

European Network Operations Plan 2021 Summer Plan

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EXECUTIVE SUMMARY

The European Network Operations Plan (NOP) – 2021 Summer Plan is a special version of the NOP focusing on the planning of the Summer. It provides for a consolidated European network view of the evolution of the air traffic and facilitates the planning of the service by ANSPs and airports to match expected traffic demand in a safe, efficient and coordinated manner. The European Network Operations Plan (NOP) – 2021 Summer Plan is developed by EUROCONTROL NM in cooperation with the operational stakeholders.

Summer 2021

Traffic forecast – For the preparation of the Summer 2021, a specific traffic forecast has been developed and shared with the operational stakeholders. This forecast is based on 2019 traffic, with 2020 routeings (no capacity constraints in the network, RAD relaxed) and the scenario 1 of the EUROCONTROL Five-Year Forecast 2020-2024. This represents 73% of 2019 traffic at European level, for everyday of the Summer Season. This forecast will be refined throughout the season with the Rolling Seasonal NOP process, where a six-week traffic outlook will be updated and shared every week.

Enroute capacity outlook – Based on this traffic forecast, while no major capacity issues are expected in the network, some flexibility might be required to adapt capacity to the traffic demand. Some ANSPs should plan to open their currently indicated maximum opening scheme. Most ANSPs should have some flexibility on configuration choices and on the opening of an extra sector for short periods of time during the day to cover traffic peaks. Special attention should be given to morning and evening, when opening hours might need to be extended. Some elementary sectors might start being saturated for short periods. Those situations can be handled pre-tactically/tactically with ATFCM measures such as scenarios or STAM. ANSPs should foresee a 10% buffer in the traffic outlook to avoid sudden capacity problems and possible weather issues. Sector openings should be refined throughout the Summer season based on the six-week traffic outlook that will continue to be published every week in the Rolling Seasonal NOP.

Airport outlook – Whilst summer 2021 traffic demand remains unclear, airports have reported they do not anticipate airside capacity issues and will be able to return to nominal operational conditions when traffic demand resumes. Nevertheless, Airports should be prepared in the event traffic follows the EUROCONTROL most optimistic forecast scenario with an accompanying passenger occupancy increase, potentially leading to land and airside capacity constraints during peak traffic periods. Airports are requested to continue to update the Airport Corner, including expected severe weather phenomena before D-1, to facilitate Network, Airline and Airport planning.

Green aviation measures – NM, together with the operational stakeholders, relaxed up to 1200 RAD measures. This generated distance flown savings amounting to 26000 NM per day. The RAD relaxation will continue until 17 June 2021 and the suspension of additional RAD restrictions in support of improved flight planning options for the airspace users will be envisaged.

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1 Introduction

1.1 Scope of the European Network Operations Plan – 2021 Summer plan

The European Network Operations Plan – 2021 Summer plan is a special version of the NOP developed to address demand and capacity in the Summer 2021.

Its development has been agreed by the Network Directors of Operations Group (NDOP) at its 27th meeting held on 03rd November 2020 and endorsed by the Network Management Board (NMB) at its 29th meeting held on 18th November 2020.

The 2021 Summer NOP addresses the need to have a consolidated European network view of the evolution of the traffic demand and of the planning of the services to be delivered during the Summer 2021 by ANSPs and airports to match the expected air traffic demand in a safe, efficient and coordinated manner. Parts of the NOP content have been adapted to cover the time period of Summer 2021.

In addition, the NOP Rolling Seasonal Plan will continue to be published every week, covering an outlook of six weeks. Based on the assumption that the performance scheme targets will be decided on 1st May 2021, a full version of the NOP covering the period 2022-2024 will be issued after the Summer 2021 when more stability and predictability will be expected in the evolution of the traffic demand.

This document addresses the requirements set forth in EC Implementing Regulation (EU) 2019/123 of 24 January 2019, laying down detailed rules for the implementation of air traffic management (ATM) network functions for the RP3 and supplemented by the requirements set forth in the EC Implementing Regulation (EU) 2019/317 of 11 February 2019 laying down a performance scheme for air navigation services and network functions. The regulation establishes several ATM network functions to be performed by a Network Manager; EUROCONTROL has been appointed as the Network Manager entrusted to perform these network functions.

The EC Implementing Regulation (EU) 2019/123 lists in Chapter II, Article 7 paragraph 1(b) one of the tasks of the Network Manager: *establish the Network Operations Plan specified in Article 9 to implement Network Strategy Plan, covering the calendar years of the reference period and the annual, seasonal, weekly and daily periods.*

The Network Operations Plan – 2021 Summer Plan, hereinafter referred to as the 2021 Summer NOP or Plan, has been developed in the context of the Network Management Functions, by the areas concerned with European ATM Network Operations Planning and Management. It covers the activities planned and required to ensure required European network operational performance during the Summer 2021.

Following the agreed Network CDM process, the Plan is approved by the Network Management Board.

1.2 Geographical Area covered by the European Network Operations Plan – 2021 Summer Plan

The NOP 2021 Summer Plan covers the following geographical area:

- **EU member States:** Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden plus third countries applying EU law (Norway, Switzerland).
- **EUROCONTROL member States and Comprehensive Agreement States**, that are not EU members (Albania, Armenia, Bosnia & Herzegovina, North Macedonia, Georgia, Moldova, Montenegro, Serbia, Turkey, Ukraine, and United Kingdom plus Israel and Morocco).

In addition to this document, the European Route Network Improvement Plan ensures full coherency of the airspace structure at the interface areas, covering many of the States that have an interface with those mentioned above. These include Azerbaijan, Belarus, Egypt, Iceland, Jordan, Lebanon, and the Russian Federation.

1.3 Preparation of the Plan

The NOP 2021 Summer Plan is developed in a cooperative manner with the operational stakeholders. It covers the summer period of 2021.

In preparation of the plan the Network Manager held bilateral capacity planning meetings with all ANSPs during the period December 2020 / January 2021, and collected information through the Airport Corner.

All operational stakeholders worked with the Network Manager (NM) to ensure a consolidated European network view of the evolution of the air traffic and facilitate the planning of the service by ANSPs and airports to match expected traffic demand in a safe, smooth and coordinated manner.

2 Description of the NOP 2021 Summer Plan, Operational Targets & Objectives

Based on the decisions of the NDOP and NMB, the focus of the NOP 2021 Summer Plan is on expected traffic and air traffic services. The NM has been tasked to develop this Plan to ensure an effective European ATM network in close cooperation with all operational stakeholders.

2.1 Strategic Objectives

The NOP 2021 Summer Plan responds to the Strategic Objectives of the Network Strategy Plan (NSP 2020-2029) endorsed by the NMB at NMB/25 on 27 June 2019 and approved by the European Commission Implementing Decision 2019/2167 of 17 December 2019.

2.2 A Collaborative Process

At its 27th meeting held on 03rd November 2020, the NDOP group drew the following conclusions in relation to the NOP 2021 Summer Plan:

- **NDOP supported** that the proposed way forward for the capacity planning and Network Operations Plan versions is presented to NMB for their final approval
- **NDOP was requested** to take appropriate actions to ensure the preparation of the new editions of the NOP.

The NMB, at its 29th meeting held on 18th November 2020, endorsed the NDOP conclusions.

The NOP 2021 Summer Plan was developed through an iterative process with all operational stakeholders.

Its objectives are:

- To ensure coordinated planning, execution, assessment, monitoring and reporting of all aspects and measures agreed and related to the summer 2021 network operations;
- To enable a safe and smooth service delivery by all operational stakeholders;
- To ensure that the traffic demand is accommodated with minimal constraints.

The document identifies potential bottlenecks, gives indications on the adaptations of existing resources, on network interactions and on potential improvements required.

2.3 EU Performance Targets Application

The NOP 2021 Summer Plan is based on the performance targets adopted by Single Sky Committee (SSC) and published in the Commission Implementing Decision 2019/903 of 29 May 2019 for RP3.

The aim is to accommodate traffic demand with minimal ATFM delay and minimal trajectory management constraints. NM together with the operational stakeholders will aim to ensure capacity delivery adapted to the traffic demand, with minor fine-tunings in pre-tactical and tactical ATFCM. This will enable airspace users to plan and fly their optimal trajectories.

2.4 Priorities and Resources

This Plan focuses on mobilisation of all available resources, human and technical, among all operational stakeholders, on ensuring an effective, coordinated, consistent and sustainable recovery. NM will offer direct, open and consolidated support, through a smooth partnership process from planning to operations. A consolidated approach between capacity planning, airspace improvements, integrated data and tool availability for all planning phases, enhanced ATFCM planning, planning and coordination of significant events will be ensured. All this requires full commitment and increased flexibility from all stakeholders – National Supervisory Authorities (NSAs), FABs, ANSPs, airports, airspace users, military and the Network Manager.

2.5 Impact on ATM and Other Areas

To ensure an effective and coordinated planning of the summer 2021 it is paramount that operational stakeholders cooperate closely with the Network Manager. The European Network Operations 2021 Summer Plan provides all ATM stakeholders with the timely information required to plan for the capacity needed to meet expected demand in Summer 2021.

It will be further refined throughout the season with the Rolling Seasonal NOP. The improved level and quality of information regarding the anticipated traffic demand from the airspace users will enable a better quality of the capacity related information at ACCs and airports, an enhanced management of the ATM network, through the early identification of constraints and the implementation of the necessary adaptations.

2.6 Strategic Evolution of the NOP

The NOP 2021 Summer Plan is an edition of the NOP, which covers the Summer 2021 and will be supplemented by the weekly editions of the Rolling Seasonal NOP.

Additionally, the Network Operations Plan covering period 2022-2024 will be presented for approval in Autumn 2021 – based on the assumption that the performance scheme targets will be decided on 1st May 2021.

2.7 Preparations for the Network Operations Plan

The timeline for the preparation of the NOP Summer 2021 Plan is presented below:

Action	Date	Who
Distribution of 2021 Summer traffic forecast at network, ACC and airport level for the outlook period, in NEST and Excel format	November 2020	NM
Collection of airport plans via the Airport Corner	December 2020	NM/Airports
Bi-lateral capacity planning meetings between NM and all ANSPs	December 2020 – mid January 2021	NM/ANSPs
Assessment of ACC plans	January 2021	NM
Further updates and synchronisation actions between NM and ANSPs	January 2021	NM/ANSPs

Action	Date	Who
NOP 2021 Summer Plan consolidation and approval through the CDM process	February-April 2021	NM/Ops Stakeholders
Publication of NOP 2021 Summer Plan.	April 2021	NM

3 Overall Network Operations Planning Processes

3.1 Strategic Planning Processes Description

The NOP 2021 Summer Plan was developed on the basis of an adapted process that is based on the overall principles of the usual capacity planning processes. This adapted process provides the traffic and capacity situation expected for Summer 2021.

NM worked in partnership with all operational stakeholders to derive the Summer 2021 traffic demand, sector opening schemes and capacity outlook, airport capacity outlook, special events and any other information deemed necessary for the 2021 summer planning. The processes and tools used are to a large extent those described in the European NOP 2019-2024 approved by the NMB in June 2019.

The NOP 2021 Summer Plan covers all the ACCs in the NM area of responsibility and it focuses on the airports that have the greatest impact or have the most significant demand upon the ATM network. The Network Manager ensures a dynamic and systematic update of the data relevant to the 2021 Summer NOP through weekly NOP Rolling Seasonal Plan.

3.2 ATFCM Phases and Processes

A smooth and continuous process will be ensured for all Air Traffic Flow and Capacity Management (ATFCM) phases (Strategic, Pre-Tactical, Tactical and Post Operational Analysis). This will allow to address the challenges ahead, including the evolution of the traffic demand and available capacity, with the aim of minimising to the largest possible extent the operational constraints in the network.

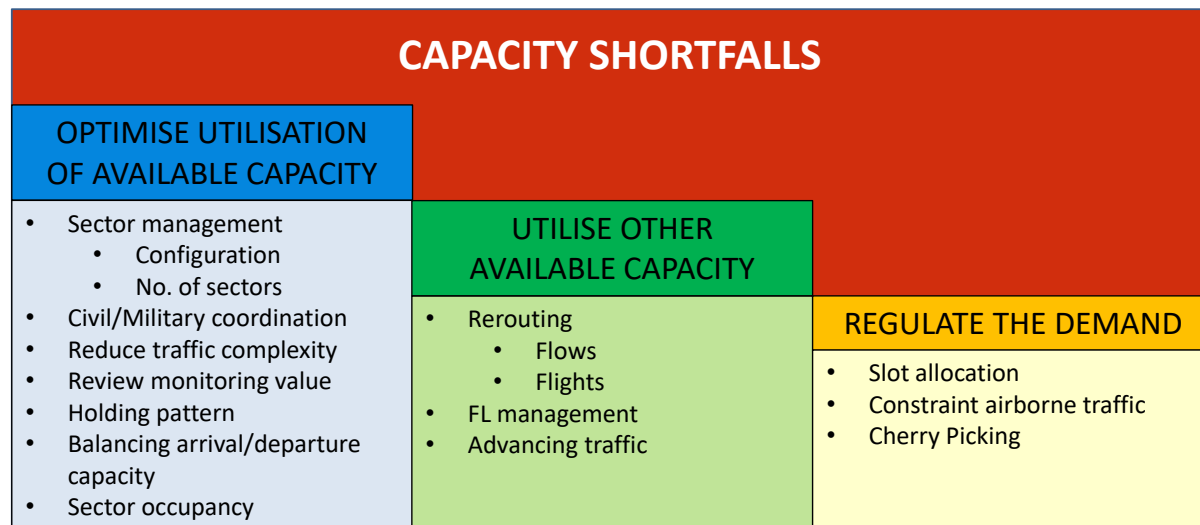
- Strategic Flow Management takes place seven days or more prior to the day of operation and includes simulation, planning and coordination activities.
- Pre-Tactical Flow Management is applied during the seven days prior to the day of operation and consists of planning and coordination activities. This phase analyses and decides on the best way to manage the available capacity resources and on the need for the implementation of a wide range of appropriate ATFCM measures. The output is the Network Plan published via the NOP portal
- Tactical Flow Management is applied on the day of the operation. This phase updates the daily plan according to the actual traffic, capacity and monitoring values.
- Post Operational Analysis is applied following the day of operation. This phase analyses the day of operation, and feeds back into the three previous phases

Detailed ATFCM Procedures are published in the Network Operations Handbook (ATFCM manuals) that are available on the NOP Portal (Resources tab).

<https://www.public.nm.eurocontrol.int/PUBPORTAL/gateway/spec/index.html>

ATFCM considers continuously and pro-actively all possible ATFCM solutions through an iterative process, from the strategic planning through to the execution of operations. The anticipation of any events according to new information allows to minimise their impact on the network or to take benefit of any opportunity and fine tune the plan accordingly.

To resolve capacity shortfalls and improve the management of the network capacity whilst minimising constraints, a variety of ATFCM solutions have to be considered, as shown in the figure below.



3.3 Description of Data and Tools Used

3.3.1 Demand forecasting

STATFOR produces 7-year forecasts (also known as Medium-Term Forecasts) of annual numbers of IFR flight movements for volumes of airspace called 'traffic zones' or 'States' but also for larger aggregate regions, such as the EU. For each traffic zone, forecasts categorised by major flow i.e. internals, arrivals and departures, or overflights. Detailed results are also available for the main region-to-region flows of the zone of interest.

In normal circumstances, the seven-year forecast proposes three forecasts that are random variations around a single scenario. The Low and High forecasts between them capture a range of likely future growth in flight movements, a range that is assessed through a statistical approach that uses past data and trends so that there is a 50% probability that the future reality stands between these Low and High forecasts. The Base forecast indicates a likely position within this range. These forecasts intend to help users assess the risks related to decisions.

Due to the exceptional situation, i.e. no precedent to the COVID19 outbreak, the statistical approach could not be used. In place of proposing one single scenario with some random variation, an approach with three independent scenarios has been chosen that would better cover the uncertainty linked to this particular situation. Moreover, this time, the horizon has been reduced to five years compared to the usual seven years.

The three scenarios were prepared following consultation with the industry (mainly aircraft operators, but also pharmaceutical industries) and a review by the STATFOR User Group. This group includes mainly members from civil aviation authorities and air navigation service providers. Participants are typically actively involved in statistics or forecasting. The STATFOR User Group meets once or twice per year. It reviews the inputs to the seven-year forecast and the resulting draft forecast. The aim of the review process is to produce a forecast which is consistent on a European level and acceptable to member States. This does not necessarily mean the forecast is the same as the one produced nationally.

The flight forecast is built up in four stages:

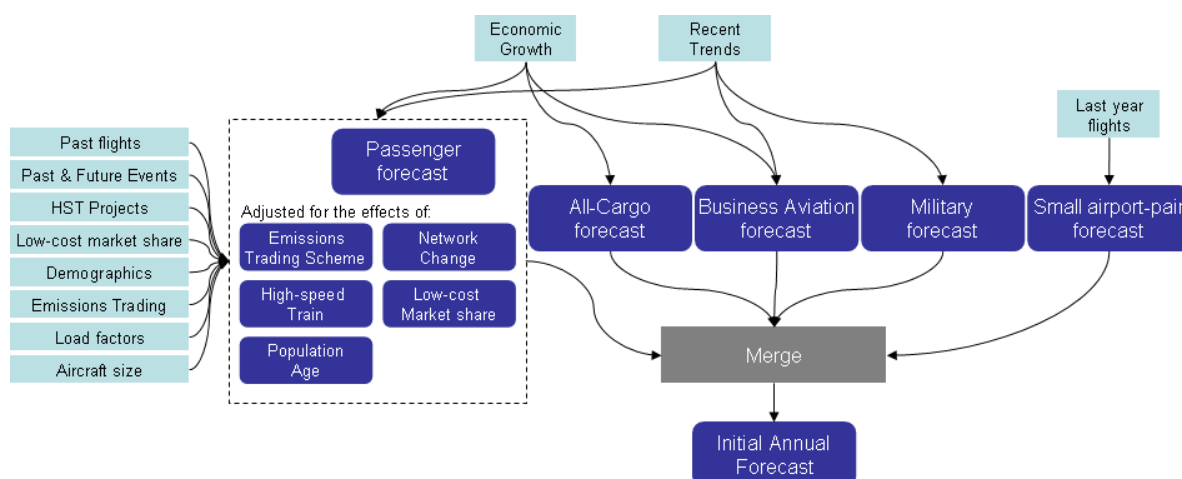
- An Initial Annual Forecast takes into account a broad range of economic, transport and other trends.
- This is combined with a Monthly trend forecast that is strongly influenced by analysis of recent trends, economy and plans, but only looks two calendar years ahead. **For this particular post-COVID outbreak forecast, this part was left aside due to the uncertainty that was much larger than what would have been forecast with the pure statistical approach. That being said, the Annual forecast was aligned to match an estimated 2020 traffic with only two months of traffic missing.**
- The result is constrained by Airport capacity to give an annual forecast of traffic between airport pairs.
- Finally this forecast is mapped onto the airspace network to give counts of flights in the airspace of each State or region (see Overflights).

To focus on each step that was used for **THIS** specific forecast.

The Initial annual forecast: The main scenario inputs to the initial annual forecast (shown in light blue in Figure 2) are:

- Economic growth, summarised as GDP growth forecasts in real prices in EURO. The source used is the Oxford Economics base GDP forecast, annual level, for each State;
- Recent trends in annual traffic;
- Historic flight data giving the number of flights of different types between airports;
- Past and future events, a percentage adjustment to movements per traffic zone, which can be used - given supporting data - to represent in the model the effects of consolidation, irregularities in the baseline, or local one-off events; (see Network Change). **In the 3-independent scenario approach, the differences are built in the initial annual forecast, thanks to different speeds of recovery of traffic within and outside Europe (see scenario description in the [forecast documents](#)). The main trigger point for the scenarios was the availability of a vaccine and its coverage.**
- High-Speed Train (HST) network, summarised as distance and changes in rail travel time on city pairs served by high-speed links, compared to the baseline year;
- Low-cost market share, (see Low-Cost Growth) which will add additional flight movements, on top of economic growth to reflect new flight movements generated by low-cost airlines,
- Demographics, which have only a small impact at these short and medium horizons. These data are derived from UN population forecasts (see Population age).
- Aircraft size, in number of seats, used to convert from numbers of flights into a number of seats;
- Load factors, used to convert from number of seats to number of passengers and assumed to change linearly from a current level to a future level that can vary with region and scenario.

Figure 1. Method for the initial annual forecast.



The inputs are used to split up traffic into five segments and then to grow the number of flights on each airport pair for each segment as follows:

- All-cargo flights are grown based on GDP growth.
- Small airport pairs (< 25 flights per year) and circular flights are kept constant.
- Growth of Military flight movements in the first year of the forecast follows the average of the last three years for the traffic zone as a whole, with a maximum change of 5%, and is kept constant afterwards.
- Business aviation flights are grown based on observed trend at a State level together with economic growth if this is a useful explanatory variable for this State.
- For other traffic, ('other' here is the majority of passenger flights) the use of supply-side or demand-side approach is considered. At this phase, the flight forecast is transformed from a number of flights forecast into a passenger forecast.
 - Supply-side is used if traffic matches one of the standard histories (long-term stable or declining traffic, direct relationship to GDP) and if demand exceeds the supply. Otherwise, it is demand that drives and limits the growth.
 - In the demand-side, passenger numbers are estimated from flight counts, aircraft type and load factors, then grown according to GDP growth and the elasticity for this flow, then converted back to a number of flights using a number of seats-to-flights and load factor relationships calibrated on historical data.
 - The growth of movements on an airport-pair may then be reduced if there has been a reduction in journey times by HST since the baseline year, adjusted for low-cost growth in the traffic zone (bringing additional growth) and for any network change assumptions (future events) and adjusted for population change and costs of emissions trading passed on to passengers.

Airport constraints: The resulting growth per airport pair for all types of flight (passenger, all-cargo etc) is then compared with future airport capacities that have been provided by the airports. Growth is constrained by these capacities. Note that due to drop in traffic, such capacity constraints were not a significant restricting factor to this specific forecast.

The resulting annual forecast was re-aligned to match 2020 estimated actuals.

Overflights: The final step is to calculate how many flights are generated in each airspace by these airport-to-airport flights. This is done by using the same repartition of routings through the airspace as observed during the last year of actual traffic. Some adaptations may be added to anticipate some routing changes that would be expected during the horizon of the forecast. **For the specific 5-year forecast the 12-month routings covering the Sep19-Aug20 period solely were applied.**

3.3.2 DDR

The Demand Data Repository (DDR) was created to support the network collaborative planning process, giving access to a consolidated and integrated European strategic view of traffic demand and distribution.

The DDR2 Web portal provides a simple and comprehensive interface allowing generation and download of future traffic for planning purposes and past traffic and environment data for post-ops analysis of traffic trends, statistics and routeings comparison to support flight efficiency. It also provides tools download (SAAM & NEST) for airspace design and capacity planning simulations. Tools and data delivered by DDR2 web portal are interoperable and their usage restricted to DDR2 users formally registered.

Past traffic demand is available for any day, for all Europe, from September 2011.

The DDR web application can generate a variety of traffic samples as follows:

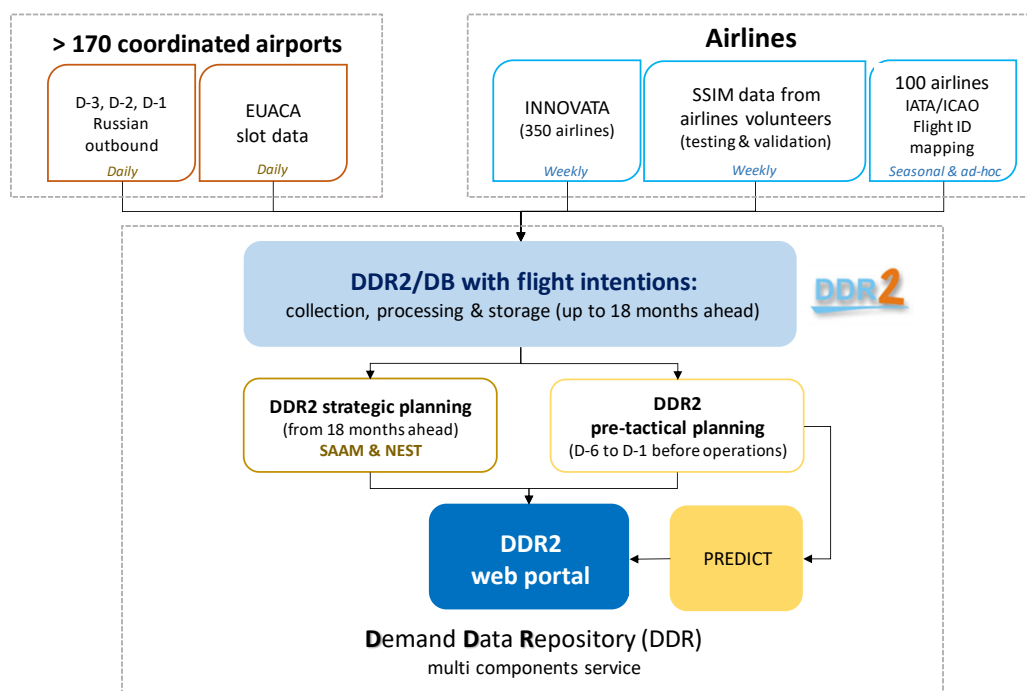
- Future traffic samples according to the low, baseline or high STATFOR forecast
- Future traffic samples with current demand distribution (flight plan / flight plan enhanced with radar data)
- Future traffic samples with new routeings* calculated on future environment
- Past traffic samples with new routeings* calculated on future environment

*Two options are available for the generation of new routeings:

- Shortest path (minimum route length)
- Cheapest path (minimum cost taking into account route length and route charges)

The future traffic samples can be enriched in the DDR2 using the flight intentions. DDR2 collects early available flight intentions from Airlines (SSIM / INNOVATA data) and from Coordinated Airports through EUACA.

The flight intentions are used as an input in the DDR2 as illustrated below:



The forecast traffic samples cover the whole of the European airspace geographically, and are available from the planning phase up to the pre-tactical phase.

Continuous testing and refinement of the consolidation and enrichment processes will ensure that forecast traffic demand samples are as accurate as possible for all planning purposes. DDR2 Web portal provides monthly report of strategic forecast quality.

Access to DDR web application is restricted to ANSPs and Airline Operators (these last can only access their own traffic fleet data and benefit from a specific flight efficiency DDR2 function) within Europe. Standard limits are fixed to 2 AIRACs or 60 days of historical traffic to download, and 60 days of traffic for forecast generation, each week.

Information on how to register to use the DDR may be found on the website: www.eurocontrol.int/ddr

Questions about DDR2 can be emailed to ddr2_support@eurocontrol.int

Note: The utilisation of DDR2 forecast traffic samples should take into account the exceptional circumstances linked to the COVID-19 pandemic. The evolution of airline and airport data updates are dependent on the overall conditions for air travel, and the various updates are frequent.

DDR2 tools and data were adapted for the sole purpose of the NOP Rolling Seasonal Plan to give an overview of expected traffic at network / ACC / airport level for a six weeks rolling period. This outlook is shared with all ANSPs and airports on a weekly basis and is the most accurate prediction at the time of publication.

3.3.3 NEST

NEST is a scenario-based modelling tool developed by EUROCONTROL. It is used by the Network Manager and the Air Navigation Service Providers (ANSPs) for:

- Designing and developing the airspace structure
- Planning the capacity and performing related post operations analyses
- Organising the traffic flows in the ATFCM strategic phase
- Preparing scenarios to support fast and real-time simulations
- Ad-hoc studies at local and network level.

NEST is used to optimise the available resources and improve performance at network level. NEST can also be used locally by Area Control Centres (ACCs) or airports and also globally for strategic planning at network level. NEST can process and consolidate large quantities of data spanning multiple years, but also allows the user to drill down into the detail and analyse and observe 10-minute periods of data.

NEST is scenario based: users can make changes to the original dataset or reference scenario to model an unlimited number of different operational planning options. NEST uses datasets provided by EUROCONTROL at the end of each AIRAC cycle, describing the consolidated pan-European airspace and route network, the traffic demand and distribution as well as the EUROCONTROL traffic forecasts. Also a daily cumulated traffic with minimal environment is provided every day, allowing to access traffic data before the end of the AIRAC.

All this data can be downloaded from the Demand Data Repository web site (after subscription). The simulation algorithms include:

- Future traffic samples
- 4D traffic distribution
- Configuration optimiser
- Regulation builder
- Delay simulation

NEST provides a suite of data visualisation features including tables, charts and fully integrated capabilities for creating 2D/3D presentations.

The tool also addresses the following needs:

- Assess the capacity of an ACC
- Assess the benefit in terms of capacity of measures being implemented in an ACC
- Simulate temporary capacity reductions and their impact
- Optimise opening schemes based on local constraints
- Simulate traffic growth in sectors
- Identify capacity bottlenecks
- Generate future traffic samples
- Optimise ACC configuration opening schemes, balancing controller hours with capacity overloads and related delays

- Compare planning scenarios using built-in ATFM simulation capabilities
- Study airspace reorganisation options
- Visualise load distribution, saturation, complexity and traffic mix analysis
- Simulate degraded operational scenarios at reduced capacity
- Browse and edit all environment and traffic data
- Capture groups of flights by defining detailed custom traffic flows
- Run simulation of network effects
- Assess free route airspace projects,
- Assess route network development projects
- Model and simulate the effect of RAD changes
- Run Cost Benefit Analyses on economic and environmental indicators
- Study traffic rerouting scenarios
- Enhance flight efficiency.

Information requests regarding NEST may be made at nest@eurocontrol.int.

3.3.4 PREDICT

PREDICT is the main network operations tool used to support the Pre-Tactical planning for the day being planned (D) and can be accessed by FMPs via CHMI (read only access) as from D-6.

PREDICT provides:

- A reasonably accurate overview of the traffic loading on the day being planned.
- Sector configurations and monitoring values supplied by FMPs.
- An ETFMS-like environment in which patterns of ATFCM measures (regulations and rerouting) can be simulated off-line, without consequence on OPS, to see their overall effect.
- Ability to cope with the network effect.

PREDICT input consists of:

- Flight Data: Historical demand derived from (first filed) flight plans at D-7, by default, is used to build the future traffic forecast. Several corrections of historical demand are applied in PREDICT to generate:
 - An enrichment of historical FPL data with DDR2 flight intentions in order to better reflect new flights or remove historical flights reported as not being operated in the future
 - NAT flows substitution in order to best reflect forecast NAT tracks
 - Routing connections resulting from airspace or RAD constraints/changes
- ENV Data: PREDICT receives new Environment data every 4 weeks as part of the normal AIRAC Cycle, as well as on-line environment updates.

3.3.5 ATFCM Simulations and SIMEX

A simulation platform SIMEX (**S**imulation and **E**xperiment) is provided to enable operational staff to simulate and assess the impact of the application, modification or cancellation of ATFCM measures before they are applied operationally.

The simulation platform is used in various ATFCM phases;

- Tactical activities (from simple evaluation of short-term ATFCM measures on ETFMS operations before application, to evaluation of the best approach to solve unexpected events)
- Pre-tactical activities (preparation of an ATFCM regulation plan, starting with flights from a reference day)
- Special events and long term activities (e.g. airspace restructuring, pre-validations of ENV data).

Requests for ATFCM simulations in the strategic phases should be addressed to NM.Strategic.Operational.Planning@eurocontrol.int. Pre-tactical and tactical simulations are carried out as part of the respective operational processes. SIMEX is now also available for FMPs to use via the CHMI.

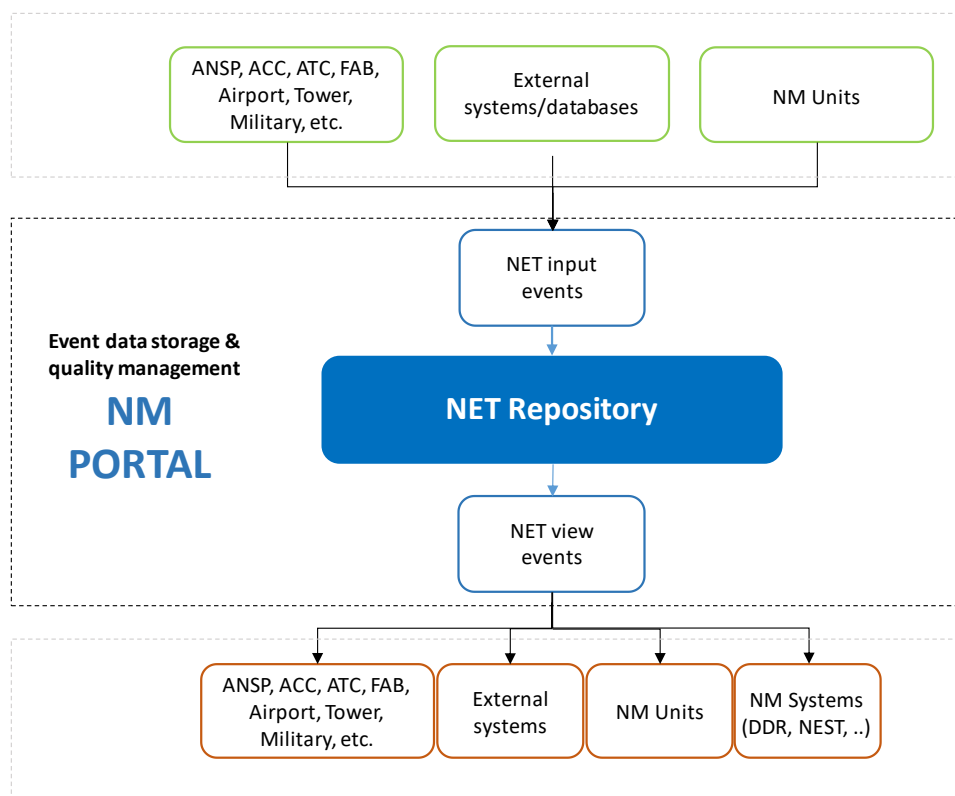
3.3.6 Network Events Tool (NET)

Event information is essential to facilitate the planning and coordination of those events at network and local level. Information on events impacting capacity, efficiency or demand enables early identification of issues that may affect the capacity of the ATM Network as a whole, allowing the necessary ATFCM measures to be developed in due time. Sharing the same network event information to enable timely and synchronised planning across the organisation is a key enabler for executing effective network operations.

For several years EUROCONTROL Network Manager (NM) has obtained information on events that impact the network from multiple sources: internal business units, Airports, ANSPs, airlines, etc.

The Network Events Tool (NET) represents a move towards a centralised approach and rolling NOP, to facilitate the planning and coordination of events at network and local level. NET consists in a consolidated repository of event information obtained by EUROCONTROL from various sources and stored in various databases, and provides a unique access point to that repository to interested users both internal and external to the Agency.

NET Input and Output



NET is available as a “Calendar of Network Events” portlet on the Network Operations Portal

(<http://www.public.nm.eurocontrol.int/PUBPORTAL/gateway/spec/index.html>), and accessible in all planning phases (strategic, pre-tactical, tactical, post operations). As such, NET increases the visibility of events that may have an impact on network operations, and aims to enable identification of interdependencies and support efficiency gains in the coordination and planning of mitigation actions in a collaborative manner with stakeholders.

NET is intended to support the Network Planning Processes by enabling a consolidated source of event data, with sufficient and reliable details that can be used at any planning iteration.

Currently, the NET repository (database) stores event information from the following sources:

- ERNIP, which includes airspace proposals scheduled for implementation during the specified period;
- Airport Corner Database, which includes Airport On-going and planned activities; selected events only;
- Special Events;
- Military events;
- ATFCM events;
- Direct input through its own interface on the NOP portal.

The NET database also provides direct input to DDR2 (included in DDR2 Calendar of events).

3.3.7 Pre-Validation of Airspace Changes

In order to ensure that all significant airspace changes can be assessed from ATFCM and flight planning perspective and accurately reflected in the Network operations systems, a pre-validation facility is provided for all ANSPs. The main purpose is to detect any inconsistencies or incompleteness before official publication by the ANSPs. Detailed procedures for the use of this facility are contained in the Network Operations Handbook manual "Provision of Environment Data"; available on the NOP Portal. (Resources tab)

<https://www.public.nm.eurocontrol.int/PUBPORTAL/gateway/spec/index.html>.

Normally such pre-validations should be requested with at least six months' notice and at the latest three AIRAC cycles before required changes become effective, so that all data changes may be fully validated in time for the AIRAC AIP data publication schedule. For the processes and the tools described, the main traffic and delay data

source is the Network Operations flight data. Data may be enriched, as required, by the information acquired locally from the ANSPs or even airspace users.

3.3.8 Airspace Data Contribution to ATFCM Process

In NMOC the Central Airspace and Capacity Database (CACD) - alias Environment (ENV) – is maintained with both live updates and AIRAC related updates. This is the common aeronautical infrastructure database used primarily by the NM operational systems

Additionally NM staff through the ECAC Centralized Airspace Data Function (CADF) produce the consolidated European Airspace Use Plan (EAUP/EUUP) and its updates. This is a daily listing of ATS/Conditional Routes availability, planned Restricted Airspace activations and related Restrictions based on information provided by each national Airspace Management Cell (AMC).

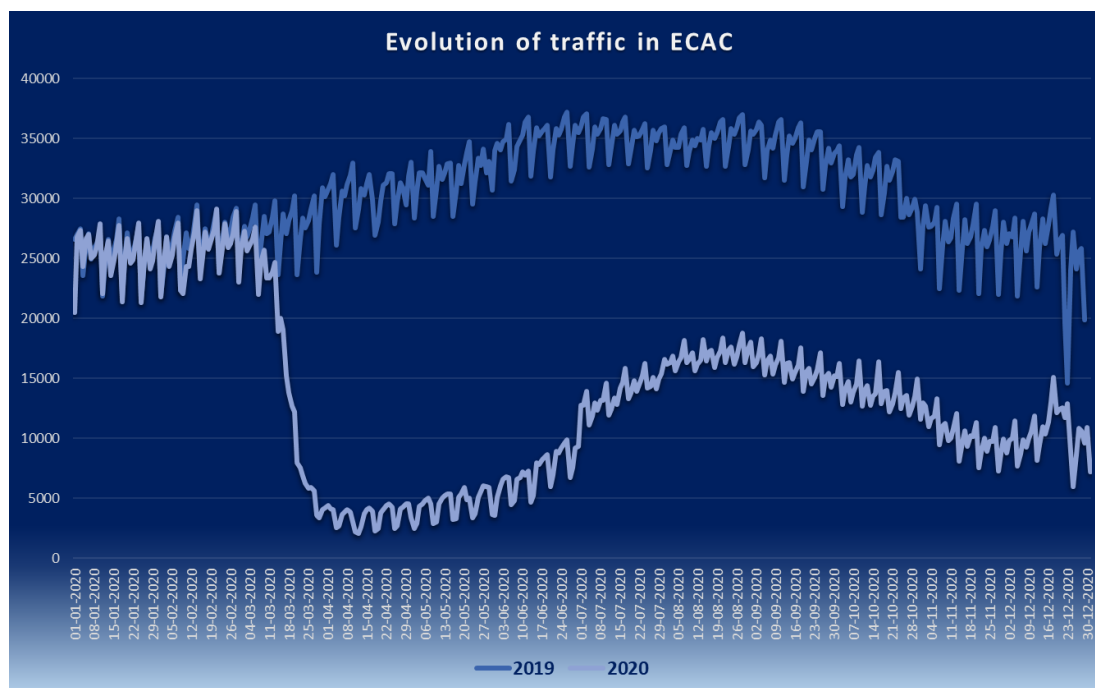
More details on the prevalidation process are published in the NM Free Route Airspace – Application in NMOC – Guidelines document – Version 1.1 (February 2017).

4 Overall Context and Operational Requirements

4.1 Summary description of 2020 network performance

- **Traffic: -55% compared to 2019**

The average daily traffic in 2020 decreased by 55% compared to 2019.
Traffic decreased by 64% for the Summer season (May to October inclusive).



- **Total daily ATFM delay evolution: - 89% compared to 2019**

Over the whole year 2020, the average total ATFM delay was 0.53 minutes per flight. During the 2020 summer season, the average total ATFM delay was 0.05 min/per flight.

- **Enroute ATFM delay evolution: - 91% compared to 2019**

Over the whole year 2020, the average en-route ATFM delay was 0.33 minutes per flight. During the 2020 summer season, the average en-route ATFM delay was 0.02 min/per flight. The main reasons for en-route ATFM delay were Industrial action (42%), ATC Capacity (23%), ATC Staffing (8%) and Other (21%).

- **Airport Daily ATFM delay evolution: -85% compared to 2019**

Over the whole year 2020, the average airport ATFM delay was 0.2 minutes per flight. During the 2020 summer season, the average airport ATFM delay was 0.04 min/per flight. The main reasons for airport ATFM delay in 2020 were Weather (66%), Aerodrome Capacity (10%) and Industrial action (7%).

- **Potential flight efficiency evolution** (considering only airspace design): shortest route length extension reduced to 2.22% compared to 2.24% in 2019

- **Delivered flight efficiency evolution (route availability and utilisation):**
 - KEP (route length extension based on latest filed flight plan) decreased to 4.57% in 2020 compared to 4.63% in 2019, for the NM area.
 - KEA (actual trajectory) decreased to 2.56% in 2020 from 2.87% in 2019.

4.2 Challenges and Opportunities

The main challenges and opportunities for this NOP Summer 2021 Plan are:

- Capturing accurately the evolution of the traffic demand;
- Capturing accurately the evolution of en-route, TMA and airport capacity;
- Minimising to the largest possible extent the operational constraints in the network;
- The continuous adaptation of the European ATM network capacity (for en-route, TMAs and airports) to the evolution of traffic demand to enable a constraints-free operation of the network;
- The scheduling of the implementation of major projects, events, military exercises and their possible synchronisation over a short period of time;
- Building on the processes for the preparation of this Plan to further improve planning of operations for the European ATM network in the medium/long term;
- Further strengthening the links between strategic/pre-tactical planning and tactical operations;
- Sharing good operational and technical practices.

This will ensure a safe and smooth delivery of capacity and a better response of the European ATM network to operational performance challenges in the medium/long term.

This Plan ensures a structured planning and preparation to enable the Network Manager and operational stakeholders to successfully mitigate capacity / demand imbalance issues. It is helped by the maturity of the existing capacity planning processes.

The Summer 2021 NOP will be complemented by the Rolling Seasonal NOP, allowing for continuous updates throughout the season.

4.3 Network Traffic Forecast

4.3.1 Five-year Traffic Forecast

The last EUROCONTROL Network Manager Forecast, covering the period 2020-2024, was published in November 2020. The latter was prepared in out-of-the-ordinary circumstances linked to the unprecedented impact of the COVID19 outbreak.

Three separate scenarios were built to account for the risks around the forecast and their relative impacts. They are specified according to the availability and effectiveness of a vaccine. Amongst the three scenarios, Scenario 2 is the most likely, whereas Scenario 1 proposes a more optimistic approach to traffic recovery and Scenario 3 is more pessimistic. The scenarios are detailed later in this section.

➤ Forecast Results

For 2021, the rebound is expected to range from a 14% to a 62% increase (on 2020) depending on the scenario. The recovery towards 2019 traffic levels will then continue over the following years, each scenario at its own rhythm according to its own assumptions.

Over the five-year period 2020-2024, the average annual growth rate (AAGR) of IFR flights in Europe is expected to be between -5.6% and 0.6%, with a most likely value of -1.6% per year compared to 2019.

In scenario 1, which is the most optimistic, the recovery to 2019 traffic levels is expected in 2024.

Any user of the forecast is strongly advised to consider the range between the three scenarios.

ECAC*		2015	2016	2017	2018	2019	2020**	2021	2022	2023	2024**	AAGR 2020-2024 (vs 2019)
IFR Flight Movements (Thousands)	Scenario 1: Vaccine 2021	.	.	.	.	.	4,973	8,052	9,814	10,685	11,411	0.6%
	Scenario 2: Vaccine 2022	9,923	10,197	10,604	11,002	11,085	4,837	5,642	8,004	9,136	10,248	-1.6%
	Scenario 3: Vaccine not effective	.	.	.	.	.	4,811	5,507	6,470	7,428	8,293	-5.6%
Annual Growth (compared to previous year unless otherwise mentioned)	Scenario 1: Vaccine 2021	.	.	.	.	.	-55%	62%	22%	8.9%	6.8%	0.6%
	Scenario 2: Vaccine 2022	1.6%	2.8%	4.0%	3.8%	0.8%	-56%	17%	42%	14%	12%	-1.6%
	Scenario 3: Vaccine not effective	.	.	.	.	.	-57%	14%	17%	15%	12%	-5.6%

* ECAC is the European Civil Aviation Conference
** Leap year

Figure 2: EUROCONTROL five-year Forecast for ECAC: 2020 to 2024

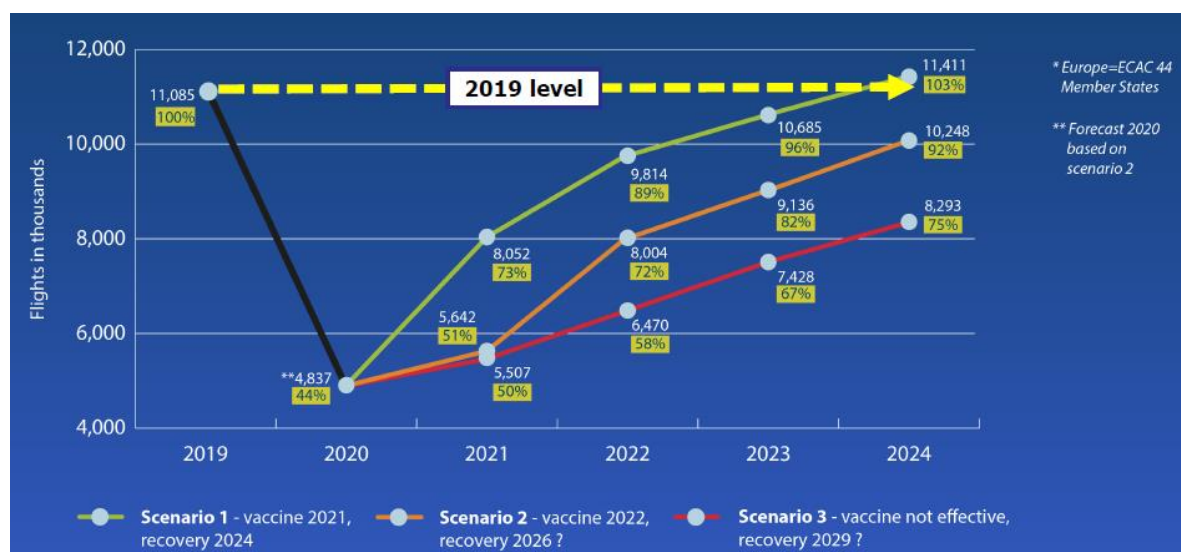


Figure 3: EUROCONTROL five-year Forecast for ECAC: Evolution compared to 2019 Traffic Levels

Each scenario represents a step-based recovery around the seasonal changes in flight schedule whose turning point is the availability and effectiveness of a vaccine. The three chosen scenarios vary according to the timing of a vaccine availability and its effectiveness and account for the other risks identified during the consultation, which include:

- Strength of worldwide new waves of COVID-19
- Strength and timing of the public health restrictions and social distancing

- Availability 'and uptake' of vaccine and therapies with proven success in treating COVID-19
- Impact on the global economy ranging from a fast strong rebound to a financial crisis
- Possible differences in state aid and risks of bankruptcies in the aviation industry
- Potential reductions in demand to fly both for business as for leisure travel

The scenarios are described below.

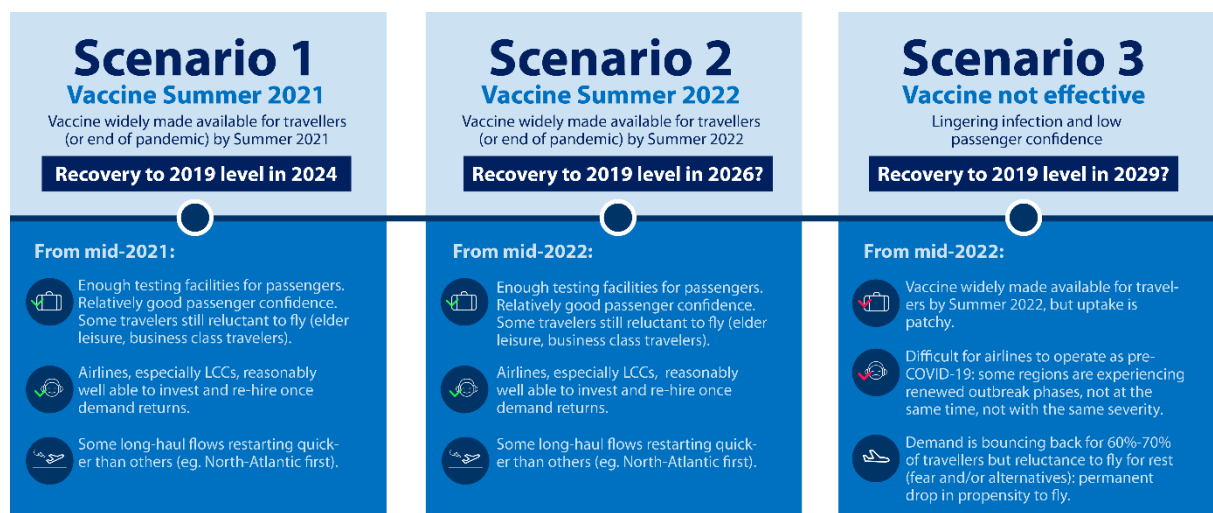


Figure 4- Description of the Three Forecast Scenarios

Scenario 1 anticipates the vaccine to be largely deployed for Summer 21. It assumes that traffic could reach up to 85% of the 2019 levels on the last months of 2021.

Scenario 2 and 3, where vaccine would not yet be available in 2021, anticipates the traffic to recover in some places thanks to improved testing facilities but with traffic levels not above 55% of the 2019 levels by the end of 2021.

➤ Risks to the forecast growth

Users of the forecasts are strongly advised to use the forecast range (Scenario 3-growth to Scenario 1-growth) as an aid to managing their own business risks.

The main risk around this forecast remains in the evolution of the COVID-19 outbreak with the probability of new lockdowns and travel restrictions that would impact the evolution of air-traffic downwards. States have shown a large discrepancy in the way they have dealt with the outbreak which will add to the uncertainty at the network level. The availability of a vaccine, its effectiveness and coverage on the other hand is rather an upwards risk as it could boost travel confidence and motivate a faster recovery of air-travel.

The economic outlook remains fragile, and the longer the crisis lasts, the more it is likely to affect the global economy downwards as well as it may slow down its recovery. State aids have so far limited the impact of the various lockdowns and no formal bankruptcies of major airlines can be reported. However, many airlines have already started to restructure and cut on costs and jobs, which may limit their ability to accommodate demand when demand bounces-back. State aid will also not last and airlines are likely to suffer when the travel restrictions due to COVID-19 are lifted. The fragile economy, as well as a surge in unemployment and global uncertainty is also likely to lead to lower consumer spending's and impact their propensity to fly for leisure

downwards. The change in working habits, such as telework, may also lower the need to travel for business and represent a downside risk to air-travel.

Load factors are currently at a record low level, which is likely to impact the recovery growth rate downwards as airlines may favour to load their flights and boost their profitability, before they add new flights.

Traffic routings have always been a major risk, either upwards and downwards for individual states as airlines can be volatile in their route choices. The STATFOR forecast was prepared with the last-known routings¹ and no changes in route-choices were considered. With the potential recovery of air-traffic, it is difficult to anticipate how these routes will evolve. However, if airspace capacity should not constrain the route choice, disparity in the states' economic recovery and travel intentions may affect the whole structure of the network with new routes that arise as other ones disappear.

Terrorist attacks, bans of one country on another one, wars and natural disasters remain impossible to predict and likely to happen. Their impact on air traffic can be either temporary or more significant. Overall, this is a downside risk for the country impacted by the event.

4.3.2 ANSP, FAB and ACC Forecast

The traffic increase per ACC, ANSP and FAB is derived from the EUROCONTROL Five Year forecast 2020-2024 through the capacity planning process of the Network Manager. This is based on the origin-destination zones (ODZ) growth, and on the traffic distribution on routes.

The traffic forecast at ACC, ANSP and FAB level used for planning in this edition of the NOP Summer 2021 has been derived based on the following hypotheses:

- **Reference traffic from Summer 2019**

Summer 2019 provides the baseline for the overall traffic levels, city-pair distribution and seasonality, which the pandemic heavily affected in 2020.

- **Routeings and flight profiles from 2020**

Summer 2020 routeings and flight profiles were unconstrained by en-route capacity and more options were available thanks to RAD relaxation and new airspace implementations, including extended Free Route Airspace. For Summer 2021 planning, the same routeings and profiles as in 2020 were considered.

- **Scenario 1 of the EUROCONTROL Five-Year traffic forecast 2020-2024 applied everyday of the Summer 2021**

There is a potential to reach levels in line with the scenario 1 of the EUROCONTROL Five-Year forecast traffic forecast, at least for part of the year. Therefore the planning for Summer 2021 was based on Scenario 1, i.e. 73% of 2019 European traffic to ensure that sufficient capacity would be available for this level of traffic.

¹ Routings from the September 2019 to August 2020 period were considered.



This method was presented to ANSPs through the capacity planning process. All the related data in NEST and MS Excel formats, was also distributed to all ANSPs for common reference in all network operations planning activities.

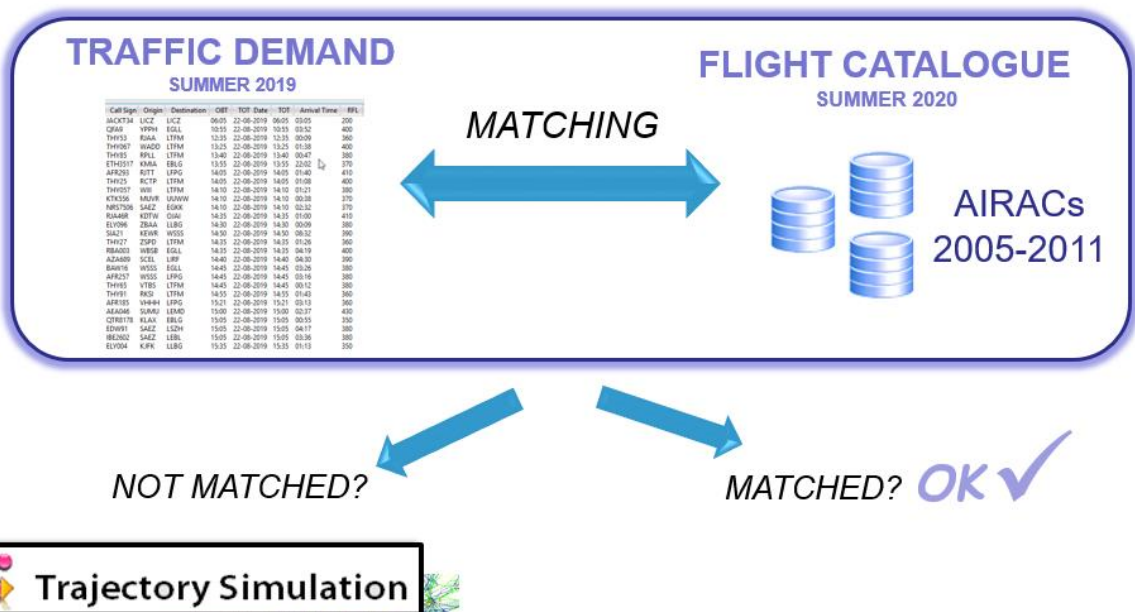
Forecasts at FAB and/or ANSP level are provided on a bilateral basis as required.

The forecast per ACC is presented in Annex1.

4.3.2.1 Ad-hoc Reference Traffic Summer 2019

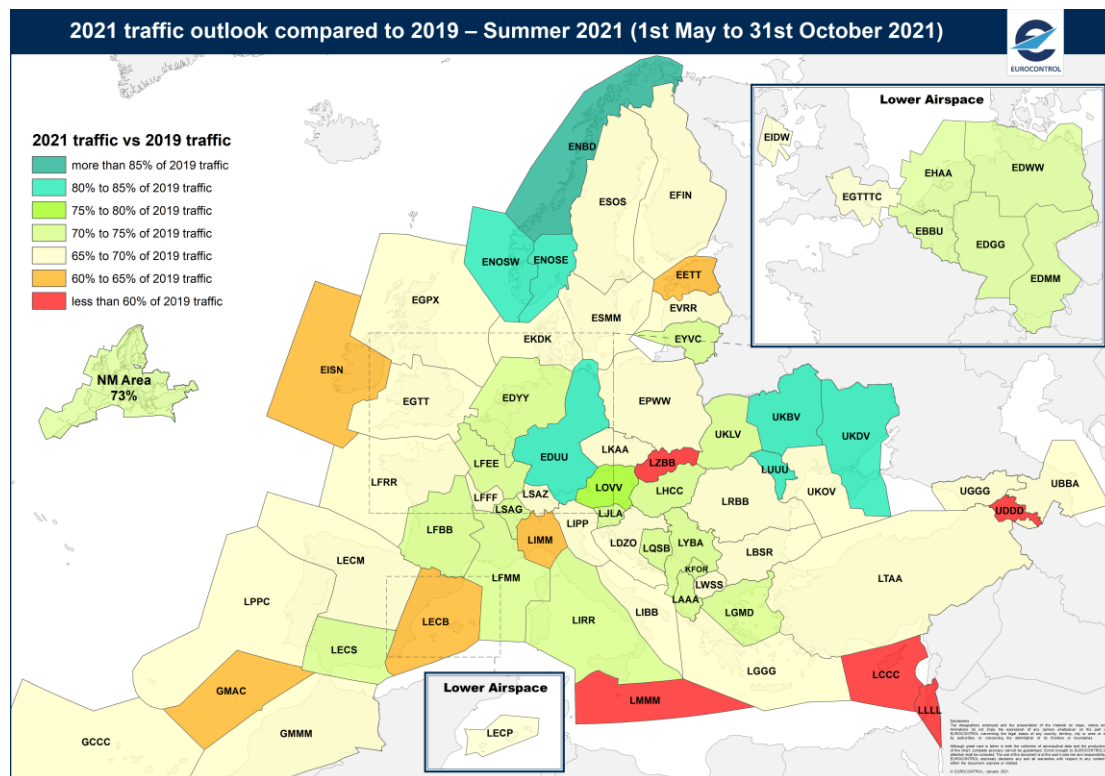
The following process was used to create an ad-hoc reference traffic, based on summer 2019 traffic adapted to traffic distribution on routes of summer 2020:

1. **TRAFFIC DEMAND FROM SUMMER 2019:** traffic data was extracted from NEST AIRAC cycle 1905-1911 (Trajectory type Initial).
2. **FLIGHT CATALOGUE:** a flight catalogue representative of summer 2020 route and profile choices and availability was built by extracting the corresponding information from NEST AIRAC cycles 2005-2011.
3. **MATCHING process:** Traffic demand as per point 1 was assigned routes and profiles based on a flight matching process using the flight catalogue built in point 2.
4. **TRAJECTORY SIMULATION:** in case no valid flight matching was possible, a NEST trajectory simulation based on the criteria of shortest route, was performed.



In average, the process resulted in 83% matching and 17% trajectory simulation. A residual 0.1% traffic, representing special circular flights, was removed since neither a flight match nor a simulated trajectory could be found.

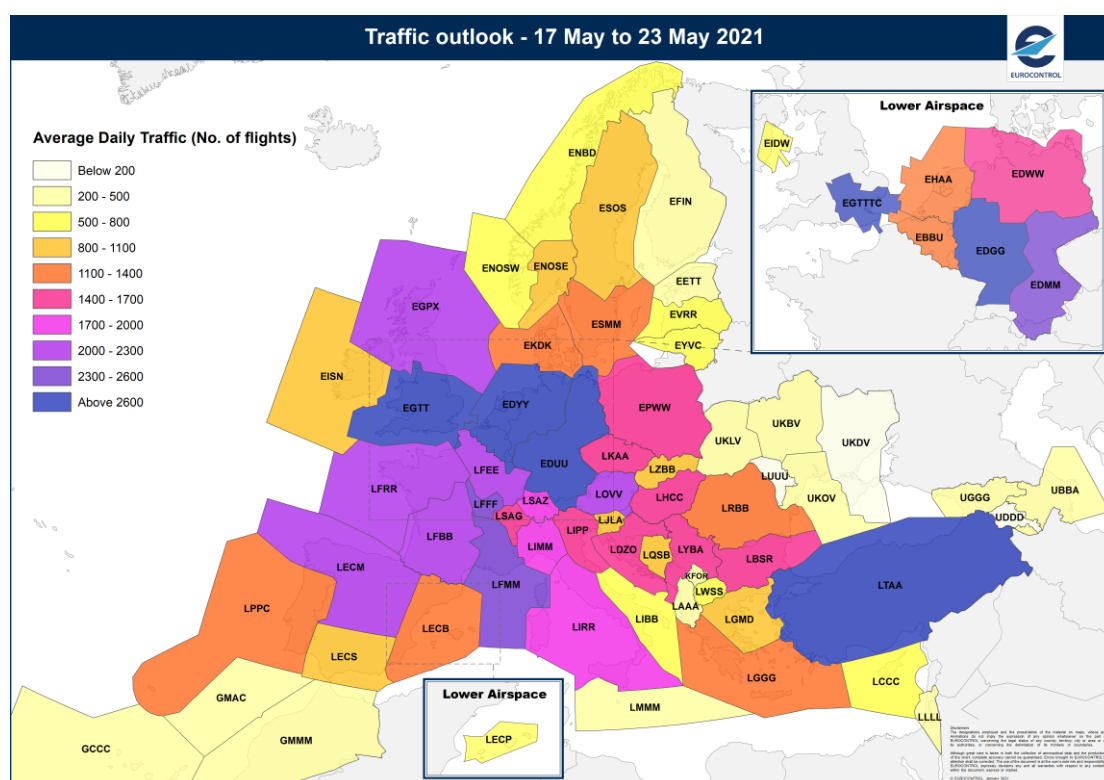
Following these hypotheses, the ACC comparison to 2019 traffic levels is shown on the following map.

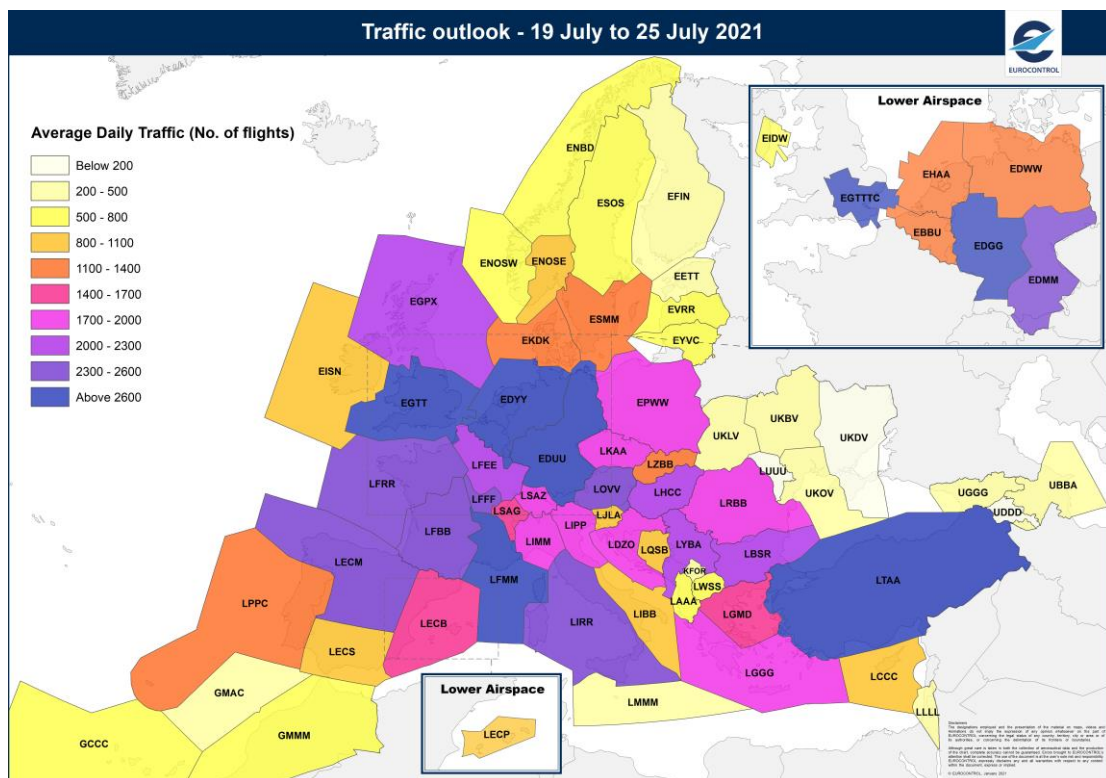
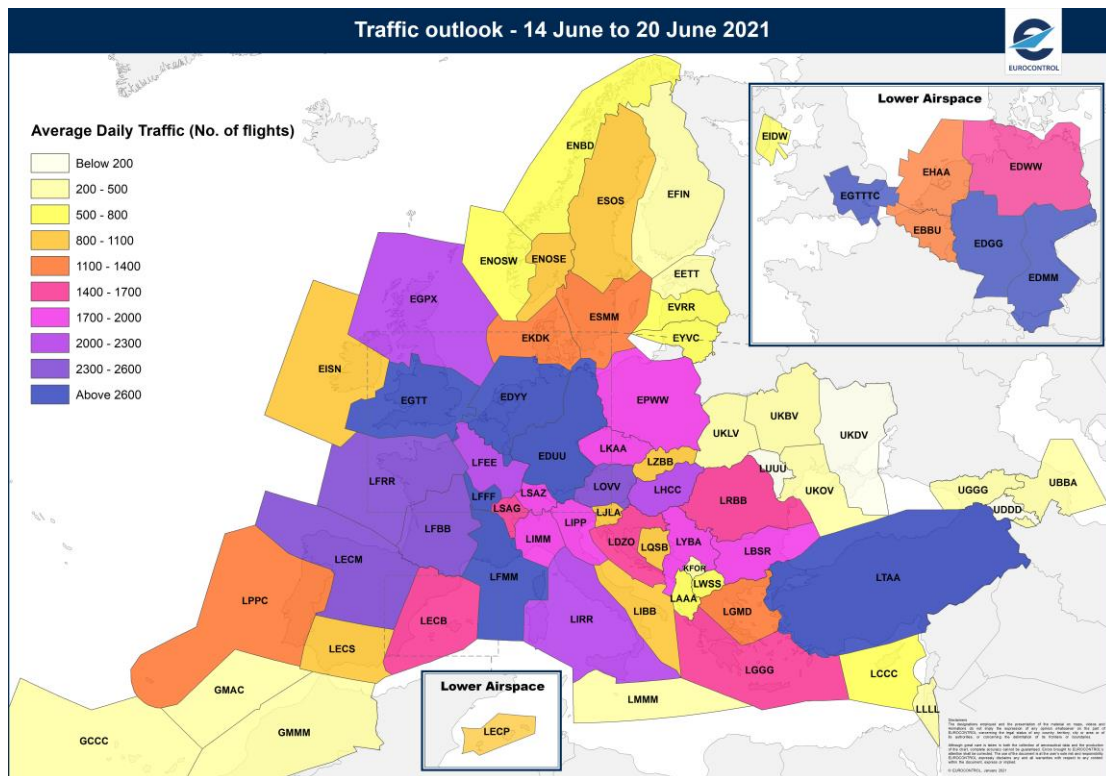


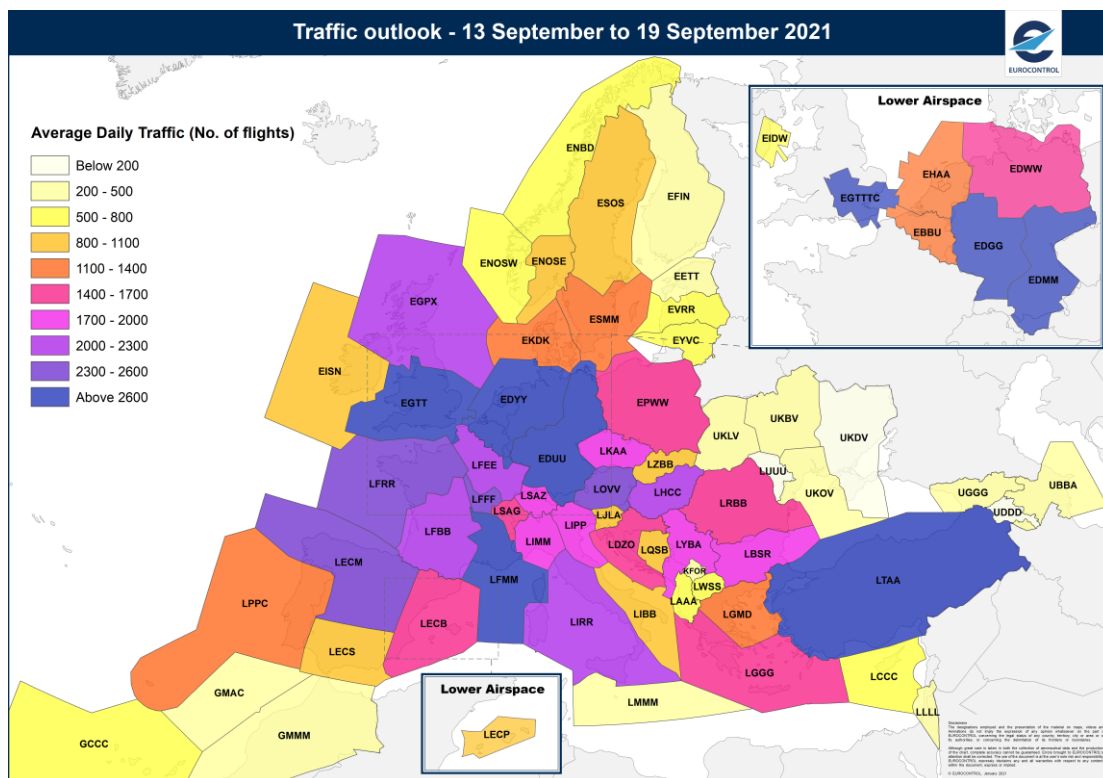
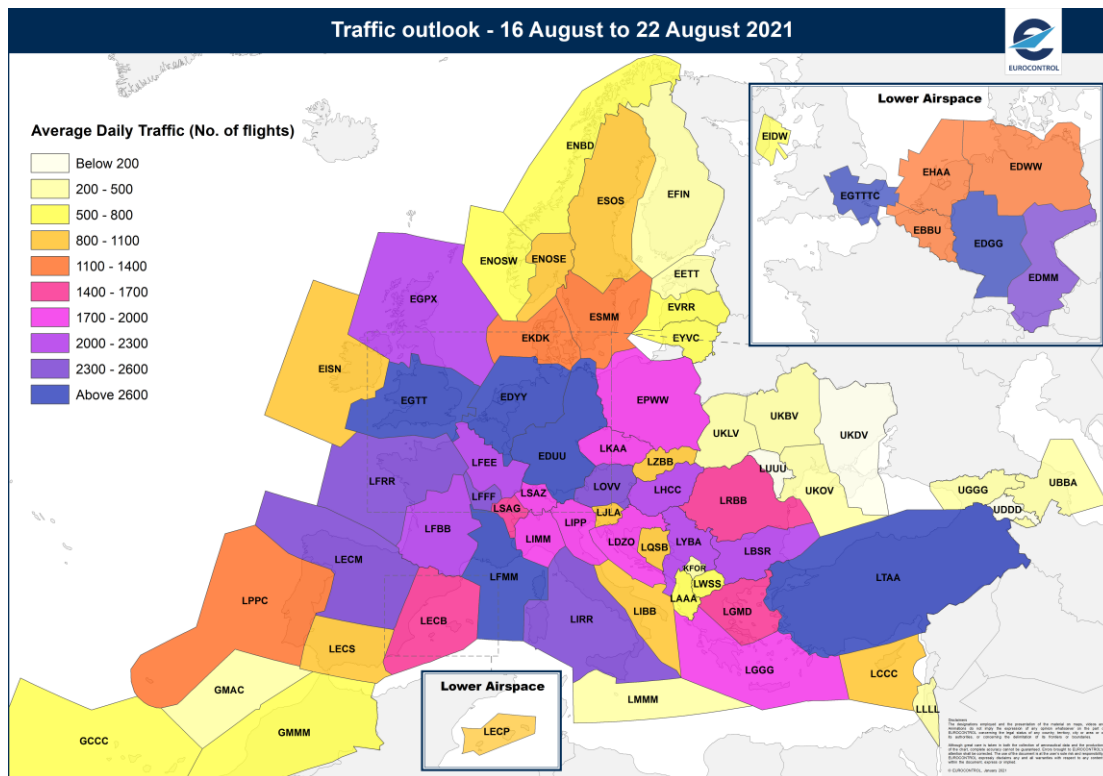
The final reference traffic for capacity planning for the NOP Summer 2021 was derived by applying the scenario 1 of the EUROCONTROL Five-years forecast 2020-2024 to the Ad-hoc Reference Traffic Summer 2019.

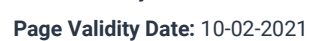
- **May**: 17 to 23 May 2021
- **June**: 14 to 20 June 2021
- **July**: 19 to 25 July 2021
- **August**: 16 to 22 August 2021
- **September**: 13 to 19 September 2021
- **October**: 18 to 24 October 2021

The traffic per ACC for those weeks is presented on the following maps.









4.3.3 Main Airports Forecast

Country	Airport	Airport Name	Average Daily Traffic per Week (No of flights)					
			Week 17/05/2021 - 23/05/2021	Week 14/06/2021 - 20/06/2021	Week 19/07/2021 - 25/07/2021	Week 16/08/2021 - 22/08/2021	Week 13/09/2021 - 19/09/2021	Week 18/10/2021 - 24/10/2021
Albania	LATI	Tirana	59	67	78	78	75	60
Austria	LOWW	Wien Schwechat	600	607	604	604	611	577
Belgium	EBBR	Brussels National	489	509	516	508	509	483
Belgium	EBCI	Charleroi/Brussels South	117	123	121	127	117	120
Bulgaria	LBSF	Sofia	131	139	138	136	136	126
Cyprus	LCLK	Larnaka/Intl	124	146	147	149	145	137
Czech Republic	LKPR	Praha Ruzyně	284	324	316	329	330	273
Denmark	EKCH	Kobenhavn/Kastrup	525	545	491	514	537	503
Finland	EFHK	Helsinki-Vantaa	376	363	345	368	382	357
France	LFBD	Bordeaux-Mérignac	190	198	186	175	192	178
France	LFBO	Toulouse Blagnac	239	241	199	187	244	244
France	LFLY	Lyon Saint-Exupéry	261	269	262	235	263	249
France	LFML	Marseille Provence	236	240	234	224	229	220
France	LFMN	Nice-Côte d'Azur	376	384	410	382	347	306
France	LFPB	Paris Le Bourget	131	147	106	84	128	117
France	LFPG	Paris Ch De Gaulle	996	1041	1040	1045	1035	1006
France	LFPO	Paris Orly	485	515	470	433	462	442
France	LFRS	Nantes Atlantique	172	177	159	155	162	154
France	LFSB	Bale-Mulhouse	189	198	190	192	200	193
Germany	EDDB	Schoenefeld-Berlin	196	204	188	181	199	196
Germany	EDDF	Frankfurt Main	1056	1075	1068	1060	1115	1064
Germany	EDDH	Hamburg	324	324	308	315	332	326
Germany	EDDK	Koeln-Bonn	311	314	318	329	336	323
Germany	EDDL	Düsseldorf	485	484	480	488	504	509
Germany	EDDM	München	879	862	847	837	910	862
Germany	EDDP	Leipzig/Halle	175	175	170	164	183	175
Germany	EDDS	Stuttgart	310	304	291	294	318	283
Germany	EDDV	Hannover Langenhagen	140	151	144	148	162	162
Greece	LGAV	Athens	512	609	659	651	584	489
Greece	LGIR	Iraklion/Nikos Kazantzakis	156	199	221	221	195	148
Greece	LGTS	Thessaloniki/Macedonia	125	155	157	155	151	125
Hungary	LHBP	Budapest Liszt Ferenc Int.	243	263	257	253	262	248
Ireland	EIDW	Dublin	489	499	501	499	498	467
Israel	LLBG	Tel Aviv/Ben Gurion	261	299	343	360	317	316
Italy	LICC	Catania Fontanarossa	187	211	219	216	207	178
Italy	LICJ	Palermo Punta Raisi	136	152	163	154	152	122
Italy	LIMC	Milano Malpensa	403	451	504	619	651	593
Italy	LIME	Bergamo/Orio Alserio	191	198	212	223	223	205
Italy	LIMF	Torino Caselle	75	86	83	74	85	81
Italy	LIML	Milano Linate	230	274	260	260	274	230
Italy	LIPE	Bologna/Borgo Panigale	152	167	169	155	171	154
Italy	LIPZ	Venezia Tessera	196	227	227	225	232	204
Italy	LIRA	Roma Ciampino	112	111	115	99	108	98
Italy	LIRF	Roma/Fiumicino	611	688	682	690	669	622
Italy	LIRN	Napoli Capodichino	201	217	213	209	212	188
Italy	LIRP	Pisa San Giusto	92	108	117	106	106	94
Latvia	EVRA	Riga Intl	183	189	192	190	185	177
Lithuania	EYVI	Vilnius Intl	109	108	101	105	110	107
Luxembourg	ELLX	Luxembourg	172	168	157	151	164	163
Malta	LMML	Luqa Airport	125	133	138	140	135	131
Morocco	GMMN	Casablanca/Mohammed	124	174	196	199	171	165
Netherlands	EHAM	Amsterdam/Schiphol	1051	1060	1011	1052	1064	1059
North Macedonia	LWSK	Skopje	38	45	44	45	45	39

Country	Airport	Airport Name	Average Daily Traffic per Week (No of flights)					
			Week 17/05/2021 - 23/05/2021	Week 14/06/2021 - 20/06/2021	Week 19/07/2021 - 25/07/2021	Week 16/08/2021 - 22/08/2021	Week 13/09/2021 - 19/09/2021	Week 18/10/2021 - 24/10/2021
Norway	ENBR	Bergen/Flesland	258	255	219	261	268	264
Norway	ENGM	Oslo/Gardermoen	669	654	582	638	667	653
Norway	ENVA	Trondheim/Vaernes	166	162	124	159	171	165
Norway	ENZV	Stavanger/Sola	183	185	151	180	181	186
Poland	EPGD	Gdansk/Lech Walesa	105	110	113	110	111	97
Poland	EPKK	Krakow/Balice	142	141	142	143	148	147
Poland	EPKT	Katowice Pyrzowice	83	108	110	111	110	72
Poland	EPMO	Modlin	41	47	44	43	40	37
Poland	EPPO	Poznan/Lawica	54	61	62	61	66	49
Poland	EPWA	Chopina W Warszawie	407	429	432	433	433	402
Portugal	LPFR	Faro	159	166	178	179	170	150
Portugal	LPPR	Porto	216	220	232	235	231	217
Portugal	LPPT	Lisboa	449	476	492	488	485	458
Romania	LROP	Bucuresti/Henri Coanda	255	276	275	293	277	246
Serbia	LYBE	Beograd/Nikola Tesla	158	178	191	186	181	156
Spain	GCLP	Gran Canaria	247	259	265	265	262	271
Spain	GCRR	Lanzarote	117	121	132	129	132	121
Spain	GCTS	Tenerife Sur/Reina Sofia	107	112	117	116	114	128
Spain	GCOX	Tenerife Norte	162	169	173	176	165	161
Spain	LEAL	Alicante	204	221	234	226	225	209
Spain	LEBB	Bilbao	119	121	111	103	118	110
Spain	LEBL	Barcelona/El Prat	667	726	704	693	715	655
Spain	LEIB	Ibiza	186	241	283	266	218	149
Spain	LEMD	Madrid/Barajas	781	823	812	773	816	781
Spain	LEMG	Malaga/Costa Del Sol	292	311	330	317	301	276
Spain	LEPA	Palma De Mallorca	515	601	635	627	586	499
Spain	LEVC	Valencia	151	157	161	160	158	152
Spain	LEVT	Vitoria	23	27	21	20	22	21
Spain	LEZL	Sevilla	132	127	117	115	126	125
Sweden	ESGG	Goteborg/Landvetter	144	140	129	137	150	140
Sweden	ESSA	Stockholm-Arlanda	481	445	405	450	484	463
Sweden	ESSB	Stockholm-Bromma	119	102	69	99	113	111
Switzerland	LSGG	Geneva	367	373	354	356	355	349
Switzerland	LSZH	Zurich	552	575	579	570	571	549
Turkey	LTAC	Ankara-Esenboga	224	240	244	234	227	230
Turkey	LTAI	Antalya	478	620	671	666	610	532
Turkey	LTBZ	Izmir-Adnan-Menderes	180	216	222	217	212	193
Turkey	LTBS	Mugla Dalaman	86	127	142	134	128	86
Turkey	LTFJ	Istanbul/Sabiha Gokcen	502	573	573	579	571	536
Turkey	LTFM	Istanbul Airport	847	945	931	928	935	896
Ukraine	UKBB	Kyiv/Boryspil	230	250	256	253	279	225
United Kingdom	EGAA	Belfast/Aldergrove	109	107	105	106	108	93
United Kingdom	EGBB	Birmingham	235	238	239	242	234	215
United Kingdom	EGCC	Manchester	426	440	446	458	442	389
United Kingdom	EGGD	Bristol	141	147	147	152	158	138
United Kingdom	EGGW	London/Luton	287	291	281	286	295	283
United Kingdom	EGKK	London/Gatwick	576	599	581	602	565	529
United Kingdom	EGLC	London/City	180	180	161	154	182	172
United Kingdom	EGLL	London/Heathrow	885	889	878	891	893	894
United Kingdom	EGNT	Newcastle	102	100	102	103	107	95
United Kingdom	EGNX	East Midlands	143	135	144	139	145	128
United Kingdom	EGPD	Aberdeen/Dyce	106	113	101	113	117	118
United Kingdom	EGPF	Glasgow	190	192	187	194	185	178
United Kingdom	EGPH	Edinburgh	283	293	285	295	278	264
United Kingdom	EGSS	London/Stansted	400	411	403	401	408	381

4.4 Network Operational Performance Requirements

The NOP Summer 2021 Plan is a specific version of the NOP covering the summer period 2021. Additionally, a European Network Operations Plan will be prepared to cover the period of 2022-2024 (to be presented for approval in Autumn 2021 – based on the assumption that the performance scheme targets will be decided on 1st May 2021). Also, the NOP Rolling Seasonal Plan will continue to be issued weekly.

