relating to the ability to provide safe ATM services).

During period 2012-2014, CCL took part in RAT training for safety and quality staff. CCL plan for RAT usage (ATM ground element) is in line with Union-wide targets for 2017 and 2019.

Regarding the just culture, it has been disseminated to the staff and the management through safety promotion workshops in order to develop a culture in which front line operators and others are not punished for actions, omissions or decisions taken by them that are commensurate with their experience and training but where gross negligence, wilful violations and destructive acts are not tolerated, as per the definition laid down in the Regulation (EU) 390/2013). Such approach makes employees accountable for deliberate violations of the rules but encourages and rewards them for providing essential safety-related information not blaming or punishing them for "honest mistakes".

CCL has developed Action plan for compliance with SES II regulatory requirements in the area of SMS. It is based on the results of an existing gap analysis report.

This Action plan sets out the actions to be completed by CCL in order to continue their transition towards full compliance with SES II regulatory requirements for RP2. In essence, this is a progression from EoSM level 3 (C)(implementation) to level 4 (D) (managing and measuring) by the end of 2019.

Following actions from the Action Plan started during 2014:

- Establishing clear boundaries between errors in good faith and wilful neglect;
- Providing training in safety for middle and top management;
- Improving the level of anonymity with the application process, ensuring that personal data can only be seen by key investigative staff in the organization;

- Promoting the importance of developing a positive and proactive safety culture to support a culture of proper behaviour. This includes feedback from those who completed reports and providing information on each type of progress achieved in establishing and risk reduction, as well as feedback on the reports to assist the organization in the identification and understanding of the fundamental problems that might otherwise go unnoticed;
- Establishing data collection and monitoring data related to air safety;
- Establishing procedures for processing an assessment of safety occurrences;
- Establishing procedures for processing and evaluation of internal control of safety - safety survey;
- Continuously improving the analysis of data using the methodology for risk analysis – RAT;
- Establishing procedures for the availability of safety data in general, ensuring that the data is analysed proactive and reactive.

In 2014 CCL's safety activities were focused on the following objectives: improvement of effectiveness of safety management and minimise the number of serious incidents.

### International Safety Activities

As a part of its commitment to safety, CCL participates in a number of safety projects at the European level.

Focusing its outcomes on the needs of SES and SESAR, EUROCONTROL's European Safety Programme (European Safety Programme – ESP-Plus) has aimed to facilitate SMS regulation support in the deployments required by the European ATM Master Plan until the end of 2014. ESP-Plus has been used to guide CCL SMS activities and many of its objectives have been successfully implemented in CCL.

During 2014, CCL continued its active role in a number of international initiatives and processes in the safety domain, including the participation of its representative in EUROCONTROL Safety Team (comprising the safety managers of European air navigation service providers).

As a part of its contribution to the FAB CE activities, CCL has actively participated in the Safety Sub-Committee.

## 5.2. Quality Management

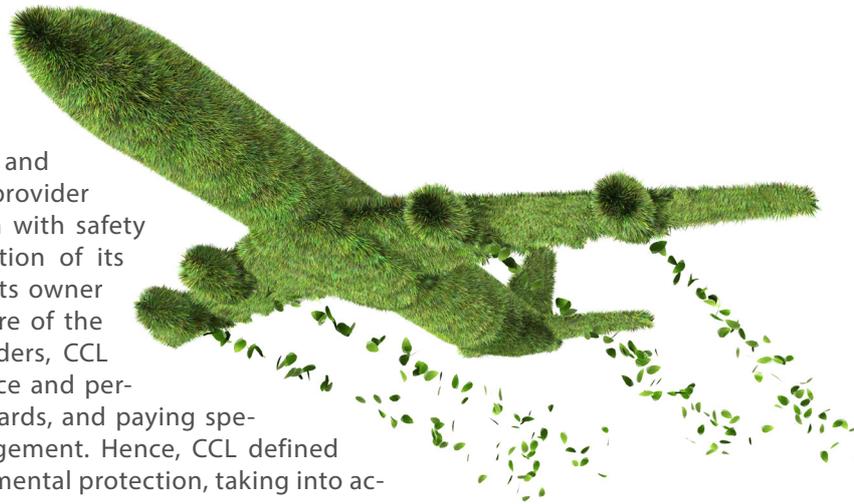
Quality Management System (QMS) has been established, documented, applied and maintained by CCL, in compliance with the requirements of the international standard ISO 9001. The certificate was issued to CCL by Bureau Veritas Croatia. The scope of activities covered by ISO 9001 certificate includes the provision of all four services (ATS, CNS, AIS, MET). All these services are managed in compliance with applicable national and international standards. The criteria for efficient management of CCL's business processes are set by the



Quality Management Manual, while the services provided to the users are described in relevant operating manuals. The Company Management ensures, by means of the established Quality Policy, that the user requirements are identified and complied with in order to increase their measurable satisfaction. The quality of CCL's services is granted by an integrated QMS, which is periodically reviewed and assessed for its long-term suitability, adequacy and effectiveness. During 2014 CCL continued to upgrade the quality management system. CCL has established and applied British Standard for occupational health 'BS OHSAS 18001 and implemented the Environment Management in accordance with the international standard ISO 14001.

### 5.3. Environment Management System

CCL has achieved the status of a prestigious and highly competent air navigation services provider and aims to maintain the highest position with safety and quality of services provided, satisfaction of its customers, full respect of the interests of its owner and community, and taking continuous care of the environment. To be among the top providers, CCL strives to permanently enhance competence and performance, respecting legislation and standards, and paying special attention to the environmental management. Hence, CCL defined common and specific objectives of environmental protection, taking into account:



25

- compliance with legal and other requirements relating to environmental protection,
- preservation and rational use of natural resources,
- prevention of pollution as a basic approach to the environmental management,
- ensuring conditions for separate collection of all types of waste,
- employee skilfulness to act in the event of accidents,
- need for continuous upgrade of the environmental management system,
- constant care of the pollution prevention,
- selection of suppliers according to the environmental protection requirements.
- All our employees are committed to achieve common and specific objectives in environmental protection, with their individual contribution to it while performing their tasks, and acceptable impact of their work processes on the environment.

The emphasis of all activities is laid on the elimination of non-compliances occurring in the environmental management system, with priority given to preventive actions and permanent control of all work activities.

### 5.4. Security Management

CCL contributes to maintaining the high level of security in air transport. During 2014 CCL continued to upgrade its security management system in key areas. All the preparatory work regarding the strengthening of the passive protection of the CCL Head Office and other critically important facilities



was completed and the project is expected to be put in operation in 2015. Required security measures for the new CCL's infrastructure have been set up. Preparatory technical and procedural work for introduction of electronic movement control system in CCL branches Pula and Dubrovnik has been completed (the system is expected to be put into operation in 2015.). The measures and rules regarding cooperation in security matters with a big provider of CCL services (hosting some of CCL critical infrastructure) were signed. Cooperation with relevant authorities regarding regular patrols at our sites throughout the country and channels of communication between the two sides has been agreed upon and put into practice. Apart from CCL personnel, security awareness campaign as a basic security education was extended to the personnel who do not have full employee status in CCL (work-

ing either on various types of work contracts or in special trainee programmes). Security education, including written exams, for all security personnel working on outsourcing contract at the CCL Head Office has been introduced. According to the national legislation and in cooperation with the relevant authorities, background checks for security personnel and for a limited number of CCL operational staff were completed. Extensive risk assessment for most critical infrastructure was done preceding the work on the relevant security plan.