The aim of the NOP Summer 2021 Plan is to facilitate network ATM operations with no major constraints, to enable the achievement of the European network targets and to ensure the execution and implementation of the agreed measure.

At the same time, the intention is to maintain the airspace utilisation constraints at the lowest possible level so that a tangible improvement is also achieved with respect to the environmental performance.

The Network Manager coordinates the following activities to achieve the required improvement in flight efficiency under the current circumstances:

- Continue the planned implementation of Free Route Airspace
- Implement a coherent package of annual improvements and shorter routes;
- Maintain to the largest possible extent the level of RAD relaxation already implemented in 2020;
- Envisage the suspension of additional RAD restrictions in support of improved flight planning options for the airspace users;
- Actively support and involve aircraft operators and the computer flight plan service providers in flight plan quality improvements;
- Improve the use and availability of civil/military airspace structures;
- Implement single CDR category
- Implement advanced navigation capabilities;
- Implement Continuous Descent Operations (CDO); Improved arrival/departure routes, optimised departure profiles, etc.

With respect to safety requirements, the NOP Rolling Seasonal Plan addresses the safety actions needed to ensure a safe and effective recovery of ATM operations.

The Network Operations ATFM contingency procedures have been put in place to minimise the impact of any failure at Network level on operational stakeholders. A very high level of technical redundancy is provided for all network operations systems (IFPS, ETFMS). The IFPS service operates permanently with two synchronised systems, each able to immediately assume responsibility for all flight plan processing across the network. In the event of Enhanced Tactical Flow Management System (ETFMS) failure, a contingency system is available and a biannual procedural contingency plan is prepared and published. This procedural contingency plan defines maximum flow rates per aerodrome and flow to ensure that European ATM can operate at approximately 90% of normal capacity in the event of an outage of the ATFCM system.

5 Network Operational Performance Plans and Actions at Network Level

The NOP Summer 2021 Plan addresses the traffic and capacity situation for the summer 2021. A large number of actions are taken at network level as follows:

- Direct coordination with the ANSPs, airports and airspace users
- Ad-hoc Coordination Conferences organized as necessary, initially each week ;
- Coordinated RAD relaxation process to remove unnecessary ATM constraints and to simplify AUs flight planning;
- Coordinated traffic monitoring;
- Actions in coordination with ANSPs and airspace users to facilitate CCO/CDO operations;
- Preparation of the NOP Rolling Seasonal Plan with all the operational stakeholders, including the preparation of a consolidated European ATM network traffic outlook through a very close coordination with the airspace users. It is published every week and contains the latest traffic and capacity outlook for a six-week period.

With respect to the 5-year Network Evolutions, Operational and Technical Roadmaps as well as the Network Strategic Projects and other operational and technical initiatives, they will be reflected in regular editions of the Network Operations Plan as their scope extends well beyond the scope of the NOP Summer 2021 Plan.

6 Operational Performance Enhancement Plans and Actions at Local Level

6.1 ACC Capacity Enhancement Measures

To ensure the required delivery of capacity in Summer 2021, detailed capacity plans are developed by the ANSPs for each ACC, in close partnership with the Network Manager. The Summer 2021 capacity plans detailed in this document are also included in the traffic and capacity chapter of the Local Single Sky Implementation Plan (LSSIP) 2020.

For each ACC, detailed information about sector openings (planned and maximum) and measures planned for Summer 2021 can be found in Annex 1.

State / ACC Capacity Enhancement Measures	AIRSPACE						PROCEDURES				STAFFING (HR)		ASM & ADV. FUA		TECH. SYS. / PROJECTS			CAPACITY			
	Route network improvements	Airspace / Sector optimisation	Free-Route Airspace	DCTs	X-border improvements	TMA Improvements	ATC Procedures	Reduced Separation	ATFCM Procedures incl. sector occupancy	Coordination Procedures	Additional controllers	Improved staff planning/ flexible rostering	ASM Improvements	FUA Improvements	ATM System new or upgrade	Datalink / 8.33 / SUR, ADS-B&WAM	ATC Tools	Create additional sector (max conf)	Extended sector configuration opening	Dynamic Sector Configuration Management	Sector Capacity Increase
Albania / Tirana						2021										2021	2021				
Armenia / Yerevan																					
Austria / Vienna		2021				2021	2021		2021		2021				2021			2021			
Belgium / Brussels									2021		2021		2021	2021			2021				
Bosnia Herzegovina									2021						2021						
Bulgaria / Sofia									2021		2021			2021		2021	2021				
Croatia / Zagreb			2021						2021		2021	2021	2021		2021			2021			
Cyprus / Nicosia	2021	2021				2021			2021		2021		2021	2021	2021	2021				2021	2021
Czech Rep./ Prague		2021	2021			2021					2021								2021		
Denmark / Copenhagen	2021	2021				2021			2021			2021	2021		2021					2021	2021
Estonia / Tallinn																			2021		
EUROCONTROL / Maastricht		2021	2021		2021		2021		2021		2021	2021	2021				2021				
Finland / Helsinki													2021			2021					
France / Bordeaux									2021				2021	2021							
France / Brest		2021	2021						2021				2021	2021				2021			2021
France / Marseille					2021				2021		2021		2021	2021		2021					
France / Paris		2021	2021						2021				2021	2021		2021					
France / Reims			2021						2021			2021	2021	2021		2021					
Georgia / Tbilisi	2021																				
Germany / Bremen			2021			2021															
Germany / Karlsruhe			2021								2021	2021				2021					
Germany / Langen		2021				2021			2021		2021				2021		2021				2021
Germany / Munich						2021					2021				2021						
Greece / Athinai	2021	2021	2021			2021			2021		2021		2021	2021							
Greece / Makedonia	2021	2021	2021			2021			2021		2021		2021	2021							

State / ACC Capacity Enhancement Measures	AIRSPACE						PROCEDURES				STAFFING (HR)		ASM & ADV. FUA		TECH. SYS. / PROJECTS			CAPACITY			
	Route network improvements	Airspace / Sector optimisation	Free-Route Airspace	DCTs	X-border improvements	TMA Improvements	ATC Procedures	Reduced Separation	ATFCM Procedures incl. sector occupancy	Coordination Procedures	Additional controllers	Improved staff planning/ flexible rostering	ASM Improvements	FUA Improvements	ATM System new or upgrade	Datalink / 8.33 / SUR, ADS-B&WAM	ATC Tools	Create additional sector (max conf)	Extended sector configuration opening	Dynamic Sector Configuration Management	Sector Capacity Increase
Hungary / Budapest		2021	2021		2021						2021	2021			2021					2021	
Ireland / Dublin		2021			2021				2021		2021	2021									
Ireland / Shannon		2021			2021		2021		2021		2021									2021	
Israel / Tel Aviv															2021						
Italy / Brindisi	2021				2021	2021			2021		2021		2021						2021		
Italy / Milan	2021				2021	2021			2021		2021		2021						2021		
Italy / Padova	2021				2021	2021			2021		2021		2021						2021		
Italy / Rome	2021				2021	2021			2021		2021		2021						2021		
Latvia / Riga											2021										
Lithuania / Vilnius			2021		2021										2021						
Malta			2021																		
Moldova / Chisinau						2021									2021						
Morocco / Casablanca						2021					2021										
Morocco / Agadir		2021			2021						2021										
Netherlands / Amsterdam						2021			2021		2021			2021							2021
N. Macedonia / Skopje											2021					2021					
Norway / Bodo		2021									2021	2021									
Norway / Oslo											2021	2021		2021							
Norway / Stavanger											2021	2021		2021							
Poland / Warsaw						2021			2021		2021			2021						2021	2021
Portugal / Lisbon						2021	2020		2021		2021	2021							2021	2021	
Romania / Bucharest	2021	2021	2021		2021		2021		2021	2021		2021					2021				
Serbia / Beograd						2021					2021			2021							
Slovak Rep./ Bratislava	2021	2021	2021		2021				2021		2021				2021	2021			2021		

State / ACC Capacity Enhancement Measures	AIRSPACE						PROCEDURES				STAFFING (HR)		ASM & ADV. FUA		TECH. SYS. / PROJECTS			CAPACITY			
	Route network improvements	Airspace / Sector optimisation	Free-Route Airspace	DCTs	X-border improvements	TMA Improvements	ATC Procedures	Reduced Separation	ATFCM Procedures incl. sector occupancy	Coordination Procedures	Additional controllers	Improved staff planning/ flexible rostering	ASM Improvements	FUA Improvements	ATM System new or upgrade	Datalink / 8.33 / SUR, ADS-B&WAM	ATC Tools	Create additional sector (max conf)	Extended sector configuration opening	Dynamic Sector Configuration Management	Sector Capacity Increase
Slovenia / Ljubljana	2021	2021	2021		2021				2021		2021				2021				2021		2021
Spain / Barcelona									2021		2021			2021					2021		2021
Spain / Canarias		2021							2021		2021				2021			2021	2021		2021
Spain / Madrid						2021			2021		2021			2021					2021		2021
Spain / Palma									2021		2021			2021					2021		2021
Spain / Sevilla						2021			2021		2021			2021	2021				2021		2021
Sweden / Malmo		2021				2021			2021			2021	2021		2021					2021	
Sweden / Stockholm		2021				2021			2021			2021	2021		2021					2021	
Switzerland / Geneva		2021				2021			2021			2021	2021		2021		2021				
Switzerland / Zurich									2021		2021		2021		2021		2021				
Turkey / Ankara	2021	2021				2021			2021		2021			2021							
Ukraine / Dnipro			2021		2021								2021								
Ukraine / Kyiv			2021		2021								2021								
Ukraine / L'Viv			2021		2021								2021								
Ukraine / Odesa			2021										2021								
UK / London ACC		2021			2021		2021		2021			2021							2021	2021	
UK / London TC		2021				2021	2021		2021			2021							2021	2021	
UK / Prestwick ACC		2021	2021		2021		2021		2021			2021							2021	2021	

6.2 Airport Performance Enhancement and network integration

Through the Airport Corner, NM has collected information on planned capacity evolutions as well as additional qualitative information that describes the potential airport situation during the following months. To facilitate the reporting process for airports, a dedicated interface has been made available. This Section presents detailed capacity plans about individual airports that reported via the Airport Corner.

In general, airports have reported to foresee no airside capacity issues. Most of them are carrying out different measures to optimise cost-effectiveness while airspace users plans remain on hold, but report to be able to return to nominal conditions when traffic demand resumes, even in the most optimistic STATFOR forecasted scenario. However, landside constraints and governmental restrictions are major expected issues. Local sanitary measures and new procedures in the terminal may cause capacity issues if passengers also resume their willingness to fly. The uncertainty remains the primary constraint that makes it impossible for airports to plan. NM will continue supporting all stakeholders in the rolling seasonal NOP with the six-week outlook and through the weekly Enlarged NDOP Coordination cell.

Latest updates from the airports are available any time via the Public Airport Corner: https://ext.eurocontrol.int/airport_corner_public/seasonal_nop_information. This will be complemented with the contribution of the Airport Function, in direct communication with the NMOC and operational stakeholders, supporting airports, airspace users and ANSPs managing airport related hot-spots and ad-hoc changes.

6.2.1 Airport plans for summer 2021

In December 2020, a survey was carried out by the Network Manager to gather airports information regarding their plans and needs for summer 2021. The questions are related to their contingency plans, the capacity to manage the traffic levels presented in the different STATFOR scenarios for 2021 and the expected support needed from NM.

Respecting confidentiality, the aggregated responses are presented in Figure 5.

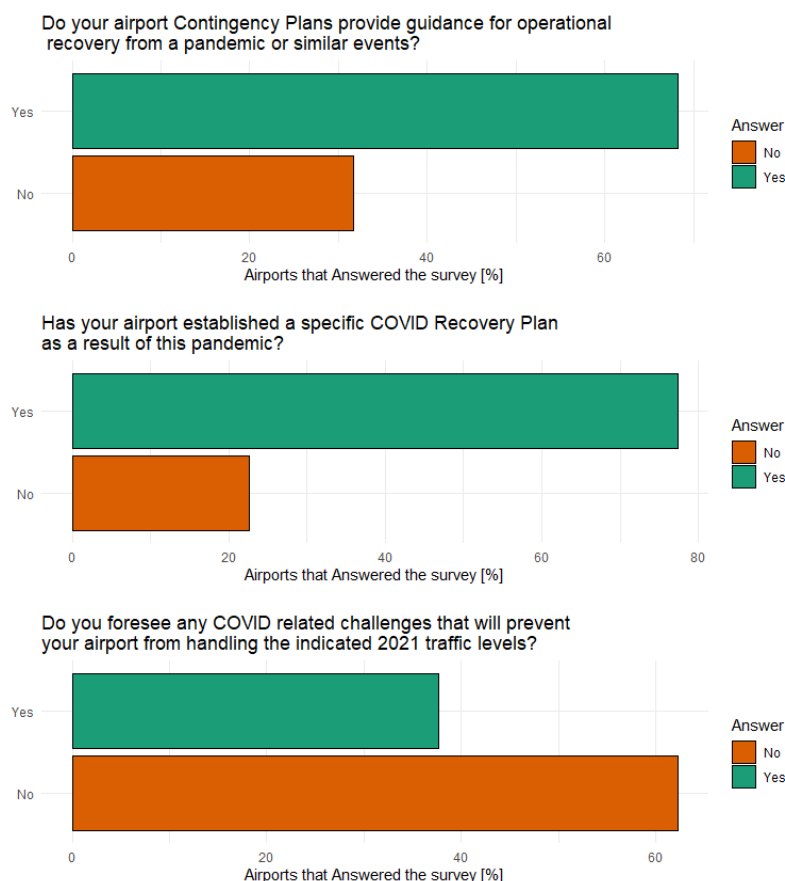


Figure 5: Answer to airports COVID-19 related contingency plans

Regarding the operational changes that airports foresee for 2021, Figure 6 shows (green bars) the percentage of reporting airports that are planning to reduce activities, place underutilised infrastructure on standby, carry out operational improvements at airside or landside or take cost-efficient measures.

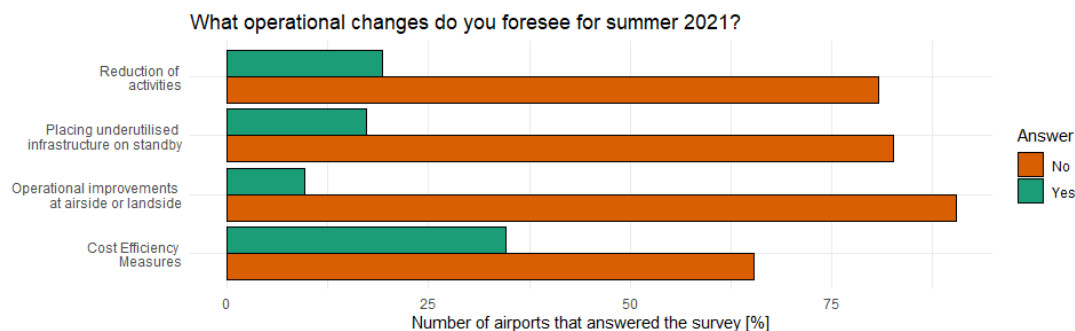


Figure 6: Airports' foreseen operational changes

Regarding the time to adapt to the most demanding foreseen traffic scenario, Figure 7 shows the airports envisaged recovery capacity in time.

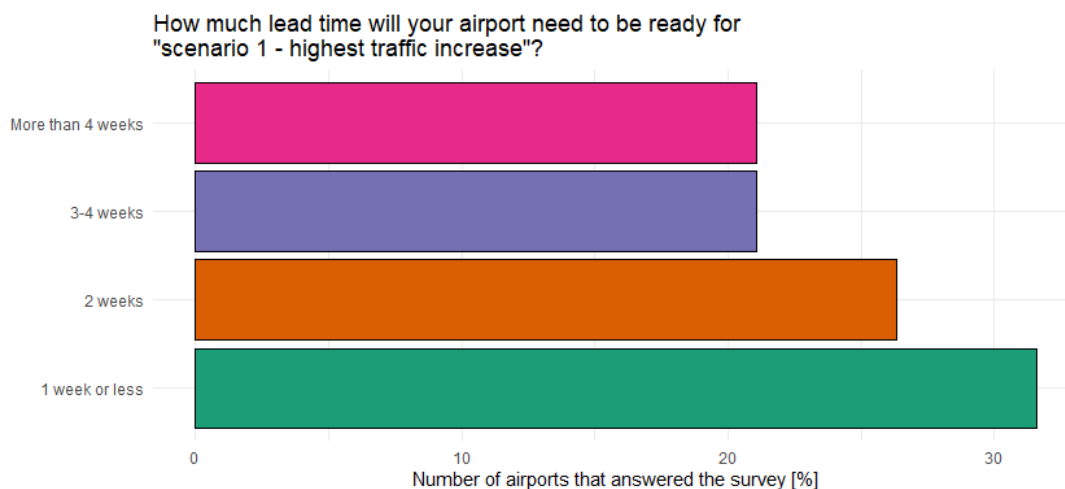


Figure 7: Lead time for airports to be ready for highest traffic increase scenario

The airports reported in the survey on the capacity during the recovery to have no basic capacity issues. Even if they have reduced capacity at the moment due to low demand and cost-efficiency reasons – they can increase it easily, provided that they are informed early enough to be able to prepare in time.

One of the most significant challenges that ECAC airports expect to encounter when traffic demand starts to increase are the “health measures imposed by their state authorities”. Depending on overall regulations, if they continue to imply social distance, maximum capacity of terminal processes will be reached quickly with increased passenger volumes.

At present, in peak periods, maximum capacity with social distance requirements is already an issue. Other challenges which airports expect are: the lack of sufficient trained and certified ground handlers to service the aircraft, the need to increase health staff to check passengers, long term parked aircraft on certain aerodromes and “instability” caused by the possibility of additional changes in COVID-19 rules if recovery is weak.

Other expected issues are the testing facilities and unknown/non-standard entry requirement framework for arriving passengers which would cause increased operational disruption, delays and missed flights for customers (combined with Brexit) may lead to a saturation of passport control facilities due to the amount of time needed to check documentation.

For summer 2021, there are no major expected operational changes at European airports. Nevertheless, as reported by the majority of airports, availability of resources will be commensurate with the traffic demand. Operational infrastructure that is currently closed (stands, gates, terminals, runways) can be reopened within few days/weeks according to demand.

For the moment, airports expect to continue the cost efficiency measures and “freezing” underutilised infrastructure and furloughing personnel until significant improvements occur. Many improvement projects will be postponed until traffic recovers due to cost efficiency needs.

On the other hand, more personnel for check-in and terminal procedures are planned in case of need. Landside may be more challenging due to additional measures that might be needed in terms of testing, etc. Additionally, more cleaning personnel is expected to be

hired, as areas will have to be cleaned more frequently to follow State guidance on COVID hygiene.

Requested for their Network Manager support needs, airports have asked EUROCONTROL to continue to support them during this period, including continued provision of traffic outlook to be able to have a better idea of scenarios to expect and prepare. Airports ask NM to monitor closely en-route delay and take actions to reduce it as much as possible to reduce disturbance to ground operations in already a difficult period; to coordinate with AOs to minimise their adjustments to airport slots especially in the weeks before the day of operation. Airports are also looking for best practices, recent developments and COVID-19 situation updates in the Network.

Further details regarding airports' answers to the survey can be found in Annex 2.

6.2.2 Turnaround times and sanitary constraints at the terminal

Airports' expectation in terms of turnaround duration was gathered in the Airport Corner survey. The expected turnaround increase per aircraft size is depicted in Figure 8.

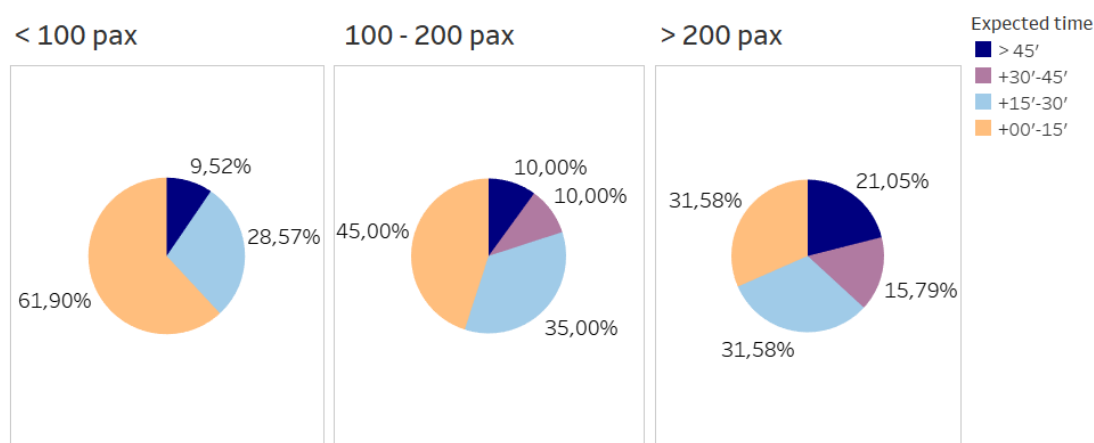


Figure 8: Expected turnaround increase compared to nominal conditions per aircraft size

This expected increase in turnaround times may become a major source of delay, especially if passenger occupancy recovers and physical distance is required in the terminal. A further study regarding passenger recovery scenarios and their impact on landside capacity can be found in section 9.2.2.

Sanitary measures and procedures in place at the airports are dependent on the national measures and are subject to change. At the moment when this plan was elaborated, the percentage of airports reporting each sanitary measures at the airport is shown in Figure 5.

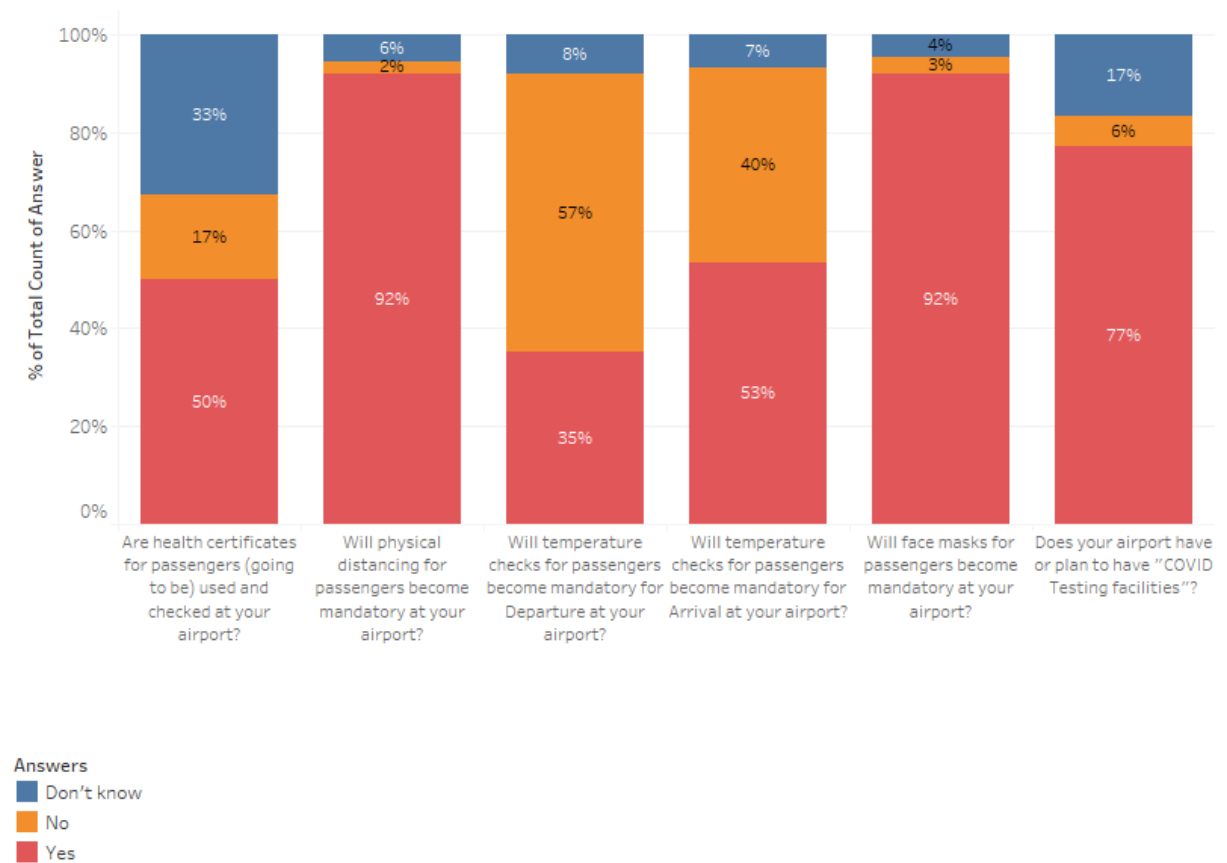


Figure 5: Percentage of answers for each possible sanitary measure and facilities

6.3 FAB integration into the Network planning process

The preparation of the NOP Summer 2021 Plan involved all operational stakeholders, including FABs and related ANSPs. The involvement of the FABs was achieved through the NMB.

6.4 Safety

As part of the collaborative effort to ensure a safe, smooth and coordinated recovery of the European ATM network operations from the crisis caused by the COVID-19 pandemic, the NMD operational Safety unit developed in cooperation with the members of the EUROCONTROL Safety Team and the SAFOPS group a safety argument and a list of potential hazards/safety issues. The material has also been coordinated with the CANSO CESAF and with the EASA ATM CAG.

The purpose of the Safety Argument is to assist ANSPs in planning the provision of a safe ATS when traffic increases, by providing a comprehensive reference to the elements of the functional system that might have been affected by the crisis-related measures and need to be properly accounted for and managed.

The safety argument is supported by a list of what are considered the most common potential safety issues/hazards associated with the expected traffic increase. The list of safety issues/hazards should be reviewed and updated according to the local operational environment and the particular impact of the crisis related measures on the ANSP's functional system. Appropriate mitigation measures should be developed, coordinated as needed with NSA, NM and/or other ANSPs/aviation stakeholders and implemented.

The significantly reduced traffic demand during the 2020/2021 winter period led to reduced ATCO duty times, thus ANSPs may face a combined currency and licencing problem. Therefore, ANSPs and the NSAs may need to institute further contingency measures for the continuation of service through and beyond the COVID-19 crisis.

The above-referred material have been included in Annex 3 of the previous NOP Recovery plan. Today, the updated version is available to all aviation service providers that may need it and will be provided upon request that should be sent to the Head of the EUROCONTROL Safety Unit at: antonio.licu@eurocontrol.int.

Most, if not all, ATS centres in Europe are still applying some COVID-19 related specific measures. ANSPs should use the Safety Argument and the related hazards list as a non-exhaustive resource and guideline in conjunction with other national, local material, including regulatory requirements and guidelines, to plan and ensure safe ATS when traffic will increase.

At European level the safety regulatory resources issued by EASA can be found at:

<https://www.easa.europa.eu/the-agency/coronavirus-covid-19>

At International level additional safety resources and guidelines are available through

- ICAO - <https://www.icao.int/Security/COVID-19/Pages/default.aspx>
- Flight Safety Foundation - <https://flightsafety.org/toolkits-resources/covid-19-safety-roadmap-and-punch-lists/>
- IFATCA - <https://www.ifatca.org/covid-19/>

6.5 Relationship with 'Third Countries'

In the context of the ATM Network Functions Implementing Regulation, the 'Third Countries' consist of two main groups of states, those who participate in the work of the NM in accordance with Union law, subject to and in accordance with agreements with the Union (Norway and Switzerland), and those who may contribute to the work of the NM. The latter forming a group of 'Associated Countries'.

In addition to the two basic groups, a group of countries with their respective ANSPs, in particular those who have a direct impact on the performance of the network ensuring appropriate regional interoperability and connectivity, also may enter into cooperative arrangements with the NM or already have done so.

Majority of the 'Associated Countries' are members of EUROCONTROL thus have already been involved in and are committed to the activities directly related to meeting the EU-wide performance targets. Israel and Morocco are also considered as part of this group based on the special agreement with EUROCONTROL.

The relationship with these States and their contribution to the Network Operations planning process are embedded in the working arrangements of Network Manager. All these States are represented in the airspace design enhancement and air traffic flow and capacity management processes.

The operational planning processes, including airspace design and capacity planning, already involve all the EUROCONTROL Member States and many of those adjacent. Appointment of the EUROCONTROL Organisation as the Network Manager for the next two Reference periods (RP3 and RP4) means that the conditions for the exercise of the network functions will, in principle, apply to the entire EUROCONTROL membership.

The NM geographical borders do not confine network management activities and the Network Manager will work with the operational stakeholders in the areas interfacing the NM area, to prevent capacity shortfalls due to systems and procedure incompatibility with the adjacent ANSPs. To this end, EUROCONTROL/Network Manager has undertaken a series of activities to reinforce cooperation with the North African and Middle East states in the fields of airspace and route network enhancements, capacity determinations and ATFM.

Most of the adjacent ANSPs have already established operational relations with Network ATFM Operations (Azerbaijan, Iceland, Belarus, Russian Federation, Lebanon, Egypt).

6.6 Relationship with ICAO

The relationship with ICAO covers two fields:

- a) participating in work of specific groups that have significant relevance to the functions of the Network Management; and
- b) coordinating proposals for amendments to the ICAO documents relevant to the European Network Management functions.

The NM is participating in the following main working arrangements being part of European Air Navigation Planning Group (EANPG):

- RDGE – Route Network Development Group - East
- ATMGE – ATM Group – East
- AWOG – All Weather Operations Group

- FMG – Frequency Management Group
- COG – EANPG Programme Coordinating Group
- BSTF – Black Sea Task Force
- AIRARDTF – Advanced Inter-Regional ATS Route Development Task Force
- ICARD 5LNC TF – ICAO EUR/NAT Regional Database_5 Letter Name Code Task Force.

The coordination of the proposals for amendment focuses on the documents with the relevance to the European network, such as:

- Regional Supplementary procedures – Doc.7030
- Air Traffic Management – Doc. 4444
- Airport Planning Manual – Doc. 9184
- European Air Navigation Plan – Doc. 7544.

The Network Manager also participates in the preparation of the Air Navigation Conferences and in the ICAO Global Air Navigation Plan (GANP) Multidisciplinary Vision Team.

The NM is using applications developed and managed by ICAO, such as ICARD (International Codes and Route Designators), and SAFIRE (Spectrum and Frequency Information Resource) in the execution of some of the functions. ICAO is using the ERNIP Database to ensure coherent airspace planning at the interfaces.

The Network Manager also follows the European Regional Aviation Safety Group (RASG-EUR). The annual SMS Standard of Excellence measurement conducted by EUROCONTROL/CANSO on behalf of ICAO for the EUR Region is presented to the EUR-RASG and COG.

7 Special Events

7.1 Preparation of special events

Major projects and special events pose a significant challenge to the smooth operation of ATM in Europe. A high level of cooperation and preparation at ATM network level is essential, starting with the medium term, annual and seasonal planning phases, through to tactical operations. An integrated planning, encompassing all phases, will be in place to ensure that operational performance is maintained at acceptable levels. In some cases changes to the transition plans or to the implementation period may be negotiated.

The following steps are followed in this planning process:

- Early notification

There is a need for an early notification, coordination and preparation of such events. The ANSPs are requested to regularly update the NM on any events that may affect normal operations in the short, medium and long term as soon as an event becomes known. More emphasis is put on the development of rigorous capacity plans and on the development of an efficient early notification process, in a partnership approach between the NM and the ANSPs.

- Impact analysis

This requires full commitment from all the ANSPs on the provision of advanced detailed information on the special events, the phases throughout their lifecycle and the transition to the normal operations.

The main aim is to limit the impact on Network performance of all special events to the largest extent possible.

- ANSP to work together and with the Network Manager to mitigate the impact, including the FABs

The Network Manager supports ANSPs involved in the implementation of these major projects and special events, in terms of simulation, coordination, technical expertise, airspace & capacity planning, and ATFCM during the transition period, and the full involvement and cooperation of all ATM operational stakeholders is essential.

- Synchronisation

This enables a full awareness of all the network operational stakeholders, improved planning and management and de-confliction of the implementation of different projects, the identification of temporary bottlenecks and of agreed mitigation actions at network and local level. As a result, more accurate network and local plans will be developed.

Airports

Special events may significantly influence normal airport operations. Airports are requested to regularly update the Network Manager on any events that may affect airport operations in the short, medium and long term as soon as an event is known.

Special events expected in the short-term (in the next 6 months) are regularly followed up by a multi-disciplinary team of NM experts. The aim is to enforce early notification of any relevant special event, enabling identification of potential network impact, so that the necessary measures can be identified through Cooperative Decision Making and planned in due time, minimising the impact to the network.

7.2 ATM system changes, special events and major projects

The Network Manager recognises two types of special events:

- Special events where traffic demand is increased or where traffic flows are shifted for a period due to an external event, for example sports games, etc.
- Special events which could lead to a temporary reduction of capacity and that may require mitigation measures agreed in a partnership approach at Network level. Examples of such events are: implementation of new ATM system, move to new ACC Ops room, major airspace reorganisation, opening of new airports, etc.

The Network Manager has developed the Transition Plan for major projects in Europe, a document which describes the processes, the activities, the plans and measures that will be applied by the NM and the operational stakeholders, to minimise the impact on the network performance caused by major airspace or ATM system improvement projects. The Transition Plan is a living document that forms part of the NOP and is accessible via the Network Operations Portal.

The Network Manager provides operational and technical expertise to model and simulate the demand and different traffic patterns for each special event, to enable ANSPs to optimally configure their airspace and to identify and develop, as far in advance as possible, strategic ATFCM measures that could be implemented to mitigate any problems. Initially identified measures are further developed, coordinated via well developed CDM processes, validated and implemented during the strategic, pre-tactical, and tactical ATFCM phases.

A number of ANSPs are implementing new or upgraded ATM systems and/or a major airspace reorganisation. Temporary reductions in capacity are planned for and managed accordingly, with the Network Management function in a coordinating role to ensure full awareness and facilitate a coherent preparation by the States concerned, their neighbours, the airspace users and the Network Manager.

Special events are shown in the Network Operations Portal calendar (Network Events portlet). Detailed descriptions, including foreseen measures for each event are published and updated in the portlet.

Even though many ANSPs have scaled down their project plans due to the Covid-19 pandemic a number of special events (new ATM systems, ops rooms, airspace reorganisation projects, new airports, etc.) are still scheduled. These will need careful planning and coordination by the Network Manager to avoid severe network disruptions.

The following projects are planned for 2021 and the first half of 2022.

- Albania – Tirana ACC – ATM system improvements
- Austria – Vienna ACC – Airspace restructuring project
- Croatia – Zagreb ACC – SECSI FRA extension
- Cyprus – Nicosia ACC – Replacement of backup ATM system; Transition to new ACC building and upgrades of the ATM system
- Czech Republic – Prague ACC – Reconstruction of the ops room; Training for a new ATM system; ATC Optimisation Project; New ATM system implementation
- Estonia – Tallinn ACC - FINEST cross border sectorisation with Helsinki ACC

- Finland – Helsinki ACC – VCS renewal; FINEST cross border sectorisation with Tallinn ACC
- France
 - Brest ACC – Reorganisation of airspace below FL 195 phase 3
 - Marseille ACC – Training and implementation of 4Flight ATM system
 - Paris ACC – MODOU project
 - Reims ACC – Training and implementation of 4Flight ATM system
- Germany
 - Langen ACC – PSS SF01 implementation
 - Munich ACC – Training for and implementation of iCAS
- EUROCONTROL – MUAC – MAASERATI Phase 1 deployment; Hannover airspace re-design
- Hungary – Budapest ACC – Operations from a contingency room and new HW installation; Central/South East Europe airspace restructuring
- Ireland
 - Dublin ACC – New Tower
 - Shannon ACC – Low level airspace reorganisation
- Greece – Athinai and Makedonia ACCs – VCRS training
- Lithuania – Vilnius ACC – New ATM system implementation
- Moldova – Chisinau ACC – HW/SW system upgrades phase 1; HW/SW system upgrades phase 2
- Morocco – Casablanca ACC – New ATM system implementation
- North Macedonia – Skopje ACC – VHF radio system replacement
- Norway - Bodo ACC – Airspace project (Southern)
- Poland – Warsaw ACC – 3 layer division step 1; Cross border FRA with Bratislava ACC
- Portugal – Lisbon ACC – Training for the new ATM system; New ATM system implementation
- Romania – Bucharest ACC – Airspace resectorisation; ATM system implementation (Q4 2021)
- Serbia – Beograd ACC – HW/SW upgrade Step 1/ phase 2
- Slovakia – Bratislava ACC – HW/SW upgrade; ; Cross border FRA with Warsaw ACC
- Spain
 - Canarias and Sevilla ACCs – EVEREST implementation
 - Madrid and Barcelona ACCs – ESFRA Phase 2
- Sweden – Malmo and Stockholm ACCs – SWEA Project phase I

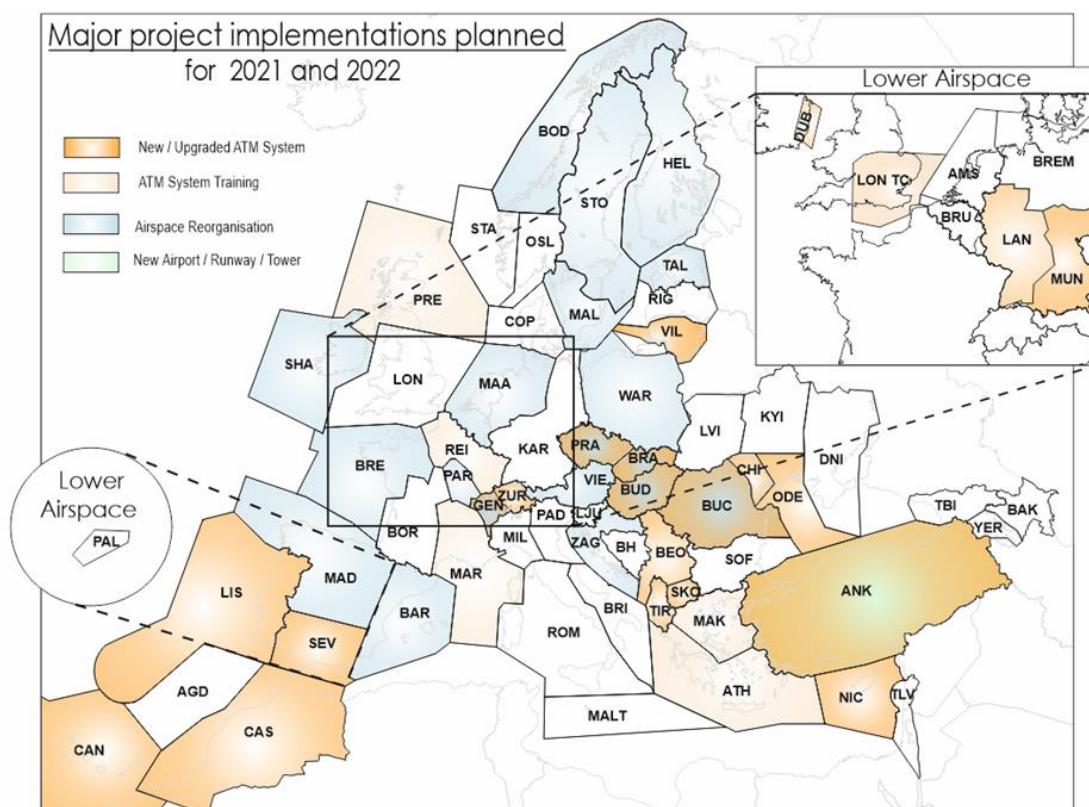
- Switzerland
 - Geneva ACC – Virtual center implementation; New sector configuration in Lower airspace
 - Zurich ACC – Virtual center implementation
- Turkey - Ankara ACC – Independent parallel operations at LTFJ; ATM system upgrade
- UK
 - London TC – Training for AD6
 - Prestwick ACC – Training for FRA.
- Ukraine – Odessa ACC – New ATM system implementation

New runways 2021

- Istanbul Sabiha Gökçen - new independent parallel RWY and new ground infrastructure

A detailed plan for the mentioned projects with a distinctive transition to operation phase will be described in the Transition Plan for major projects in Europe for Winter 2020/2021 and Winter 2021/2022.

The map below presents ACCs with the plans to undertake major projects for the year 2021 and the first half of 2022.



7.3 Non-ATM Events

Start Date	End date	ACC Airport	Event
18-Apr-21		LIPK/PE	Grand Prix Italy (Imola)
09-May-21		LECB	Grand Prix Spain (Barcelona)
16-May-21	20-May-21	LSAG/LSGG	EBACE
23-May-21		LFMN/MD	Grand Prix Monaco
26-May-21		EPWW/EPGD	Final UEFA Europa League Gdansk
29-May-21		LTFM/LTBA	Final UEFA Champions League Istanbul
31-May-21	06-Jun-21	EBBU/EHBK	TEFAF Maastricht
06-Jun-21		UBBB	Grand Prix Azerbaijan - Baku
11-Jun-21	11-Jul-21	12 host cities	UEFA EURO 2020 in 2021
11-Jun-21		LIRR/LIRF/LIRA	UEFA EURO 2020 opening match Turkey-Italy
27-Jun-21		LFTH/ML	Grand Prix France- Le Castellet
02-Jul-21		EDDM; ULLI	UEFA EURO 2020 - 1/4 FINALS
03-Jul-21		LIRF/LIRA/UBBB	UEFA EURO 2020 - 1/4 FINALS
04-Jul-21		LOXG/WG	Grand Prix Austria (Spielberg)
06-Jul-21	07-Jul-21	EGTT	UEFA EURO 2020 - SEMI FINALS
06-Jul-21	17-Jul-21	LFMD/MN	Cannes Filmfestival
11-Jul-21		EGTT	UEFA EURO 2020 FINAL match
18-Jul-21		EGBB	Grand Prix United Kingdom (Silverstone)
01-Aug-21		LHBP	Grand Prix Hungary (Budapest)
29-Aug-21		EBSP/LG, EHBK	Grand Prix Belgium (Spa)
05-Sep-21		EHAM/RD	Grand Prix Netherlands (Zandvoort)
12-Sep-21		LIML/ME	Grand Prix Italy (Monza)
06-Oct-21		LIML/MC	UEFA Nations Italy vs Spain
07-Oct-21		LIMF	UEFA Nations Belgium vs France
10-Oct-21		LIMF	UEFA Nations 3rd Place
10-Oct-21		LIML/MC	UEFA Nations Final
01-Nov-21	12-Nov-21	EGPF	COP/26 Glasgow
07-Feb-22	21-Feb-22	LSAZ/LSZS	WHITE TURF ST. MORITZ (7, 14, 21 FEB)
10-Aug-22		EFIN/EFHK	UEFA Football supercup Helsinki

7.4 Planned Events

Start Date	End date	ACC Airport	Event
12-Oct-20	30-Apr-21	LHCC	Hardware upgrade of ATM system. ATS service provision from the Contingency OPS room.
18-Jan-21	31-Dec-21	EDYY	trial contrail prevention (between 1500-0500 UTC winter/ 1400-0400 UTC summer) ; no impact on capacity
06-Mar-21	07-Apr-21	EDGG	Implementation of PSS SF01 and redesign Langen ACC airspace
22-Mar-21	22-Apr-21	LFEE	New ATM system 4Flight - training at LFEE to operate new system
28-Mar-21	24-Apr-21	LFMM	New ATM system 4Flight - ATCO training at LFMM

Start Date	End date	ACC Airport	Event
29-Mar-21	01-Apr-21	LZBB	HW & SW ATM system upgrade
Spring 2021		LGEG	To extend Free Route Airspace in Hellas UIR FL 460-FL660
Spring 2021		LECM/GMMM	ATS Route Improvement Madrid UIR/ Casablanca FIR. To implement, as permanent southbound ATS route segment GALTO - FES.
Spring 2021		EFIN/UUUU	ATS route and airspace structure improvement between Finland and Russian Federation, in vicinity of RATLA
Spring 2021		LUUU/LUKK/BL/BM	HW & SW ATM system upgrade (phase 1)
Spring 2021		EPWW	Krakow TMA re-organisation
Spring 2021		EPWW	Poznan TMA re-organisation
Spring 2021		EPWW	Warsaw TMA improvements
22-Apr-21		UKOV	Free Route Airspace Ukraine, Step 1(Sc 1b) - Ph 3 To implement H24 - Free Route Airspace operations within Odessa ACC (excl sectors OVS/L/U) from FL275 to FL660.
22-Apr-21		EPWW	Krakow TMA re-organisation
22-Apr-21		EPWW	Poznan TMA re-organisation
22-Apr-21		EPWW	Warsaw TMA improvements
22-Apr-21		LIPP	Ronchi CTR re-org and new Venezia Giulia CTA
09-May-21	15-May-21	LFMM	New ATM system 4Flight - ATCO training at LFMM
10-May-21	01-Jul-21	LFEE	New ATM system 4Flight - training at LFEE to operate new system
20-May-21		LIMM	Verona CTR re-organisation
20-May-21		LIRR	Lamezia CTR re-org and new Calabria CTA implementation
17-Jun-21		LIBB	Apulia CTR re-organisation
Q2 2021		LRBB	Removal of ATS routes over FL105
Q2 2021		EFIN	ANS Finland ATS VCS communication renewal
01-Jul-21	01-Jul-22	EDMM	TRAINING new ATS implementation iCAS for EDMACC
Summer 2021		LWSS	major project of VHF replacement.Capacity impact expected between 15 July 2021 and 15 August 2021
Summer 2021		LHCC	Budapest ACC re-sectorisation
Summer 2021		ENOR/BIRD	FIR border harmonisation Norway FIR - Bodo Oceanic FIR
12-Aug-21		EVRR/EVRA	Point Merge To introduce Point Merge arrival systems for Riga (EVRA) airport.
09-Sep-21		EGTT	DVOR removal projects (TNT, MCT); changes to STARs
Sep/Oct 21		LCCC	Replacement of the ACC backup system (in preparation to the new ACC)
07-Oct-21		GCCC	Free Route Airspace Spain - ESFRA Phase 1 To implement H24 Free Route Airspace within Canarias UIR FL 305-660
07-Oct-21		GCCC	To split the existing Canarias ACC NE sector (FL125 - UNL).
Autumn 2021		UMMV/EVRR	FIR boundary points Riga FIR - Minsk FIR To consider the possibility to implement more FIR boundary points between Riga FIR and Minsk FIR to further increase Free Route Airspace efficiency.
Autumn 2021		EISN	Shannon FIR re-organisation (lower level)
Autumn 2021		LAAA	ATM system improvements Tirana ACC ; in support to FRA

Start Date	End date	ACC Airport	Event
Autumn 2021		EGTT/EISN/LFRR	Route Rationalisation & U Removal 1. To remove the U prefix from route designator of ATS routes UM30, UN22 and UN32. 2. To redesignate UN34 as N27 and UP620 as N36.
Autumn 2021		LMMM	Free Route Airspace Malta - Phase 3c To implement H24 Free Route Airspace FL195- FL660 within Malta UIR.
Autumn 2021		UGGG	Batumi and Kutaisi TMAs Optimization
Autumn 2021		LYBA	New LYBT TMA (merge from LYVR +LYBT)
Autumn 2021		LYBA	New LYKV TMA (merge from LYKV +LYUZ)
Autumn 2021		ULMM/ENOR/ENOB	FIR border re-alignment between Murmansk FIR and Bodø FIR / Norway FIR.
Q4 2021		LTAA/BA/AC/AI/BJ/BS/FE	Completion of ATC System Upgrade and Support Project
Q4 2021 tbc		LSAG	FDP upgrade - NRH3 (New Route Handling Phase 3) implementation in Geneva.
Nov-21		LRBB	ATM system, phase 2 - transfer into operations
04-Nov-21		ESAA	ATS route dismantling in part of ESAA FRA (above FL285)
04-Nov-21		GCCC/GMAC	Interface Agadir/Canarias ACCs - phase 1c
04-Nov-21		GCCC/GMAC	Interface Agadir/Canarias ACCs - phase 1d
04-Nov-21		LECM/CB	Free Route Airspace Spain - ESFRA Phase 2 To implement H24 FRA within Madrid FIR/UIR and Barcelona FIR/UIR as single FRA area FL245-FL660
13-Nov-21		EDWW	Operation on back up system - no delays expected
27-Nov-21		EDWW	Operation on back up system - no delays expected
02-Dec-21		LAAA/LOVV/LYBA	H24 Cross Border Free Route Airspace between SECSI FRA and FRALB
02-Dec-21		LFFF	Free Route Airspace Paris - Step 1.1 To implement H24 Free Route Airspace in Paris ACC above FL195 in LMH sector
02-Dec-21		LPPO	Free Route Airspace Santa Maria FIR - Phase 2 To reconsider existing boundary points between Santa Maria FIR and Lisboa FIR and implement new in support of FRA operations.
02-Dec-21		LFRR	Free Route Airspace Brest - Step 1.0 implement H24 Free Route Airspace in Brest ACC Atlantic Area above FL195.
02-Dec-21		LFBB	Free Route Airspace Bordeaux- Step 1.0 To implement H24 FRA in Bordeaux ACC above FL195
02-Dec-21		EGPX	Borealis FRA - step 4: H24 Free Route Airspace above FL255 at Prestwick ACC AoR in 7 sectors
11-Dec-21		EDWW	Operation on back up system - no delays expected
Winter 21/22		EETT	FINEST preparation phase (linked to 89.007) - introduction of elementary sectors in Tallin CTA , to be collapsed in cross-border OPS sectors in FINEST
Winter 21/22		LTAA	FRATURK - Phase 1: To implement Night FRA Operations above FL335 in Turkey.
Winter 21/22		LRBB	Bucharest ACC re-organisation
Winter 21/22		EVRR	JAMP 2020+ implement vertical split of the East sector in Riga FIR
Winter 21/22		LPPC	Remove the distinction between Upper and Lower ATS routes "U" prefix with Lisboa FIR
Winter 21/22		UKLV/BV/OV/DV	Cross border H24 Free Route Airspace Ukraine-FRAU Step 2 (Sc 2a)- withinLviv, Kyiv, Odesa and Dnipro ACC from FL275 to FL660
Winter 21/22		UGGG	Connection of FRA with TMAs

Start Date	End date	ACC Airport	Event
Jan-22		LUUU/LUKK/BL/BM	HW & SW ATM system upgrade (phase 2)
Feb-22		LFMM	New ATM system 4F Marseille ACC
24-Feb-22		EPWW/LZBB	H24 Crossborder FRA between Warsaw and Bratislava
24-Feb-22		LU/LR/LB/LH/LZ	to expand SEE FRA phase 3; by merging with FRA Moldova
24-Feb-22		EYVL/EPWW	Lithuania Airspace reconfiguration project
24-Feb-22		EYVL/EPWW	Baltic FAB cross border FRA To implement H24 cross border FRA within the Baltic FAB area.
24-Feb-22		LECM	Split ZGZ / TER upper sector To increase capacity in Madrid ACC: by introduction of upper sector in ZGZ/TER sectors
24-Feb-22		LKAA	New ATM system Praha ACC To implement the new ATM system TopSky in Praha ACC.
Mar-22		UKOV	New ATM System (AIRCON2100) implementation Odessa
Spring 2022		LPPC	implementation TopSky in Lisbon ACC - transition to new room
Spring 2022		LYBA	ATM system SW/HW upgrade. Step1/phase 2
Spring 2022		LGGG/LGMD	Greek Airspace reorganization - Phase 2 To redesign the ACC sectorisation within Athina FIR/Hellas UIR, Step 2.
Spring 2022		LECP	Palma TMA re-organisation Phase I East
Spring 2022		LECP	PALMA TMA Reorganisation -phase III West
Spring 2022		LECB	Barcelona TMA - Phase 2 To introduce new PBN SIDs/STARs and IAP structure for Barcelona TMA.
Spring 2022		GMMM	New ATC system
Spring 2022		GMAC	Free Route Airspace, MORFRA Phase 2 To implement H24 Free Route Airspace within Agadir ACC, FL195- FL460
Spring 2022		EGPX	Future Airspace Strategy Implementation - North (FASI-N) To improve airspace of Prestwick ACC AoR:
Spring 2022		EGPX	Future Airspace Strategy Implementation - North (FASI-N): To re-design the Northern Terminal Control Area/NTCA of Prestwick ACC (formerly Manchester TMA project) and then PLAS 2b.
Spring 2022		EETT/EFIN	FINEST - Cross-border sectorisation (between ANS Finland and EANS)
Spring 2022		EPWW	Reorganisation ACC Warsaw sector configuration- three layer division- step 1
Apr-22		LFEE	New ATM system 4F implementation at LFEE
Q2 2022		LPPC	start of implementation TopSky in LP TWRs (LPPR/FR/PS/CS/MA/PT)
30-Jul-22		EDMM	Implementation new ATS iCAS for EDMMACC
Summer 2022		LTAA	New upper sectors within Izmir TMA and Dalaman TMA
Summer 2022		LPPC/GMMM/GMAC/GCCC	Lisboa / Casablanca / Canarias Axis Phase 2
Summer 2022		LZBB	Bratislava ACC re-sectorisation - step 2
Summer 2022		LCCC	Free Route Airspace Cyprus -NICFRA Phase 1 To implement H24 Free Route Airspace FL285 - FL660 in Nicosia FIR.

7.5 Major Military Exercises

Military exercises/activities requiring a special reservation/segregation of airspace may have significant impact on the available routes and capacity within the European ATM network. However, by early notification of such events, advanced assessment of the likely impact, and collaborative planning to define the appropriate ATFCM measures, such events can be accommodated while minimising the effects on other airspace users. As they are a major actor in the ATM environment, Military Authorities are requested to participate in the NOP by providing information on military exercises or major flight activities having an impact on the route network structure and its best use. By this, the Military community will further contribute to the overall ATM progress and at the same time benefit from the increased visibility given to the need of airspace for Military operations.

National Military representatives at the MILHAG (Military Harmonisation Group) meeting held on 5th October 2006 agreed to support the Military participation in the NOP. Participating States nominated their point of contact responsible for the provision of required data. MILO has been nominated within EUROCONTROL/NMOC as central point of contact, responsible for the establishment and the management of data collection procedures and the coordination with the NOP management.

A procedure to collect information on Military activities requiring airspace reservation/segregation affecting the route network structure was established in order to obtain and update relevant data.

More specifically, a two-phase data collection process was agreed:

- Initial notification of the yearly plan for Military exercises/activities
- Notification of official publication (AIP/NOTAM), including any additional information (e.g. restrictions implemented, traffic analysis, etc.).

NM achieved an extensive cooperation with NATO for the coordination of large scale exercises. Harmonised procedures have been identified and published in the ERNIP Part 3, Annex 13. These procedures are covering the entire preparation phase of large scale activity/military exercise requiring multi-agency (civil/military coordination) and/or cross-border coordination potentially requiring temporary ASM measures that have an impact on the network performance.

Details on all information received to date concerning major military exercises, covering the period for the current year, are published, updated, and accessible on the EUROCONTROL Network Manager Operations Portal (NOP) through Network Events Portlet.

(<https://www.public.nm.eurocontrol.int/PUBPORTAL/gateway/spec/index.html>)

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Start Date	End date	FIR	Event
04-Apr-21	04-Apr-21	LFEE/FF	STORKMEET
05-Apr-21	09-Apr-21	LE	EAGLE EYE 21-1
07-Apr-21	08-Apr-21	LFBB/MM/EE/FF/RR	POKER 21/01
12-Apr-21	23-Apr-21	LI	AMARE APERTO
12-Apr-21	16-Apr-21	LFMM	CORSAIRE
12-Apr-21	17-Apr-21	LE	MARFIBEX 21-1
12-Apr-21	24-Apr-21	EH	FRISIAN FLAG
16-Apr-21	21-May-21	LFBB/RR	Operation H1
19-Apr-21	23-Apr-21	LFRR	ATLANTIX
19-Apr-21	23-Apr-21	LFRR	OCEANIX
19-Apr-21	30-Apr-21	LFBB/MM/EE/FF	ATHENA
19-Apr-21	21-Apr-21	EYVC	RAMSTEIN ALLOY 1
20-Apr-21	22-Apr-21	ESAA	STEK21
XX-04-21	XX-05-21	EYVC	THUNDER STORM
XX-04-21	XX-05-21	EYVC	IRON WOLF I
26-Apr-21	05-Jun-21	EG	JOINT WARRIOR 21
26-Apr-21	07-Jun-21	LE	MINEX
28-Apr-21	28-Apr-21	LFBB/RR	MICA 08
01-May-21	14-May-21	EYVC	SWIFT RESPONSE
02-May-21	14-May-21	LP	TIGER MEET 2021
03-May-21	07-May-21	LFBB/FF/	SEM PR1
03-May-21	07-May-21	LFMM	KUKRI
05-May-21	05-May-21	LFBB/RR	MICA 09
05-May-21	05-May-21	LFEE	WILDBOAR
10-May-21	14-May-21	LFBB/FF/MM	GASCONEX 1
10-May-21	14-May-21	LFEE	CHAMPAGNE WEASEL
17-May-21	28-May-21	LFBB/FF	ETAP C 21-03
17-May-21	28-May-21	LFBB/RR/FF	ATLANTIC TRIDENT
17-May-21	29-May-21	LI	JOINT STAR
17-May-21	28-May-21	LE	TLP 21-2
19-May-21	04-Jun-21	EGGX/PX	At Sea Demonstrations/Formidable Shield (ASD/FS) 21
Mid May 2021		LD	ASTRAL KNIGHT
25-May-21	27-May-21	LF	POKER 21-02
26-May-21	04-Jun-01	LF	DGA
28-May-21	29-May-21	LE/LP	STEADFAST DEFENDER
29-May-21	06-Jun-21	LFBB	France-Africa Summit
31-May-21	04-Jun-21	LFBB/FF/MM	TCO Marine + ETAP-C
31-May-21	31-May-21	LFEE/FF	STORKMEET
07-Jun-21	18-Jun-21	LFBB	ACME
07-Jun-21	18-Jun-21	LECB/LECM	FLOTEX (NAVY)
07-Jun-21	18-Jun-21	ESAA	ACE 21
08-Jun-21	18-Jun-21	LE	RMC FC
09-Jun-21	09-Jun-21	LFBB/RR	MICA 10
09-Jun-21	09-Jun-21	LFBB	ROGUE CAP
14-Jun-21	02-Jul-21	LFEE/FF	CASEX BTC 21-02
14-Jun-21	25-Jun-21	LFBB	RAFALE AIR-TO-GROUND FIRING CAMPAIGN
14-Jun-21	18-Jun-21	LFFF	SIAé
17-Jun-21	08-Jul-21	LI	5th GEN EVENT
20-Jun-21	28-Jun-21	LECB/LECM	SIRIO
21-Jun-21	25-Jun-21	LE	EAGLE EYE 21-02
30-Jun-21	30-Jun-21	LFBB/FF/MM	MICA 11
07-Jul-21	07-Jul-21	LFBB/FF/MM	MICA 12
19-Jul-21	30-Jul-21	LFEE	CASEX ATC 21-02
21-Jul-21	21-Jul-21	LFBB/FF/MM	MICA 13
27-Jul-21	28-Jul-21	LF	BELOTE 21-03
23-Aug-21	27-Aug-21	LFEE	STANBANTE
06-Sep-21	24-Sep-21	LFBB	M2000D AIR-TO-GROUND FIRING CAMPAIGN
06-Sep-21	10-Sep-21	LFEE	CHAMPAGNE
06-Sep-21	10-Sep-21	LE	LUCEX
08-Sep-21	08-Sep-21	LF	MICA 14

Start Date	End date	FIR	Event
Q3 2021			Start of Virgin Orbit launches
12-Sep-21	27-Sep-21	EYVC	TOBRUQ LEGACY
13-Sep-21	23-Sep-21	ESAA	NOCO21
15-Sep-21	15-Sep-21	LFBB/FF/MM	MICA 15
20-Sep-21	01-Oct-21	LE	TLP 21-3
21-Sep-21	23-Sep-21	LFBB/EE/FF/MM/RR	POKER 21-03
27-Sep-21	01-Oct-21	LE	MARFIBEX 21-2
27-Sep-21	15-Oct-21	LFBB/EE/FF/MM/RR	VOLFA 21
27-Sep-21	15-Oct-21	LFBB	GORGONES
27-Sep-21	15-Oct-21	LFMM	CORMORAN
04-Oct-21	08-Oct-21	LE	ALBORAN 21
04-Oct-21	15-Oct-21	LFEE	ROYAL BLACKHAWK
04-Oct-21	22-Oct-21	LFBB/RR	FUSEE SONDE 2
16-Oct-21	29-Oct-21	GCCC	OCEAN SKY & EART
18-Oct-21	22-Oct-21	LFMM	BACCARAT
18-Oct-21	19-Nov-21	LFMM	RAFALE AIR-TO-AIR FIRING CAMPAIGN
18-Oct-21	27-Oct-21	ESAA	SWENEX, in conjunction with LFO21
19-Oct-21	21-Oct-21	LFBB	DARK DUNE 2
19-Oct-21	21-Oct-21	LF	BELOTE 21-04
21-Oct-21	27-Oct-21	ESAA	LFO21 ,major impact on ESOS/ESMM
01-Nov-21	10-Nov-21	LFEE/FF	CHAMPAGNE
02-Nov-21	05-Nov-21	LE	EAGLE EYE 21-03
02-Nov-21	19-Nov-21	LE	ETAP C 21-4
XX-11-21	XX-11-21	EYVC	IRON WOLF II
15-Nov-21	19-Nov-21	LE	ACUARIO 21
15-Nov-21	26-Nov-21	LFBB	CASEX ATC 21-03
22-Nov-21	03-Dec-21	LFMM	CASALPS/CERCES
22-Nov-21	03-Dec-21	LE	TLP 21-4
06-Dec-21	10-Dec-21	LFBB	ELECTRONIC WARFARE
06-Dec-21	24-Dec-21	LFBB/RR	FUSEE SONDE 3
08-Dec-21	08-Dec-21	LFBB/FF/MM	MICA 16
09-Dec-21	19-Dec-21	LE	CARTAGO
13-Dec-21	17-Dec-21	LF	SEM PR2
13-Dec-21	17-Dec-21	LE	VALIANT GOLF
14-Dec-21	16-Dec-21	LFBB/EE/FF/MM/RR	POKER 21-04
16-Dec-21	16-Dec-21	LFBB/FF/MM	MICA 17
14-Mar-22	01-Apr-22	EN	COLD RESPONSE 22

7.6 Airport Events

Start Date	End date	Airport	Event
31-Oct-20	29-Apr-21	EFHK	RWY 04R/22L closed
Dec-20	Jul-21	LEIB	Works in VOR 'IBA'
25-Jan-21	26-Apr-21	EHAM	Closure RWY 18R/36L, works in TWY V,Z,Q,A,B,Y
01-Mar-21	01-Jul-21	LKPR	Construction works with impact on RWY 06/24 operations
Spring 2021		EGLL	Trial AOP-NOP integration for arrival and departure flights
Spring 2021		LTFJ	Implement new independent parallel RWY and new ground infrastructure
Spring 2021		LCCC	SPICE project- Nicosia FIR - new RNAV procedures for LCLK and LCPH
Spring 2021		GMMM/GMTN	New TMA Tetouan (GMTN) airport 1. To implement a new TMA for Tetouan (GMTN) Saniat R'mel airport. 2. To implement new SIDs and STARs for Tetouan (GMTN) Saniat R'mel airport.

Start Date	End date	Airport	Event
Spring 2021		GMMM/GMTA	Implement new GMTA TMA; new SIDs and STARs
Spring 2021		GMMM/GMFF	Improvement airspace organisation around GMFF airport 1. To introduce radar approach (MSSR mode S and Primary radar approach) for Fes (GMFF) Saiis airport. 2. To implement new SIDs and STARs for Fes (GMFF) Saiis airport.
Spring 2021		GMMM/GMMW	Implement new GMMW TMA; new SIDs and STARs
Q2 2021		EIDW	H24 Operations from New Tower
26-Apr-21	16-May-21	EHAM	Works TWY Z,B; ILS RWY18R/ u/s and ILS RWY 18R downgraded to CAT I
16-May-21	01-Jun-21	EHAM	RWY 18C/36C closed; construction of a new taxiway (some TWYs partially closed)
01-Jun-21	31-Oct-21	EDDK	Reconstruction TWY D TWY A
Summer 2021		GMMM/GMME	Connection between ATS routes and arrivals GMME
Oct-21	Nov-2021	LIME	RWY End Safety Area (REZA) adjustment
Autumn 2021		LYBE	LYBE - New Tower operational
Autumn 2021		EIDW	Re-designation of EIDW CTR as RNAV1
Autumn 2021		LMMM	INTRAC Phase 2 To design a new TMA and SIDs / STARs.
Q4 2021		LTAA/BA/AC/AI/BJ/BS/FE	Completion of ATC System Upgrade and Support Project
Winter 21/22		EICK/EINN	Re-organise EINN and EICK CTRs
Q1 2022	Q1 2023	LIME	construction of new exit taxiway for RWY28 landings
24-Mar-22		EIDW	New runway Dublin Airport (EIDW) a. To build a new north parallel runway for Dublin Airport (EIDW). b. To develop SIDs and STARs for the new north parallel runway at Dublin airport.

8 Military Airspace Requirements

The Military considers the ATM system as an enabler for defence and security missions. Whatever are the evolutions of the ATM system, it must ensure that military aviation will continue to provide, and further improve effective security and defence in Europe while due regard to the safety of navigation of civil Aircraft remains paramount.

Therefore, the airspace design and utilisation processes shall take into account the requirement to conduct military training and operations, including exercises effectively and efficiently. In addition, in order to protect operational security and mission requirements, any ATM changes must take into account seamless and unlimited airspace access and air movement across national and ECAC airspace and must accept that military assets may not provide the level of data exchange and/or cooperative surveillance as expected from civil aviation.

To optimise training mission effectiveness by reducing transit time and adherence to horizontal and vertical flight efficiency profiles while taking into account impact on environments and traffic flows, any reserved airspace must ideally be located close to airbases. Such airspaces should also be suitable for military training in volume, shape and location, notably to accommodate new operational doctrines, next generation aircraft and other military weapon systems. New weapons systems will have an impact on military operations and may result in additional military airspace requirements.

An overall capacity optimisation is not possible unless airspace planners are aware of the operational requirements of military and civil users. Contrary to civil requirements, military requirements are often very complex, diverse and difficult to quantify. They differ from State to State and are directly related to the task of the national armed forces and the types of platforms and weapons in their inventory. Airspace design and management shall be able to fully address these requirements within the application of FUA.

In order to meet military requirements in a congested ATM environment, a specific balanced Cooperative Decision Making (CDM) process able to accommodate military needs at network level should be developed and implemented. This CDM process at national and network level must ensure the satisfaction of military requirements, specifically:

- Freedom to operate both manned and unmanned aircraft, in all weather conditions in all areas of the European airspace where national regulations allow to do so to execute all variety of assigned national and/or international missions;
- Incorporating a suitable level of flexibility to accommodate short term changes to mission
- Provision of ATM system capabilities, including civil ones, to support military deployment, in particular for priority flights and for time-critical missions, but also for military aircraft not fully equipped to the civil standard.
- The establishment of temporary airspace reservations situated as close as practicable to the appropriate operating areas, including airspace restrictions for non-flight-related Activities;
- The implementation of a transparent process supported by commonly agreed modalities and monitoring scheme is considered a key enabler.

Therefore, it is essential to ensure military involvement from the beginning of any new development that might affect training, exercise and deployment of military force. This is particularly relevant for the activities of the Network Manager (NM), namely in the definition of the Network Strategy Plan, the Network Operations Plan (NOP) and the more specific the European Route Network Improvement Plan (ERNIP).

Civil-military coordination and cooperation shall be based on a seamless CDM process, starting from the capture of all civil and military airspace requirements for the definition and management of Airspace Configurations. This must be supported by continuous information sharing amongst all ATM partners; however, there will be situations where information cannot be shared amongst all ATM partners due to national security restrictions.

The introduction of the “rolling NOP” will allow for changes to airspace use to be uploaded and shared with users in real-time, using existing ASM support systems like LARA. It provides the processes and procedures required to improve the dynamicity of the current process in order to achieve a continuous updating of the airspace status. Interfaces to local systems have already been developed and validated to support rolling NOP functionalities. Support will be given to the civil and military stakeholders in deploying and implementation of interoperable support systems.

The rolling NOP should be based on clear agreed performance criteria for flexible use of airspace and its related B2B services in order to increase capacity, flight efficiency and military mission effectiveness.

A systematic and organised collection of planned civil and military airspace use via automated systems could significantly contribute to improved airspace utilisation efficiency by both civil and military users. Default days/times of availability, ad hoc requests for unplanned use of reserved airspace and release of such reserved airspace when not used are among the data that needs to be provided.

To reflect the rolling nature of the NOP, data needs to be provided by using ASM support systems on any necessary time-period. On an annual basis, military airspace requirements refers to expected use of the different parts of reserved airspaces under their jurisdiction, plus any major activities that may require additional reserved airspaces.

It is expected that this annual plan will be updated on a monthly/weekly basis, providing a much more stable picture of greater granularity for the pre-tactical planning of the network.

On a daily basis, using ASM support systems, data concerning actual use of reserved airspace needs to be shared, as well as any ad hoc requests for unplanned use of reserved airspace. This information of airspace status is currently provided according to defined regular snapshots. A gradual evolution towards a continuous exchange of information whenever required is foreseen; validation activities are planned.

ASM/FUA performance monitoring systems such as PRISMIL should be used for post operations analysis and the development of further enhancements.

8.1 Airspace Availability

8.1.1 Strategic Activities

Focusing on strategic activities, the major areas where the CDM process is expected to enhance civil/military coordination are:

- Revision of existing areas;
- Large scale exercises;
- New areas;

New operational doctrines, next aircraft generations or significant upgrades, other aerial platforms, new weapon systems, the introduction of new concepts (e.g. free routes) are all elements, which should be considered for a revision of current airspace structures. This revision should also consider major traffic flows in order to balance civil/military requirements.

In accordance with the ICAO Chicago Convention, specifically pursuant to article 1 thereof, Member States have complete and exclusive sovereignty over their airspace, which implies that they need to be in a position to exercise the ultimate decision making powers within their airspace, in order to safeguard public order, public security and defence matters. This is also reflected in Implementing Regulation 2019/123. Article 12.

The recommendation is to exploit the introduction of modularity of the areas with an adequate associated CDR network or waypoints for free-route airspace in order to improve the options available for coordination at pre-tactical and tactical level. It is also highly recommended to investigate the possibility to establish CBAs, wherever feasible, in order to enhance the variety of options for coordination.

This process involves national authorities, at local and/or FAB level. The NM provides information regarding the major traffic flows, including major axis, quantification of traffic involved and peak hours. All this information is available to support the design as well as to establish at strategic level major priority rules to be used at pre-tactical and tactical level (e.g. consider peak hours, mutual priorities).

Based on the above-mentioned principles, the establishment of new areas or ad-hoc areas for large-scale exercises/special events in addition to the nominal system, a CDM process should be considered that coordinates with adjacent centres, ideally at FAB level, as well as with NM in order to verify the impact on the major traffic flows. The application of FUA principles and the use of ASM support systems is highly recommended in order to improve the flexibility and to achieve a more efficient use of the airspace.

The involvement of international working arrangements, at FAB or network level is highly recommended to support the final decision that remains a national responsibility as Member States have complete and exclusive sovereignty over their airspace.

All the decisions resulting from the CDM process are used to populate the NOP, in the different phases of the process.

To ensure this, the military authorities from each of the Member States are encouraged to provide the following information:

- Areas description, including large scale exercises
- Foreseen time occupancy on yearly/monthly/weekly or ad hoc basis
- Wherever possible the above-mentioned information should consider the modularity of the areas where FUA is applied.
- Automated local ASM support systems (e.g. LARA) should be used that are providing information to and enabling the NM to establish a Network map-view of planned military airspace reservations/areas as basis for the CDM process.

8.1.2 Pre-tactical and Tactical Activities

Pre-tactical and tactical activities should rely on a balanced CDM process, which enables to accommodate both civil and military requirements.

MAB/25 approved the document “Civil Military Collaborative Decision-making² in the Future European ATM”, Harmonized military views”. Although addressing the future European ATM developed by SESAR, relevant provisions of the document are applicable within the scope of this plan.

² Collaborative decision-making is called cooperative decision-making in the context of NM.

The overall principle applicable to civil-military CDM throughout ASM/ATFM processes is to balance the ATM network performance needs, civil AU business preferences, and military AU mission requirements by optimizing their preferences and requirements throughout common solutions and/or application of pre-agreed priorities.

A framework/agreement to ensure expeditious civil-military CDM is mandatory. State civil and military aviation authorities in coordination with the European NM should elaborate a national or international (bi- or multilateral) strategic framework document for ASM and ATFM, which will include CDM.

The framework document will define the civil and military actors, roles, responsibilities, airspace configuration and trajectory management principles and priority rules as well as the processes associated to CDM. It should be regularly reviewed and updated in accordance with the expected scope of military missions and the evolutions of air traffic management.

The Military will engage in consultation and negotiation in order to reach an agreement on a proposed solution for optimizing airspace configurations and traffic flows in accordance with pre-defined flexibility or airspace activation scenarios defined for each ATM request.

Considering the variety of CDM actors as well as their cross-border interactions, an escalation process towards upper level authorities to solve conflicting situation may not be possible. An alternative way stays in pre-defined priority criteria/rules. A 'system of priorities' that encompasses both civil and military priority criteria will be defined and periodically updated by civil and military authorities at State level in coordination with NM as part of a CDM strategic framework document. However, the ultimate decision on the use of national airspace remains a decision of the individual States' military authority.

The pre-tactical process starts at D-6, providing a fine tuning of military plans in terms of foreseen occupancy of the areas (Time and volume), finalised at D-1 with the EAUP publication.

Automated local ASM support systems providing information to and enabling the NM to establish a Network map-view of planned military airspace reservations/areas should be used as basis for the CDM process.

The application of coordinated priority rules as well as the provision of acceptable options from the military authorities is strongly recommended in order to promote the CDM process at pre-tactical level. More specifically, the identification of different modularity will facilitate the coordination among the different partners to accommodate military requests with solutions minimising the impact on civil traffic flows.

After the EAUP publication (preferably visualised with a map-view provided by ASM support systems), a dynamic pre-tactical process is ensured through the rolling map-view visualised UUPs that will support the fine tuning of the plans during the D-OPS, granting the full utilisation of airspace in case of release as well as to satisfy ad hoc requests.

More specific, this process enables the military to ask for additional booking of airspace as part of UUP process to provide a minimum of 3 hours' notice of activation of airspace, or other timescales according to internal national agreements. This process enables a more accurate prediction of the weather, aircraft serviceability, crew availability, and the training requirement that would previously have required airspace to have been booked at D-1 in case it was needed; moreover it will contribute to avoiding overbooking therefore will provide increased availability of CDRs as well as airspace volumes in FRA. The sharing of information among all interested partners is essential to support coordination for a most efficient airspace utilisation. The involvement of the NM is required to provide feedback to local/FAB units in order to support them for the final decisions. It's enhanced implementation with rolling UUP

snapshots every 30 minutes provide high degree of flexibility to manage any ad hoc request.

Coordination with ATFCM components is required to exploit capacity resources and to evaluate properly the impact of new requests.

The rolling UUPs provides up to date information to the NOP, allowing the users to update their flight plans accordingly.

All changes are uploaded in the NOP via appropriate tools, in order to provide real time information to the users.

Different means of notification (e.g. NOP portal, B2B) are utilised to ensure adequate information to all relevant stakeholders.

The UUP process supports a more dynamic pre-tactical management, closer to the time of operation. Nevertheless, the tactical management remains relevant to accommodate the last minute changes, able to improve ATC operations.

Tactical ASM Level 3 consists of the real-time activation, deactivation or reallocation of the airspace allocated at ASM Level 2 and the resolution of specific airspace problems and/or traffic situations between civil and military ATS units, controllers and/or controlling military units as appropriate.

The real time access to all necessary flight data, including controller's intentions, with or without system support, permits the optimised use of airspace and reduces the need to segregate airspace.

Adequate real time coordination facilities and procedures are required to fully exploit the FUA Concept at ASM Levels 1 and 2. Flexibility in the use of airspace is enhanced by real-time civil/military coordination capability. This flexibility depends on the potential offered by the joint use of airspace by civil and military traffic. Local ASM tools already offer functionalities to manage real-time airspace status and coordinate airspace activations and deactivations in a highly flexible manner. Implementation options range from supervisor-supervisor coordination to system interfaces between ASM Tool and ATC System, making the availability of airspace accessible directly on the controllers working positions.

9 Forecast of Network Operational Performance

The following paragraphs give an outlook of the expected performance of the European ATM network for the Summer 2021.

This prognosis is based on the traffic forecast (as detailed in chapter 4.3) and on the information provided by ANSPs and airports. It is the result of simulations performed with the tools used in the capacity planning process, combined with operational analysis made by the Network Manager.

9.1 Expected En-route Performance of the European ATM Network

The en-route performance outlook is based on the traffic forecast (as detailed in Chapter 4.3) and planned/maximum sector openings as agreed with ANSPs during the period December 2020 – January 2021. The assessment was done for the following periods:

- **May**: 17 to 23 May 2021
- **June**: 14 to 20 June 2021
- **July**: 19 to 25 July 2021
- **August**: 16 to 22 August 2021
- **September**: 13 to 19 September 2021
- **October**: 18 to 24 October 2021

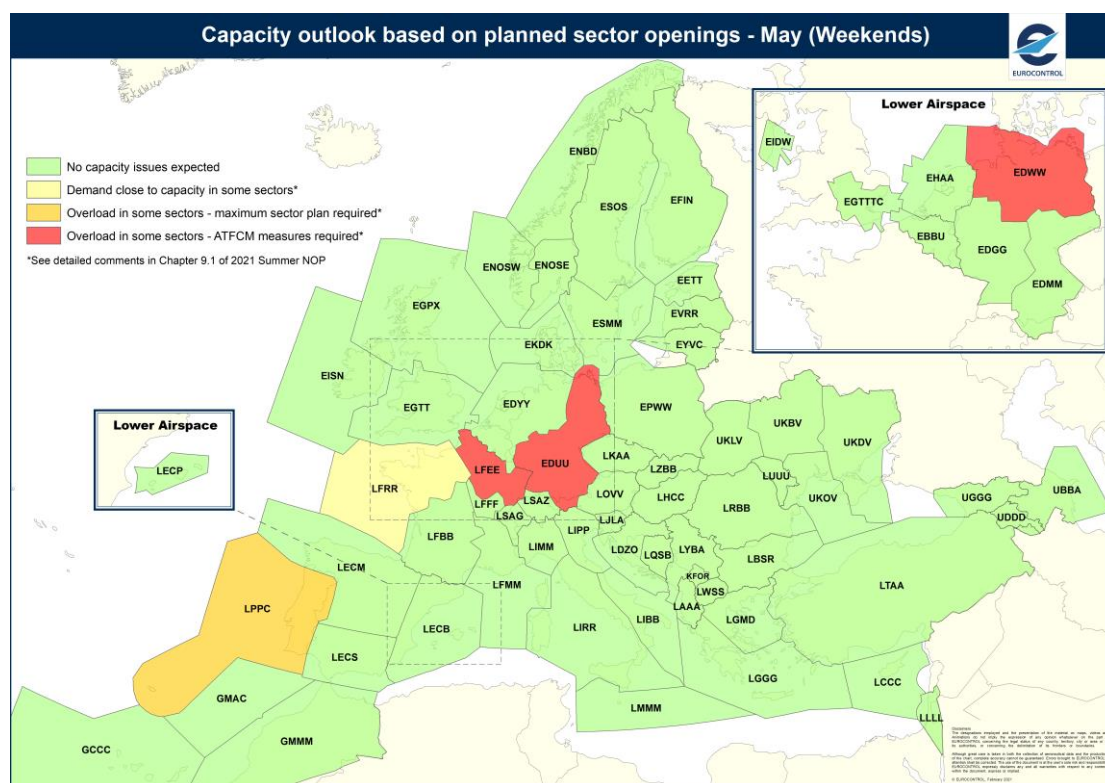
For each ACC, NM evaluated if the planned/maximum sector openings are sufficient. The result of the assessment is presented on the maps below.

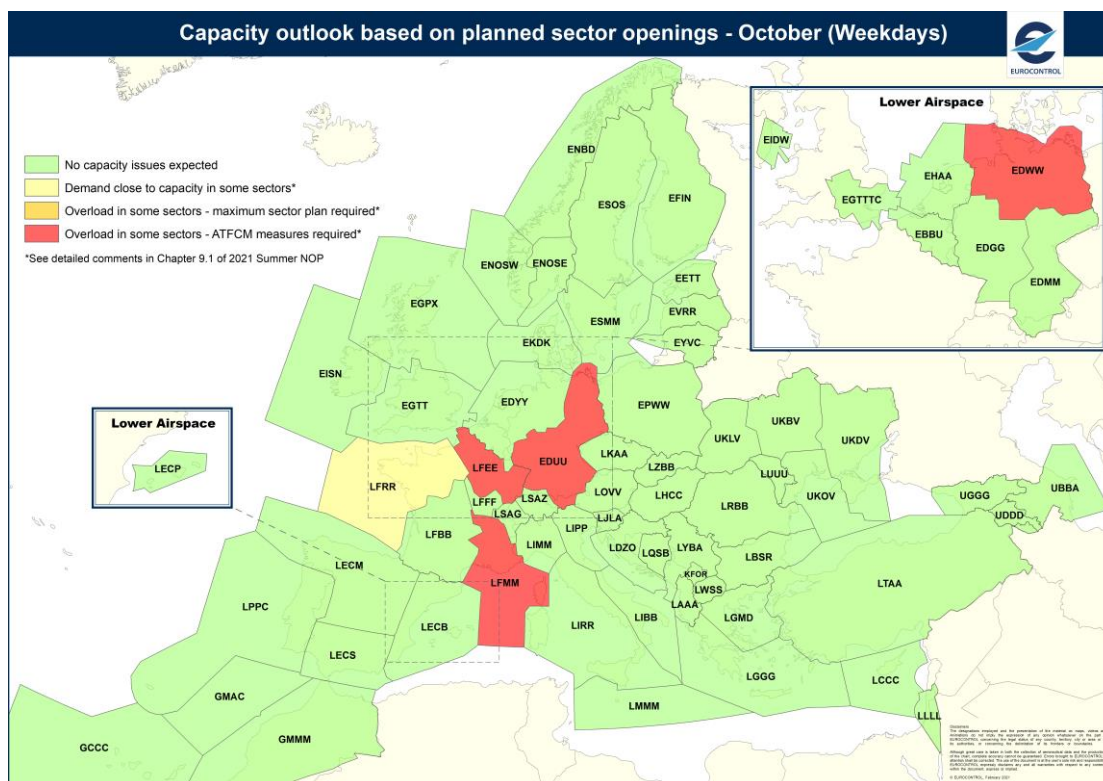
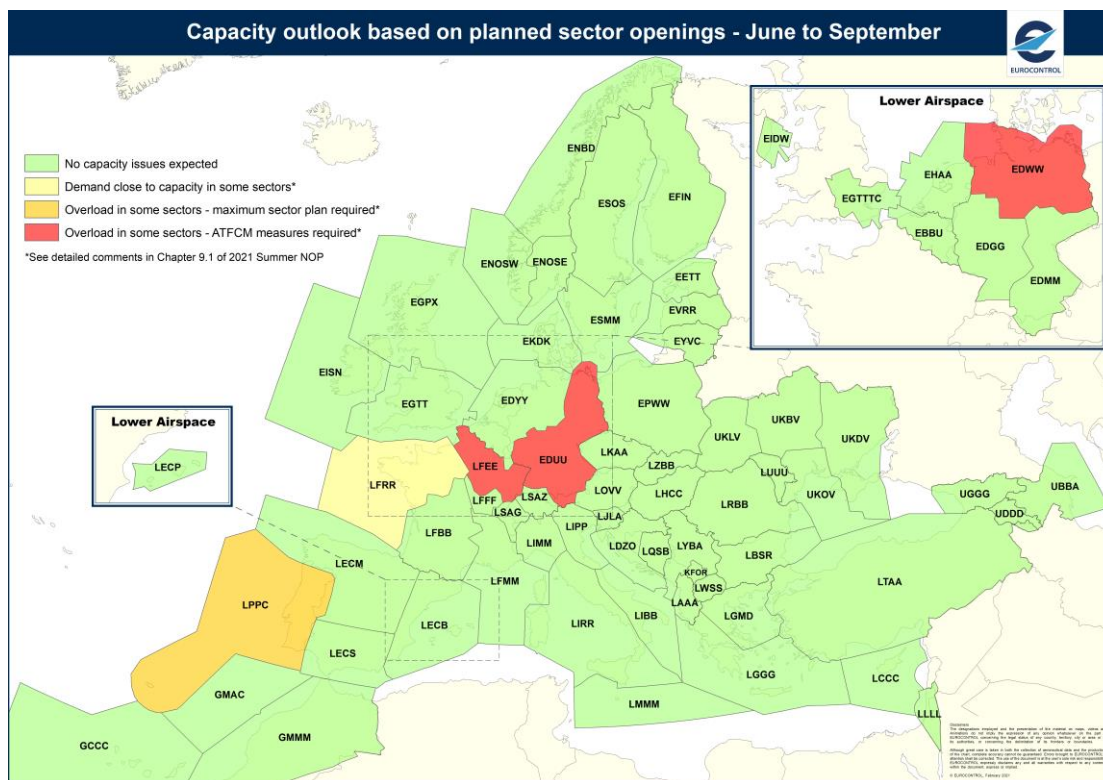
Capacity/Demand highlights:

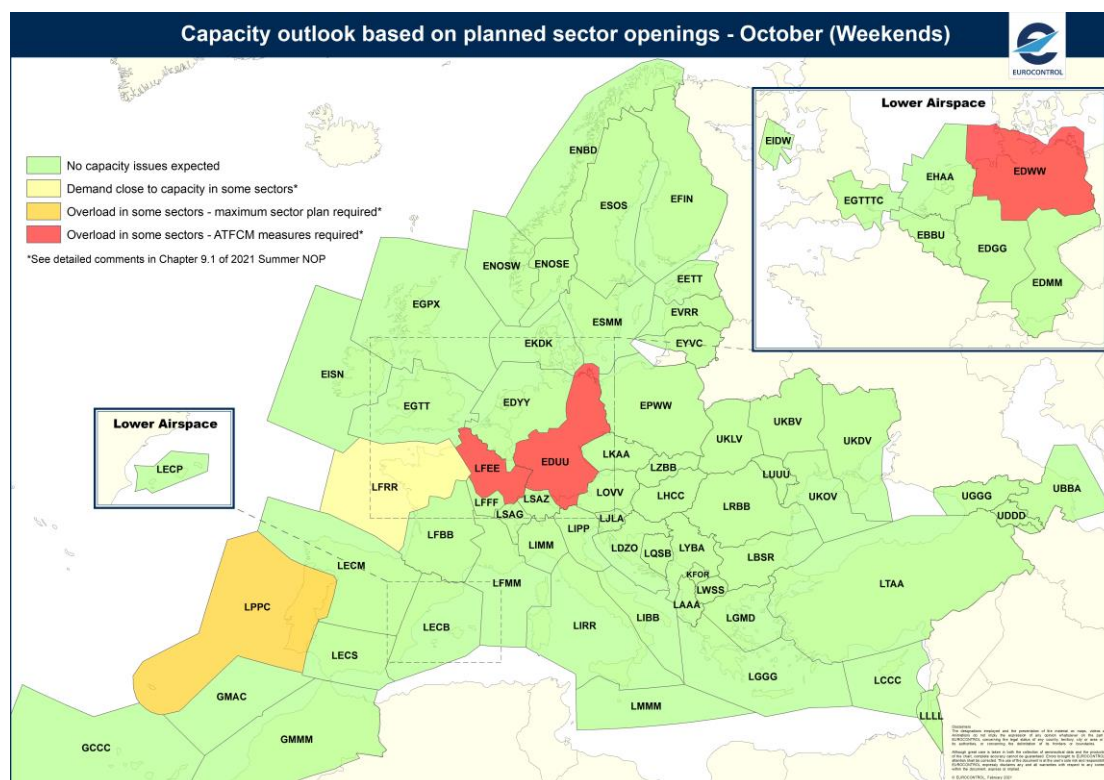
No major capacity issues are expected in the network. However, some flexibility might be required to adapt capacity to the traffic demand as follows:

- Most ANSPs should be flexible on the configuration choices
- For some ANSPs, the planned number of sectors would not be sufficient, but the requirements are within the maximum sector plan.
- For some ANSPs, an extra sector might be needed for short periods of time to cover a traffic peak during the day
- For some ANSPs, special attention should be given to morning and evening peaks when opening hours might need to be extended
- For some ANSPs, some ATFCM measures such as scenarios or STAM might be punctually needed to better balance traffic in the different sectors

ANSPs should foresee a 10% buffer in the traffic outlook to avoid sudden capacity problems and possible weather related issues.







- **France – Brest ACC**

The traffic demand is expected to be slightly above declared capacity in some elementary sectors in the upper layer most of the days, mainly due to green RAD and more routing flexibility given to AOs. ATFCM measures such as STAM or scenarios might be needed to better balance traffic between the different sector layers.

- **France – Marseille ACC – East sector group**

In May & October, 4-Flight training is expected to impact the staffing situation and the number of sectors available.

May: Traffic demand is expected to be close to capacity in the evening on weekdays. Some flexibility might be needed to extend the opening hour for short periods of time.

October: On weekdays, traffic demand is expected to be above declared capacity with planned and maximum number of sectors in the evening. There is no possibility to program an additional sector in the evening now but work is in progress to decrease the impact of 4-Flight training during that period. ATFCM measures such as STAM or scenarios might be required. Additionally, on Fridays, demand is expected to be close to capacity during the day and some flexibility might be needed on the configuration choices or on the opening of an extra sector for short periods of time during traffic peaks.

- **France – Marseille ACC – West sector group**

In May & October, 4-Flight training is expected to impact the staffing situation and the number of sectors available.

May: Traffic demand is expected to be close to capacity on weekdays. Some flexibility might be needed on the configuration choices during the day, and on the opening of an extra sector for short periods of time during traffic peaks in the evening.

October: On weekdays, traffic demand is expected to be above declared capacity with planned and maximum number of sectors. There is no possibility to program an

additional sector now but work is in progress to decrease the impact of 4-Flight training during that period. ATFCM measures such as STAM or scenarios might be required.

- **France – Reims ACC**

In May, June, September and October, 4-Flight training is expected to impact the staffing situation and the number of sectors available. 4-Flight training is suspended during the school holidays.

During the whole period, traffic demand is expected to be close to declared capacity. Some flexibility might be needed on the configuration choices and on the opening of an extra sector for short periods of time during traffic peaks.

Additionally, the traffic demand is expected to be above declared capacity in some elementary sectors in the upper layer (LFEEHYR, LFEEKD) most of the days. ATFCM measures such as STAM or scenarios might be needed to better balance traffic between the different sector layers.

- **Germany – Bremen ACC – East sector group**

Traffic demand is expected to be above declared capacity with the planned number of sectors on weekdays and Sundays. There is no possibility to open an additional sector for long periods every day, but some flexibility might be provided to open an additional sector for short traffic peaks in the morning and evening.

- **Germany – Karlsruhe UAC – North/South sector group**

Traffic demand is expected to be close or slightly above capacity in June, July, August and September during the day and some flexibility might be needed on configuration choices and on the opening of an extra sector for short periods of time during traffic peaks.

Additionally, traffic demand is expected to be above declared capacity in the morning and on some evenings. There is no possibility to open an additional sector during those periods. ATFCM measures such as STAM or scenarios might be required.

- **Portugal – Lisboa ACC**

Traffic demand is expected to be above declared capacity with planned number of sectors during weekends in May and October, and most days in June, July, August and September. Some flexibility might be needed to open extra sector during traffic peaks but the maximum number of sectors should be sufficient for the whole period. Thanks to high flexibility between planned and maximum number of sectors, no capacity issues are expected.

9.2 Expected Airport Performance of the European ATM Network

This section presents several conclusions drawn when analysing the recovery rates of airports, passengers and regions. Detailed information is not included but can be requested by contacting the airport corner at the following link: https://ext.eurocontrol.int/airport_corner_public. In Section 10.2, some enhancement measures addressing these airport constraints are presented, and they will be followed up during summer season.

9.2.1 Airport impact of traffic variability

One of the challenges that airports may face during summer 2021 is an unexpected demand increase, with which they could be unable to cope. Here, an analysis of the studies developed to anticipate when an airport is more likely to suffer from a sudden increment of traffic is presented.

Each airport has experienced different traffic variability rates as observed during summer 2020. These variable traffic rates are linked to local recovery scenarios and/or governmental aspects, that may be reiterated similarly during summer 2021.

Table 5 in Annex 2 shows the mean and standard deviation of the weekly traffic and most important, the ratio between the two, which gives a good indicator of the rate of variability of the traffic per airport for the summer of 2019 and 2020 for the busiest airports. Interestingly, the differences between airports in summer 2019 are very low whereas we see significant differences in summer 2020 which could indicate different levels of sensitivity per airport.

The following conclusions are drawn:

Southern European countries have on average a higher weekly variability in traffic compared to Northern European countries.

Istanbul, Antalya and Palma de Mallorca had the highest traffic variation and the highest weekly traffic increase during the summer of 2020.

It is likely that, under similar circumstances, restrictions or relaxation of constraints, a similar variability is experienced during the summer of 2021.

9.2.2 Passenger growth recovery scenarios

In September 2020, EUROCONTROL published an [Impact assessment of COVID-19 measures on Airport Performance](#), carried out by the Airport Research Center GmbH with the support of ACI EUROPE, IATA and four airports: Paris Charles-de-Gaulle, London Heathrow, Stuttgart and Swedavia airports. In that report, the airport performance was analysed with the implementation of the COVID-19 measures, compared to the pre-COVID situation. It provides general guidelines and recommendations regarding passengers and saturation of the airport, especially considering 1.5m of physical distance at the terminal. Some of the conclusions of that study have been taken into account in this section.

One of the recommendations of the report concerns the number of passengers in a terminal requiring physical distancing: airports already congested before the COVID crisis can expect to reach their maximum saturation capacity at just 60-75% of their peak 2019 traffic.

To highlight when an airport is likely to reach the 60% of their maximum capacity, in collaboration with ACI-Europe, possible scenarios have been analysed in terms of passenger recovery for the most congested airports for which we had monthly passenger data.

Possible scenarios in terms of passenger recovery have been analysed. ACI EUROPE, to whom we appreciate, provided passenger datasets for the most congested airports. The goal was to highlight when an airport is likely to reach the 60% of their maximum capacity, i.e., the number of passengers at the terminal during summer 2019.

The passenger occupancy was calculated as the number of passengers per flight and used both summer seasons, 2019 and 2020, as baselines. There are four possibilities in terms of passenger recovery: same passenger occupancy as the busiest month of 2020; summer 2020 passengers + 25%; summer 2020 passengers + 50%; and same passengers as summer 2019. Combining these four passenger scenarios with the forecasted three traffic scenarios for the data-available busy airports, we have analysed if the terminal is subject to be above the 60% or 75% of terminal capacity.

The table below shows a line per airport with the twelve combined scenarios, highlighting in light blue when the passengers at the terminal could be above the 60% saturation point and in dark blue when passengers are above 75% of 2019 number of

passengers. Scenarios are ordered from less traffic (scenario 3) to the most optimistic one (scenario 1).

Table 1: Combination of traffic and passenger scenarios and likelihood of capacity saturation

Country	ICAO	Airport	Scenario 3 2020 pax	Scenario 3 2020 +25% pax	Scenario 3 2020 +50% pax	Scenario 3 2019 pax	Scenario 2 2020 pax	Scenario 2 2020 +25% pax	Scenario 2 2020 +50% pax	Scenario 2 2019 pax	Scenario 1 2020 pax	Scenario 1 2020 +25% pax	Scenario 1 2020 +50% pax	Scenario 1 2019 pax
Austria	LOWW	Vienna												
Belgium	EBBR	Brussels												
Czech Republic	LKPR	Prague												
Denmark	EKCH	Copenhagen												
Finland	EFHK	Helsinki												
France	LFPG	Paris Charles de Gaulle												
	LFPO	Paris Orly												
	EDDT	Berlin												
	EDDL	Düsseldorf												
	EDDF	Frankfurt												
	EDDH	Hamburg												
	EDDM	Munich												
Greece	LGAV	Athens												
Ireland	EIDW	Dublin												
Israel	LLBG	Tel-Aviv												
Italy	LIMC	Milan												
	LIRF	Rome												
Netherlands	EHAM	Amsterdam												
Norway	ENGM	Oslo												
Poland	EPWA	Warsaw												
Portugal	LPPT	Lisbon												
	LEBL	Barcelona												
	LEMD	Madrid												
	LEMG	Málaga												
	LEPA	Palma de Mallorca												
Sweden	ESSA	Stockholm												
Switzerland	LSGG	Geneva												
	LSZH	Zurich												
	LTAC	Ankara												
	LTAI	Antalya												
	LTFM	Istanbul												
	LTJF	Istanbul Sabiha Gökçen												
	EGKK	London Gatwick												
	EGLL	London Heathrow												
	EGSS	London Stansted												
	EGCC	Manchester												

The following conclusions are drawn from this table:

- **Many European airports might face capacity constraints if forecasted traffic follows scenario 1 predictions and the passenger occupancy increases by 50% compared to 2020.**
- **Turkish airports may face capacity issues regardless of the traffic scenario if passenger traffic recovers by 50% from 2020 figures, mainly because they had a high passenger occupancy during the busiest months of 2020.**

This study provides a level of guidance but will be heavily dependent on traffic mix, load factor, peak periods and the COVID related procedures that airports will have to follow based on each State guidance.

9.2.3 Other related studies

Weekly, in the Rolling Seasonal NOP and Enlarged NDOP Coordination Cell, airports are informed of the latest information regarding different long-haul flows and the impact of state closures on their recovery, evolution of turnaround times and causes of delay. In the Network Operations Report of 2020 some facts regarding these topics are presented. Some behaviours are expected to be analogous in summer 2021 under similar conditions especially during the busiest months of summer 2020.

10 Bottleneck Areas and Mitigation Solutions

10.1 En-route: ACC capacity enhancement measures

- **France – Brest ACC**

ATFCM measures such as STAM or scenarios might be needed to better balance traffic between the different sector layers.

- **France – Marseille ACC**

May: Some flexibility might be needed to extend the opening hour for short periods of time.

October: ATFCM measures such as STAM or scenarios might be required. Some flexibility might be needed on the configuration choices or on the opening of an extra sector for short periods of time during traffic peaks.

- **France – Reims ACC**

Some flexibility might be needed on the configuration choices and on the opening of an extra sector for short periods of time during traffic peaks. ATFCM measures such as STAM or scenarios might be needed to better balance traffic between the different sector layers.

- **Germany – Bremen ACC**

Some flexibility might be needed to open an additional sector for short traffic peaks in the morning and evening.

- **Germany – Karlsruhe UAC**

Some flexibility might be needed on configuration choices and on the opening of an extra sector for short periods of time during traffic peaks. ATFCM measures such as STAM or scenarios might be required.

- **Portugal – Lisboa ACC**

The sector plan should be revised upwards to open the currently indicated maximum opening scheme.

10.2 Airport capacity enhancement measures

In section 9.2: Expected Airport Performance of the European ATM Network, some situations that may lead to capacity saturation have been identified. As a result, affected airports have been contacted and advised. During the season, the Airport Function upon receipt of identified constraints from Airport Corner and traffic outlook will make direct contact with the identified Airport Operations Teams to highlight the discrepancy and discuss remedial solutions that can be taken.

The identified possible constraints in Section 9.2 are related to:

- Traffic variability and sudden increase of traffic. It may cause landside or airside congestion due to the increment of passengers and/or the cost-reduced operations mode in which airports are. Although in general, South European countries are affected by the seasonal effect on traffic, the airports identified with the highest variability are:

- Istanbul
- Antalya
- Palma de Mallorca

The weekly Rolling Seasonal NOP is expected to provide accurate traffic forecast for a six-week period, which may help identified airports to anticipate local measures and avoid congestion in their processes.

- Saturation capacity at the terminal caused by a possible ramp-up in passengers while new health processes and COVID measures, especially physical distance are in place. Many European airports might face capacity constraints if forecasted traffic follows STATFOR scenario 1 predictions and the passenger occupancy increases by 50% compared to 2020. Turkish airports, the most affected ones by a passenger increase under any STATFOR scenario, have been notified of this matter.

It is strongly recommended to follow the suggestions considered in [Impact assessment of COVID-19 measures on Airport Performance](#). Some advices are given for every passenger process at the terminal: from departure to arrival flows, health checks, check-ins, security control, boarding gate, boarding and de-boarding, immigration, baggage reclaim and transfer processes.

The Airport Function will be working in pre-tactical and tactical phases with NMOC during summer 2021 to optimise the support given to airports.

10.3 Proposed Actions at Network Level

The following general actions are proposed to ensure a “close to zero” ATFM delay performance and greener trajectories:

10.3.1 En-route Capacity Enhancement Proposed Actions

Action 1:

Most ANSPs should be flexible on the configuration choices.

Action 2:

Some ACCs should revise their sector plan upwards to open their currently indicated maximum opening scheme.

Action 3:

Some ACCs should have some flexibility on the opening of an extra sector for short periods of time during the day to cover traffic peaks. Special attention should be given to morning and evening, when opening hours might need to be extended.

Action 4:

Some ATFCM measures should be coordinated and prepared, to be used pre-tactically / tactically depending on traffic demand. This will allow to better balance the traffic between different sectors, in particular in layered sector groups.

Action 5:

ANSPs should foresee a 10% buffer in the traffic outlook to avoid sudden capacity problems and possible weather issues.

Action 6:

Sector openings should be refined throughout the Summer season based on the six-week traffic outlook that will continue to be published every week in the Rolling Seasonal NOP.

10.3.2 NM Flight Efficiency Proposed Actions

With respect to flight efficiency, the Network Manager, together with the operational stakeholders, already suspended approximately 1100 RAD restrictions.

The RAD restrictions suspended generated a significant amount of distance flown savings amounting up to 26000 NM saved per day, depending on the daily traffic.

The following action has been agreed at 12th Enlarged NDOP Coordination Cell:

Action 7

Continuation with the COVID-19 RAD relaxation until 17 June 2021 and envisaging the suspension of additional RAD restrictions in support of improved flight planning options for the airspace users.

11 Conclusion

A coordinated and consolidated approach shall continue to ensure a safe and smooth ramp up of traffic and airspace/airport capacity. The effective planning, execution, assessment and reporting shall ensure a **close to zero ATFM delay** and facilitate **greener trajectories**.

While no major capacity issues are expected in the network, some flexibility might be required to adapt capacity to the traffic demand. Some ANSPs should plan to open their currently indicated maximum opening scheme. Most ANSPs should have some flexibility on configuration choices and on the opening of an extra sector for short periods of time during the day to cover traffic peaks. Special attention should be given to morning and evening, when opening hours might need to be extended. Some elementary sectors might start being saturated for short periods. Those situations can be handled pre-tactically/tactically with ATFCM measures such as scenarios or STAM. Sector openings should be refined throughout the Summer season based on the six-week traffic outlook that will continue to be published every week in the Rolling Seasonal NOP.

COVID-19 RAD relaxations will continue until 17 June 2021. The actions concerning the removal of the airspace utilisation restrictions shall continue.

Airports and ANSPs should foresee a 10% buffer in the traffic demand outlook to avoid sudden capacity problems.

ANNEX 1 – ACC TRAFFIC FORECAST & CAPACITY PLANS

Coordination with ACCs – NOP Process

The Network Operations Plan is developed through a collaborative process established between the Network Manager and all operational stakeholders. The NOP provides the traffic forecast, a consolidation of all network and local capacity plans and an outlook of the expected network performance.

Each individual ACC annex includes:

1. Traffic forecast chart

The chart shows a number of different curves as follows:

- **S2019_routes2020:** Summer 2019 historical traffic derived from NEST, Trajectory type Initial, adapted to route and profile choices and availability of Summer 2020
- **S2019_Initial:** Summer 2019 historical traffic derived from NEST, Trajectory type Initial
- **S2019_routes2020_MTF_Sc1_2021:** Simulated Summer 2021 traffic forecast based on:
 - S2019_routes2020
 - EUROCONTROL Five years forecast 2020-2024 – November 2020 - **SCENARIO 1**
- **S2020_equivalent_day_2019:** Summer 2020 historical traffic derived from NEST, Trajectory type Initial, shifted to match 2019 equivalent dates

2. Planned Capacity Enhancement Measures

The table comprises a number of different elements as follows:

- **Measures Planned**

The table summarises the planned capacity enhancement measures identified in the local capacity plans. Some capacity enhancement actions might be ongoing over several years as their potential is not limited to one year. The table of measures planned focuses on the summer season as it is the most demanding period of the year. The measures appearing for 2021 are the ones that will be put in place before the summer season 2021.

- **Significant Events**

Significant events are events which may impact capacity during their lifecycle. These events could be of an ATM related nature or external to ATM, but impacting ATM network performance.

- **Additional Information**

Any additional factors that could influence capacity delivery, including details if available of special events or major project transition plans.

3. Events

All events (including airport and military events) can be found in Chapter 7. The table included in the Annex contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

4. **Sectors available – Summer 2021**

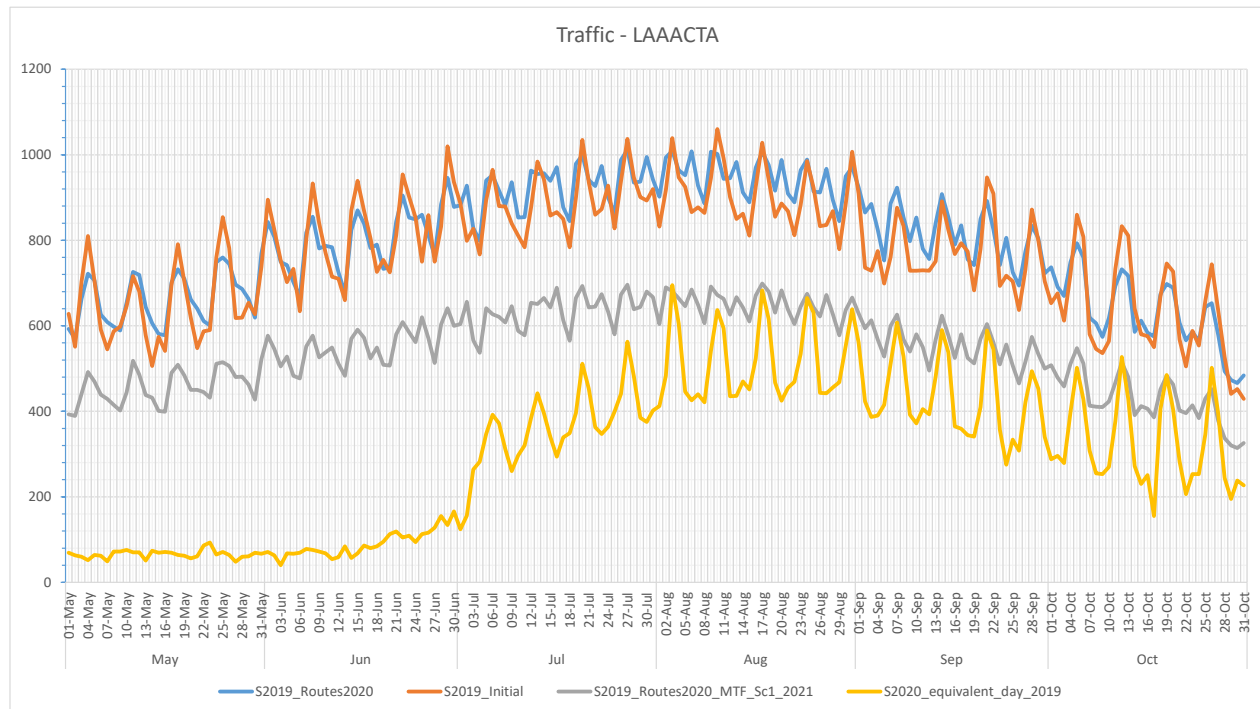
The charts present a commitment on sector availability / opening scheme throughout typical days for 2021 summer season. All times are UTC.

The charts are valid for the following reference periods:

- **May**: 17 to 23 May 2021
- **June**: 14 to 20 June 2021
- **July**: 19 to 25 July 2021
- **August**: 16 to 22 August 2021
- **September**: 13 to 19 September 2021
- **October**: 18 to 24 October 2021

5. **Expected Performance**

A brief qualitative assessment of the expected performance of the ACC over the period, including any foreseen problems and potential mitigation measures.

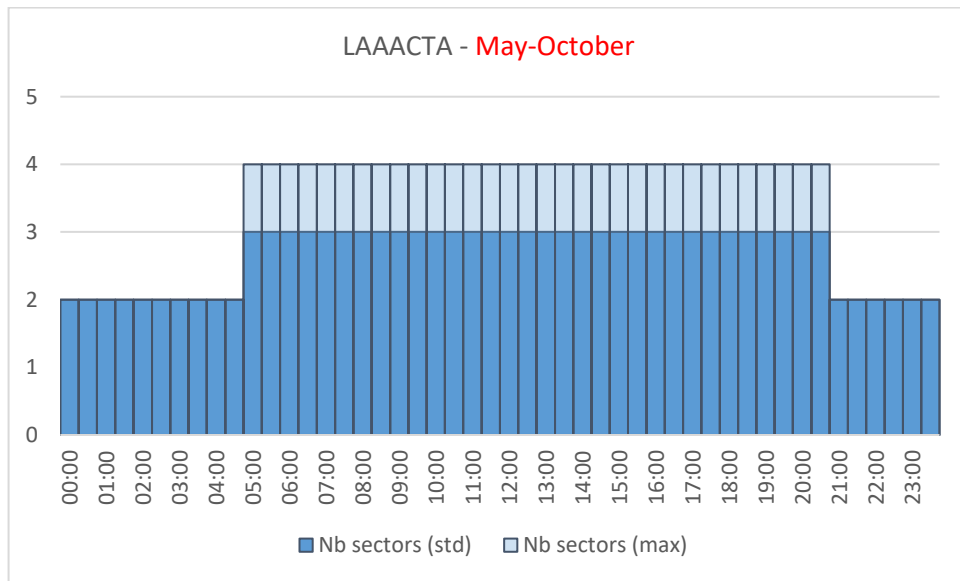
ALBANIA**TIRANA ACC****Traffic Forecast****Planned capacity enhancement measures**

2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	
Airport & TMA Network Integration	PBN for LATI
Cooperative Traffic Management	
Airspace	Airspace improvements (AIRAC of 28 January 2021)
Procedures	
Staffing	
Technical	FMTP data exchange with LYBA and LIBB
	MLAT
Capacity	
Significant Events	
Additional information	PBN SIDs & STARs pending contract with EGNOS and certification by EASA.

Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

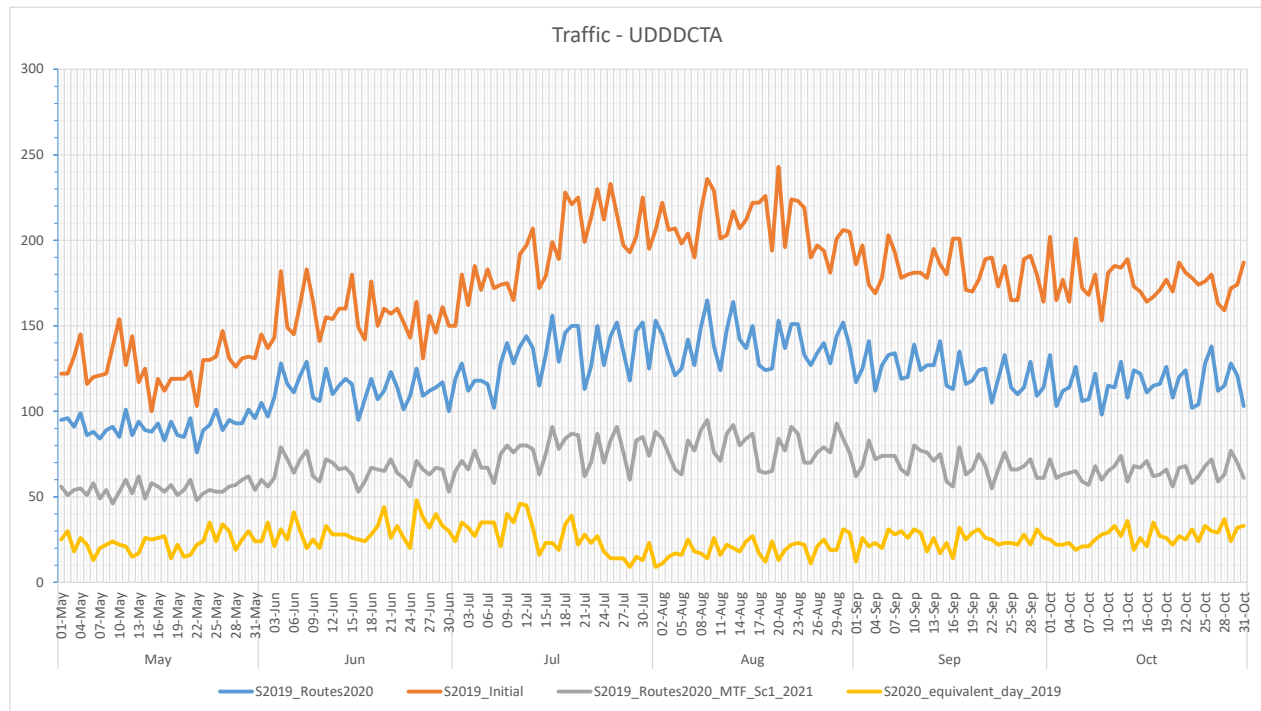
Start Date	End date	ACC/Airport	Event
Autumn 2021		LAAA	ATM system improvements Tirana ACC ; in support to FRA
02-Dec-21		LAAA	H24 Cross Border Free Route Airspace between SECSI FRA and FRALB

Sectors available - Summer 2021

For summer 2021 Tirana ACC will be able to open 2 area sectors + 1 APP sector. The fourth sector will be opened if necessary for short periods (max two hours) to cover possible high peaks.

Expected Performance

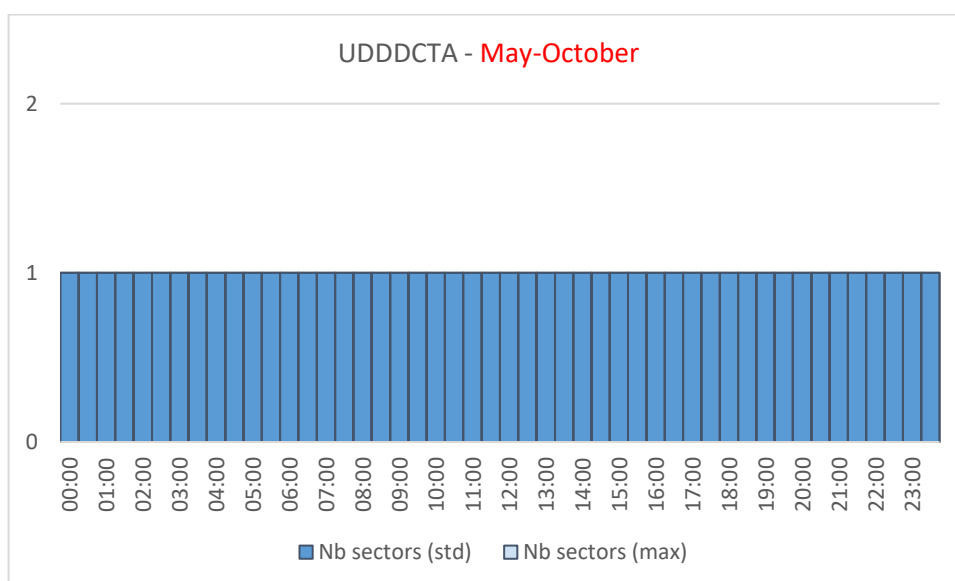
No capacity issues are foreseen for Tirana ACC in Summer 2021.

ARMENIA**YEREVAN ACC****Traffic Forecast****Planned capacity enhancement measures**

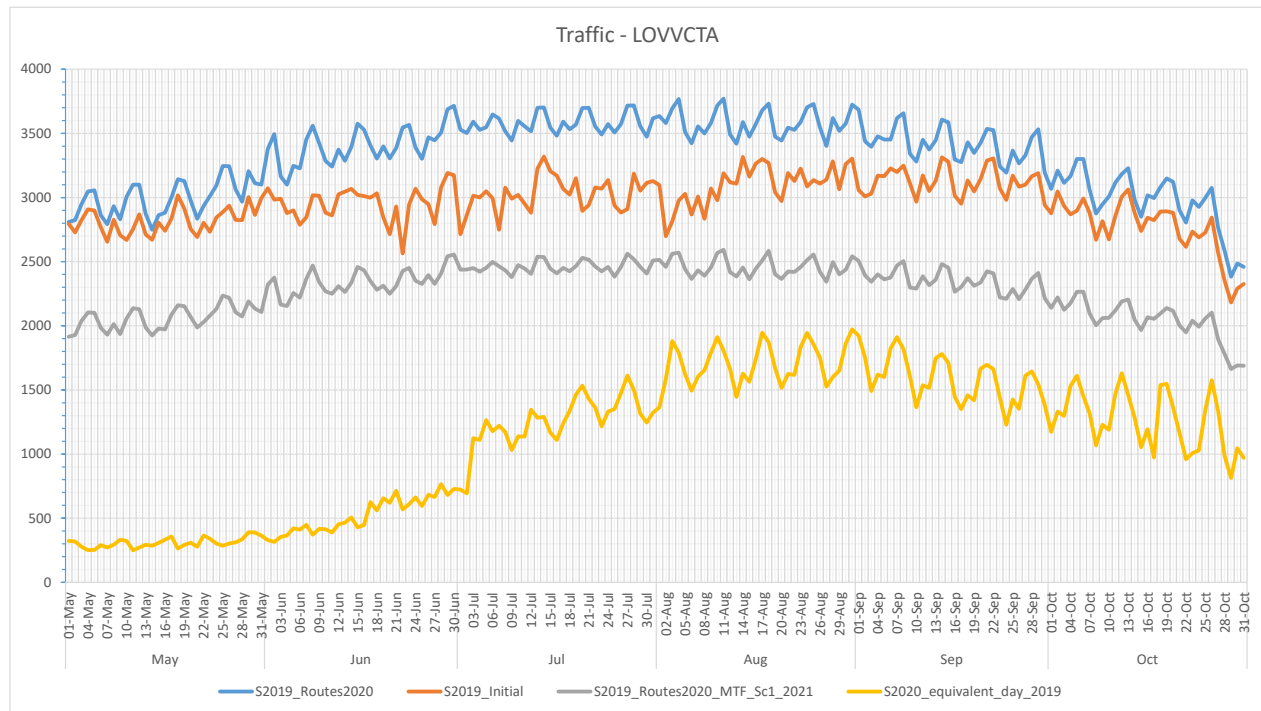
2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management	
Advanced FUA	
Airport & TMA Network Integration	
Cooperative Traffic Management	
Airspace	
Procedures	
Staffing	
Technical	
Capacity	
Significant Events	
Additional information	

Events

All events (including airport and military events) can be found in Chapter 7. Further updates are reported every week in the rolling seasonal NOP.

Sectors available - Summer 2021**Expected Performance**

No capacity issues are foreseen for Yerevan ACC in Summer 2021.

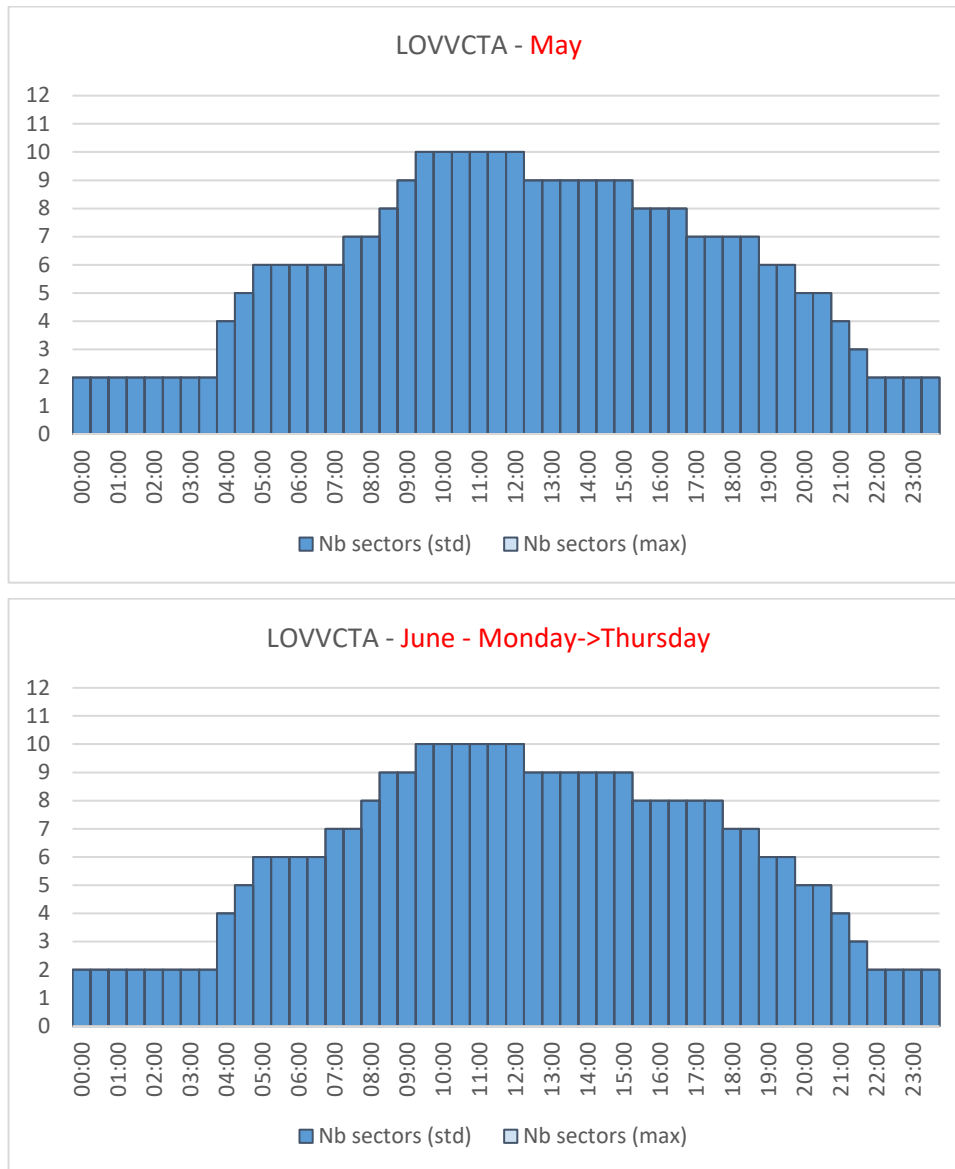
AUSTRIA**WIEN ACC****Traffic Forecast****Planned capacity enhancement measures**

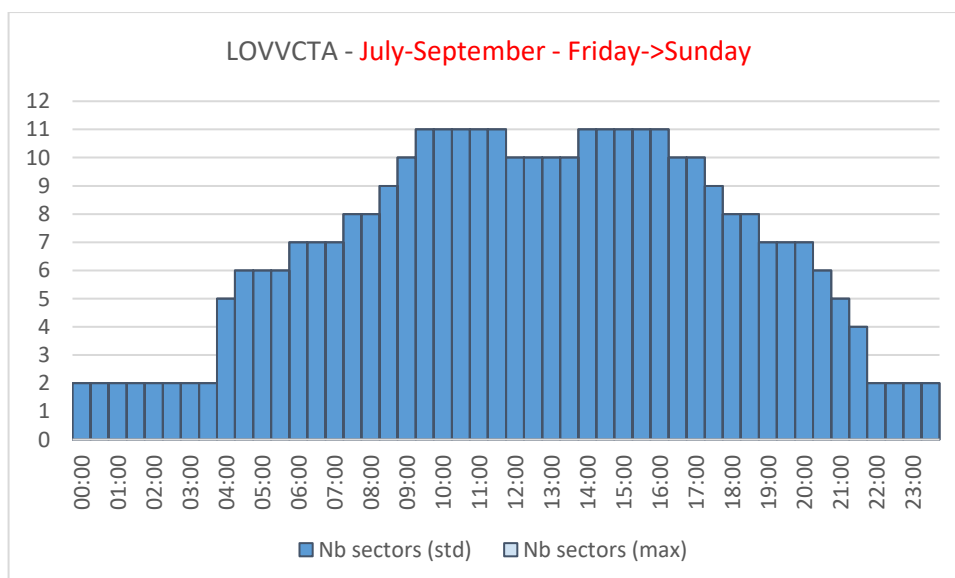
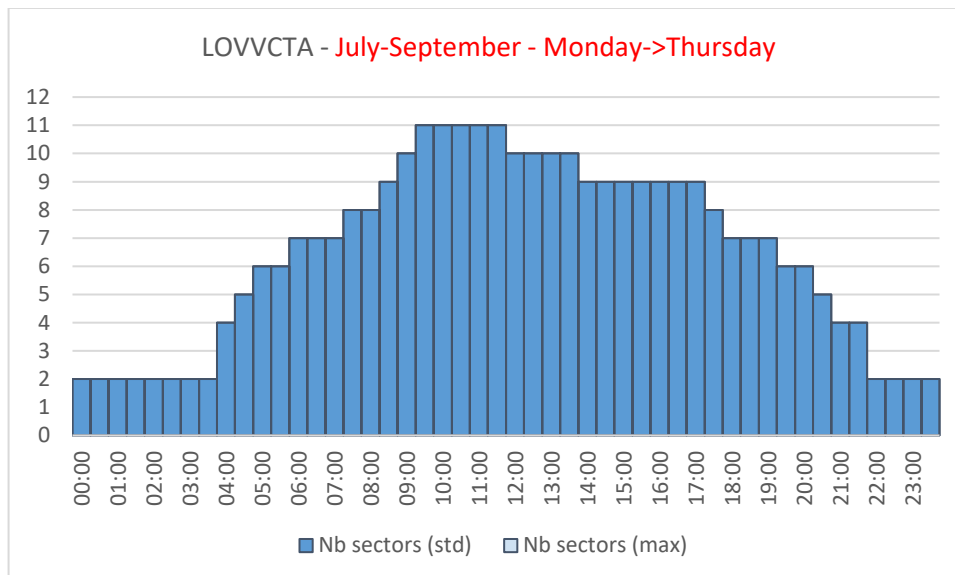
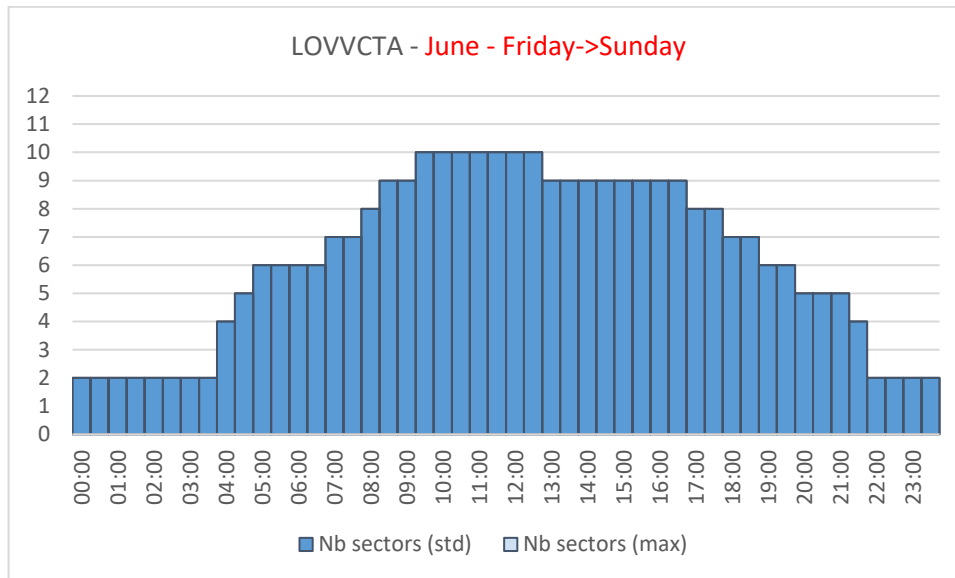
2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	
Airport & TMA Network Integration	AOP
	ACDM for LOWW
Cooperative Traffic Management	Improved ATFCM techniques, including STAM
Airspace	Enhanced sectorisation according to the FAB CE Airspace Plan and the European restructuring program
	Airspace restructuring project
Procedures	Improved operational procedures including FMP/AMC
Staffing	Recruitment to increase staff levels
Technical	Continuous system improvements
Capacity	Additional sectors as required, depending on traffic demand levels and available staff
Significant Events	
Additional information	

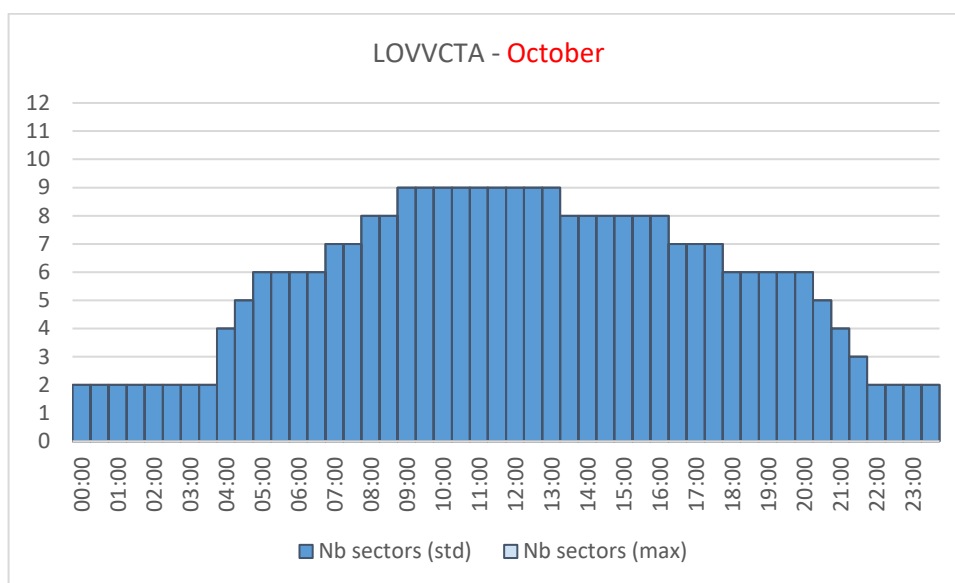
Events

All events (including airport and military events) can be found in Chapter 7. Further updates are reported every week in the rolling seasonal NOP.

Sectors available - Summer 2021

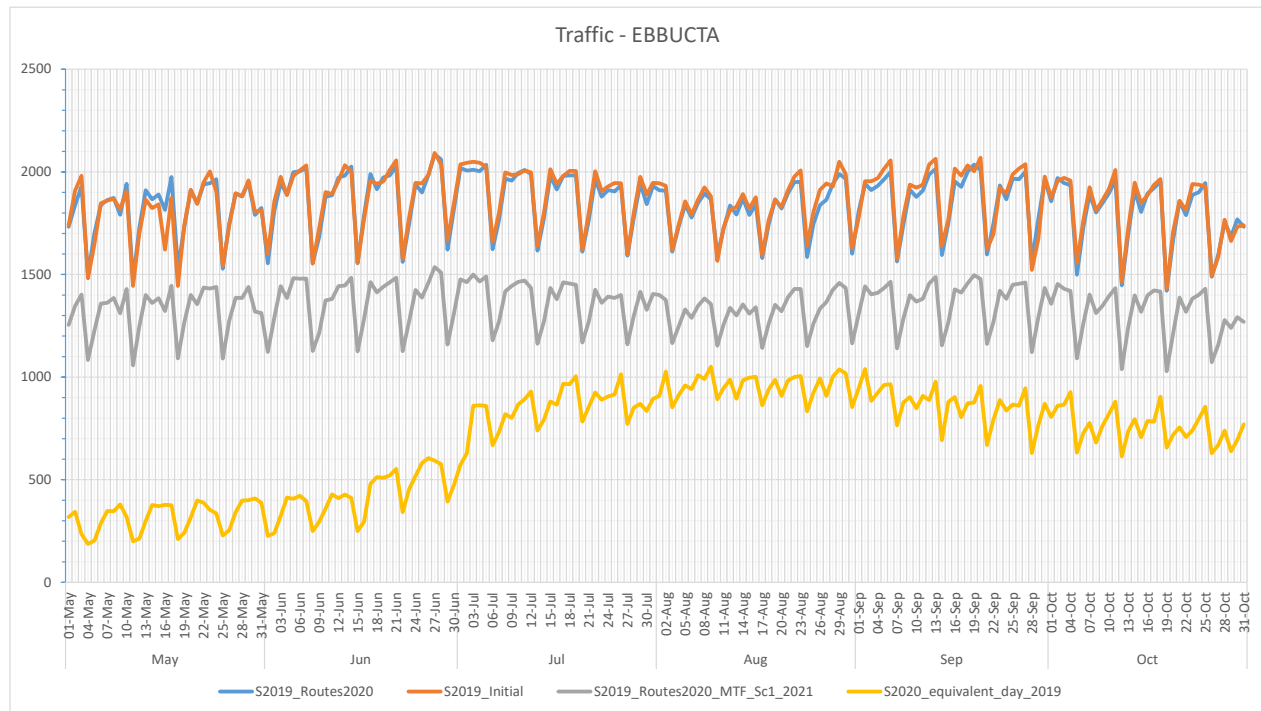






Expected Performance

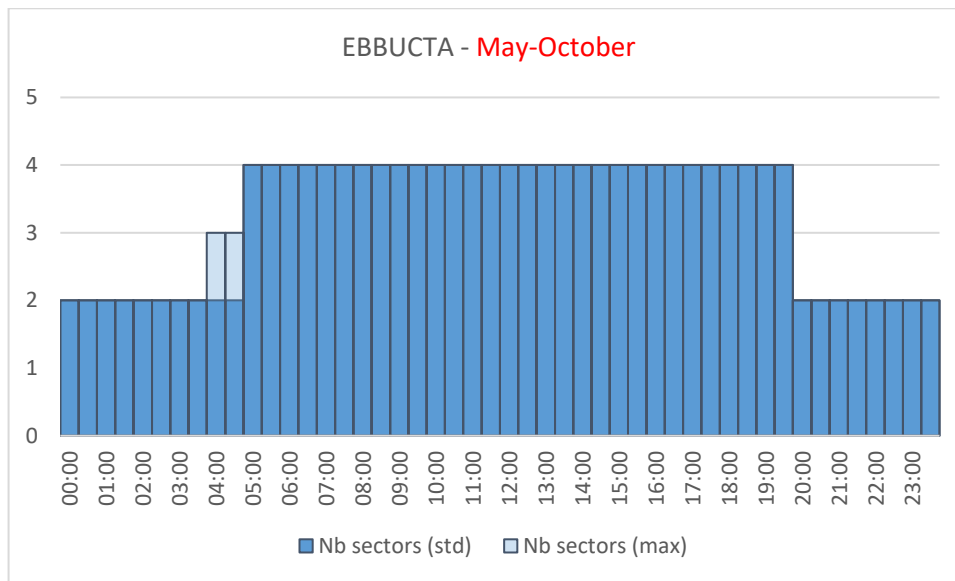
No capacity issues are foreseen for Vienna ACC in Summer 2021.

BELGIUM**BRUSSELS ACC****Traffic Forecast****Planned capacity enhancement measures**

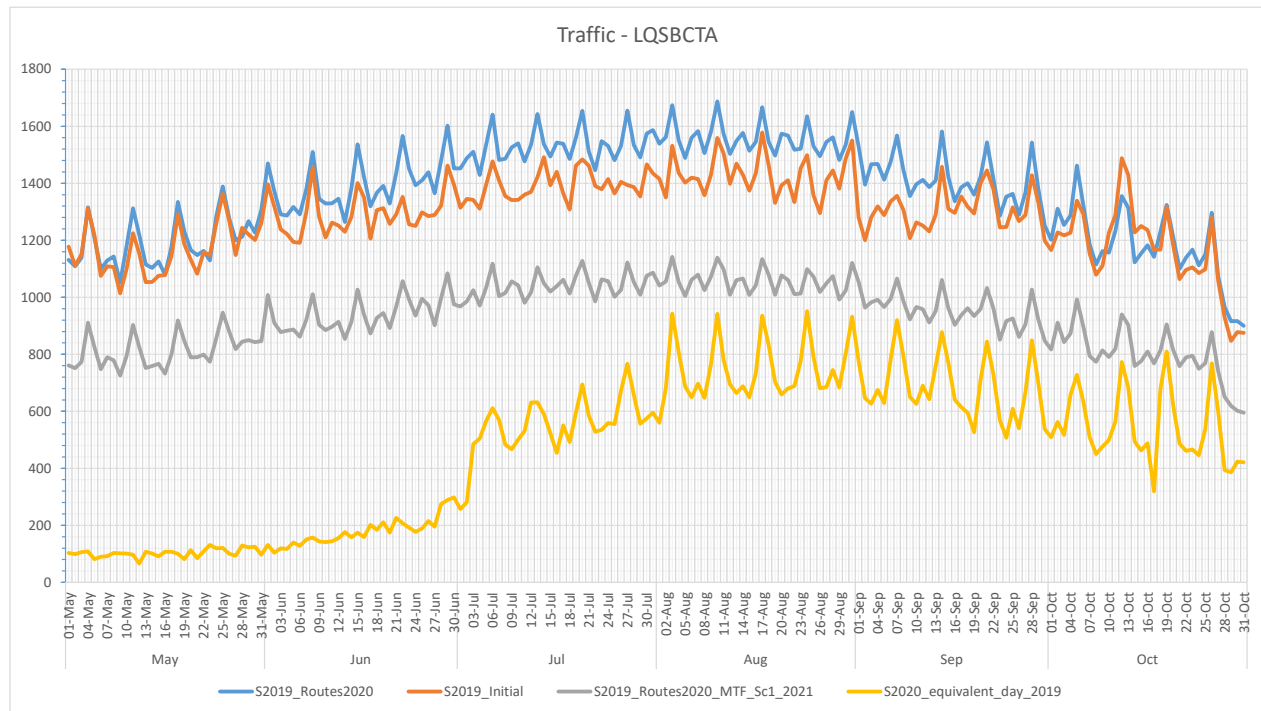
2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	Enhanced Civ/Mil ASM procedures
	Improved use of the route network as a result of FUA enhancement
Airport & TMA Network Integration	
Cooperative Traffic Management	Enhancement of ATFCM procedures, including STAM
	TCAST Project (Traffic Complexity Assessment and Simulation Tool)
Airspace	
Procedures	
Staffing	Recruitment of ATCOs at maximum training capacity
	New ATCOs to maintain level of staffing
Technical	
Capacity	
Significant Events	
Additional information	

Events

All events (including airport and military events) can be found in Chapter 7. Further updates are reported every week in the rolling seasonal NOP.

Sectors available – Summer 2021**Expected Performance**

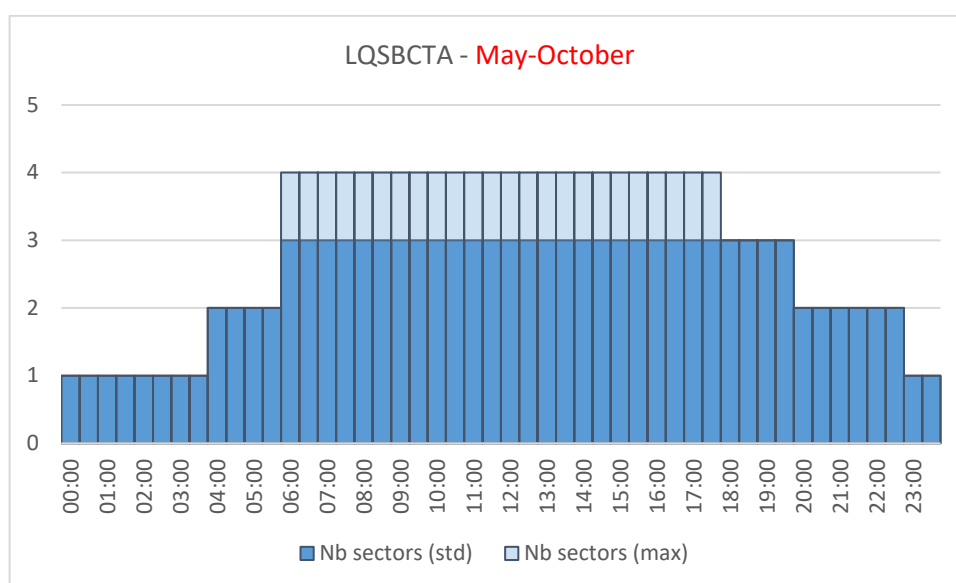
No capacity issues are foreseen for Brussels ACC in Summer 2021.

BOSNIA & HERZEGOVINA**BHACC****Traffic Forecast****Planned capacity enhancement measures**

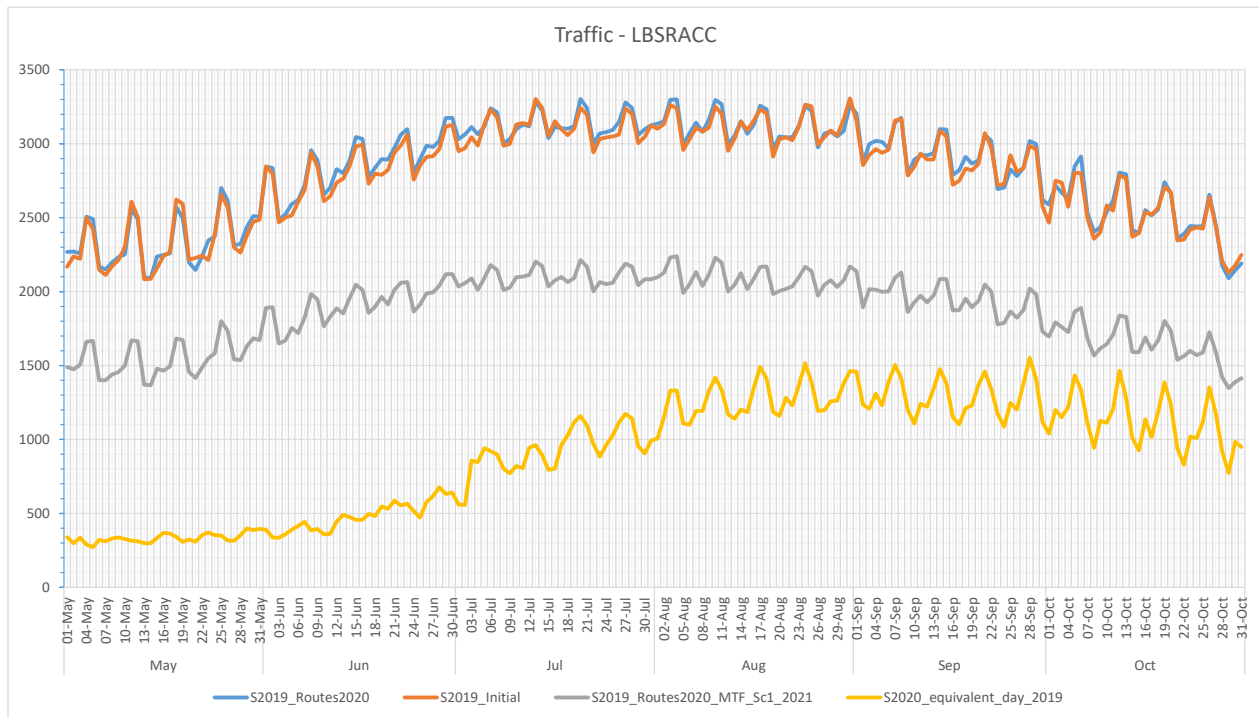
2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	
Airport & TMA Network Integration	
Cooperative Traffic Management	Enhanced ATFM techniques, including STAM
Airspace	
Procedures	
Staffing	
Technical	Continuous system upgrades
Capacity	Continuous capacity assessment
Significant Events	
Additional information	

Events

All events (including airport and military events) can be found in Chapter 7. Further updates are reported every week in the rolling seasonal NOP.

Sectors available - Summer 2021**Expected Performance**

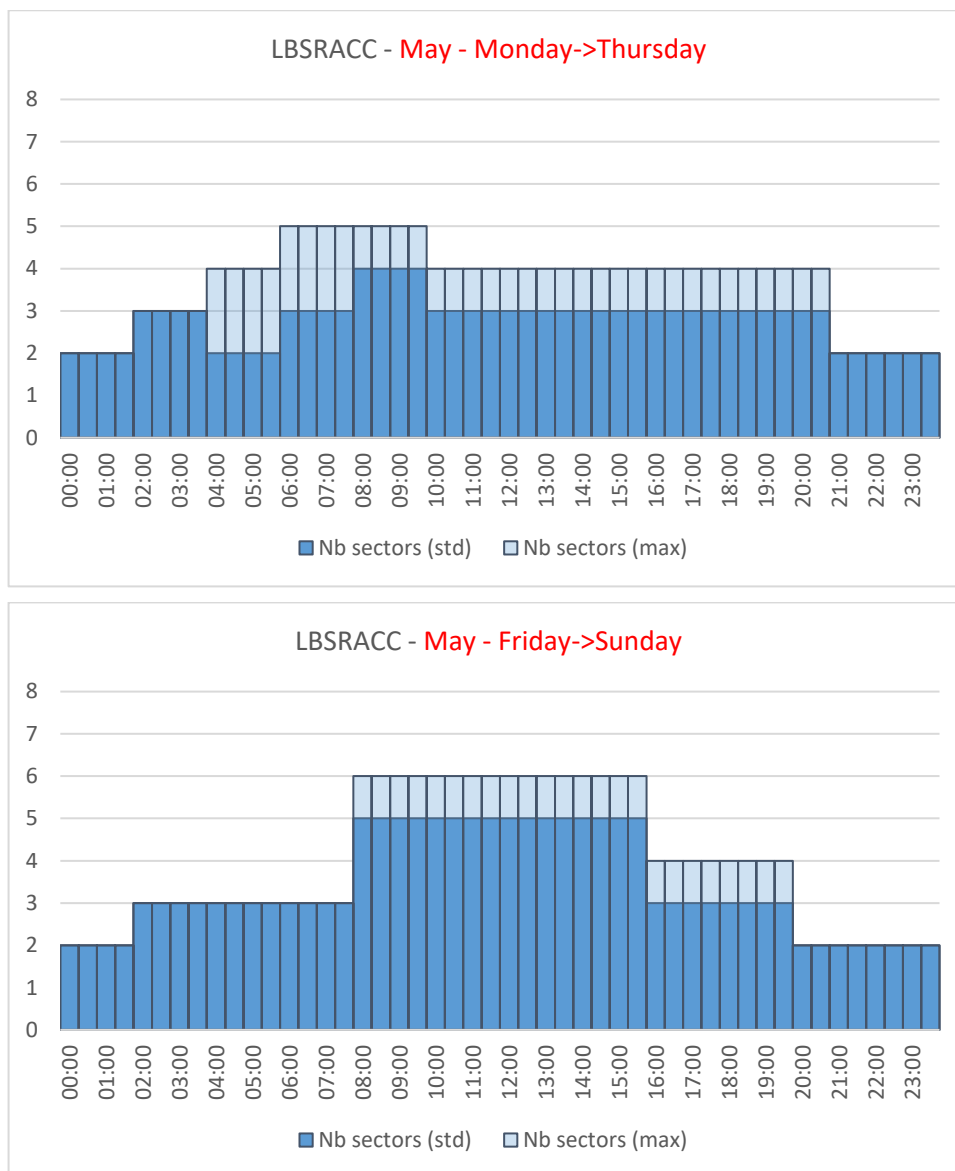
No capacity issues are foreseen for BHACC in Summer 2021.

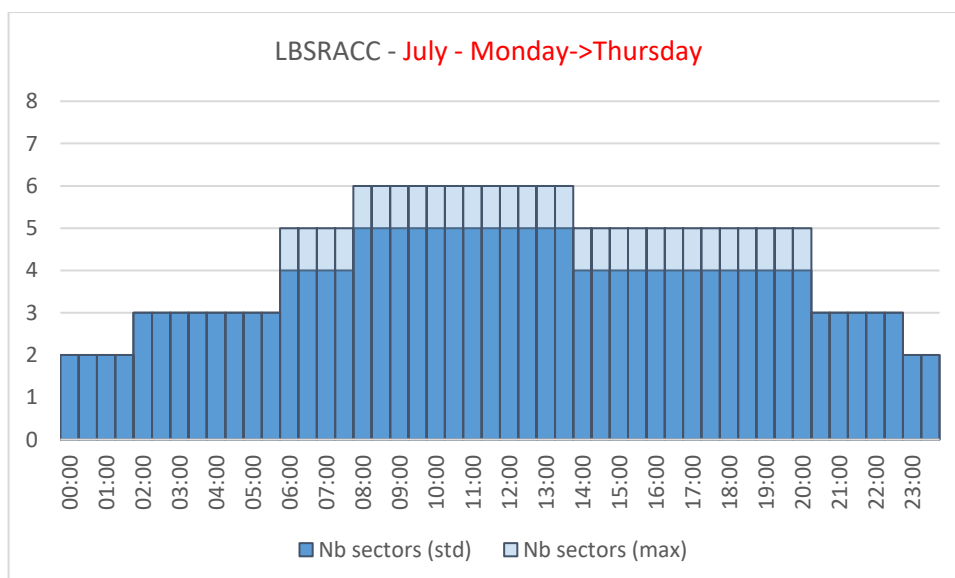
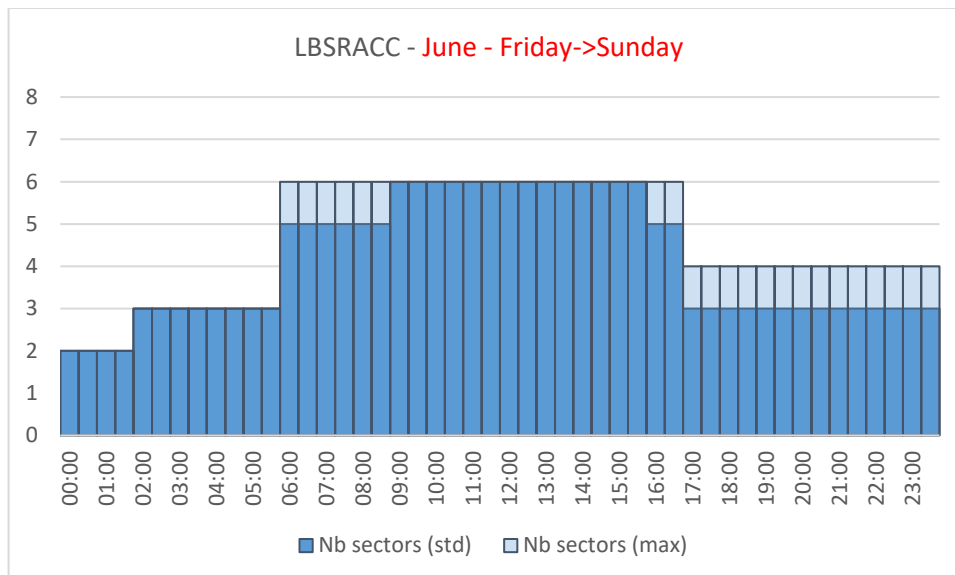
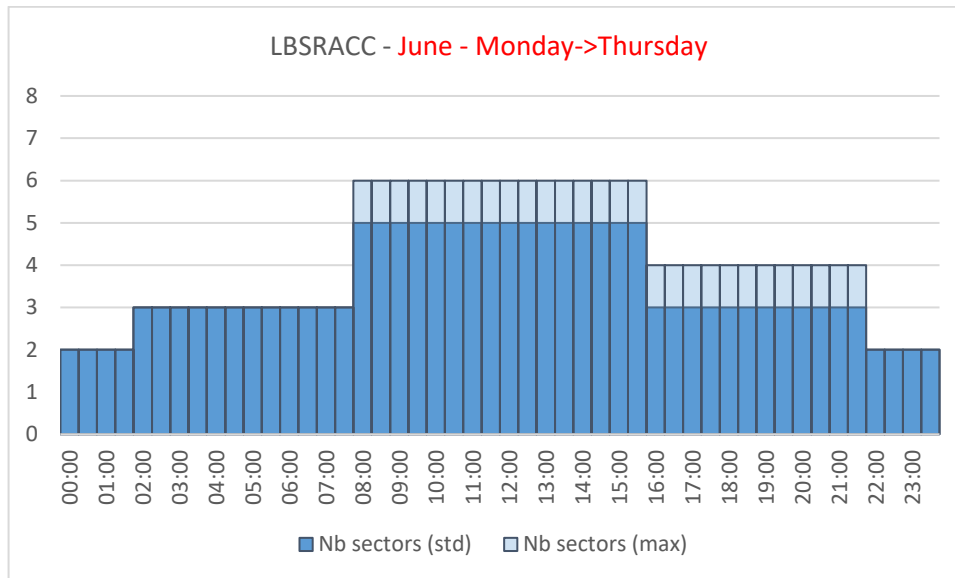
BULGARIA**SOFIA ACC****Traffic Forecast****Planned capacity enhancement measures**

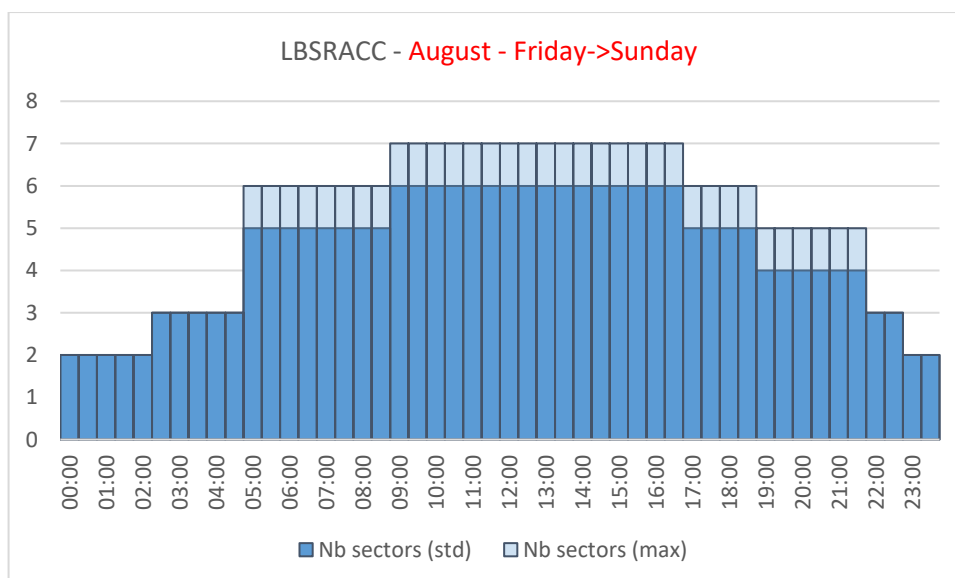
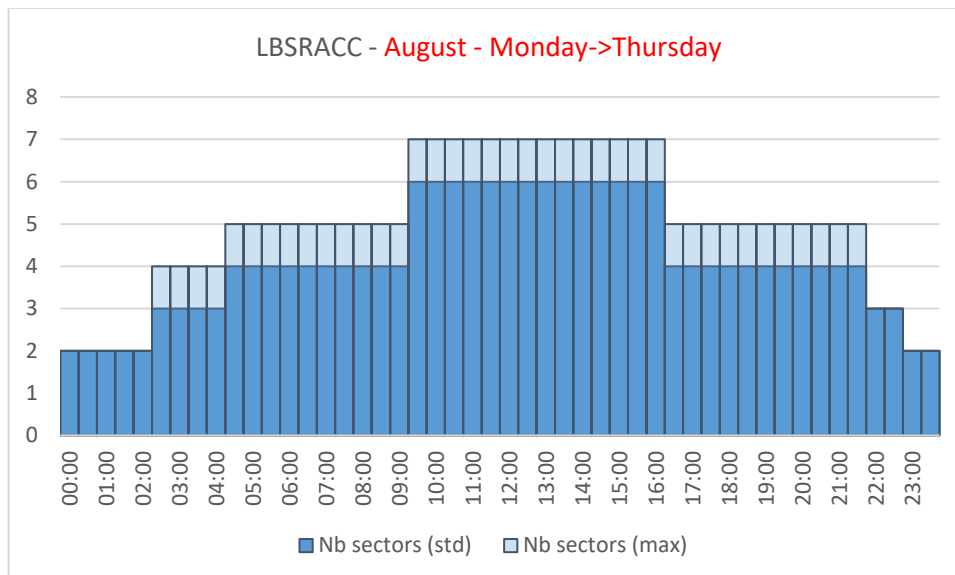
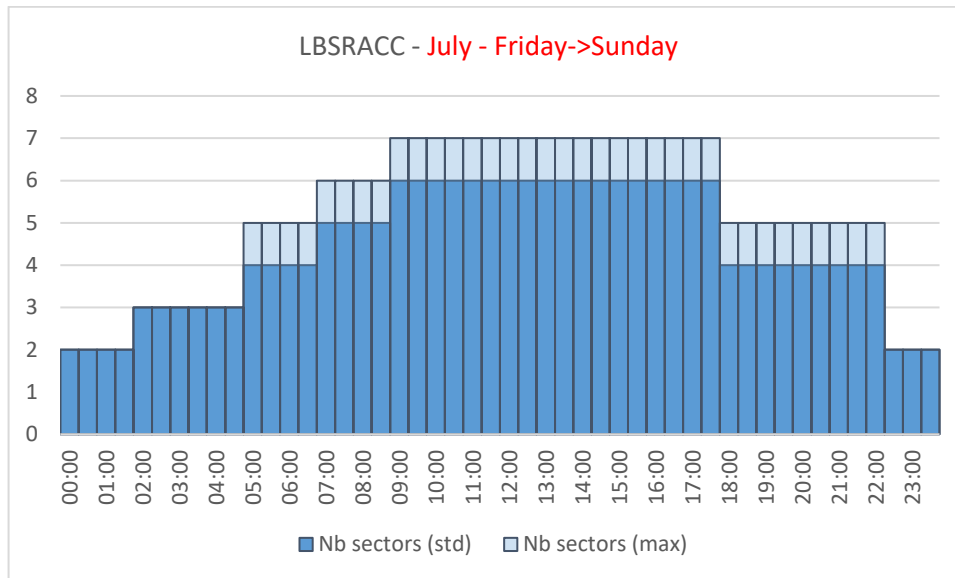
2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	Gradual implementation of AFUA functionalities
Airport & TMA Network Integration	
Cooperative Traffic Management	Improved ATFCM
Airspace	
Procedures	
Staffing	Additional ATCOs to maintain global number
Technical	WAM in west part of FIR
Capacity	Traffic Complexity Tool
Significant Events	
Additional information	

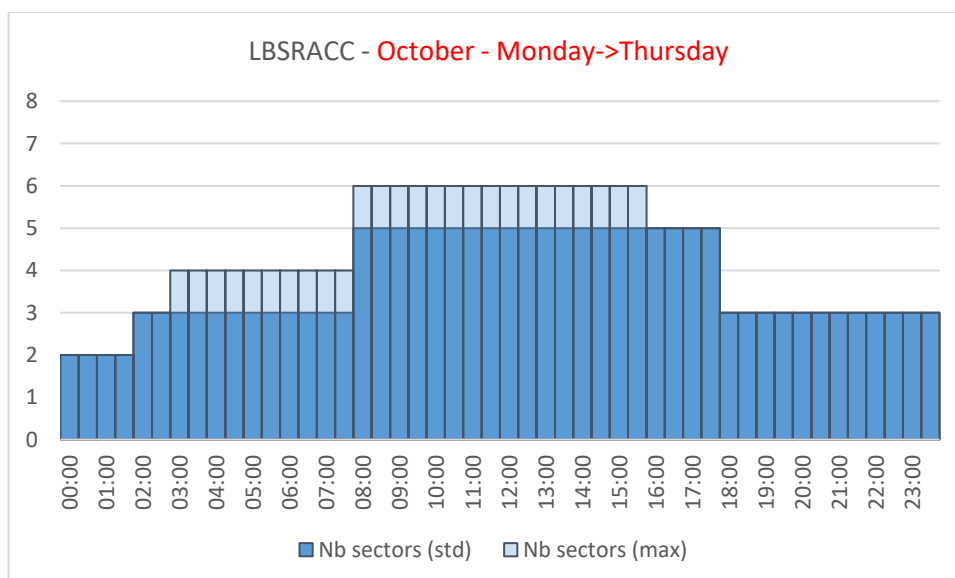
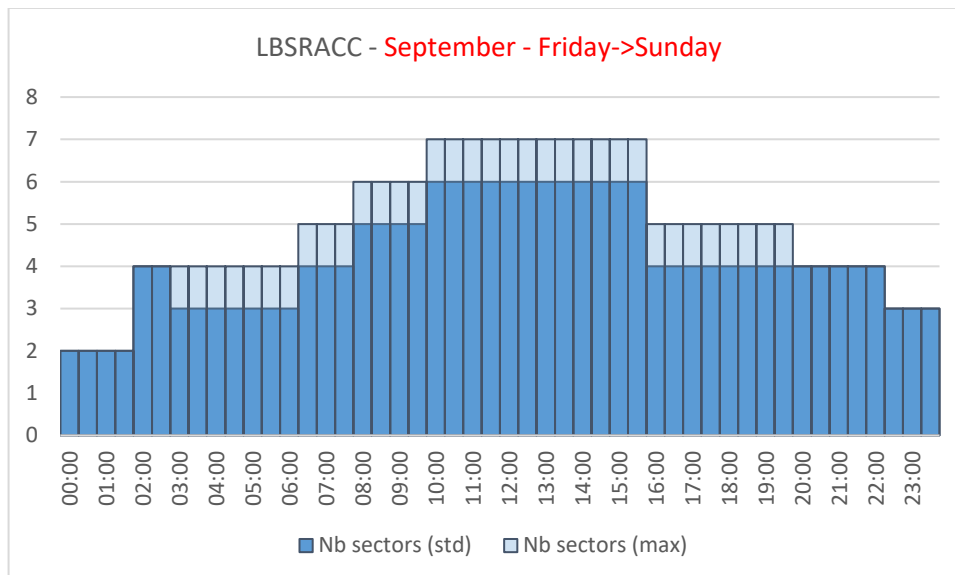
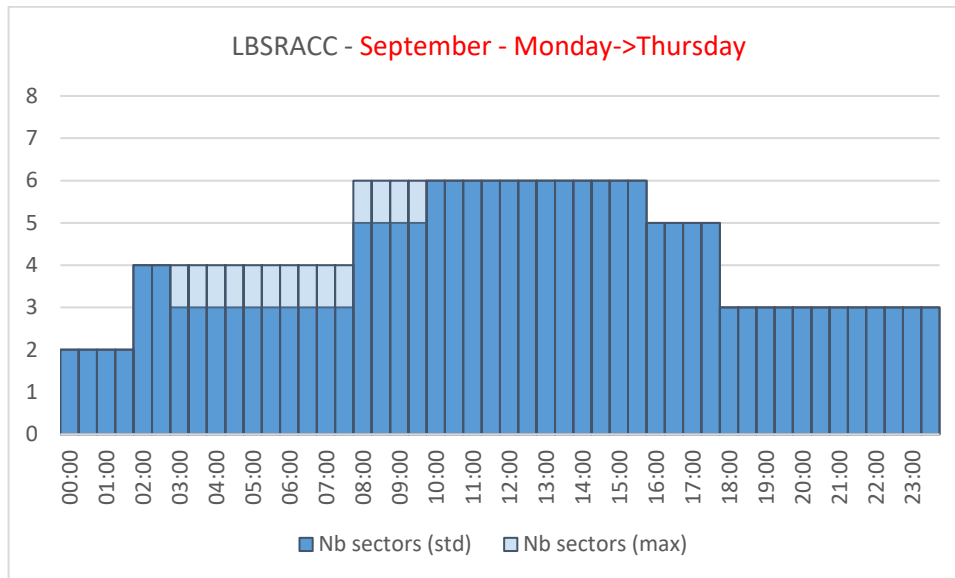
Events

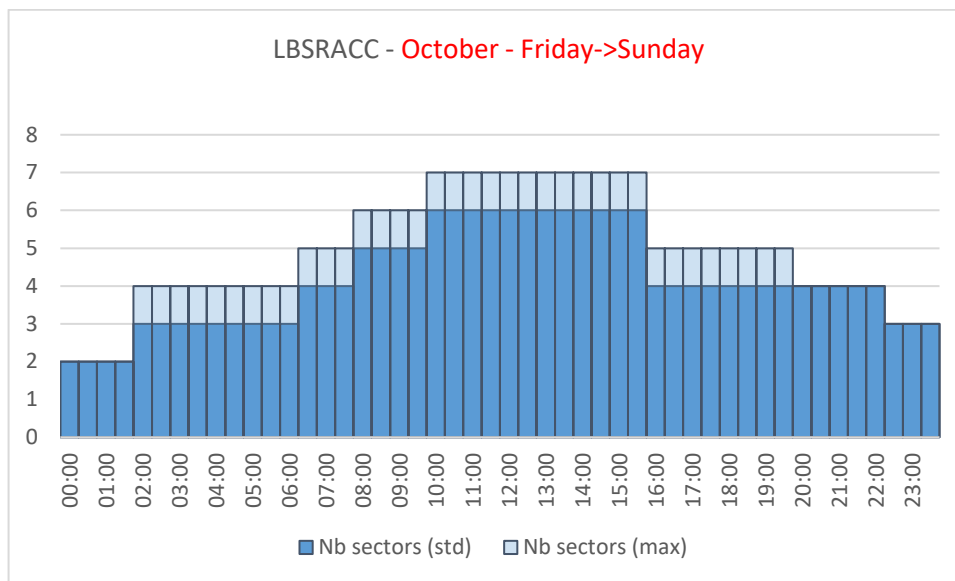
All events (including airport and military events) can be found in Chapter 7. Further updates are reported every week in the rolling seasonal NOP.