CCL security experts also took part in various projects of security significance, e.g.:

- coordination with military authorities on various issues of mutual interest;
- coordination with airport police units on a number of issues of common security interest;
- ensuring the protection of operative and administrative data and systems (upgrading of protection architecture for CCL services accessible via internet);

## 5.5. SES Certification and Safety Oversight

In March 2009, CCL was certified in accordance with the Regulation on Terms and Conditions for the Certification of Air Navigation Service Providers, which was compliant with valid SES legislation, in particular with the EC Regulation No. 550/2004 (later amended by the Regulation No. 1070/2009), Regulation No. 2096/2005 (later superseded by the Regulation No. 1035/2011) and Regulation No. 1315/2007 (later superseded by the Regulation No. 1034/2011). Afterwards, an extensive safety oversight programme was undertaken by the Croatian Civil Aviation Agency in which CCL contributed by



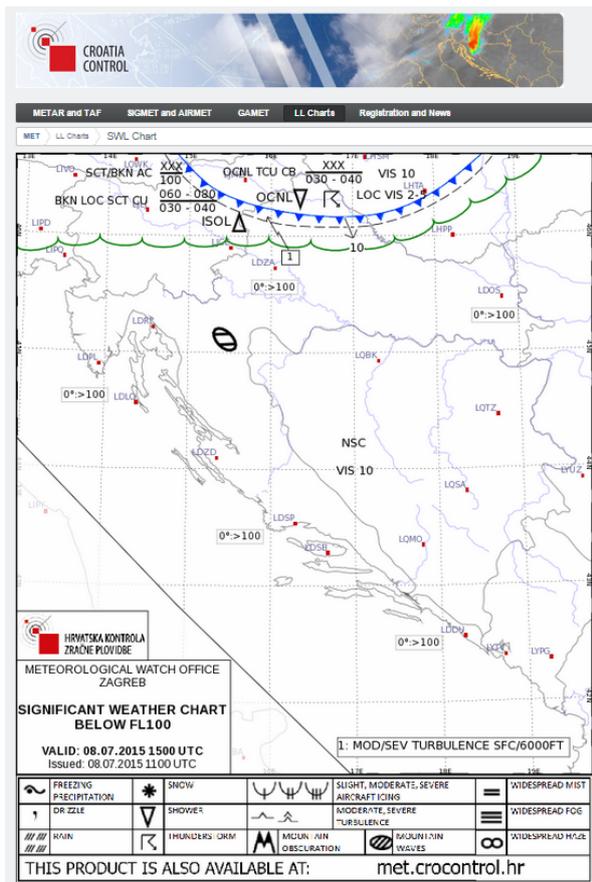
allocating significant resources in order to facilitate the relevant audits. In August 2013 CCL was re-certified in accordance with relevant SES regulations and the oversight programme has continued.



# 6. Additional Services

In addition to air traffic management, which consists of air traffic services, flow management and airspace management, CCL also provides aeronautical meteorology and aeronautical information services.

## 6.1. Aeronautical Meteorology (MET)



met.crocontrol.hr screenshot

Educational workshop was held for MET observers. Two seminars were held for forecasters and were attended by the forecasters from many countries in the region.

CCL MET Division personnel actively participated in the European Conference on Applications of Meteorology (ECAM) and ICAO's Meteorology Division Meeting. They were also active in ICAO's regional office group METG regarding English language proficiency requirements for aeronautical meteorological personnel.

Two new products for ATM were initiated: the MET Sandwich and a 3-day forecast for Zagreb ACC. The MET web page [met.crocontrol.hr](http://met.crocontrol.hr) was completed. New versions of SWL and WT charts were introduced. A complete reorganisation of products for Low Level Flights was initiated and GAFOR forecasts were introduced.

The agreement was signed with the Meteorological and Hydrological Service of Croatia on the use of input data. The system of reserve operational data via an Internet service at the Service was assured. The Letter of Agreement was signed with BHANSA on MET services and products. Agreements on scientific and expert cooperation were signed with the Meteorological and Hydrological Service and the Faculty of Science of Zagreb University.

A complete analysis of wind forecasting was performed. Methods for forecasting wind shear and „deep“ bora in Dubrovnik area were improved. The MET Division improved the configuration of its main information system Visual Weather and elaborated ideas for the study of bora wind in Dubrovnik area.

Expert assistance was given to BHANSA in taking over MET responsibilities in Bosnia and Herzegovina. Meetings were held with representatives of neighbouring MET services in the region (Slovenia, Bosnia and Herzegovina, and Austria) to consider cooperation opportunities. Negotiations were initiated for membership in MET Alliance.

MET personnel actively participated in the preparations for CCL's involvement in the SESAR 2020 programme.

CCL MET Division implemented competence assessments according to WMO and ICAO requirements.

## 6.2. Aeronautical Information Services (AIS)

The Aeronautical Information Service (AIS) department is located in Zagreb and it provides aeronautical data and information necessary for the safety, regularity and efficiency of both international and national air navigation in Croatian airspace.

It had been certified to ISO 9001 standard from 2005-2011, and current CCL certificate for all services, including the AIS, confirms the compliance with the requirements of ISO 9001.

AIS department consists of:

- International NOTAM office, operational 24 hours a day;
- Aeronautical Publications office.

Charts are prepared by the Aeronautical navigation, procedure design and cartography department.

Preflight briefing is provided by the ATS reporting offices (ARO) located at each aerodrome where the Aerodrome Control Service is available.

The Croatian AIS provides all elements of the Integrated Aeronautical Information Package - IAIP - (AIP AMDT/SUP, AIC, NOTAM and PIB, a list of valid NOTAMs and checklists) and additional publications such as VFR Manuals and VFR Chart with recommended VFR routes. All products are available in English or as bilingual publications, except for AICs series B that are in Croatian, which are for that reason distributed only in Croatia.



Since late 2007, AIS department has fully migrated to the European Aeronautical Database (EAD), where all aeronautical information is available in electronic format via the EAD SDO, INO and PAMS modules. All the elements from the IAIP are based on the same data source in the database (SDO), except for charts that are currently provided from a separate source and as such incorporated in the eAIP. The electronic AIP of the Republic of Croatia has been available, both in English and Croatian, since early 2012. The preparation of eAIP related charts using the EAD chart module has commenced at the end of 2013 and follows a gradual implementation plan for finalization by the end of 2016.

The ATS reporting offices (ARO) are using a local system NOTAM database for the pre-flight briefing and combine it with other relevant documentation for the briefing purposes.

Evolution of the Aeronautical Information Services has been achieved in terms of processes and integrated management systems enhancements through the CroQADI project stated under chapter 4.6 of this report and is further planned for the originating data quality improvements, as well as for data sets exchange through the Project of modernisation of the AIS Data Base, also stated under chapter 4.6.

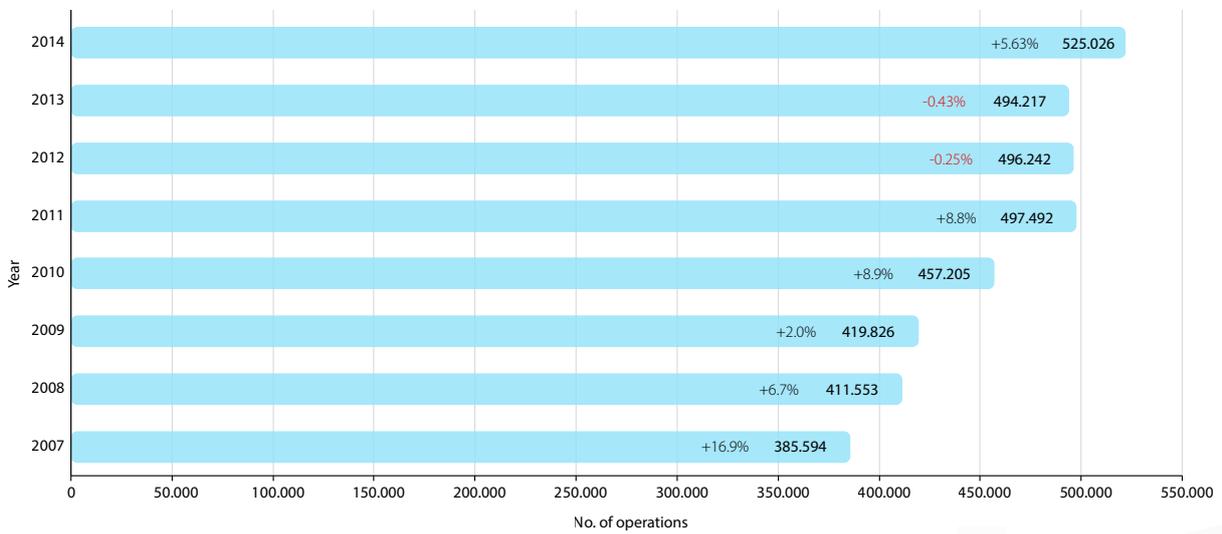
Aeronautical information is also provided for reference purposes through the CCL / AIS web pages, and through web pages of the EAD.