Sectors available - Summer 2021



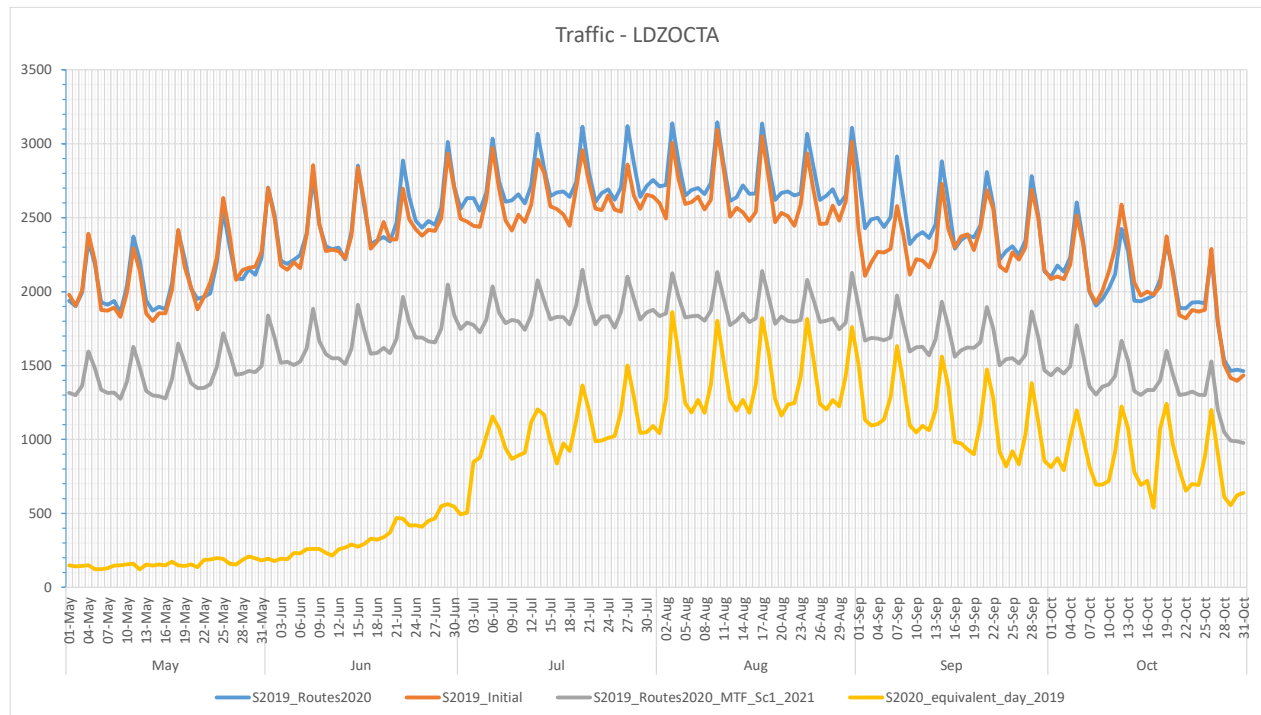






Expected Performance

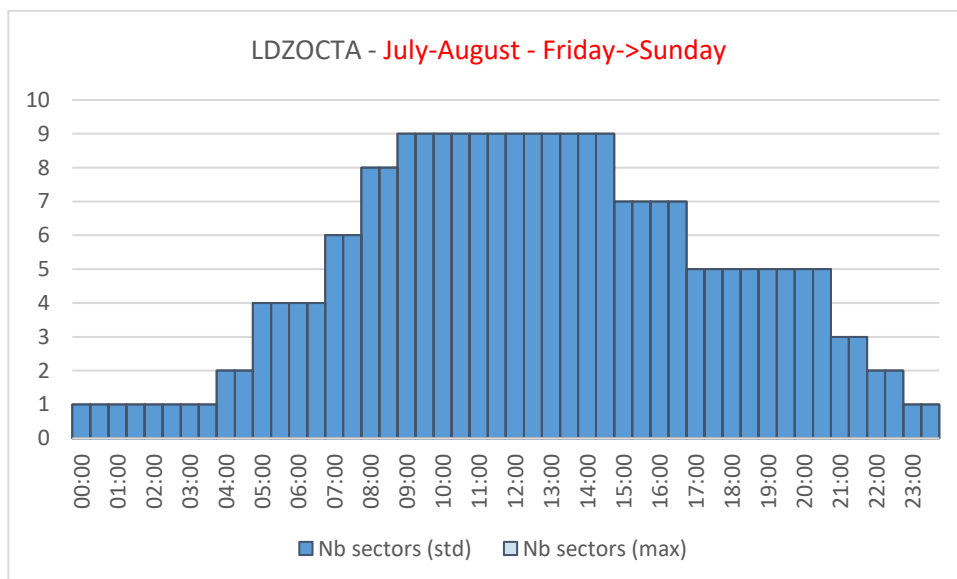
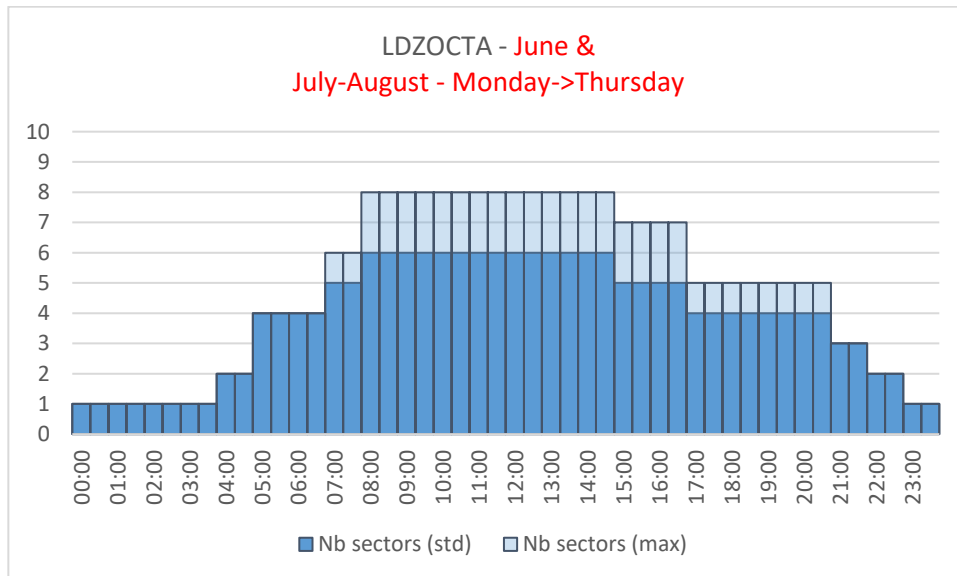
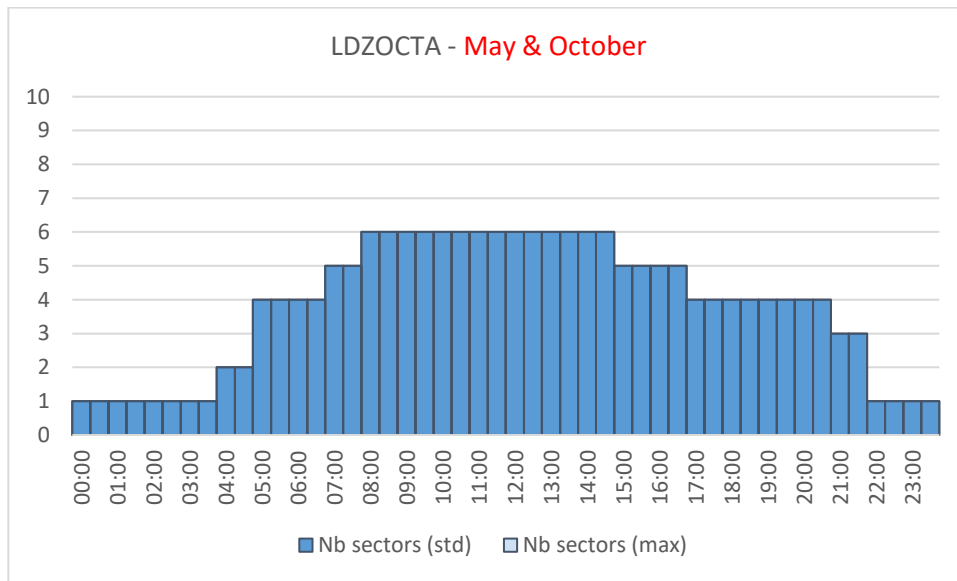
No capacity issues are foreseen for Sofia ACC in Summer 2021.

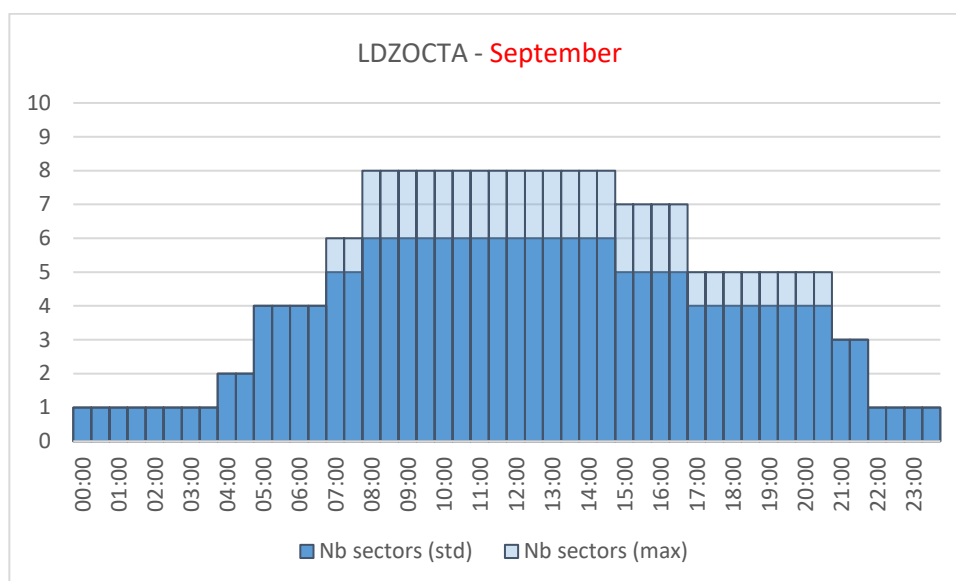
CROATIA**ZAGREB ACC****Traffic Forecast****Planned capacity enhancement measures**

2021 Summer Capacity Plan	
Free Route Airspace	Further lateral extension of SECSI FRA
Airspace Management Advanced FUA	Improvement of CDM process and procedures ASM/ATS/ATFCM
	Upgrade and extension of AMC portal
	LARA B2B connection with NM
Airport & TMA Network Integration	
Cooperative Traffic Management	
Airspace	
Procedures	
Staffing	Optimization of manpower planning
	Additional ATCOs as required: 5 additional ATCOs
Technical	COOPANS FRA package upgrade - completed
	Continuous ATM system upgrades
Capacity	New opening scheme according to implementation of Central sector
Significant Events	MILEX Astral Knight 21
Additional information	

Events

All events (including airport and military events) can be found in Chapter 7. Further updates are reported every week in the rolling seasonal NOP.

Sectors available - Summer 2021



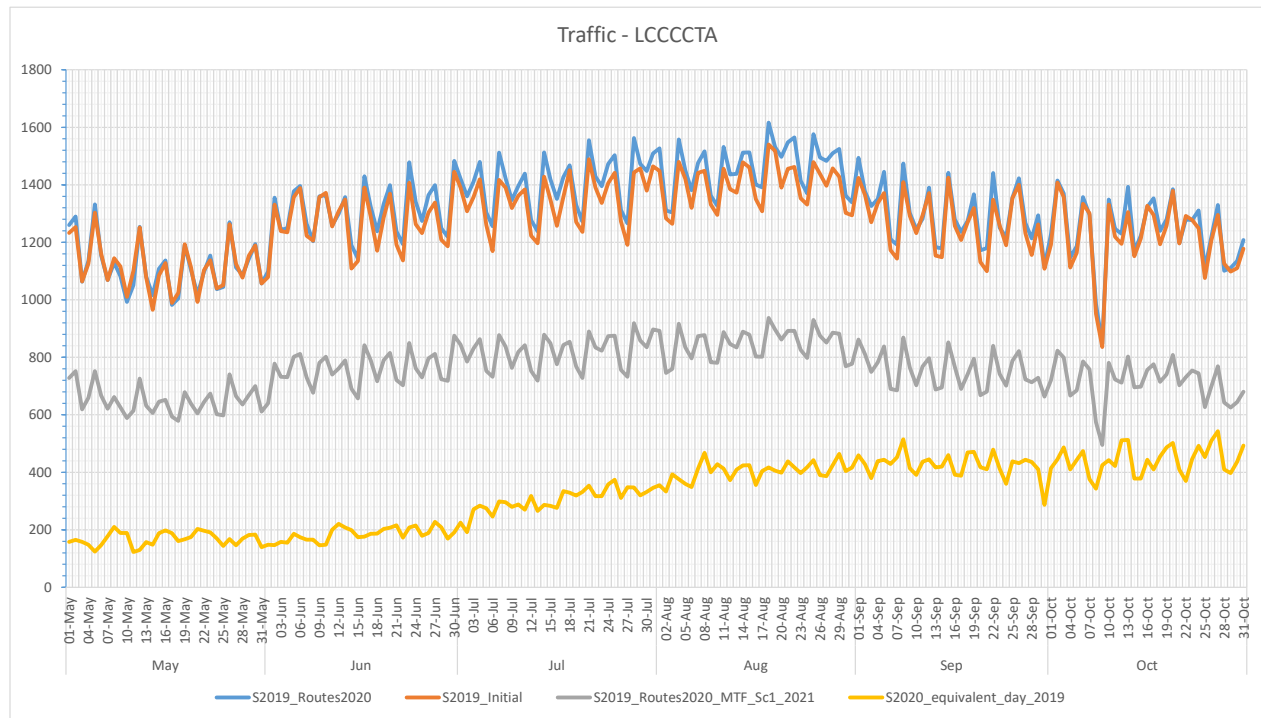
Expected Performance

No capacity issues are foreseen for Zagreb ACC in Summer 2021.

CYPRUS

NICOSIA ACC

Traffic Forecast



Planned capacity enhancement measures

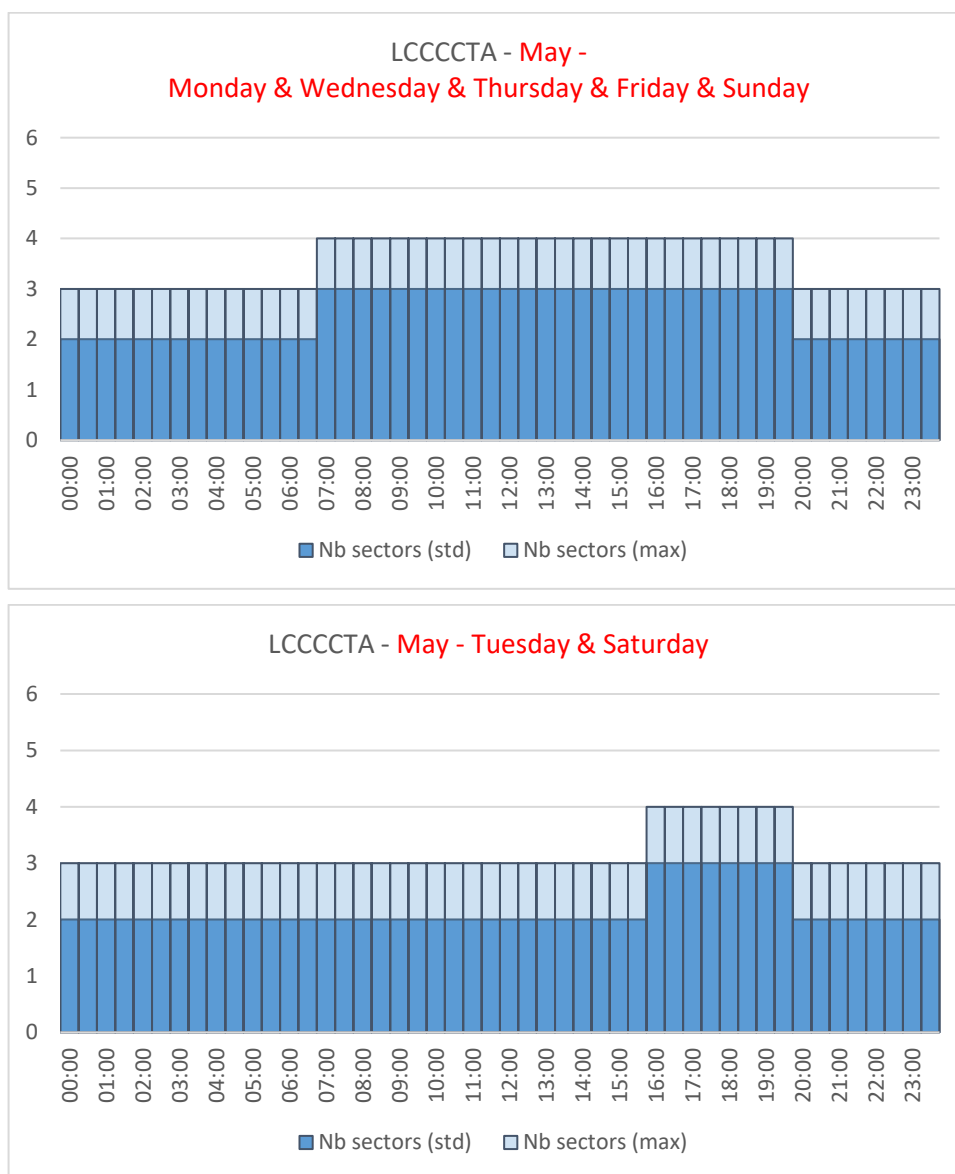
2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	Stepped implementation of A-FUA
Airport & TMA Network Integration	Re-organisation of Cyprus TMAs and provision of radar service
Cooperative Traffic Management	Improved ATFCM, including STAM
Airspace	Stepped re-sectorisation of Nicosia ACC based on the airspace changes implemented in Spring 2020
	Continuous improvement of route network
Procedures	
Staffing	7 additional ATCOs compared to 2020
Technical	Implementation of Radar function at Cyprus airports
	Annual ATM system upgrades
Capacity	Improve Civil-Military cooperation in the South-East part of the FIR
	More flexibility in sector configuration openings
	Revision of sector capacities
Significant Events	Transition to the new ACC (Exact dates and network impact to be part of the Transition Plan for Major projects)
	Preparations for the implementation of the new ANSP as from Spring 2021
Additional information	Recruitment and training for new ATCOs, to increase the overall staffing levels by 2023, is continuing as planned before COVID-19 crisis

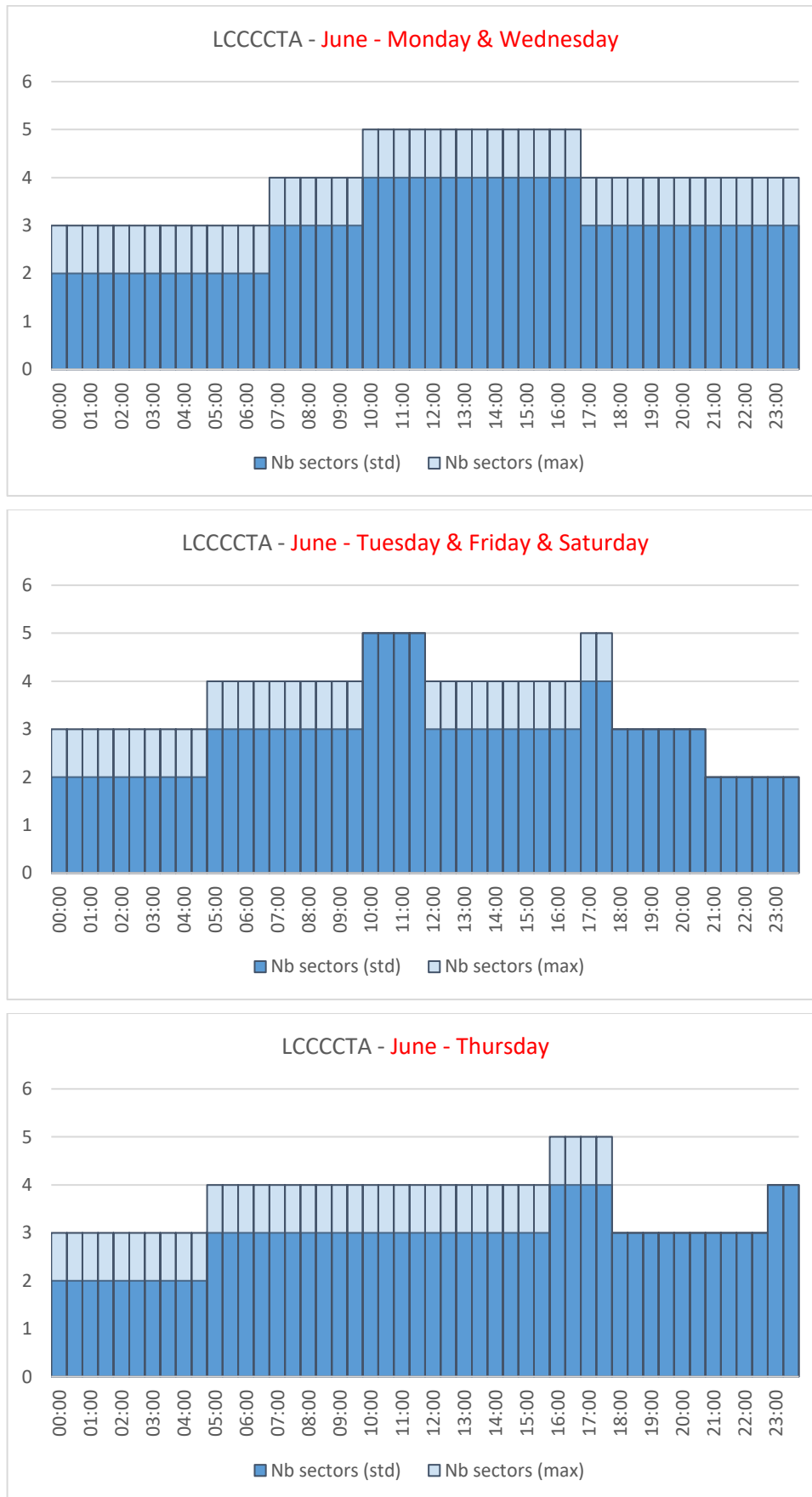
Events

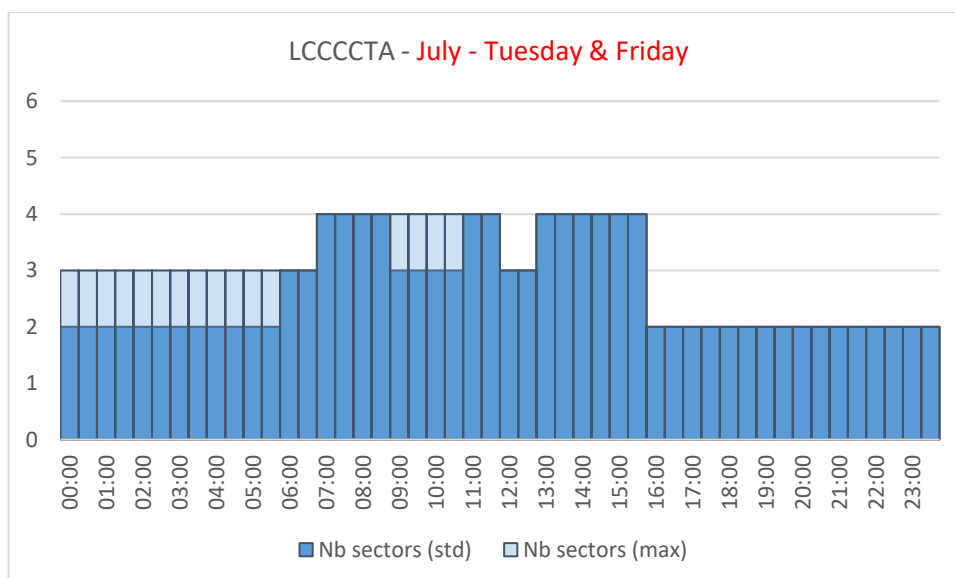
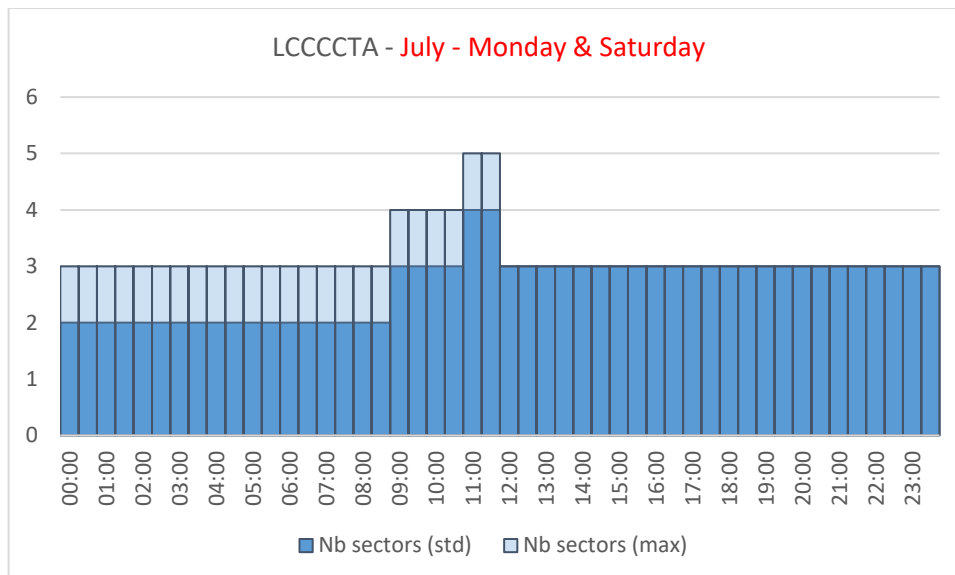
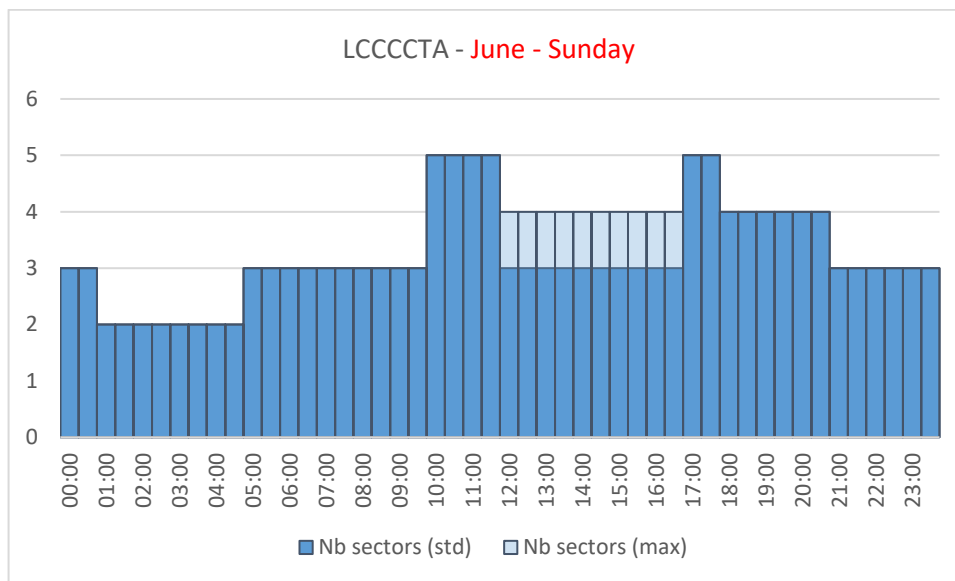
All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

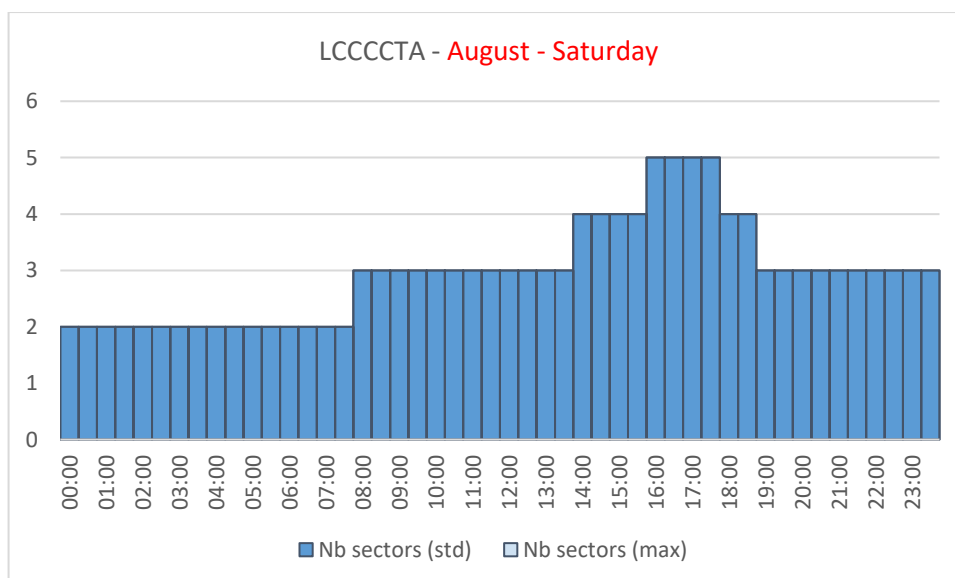
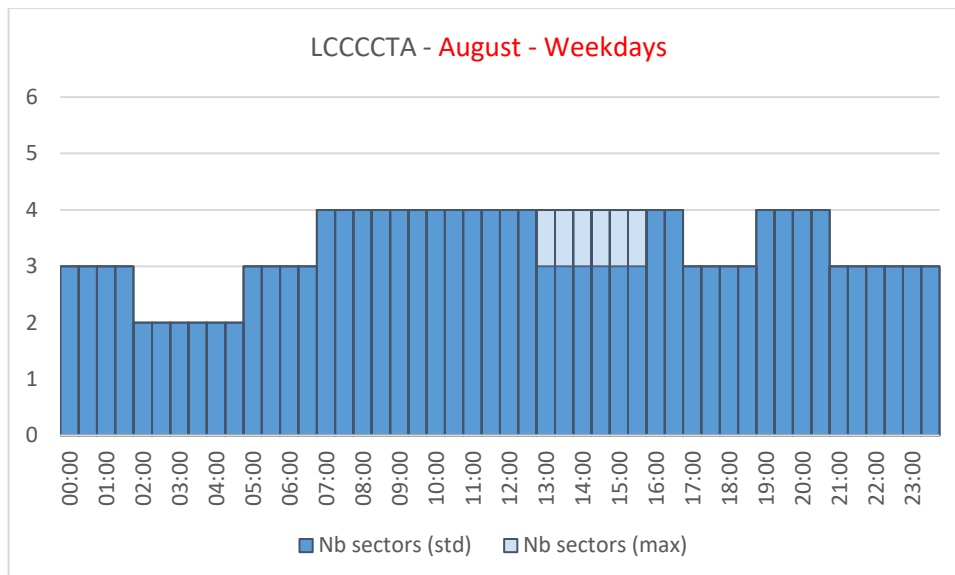
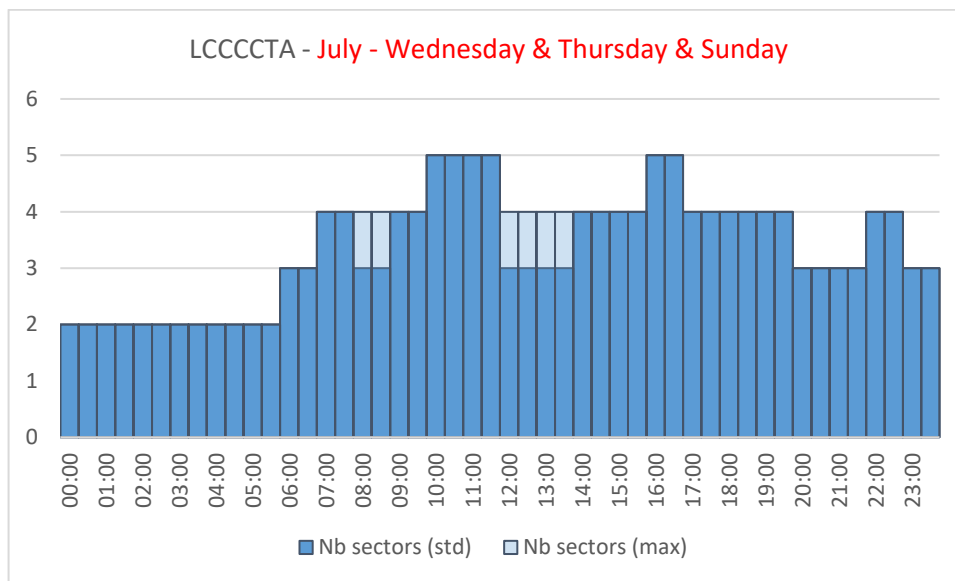
Start Date	End date	ACC/Airport	Event
Sep/Oct 21		LCCC	Replacement of the ACC backup system (in preparation to the new ACC)
Summer 2022		LCCC	Free Route Airspace Cyprus -NICFRA Phase 1 To implement H24 Free Route Airspace FL285 - FL660 inNicosia FIR.

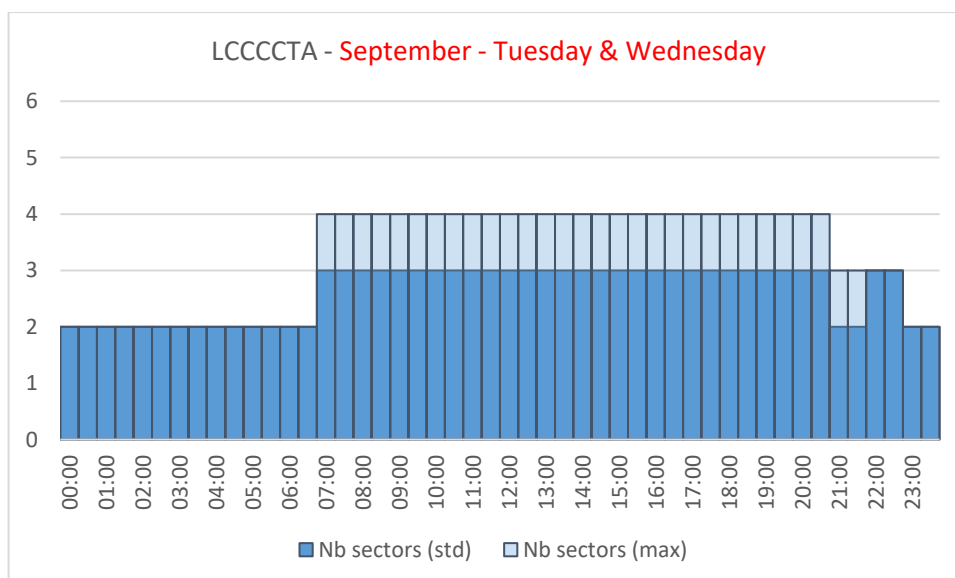
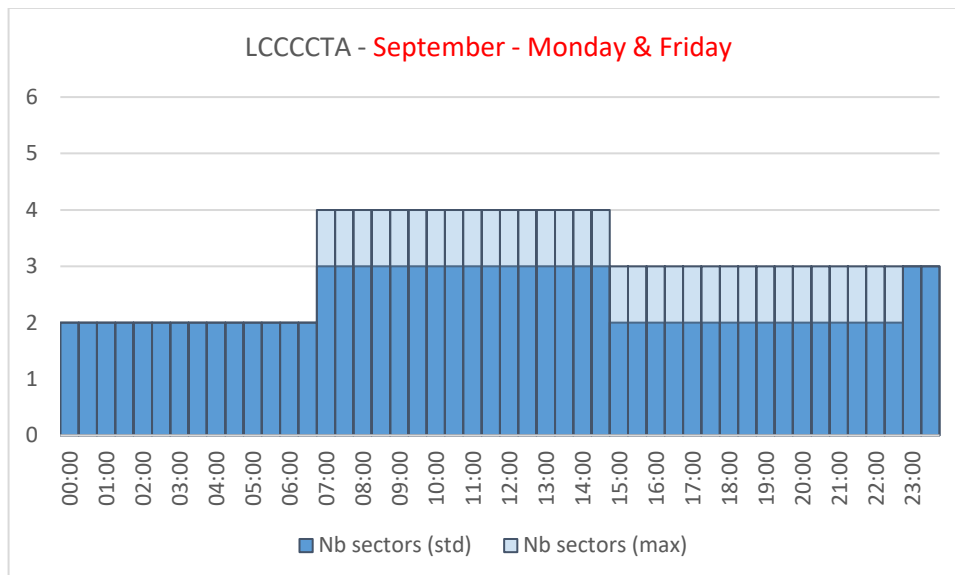
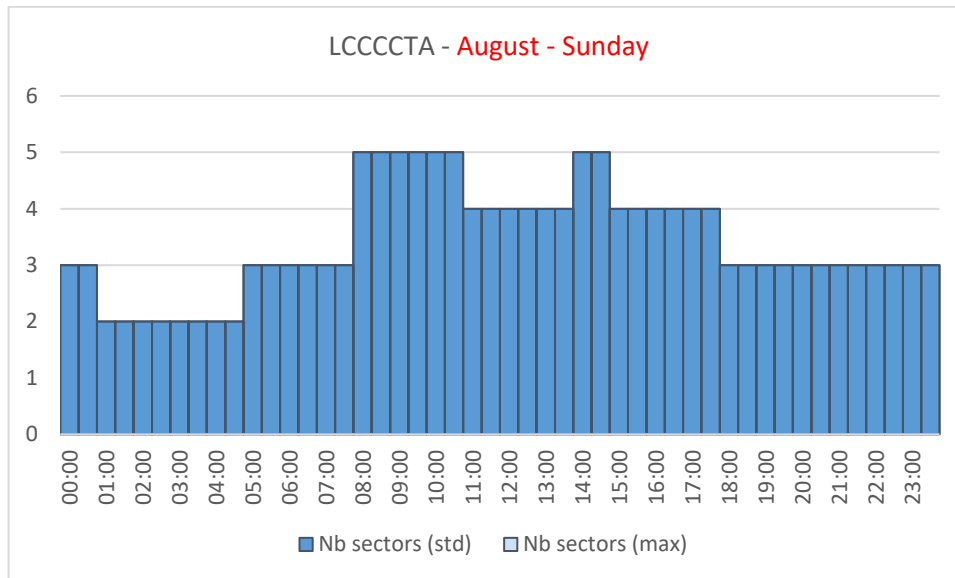
Sectors available - Summer 2021

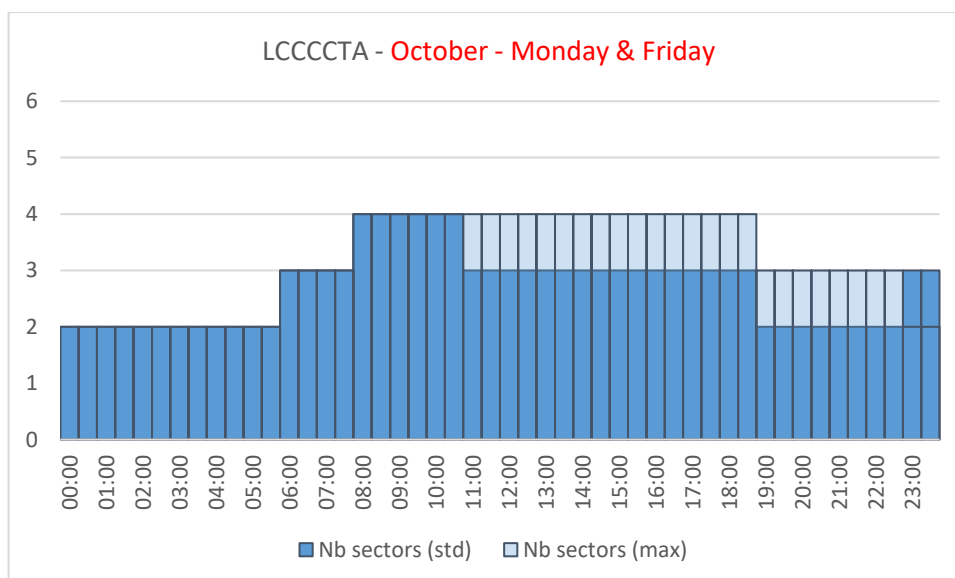
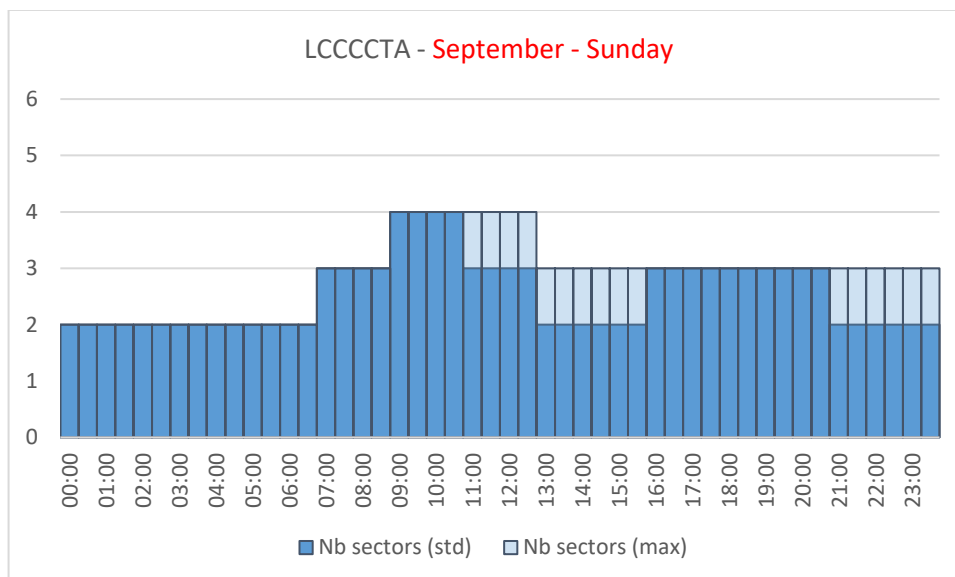
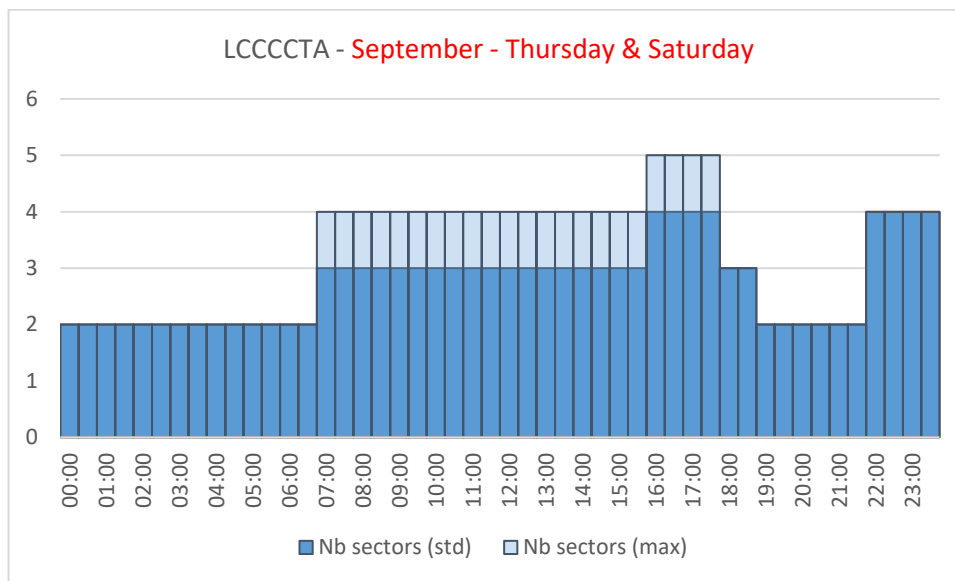


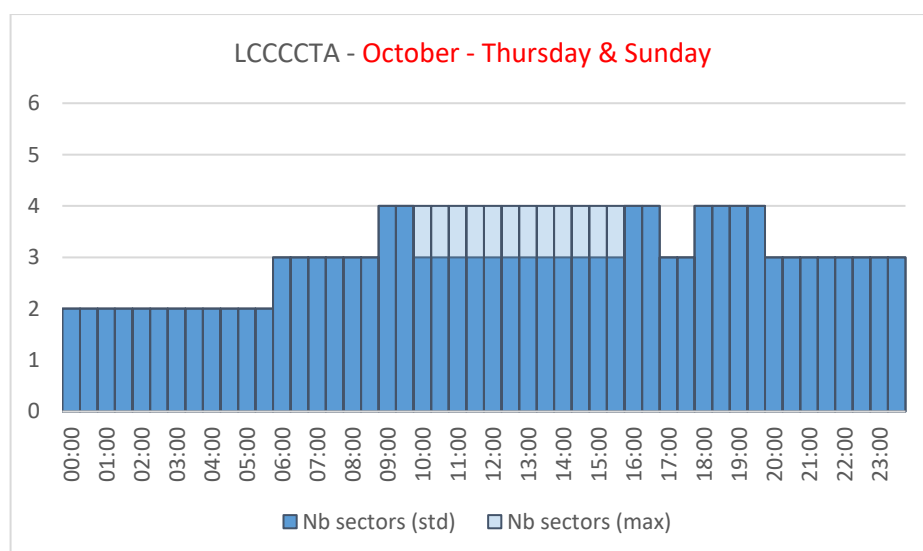
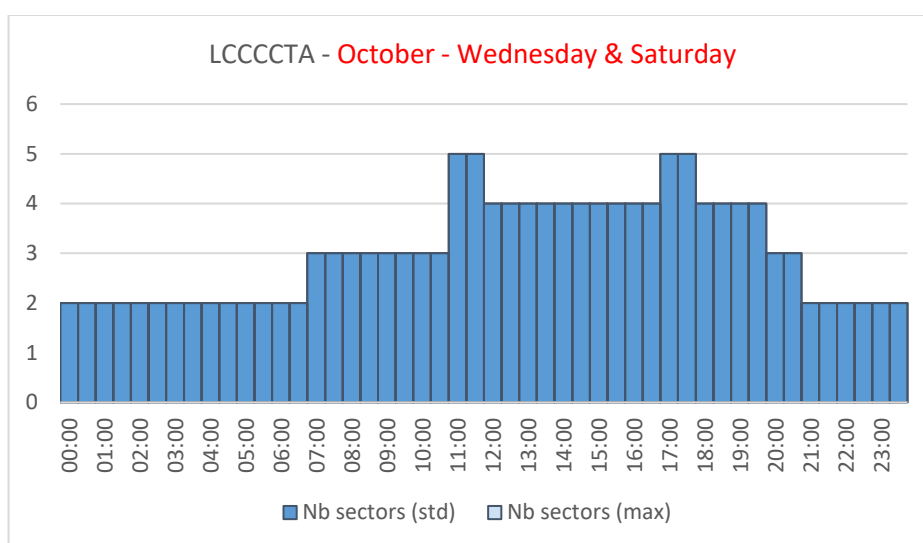
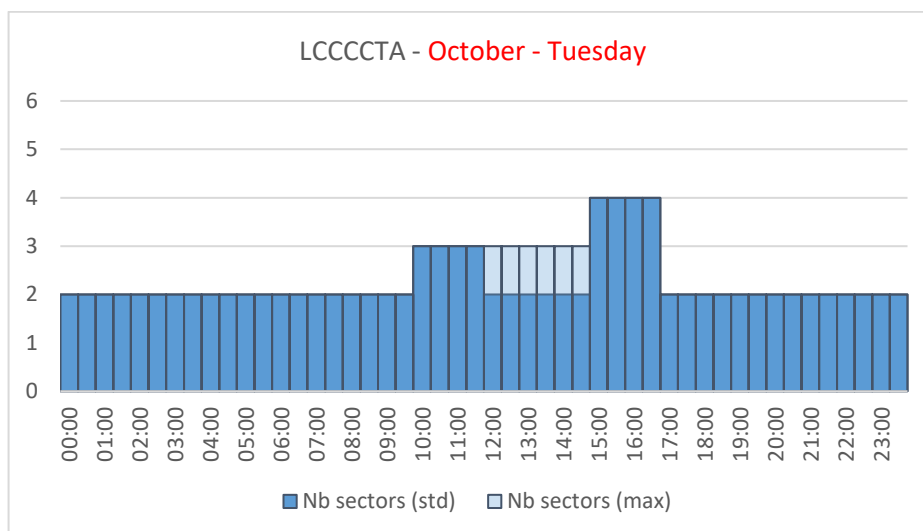










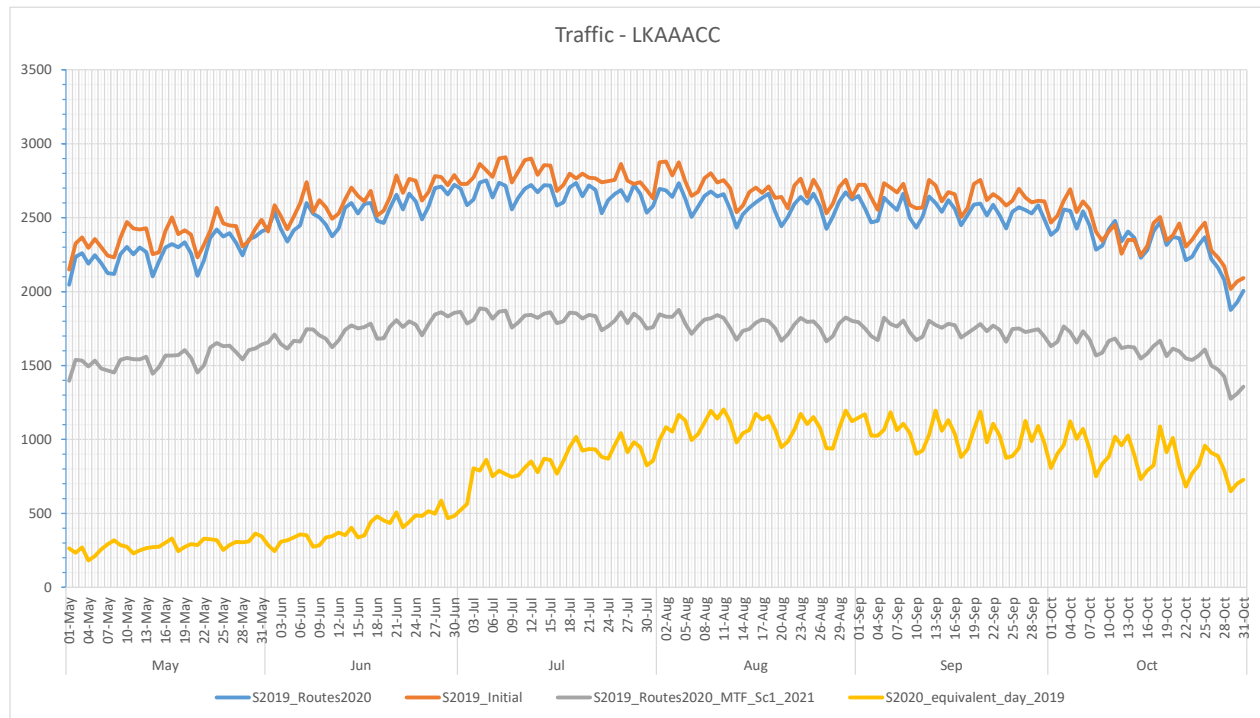


Expected Performance

No capacity issues are foreseen for Nicosia ACC in Summer 2021.

CZECH REPUBLIC

PRAHA ACC

Traffic**Planned capacity enhancement measures**

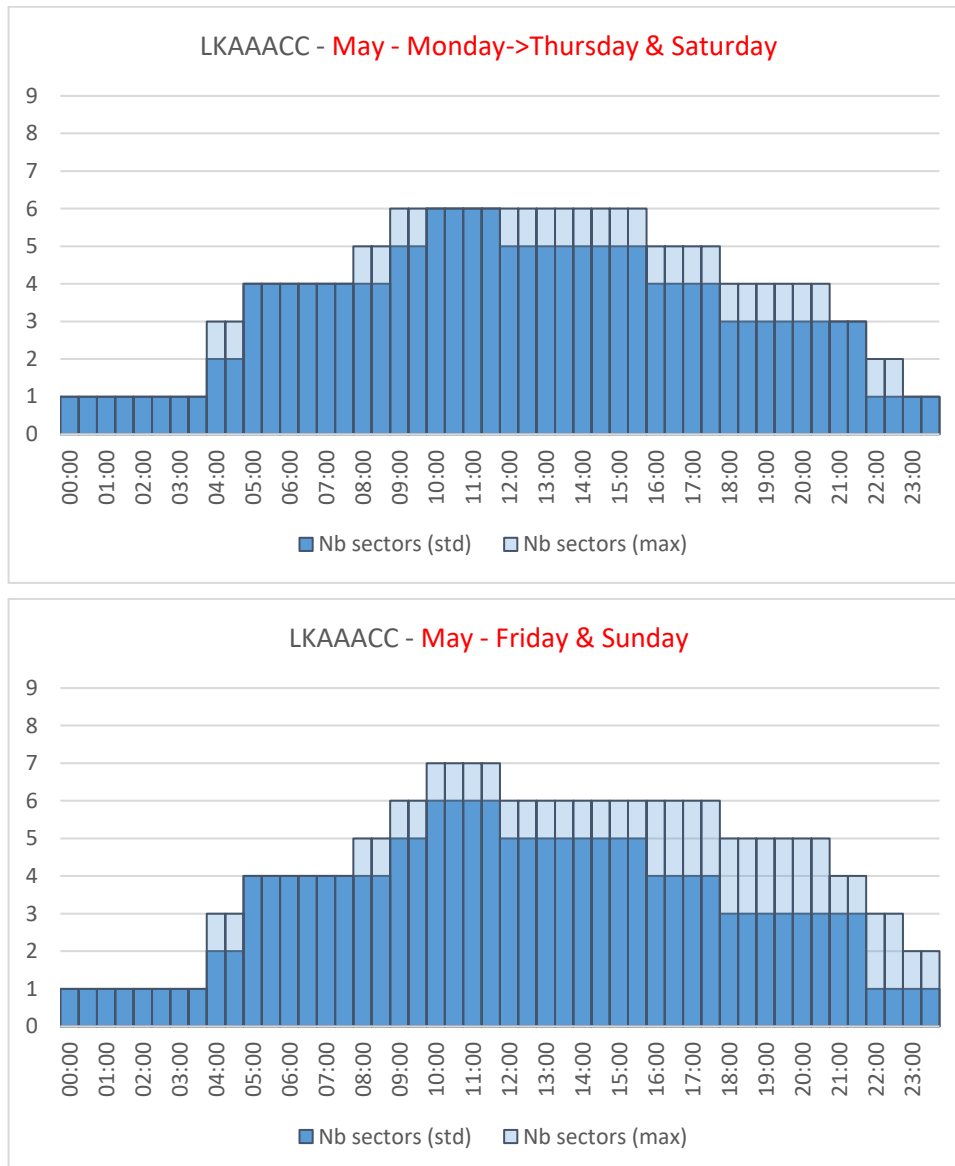
2021 Summer Capacity Plan	
Free Route Airspace	Full FRA
Airspace Management Advanced FUA	
Airport & TMA Network Integration	
Cooperative Traffic Management	
Airspace	
Procedures	
Staffing	Additional controllers
Technical	
Capacity	Adaptation of sector opening times
Significant Events	Centralisation of regional APPs within the ATC Optimization project (including airspace optimisation)
	Reconstruction of the OPS room and implementation of the new ATM system
	Training for the new system (as from September 2021)
Additional information	Moratorium for any changes as from Spring 2021 because of the introduction of TopSky early in 2022

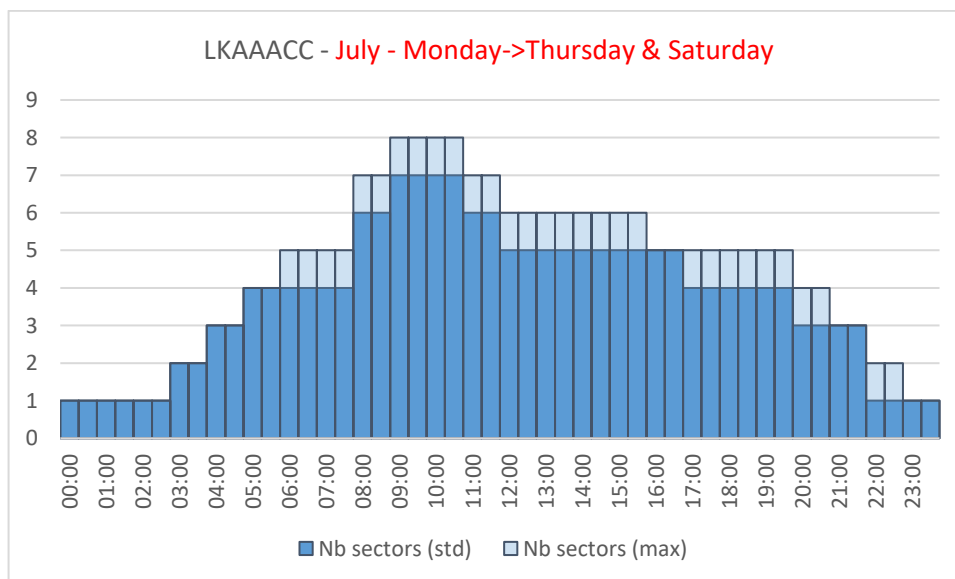
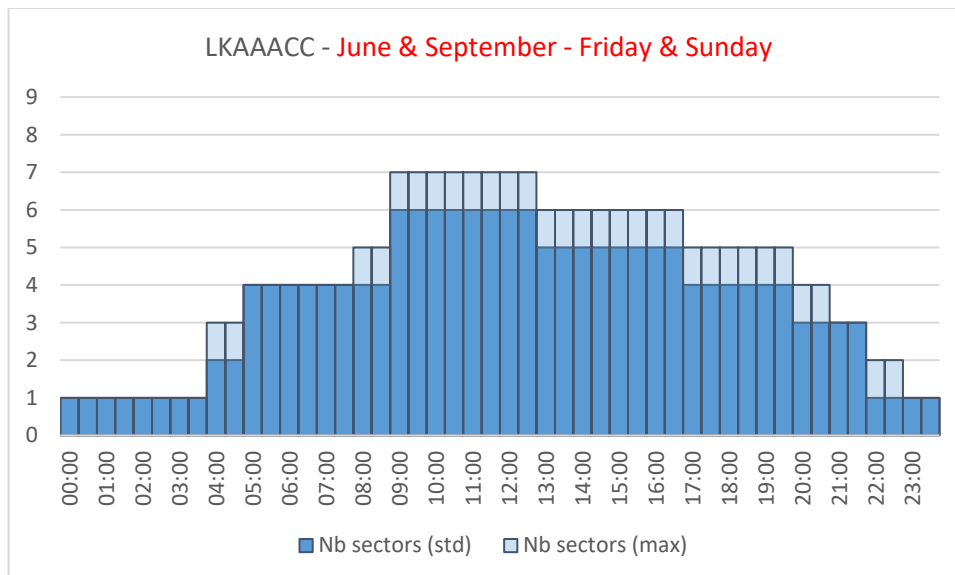
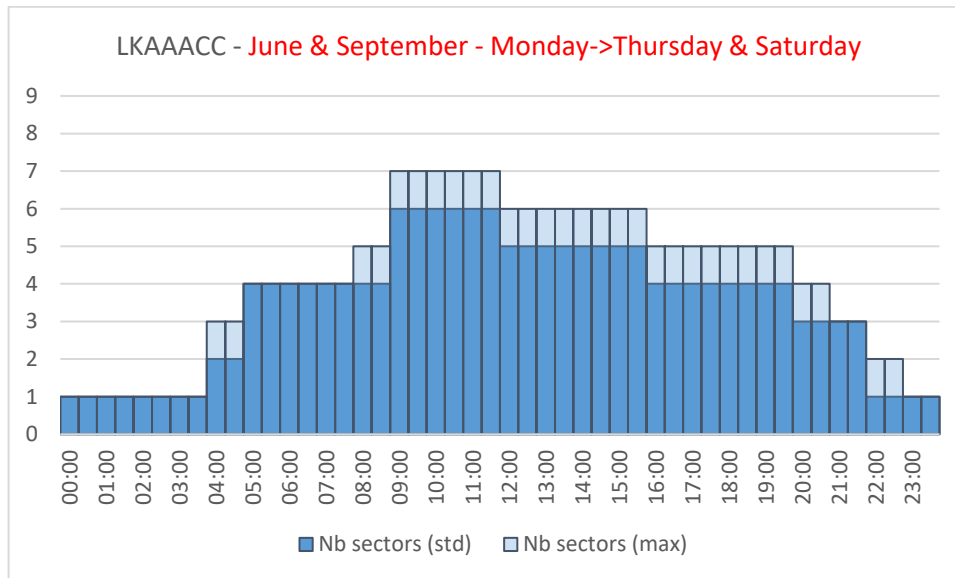
Events

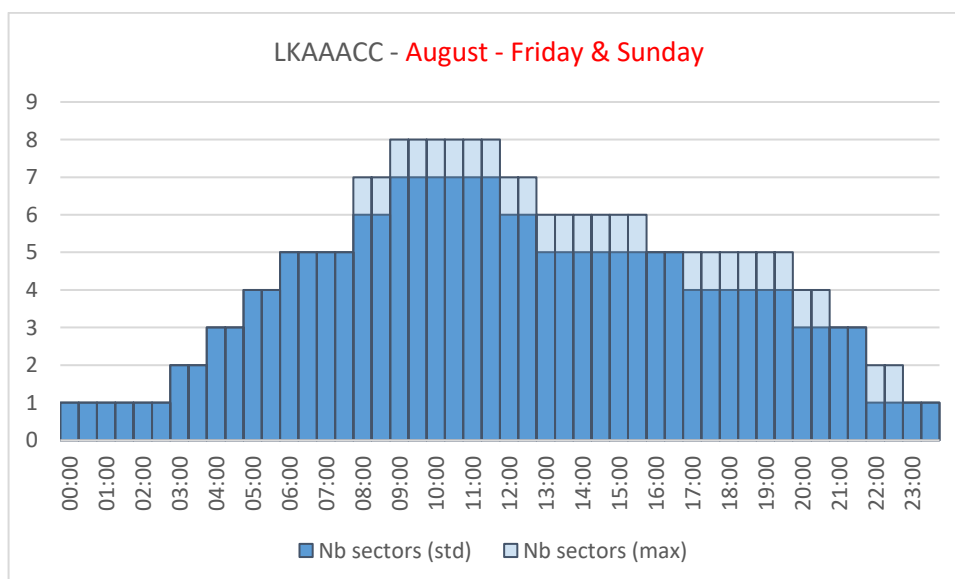
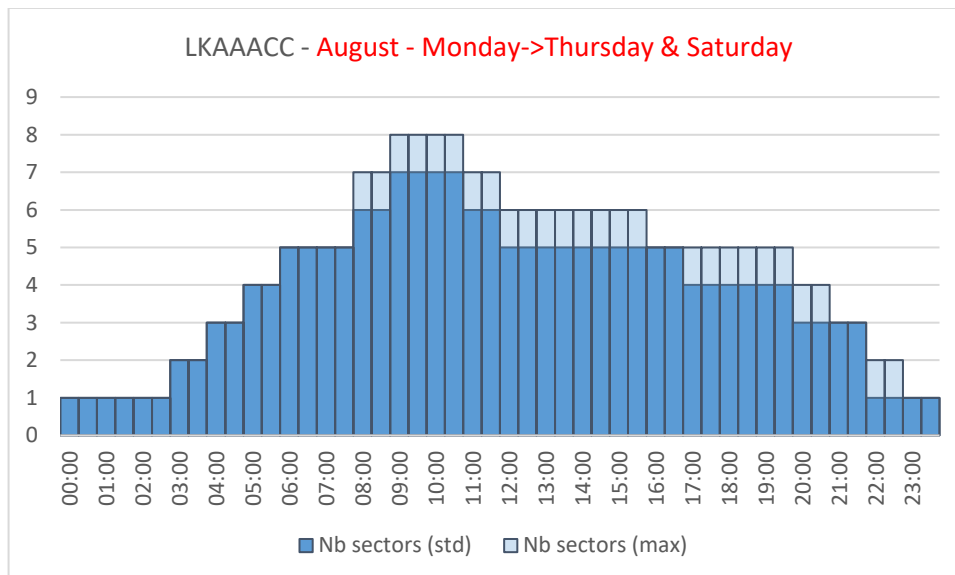
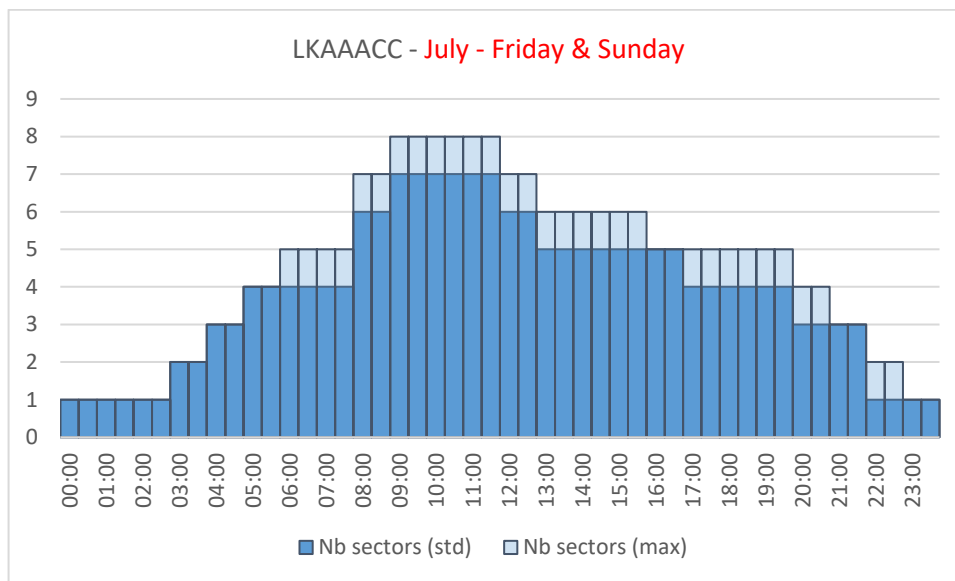
All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
24-Feb-22		LKAA	New ATM system Praha ACC To implement the new ATM system TopSky in Praha ACC

Sectors available - Summer 2021



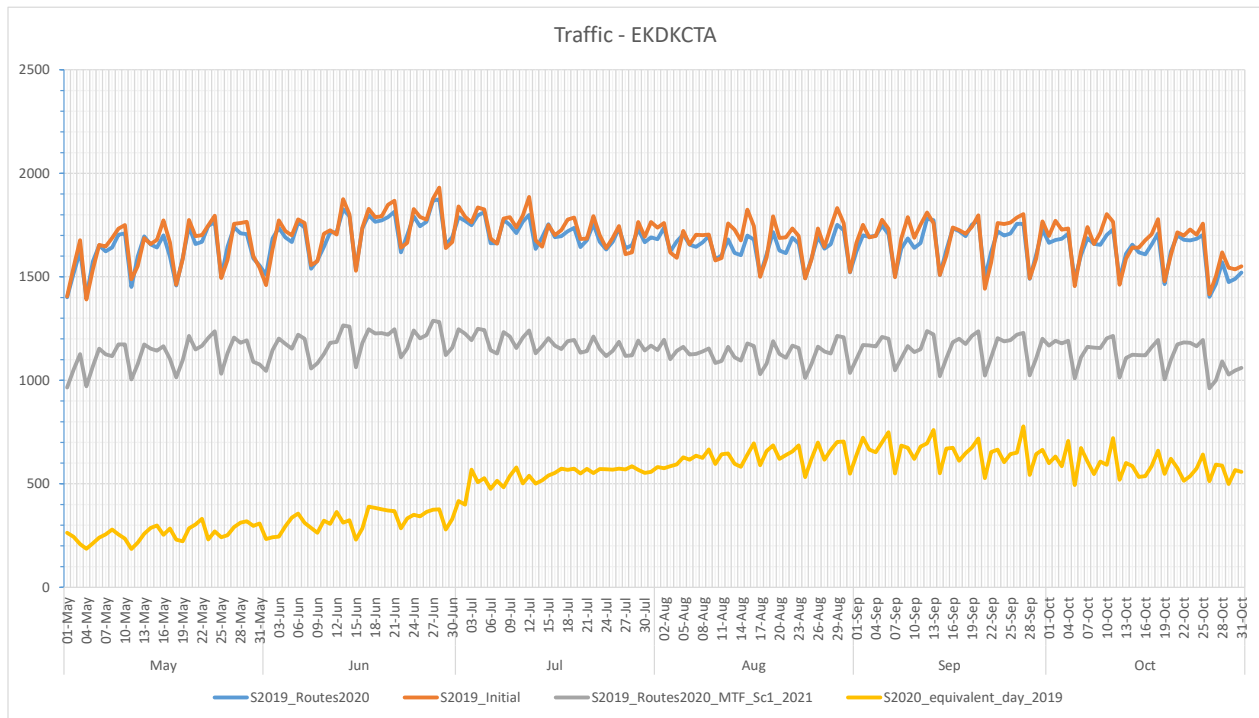






Expected Performance

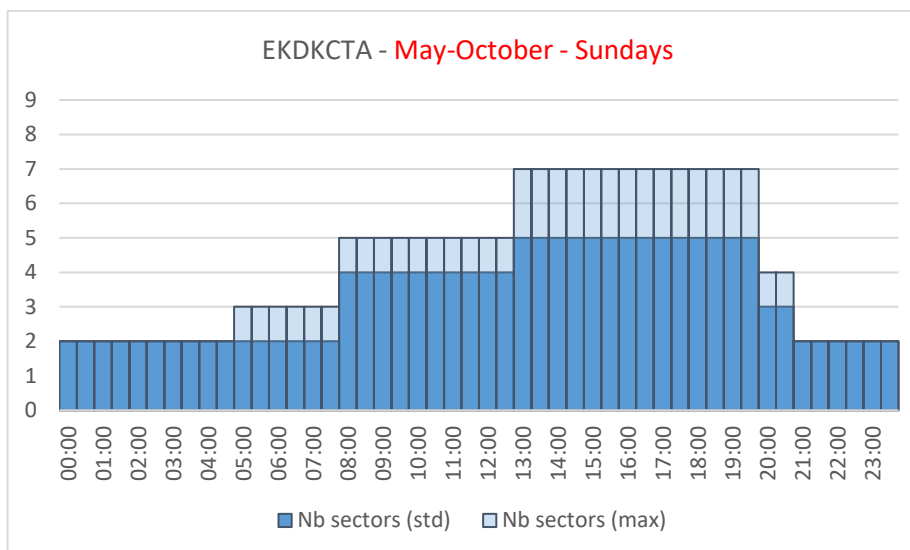
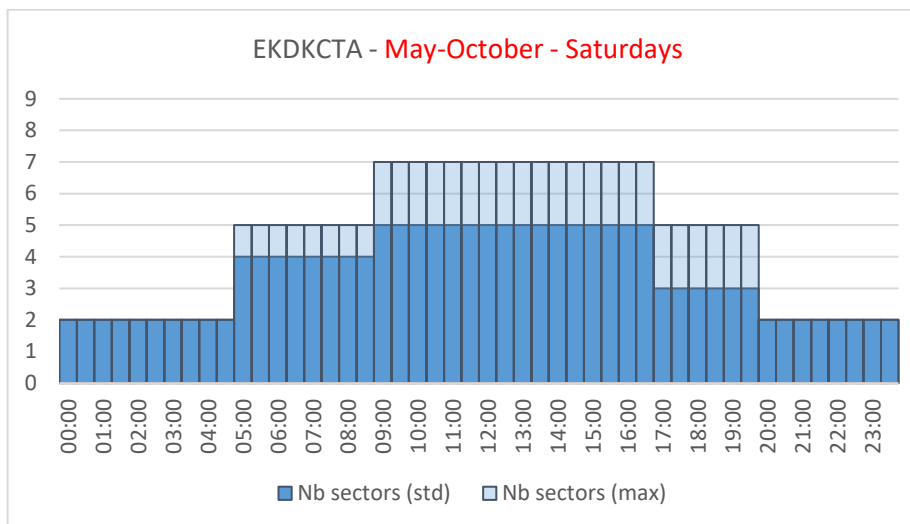
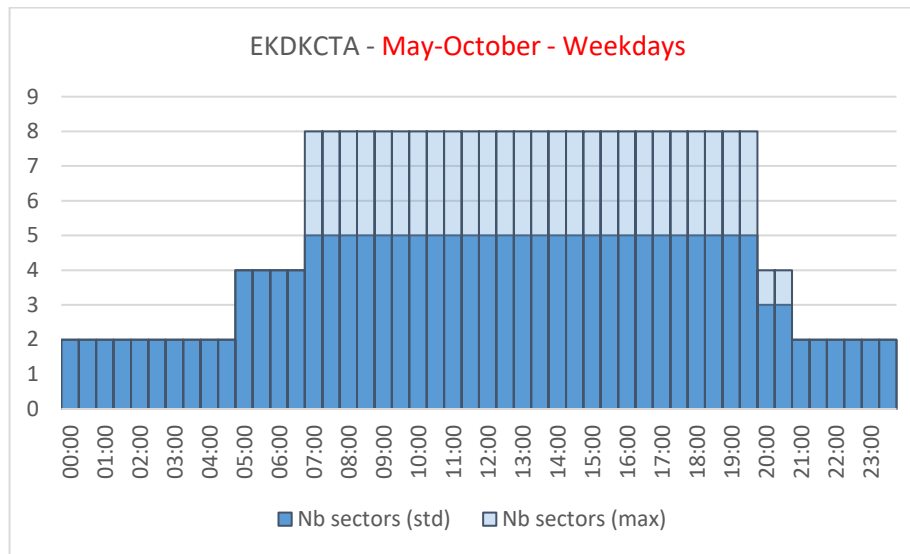
No capacity issues are foreseen for Praha ACC in Summer 2021.

DENMARK**KOBENHAVN ACC****Traffic Forecast****Planned capacity enhancement measures**

.2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	Optimizing the use of FRA when military areas are active
Airport & TMA Network Integration	Operational capacity expansion at EKDK ACC to accommodate traffic demand to and from EKCH
Cooperative Traffic Management	Improved ATFCM techniques
Airspace	Continuous improvements on the ATS route network and FRA sectorisation
Procedures	
Staffing	Maintain appropriate level of staffing to open up to 8 sectors
Technical	Minor updates of ATM system
Capacity	Sector configurations adapted to traffic demand
Significant Events	
Additional information	

Events

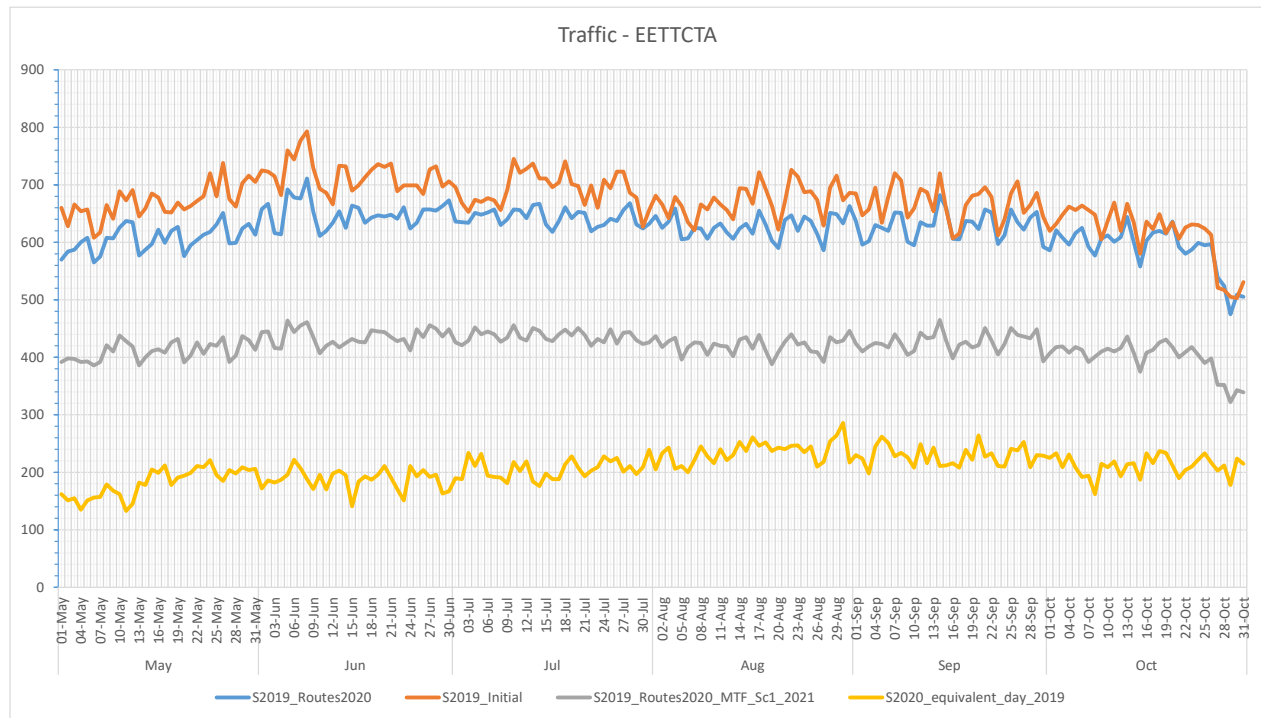
All events (including airport and military events) can be found in Chapter 7. Further updates are reported every week in the rolling seasonal NOP.

Sectors available - Summer 2021**Expected Performance**

No capacity issues are foreseen for Kobenhavn ACC in Summer 2021.

ESTONIA

TALLINN ACC

Traffic Forecast**Planned capacity enhancement measures**

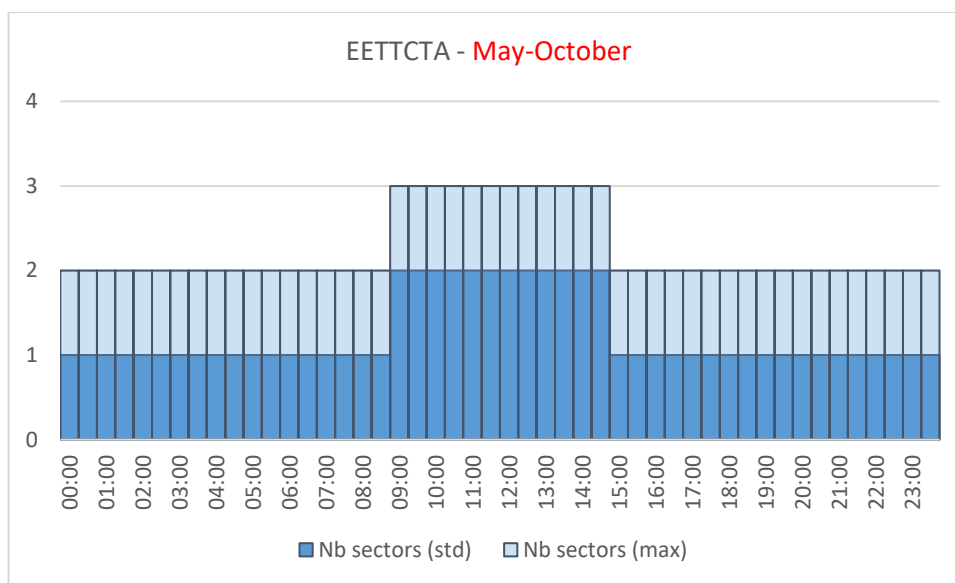
2021 Summer Capacity Plan	
Free Route Airspace	Implemented in 2015, ATS routes removed 2020
Airspace Management Advanced FUA	
Airport & TMA Network Integration	
Cooperative Traffic Management	
Airspace	End 2021 add modulation to Tallinn FIR to prepare for FINEST project.
Procedures	
Staffing	Kept at current level
Technical	Full 8.33 KHz implementation will be considered et end 2021
Capacity	Adaptation of sector opening times
Significant Events	
Additional information	

Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
Winter 21/22		EETT	FINEST preparation phase (linked to 89.007) - introduction of elementary sectors in Tallinn CTA, to be collapsed in cross-border OPS sectors in FINEST
Spring 2022		EETT/EFIN	FINEST - Cross-border sectorisation (between ANS Finland and EANS)

Sectors available - Summer 2021

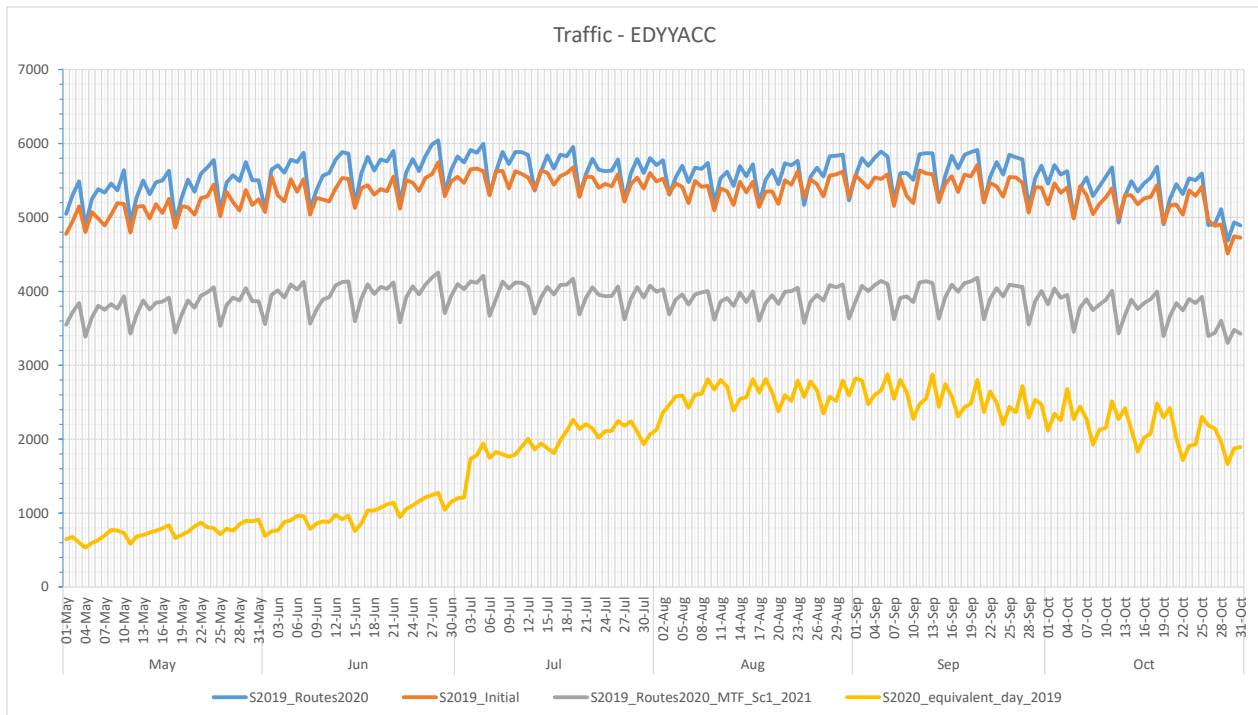


Expected Performance

No capacity issues are foreseen for Tallinn ACC in Summer 2021.

EUROCONTROL

MAASTRICHT UAC

Traffic Forecast**Planned capacity enhancement measures**

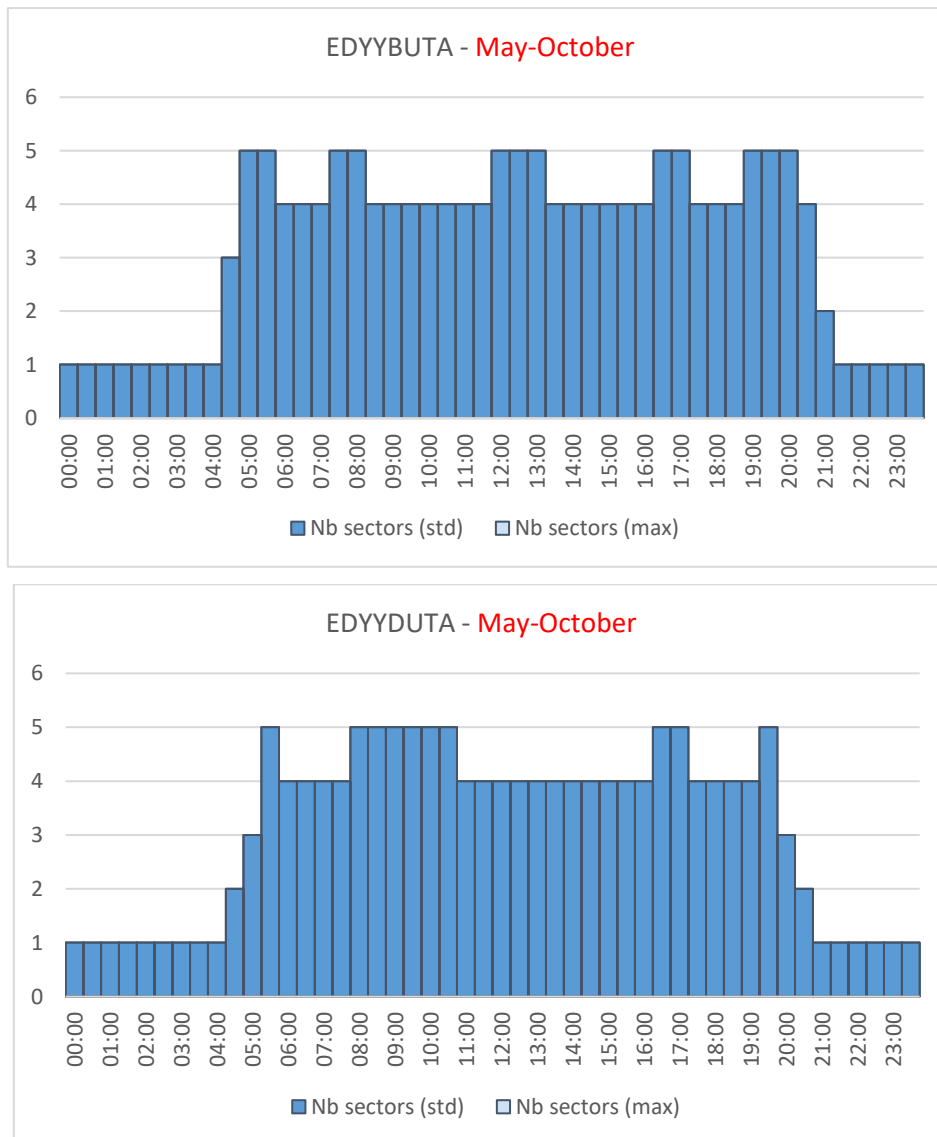
2021 Summer Capacity Plan	
Free Route Airspace	Implemented H24 – Follow up with MAASERATI Improved cross border FRA with Denmark
Airspace Management Advanced FUA	Rolling UUP process with Belgium
Airport & TMA Network Integration	
Cooperative Traffic Management	Customer Initiative Further Developments with skyguide and NATS
Airspace	MAASERATI phase 1 Deployment
Procedures	Pre-flight check procedure
	RAD monitoring dashboard
Staffing	Military to Civil Cross training of ATCOs
	New ATCOs to compensate departures (At maximum training capacity)
Technical	
Capacity	Stepped implementation of XMAN
Significant Events	
Additional information	Hannover airspace re-design study ongoing (possible implementation end of 2021)

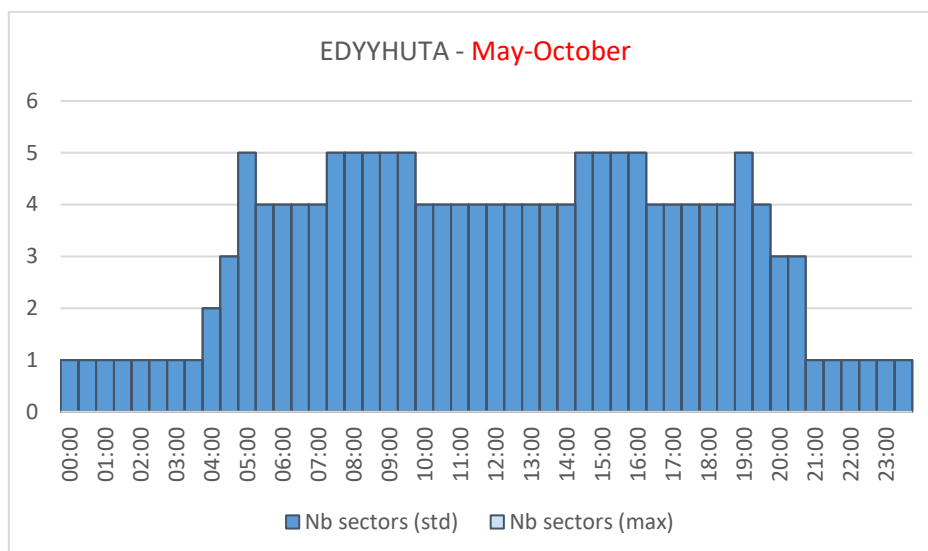
Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
18-Jan-21	31-Dec-21	EDYY	trial contrail prevention (between 1500-0500 UTC winter/ 1400-0400 UTC summer) ; no impact on capacity

Sectors available - Summer 2021





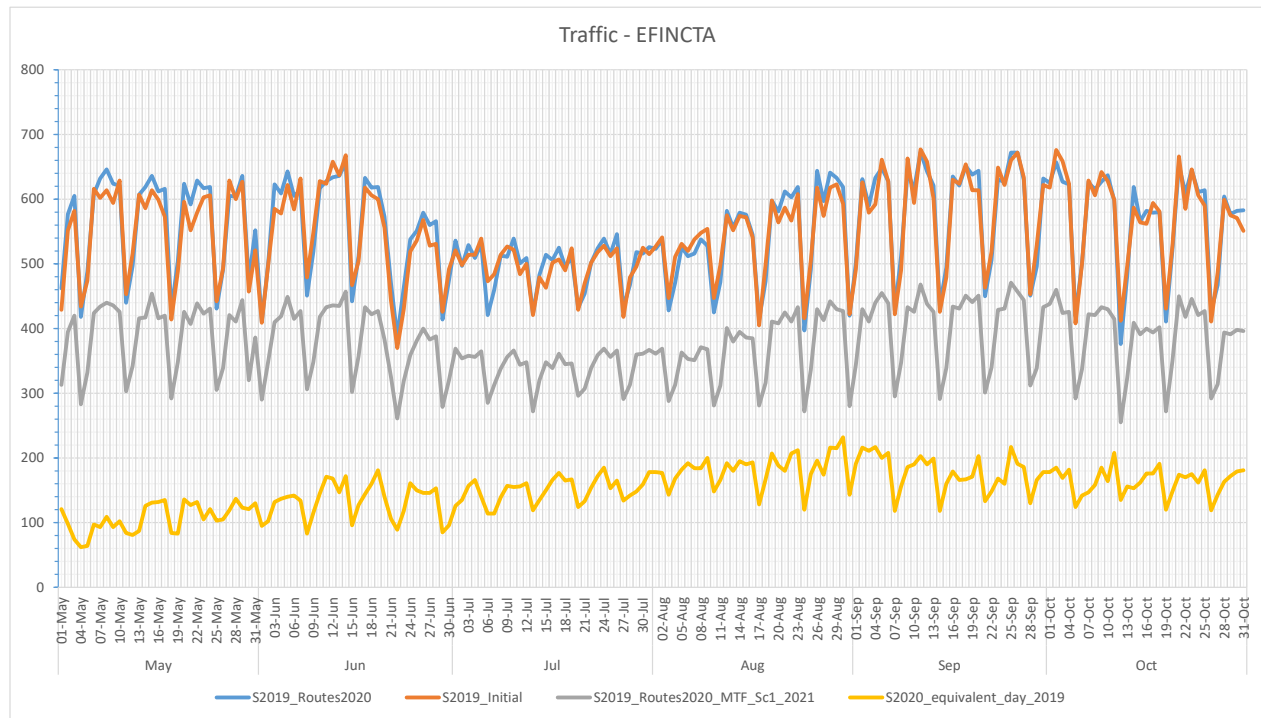
Expected Performance

No capacity issues are foreseen for Maastricht UAC in Summer 2021.

FINLAND

HELSINKI ACC

Traffic Forecast



Planned capacity enhancement measures

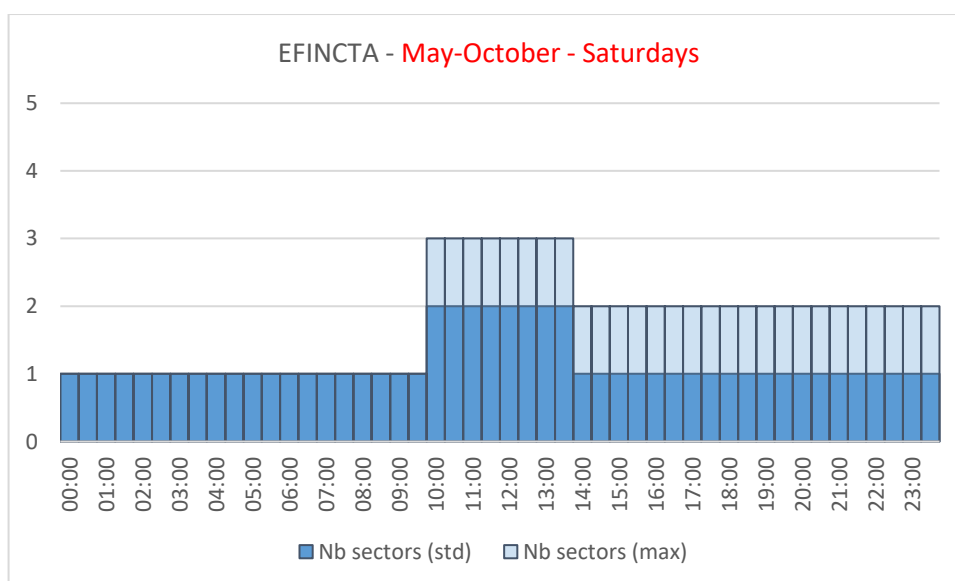
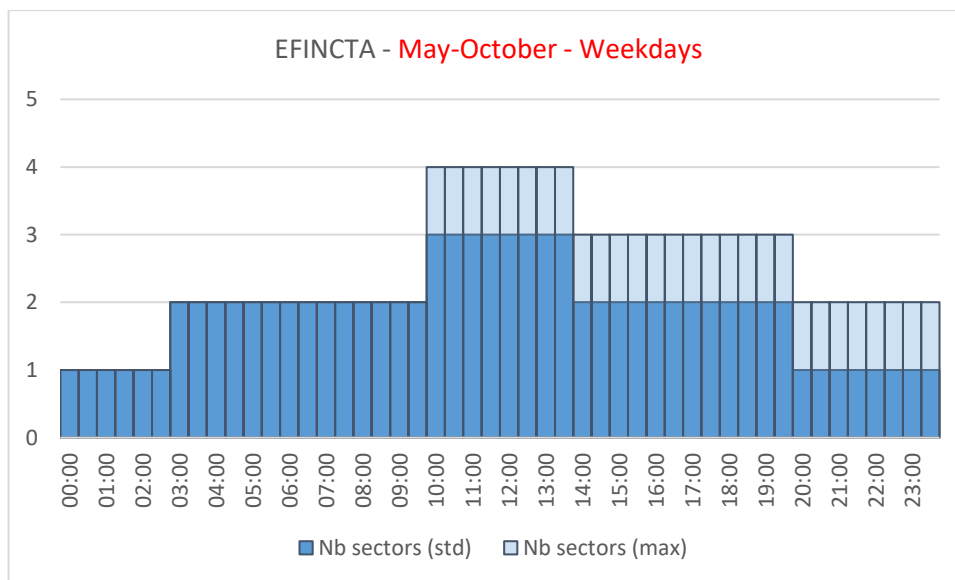
2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	Removal of TSA areas (TRA concept). Re-design of MIL daily operational areas. LARA June 2021
Airport & TMA Network Integration	
Cooperative Traffic Management	
Airspace	
Procedures	
Staffing	
Technical	VCS update to VoIP, WAM, DAPS and Mode S
Capacity	
Significant Events	
Additional information	

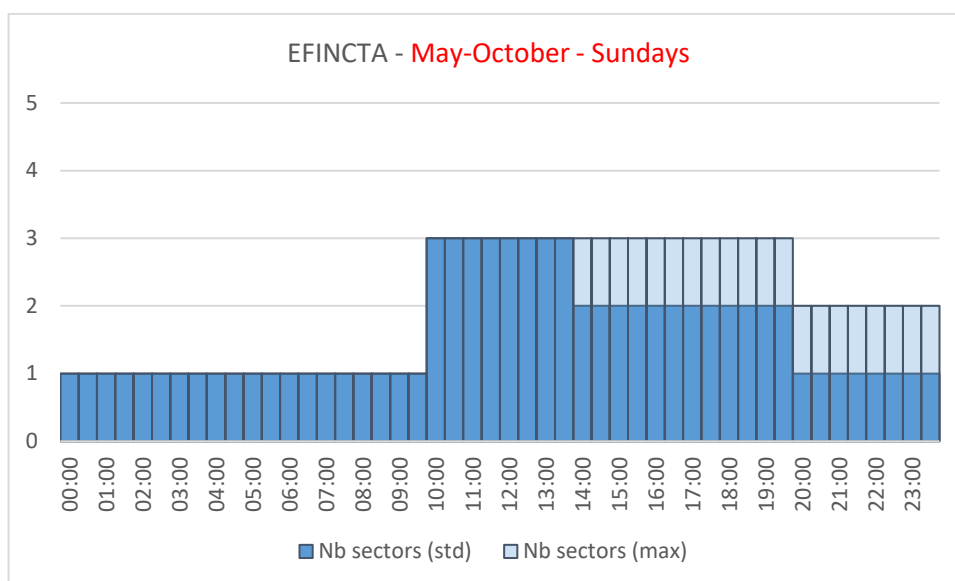
Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
Spring 2021		EFIN/UUUU	ATS route and airspace structure improvement between Finland and Russian Federation, in vicinity of RATLA
Q2 2021		EFIN	ANS Finland ATS VCS communication renewal
Spring 2022		EETT/EFIN	FINEST - Cross-border sectorisation (between ANS Finland and EANS)

Sectors available - Summer 2021



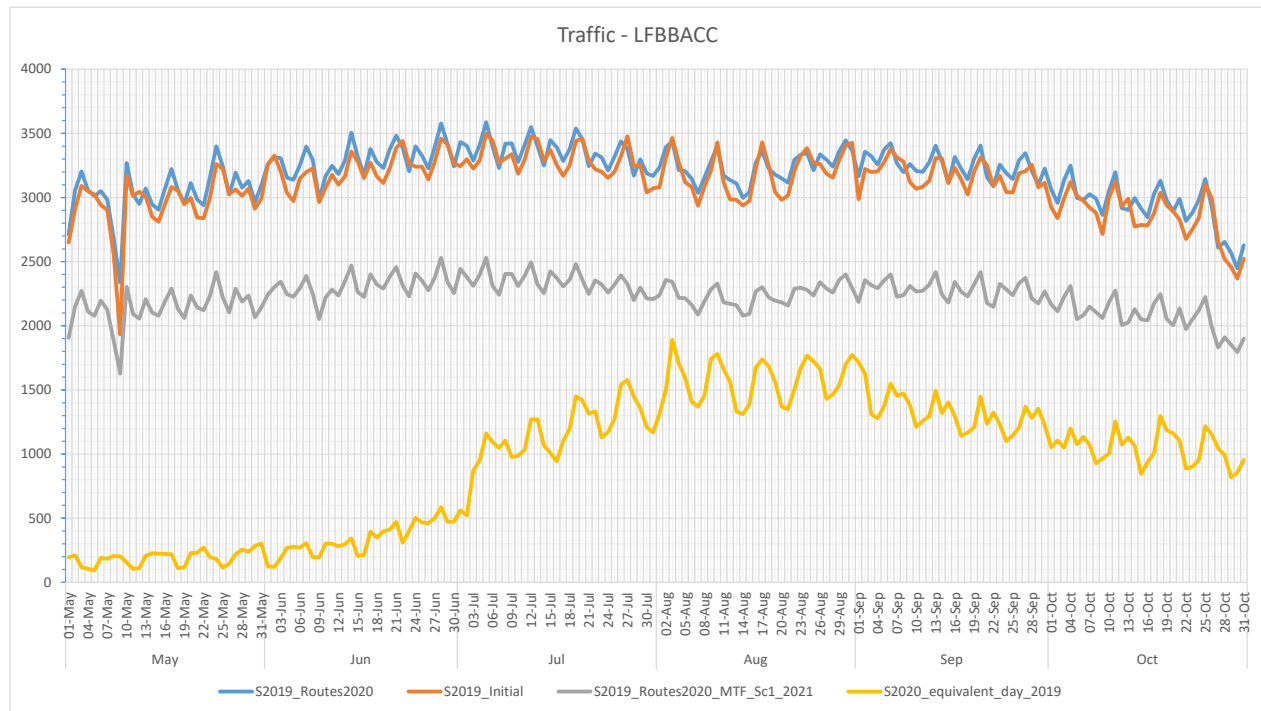


Expected Performance

No capacity issues are foreseen for Helsinki ACC in Summer 2021.

FRANCE

BORDEAUX ACC

Traffic forecast**Planned capacity enhancement measures**

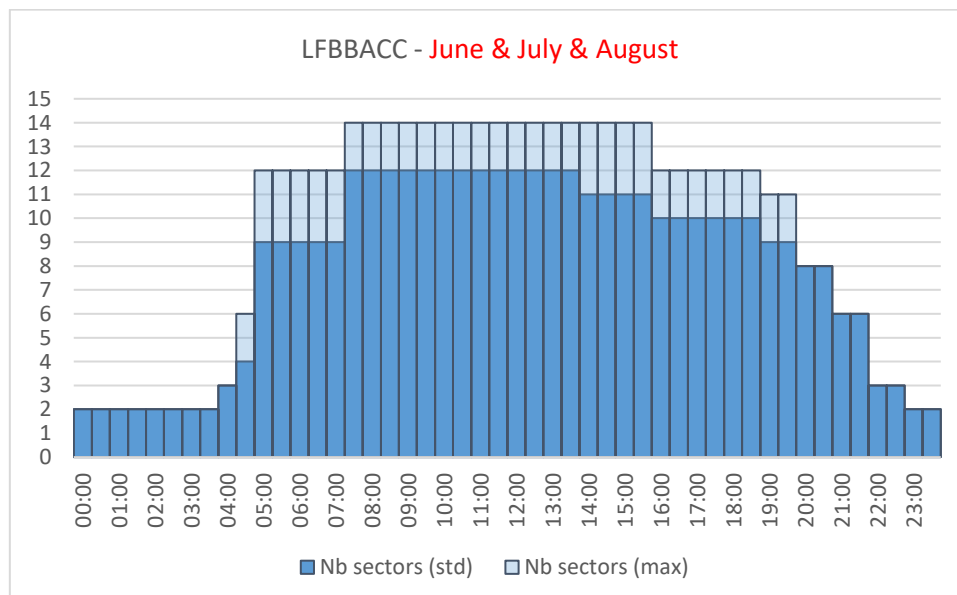
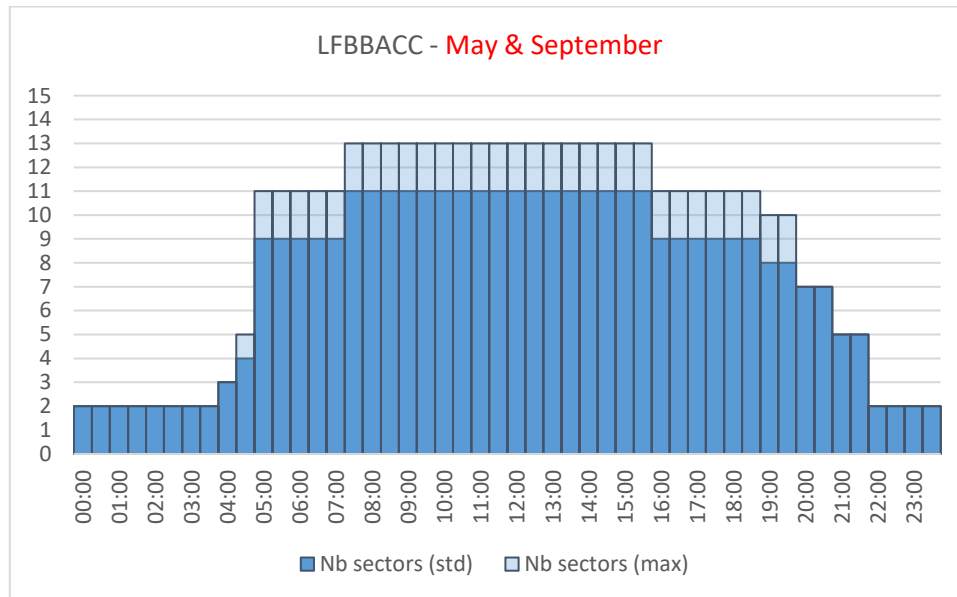
2021 Summer Capacity Plan	
Free Route Airspace	Implementation expected 2 nd December
Airspace Management Advanced FUA	Improved Airspace Management / FUA: All zones: D31D/R31H: February and R169
	ZENA South West (big military area): work in progress
	TSA9 evolution: work in progress
Airport & TMA Network Integration	
Cooperative Traffic Management	Improved ATFCM Procedures and STAM: work in progress - N'CAP with AOs (XP with Air France) -YYDG group: yoyos flights, sharp turns, high filers et intruders. - green aviation
	CDM processes and procedures: - meeting with CCO Vueling, Easyjet et Ryanair. - meeting ACDS-dispatch CCO Air France - meeting HOP
	MAC
Airspace	
Procedures	
Staffing	Maintain number of ATCOs
Technical	SALTO incl. B2B regulations
Capacity	
Significant Events	
Additional information	

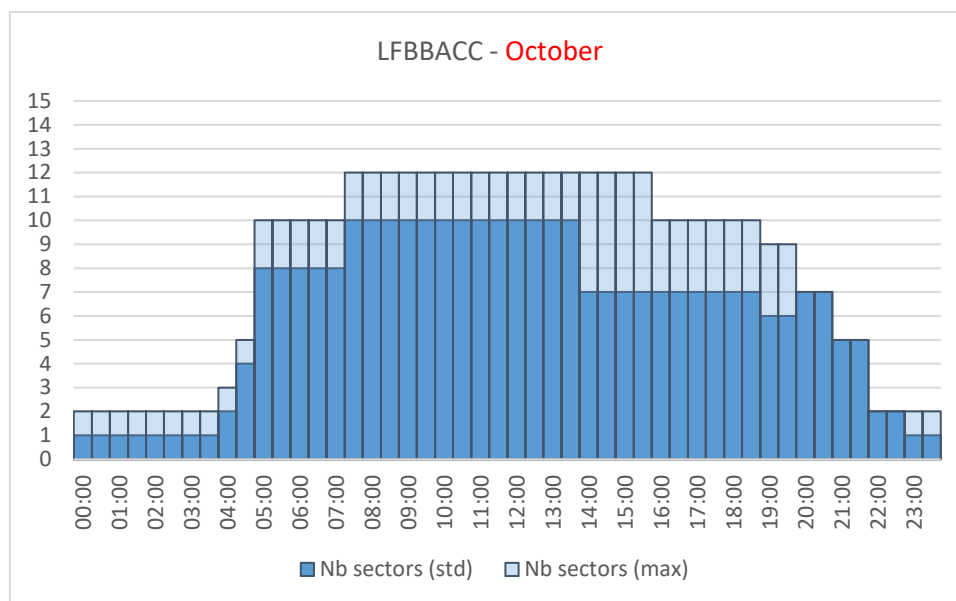
Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
02-Dec-21		LFBB	Free Route Airspace Bordeaux- Step 1.0 To implement H24 FRA in Bordeaux ACC above FL195

Sectors available - Summer 2021



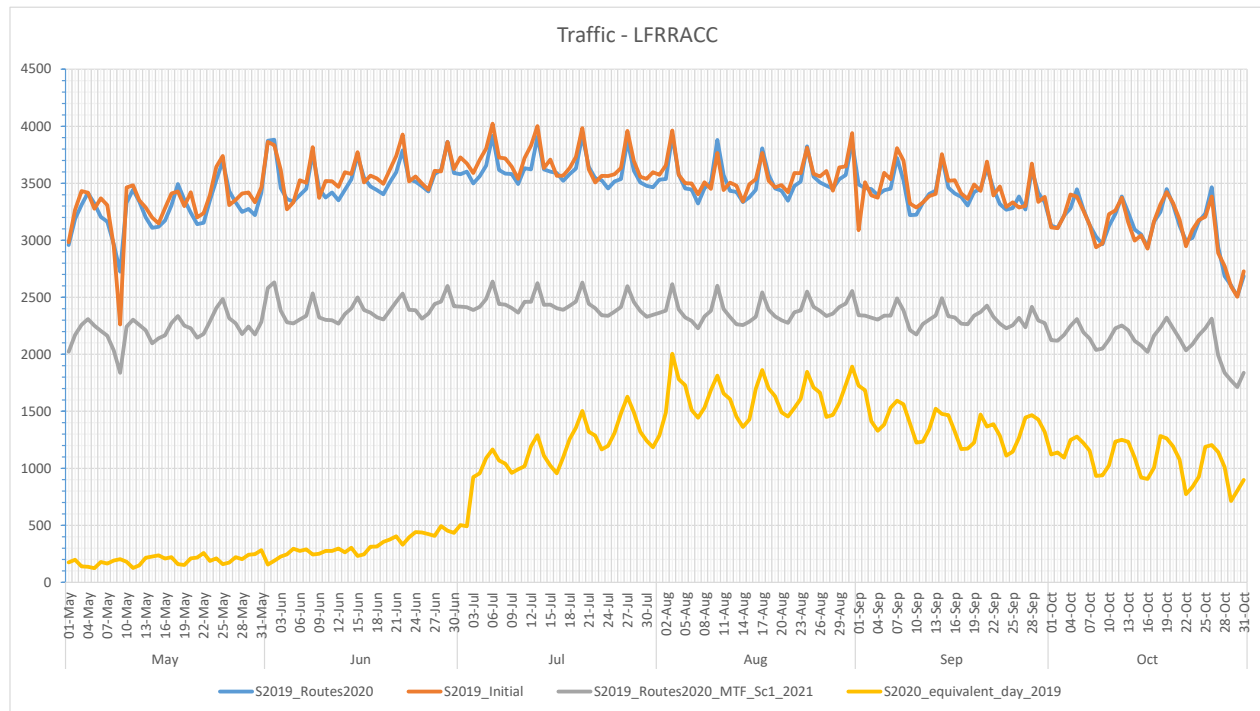


Expected Performance

No capacity issues are foreseen for Bordeaux ACC in Summer 2021.

FRANCE

BREST ACC

Traffic Forecast**Planned capacity enhancement measures**

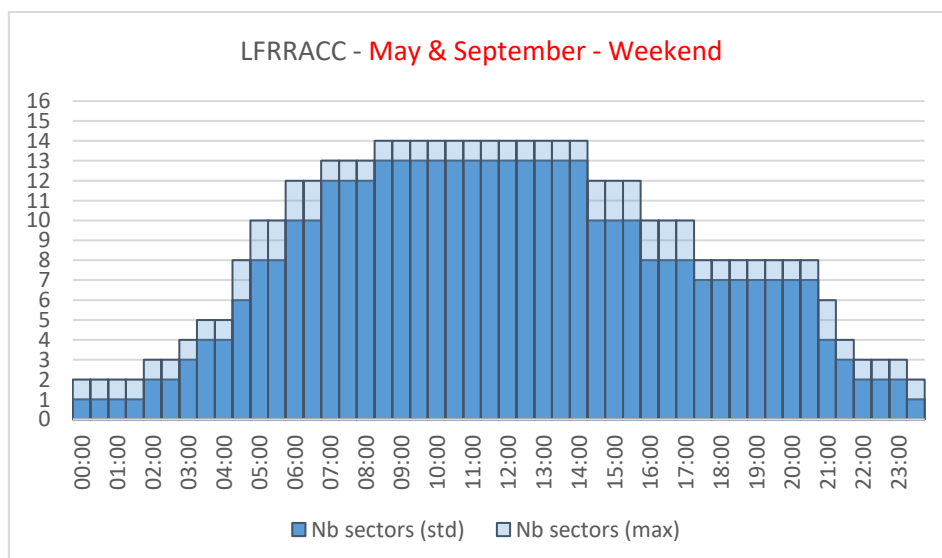
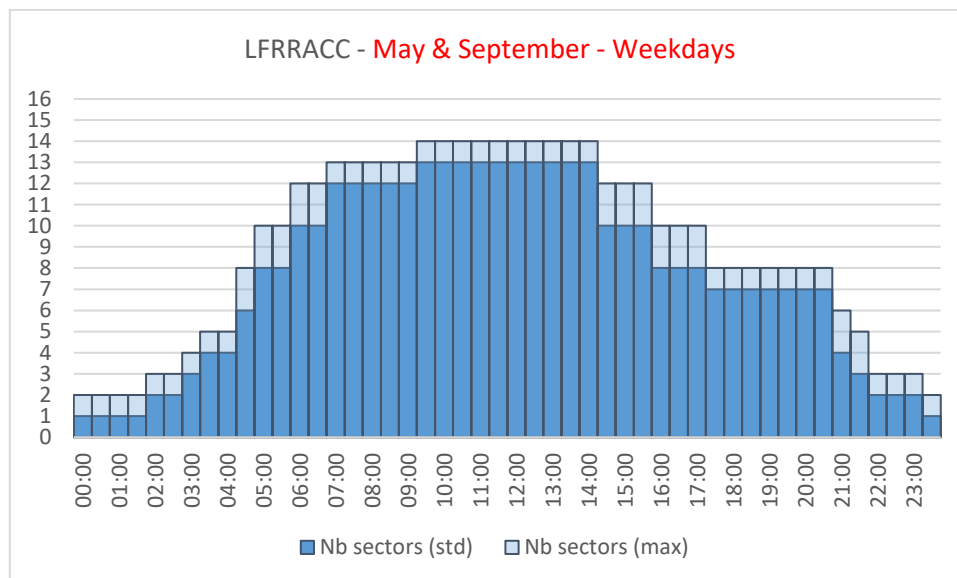
2021 Summer Capacity Plan	
Free Route Airspace	Step 1.0 (France NW1 cell) planned December 2 nd , 2021
Airspace Management Advanced FUA	Improved Airspace Management / FUA
Airport & TMA Network Integration	XMAN Paris and London
Cooperative Traffic Management	Improved ATFCM Procedures and STAM
	CDM processes and procedures
	MAC
Airspace	25 th February, 2021: Reorganisation of airspace <ul style="list-style-type: none"> below FL195 phase 3 LFRS and above FL195 new DFL N sectors & group of North sectors
Procedures	
Staffing	ATCOs on request
Technical	SALTO incl. B2B regulations
Capacity	New sectors DFL => revision of sectors capacity
Significant Events	
Additional information	

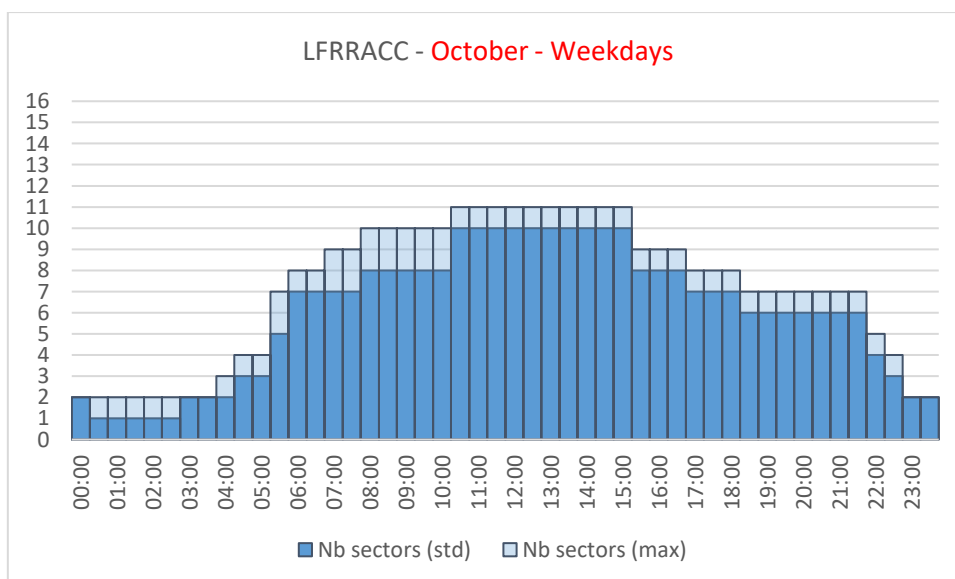
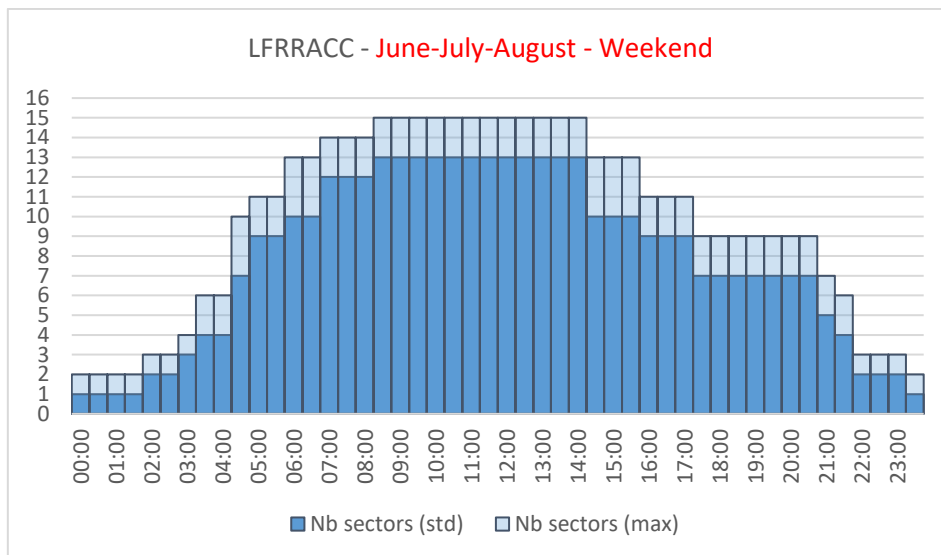
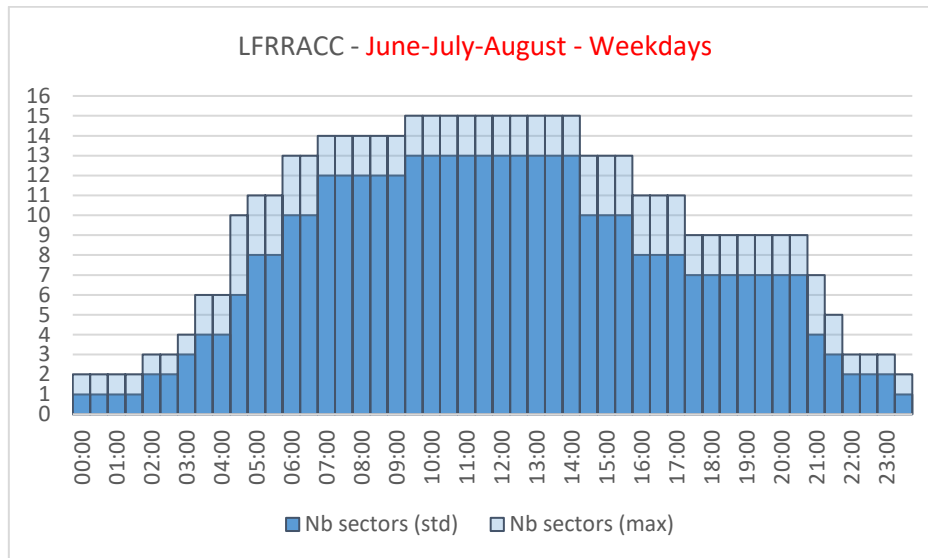
Events

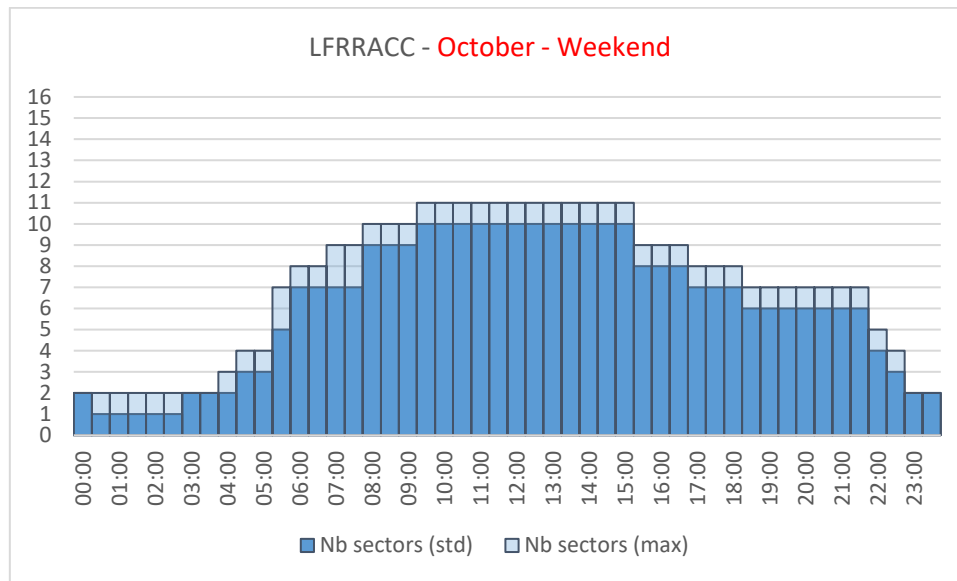
All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
02-Dec-21		LFRR	Free Route Airspace Brest - Step 1.0 implement H24 Free Route Airspace in Brest ACC Atlantic Area above FL195.
Autumn 2021		EGTT/EISN/LFRR	Route Rationalisation & U Removal 1. To remove the U prefix from route designator of ATS routes UM30, UN22 and UN32. 2. To redesignate UN34 as N27 and UP620 as N36.

Sectors available - Summer 2021







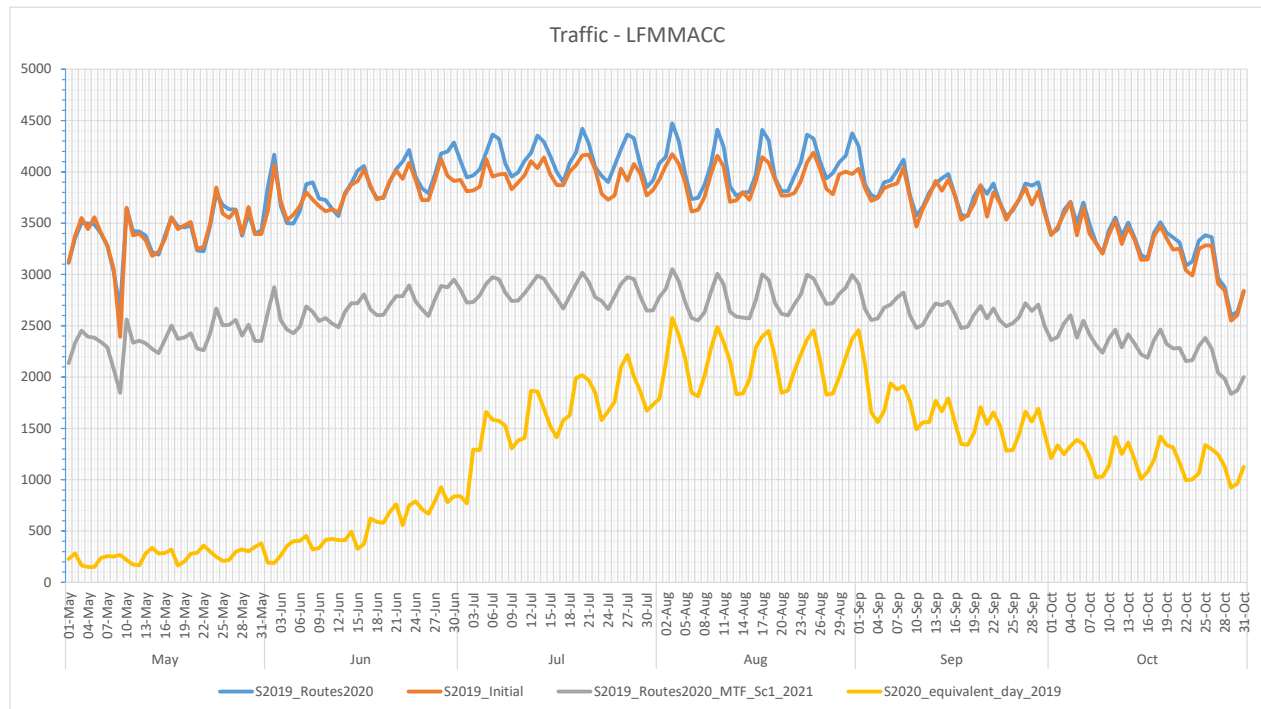
Expected Performance

The traffic demand is expected to be slightly above declared capacity in some elementary sectors in the upper layer most of the days, mainly due to green RAD and more routing flexibility given to AOs. ATFCM measures such as STAM or scenarios might be needed to better balance traffic between the different sector layers.

FRANCE

MARSEILLE ACC

Traffic Forecast



Planned capacity enhancement measures

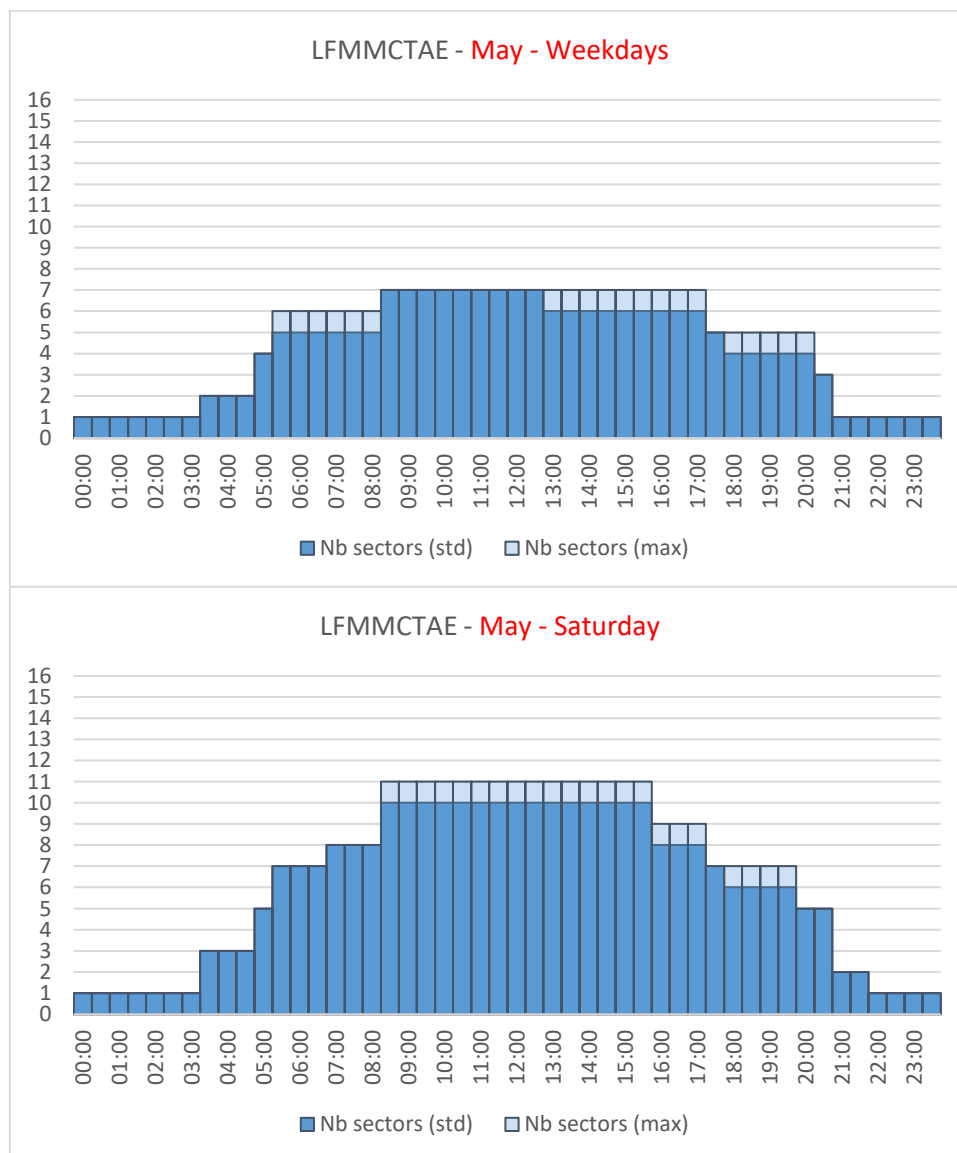
2021 Summer Capacity Plan	
Free Route Airspace	Definition of FRA airspace in LFMM (no impact)
Airspace Management Advanced FUA	Improved Airspace Management / FUA
	ZENA Med – Corse live trails via AIP supps
Airport & TMA Network Integration	XMAN Paris
Cooperative Traffic Management	Improved ATFCM Procedures and STAM
	CDM processes and procedures
	MAC
	Use of cooperative traffic management during strong weather episodes (implemented in 2020 but not much used due to COVID crisis).
Airspace	Improved interface LIRR/LFMM concerning Sardegna
Procedures	
Staffing	East and West - Gradual increase of number of ATCOs
Technical	FOC (datalink)
	Improvement of radio resilience
Capacity	
Significant Events	Training for 4-Flight (January 2020 to Spring 2022) – no impact during summer (mid-June to mid-September)
Additional information	

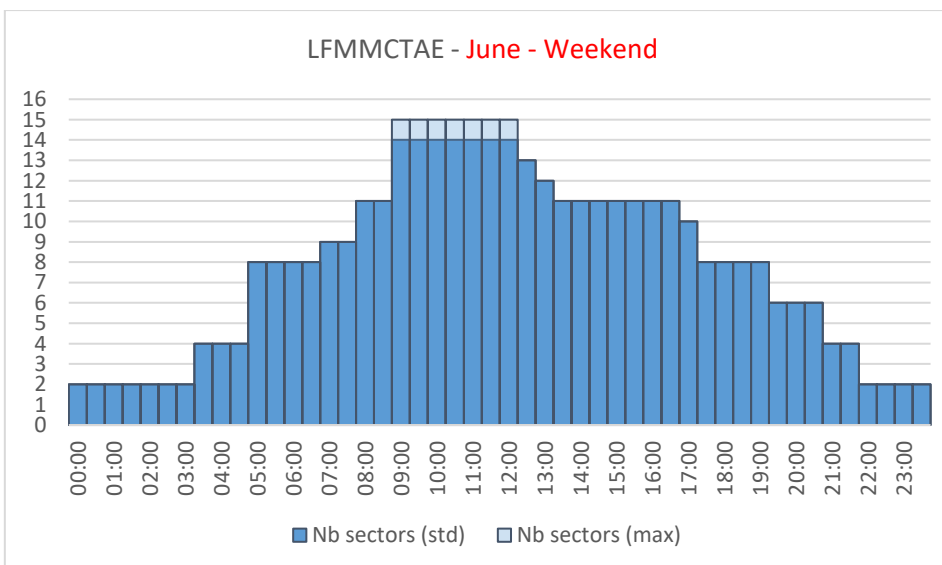
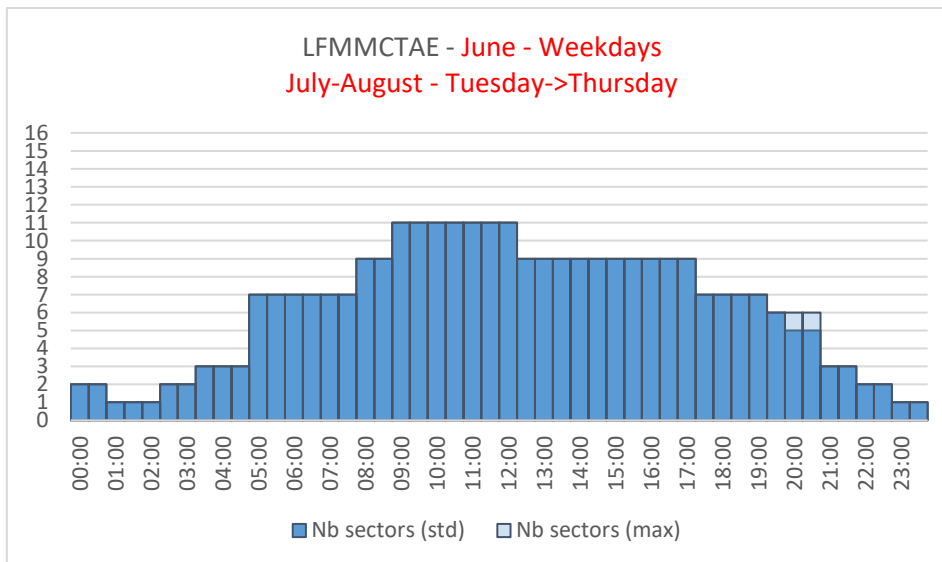
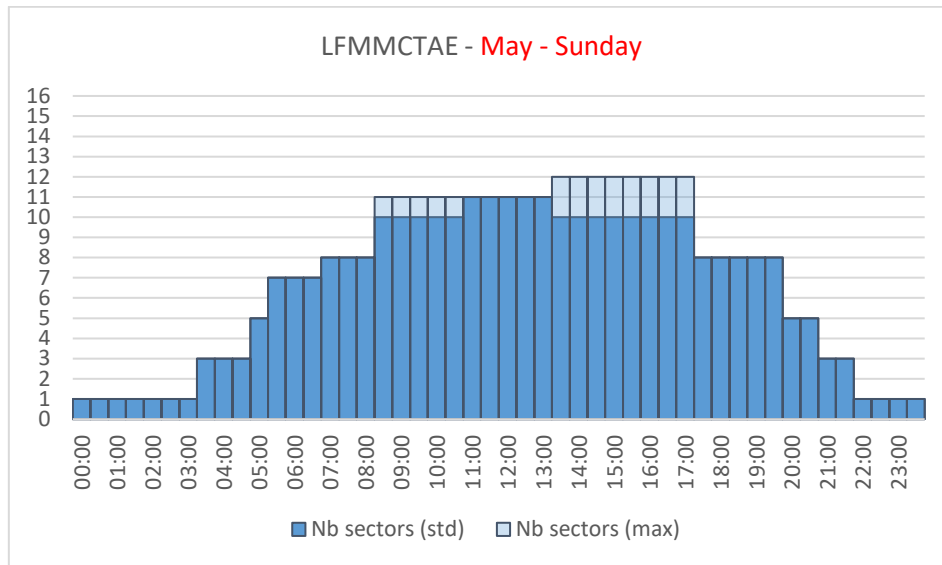
Events

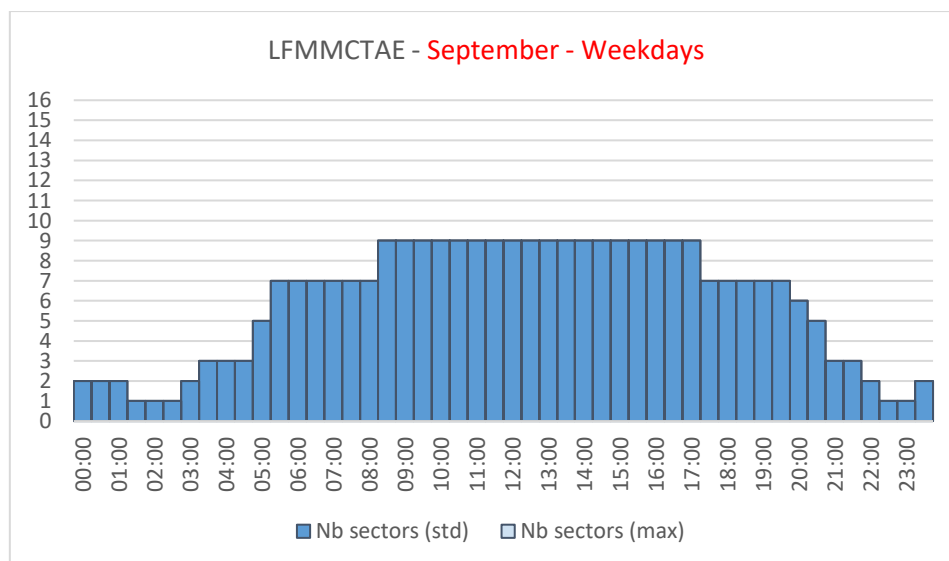
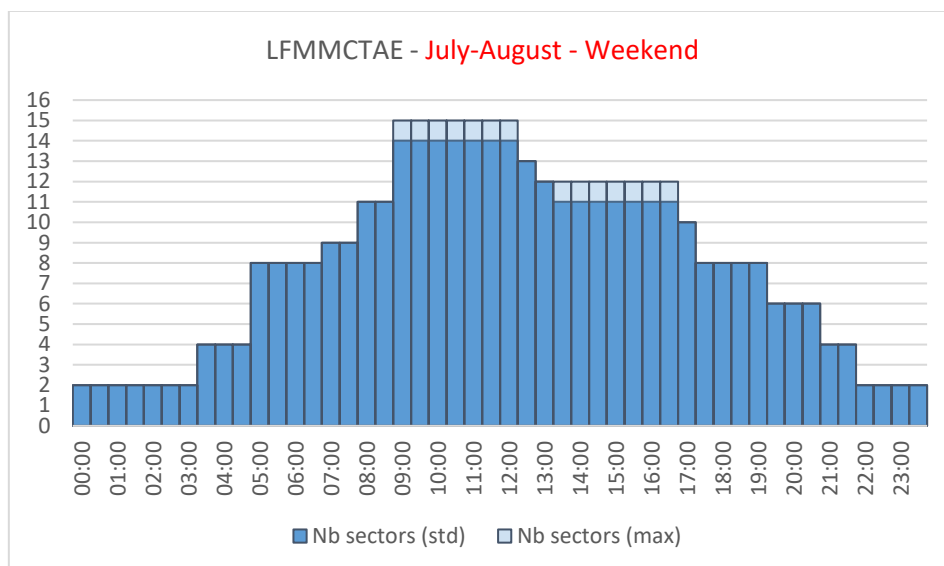
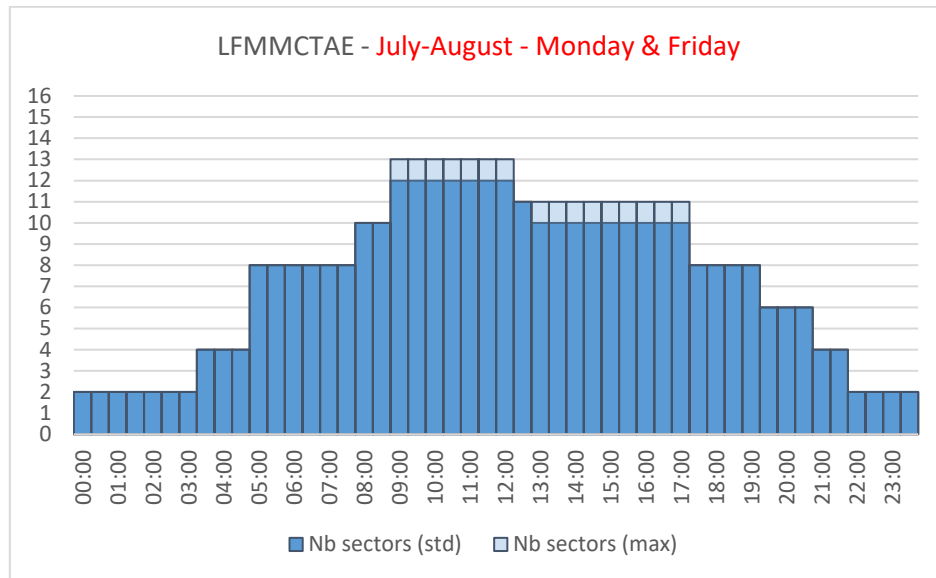
All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

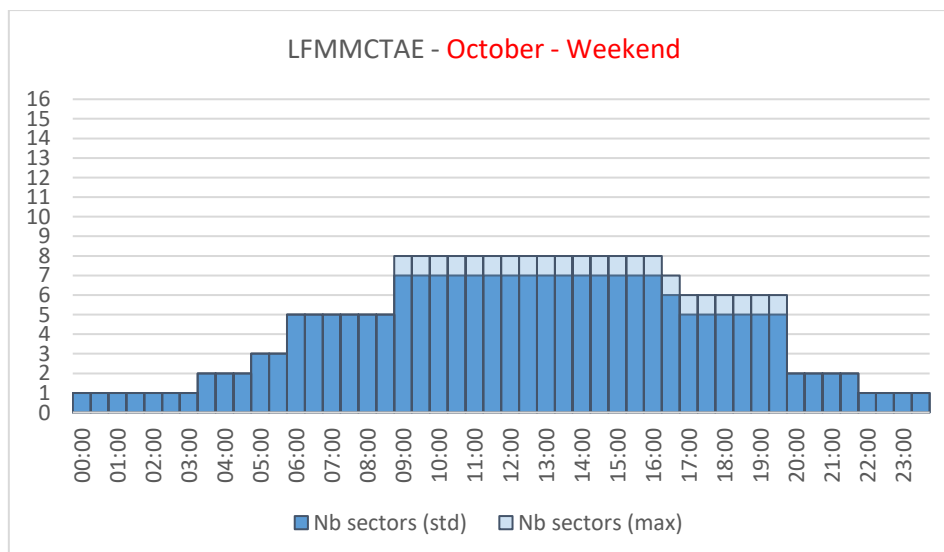
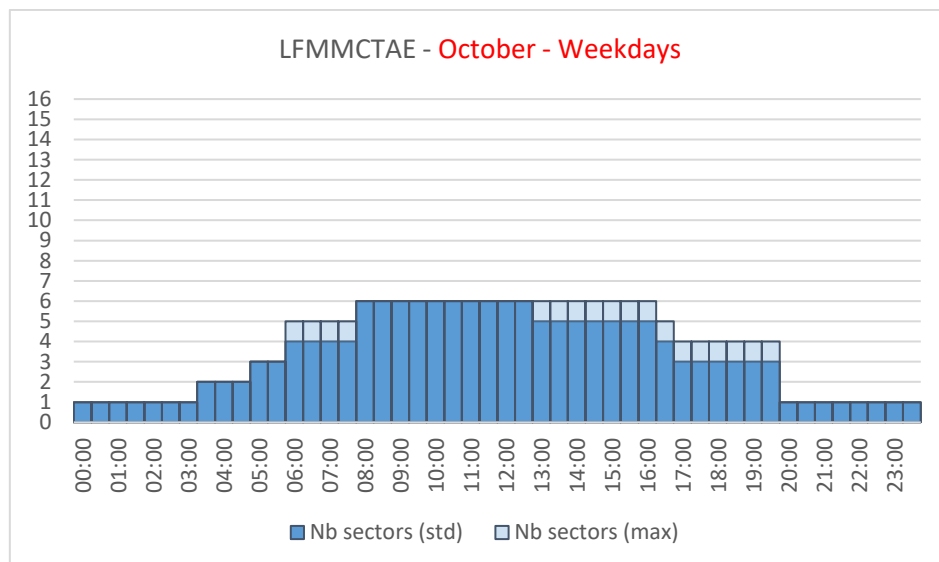
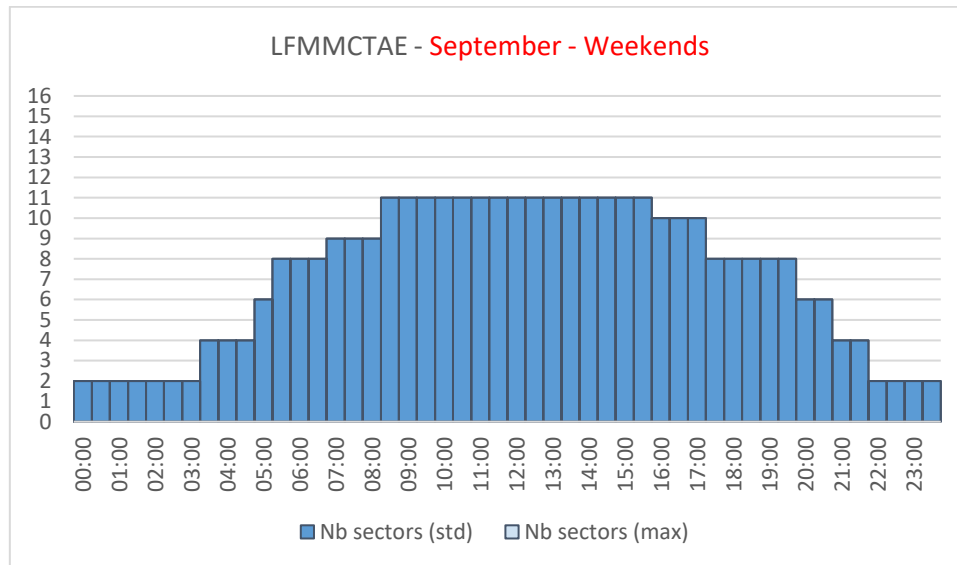
Start Date	End date	ACC/Airport	Event
28-Mar-21	24-Apr-21	LFMM	New ATM system 4Flight - ATCO training at LFMM
09-May-21	15-May-21	LFMM	New ATM system 4Flight - ATCO training at LFMM
Feb-22		LFMM	New ATM system 4F Marseille ACC

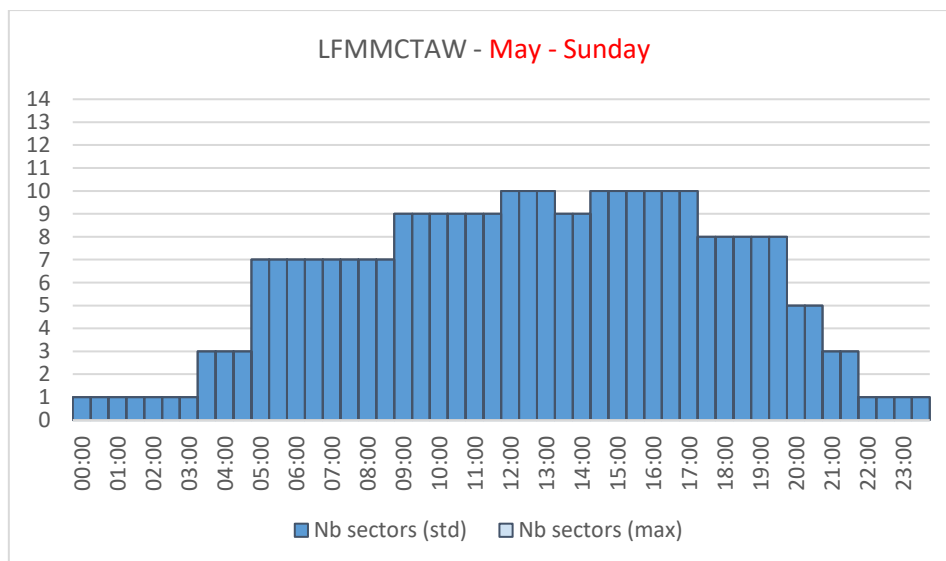
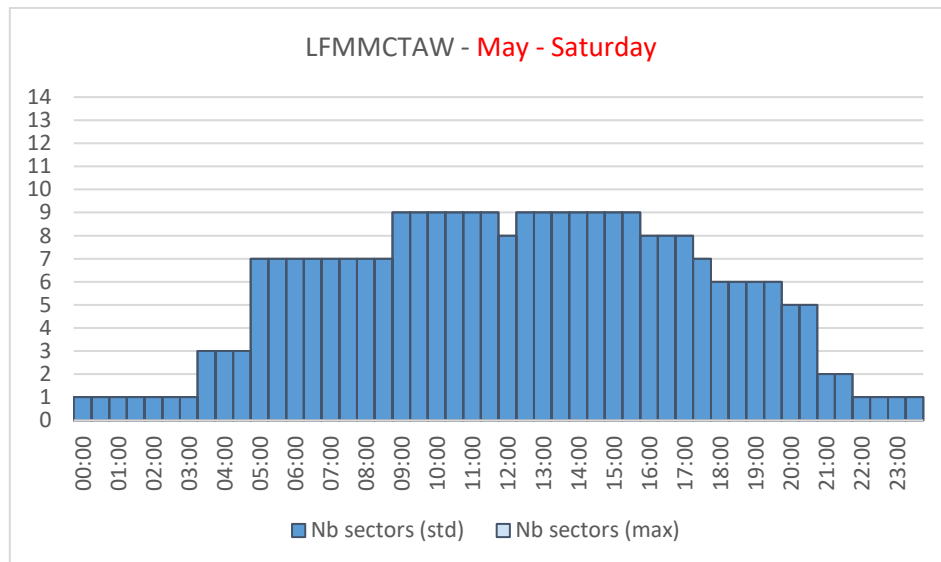
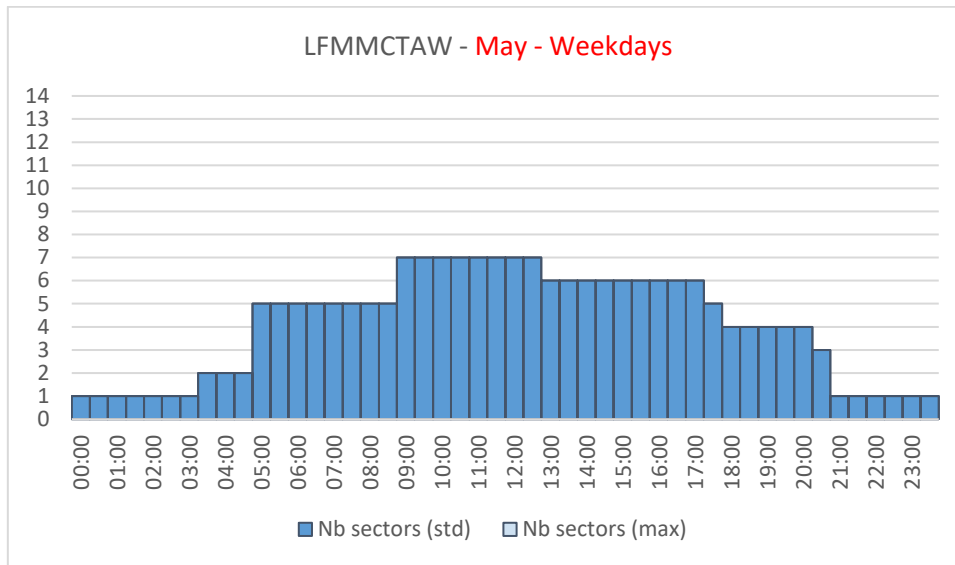
Sectors available - Summer 2021

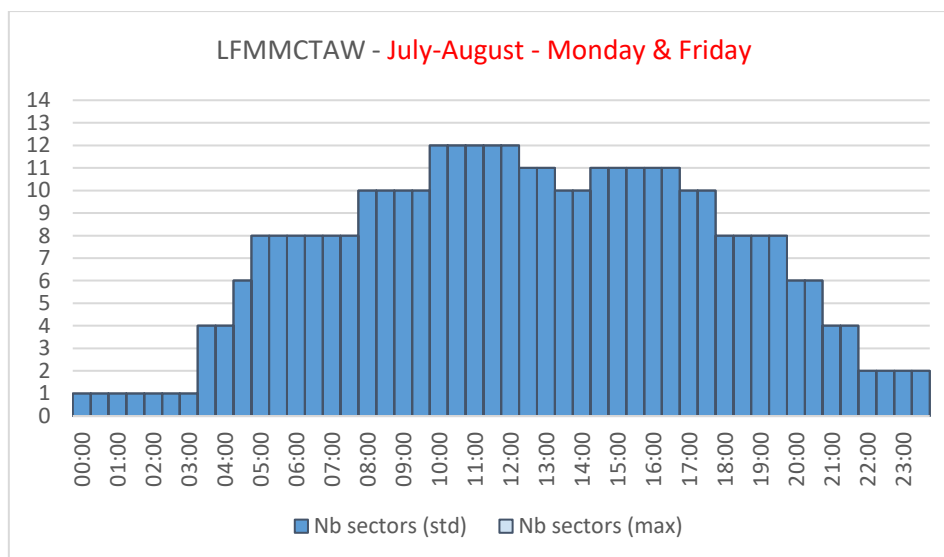
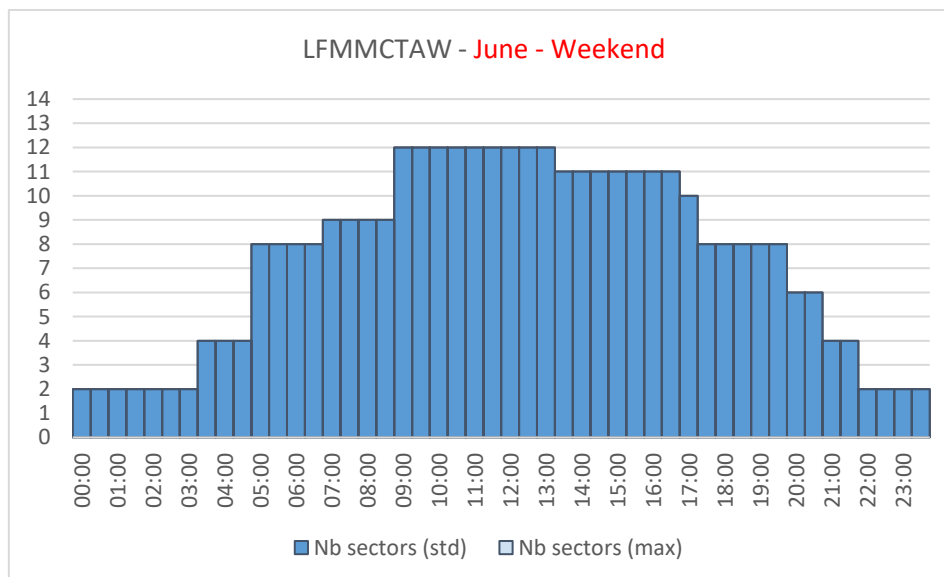
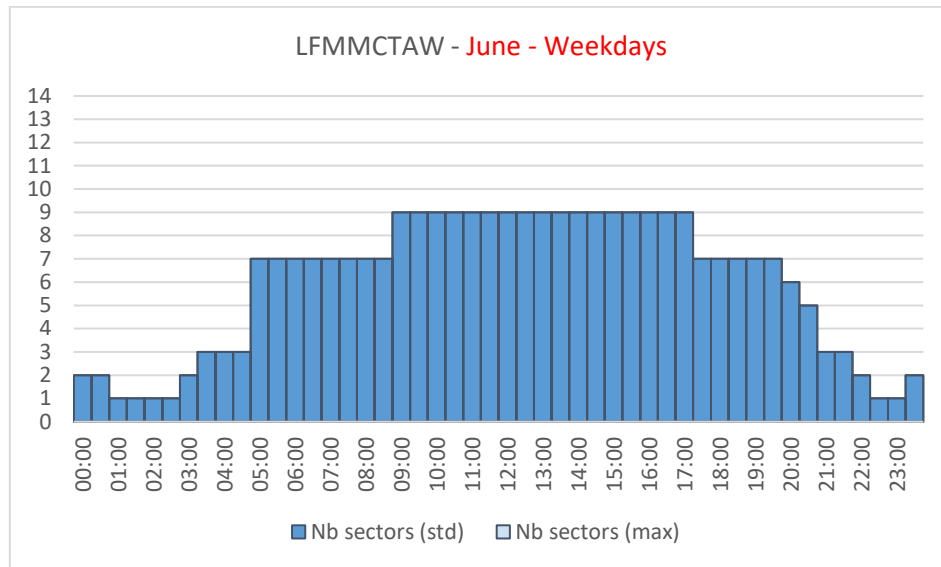


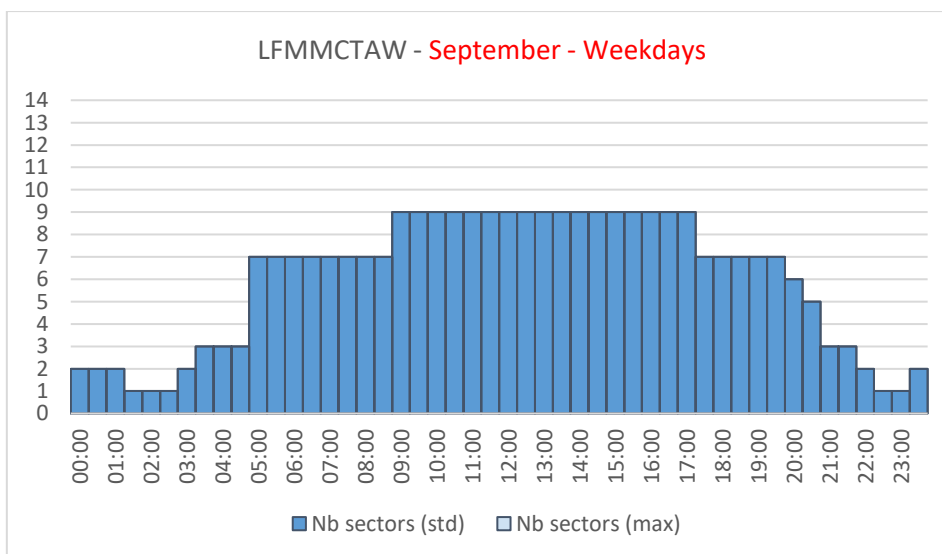
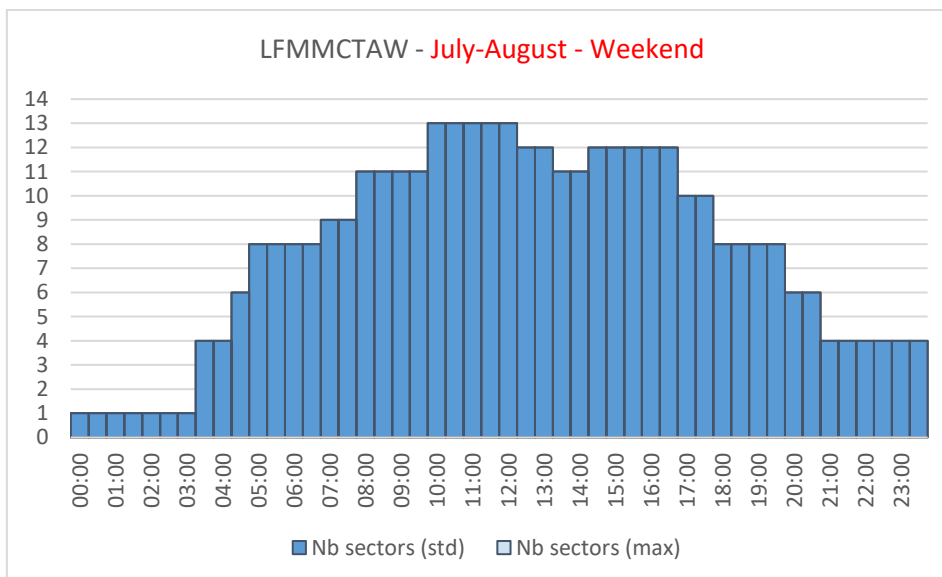
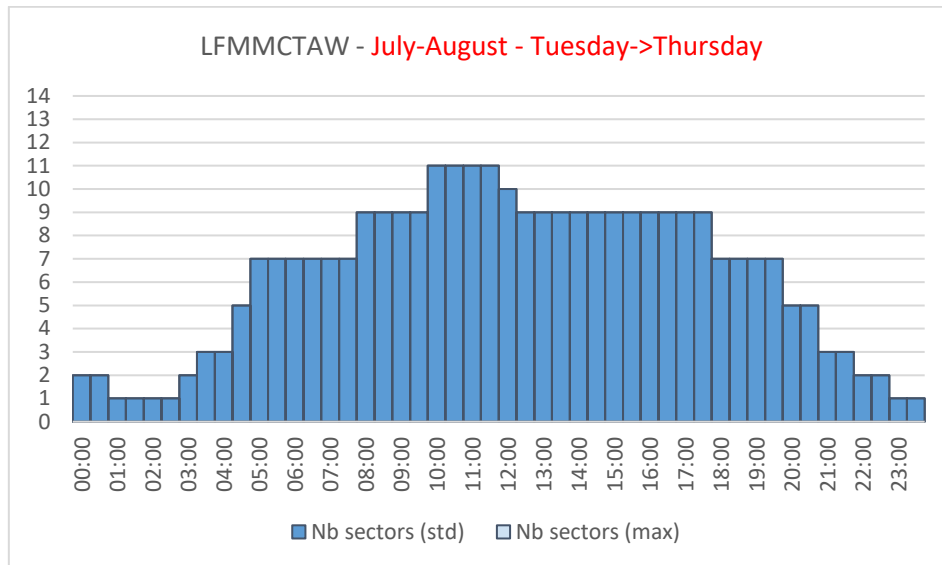


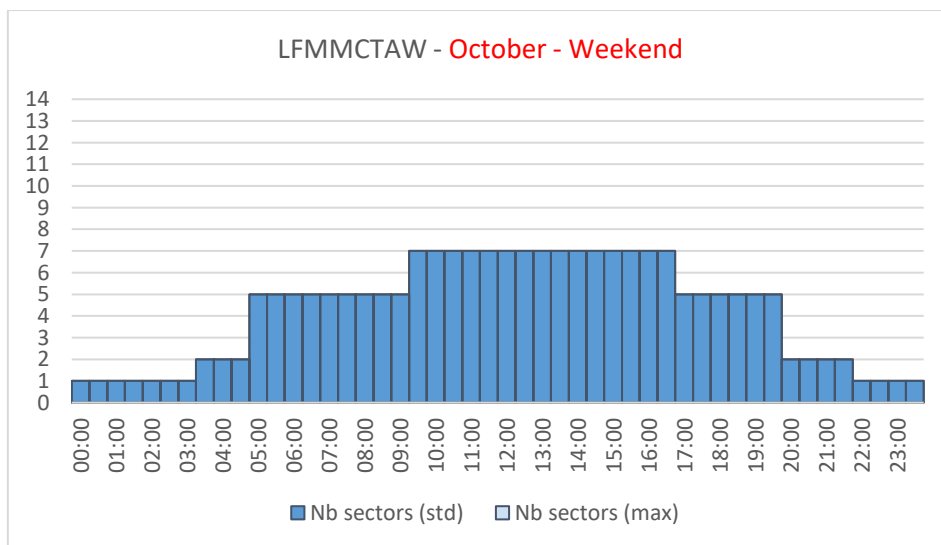
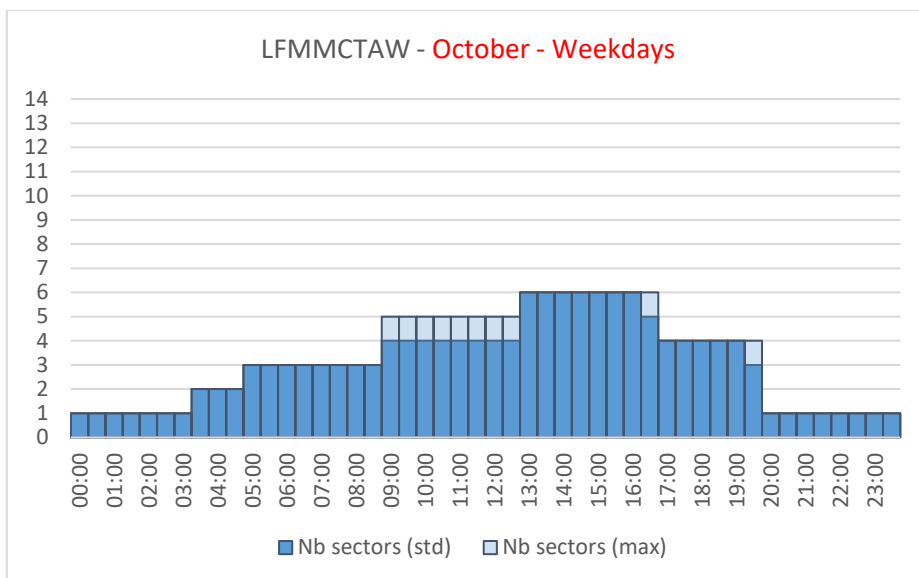
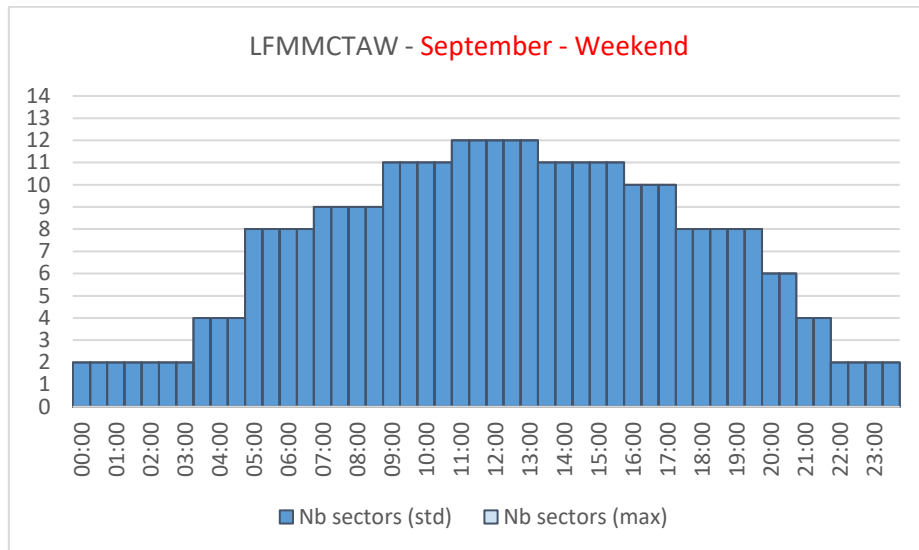












All times are UTC.