# 7. Performance



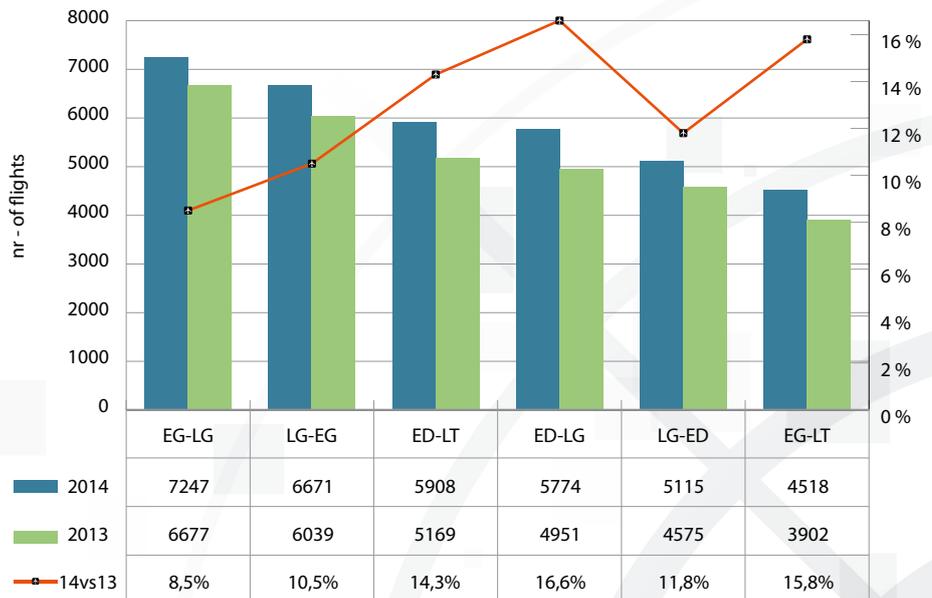
## 7.1. Traffic

There were more than 522.000 IFR GAT operations in 2014 within CCL area of responsibility, which is the increase of 5,63% compared to 2013. During the summer season (May to October), traffic in Croatia increased by 6,3% when compared to the same period during 2013. STATFOR 7- year forecast issued in February 2014 anticipated an increase in range from 2,1% to 5,4%, but the recorded traffic rate indicates an increase above predicted height growth, which effected the delivery. The traffic increased between 11 – 14% in period from October to December 2014.



Traffic growth in Croatia (source: NM DWH through FMP)

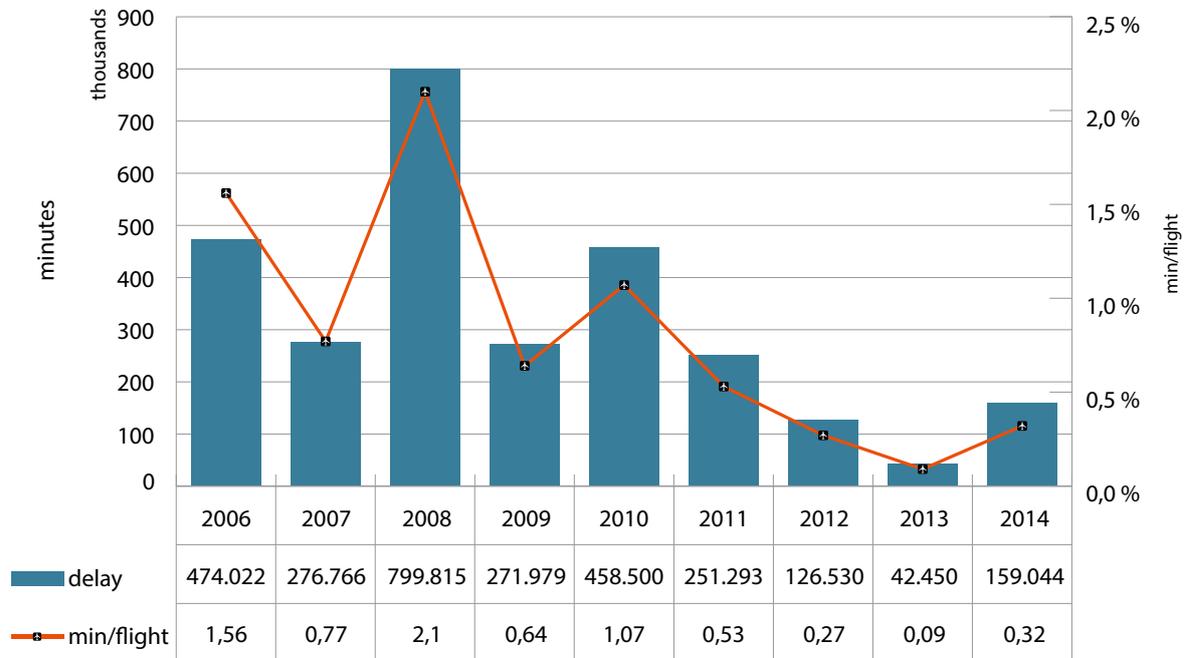
Increase of traffic also occurred in the most frequent country pairs through Croatian airspace mainly between Germany and Greece, and UK and Turkey, while other frequent country pairs situated on the South-East Axis also produced an increase as shown in the picture.



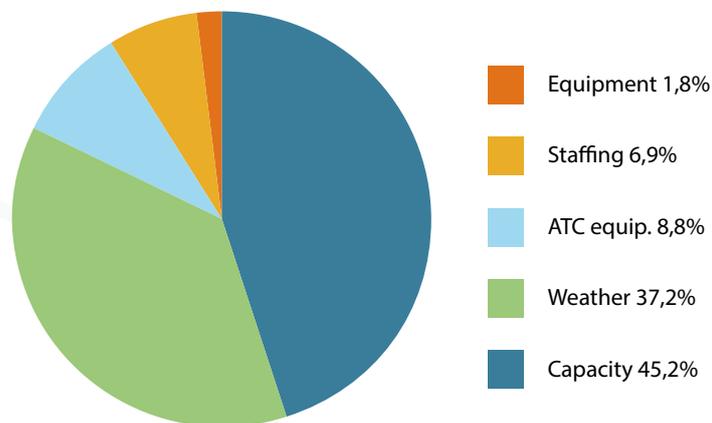
CTRY PAIRS 7-9 2014 VS 7-9 2013

## 7.2. Delay

In 2014 more delays were registered in comparison to the previous year due to an unexpected traffic growth, and adverse weather conditions which accounted for a total of 37% delay. Total delay amounted to around 159.000 minutes, whereas bad weather conditions caused around 59.000 minutes of delay.