Expected Performance

LFMMCTAE:

In May & October, 4-Flight training is expected to impact the staffing situation and the number of sectors available.

May: Traffic demand is expected to be close to capacity in the evening on weekdays. Some flexibility might be needed to extend the opening hour for short periods of time.

October: On weekdays, traffic demand is expected to be above declared capacity with planned and maximum number of sectors in the evening. There is no possibility to program an additional sector in the evening now but work is in progress to decrease the impact of 4F training during that period. ATFCM measures such as STAM or scenarios might be required. Additionally, on Fridays, demand is expected to be close to capacity during the day and some flexibility might be needed on the configuration choices or on the opening of an extra sector for short periods of time during traffic peaks.

LFMMCTAW:

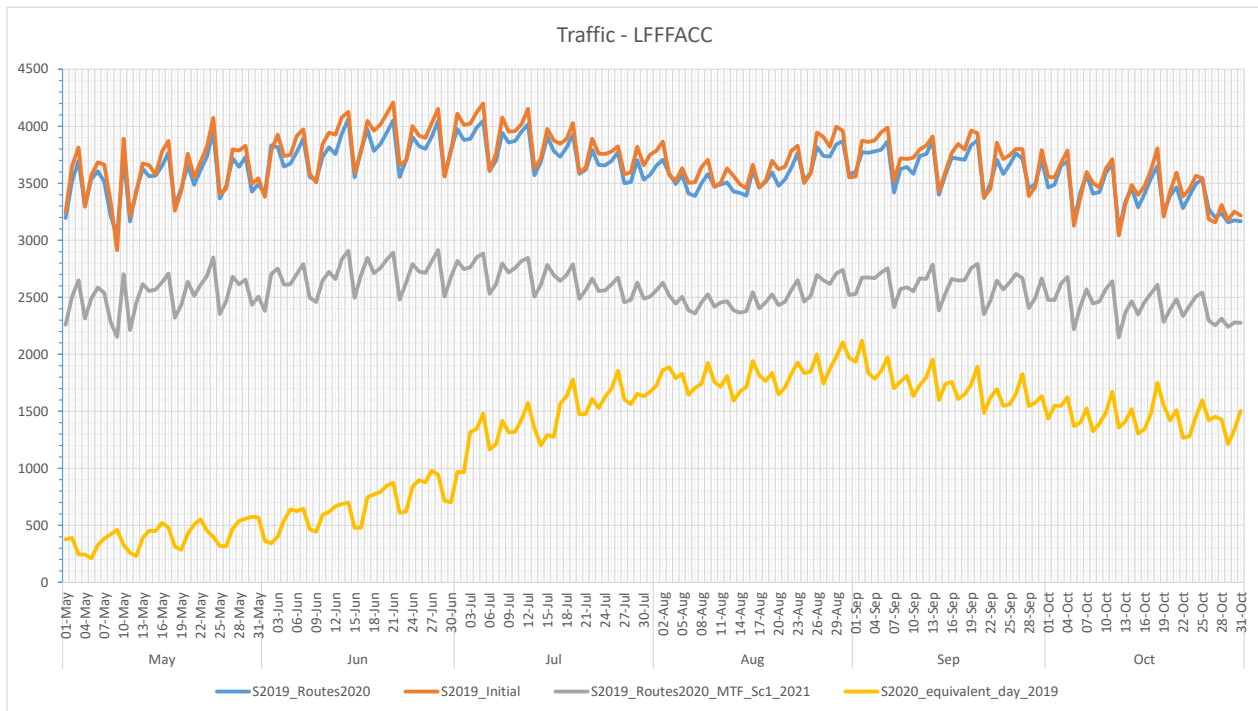
In May & October, 4-Flight training is expected to impact the staffing situation and the number of sectors available.

May: Traffic demand is expected to be close to capacity on weekdays. Some flexibility might be needed on the configuration choices during the day, and on the opening of an extra sector for short periods of time during traffic peaks in the evening.

October: On weekdays, traffic demand is expected to be above declared capacity with planned and maximum number of sectors. There is no possibility to program an additional sector now but work is in progress to decrease the impact of 4F training during that period. ATFCM measures such as STAM or scenarios might be required.

FRANCE

PARIS ACC

Traffic Forecast**Planned capacity enhancement measures**

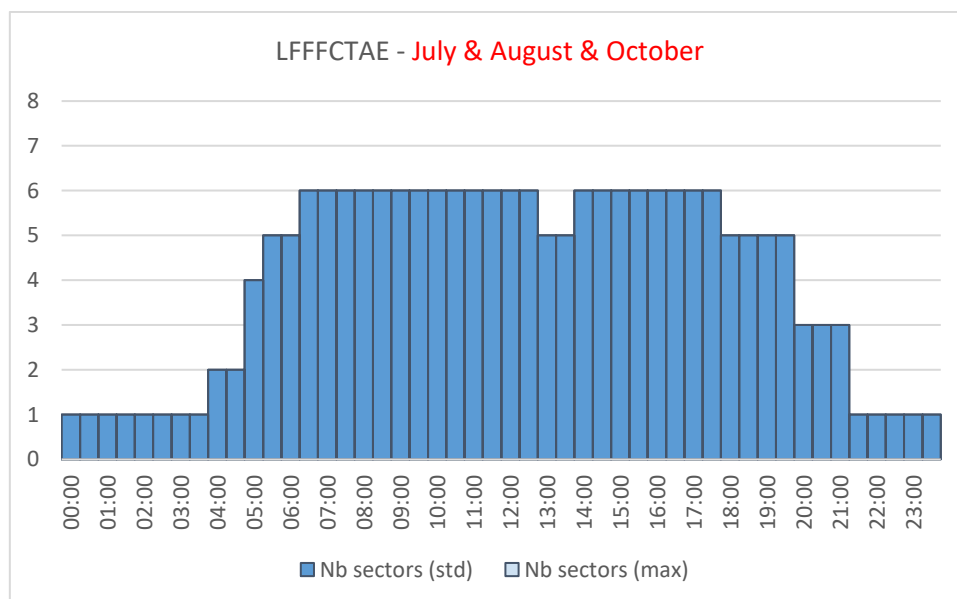
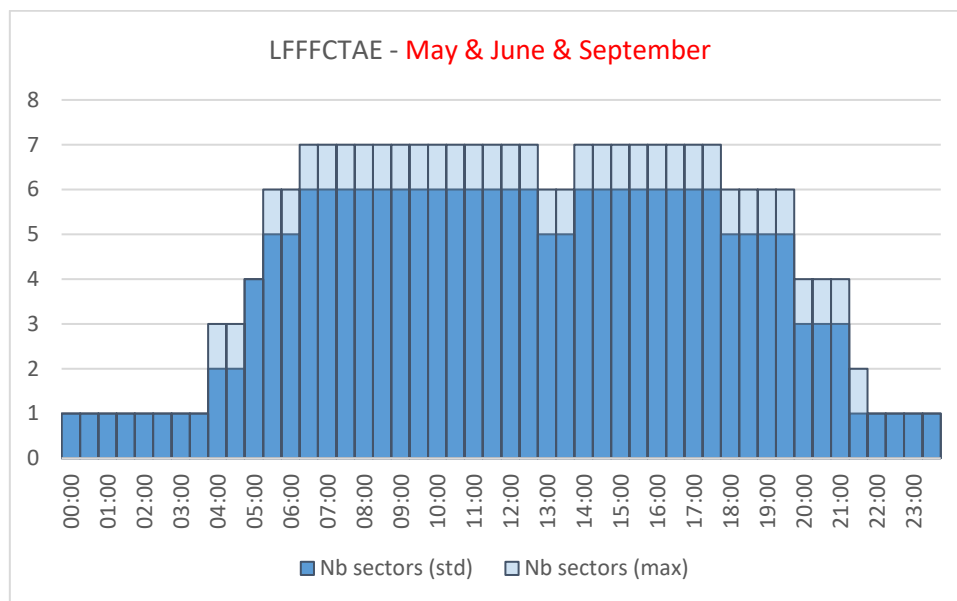
2021 Summer Capacity Plan	
Free Route Airspace	Implementation on the 2 nd of December 2021
Airspace Management Advanced FUA	Improved airspace management / FUA
Airport & TMA Network Integration	
Cooperative Traffic Management	XMAN implementation with LFRR and LFMM
	CDM Processes and procedures
Airspace	MODOU project (restructure of OG, OY, OT, RT and UZ Paris sectors), september 2021
Procedures	
Staffing	End of decrease of ATCOS
Technical	FOC (datalink) may 2021
Capacity	
Significant Events	
Additional information	4F training will start on beginning 2022

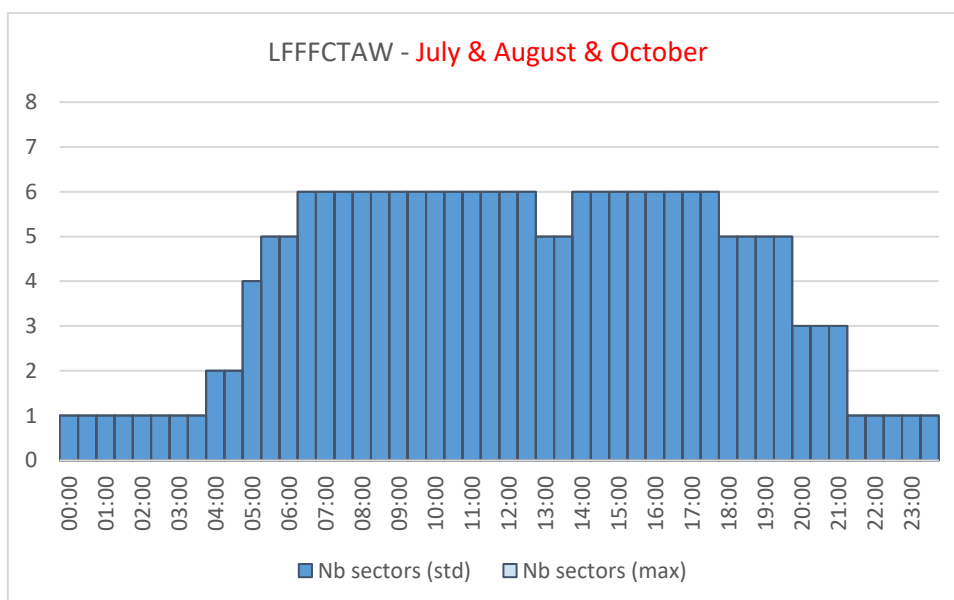
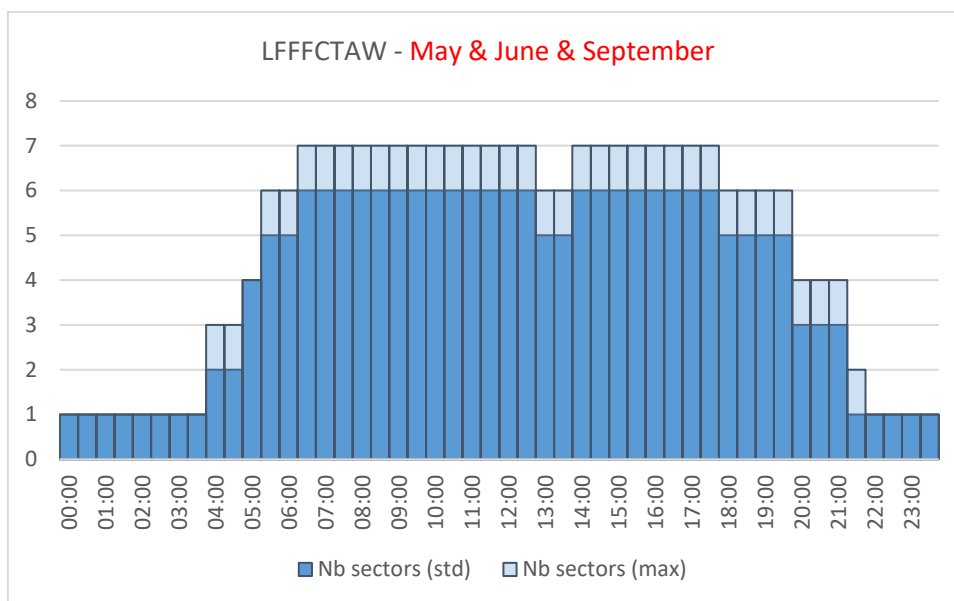
Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
02-Dec-21		LFFF	Free Route Airspace Paris - Step 1.1 To implement H24 Free Route Airspace in Paris ACC above FL195 in LMH sector

Sectors available - Summer 2021



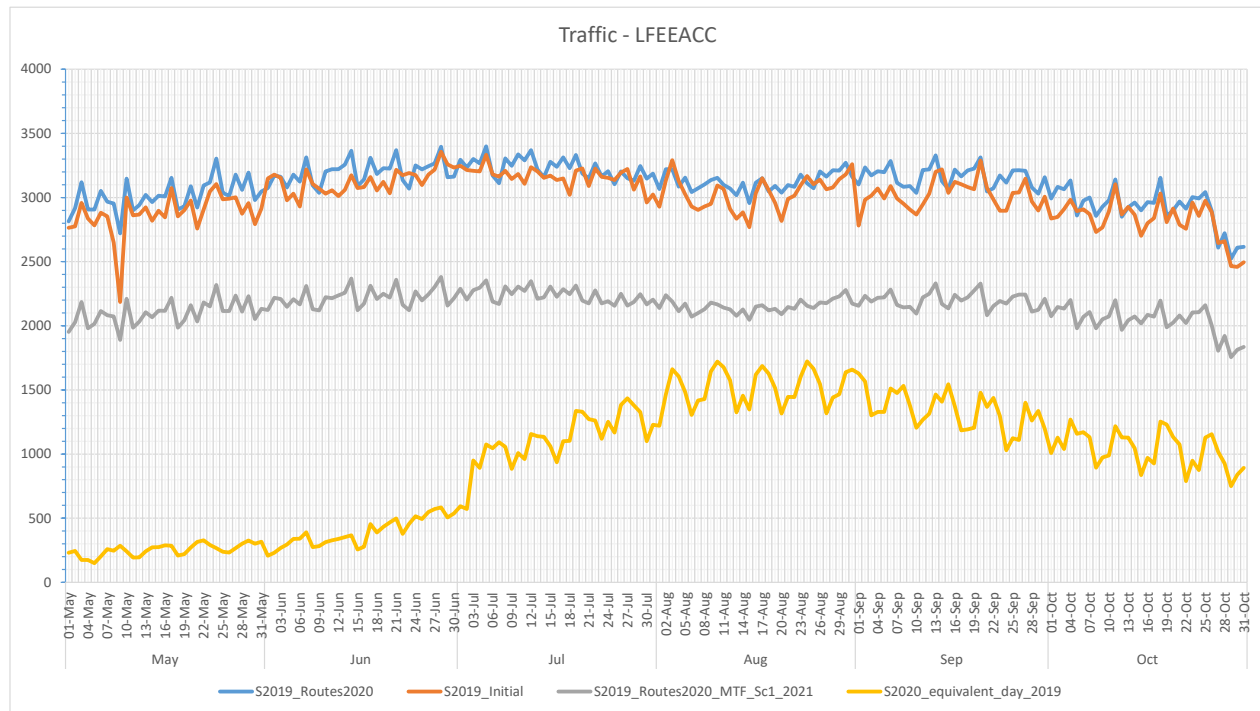


Expected Performance

No capacity issues are foreseen for Paris ACC in Summer 2021.

FRANCE

REIMS ACC

Traffic Forecast**Planned capacity enhancement measures**

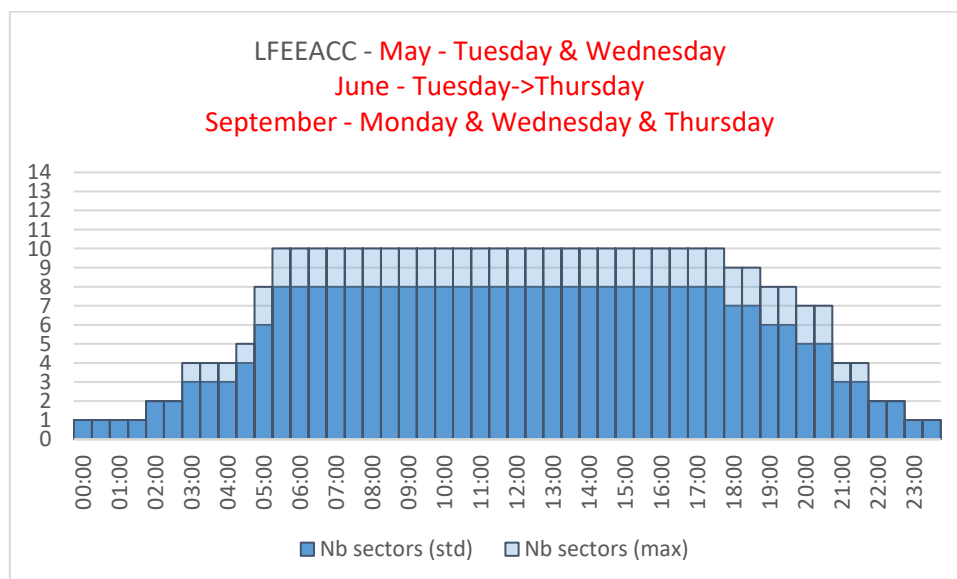
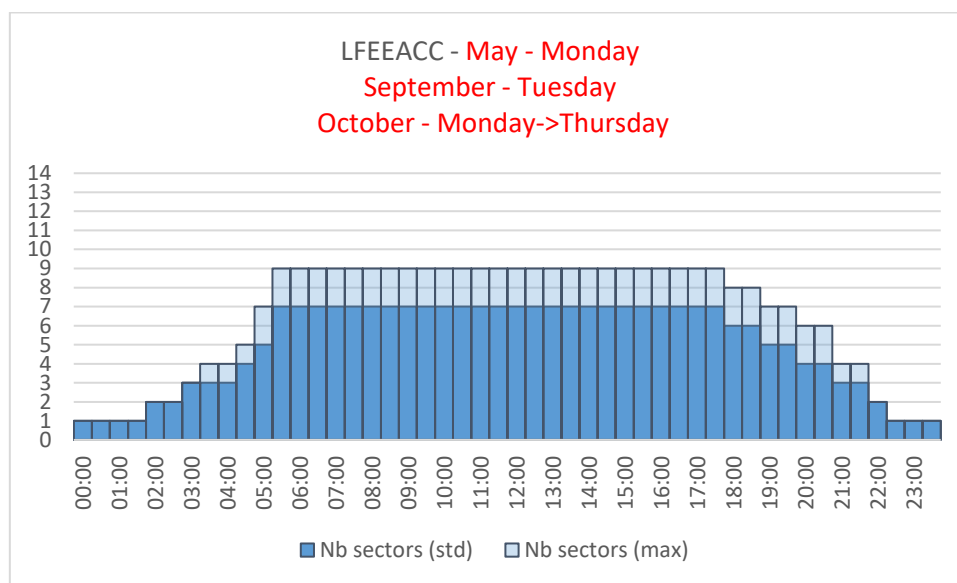
2021 Summer Capacity Plan	
Free Route Airspace	FRA project initiated (no impact in 2021)
Airspace Management Advanced FUA	Improved Airspace Management / FUA, work on permanent availability of CBA1
Airport & TMA Network Integration	
Cooperative Traffic Management	Improved ATFCM Procedures and STAM, 4CAST (CONF optimizer) deployment
	CDM processes and procedures
	MAC
Airspace	Ongoing project at the Reims/MUAC interface, improvement of the interface between Reims ACC, Strasbourg and Luxembourg APP
Procedures	Green aviation initiatives
Staffing	Flexible rostering trials are on hold for 2021 but some flexible days remain.
	Decrease number of ATCOs expected Q4 2021
Technical	FOC (datalink), SALTO incl. B2B regulations
Capacity	
Significant Events	Training for 4-Flight (January 2020 to early 2022)
Additional information	

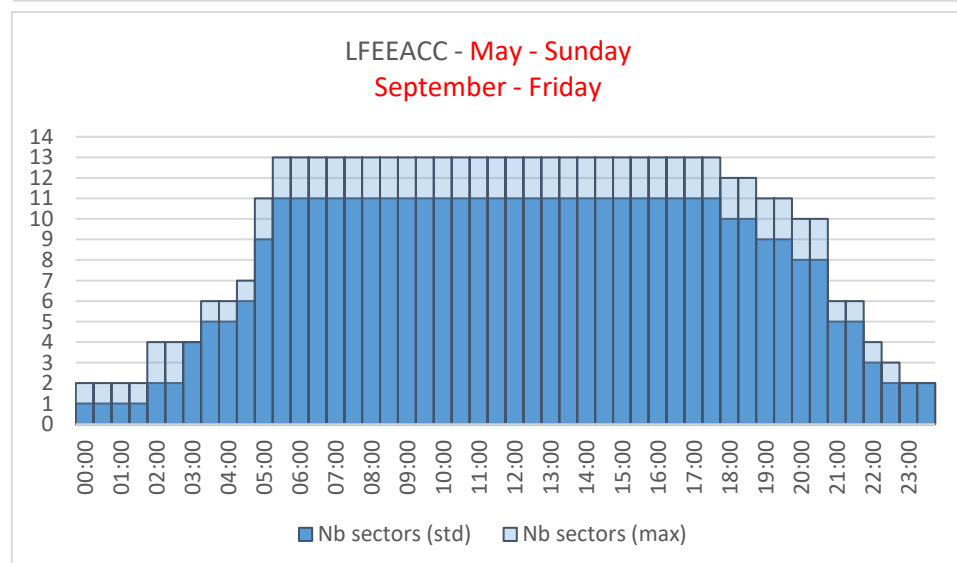
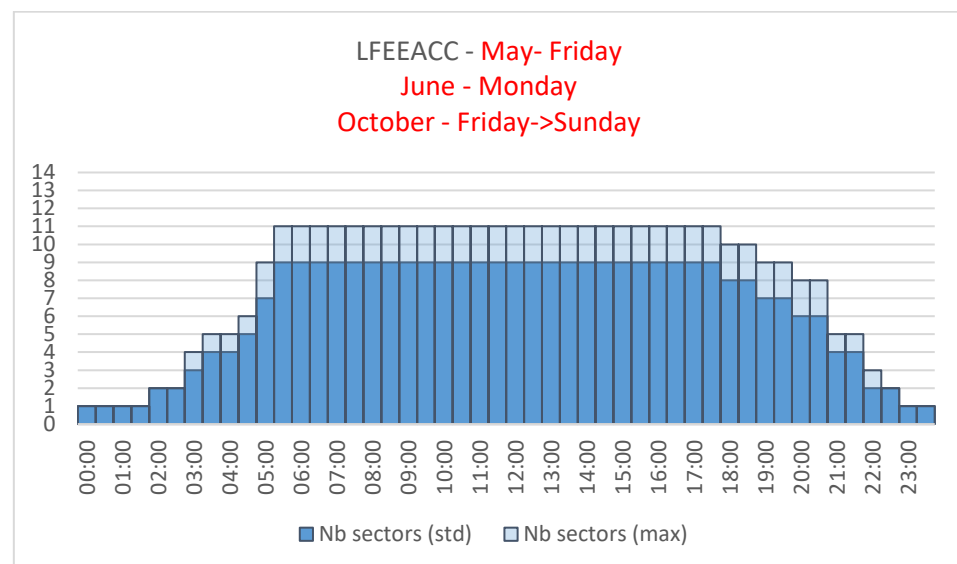
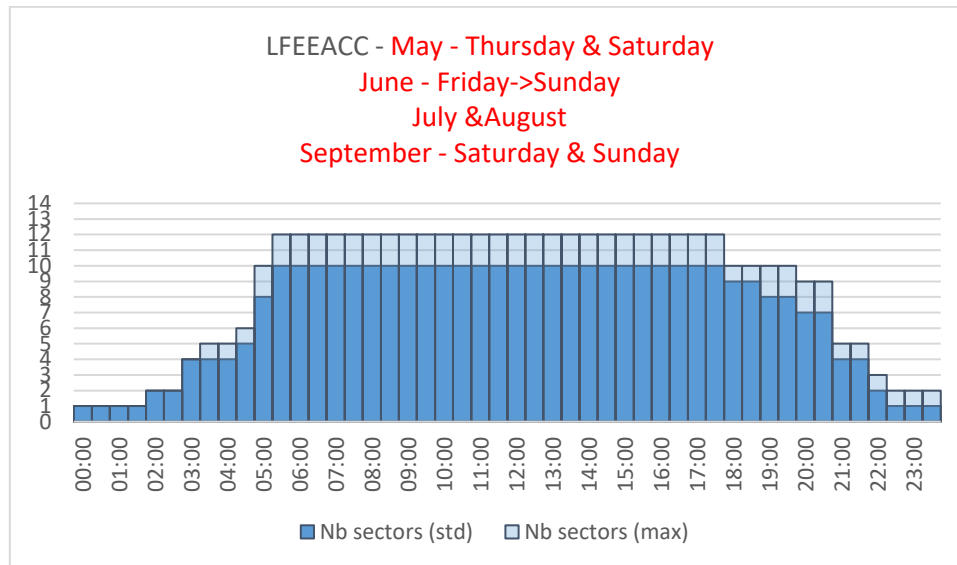
Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
22-Mar-21	22-Apr-21	LFEE	New ATM system 4Flight - training at LFEE to operate new system
10-May-21	01-Jul-21	LFEE	New ATM system 4Flight - training at LFEE to operate new system
Apr-22		LFEE	New ATM system 4F implementation at LFEE

Sectors available - Summer 2021



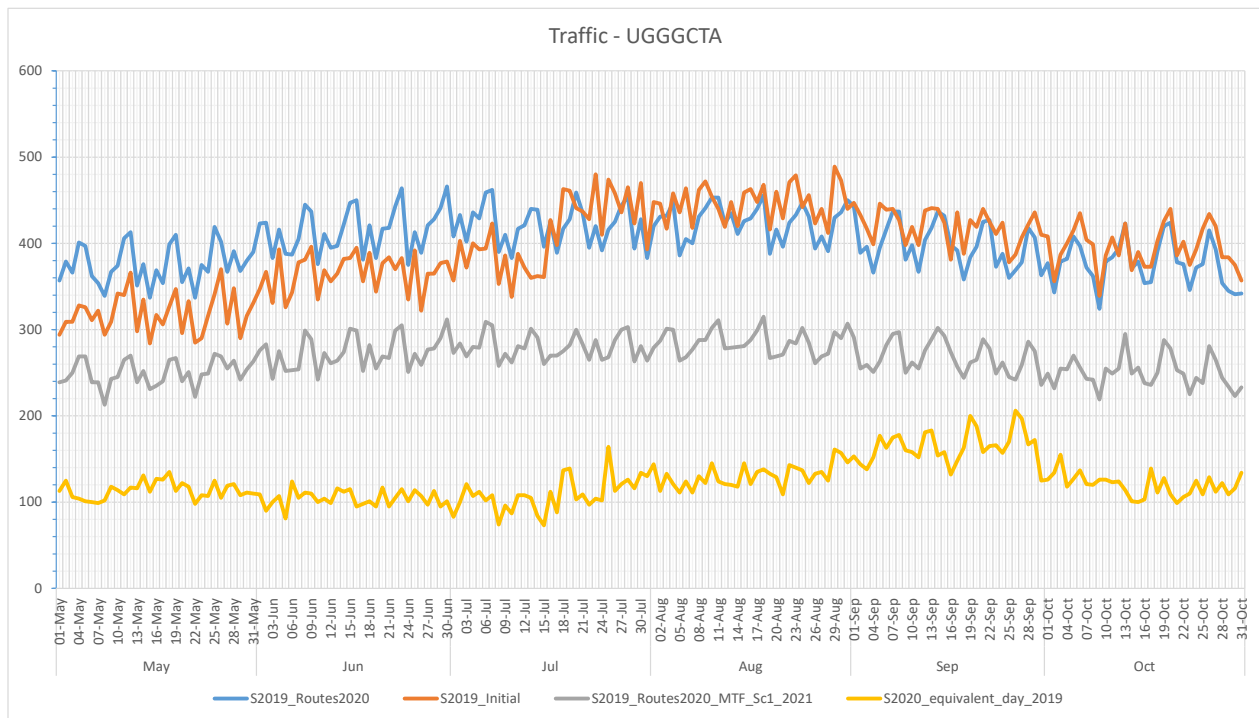


Expected Performance

In May, June, September and October, 4-Flight training is expected to impact the staffing situation and the number of sectors available. 4-Flight training is suspended during the school holidays.

During the whole period, traffic demand is expected to be close to declared capacity. Some flexibility might be needed on the configuration choices and on the opening of an extra sector for short periods of time during traffic peaks.

Additionally, the traffic demand is expected to be above declared capacity in some elementary sectors in the upper layer (LFEEHYR, LFEEKD) most of the days. ATFCM measures such as STAM or scenarios might be needed to better balance traffic between the different sector layers.

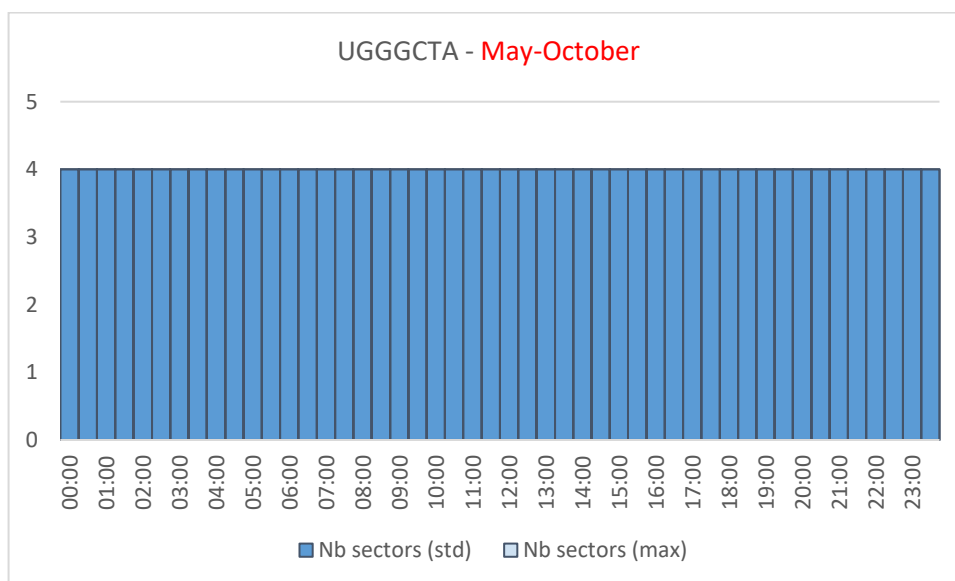
GEORGIA**TBILISI ACC****Traffic Forecast****Planned capacity enhancement measures**

2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management	
Advanced FUA	
Airport & TMA Network Integration	
Cooperative Traffic Management	
Airspace	Further optimisation and implementation of ATS route network
Procedures	
Staffing	
Technical	
Capacity	
Significant Events	
Additional information	

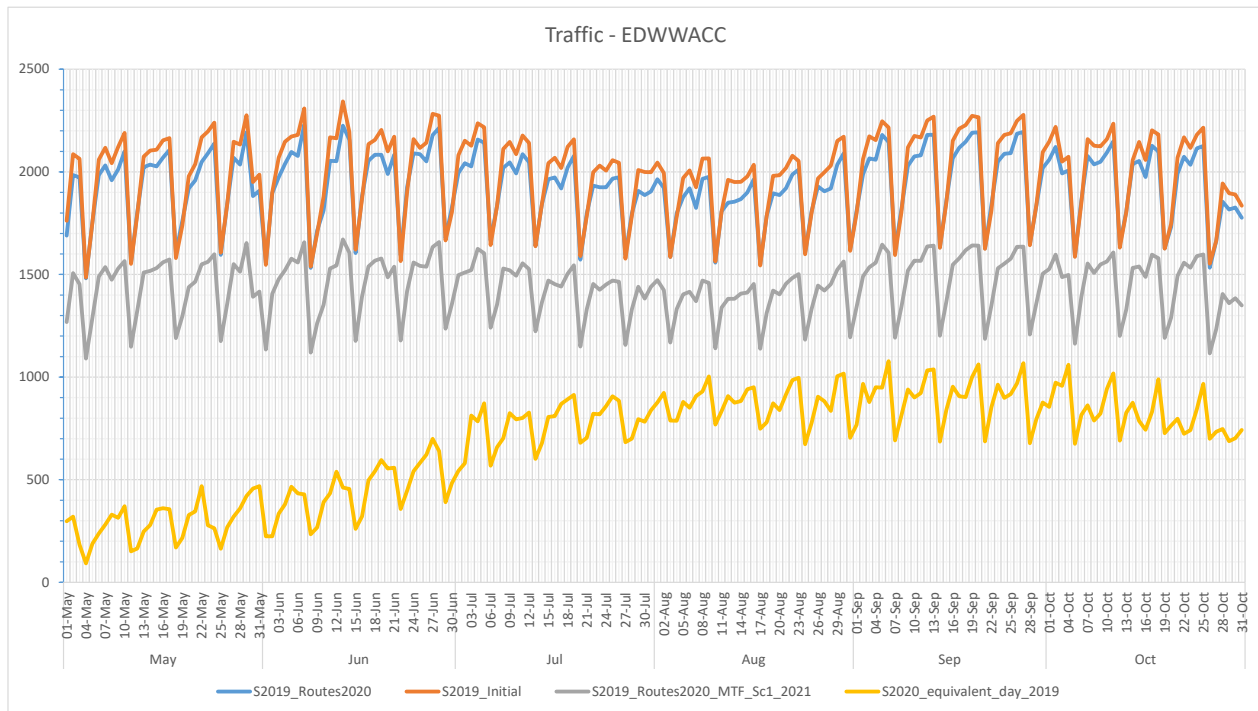
Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
Autumn 2021		UGGG	Batumi and Kutaisi TMAs Optimization
Winter 21/22		UGGG	Connection of FRA with TMAs

Sectors available - Summer 2021**Expected Performance**

No capacity issues are foreseen for Tbilisi ACC in Summer 2021.

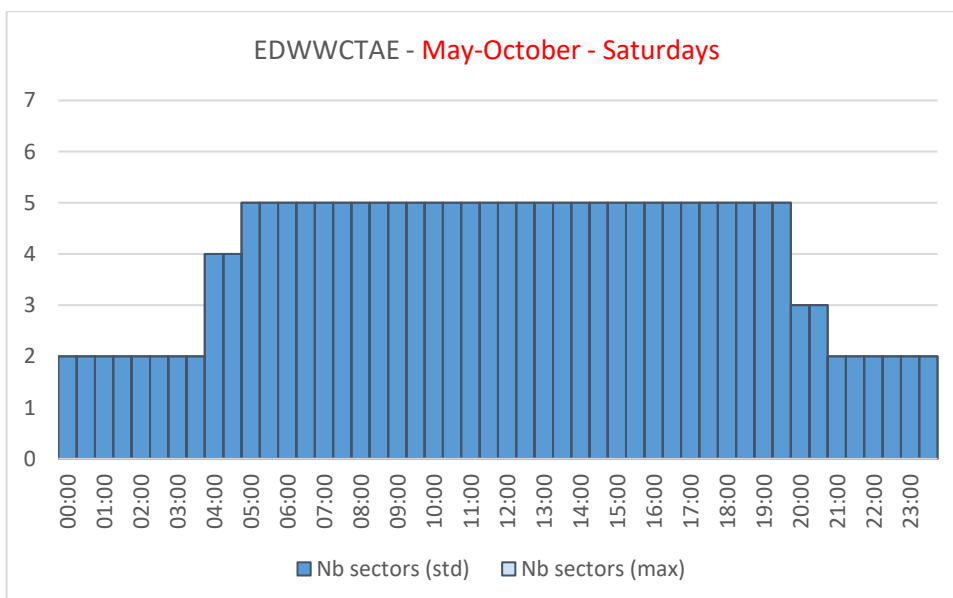
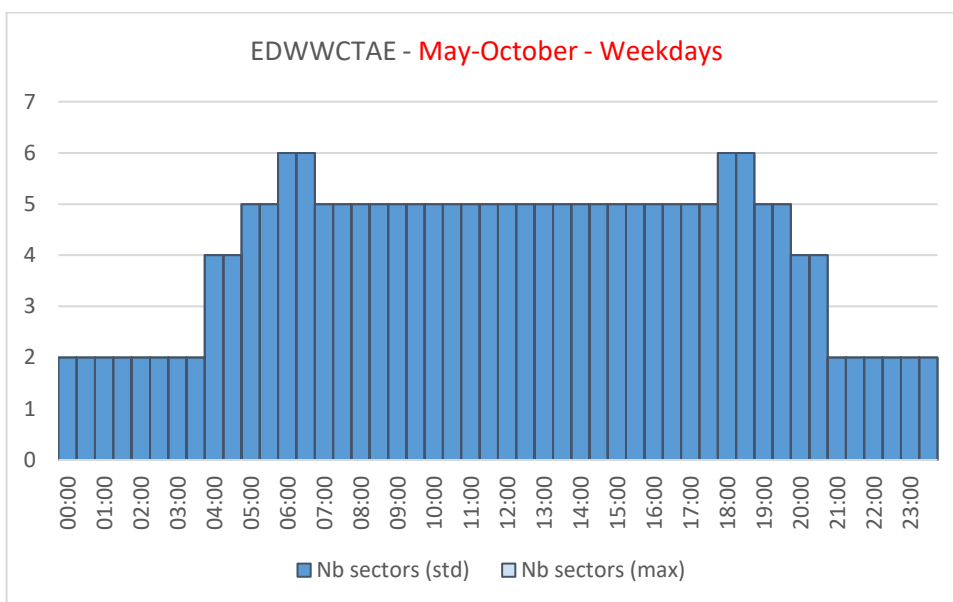
GERMANY**BREMEN ACC****Traffic forecast****Planned capacity enhancement measures**

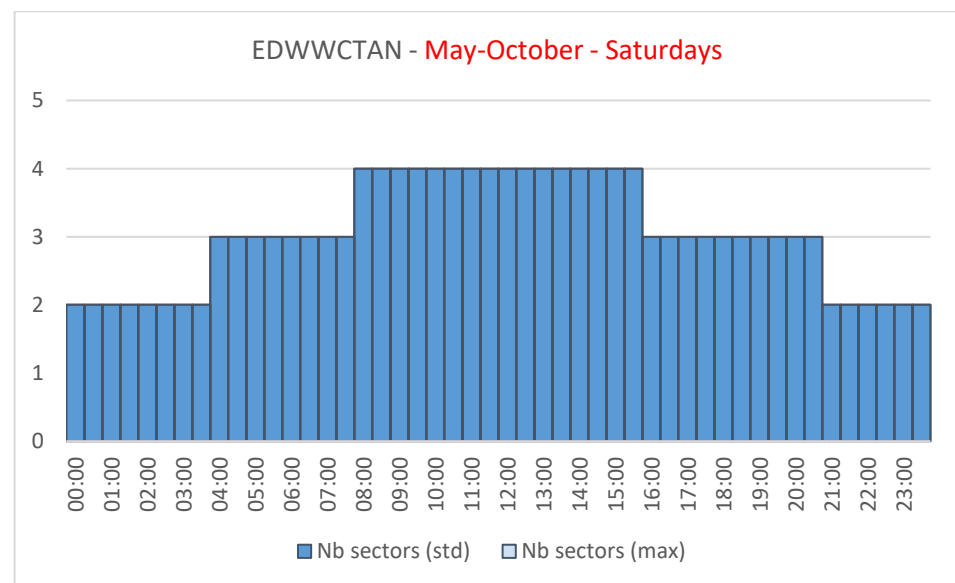
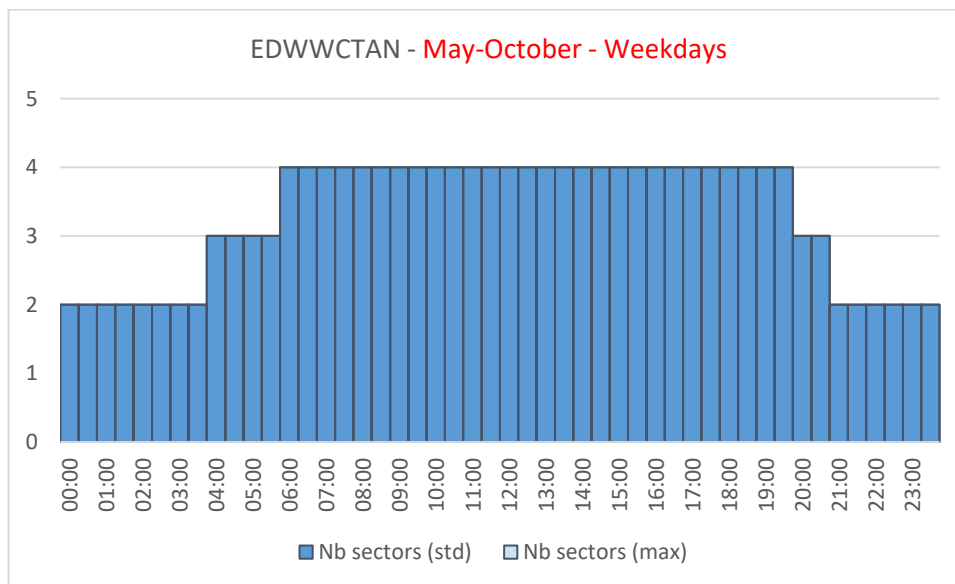
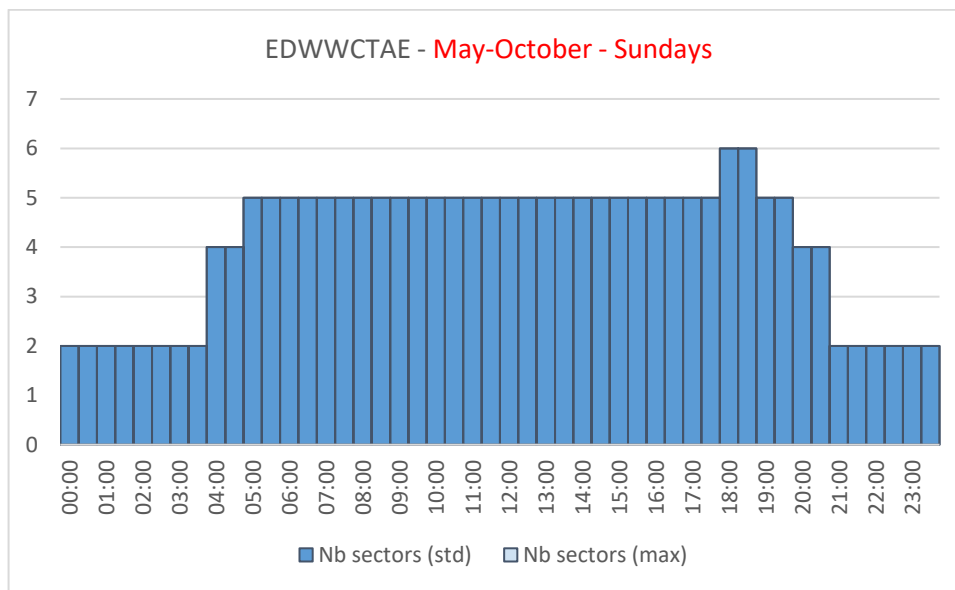
2021 Summer Capacity Plan	
Free Route Airspace	Free Route Airspace in DFS AoR, H24, above FL 245 / FL285
Airport & TMA Network Integration	Link AMAN EDDB – EDYY
Cooperative Traffic Management	
Airspace	
Procedures	
Staffing	-10
Technical	
Capacity	
Significant Events	
Additional information	Staffing figures relate to the difference in number of ATCOs (FTE) at the end of one year (31 December) compared to the year before.

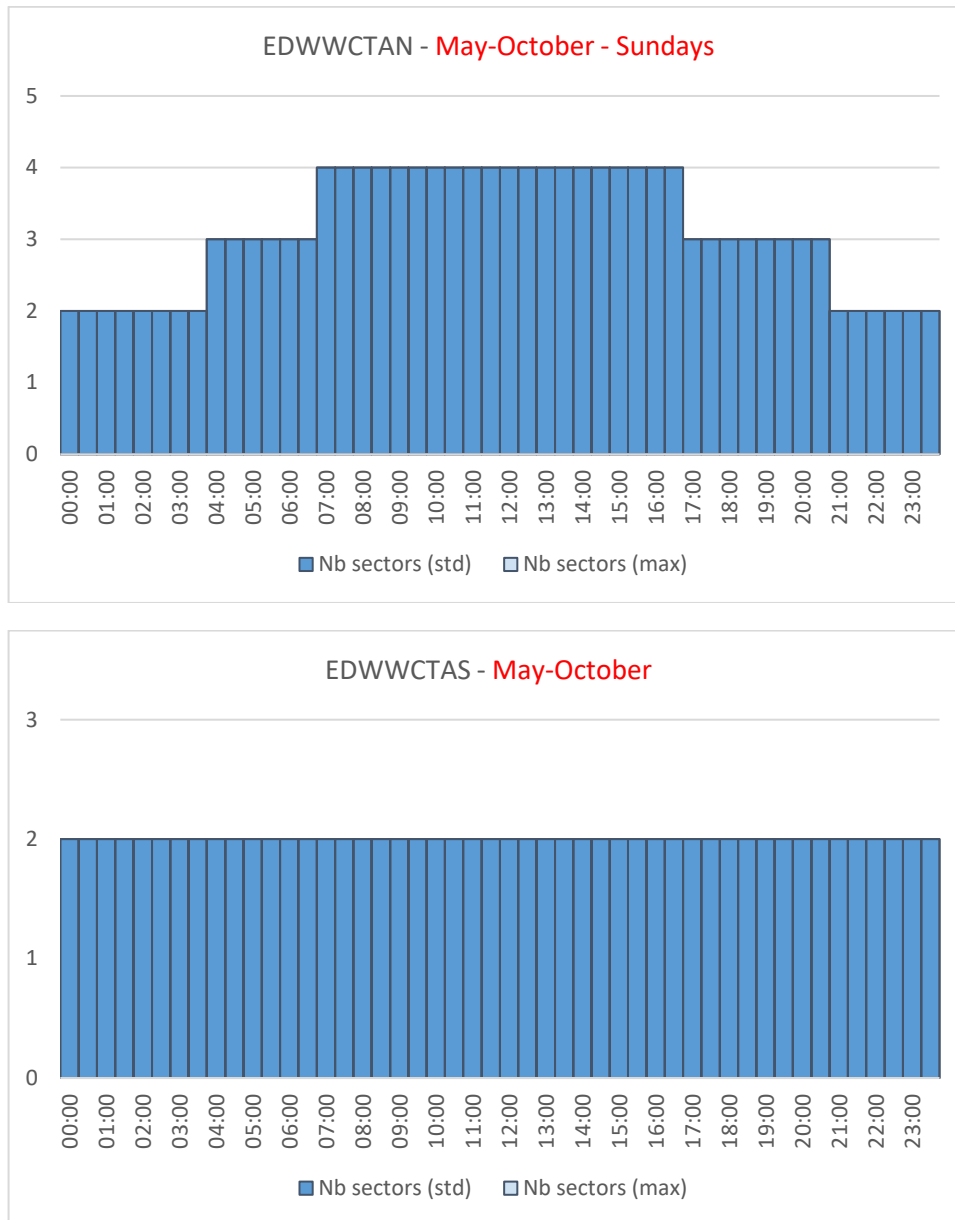
Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
13-Nov-21		EDWW	Operation on back up system - no delays expected
27-Nov-21		EDWW	Operation on back up system - no delays expected
11-Dec-21		EDWW	Operation on back up system - no delays expected

Sectors available - Summer 2021

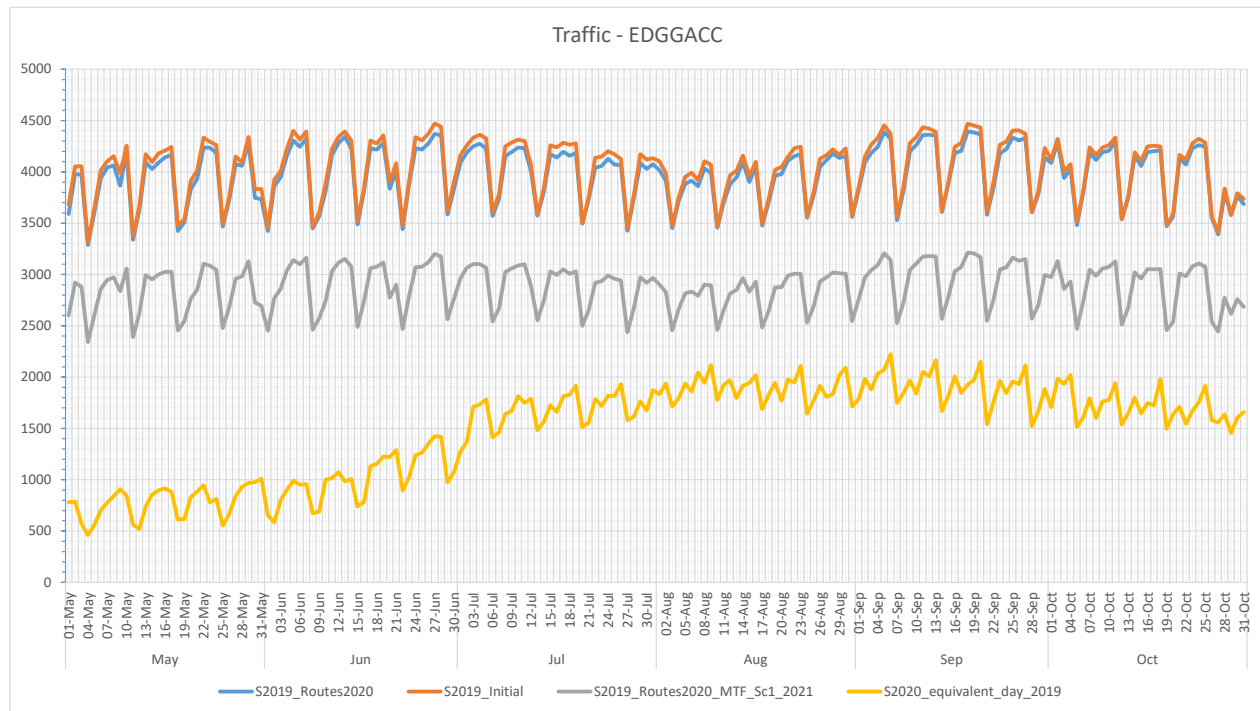




Expected Performance

EDWWCTAE: Traffic demand is expected to be above declared capacity with the planned number of sectors on weekdays and Sundays. There is no possibility to open an additional sector for long periods every day, but some flexibility might be provided to open an additional sector for short traffic peaks in the morning and evening.

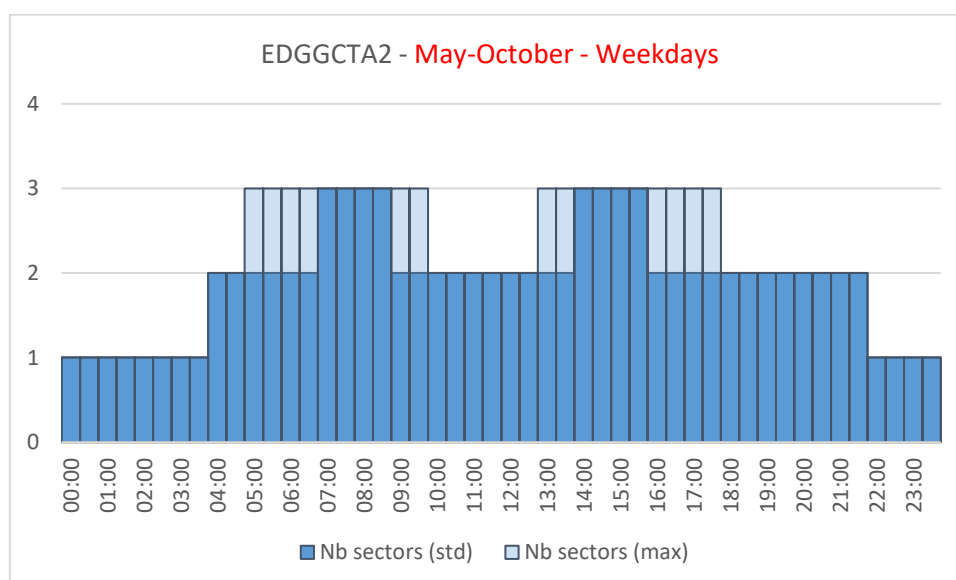
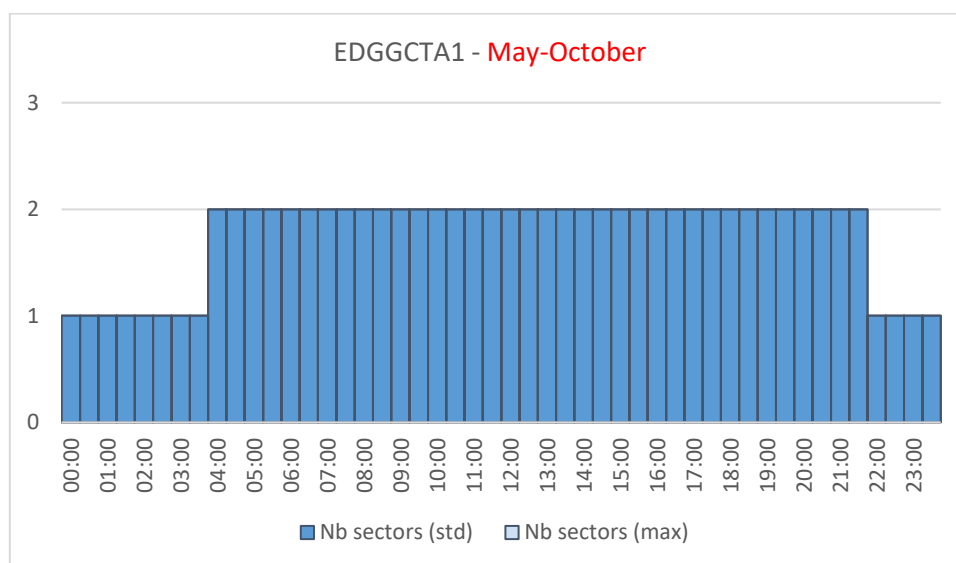
EDWWCTAN and EDWWCTAS: No capacity issues are foreseen in Summer 2021.

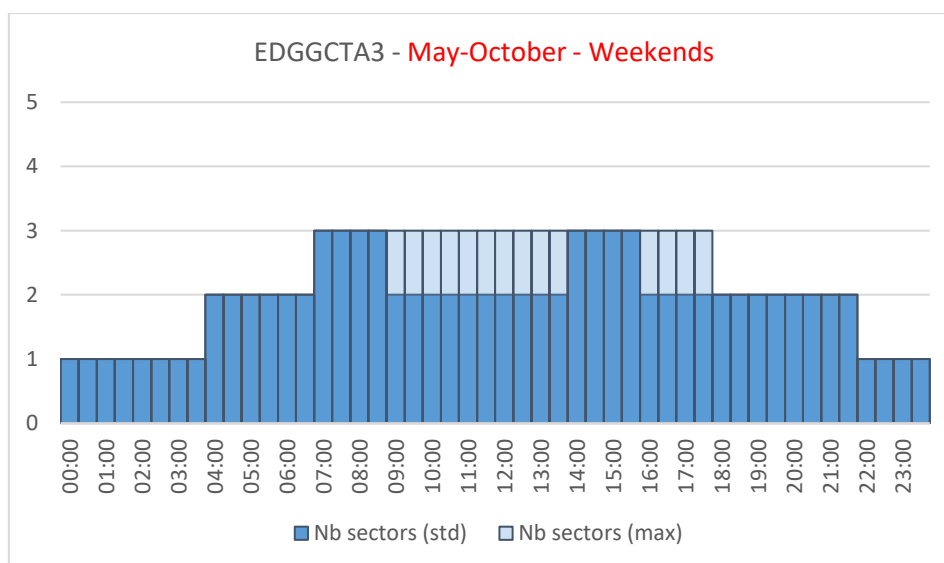
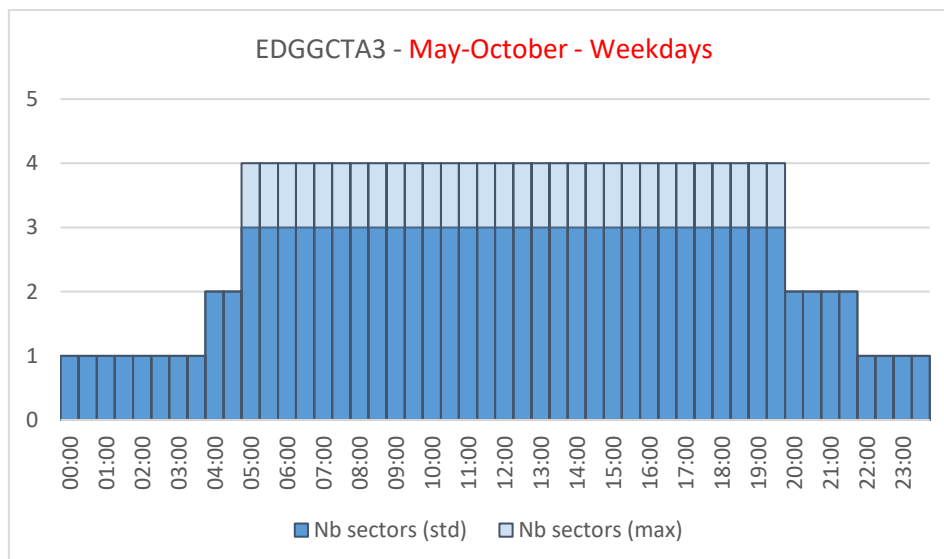
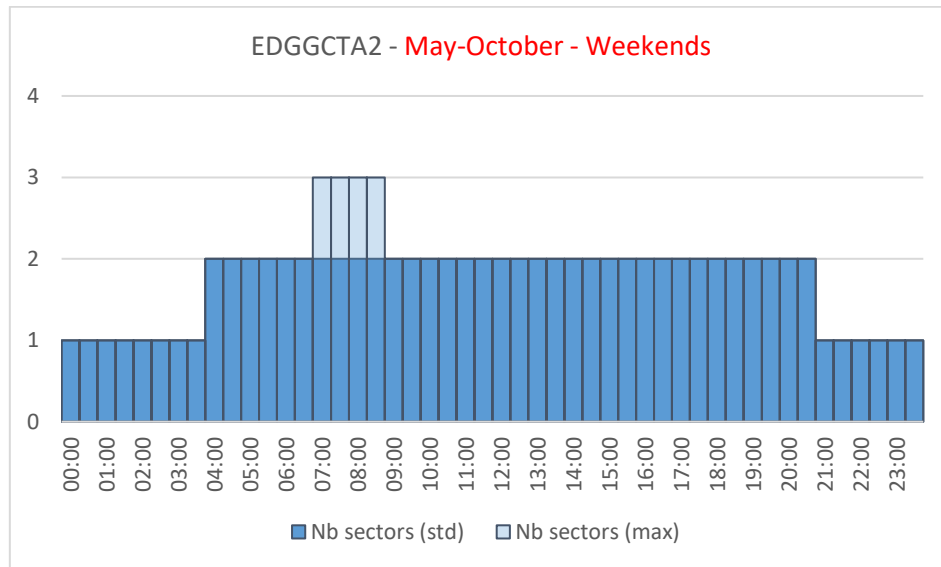
GERMANY**LANGEN ACC****Traffic forecast****Planned capacity enhancement measures**

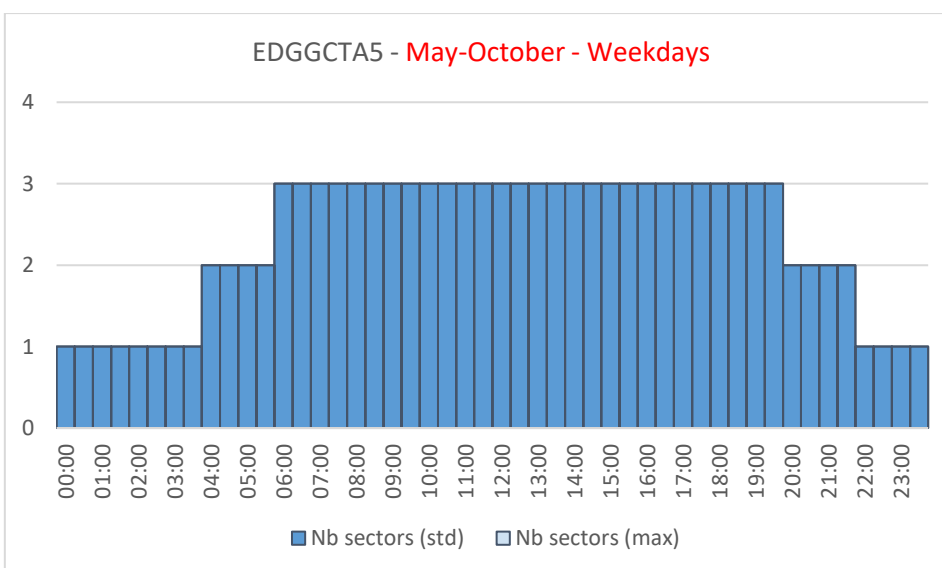
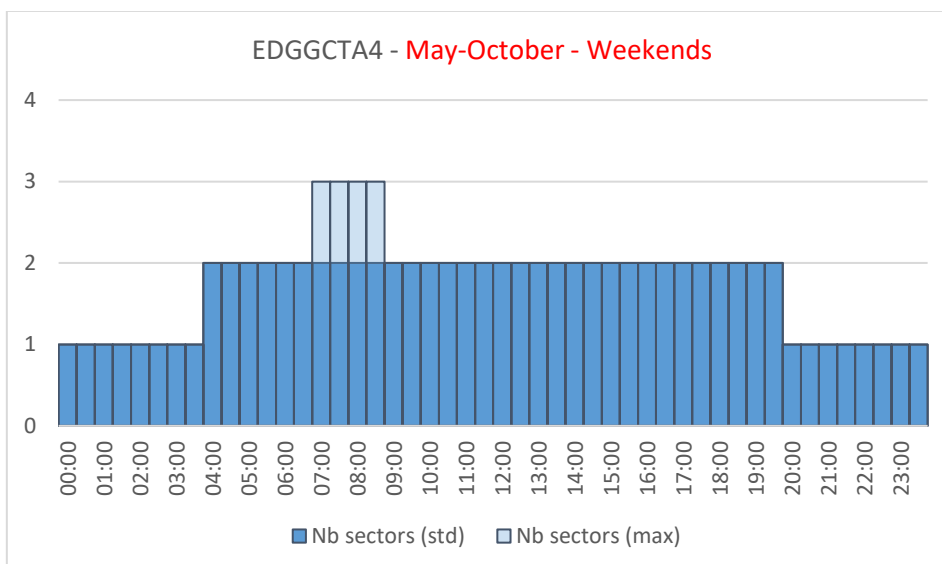
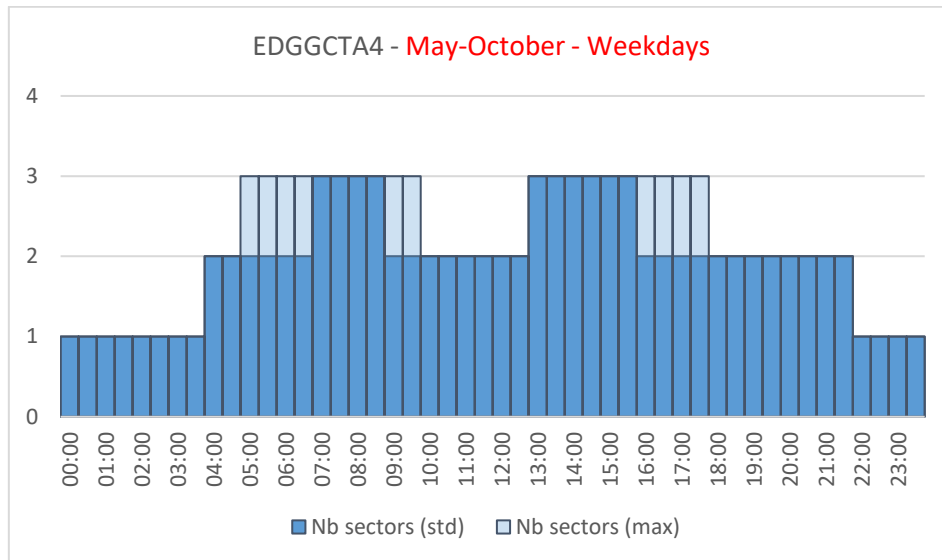
2021 Summer Capacity Plan	
Free Route Airspace	
Airport & TMA Network Integration	Link XMAN EDDF – LFEE Link AMAN EDDL – EDUU / EDWW Planned capacity increase at Frankfurt Airport (EDDF)
Cooperative Traffic Management	
Airspace	High Transition Operations (HTO) - Phase 3a Restructuration of SF01: DUS APP
Procedures	
Staffing	+ 5
Technical	Implementation PSS SF01 Additional Controller Assistance Tools (CATO): SF02 + SF04
Capacity	
Significant Events	
Additional information	Staffing figures relate to the difference in number of ATCOs (FTE) at the end of one year (31 December) compared to the year before.

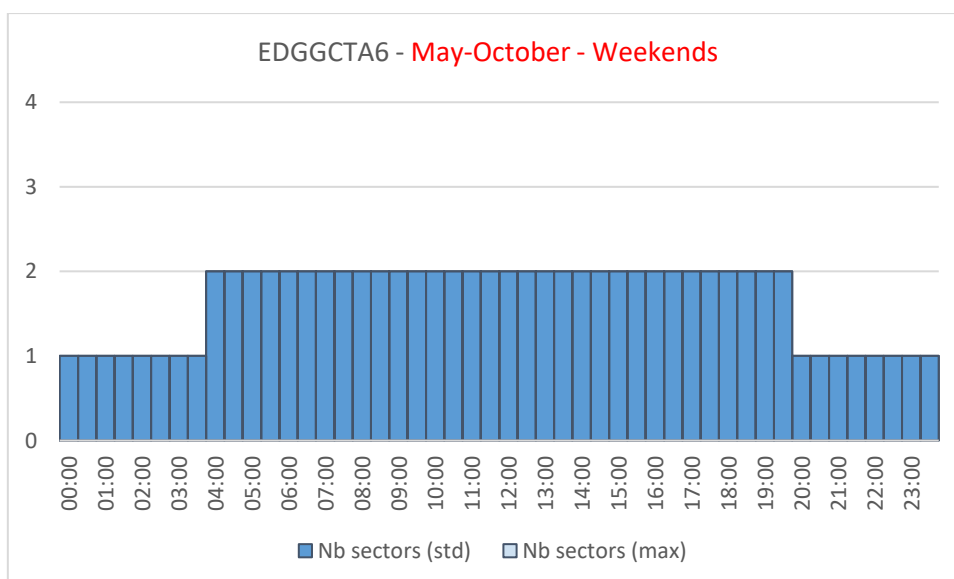
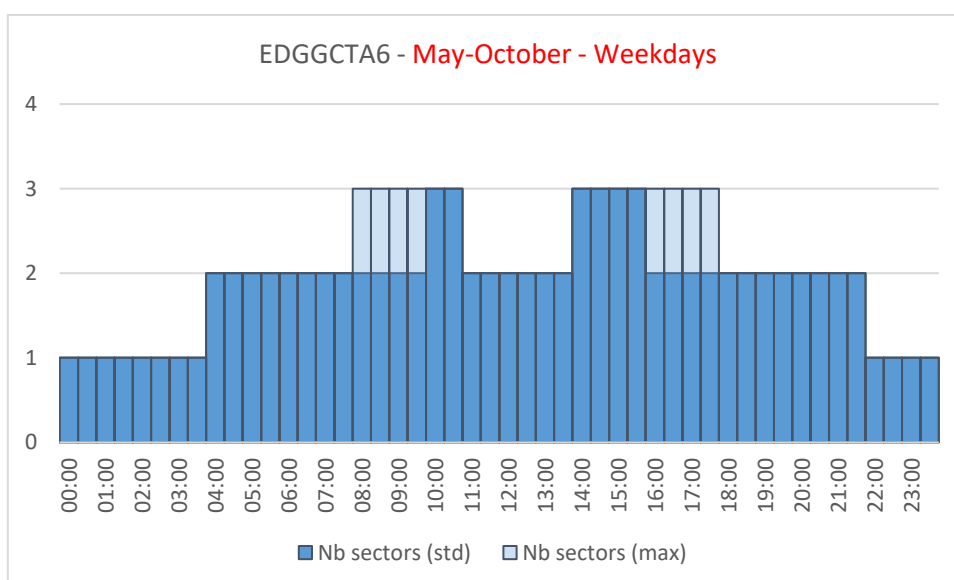
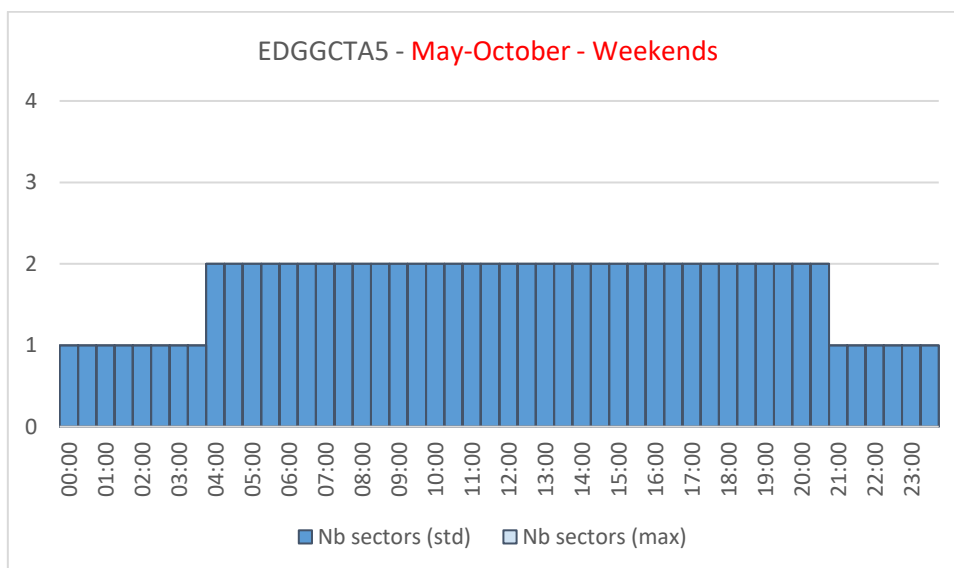
Events

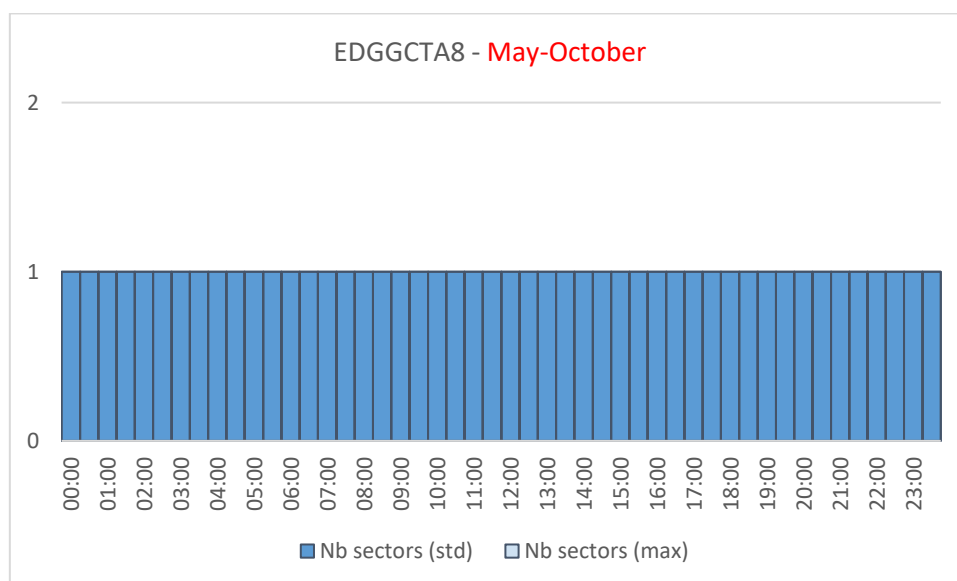
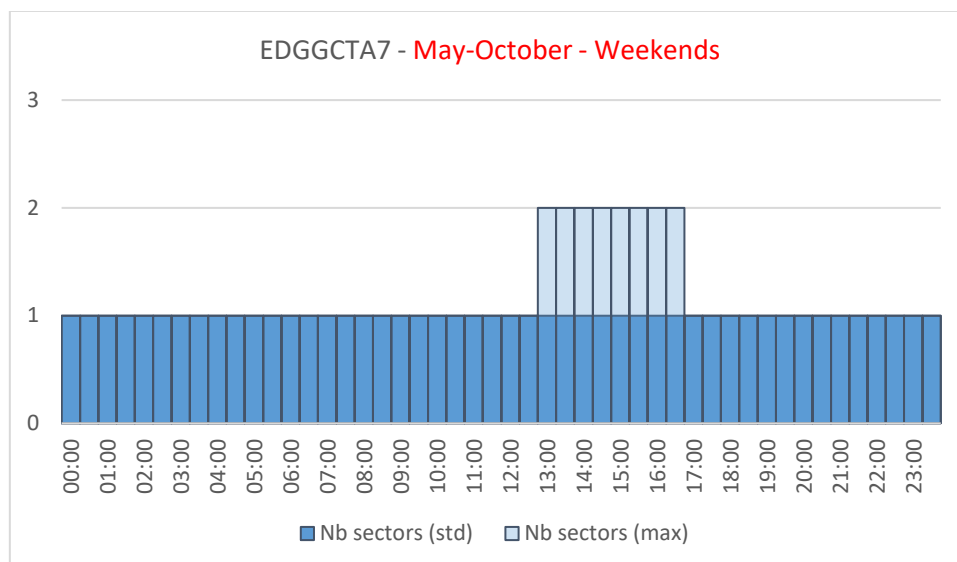
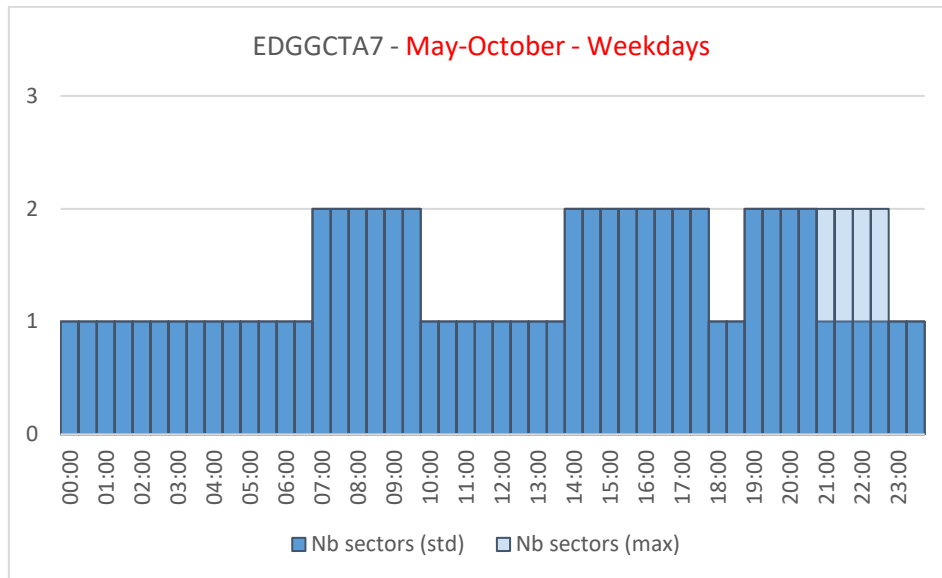
All events (including airport and military events) can be found in Chapter 7. Further updates are reported every week in the rolling seasonal NOP.

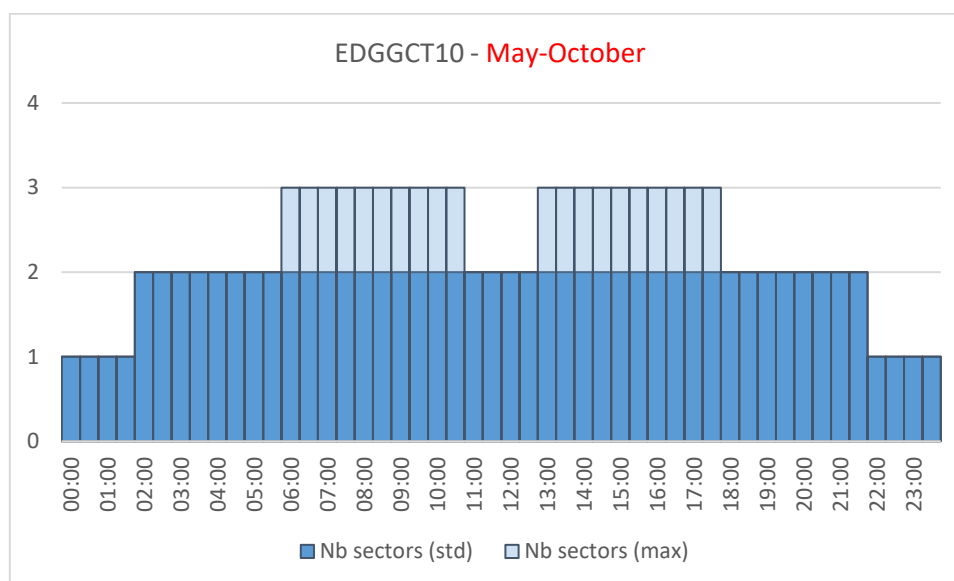
Sectors available - Summer 2021





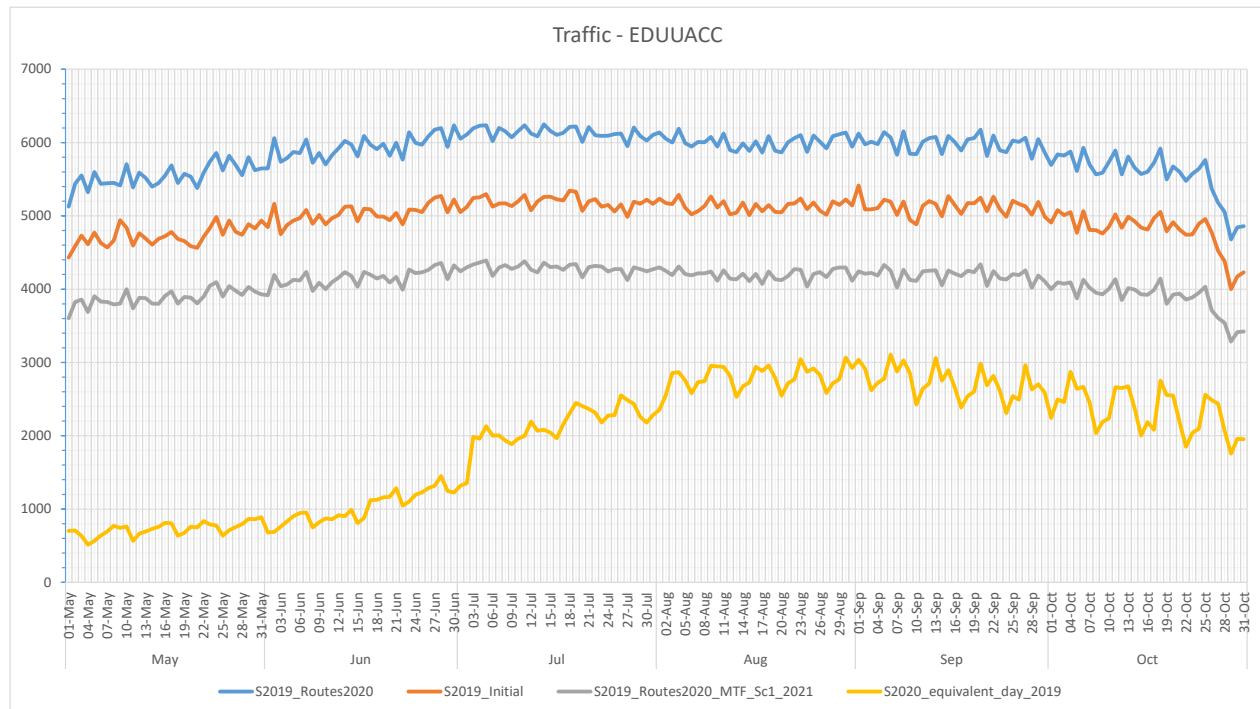






Expected Performance

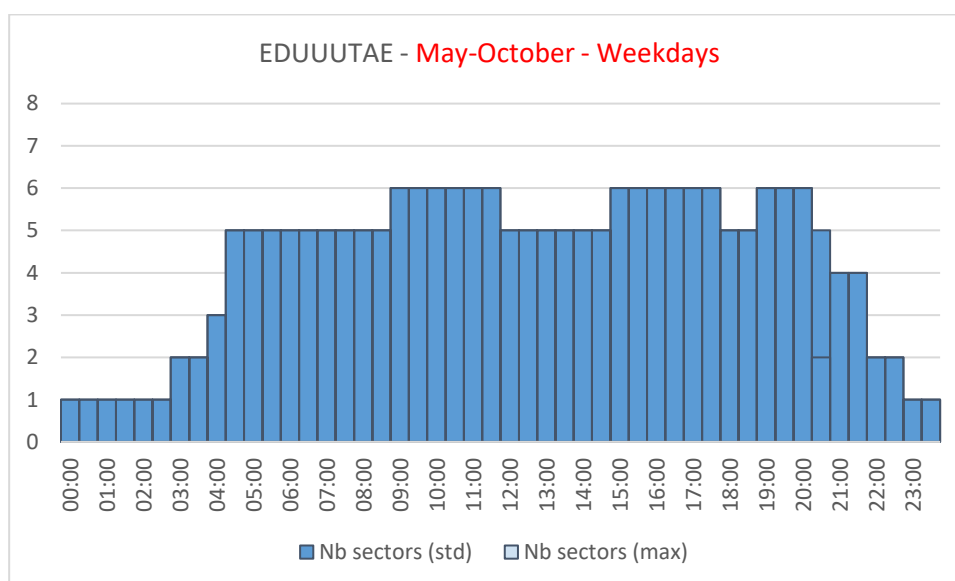
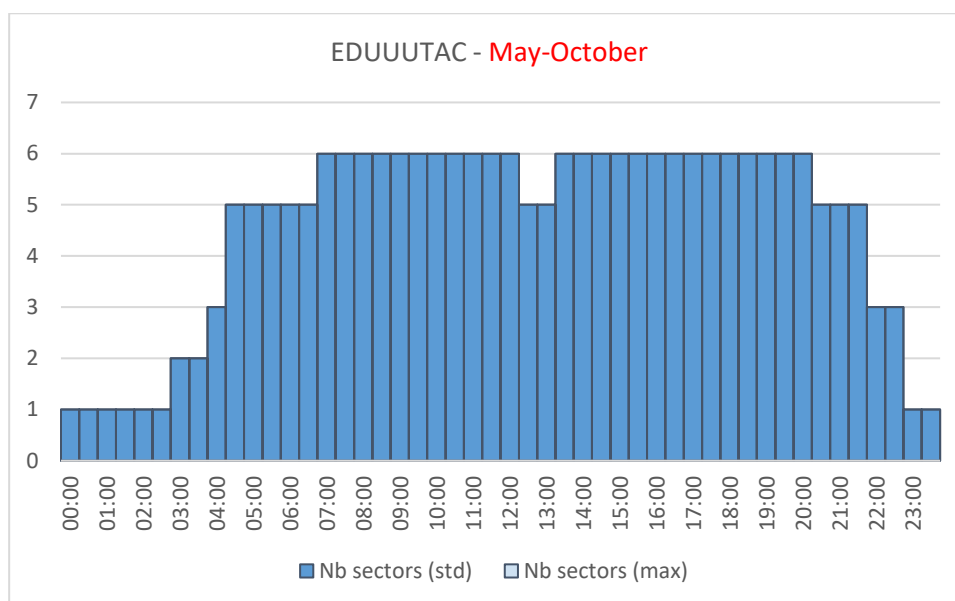
No capacity issues are foreseen for Langen ACC in Summer 2021.

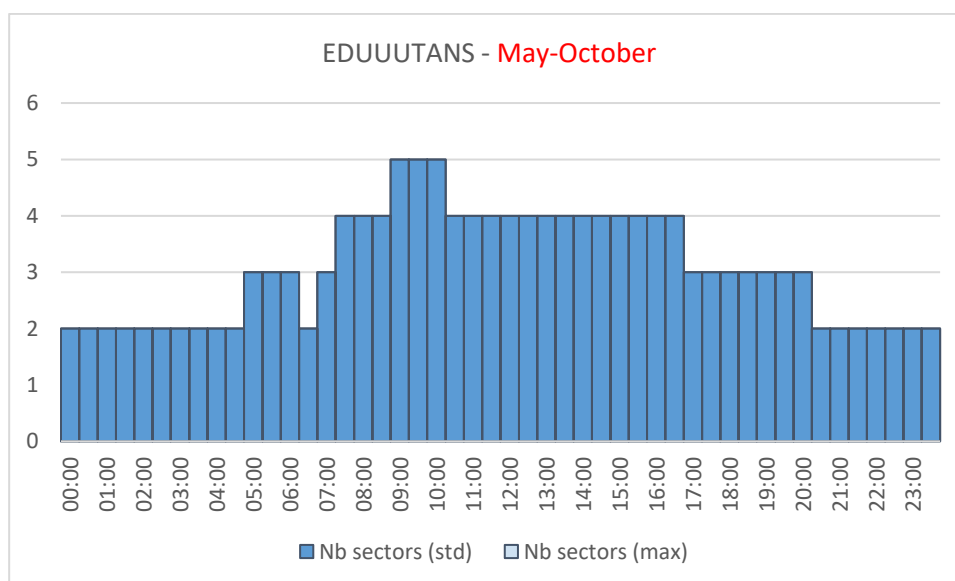
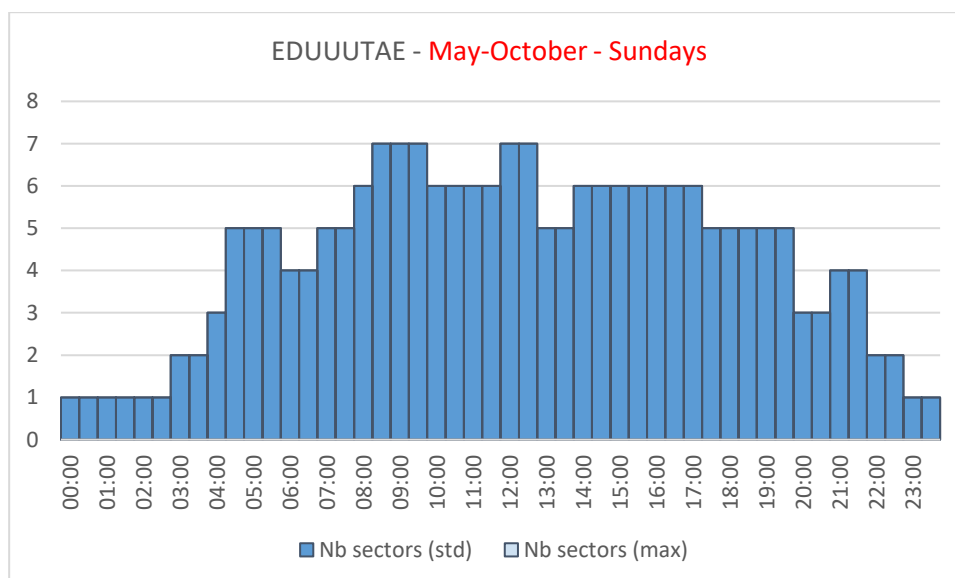
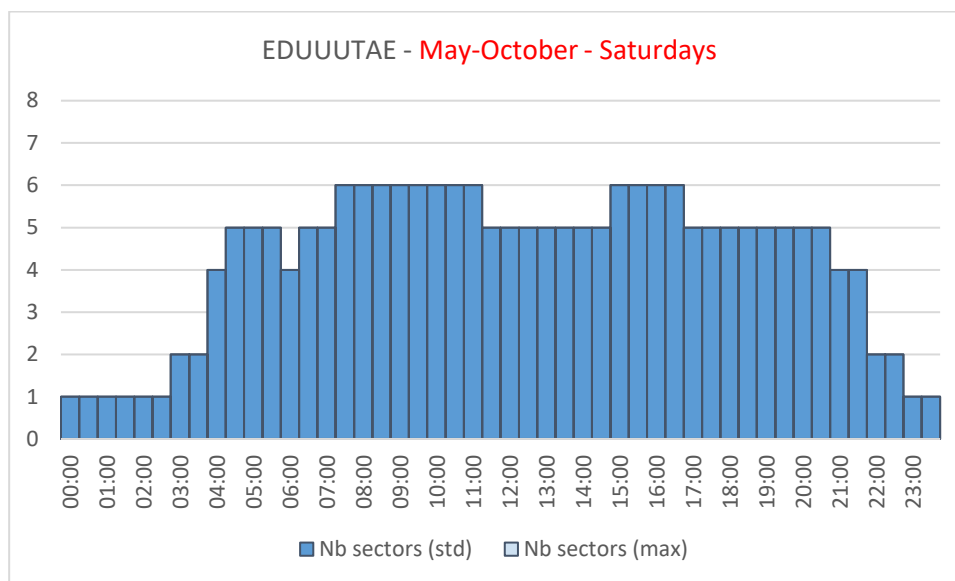
GERMANY**KARLSRUHE UAC****Traffic forecast****Planned capacity enhancement measures**

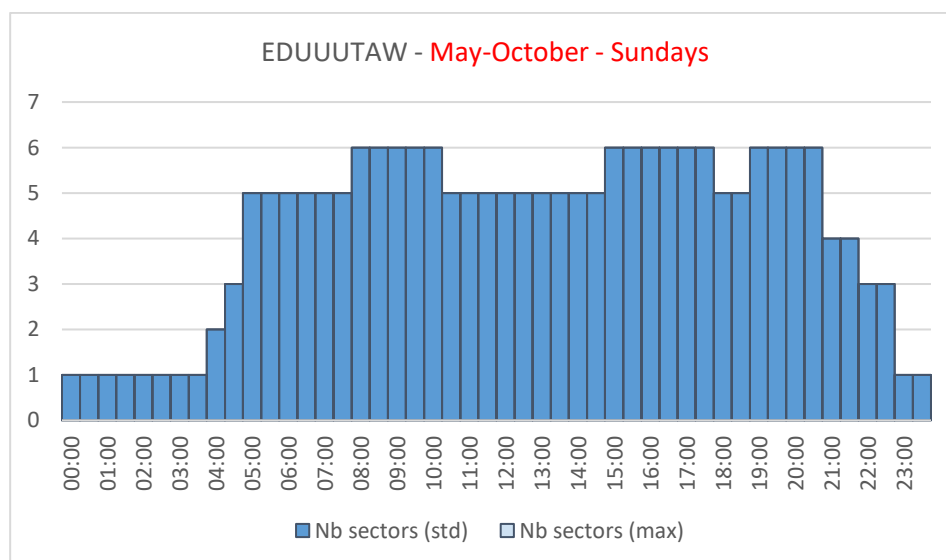
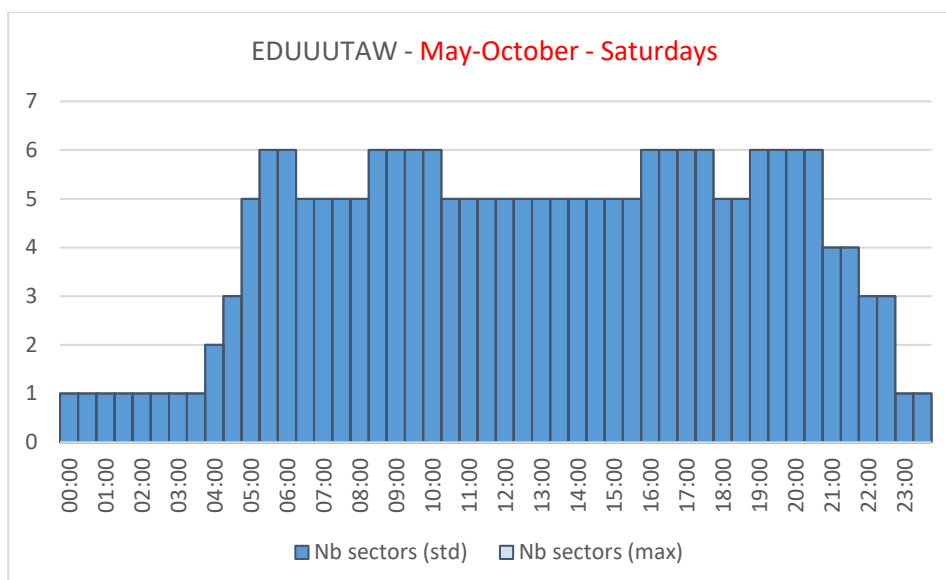
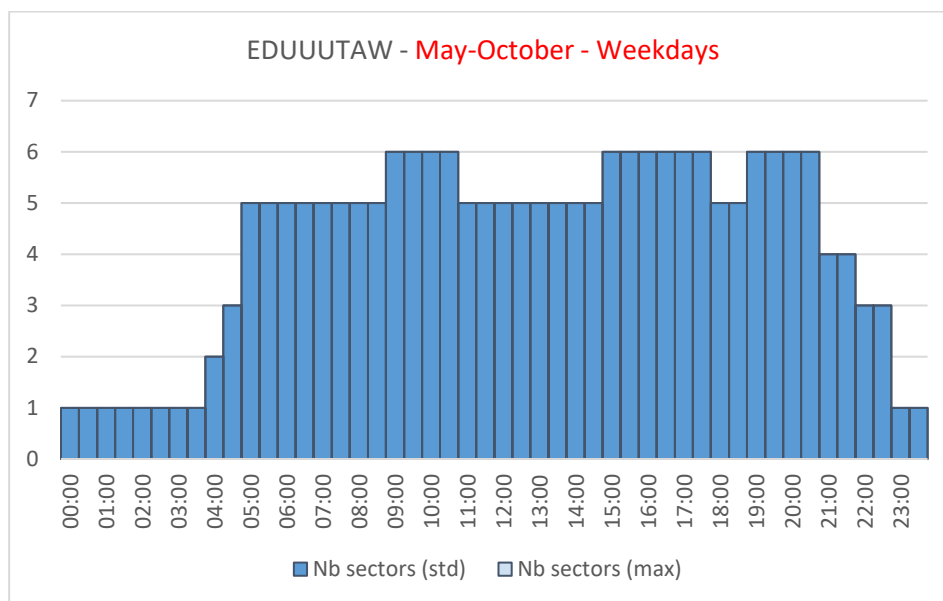
2021 Summer Capacity Plan	
Free Route Airspace	Full Free Route Airspace in DFS AoR, H24, above FL245 / FL285
Airport & TMA Network Integration	
Cooperative Traffic Management	
Airspace	
Procedures	
Staffing	Long-term recruitment plan 2021: +17
Technical	Progressive utilization of Data Link depending on the number of connected flights
Capacity	
Significant Events	
Additional information	Staffing figures relate to the difference in number of ATCOs (FTE) at the end of one year (31 December) compared to the year before.

Events

All events (including airport and military events) can be found in Chapter 7. Further updates are reported every week in the rolling seasonal NOP.

Sectors available - Summer 2021





Expected Performance

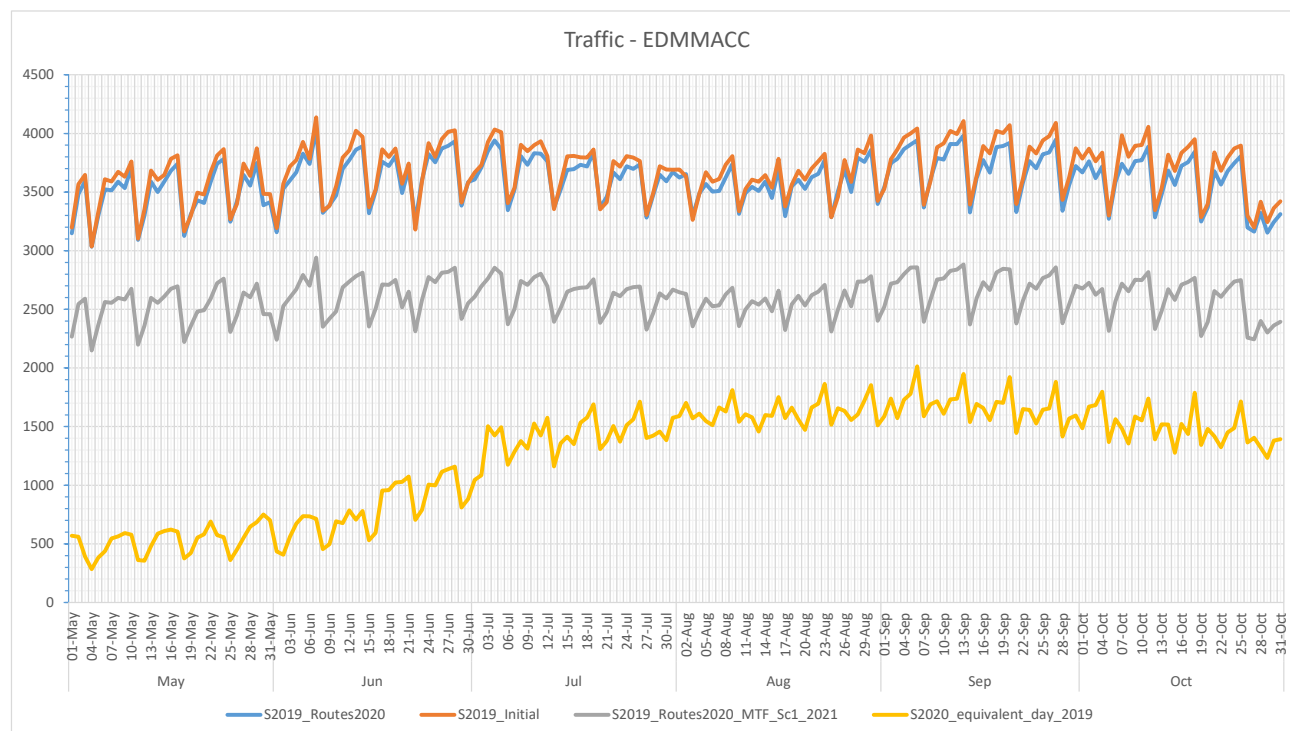
EDUUUTANS: Traffic demand is expected to be close or slightly above capacity in June, July, August and September during the day and some flexibility might be needed on configuration of an extra sector for short periods of time during traffic peaks.

Additionally, traffic demand is expected to be above declared capacity in the morning and on some evenings. There is no possibility to open an additional sector during those periods. ATFCM measures such as STAM or scenarios might be required.

EDUUUTAC, EDUUUTAE, EDUUUTAW: No capacity issues are foreseen in Summer 2021

GERMANY

MÜNCHEN ACC

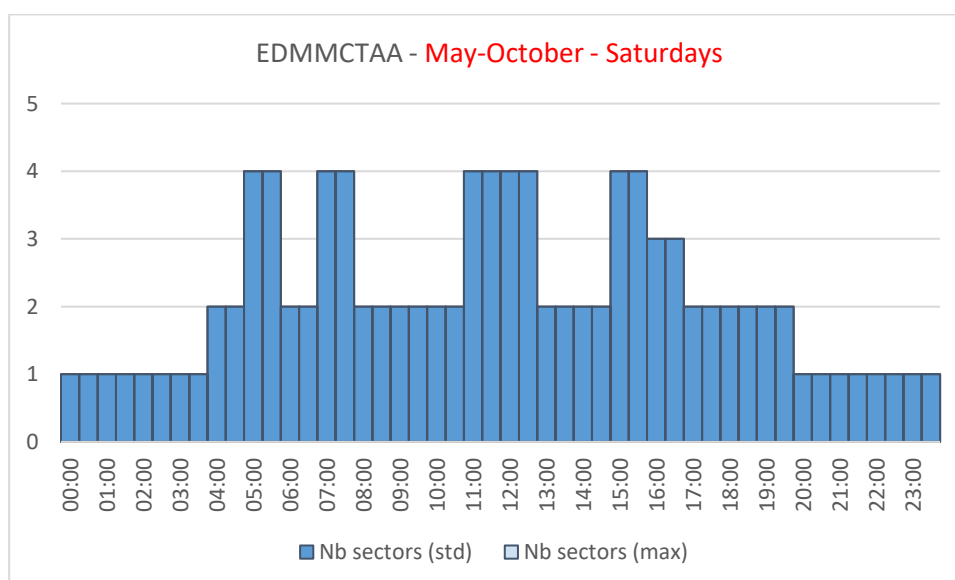
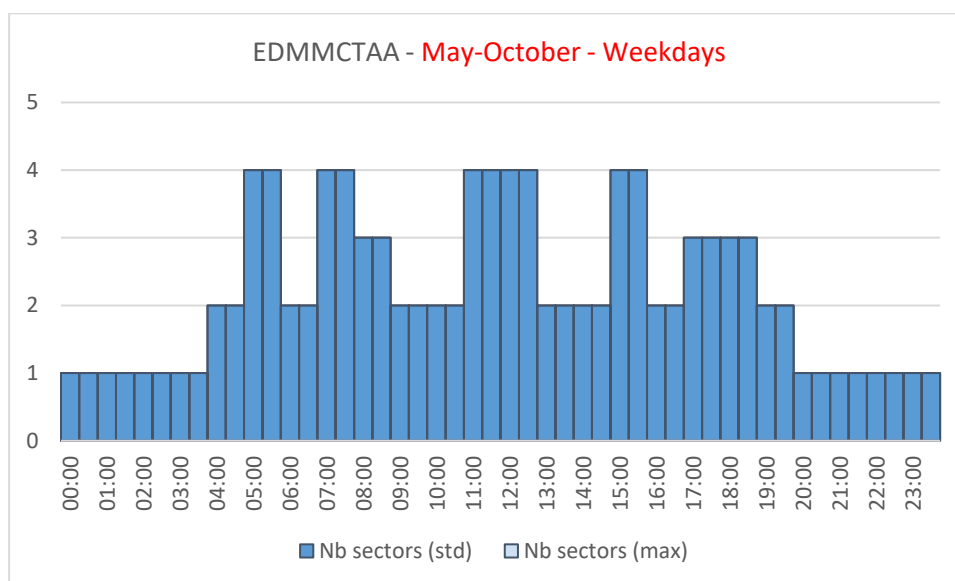
Traffic forecast**Planned capacity enhancement measures**

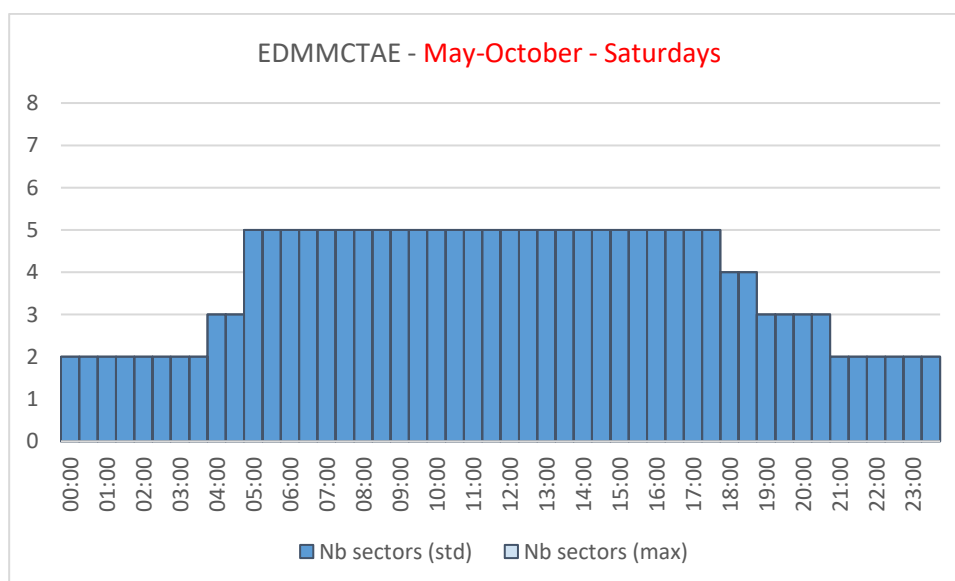
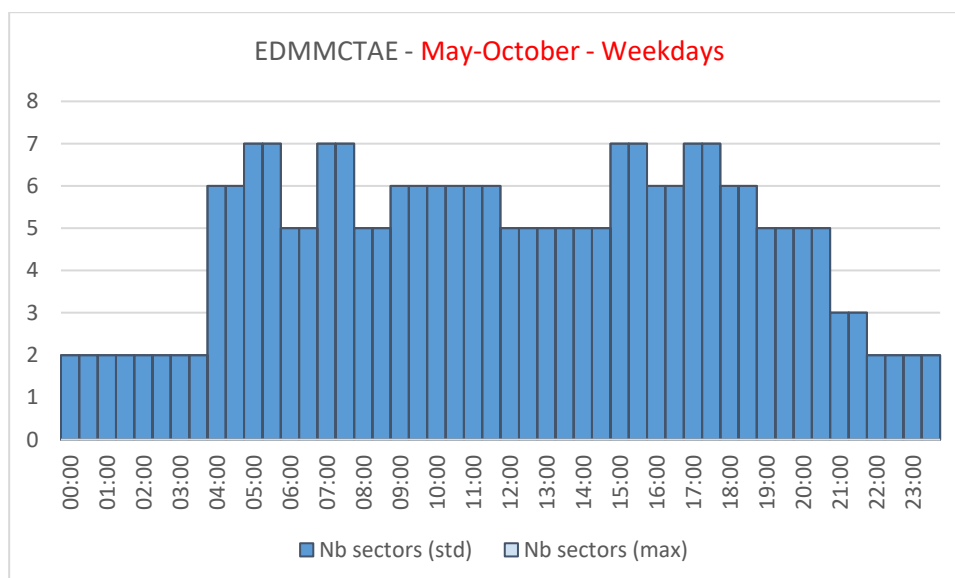
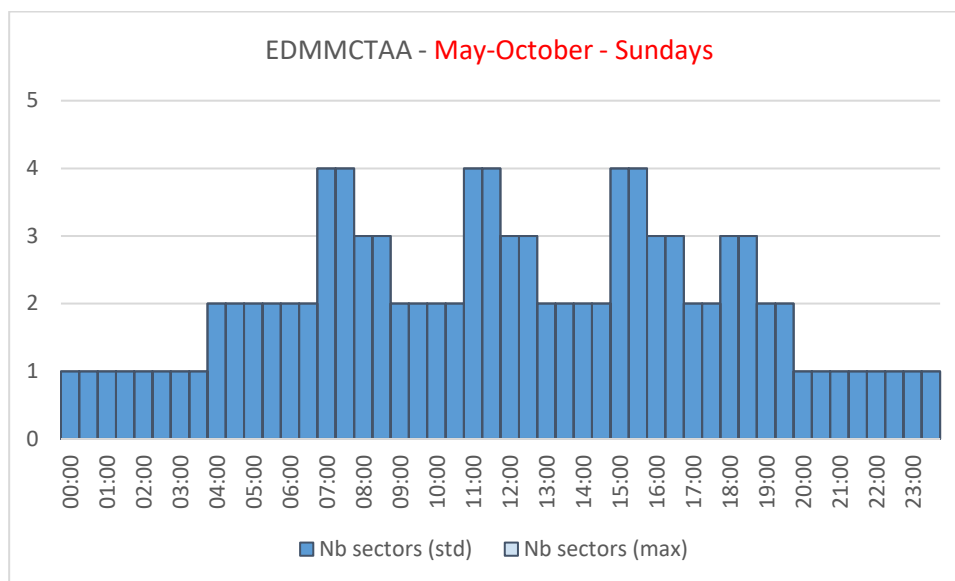
2021 Summer Capacity Plan	
Free Route Airspace	
Airport & TMA Network Integration	Link AMAN EDDM – LIPP
Cooperative Traffic Management	
Airspace	
Procedures	
Staffing	+1
Technical	
Capacity	Training and Transition for iCAS
Significant Events	
Additional information	Staffing figures relate to the difference in number of ATCOs (FTE) at the end of one year (31 December) compared to the year before.

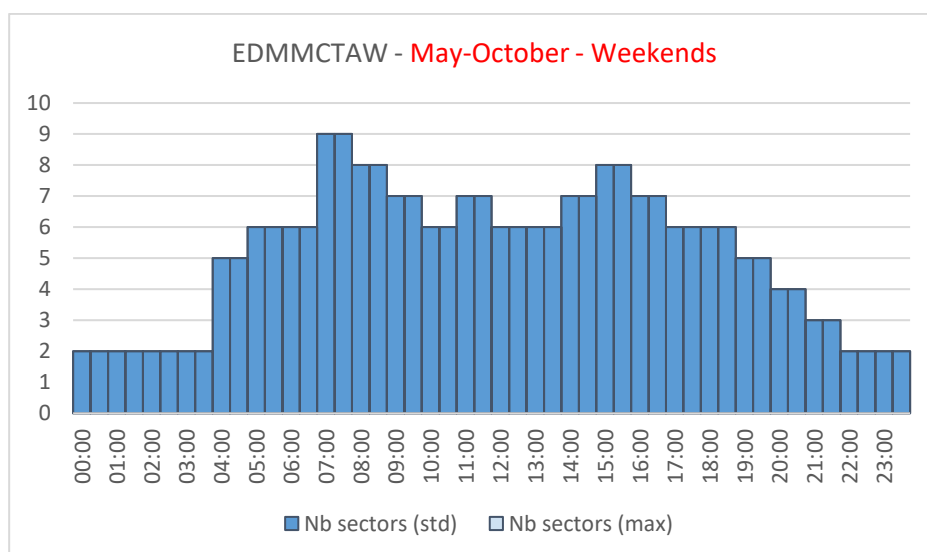
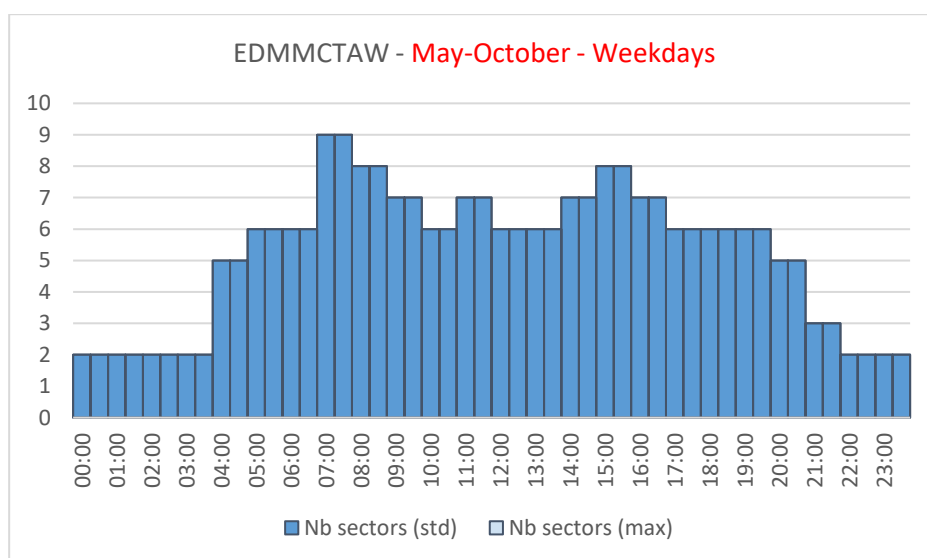
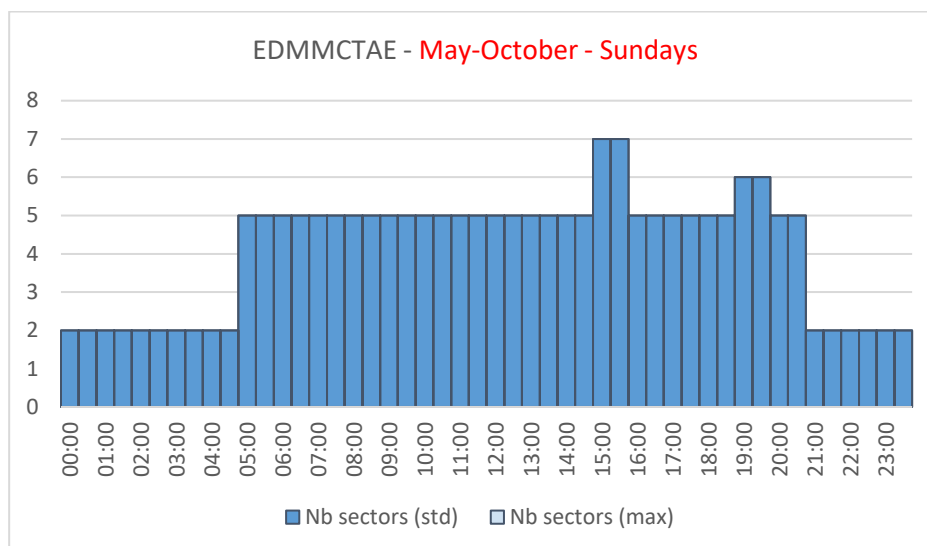
Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
01-Jul-21	01-Jul-22	EDMM	TRAINING new ATS implementation iCAS for EDMMACC
30-Jul-22		EDMM	Implementation new ATS iCAS for EDMMACC

Sectors available - Summer 2021





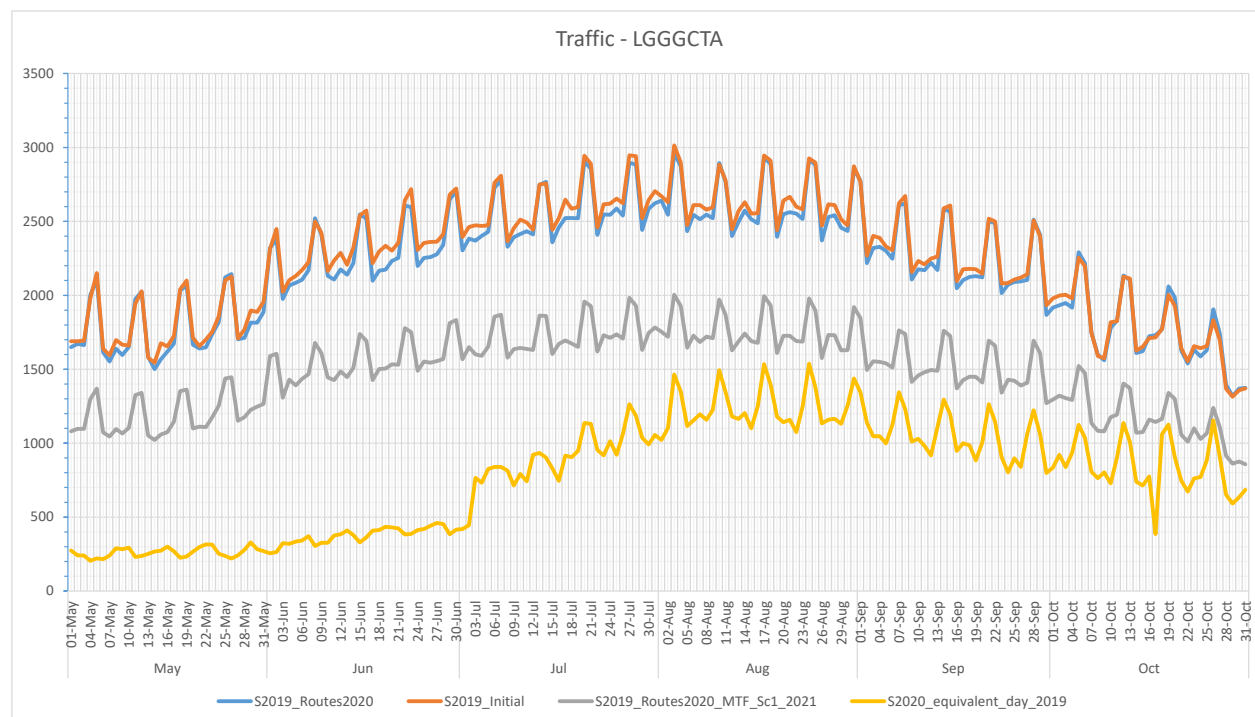
Expected Performance

No capacity issues are foreseen for München ACC in Summer 2021.

GREECE

ATHINAI ACC

Traffic Forecast



Planned capacity enhancement measures

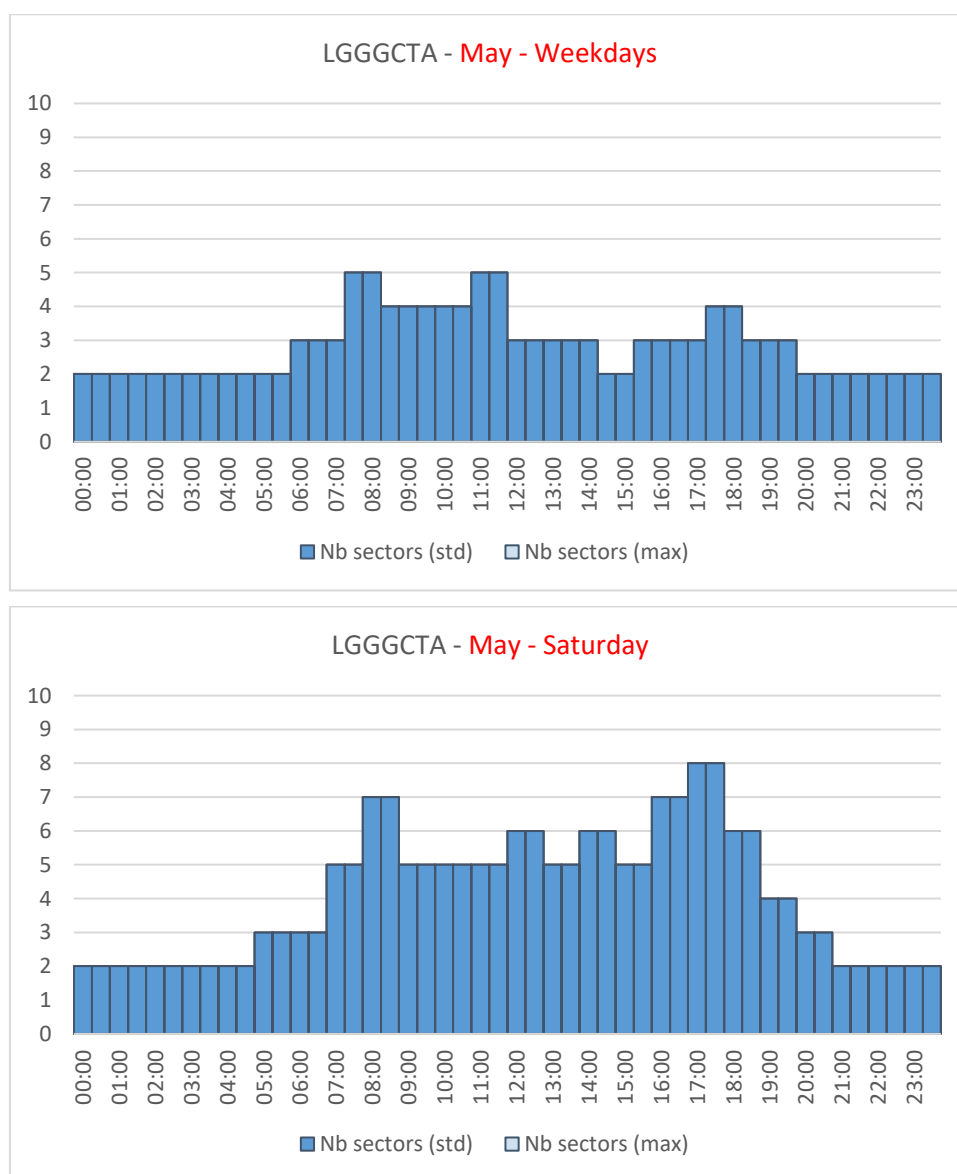
2021 Summer Capacity Plan	
Free Route Airspace	Stepped implementation of FRA as described in the ERNIP Part 2
Airspace Management Advanced FUA	Civil/military coordination improvements
	Stepped integration of future civil/military airspace structures' requirements
	Stepped Implementation of LARA
Airport & TMA Network Integration	PBN implementation and airspace resectorisation
	Relocation of Athens APP and review of ops procedures between Athinai APP and related TWRs
	DMAN Integration Athens Airport
Cooperative Traffic Management	Improved ATFCM, including STAM
Airspace	Improved ATS route network and airspace management
	Development of full airspace reorganisation/resectorisation project (new elementary sectors allowing for flexible sector configurations) for implementation in 2022
	Lower airspace reorganisation/resectorisation project for implementation in 2022
Procedures	
Staffing	Approximately 75 additional controllers for ACC, APP and TWRs
Technical	
Capacity	Sector Capacity Assessment for the current and new sectorisation including Athinai TMA
Significant Events	Training for the new VCRS
Additional information	

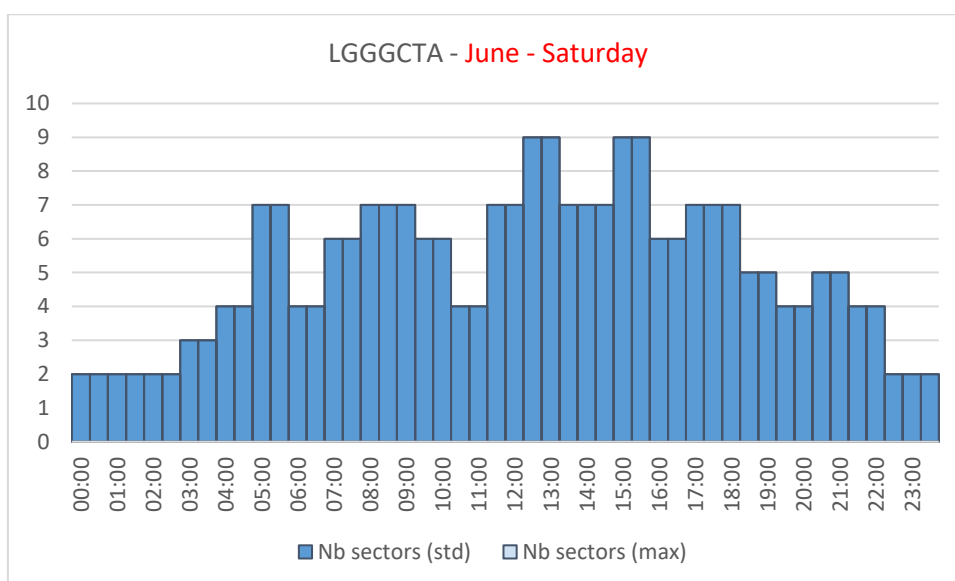
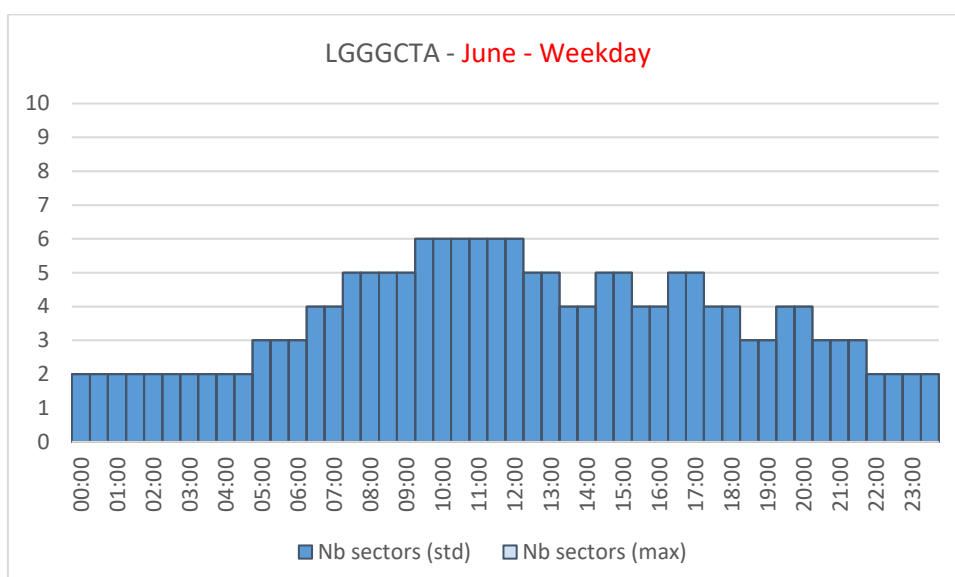
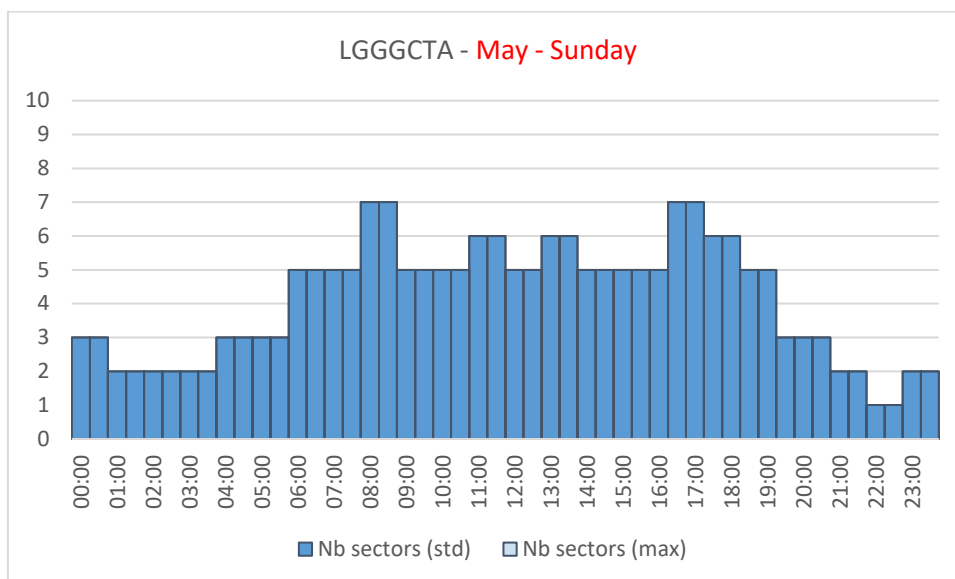
Events

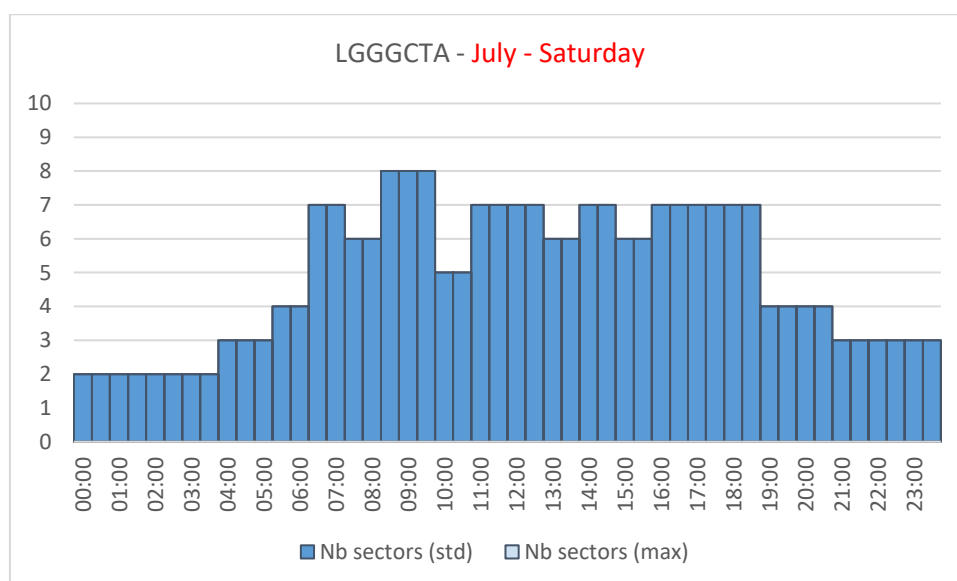
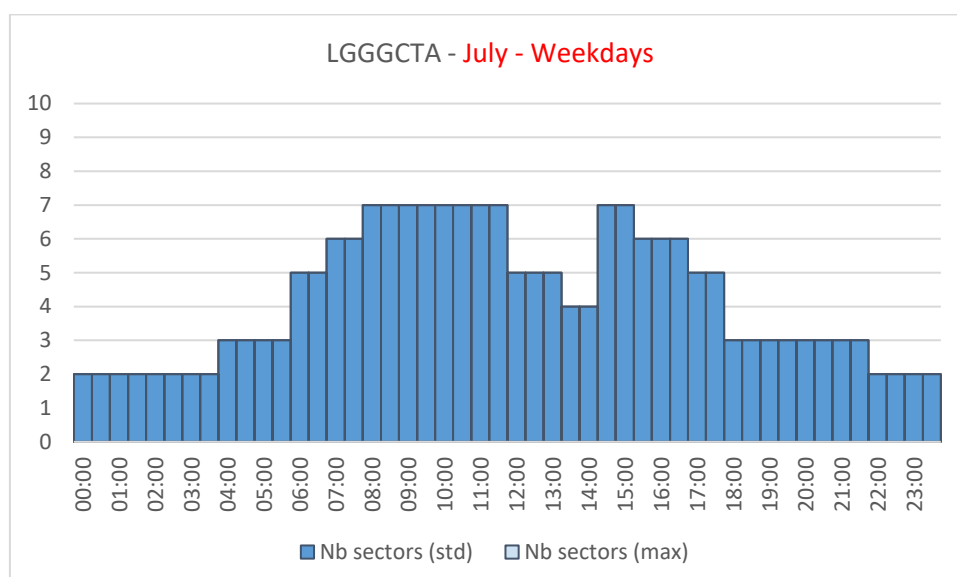
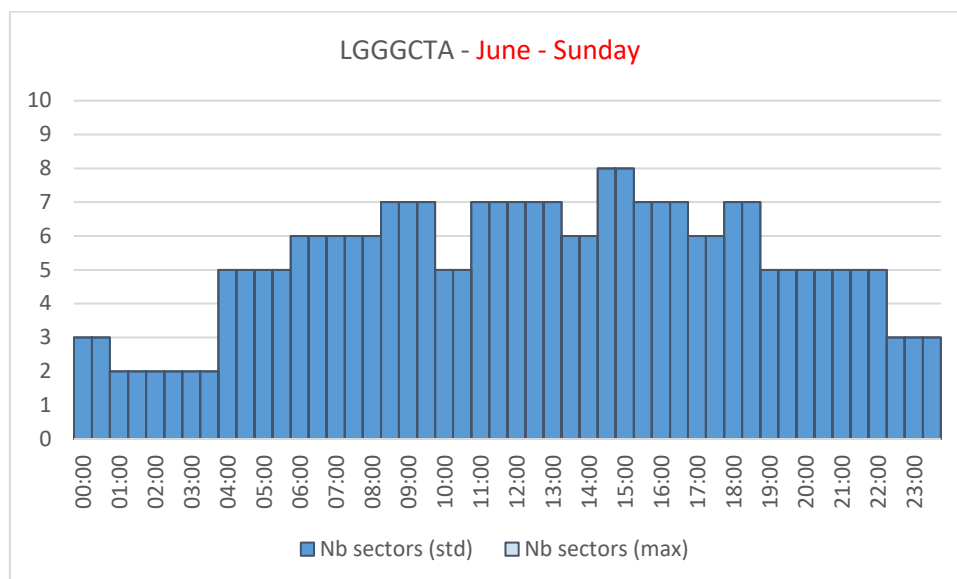
All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

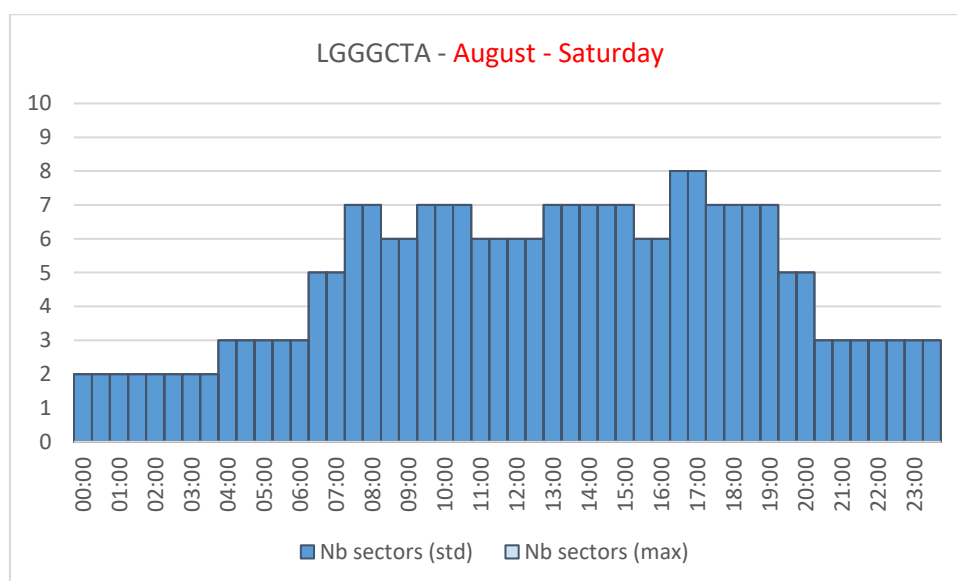
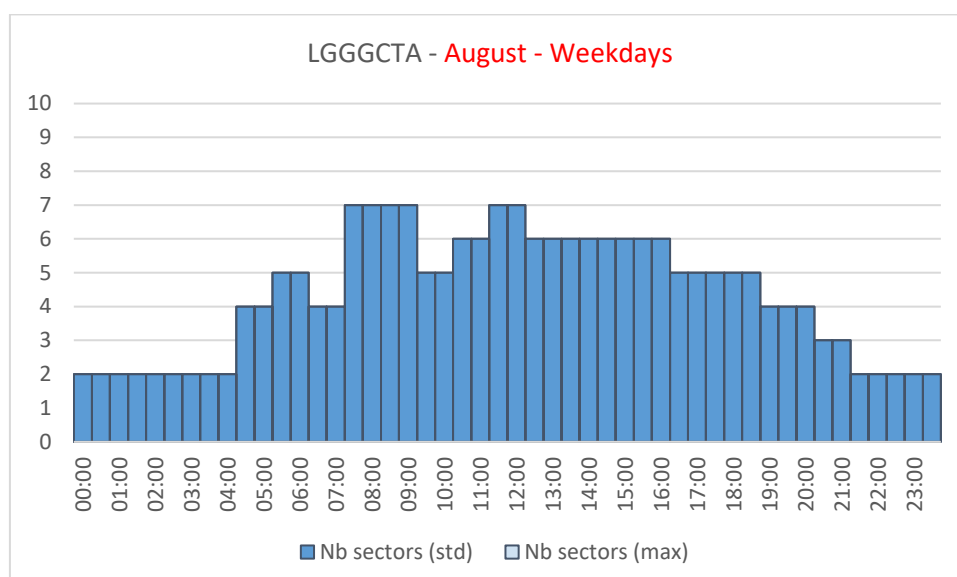
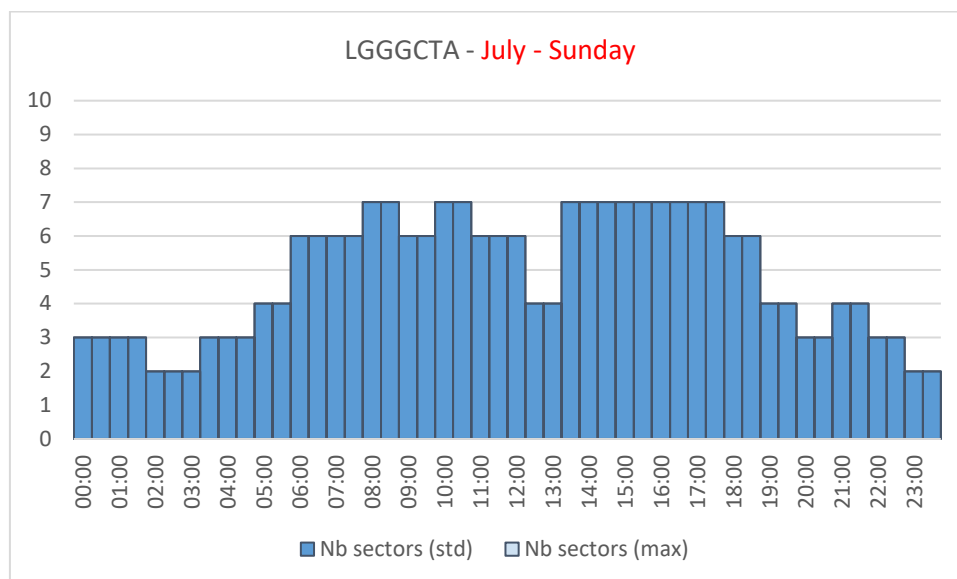
Start Date	End date	ACC/Airport	Event
Spring 2021		LGGG	To extend Free Route Airspace in Hellas UIR FL 460-FL660
Spring 2022		LGGG/LGMD	Greek Airspace reorganization - Phase 2 To redesign the ACC sectorisation within Athenai FIR/ Hellas UIR, Step 2.

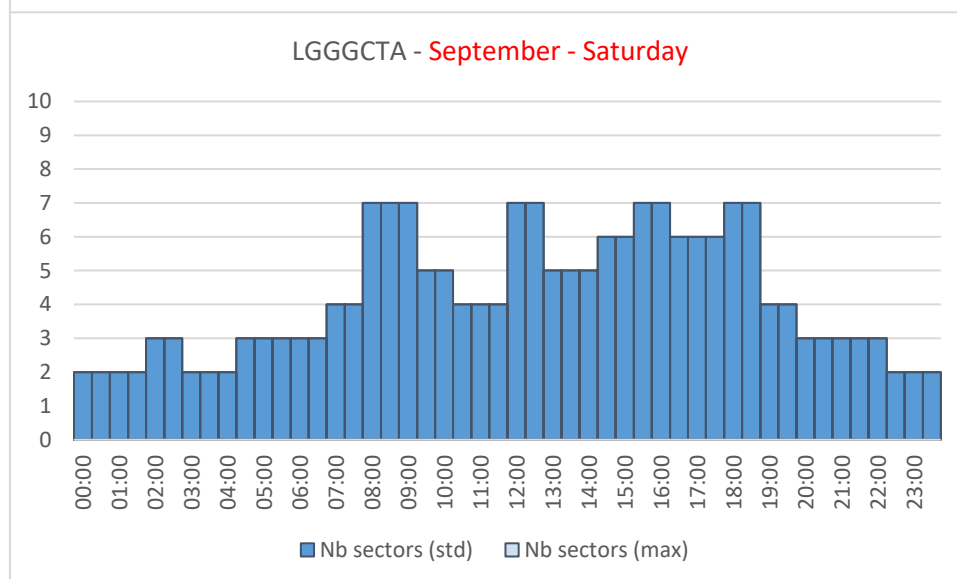
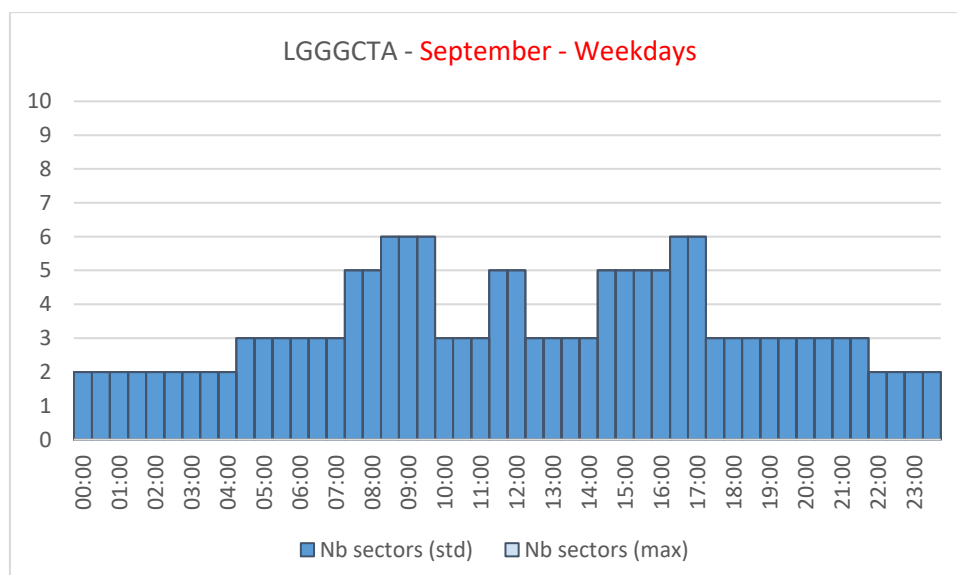
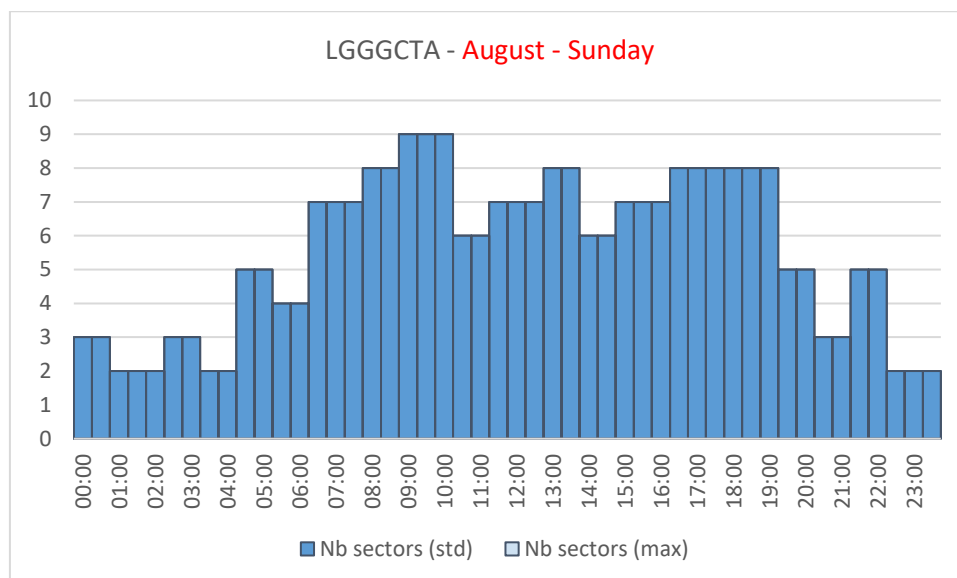
Sectors available - Summer 2021

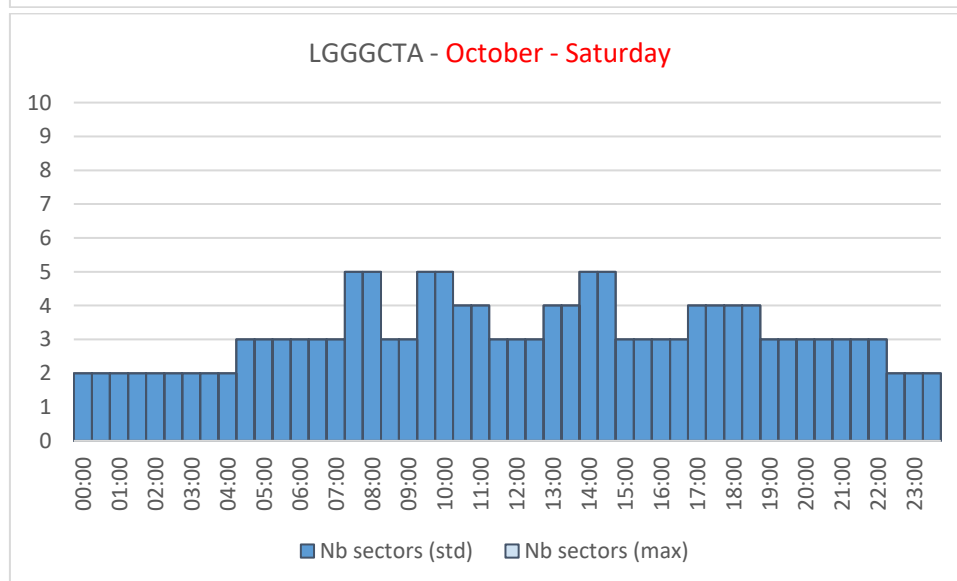
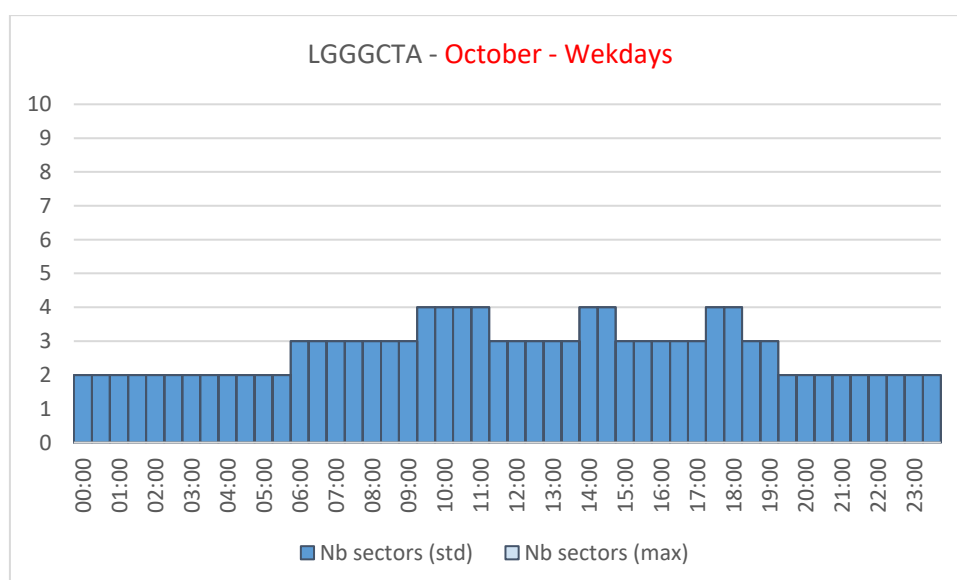
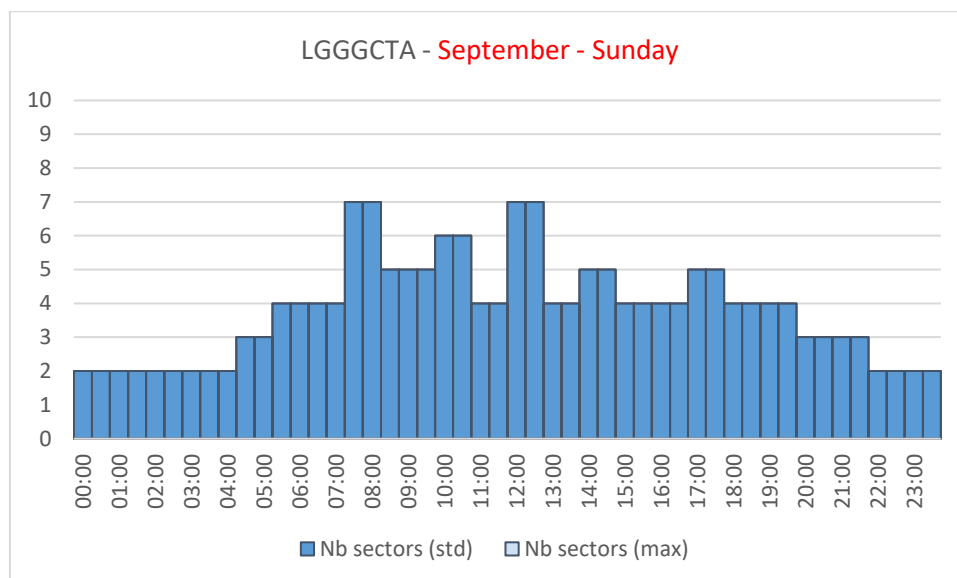


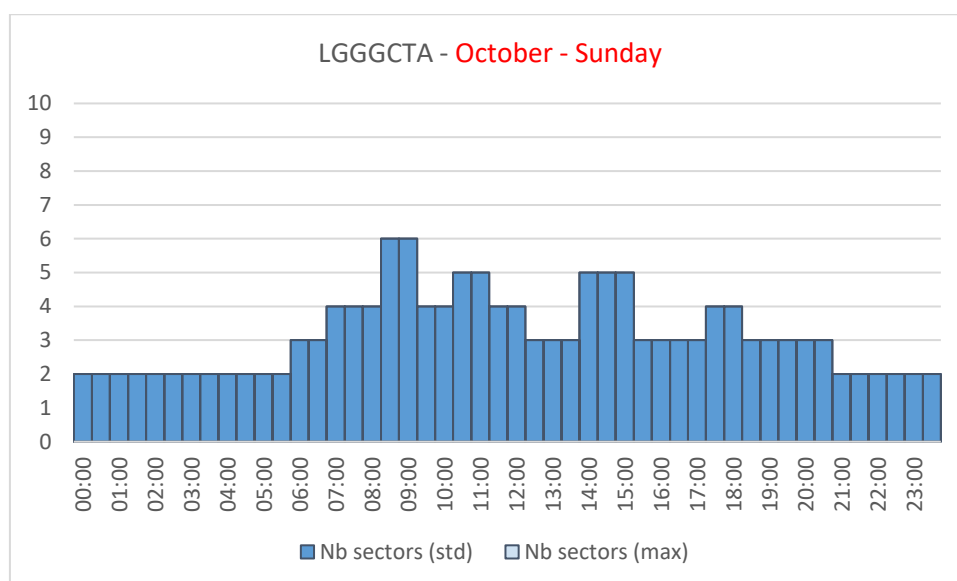












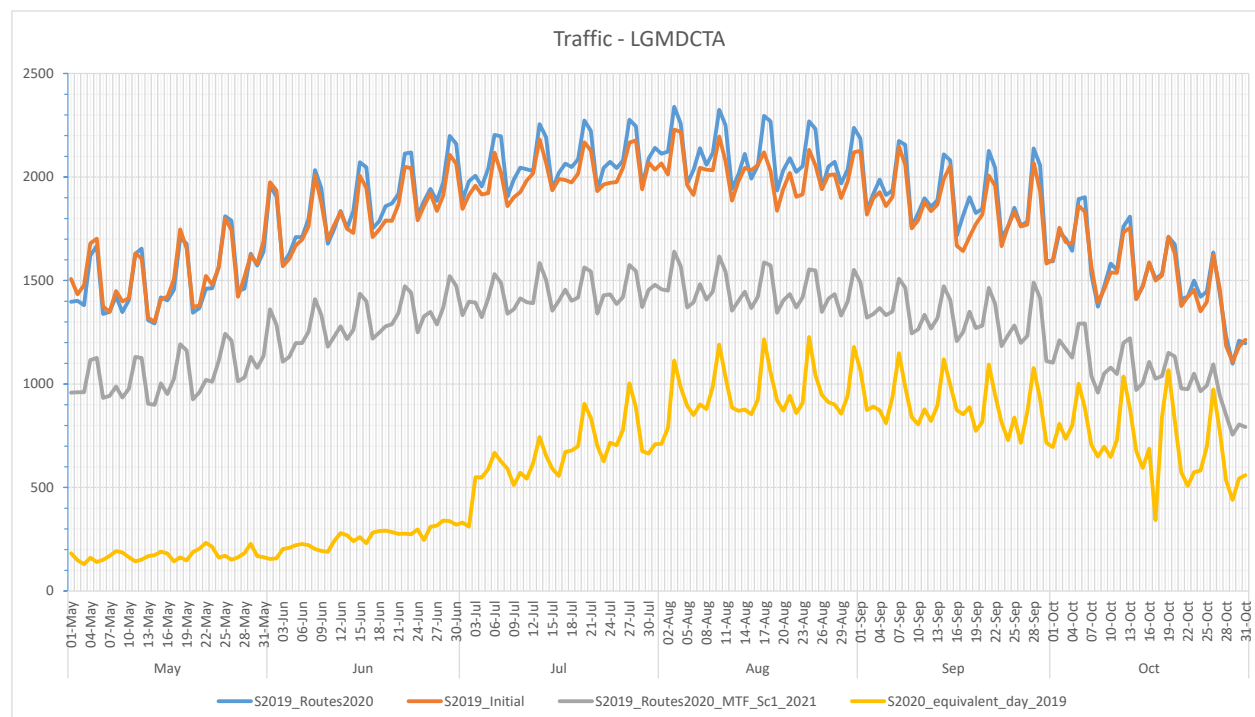
Expected Performance

No capacity issues are foreseen for Athinai ACC in Summer 2021.