Delay - ACC Zagreb



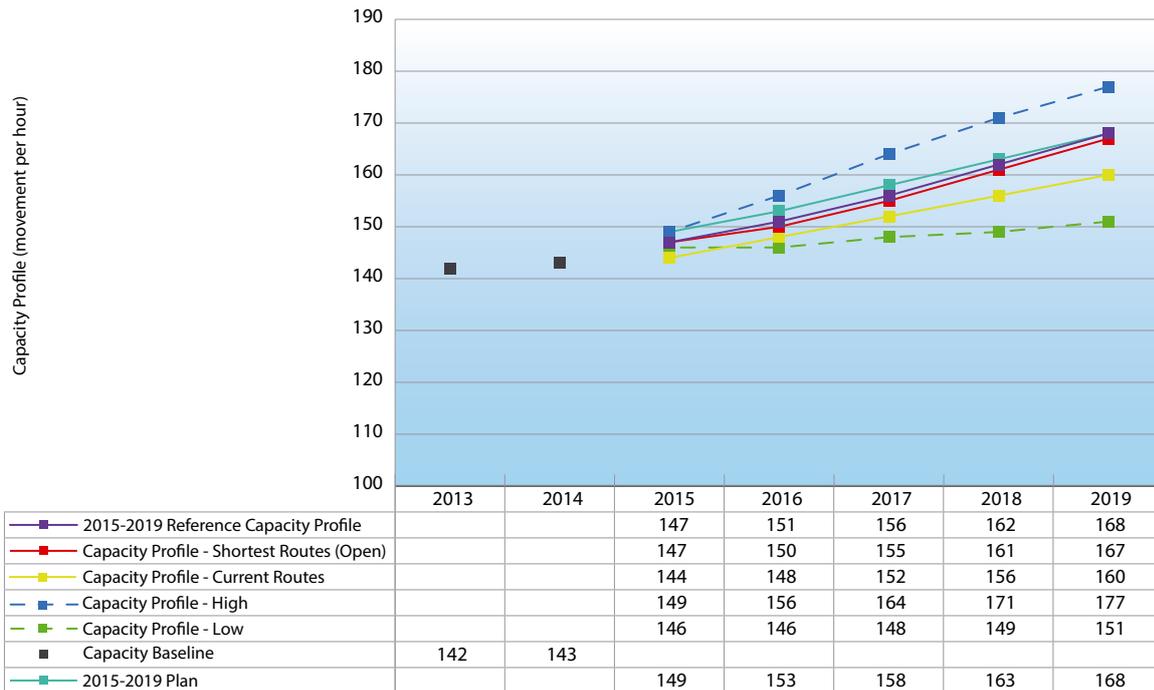
Regulation 2014 ACC Zagreb

## 7.3. Capacity Improvements

Zagreb ACC baseline capacity has grown by 1% in 2014 and now amounts to 143 IFR GAT operations per hour. The ACC capacity baseline is the result of many factors combined as explained above.

Despite all the challenges faced during the year, CCL managed to maintain capacity baseline growth rate.

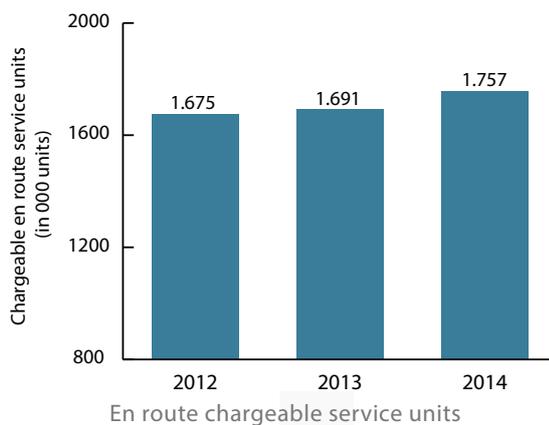
CCL is now facing further challenges in keeping the performance within the planned and set limits.



LDZOCTA - Reference capacity profile and alternative scenarios

### 7.4. Service Units and Unit Rate

Following a 2013 increase of traffic, expressed in en route chargeable service units, by +1,0%, CCL still managed to increase its 2014 traffic performance further by +3.9% on top of 2013, reaching a historical high at approximately 1.76 million of en route chargeable service units provided to the airspace users during 2014.



In regard to terminal traffic activities, CCL continued its upward service units generation trend. During 2014, CCL managed to further increase the total number of terminal chargeable service units by 4.1%, reaching approximately 40.5 thousand.

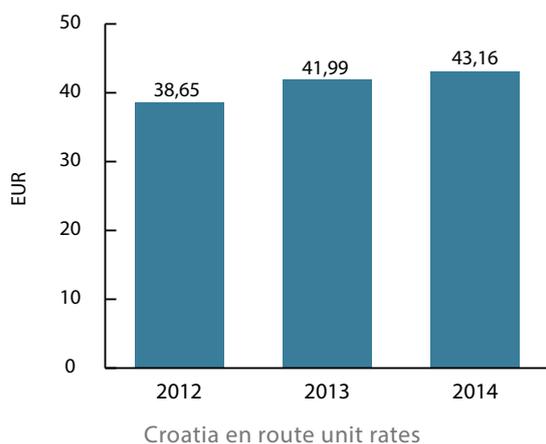


Total budgeted costs for 2014 (associated with forecasted 2014 en route cost base) were initially proposed (critically reviewed and accepted by the regular EC / EUROCONTROL governing bodies and procedures) at the level that resulted in budgeted 2014 en route unit rate (of EUR 43,16) being increased by approximately 2,8% (compared to 2013 EUR 41,99).

Reason for that was based upon the expectations that existed in time of development of 2014 traffic (i.e. capacity) forecasts, all with a view to ensure necessary resources for 2014

strategic investment peek (CroATM/COOPANS strategic project). Furthermore, the focus on delivering the required operational capacity associated with a required level of safety along with expected complex and permanent engagement on BH ATM transition process, had to be respected as well.

The following picture shows further evidence of the Company's budgeted unit rates trend.

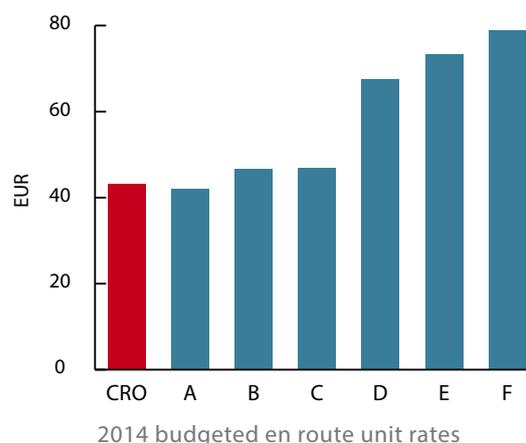


CCL managed to deliver a highly competitive and cost efficient performance during 2014 despite the explained necessity of hiring additional resources in terms of 2014 cost base, which were needed for the purpose of financing: complex and delicate multinational investment cycle (CroATM/COOPANS), as well as for the required performance in the key performance area of capacity, while continually delivering on highly complex, multilateral and cross-border project of BH ATM transition. Fundamental prerequisite

for such performance was that required safety initiatives are in place and effectively running.

As a result of such performance, as was the case during the previous consecutive periods as well, Croatia (substantially supported by CCL performance) managed to provide ANS at a highly competitive en route unit rate during 2014.

According to final budgeted figures of en route unit rates for 2014, the following are the values for the Republic of Croatia compared to the countries in the region.



Furthermore, starting from January 2014 Croatia introduced two terminal charging zones with two individual terminal unit rates. Budgeted 2014 terminal unit rates were EUR 192.3 for Zone1 (Zagreb - including LDZA and LDZL) and EUR 236.6 for Zone2 (other ATC centres in Croatia).

## 7.5. Costs and Income

There was increased number of IFR GAT operations as well as increased service unit provision during the year 2014. During the same period CCL managed to significantly control its actual total cost incurred in 2014 (+0,9% over the 2014 cost base forecast initially presented, scrutinized and approved by the relevant EUROCONTROL and/or EC governing bodies and system stakeholders), which resulted in total actual 2014 costs incurred in amount of EUR 89.0 million.

The aforementioned cost development proves to be even more disciplined given the:

- traditionally recorded substantially seasonable demand which is the characteristic of air traffic in the Croatian airspace,
- intense 2014 investment cycle activities focused on modernisation and upgrade of the existing Croatian air traffic management system
- complex and multilateral BHATM transition process
- recorded traffic developments in 2014 (in terms of traffic scale as well as more demanding trend of recorded change in service provision mix (operations to service unit ratio)).

Furthermore, CCL managed to maintain its competitiveness in terms of cost efficiency, supported by en-route unit rate, planned and charged to airspace users for the provided ANS during 2014.

The most important part of the CCL's total cost-base relates to staff costs (with some 60% shareholding in total costs), which were lower by -4,2% compared to 2013 due to refined and improved management of the scope, scale and dynamics of 2014 retirement schedule, which further resulted in aforementioned savings.

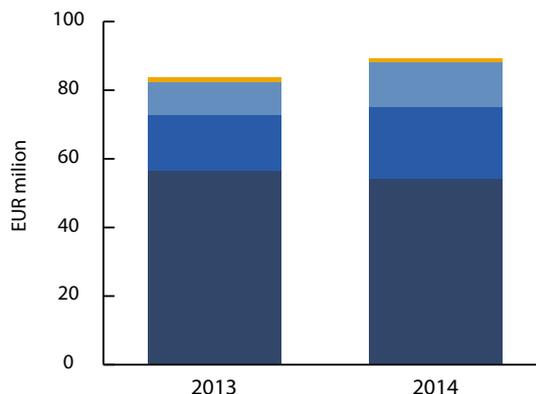
During 2014, approximately EUR 4,7 million in other operational costs incurred by the Company over the 2013 actual level due to:

- investment cycle and finalization of major strategic investment project (CroATMS/COOPANS) with all its direct and indirect influence on the Company's use of other operating resources,
- financial effects stemming from the impairment of fixed asset which was put out of operation during 2014 and decommissioned afterwards,
- recorded peak in robust and high intensive BHATM transition project dynamics,
- additional receivables write-offs balances and increased other operating provisions,
- substantial and robust FAB CE integration and FAB CE projects' activities.

Activation of long term, strategic and most critical investment project during 2014 (CroATMS/COOPANS), as well as scale, structure and dynamics of other assets or projects put in operation during the year, together with financial effects arising from the fact that for the year 2014 depreciation lifetime of a certain asset groups was aligned with its operational lifetime - all this resulted in depreciation costs of EUR 3,3 million expectedly over the 2013 actuals.

Financial expenses accounted to approximately 1.3% of the Company's total costs and decreased by approximately -21.4% compared to 2013 actuals, most substantially due to the favourable effects of HRK to EUR exchange rate dynamics.

Such an expected development in 2014 total costs was adequately and timely communicated to the users' society during the regular CER sessions as well as during the national or EU wide multilateral consultations.



Fin. exp. Depreciation Other OPEX Staff costs

Total costs development (@2014 average FX rate)

Given the highly competitive and cost efficient performance during the 2014 (regionally and EU wide), the fact that Company was deeply engaged in the BHATM 2014 transition project while still providing the expected level of operational capacity, and the fact that 2014 traffic seasonality continued to be substantial (which puts extreme pressure over the available capacities, resource planning and management), the Company still managed to earn around EUR 92.3 million in total revenues (presenting 9.7% increase as compared to 2013).

En route charges for the services provided within CCL's area of responsibility, accounted for approximately 86% of total revenues, terminal charges accounted for approximately 10%, while other income accounted for approximately 4% comprising mostly non-cash reversal of long-term provisions and unrealized positive foreign exchange differences.



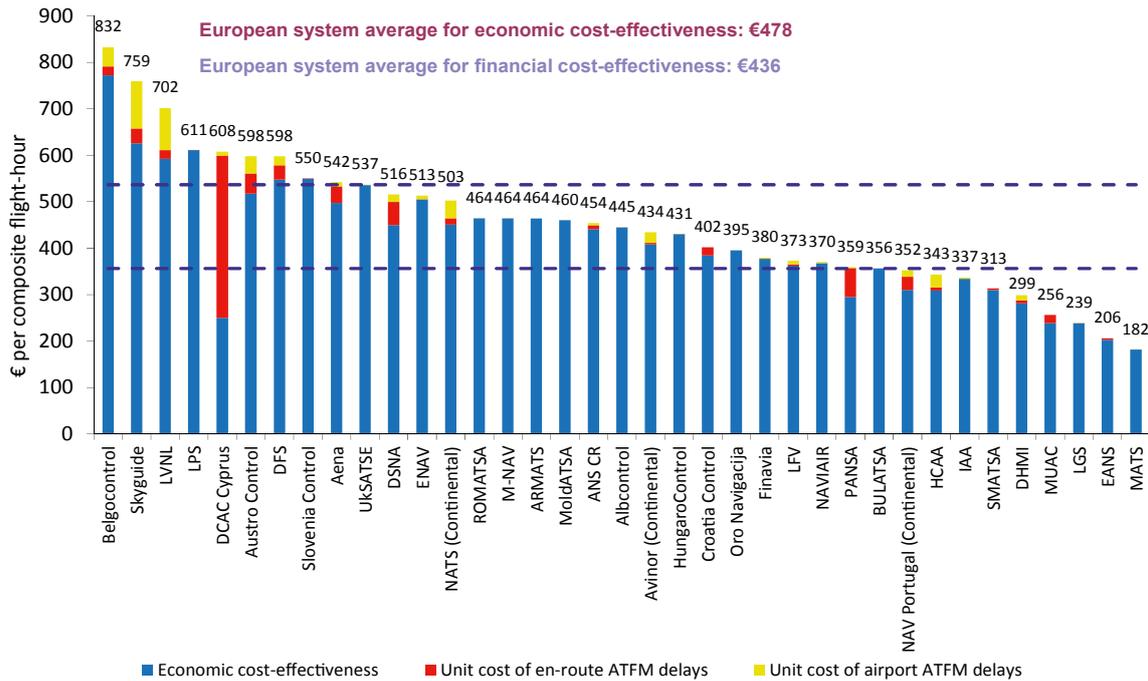
Other Terminal En-route

Total revenues development (@2014 average FX rate)

## 7.6. 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 air navigation service providers are performing in providing a cost-effective service.

According to the ATM Cost-Effectiveness (ACE) 2013 Benchmarking Report dated May 2015, average Pan-European system-wide economic gate-to-gate cost-effectiveness indicator was EUR 478. During the same period, CCL performed 16% more cost effectively compared to European system average. Presented performance pushed CCL close to the bottom quartile, meaning that CCL is very close to the group of 25% best performing companies given the above mentioned indicator:



Economic gate-to-gate cost-effectiveness indicator, 2013



Furthermore, in 2014 CCL achieved the following performance indicators:

<b>Financial stability, indebtedness and liquidity indicators</b>	<b>2013</b>	<b>2014</b>
1. Coverage of fixed assets and inventories by equity capital and long-term sources	1.26	1.36
2. Share of equity capital in the sources of funding, in %	47.86	46.69
3. Debt factor, number of years	6	4
4. Total asset turnover coefficient	0.68	0.70
5. Overall liquidity coefficient	3.08	2.87
6. Time of collection of short-term receivables, in days	57	56
7. Inventories, in days kept	2	2

<b>Business performance indicators</b>	<b>2013.</b>	<b>2014.</b>
1. Total income-expenditure ratio	1.00	1.04
2. Profit/loss share in total income, in %	0.28	2.8
3. Profit/loss share in assets, in %	0.19	1.95
4. Profit/loss share per employee, in HRK	2.454	27.579

Source of data: Financial Agency - FINA, BON – 1 Form – Creditworthiness Information

## 7.7. Performance scheme

Croatia, as well as CCL, did not contribute to the performance management during the first reference period (RP1). After becoming the EU member (since July 2013), Croatia started with preparatory activities for contribution to the RP2 performance management as of 2015. For RP2, with a view to achieving sustainable development of the air traffic management system and improvement of overall efficiency of air navigation services, the EC has adopted the Commission Regulation (EU) No. 390/2013 defining key performance areas (KPAs), key performance indicators (KPIs) and respective performance targets, performance indicators (PIs), as well as the performance planning and measurement processes. The regulation mandates the development of performance plans on FAB level. This has implied CCL's participation in the development of FAB CE performance plan for RP 2 (2015-2019).

Since late 2013, CCL has together with air navigation service providers (ANSPs) from Austria, Czech Republic, Hungary, Slovakia and Slovenia, actively participated in the development of FAB CE performance plan. In the spring of 2014, FAB CE performance plan was presented to stakeholders and social partners at consultation workshops and then sent to the EC for assessment. Based on the EC assessment of FAB CE performance plan, CCL modified some parts of the plan and participated in additional consultations with the EC and the FAB CE partners. Consultations were continued in 2015 with the objective to have the updated FAB CE Performance Plan, consistent with EC decisions.



# 8. Human Resources

## 8.1. Human Resources Management Policy

CCL pays special attention to human resources management, with a training system geared to ensure training, acquiring and continuous maintaining of competencies and experience in a way to achieve international and national standards. The Company employs the staff with adequate qualifications, to enable safe, high quality and continuous provision of services.

## 8.2. Employees

At 31.12.2014, the total number of employees in the Company was 704. The total number of employees who left CCL during 2014 was 24, while 14 employees were retired pursuant to valid regulations and the Retirement Plan.



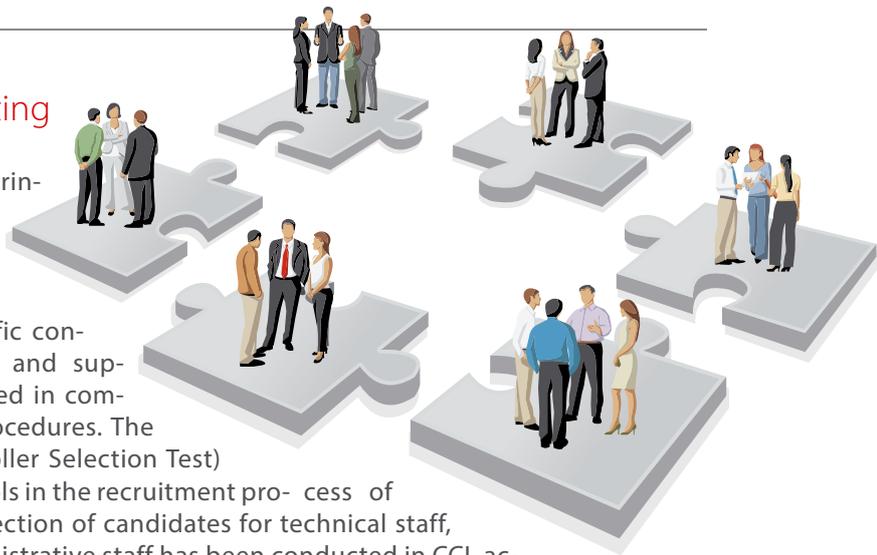
Air traffic controllers and on-the-job trainees make the largest share of the workforce. Their numbers at different operational units are shown below (status 31.12.2014).

Location	ATCOs	ATCO students
Zagreb ATCC - ACS	95	16
Zagreb ATCC - APS	19	0
Zagreb ATCC - ADI/ADV	17	1
Osijek ATCC	3	0
Pula ATCC	22	0
Split/Brač ATCC	29	0
Zadar ATCC	22	0
Dubrovnik ATCC	23	0
Rijeka ATCC	8	0
Lošinj ATCC	2	0
ATCOs on other duties in ATM Division	18	0
<b>TOTAL</b>	<b>258</b>	<b>17</b>

### 8.3. Employment and Recruiting

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 candidates for air traffic controllers, technical staff, administrative and supporting aeronautical staff was conducted in compliance with the predefined testing procedures. The FEAST (First European Air Traffic Controller Selection Test) program has been used as one of the tools in the recruitment process of air traffic controller candidates. The selection of candidates for technical staff, supporting aeronautical staff and administrative staff has been conducted in CCL according to internal procedures.



### 8.4. Training

- Basic Training for a group of 12 ATCO trainees was conducted at the Faculty of Traffic and Transport Engineering, University of Zagreb.
- 13 ATCO trainees completed the ADI/TWR Unit Training at particular units.
- 16 ATCO trainees completed the ACS/RAD Rating Training at Entry Point North (EPN) and started with the Unit Training.
- 1 ATCO trainee completed the ADI/TWR Rating Training at Deutsche Flugsicherung (DFS) and started with the Unit Training.
- 12 ATCO trainees started with the APS/RAD/TCL Rating Training at Entry Point North (EPN) in the fourth quarter, which will be completed in February 2015.
- 4 ATCOs with a licence and APS/RAD rating/endorsement from Zagreb TMA, Zadar and Pula completed the Unit Training for the ACS/RAD rating/endorsement at the Zagreb ACC.
- 2 ATCOs completed the ACS/RAD Unit Training at the Zagreb ACC, and acquired licences with relevant ratings and endorsements.
- Transitional Training for the work on the new COOPANS ATM System (according to the Training Plan CroATMS to COOPANS) was completed in the first quarter of 2014 for all ATCOs from the Zagreb, Pula, Zadar, Split and Dubrovnik ATCCs.
- 14 ATCOs completed the OJTI course and obtained an OJTI licence endorsement.
- Staff development, refresher and emergency training courses were provided either by CCL. or in cooperation with DFS, EPN, CANI and the EUROCONTROL Training Institute in Luxembourg (IANS).
- All training plans (for ATCOs, ATSEP and all other staff) comply with current EU regulations.



# 9. Outlook and Priorities for 2015

In 2015, CCL is still faced with challenging and important activities. Besides the short-term goals and priorities, CCL continues to undertake some activities of paramount importance for CCL's strategic orientation. The goals and priorities for 2015 comprise of the following:

→ **Organizational structure and collective agreement**

- review and update the existing organizational structure, as well as work with the social partners on the new collective agreement;

→ **COOPANS harmonisation and CAPEX activities**

- continuous upgrade of ATM system based on the harmonized COOPANS platform;
- realization of investment projects according to investment plan;

→ **FAB CE**

- development and finalisation of FAB CE Performance Plan for the second reference period (RP2) and close cooperation within FAB CE bodies;

→ **Safety**

- continuing improvement of SMS maturity and other safety KPIs,

→ **Capacity**

- annual average ATFM en-route delay at 0.23 minutes/flight;
- annual increase of baseline capacity by 3%;

→ **Environment**

- continuous routes shortening in the CCL area of responsibility;

→ **FUA**

- continuation of implementation of enhancements in Airspace Management Cell;

→ **Quality management systems**

- Certification of environmental management system according to ISO 14001;

→ **Meteorology**

- continuous improvement of the existing MET services according to users' needs;
- introduction of new products for MET users;
- adequate positioning on the sub-regional as well as on regional level;

→ **Cooperation with the Ministry of Defence of the Republic of Croatia**

- definition of bilateral arrangements between the Ministry of Defence and CCL;

→ **Human resources management**

- continuous process of staff education with the aim of fully delivering the required service quality to airspace users.

→ **Finance**

- maintain the financial stability indicator less than 1
- keep the total income to expenditures ratio above 1

# 10. Financial Statements and Auditor's Report

## Responsibility for the 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 2014 are prepared in accordance with the Accounting Act (Official Gazette No 109/07, 54/13) and the International Financial Reporting Standards effective in 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 Board has a reasonable expectation that the Company has adequate resources to continue in operational existence for the foreseeable future. Accordingly, the Board has prepared financial statements under the assumption that the Company is a going concern.

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

- selecting and consistently applying suitable accounting policies;
- giving reasonable and prudent judgments and evaluations;
- applying valid financial reporting standards and is responsible for publication and explanation in the financial statements of any deviations that is of material importance; and
- preparation of the financial statements on the going concern basis unless such an assumption is not further appropriate.

The Board is responsible for keeping proper accounting records, which shall reflect with reasonable accuracy at any time the financial position and the results of operations of the Company and their compliance with the Accounting Act (Official Gazette No 109/07, 54/13) and the International Financial Reporting Standards. The 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 Board:



Dragan Bilać, Director General

CROATIA CONTROL LTD  
Rudolfa Fizira 2.  
10 410 Velika Gorica

27 April 2015

# Independent Auditor's Report

To the owners of the company CROATIA CONTROL Ltd, Velika Gorica

1. We have audited enclosed annual financial statements of the company CROATIA CONTROL Ltd., Velika Gorica, Rudolfa Fizira 2 ("the Company") for the year ended 31 December 2014, which comprise the Balance Sheet / Statement of Financial Position as at that date; the Statement of Comprehensive Income; the Statement of Changes in Equity and the Cash Flows Statement for the year then ended; and the accompanying Notes to the Financial Statements which concisely set out the principal accounting policies and other explanations.

## Responsibility of the Company's Management

2. The Company's Management is responsible for the preparation and fair presentation of the enclosed financial statements according to the International Financial Reporting Standards effective in the European Union and for such internal control as Company Management deems necessary to enable the preparation of financial statements free of material misstatements whether due to fraud or error.

## Responsibility of the Auditor

3. Our responsibility is to express an opinion on the enclosed financial statements based on the audit performed. We conducted our audit in accordance with International Standards on Auditing. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance that the financial statements are free of material misstatements.

An audit includes performing of procedures to obtain audit evidence supporting the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatements in the financial statements, whether due to fraud or error. In making these risk assessments, the auditor considers internal controls relevant to the Company's preparation and fair presentation of the financial statements in order to conduct audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of internal controls. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by Company Management, as well as evaluating the overall presentation of the financial statements.

We believe that auditing evidence we had obtained is sufficient and appropriate as a basis for expressing our opinion.

## Opinion

4. In our opinion, the enclosed financial statements, in all significant terms of reference, truthfully and fairly present the financial position of the Company as at 31 December 2014, and its financial performance and the cash flows of the Company for 2014, according to the Accounting Act and the International Financial Reporting Standards effective in the European Union.

### Opinion on the adjustment to other legal and regulatory requirements

5. The Company's Management is responsible for the preparation of the annual financial statements of the Company for the year ended 31 December 2014 in prescribed form on the basis of the Ordinance on the structure and content of annual financial statements (Official gazette No 38/08,12/09,130/10) and in accordance with the other provisions which regulate the operations of the Company ("Standard Annual Financial Statements"). The financial information set out in the standard annual financial statements of the Company are in accordance with the information stated in the annual financial statements of the Company shown on pages 4 to 45 which are the subject of our opinion, as set out in the section Opinion, above.

### Opinion on adjustment to Annual statement

6. The Company Management is responsible for the preparation of the Annual report of the Company. As a result of the provisions of Article 17 of the Accounting Act, we are obliged to express an opinion on the adjustment of the Annual report of the Company with the annual financial statements of the Company. In our opinion, on the basis of the performed audit of the annual financial statements of the Company and the comparison with the Annual report of the Company for the year which ended 31 December 2014, the financial information set out in the Annual statement of the Company, approved for their issuance by the Company Management on 27 April 2015, are in accordance with the financial information set out in the annual financial statements of the Company set out on pages 4 to 45 which were the object of our opinion, as set out in section Opinion, above.

In Zagreb, 27 April 2015

BDO Croatia d.o.o.  
Trg J. F. Kennedy 6b  
10 000 Zagreb

*Darko Karić*

Darko Karić, certified auditor

*Zdenko Balen*

Zdenko Balen, member of the Management

**STATEMENT OF COMPREHENSIVE INCOME**  
**For the year ended 31 December 2014**

	2014	2013
	in HRK	in HRK
Sales revenue	676,625,942	620,728,178
Other operating revenues	24,345,494	17,753,333
<b>Operating revenues</b>	<b>700,971,436</b>	<b>638,481,511</b>
Raw material and material costs	(10,100,274)	(10,710,334)
Other external costs	(43,337,658)	(43,564,606)
Material costs	(53,437,932)	(54,274,940)
Net salaries and wages	(187,555,354)	(195,470,056)
Costs for taxes and contributions from salaries	(152,652,254)	(160,488,464)
Contributions on gross salaries	(71,682,482)	(73,924,674)
Staff costs	(411,890,090)	(429,883,194)
Depreciation	(97,872,073)	(72,852,404)
Other costs	(31,766,693)	(34,176,821)
Impairment of short-term assets	(2,218,520)	(183,031)
Impairment	(2,218,520)	(183,031)
Provisions	(46,475,311)	(30,618,555)
Other operating expenses	(26,952,904)	(5,682,570)
<b>Operating expenses</b>	<b>(670,613,523)</b>	<b>(627,671,515)</b>
Interest income, foreign exchange gains, dividends and similar income from non-related parties and other entities	3,823,495	3,714,739
<b>Financial income</b>	<b>3,823,495</b>	<b>3,714,739</b>
Interest expenses, foreign exchange losses and similar expenses from non-related parties and other entities	(8,977,779)	(11,414,852)
<b>Financial expenses</b>	<b>(8,977,779)</b>	<b>(11,414,852)</b>
<b>TOTAL INCOME</b>	<b>704,794,931</b>	<b>642,196,250</b>
<b>TOTAL EXPENSES</b>	<b>(679,591,302)</b>	<b>(639,086,367)</b>
<b>PROFIT BEFORE TAXATION</b>	<b>25,203,629</b>	<b>3,109,883</b>
Profit tax	(5,484,696)	(1,301,259)
<b>PROFIT FOR THE PERIOD</b>	<b>19,718,933</b>	<b>1,808,624</b>
<b>NET OTHER COMPREHENSIVE INCOME FOR THE PERIOD</b>	<b>-</b>	<b>-</b>
<b>COMPREHENSIVE INCOME FOR THE PERIOD</b>	<b>19,718,933</b>	<b>1,808,624</b>

**BALANCE SHEET / STATEMENT OF FINANCIAL POSITION**  
**As of 31 December 2014**

	At 31 Dec 2014	At 31 Dec 2013
	in HRK	in HRK
<b>ASSETS</b>		
Concessions, patents, licenses, merchandise and service brands, software and other rights	225,470,968	48,860,783
Advance payments for the acquisition of intangible assets	4,181,001	-
Intangible property in the course of preparation	26,094,751	211,477,788
<b>Intangible assets</b>	<b>255,746,720</b>	<b>260,338,571</b>
Land	48,649,949	48,649,949
Buildings	100,439,138	114,973,744
Facilities and equipment	126,931,451	109,424,832
Instruments, facility inventories and transportation assets	8,036,361	8,164,837
Prepayments for tangible assets	2,573,560	8,549,086
Tangible assets in the course of preparation	37,285,231	88,963,129
<b>Tangible assets</b>	<b>323,915,690</b>	<b>378,725,577</b>
Participating interests (portions)	45,969	-
<b>Financial assets</b>	<b>45,969</b>	<b>-</b>
<b>Deferred tax assets</b>	<b>9,131,095</b>	<b>-</b>
<b>LONG-TERM ASSETS</b>	<b>588,839,474</b>	<b>639,064,148</b>
Raw material and supplies	2,545,399	3,732,474
Prepayments for stocks	77,672	-
<b>Inventories</b>	<b>2,623,071</b>	<b>3,732,474</b>
Accounts receivable	109,445,350	101,011,318
Receivables from employees and shareholders	50,961	70,056
Receivables from government and other institutions	2,485,130	5,276,516
Other receivables	111,090	85,564
<b>Receivables</b>	<b>112,092,531</b>	<b>106,443,454</b>
Loans, deposits and similar	191,665,307	37,894,363
<b>Financial assets</b>	<b>191,665,307</b>	<b>37,894,363</b>
<b>Cash at bank and in cashier</b>	<b>110,660,467</b>	<b>150,854,076</b>
<b>SHORT-TERM ASSETS</b>	<b>417,041,376</b>	<b>298,924,367</b>
<b>Prepaid expenses and accrued income</b>	<b>6,749,953</b>	<b>8,718,447</b>
<b>TOTAL ASSETS</b>	<b>1,012,630,803</b>	<b>946,706,962</b>
<b>OFF-BALANCE SHEET NOTES</b>	<b>395,267,804</b>	<b>454,784,989</b>

**BALANCE SHEET / STATEMENT OF FINANCIAL POSITION****As of 31 December 2014 - continued**

	At 31 Dec 2014	At 31 Dec 2013
	in HRK	in HRK
<b>LIABILITIES AND CAPITAL</b>		
<b>Subscribed capital</b>	<b>412,759,600</b>	<b>352,759,600</b>
Other reserves	1,808,624	60,000,000
<b>Reserves from net income</b>	<b>1,808,624</b>	<b>60,000,000</b>
<b>Retained earnings</b>	<b>38,481,567</b>	<b>38,481,567</b>
<b>Profit for the current year</b>	<b>19,718,933</b>	<b>1,808,624</b>
<b>CAPITAL AND RESERVES</b>	<b>472,768,724</b>	<b>453,049,791</b>
Provisions for pensions, severance pays and similar liabilities	50,155,406	26,589,530
Other provisions	678,500	609,400
<b>Provisions</b>	<b>50,833,906</b>	<b>27,198,930</b>
Liabilities to banks and other financial institutions	331,301,643	356,695,509
<b>Long-term liabilities</b>	<b>331,301,643</b>	<b>356,695,509</b>
Liabilities to banks and other financial institutions	54,600,499	27,474,299
Accounts payable	31,327,567	27,702,676
Liabilities to employees	18,853,969	16,587,480
Liabilities for taxes, contributions and similar fees	34,595,004	19,400,648
Other short-term liabilities	5,857,843	5,806,471
<b>Short-term liabilities</b>	<b>145,234,882</b>	<b>96,971,574</b>
<b>Accrued expenses and deferred income</b>	<b>12,491,648</b>	<b>12,791,158</b>
<b>TOTAL CAPITAL AND LIABILITIES</b>	<b>1,012,630,803</b>	<b>946,706,962</b>
<b>OFF-BALANCE SHEET NOTES</b>	<b>395,267,804</b>	<b>454,784,989</b>



**STATEMENT OF CHANGES IN EQUITY**  
**For the year ended 31 December 2014**

	<b>At 31 December 2012</b>	<b>Distribution of profit</b>	<b>Profit for the current year</b>	<b>At 31 December 2013</b>
	<b>in HRK</b>	<b>in HRK</b>	<b>in HRK</b>	<b>in HRK</b>
Basic (subscribed) capital	<b>352,759,600</b>	-	-	<b>352,759,600</b>
Other reserves	<b>48,822,120</b>	11,177,880	-	<b>60,000,000</b>
Retained earnings	<b>45,313,181</b>	(6,831,614)	-	<b>38,481,567</b>
Profit for the current year	<b>4,346,266</b>	(4,346,266)	1,808,624	<b>1,808,624</b>
<b>Total</b>	<b>451,241,167</b>	-	<b>1,808,624</b>	<b>453,049,791</b>

	<b>At 31 December 2013</b>	<b>Distribution of profit</b>	<b>Profit for the current year</b>	<b>At 31 December 2014</b>
	<b>in HRK</b>	<b>in HRK</b>	<b>in HRK</b>	<b>in HRK</b>
Basic (subscribed) capital	<b>352,759,600</b>	-	60,000,000	<b>412,759,600</b>
Other reserves	<b>60,000,000</b>	(60,000,000)	1,808,624	<b>1,808,624</b>
Retained earnings	<b>38,481,567</b>	1,808,624	(1,808,624)	<b>38,481,567</b>
Profit for the current year	<b>1,808,624</b>	(1,808,624)	19,718,933	<b>19,718,933</b>
<b>Total</b>	<b>453,049,791</b>	<b>(60,000,000)</b>	<b>79,718,933</b>	<b>472,768,724</b>



Gacka river, Lika

**CASH FLOWS STATEMENT**  
**For the year ended 31 December 2014**

	2014	2013
	in HRK	in HRK
<b>I CASH FLOW FROM OPERATING ACTIVITIES</b>		
Profit before tax	25,203,629	3,109,883
Depreciation	97,872,073	72,852,404
Increase in short-term liabilities	21,137,108	2,432,312
Decrease in short-term receivables	-	1,064,844
Decrease in inventories	1,109,403	-
Other cash flow increases	25,303,960	14,292,442
<b>Total increase in cash flow from operating activities</b>	<b>170,626,173</b>	<b>93,751,885</b>
Increase in short-term receivables	(5,649,077)	
Increase in inventories	-	(225,613)
Other cash flow decreases	(5,484,696)	(1,755,596)
<b>Total decrease in cash flow from operating activities</b>	<b>(11,133,773)</b>	<b>(1,981,209)</b>
<b>NET CASH FLOW FROM OPERATING ACTIVITIES</b>	<b>159,492,400</b>	<b>91,770,676</b>
<b>II CASH FLOW FROM INVESTING ACTIVITIES</b>		
Cash outflows for purchase of long-term tangible and intangible assets	(47,601,430)	(89,824,474)
<b>Total cash outflows from investing activities</b>	<b>(47,601,430)</b>	<b>(89,824,474)</b>
<b>NET CASH FLOW FROM INVESTING ACTIVITIES</b>	<b>(47,601,430)</b>	<b>(89,824,474)</b>
<b>III CASH FLOW FROM FINANCING ACTIVITIES</b>		
Cash inflows from the loan principals, debentures, credits and other borrowings	1,732,334	41,486,387
Other inflows from financial activities	-	40,914,477
<b>Total cash inflows from financing activities</b>	<b>1,732,334</b>	<b>82,400,864</b>
Other cash outflows from financing activities	(153,816,913)	(6,942,680)
Total cash outflows from financing activities	(153,816,913)	(6,942,680)
<b>NET CASH FLOW FROM FINANCING ACTIVITIES</b>	<b>(152,084,579)</b>	<b>75,458,184</b>
<b>TOTAL NET CASH FLOW</b>	<b>(40,193,609)</b>	<b>77,404,386</b>
<b>CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD</b>	<b>150,854,076</b>	<b>73,449,690</b>
<b>CASH AND CASH EQUIVALENTS AT END OF PERIOD</b>	<b>110,660,467</b>	<b>150,854,076</b>
<b>INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS</b>	<b>(40,193,609)</b>	<b>77,404,386</b>



# 11. Abbreviations

ACC	Area Control Centre
ACS	Area Control Service
ACE	Air Traffic Management Cost-Effectiveness
AIS	Aeronautical Information Services
ANSP	Air Navigation Services Provider
APP	Approach Control Procedure
APS	Approach Control Surveillance
ARN	Aeronautical route network
ARO	ATS Reporting Office
ATC	Air Traffic Control
ATCO	Air Traffic Controller
ATM	Air Traffic Management
ATS	Air Traffic Services
CCL	Croatia Control Limited - HKZP
CNS	Communication, Navigation and Surveillance
COOPANS	COOPeration between Air Navigation Service providers
CroATMP	Croatian Air Traffic Management Project
CroATMS	Croatian Air Traffic Management System
DFL	Division Flight Levels
EAD	European Aeronautical Information Database
EC	European Commission
ECAC	European Civil Aviation Conference
EU	European Union
FAB	Functional Airspace Block
FAB CE	FAB Central Europe
FIR	Flight Information Region
HRK	Croatian Kuna
ICAO	International Civil Aviation Organisation
IFR	Instrument Flight Rules
ISO	International Organisation for Standardisation
Ltd	Limited
MET	Meteorological services
MWO	Meteorological Watch Office
NDB	Non-Directional Beacon

NOTAM	Notice to Airmen
OJT	On the Job Trainee
PRU	Performance Review Unit
QMS	Quality Management System
SMS	Safety Management System
STATFOR	EUROCONTROL Statistics & Forecasting Service
SWC	Significant Weather Chart
TMA	Terminal Manoeuvring Area
TWR	Tower Control Unit (Aerodrome Control Tower)
VHF	Very High Frequency
WAFC	World Area Forecast Centre



Pula amphitheatre, Istria

# Impressum

**Published by**

Croatia Control Air Navigation Services, Limited  
Rudolfa Fizira 2, Velika Gorica, Croatia  
HR-10150 ZAGREB-AIRPORT, CROATIA, P.O.B. 45

**Concept, Editor, Coordination**

Nino Karamatić

**Graphic design**

Ivica Drusany

**Photographs**

shutterstock.com

Ivica Drusany

**Printed by**

Printera grupa





**CROATIA  
CONTROL**

Croatia Control Air Navigation Services, Limited  
Rudolfa Fizira 2, Velika Gorica, Croatia  
HR-10150 ZAGREB-AIRPORT, CROATIA, P.O.B. 45  
Tel: +385 1 6259 400  
Fax: +385 1 6228 101  
e-mail: [dg.office@crocontrol.hr](mailto:dg.office@crocontrol.hr)  
[www.crocontrol.hr](http://www.crocontrol.hr)