GREECE

MAKEDONIA ACC

Traffic Forecast



Planned capacity enhancement measures

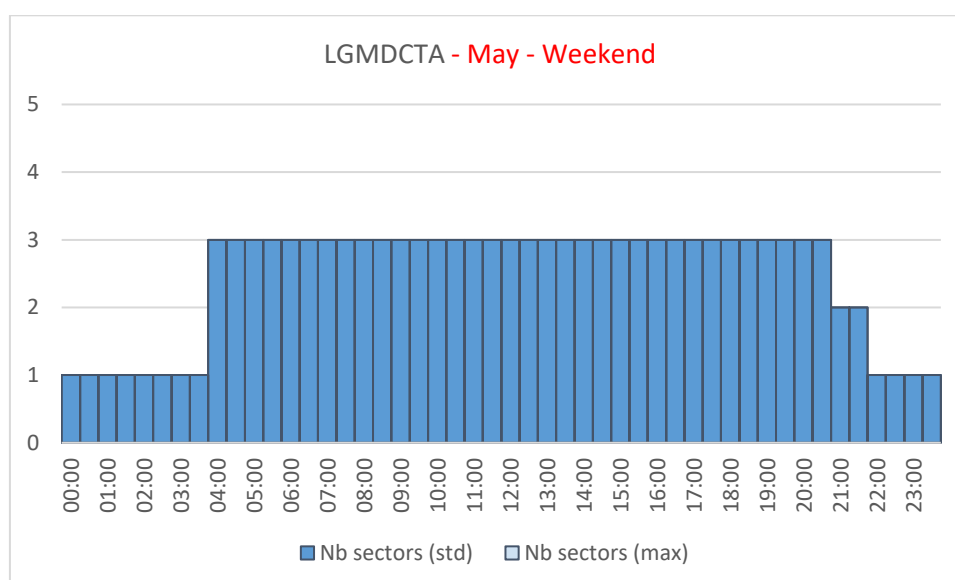
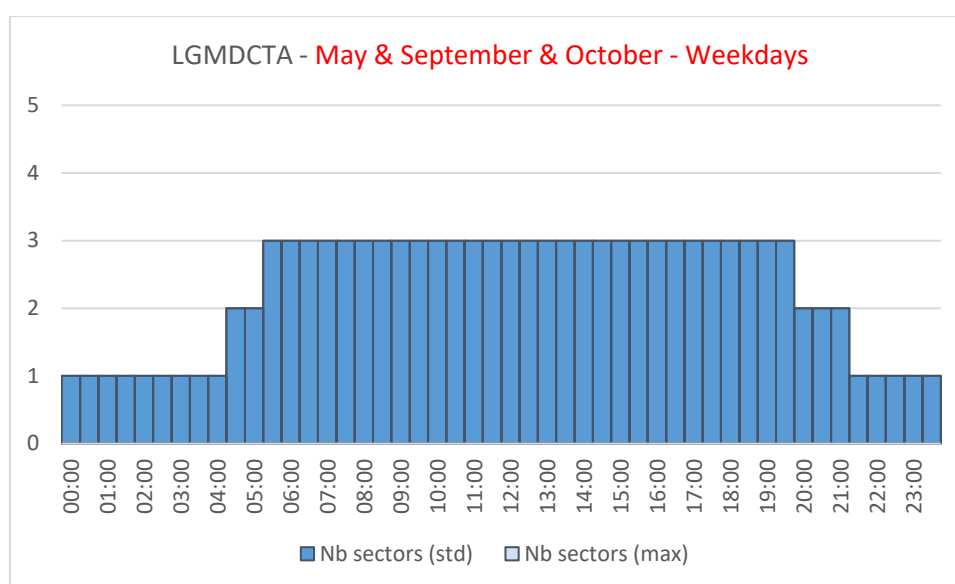
2021 Summer Capacity Plan	
Free Route Airspace	Stepped implementation of FRA as described in the ERNIP Part 2
Airspace Management Advanced FUA	Civil/military coordination improvements
	Stepped integration of future civil/military airspace structures' requirements
	Stepped Implementation of LARA
Airport & TMA Network Integration	PBN implementation and airspace resectorisation
Cooperative Traffic Management	Improved ATFCM, including STAM
Airspace	Improved ATS route network and airspace management
	Development of full airspace reorganisation/resectorisation project (new elementary sectors allowing for flexible sector configurations) for implementation in 2022
	Lower airspace reorganisation/resectorisation project for implementation in 2022
Procedures	
Staffing	Approximately 75 additional controllers for ACC, APP and TWRs
Technical	
Capacity	Sector Capacity Assessment for the current and new sectorisation
Significant Events	Training for the new VCRS
Additional information	

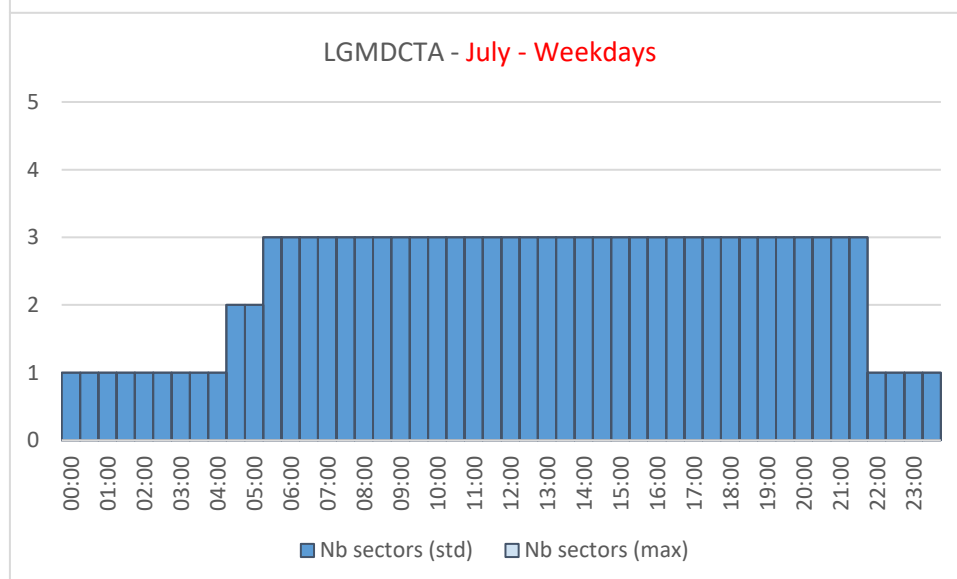
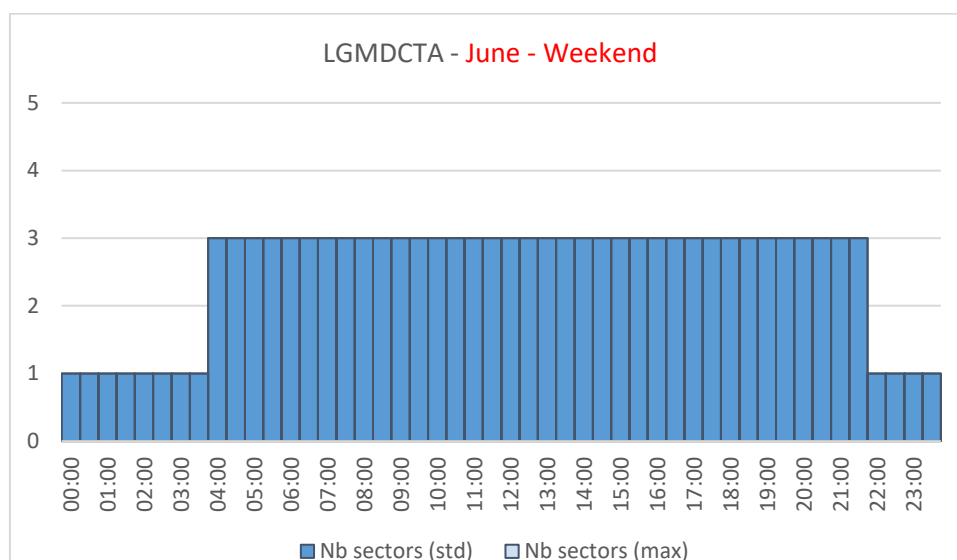
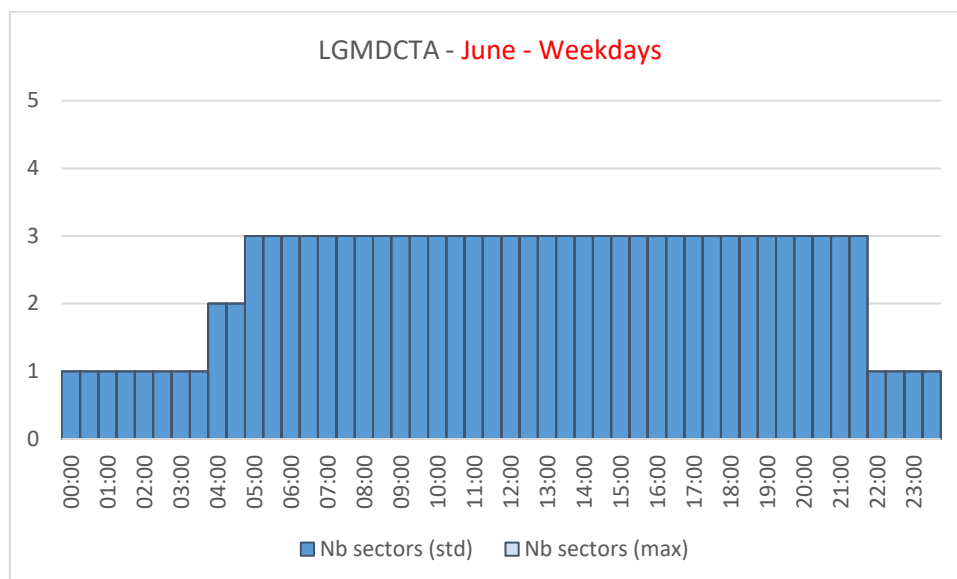
Events

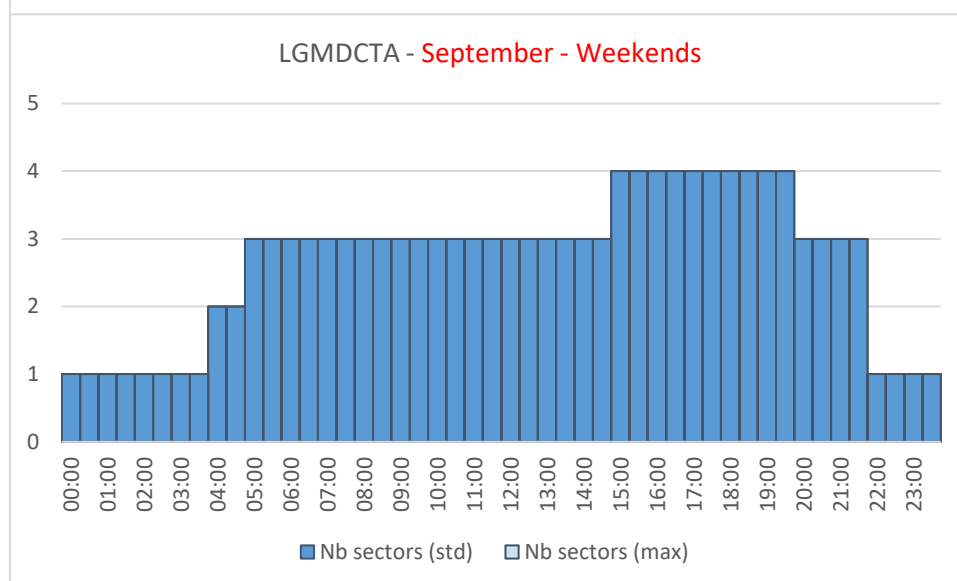
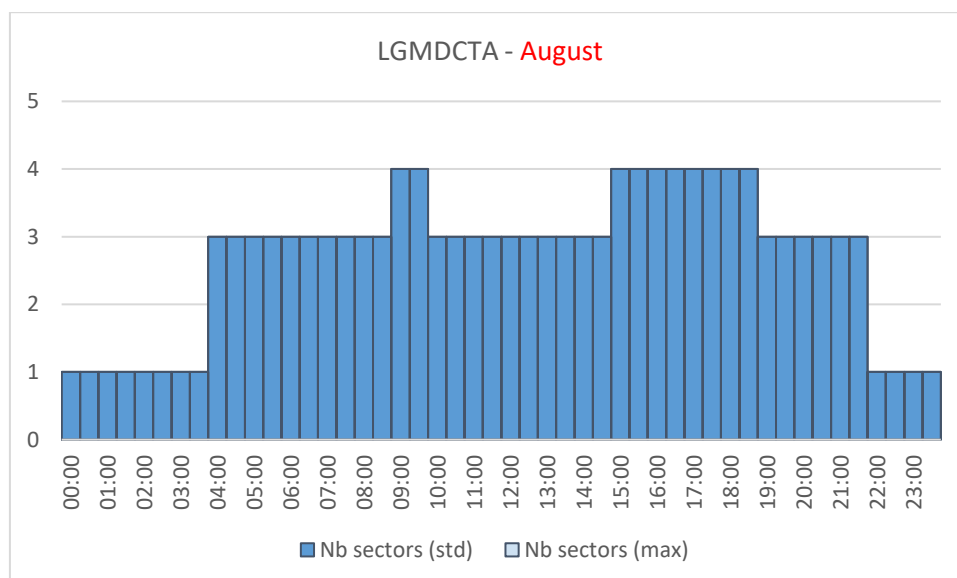
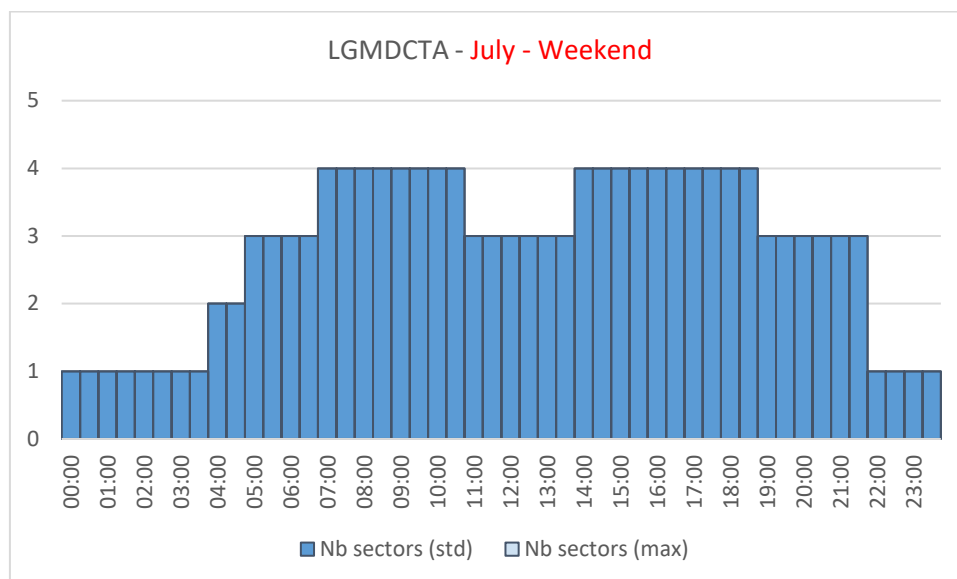
All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

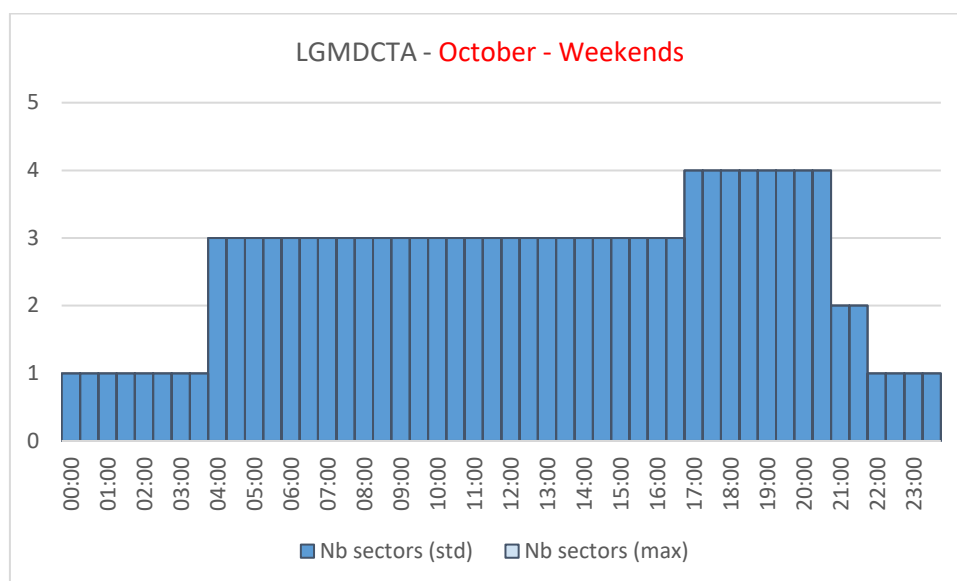
Start Date	End date	ACC/Airport	Event
Spring 2022		LGGG/LGMD	Greek Airspace reorganization - Phase 2 To redesign the ACC sectorisation within Athenai FIR/ Hellas UIR, Step 2.

Sectors available - Summer 2021









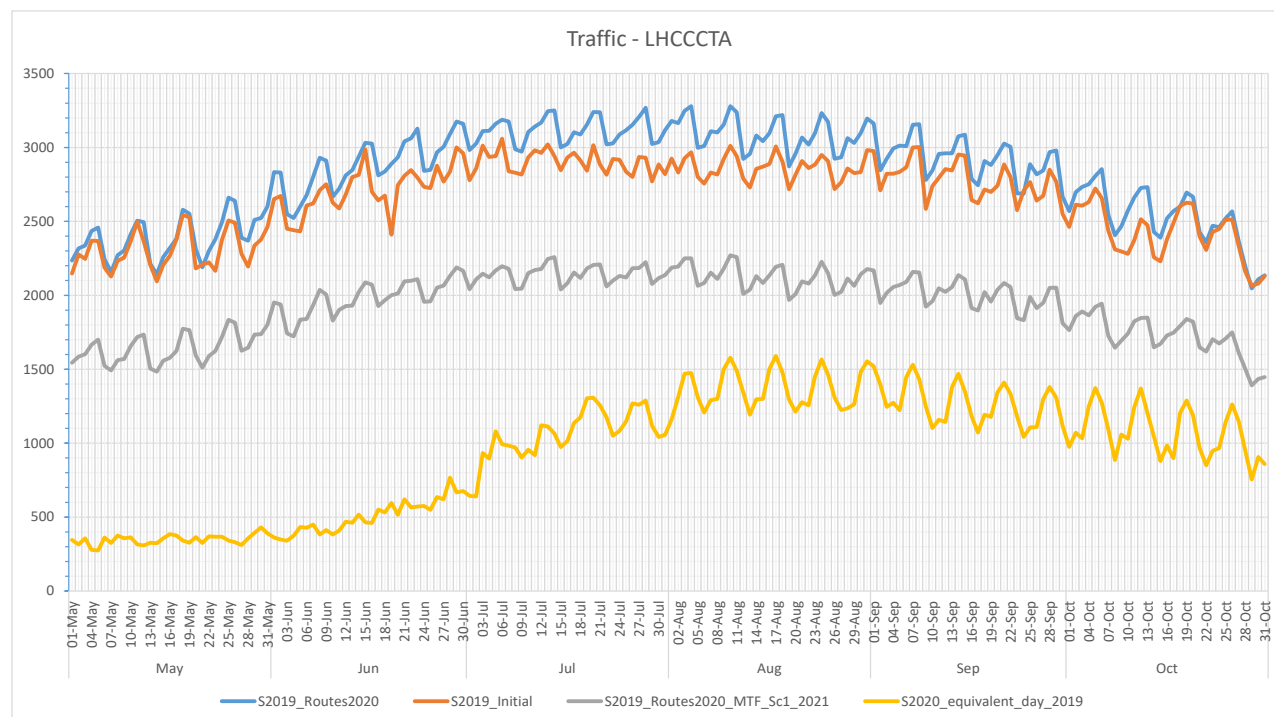
Expected Performance

No capacity issues are foreseen for Makedonia ACC in Summer 2021.

HUNGARY

BUDAPEST ACC

Traffic Forecast



Planned capacity enhancement measures

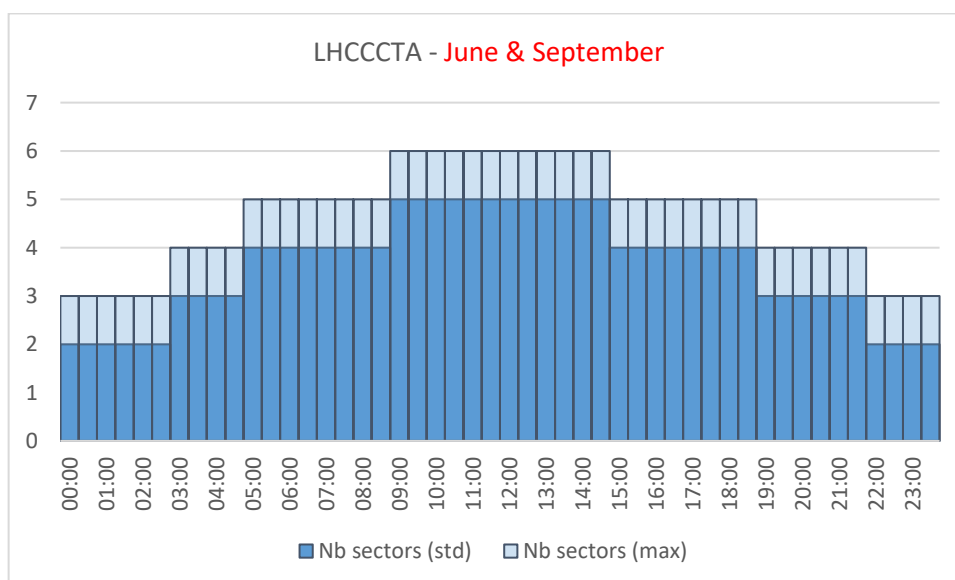
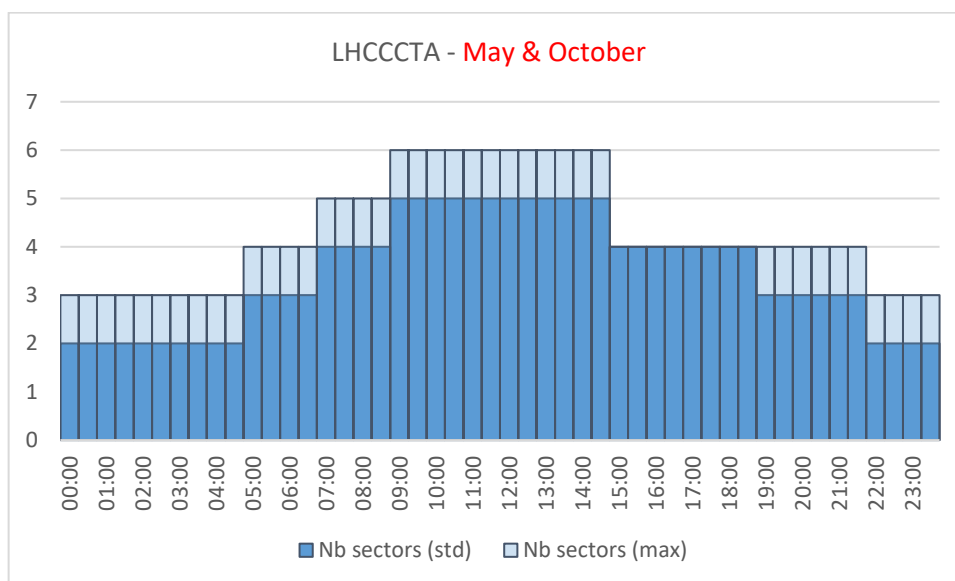
2021 Summer Capacity Plan	
Free Route Airspace	Slovakia joining SEE FRA H24
Airspace Management Advanced FUA	
Airport & TMA Network Integration	
Cooperative Traffic Management	
Airspace	Optimization of airspace structure
	Central/South East Europe airspace restructuring project
Procedures	
Staffing	Continuous training of controllers in active courses
	Around 10 additional ATCOs
	More flexible rostering
Technical	New hardware
Capacity	Improve traffic balance between East and North sector
Significant Events	Operations from contingency room Oct 2020 – April 2021
Additional information	New courses for new controllers postponed after 2021

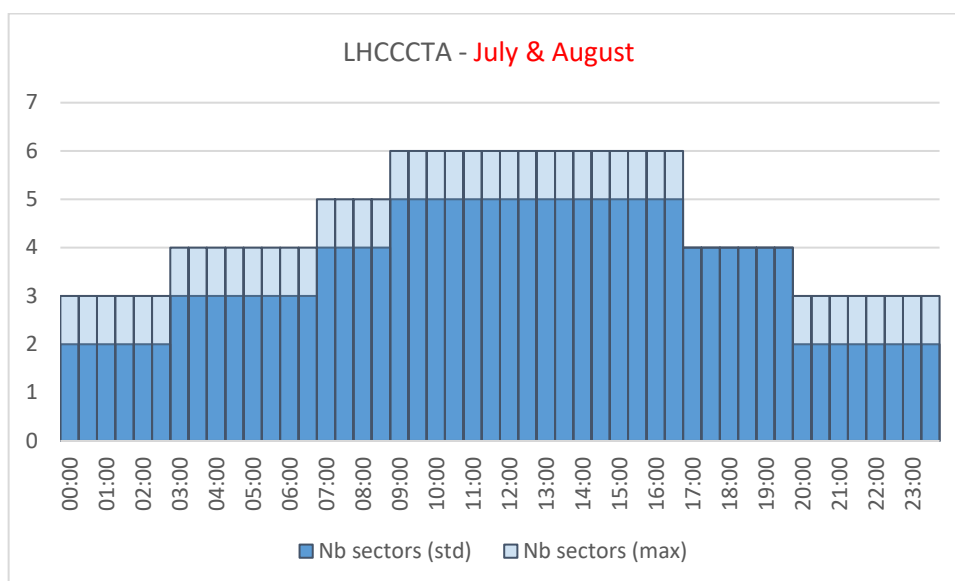
Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
12-Oct-20	30-Apr-21	LHCC	Hardware upgrade of ATM system. ATS service provision from the Contingency OPS room.
Summer 2021		LHCC	Budapest ACC re-sectorisation

Sectors available - Summer 2021



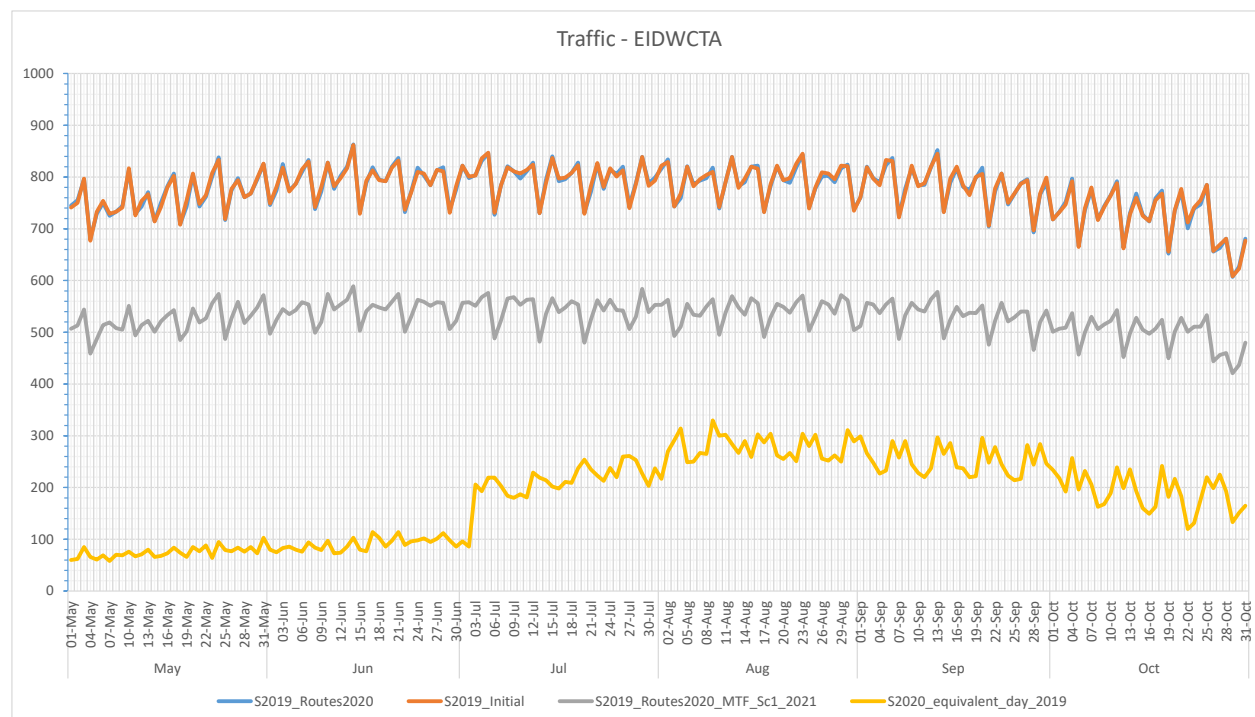


Expected Performance

No capacity issues are foreseen for Budapest ACC in Summer 2021.

IRELAND

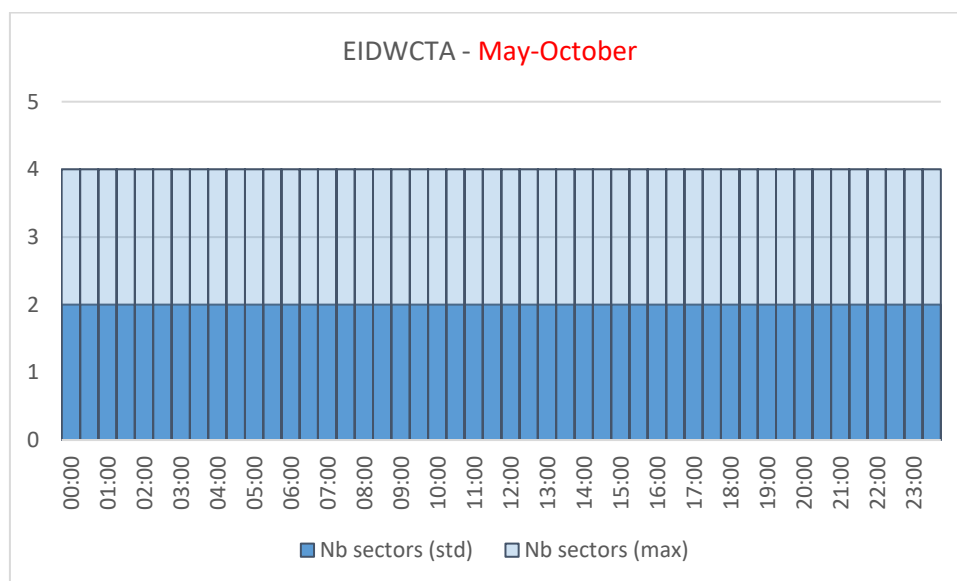
DUBLIN ACC

Traffic Forecast**Planned capacity enhancement measures**

2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	
Airport & TMA Network Integration	
Cooperative Traffic Management	Improved ATFCM, including STAM
Airspace	UK / Ireland FAB initiatives
Procedures	
Staffing	On-going recruitment to maintain staff levels
	Cross rating training
Technical	
Capacity	Re-evaluation of sector capacities (CAPAN)
Significant Events	New Tower Operational Q1 2021
Additional information	10L/28R Operational Q2 2022

Events

All events (including airport and military events) can be found in Chapter 7. Further updates are reported every week in the rolling seasonal NOP.

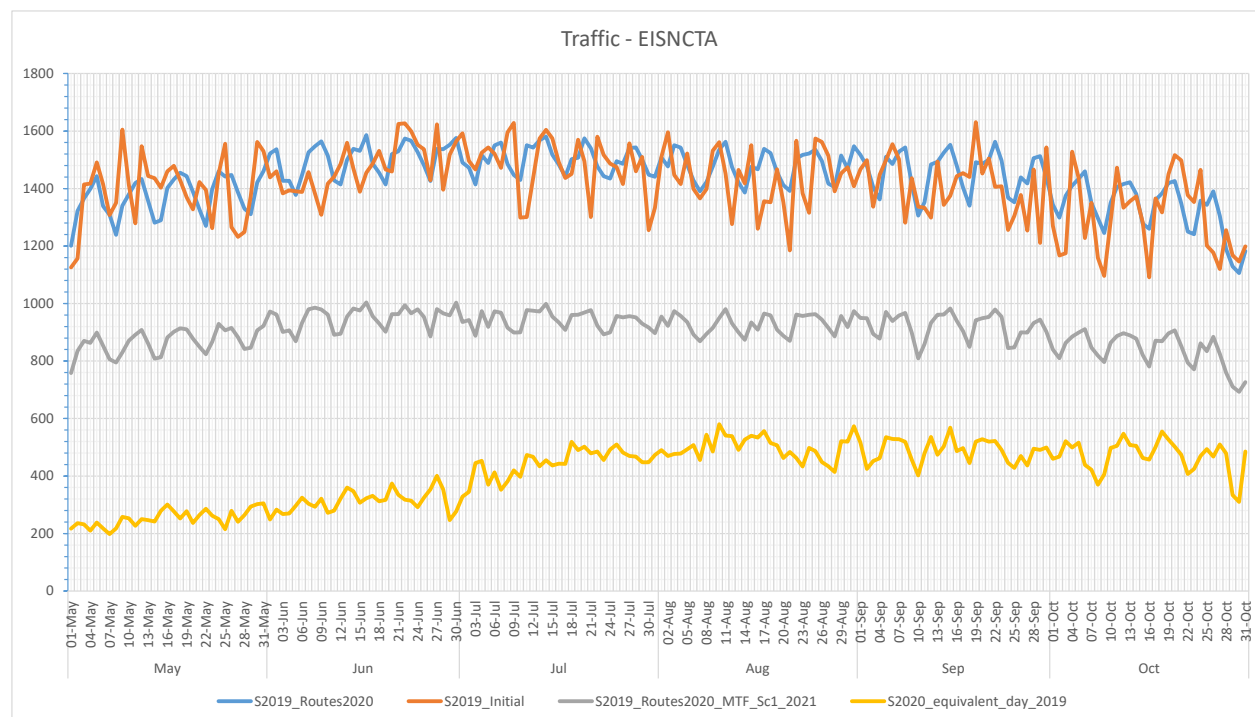
Sectors available - Summer 2021**Expected Performance**

No capacity issues are foreseen for Dublin ACC in Summer 2021.

IRELAND

SHANNON ACC

Traffic Forecast



Planned capacity enhancement measures

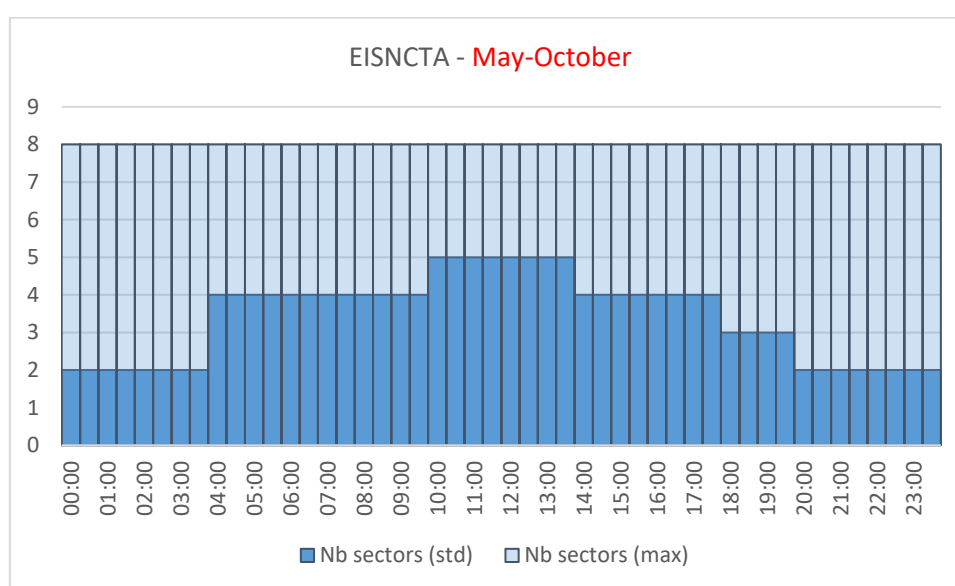
2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	
Airport & TMA Network Integration	
Cooperative Traffic Management	Improved ATFCM, including STAM
Airspace	UK / Ireland FAB initiatives
	Low level airspace reorganisation
Procedures	CPDLC (FANS and ATN)
	Developing Queue Management programme
Staffing	On-going recruitment to maintain staff levels
Technical	Dynamic sectorisation available
Capacity	Re-evaluation of sector capacities (CAPAN) – low sectors
Significant Events	
Additional information	

Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
Autumn 2021		EISN	Shannon FIR re-organisation (lower level)
Autumn 2021		EGTT/EISN/LFRR	Route Rationalisation & U Removal 1. To remove the U prefix from route designator of ATS routes UM30, UN22 and UN32. 2. To redesignate UN34 as N27 and UP620 as N36

Sectors available - Summer 2021



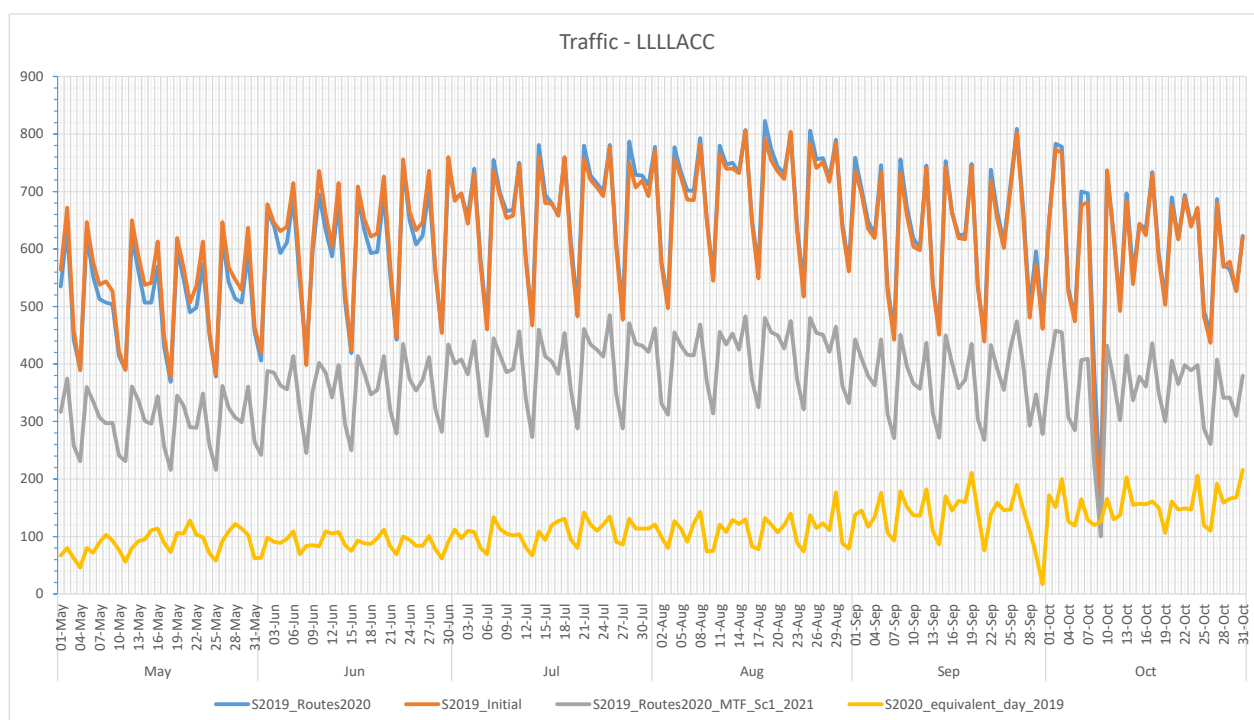
Expected Performance

No capacity issues are foreseen for Shannon ACC in Summer 2021.

ISRAEL

TEL AVIV ACC

Traffic Forecast

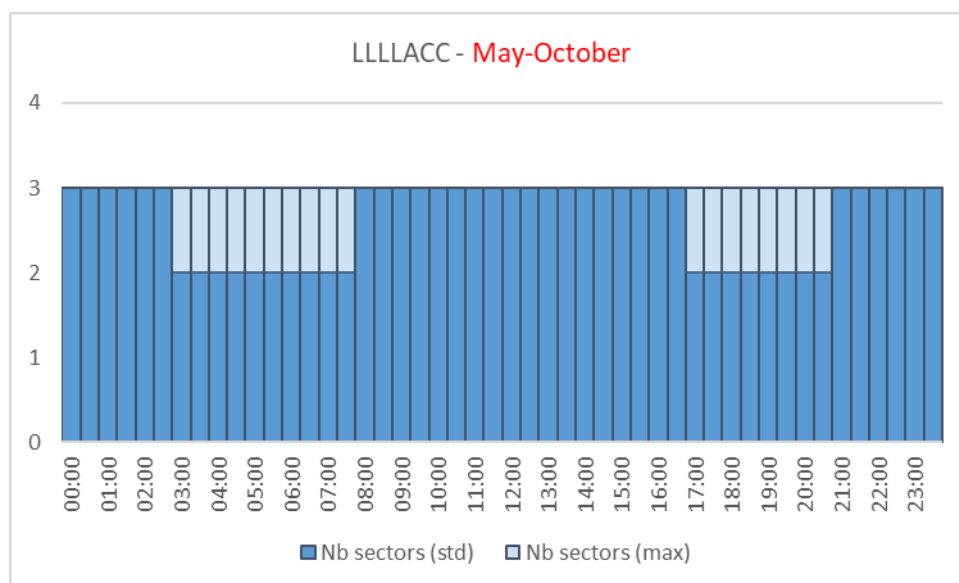


Planned capacity enhancement measures

2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	
Airport & TMA Network Integration	
Cooperative Traffic Management	
Airspace	
Procedures	
Staffing	
Technical	Upgrade of ATCO workstations to allow additional sectors
Capacity	
Significant Events	
Additional information	10 ATCOs retired between 2020 and 2021 but no impact on capacity foreseen

Events

All events (including airport and military events) can be found in Chapter 7. Further updates are reported every week in the rolling seasonal NOP.

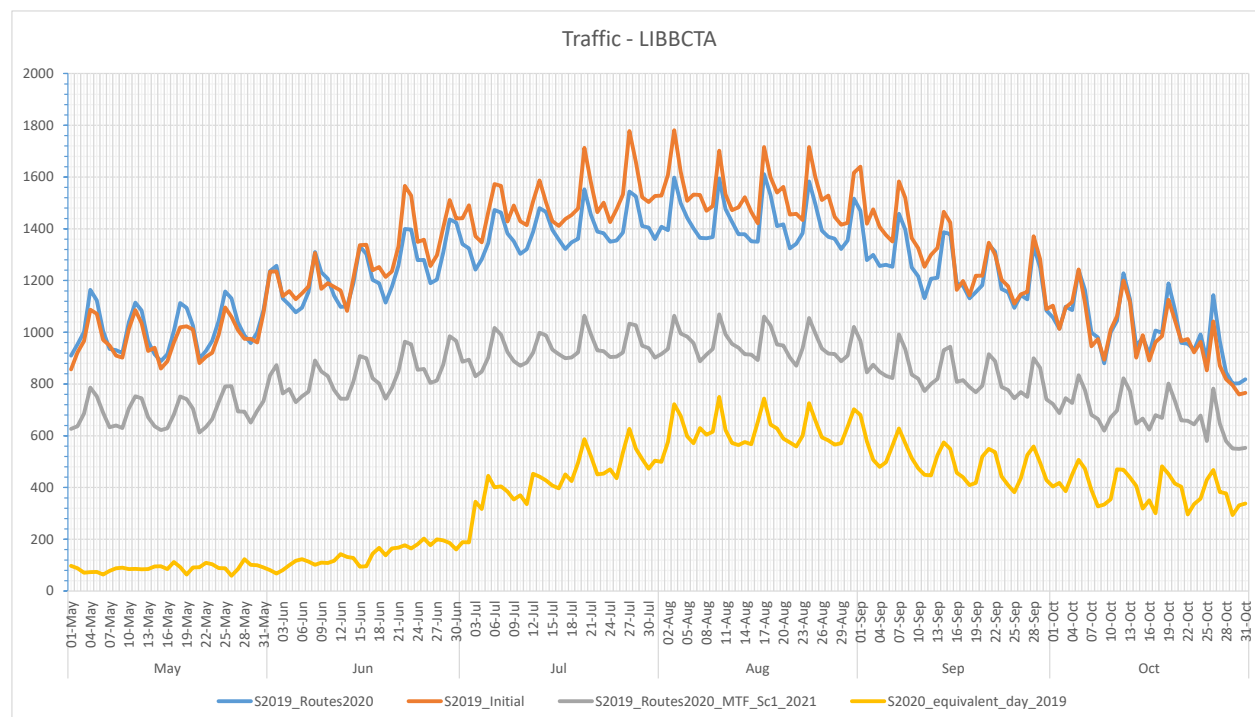
Sectors available - Summer 2021**Expected Performance**

No capacity issues are foreseen for Tel Aviv ACC in Summer 2021.

ITALY

BRINDISI ACC

Traffic Forecast



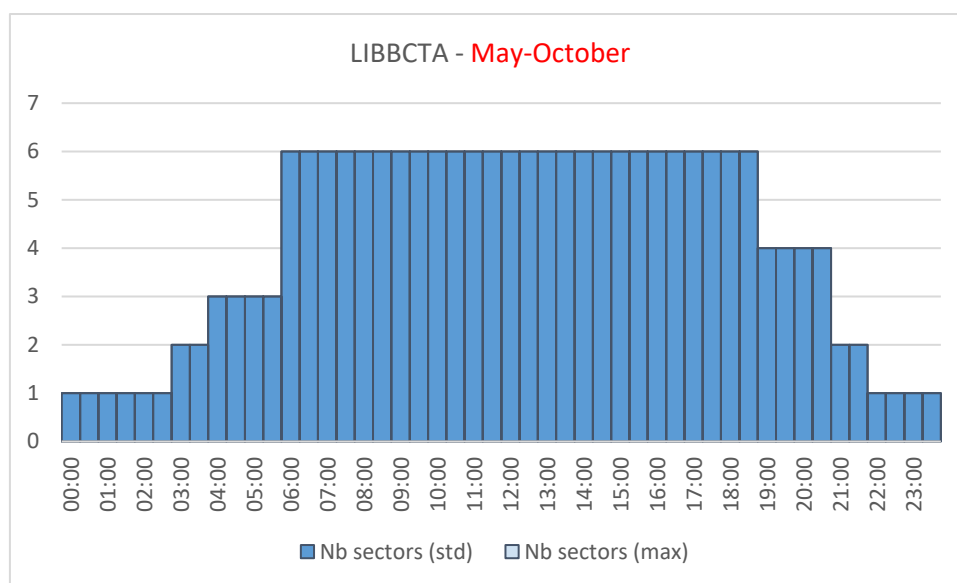
Planned capacity enhancement measures

2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	Improved airspace management
Airport & TMA Network Integration	PBN Program Bari
Cooperative Traffic Management	Improved ATFCM, including STAM
Airspace	Airspace management and ATS route assessment and/or improvements according to network needs, Airspace Users expectations, ENAV's Flight Efficiency Plan and BLUEMED FAB implementation
Procedures	
Approach Service Re-Allocation	Apulia Project
Staffing	Recruitment of ATCOs is necessary
Technical	
Capacity	Flexible opening scheme according to traffic demand and system enablers implementation
Significant Events	
Additional information	

Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
17-Jun-21		LIBB	Apulia CTR re-organisation

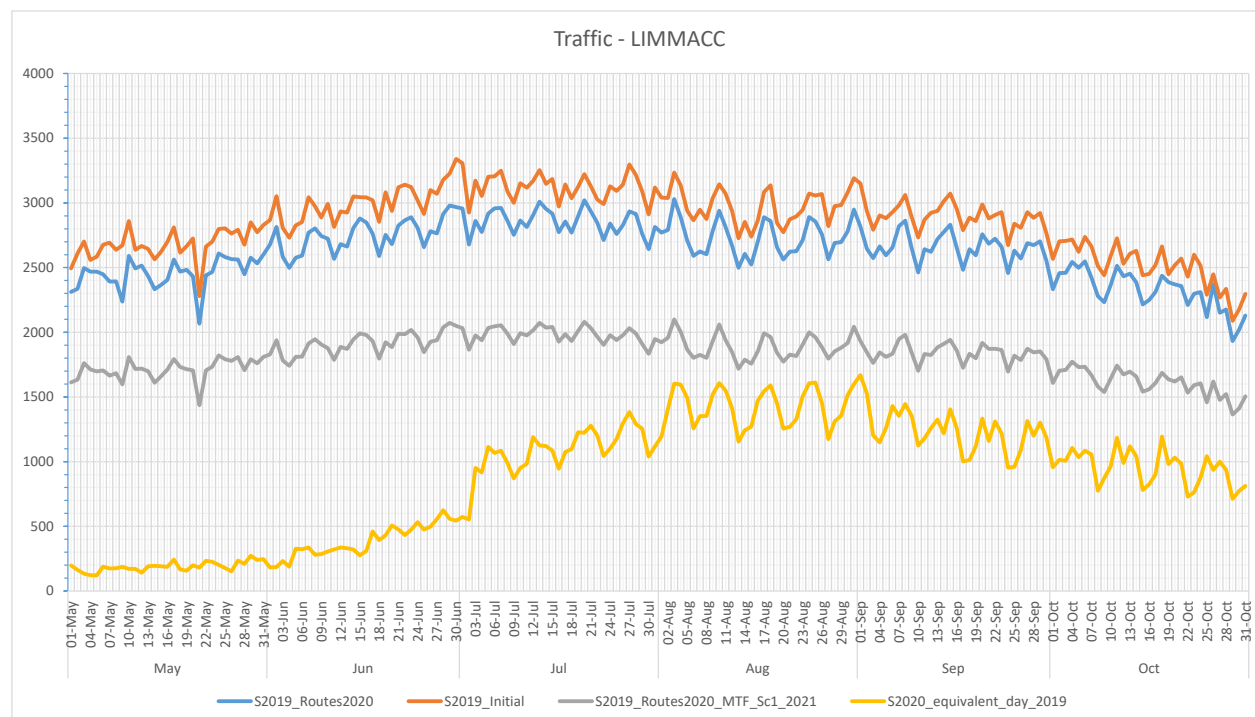
Sectors available - Summer 2021**Expected Performance**

No capacity issues are foreseen for Brindisi ACC in Summer 2021.

ITALY

MILANO ACC

Traffic Forecast



Planned capacity enhancement measures

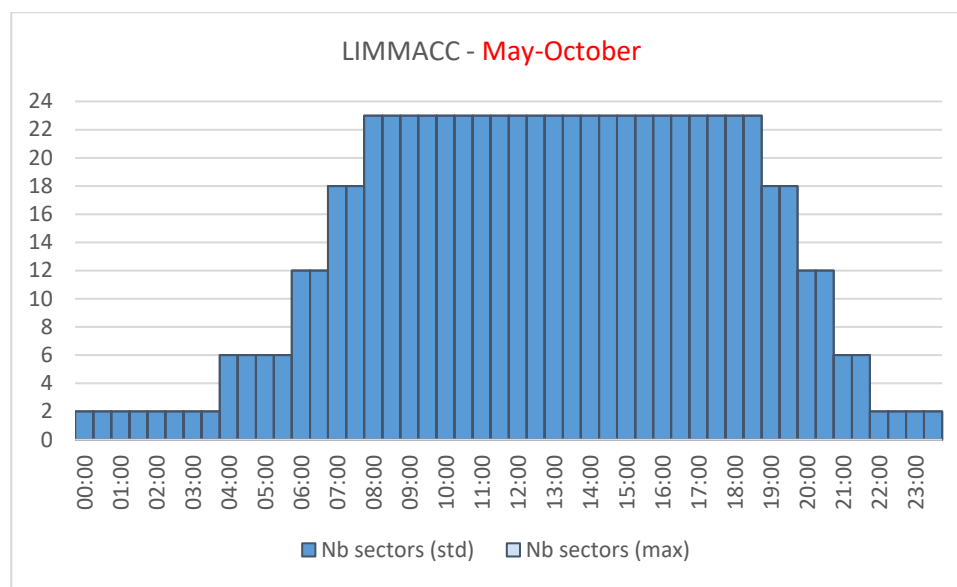
2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	Improved airspace management
Airport & TMA Network Integration	Evaluation and implementation of AMAN//Extended AMAN
Cooperative Traffic Management	Improved ATFCM, including STAM
Airspace	Airspace management and ATS route assessment and/or improvements according to network needs, Airspace Users expectations, ENAV's Flight Efficiency Plan and BLUEMED FAB implementation
Procedures	
Approach Service Re-Allocation	Verona Project
Staffing	Recruitment of ATCOs is necessary
Technical	
Capacity	Flexible opening scheme according to traffic demand and system enablers implementation
Significant Events	
Additional information	

Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
20-May-21		LIMM	Verona CTR re-organisation

Sectors available - Summer 2021



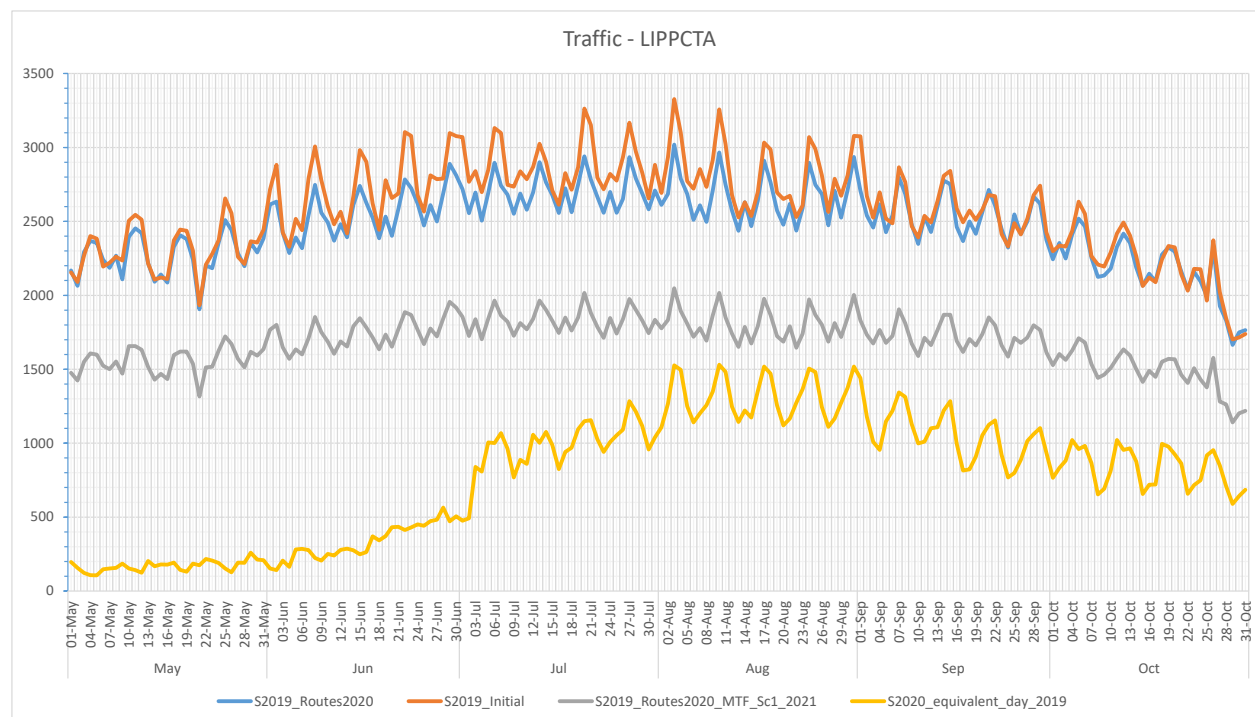
Expected Performance

No capacity issues are foreseen for Milano ACC in Summer 2021.

ITALY

PADOVA ACC

Traffic Forecast



Planned capacity enhancement measures

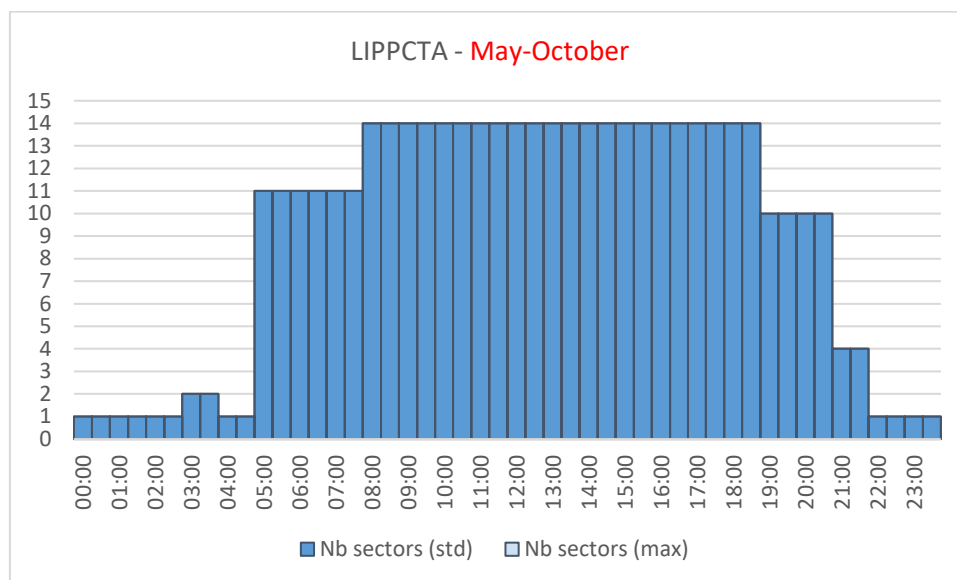
2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	Improved airspace management
Airport & TMA Network Integration	PBN Programme Trieste (Ronchi)
Cooperative Traffic Management	Improved ATFCM, including STAM
Airspace	Airspace management and ATS route assessment and/or improvements according to network needs, Airspace Users expectations, ENAV's Flight Efficiency Plan and BLUEMED FAB implementation
Procedures	
Approach Service Re-Allocation	Ronchi Project
Staffing	Recruitment of ATCOs is necessary
Technical	
Capacity	Flexible opening scheme according to traffic demand and system enablers implementation
Significant Events	
Additional information	

Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
22-Apr-21		LIPP	Ronchi CTR re-org and new Venezia Giullia CTA

Sectors available - Summer 2021



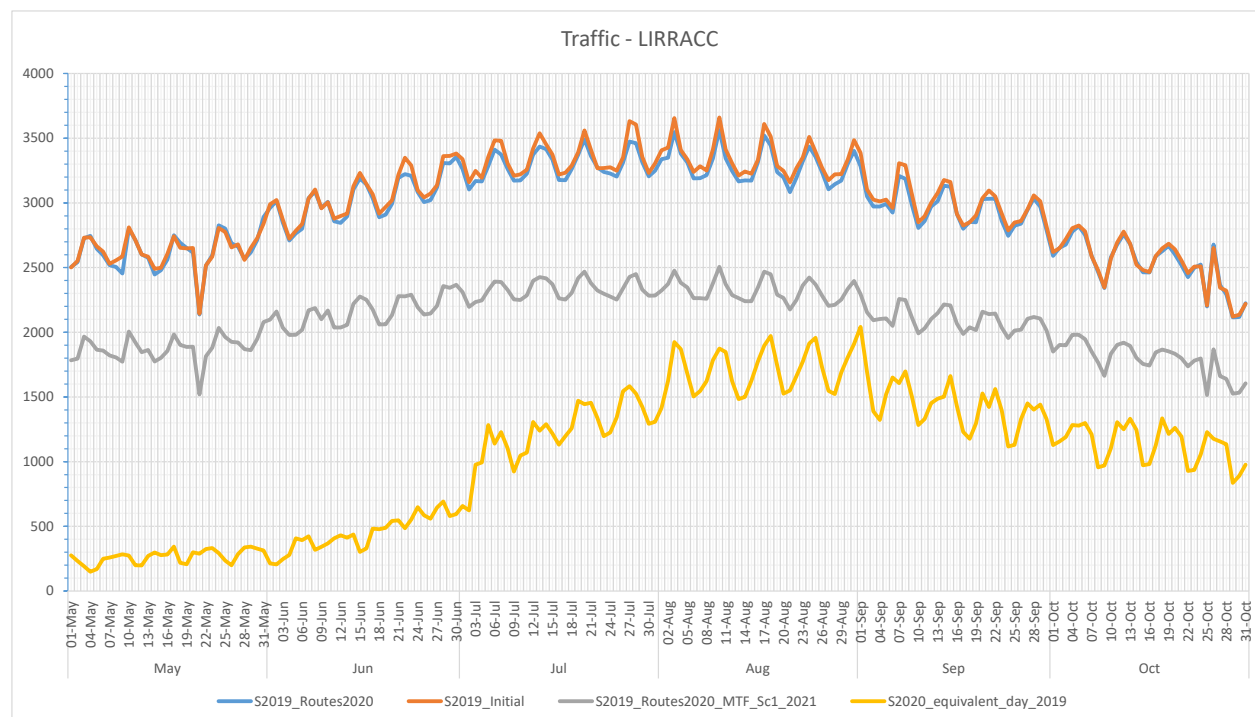
Expected Performance

No capacity issues are foreseen for Padova ACC in Summer 2021.

ITALY

ROMA ACC

Traffic Forecast



Planned capacity enhancement measures

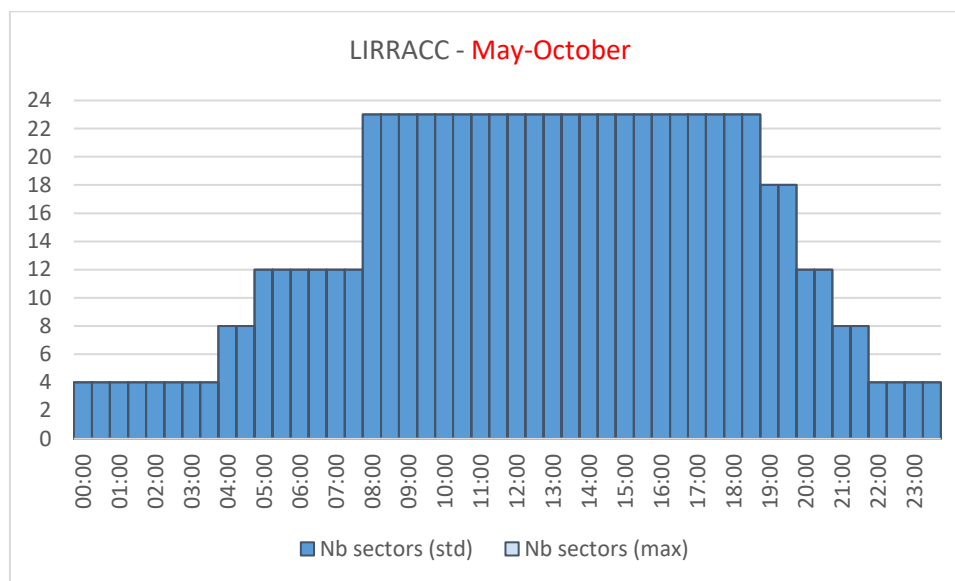
2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	Improved airspace management
Airport & TMA Network Integration	PBN Programme Napoli
	Evaluation and implementation of AMAN/Extended AMAN
Cooperative Traffic Management	Improved ATFCM, including STAM
Airspace	Airspace management and ATS route assessment and/or improvements according to network needs, Airspace Users expectations, ENAV's Flight Efficiency Plan and BLUEMED FAB implementation
Procedures	
Approach Service Re-Allocation	Lamezia Project
Staffing	Recruitment of ATCOs is necessary
Technical	
Capacity	Flexible opening scheme according to traffic demand and system enablers implementation
Significant Events	
Additional information	

Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
20-May-21		LIRR	Lamezia CTR re-org and new Calabria CTA implementation

Sectors available - Summer 2021

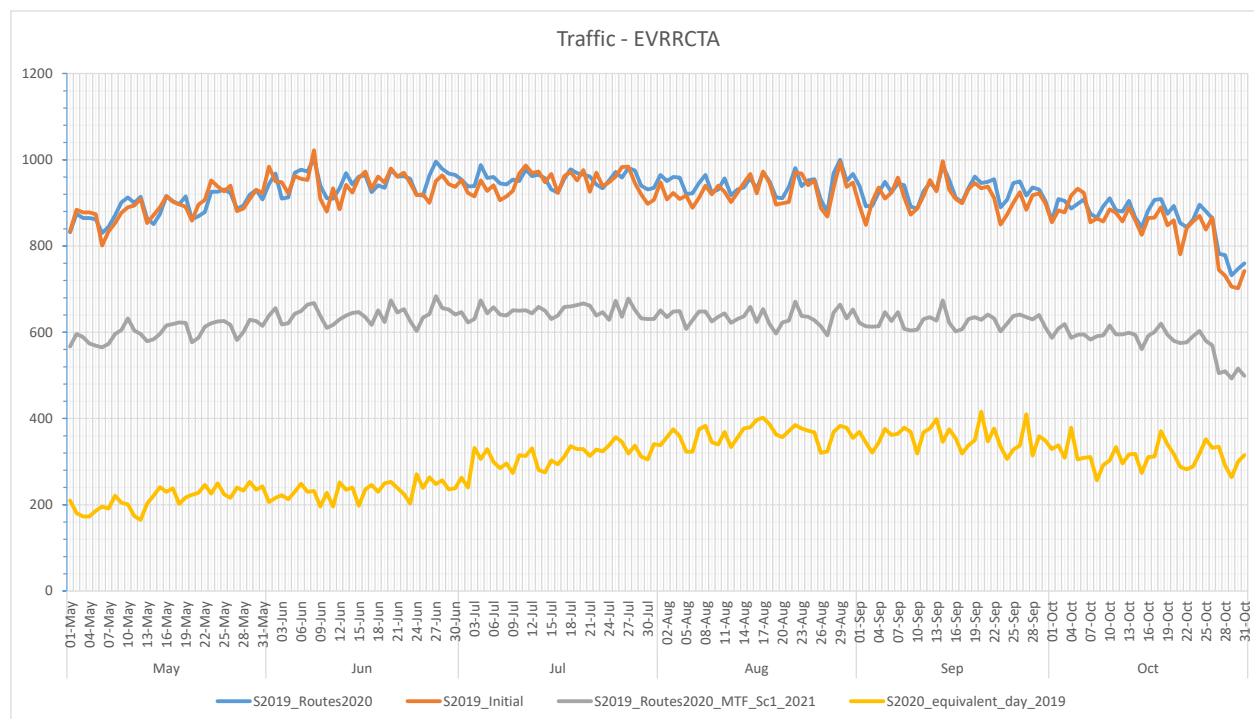


Expected Performance

No capacity issues are foreseen for Roma ACC in Summer 2021.

LATVIA

RIGA ACC

Traffic forecast**Planned capacity enhancement measures**

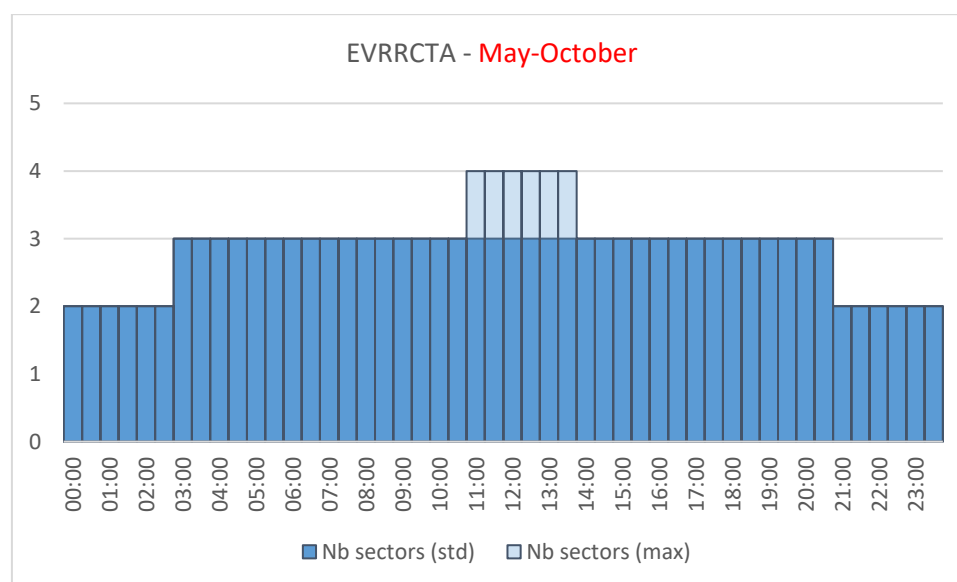
2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	
Airport & TMA Network Integration	
Cooperative Traffic Management	
Airspace	
Procedures	
Staffing	+ 8 ATCO
Technical	
Capacity	
Significant Events	
Additional information	

Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
12-Aug-21		EVRR/EVRA	Point Merge To introduce Point Merge arrival systems for Riga (EVRA) airport
Autumn 2021		UMMV/EVRR	FIR boundary points Riga FIR - Minsk FIR To consider the possibility to implement more FIR boundary points between Riga FIR and Minsk FIR to further increase Free Route Airspace efficiency
Winter 21/22		EVRR	JAMP 2020+ Implement vertical split of the East sector in Riga FIR

Sectors available - Summer 2021



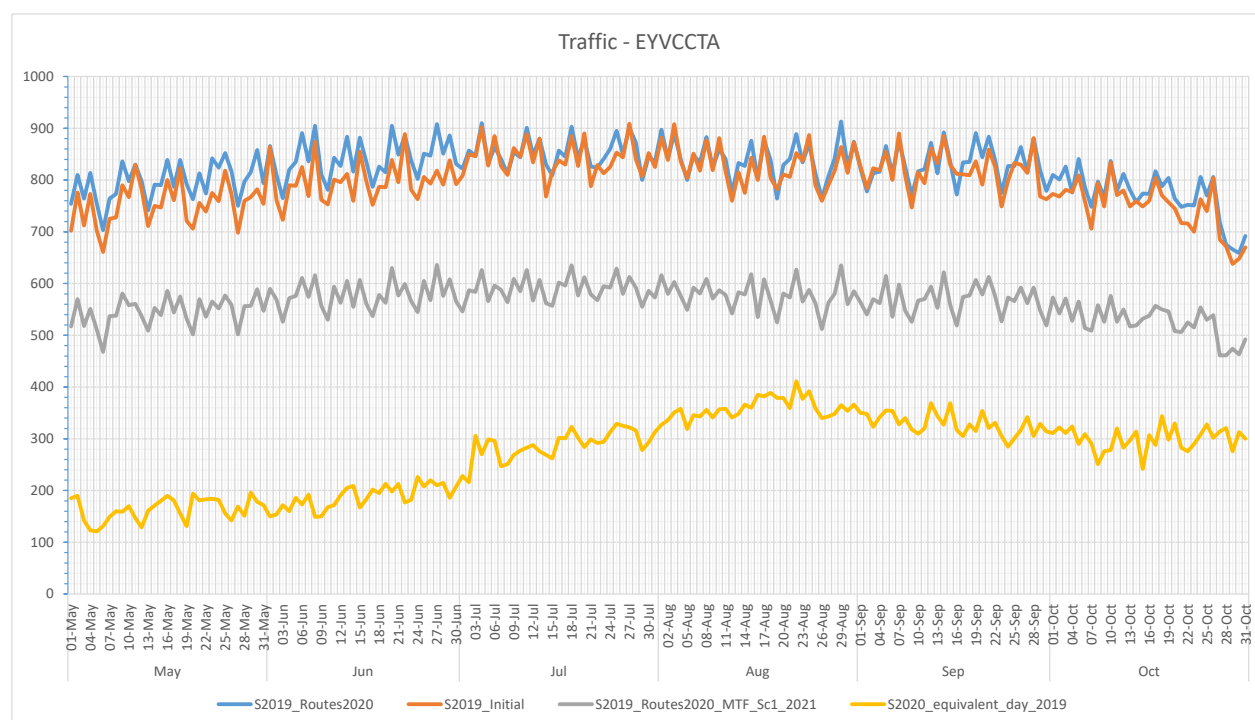
Expected Performance

No problems are foreseen for Riga ACC in Summer 2021.

LITHUANIA

VILNIUS ACC

Traffic forecast



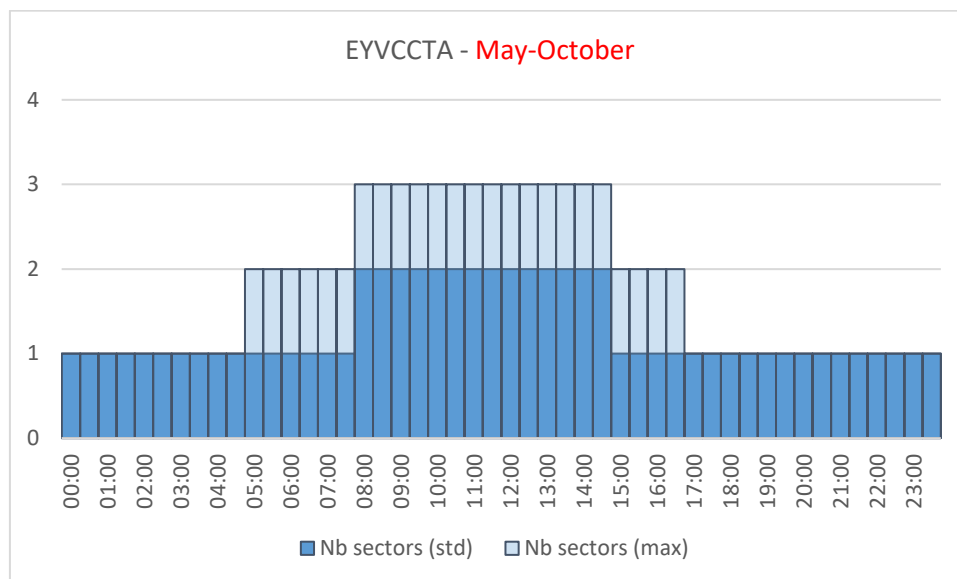
Planned capacity enhancement measures

2021 Summer Capacity Plan	
Free Route Airspace	Gradual Full Implementation of FRA within Baltic FAB (implementation Feb 2022)
Airspace Management	
Advanced FUA	
Airport & TMA Network Integration	
Cooperative Traffic Management	
Airspace	
Procedures	
Staffing	
Technical	New ATM System implementation in Vilnius ACC
Capacity	
Significant Events	New ATM System implementation in Vilnius ACC
Additional information	

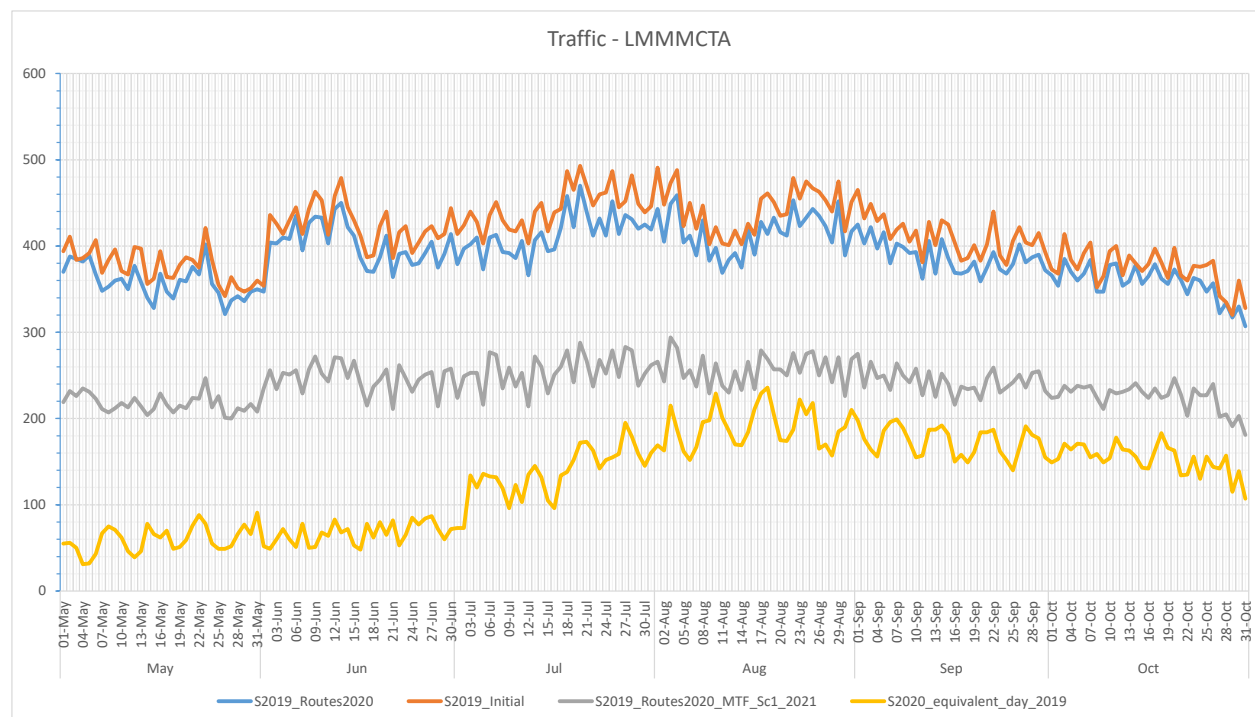
Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
24-Feb-22		EYVC/EPWW	Baltic FAB cross border FRA To implement H24 cross border FRA within the Baltic FAB area
24-Feb-22		EYVC	Lithuania Airspace reconfiguration project

Sectors available - Summer 2021**Expected Performance**

No capacity issues are foreseen for Vilnius ACC in Summer 2021.

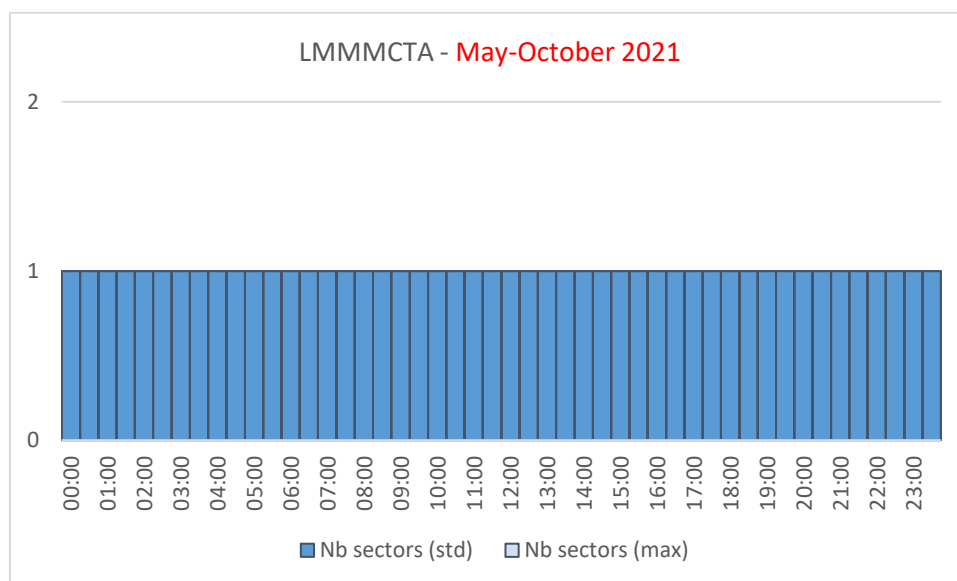
MALTA**MALTA ACC****Traffic forecast****Planned capacity enhancement measures**

2021 Summer Capacity Plan	
Free Route Airspace	Free route airspace Phase III – FL195+ (Oct 2021)
Airspace Management	
Advanced FUA	
Airport & TMA Network Integration	
Cooperative Traffic Management	
Airspace	
Procedures	
Staffing	
Technical	
Capacity	
Significant Events	
Additional information	

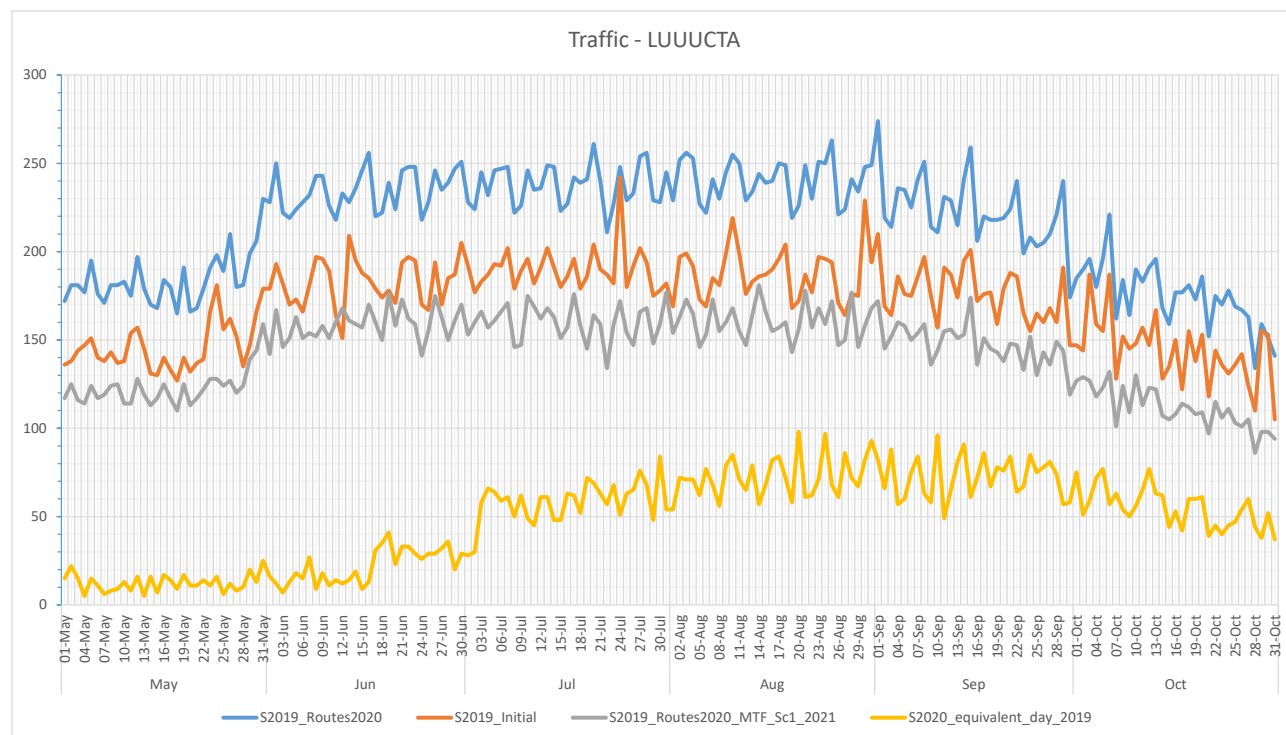
Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
Autumn 2021		LMMM	Free Route Airspace Malta - Phase 3c To implement H24 Free Route Airspace FL195- FL660 within Malta UIR

Sectors available - Summer 2021**Expected Performance**

No capacity issues are foreseen for Malta ACC in Summer 2021.

MOLDOVA**CHISINAU ACC****Traffic forecast****Planned capacity enhancement measures**

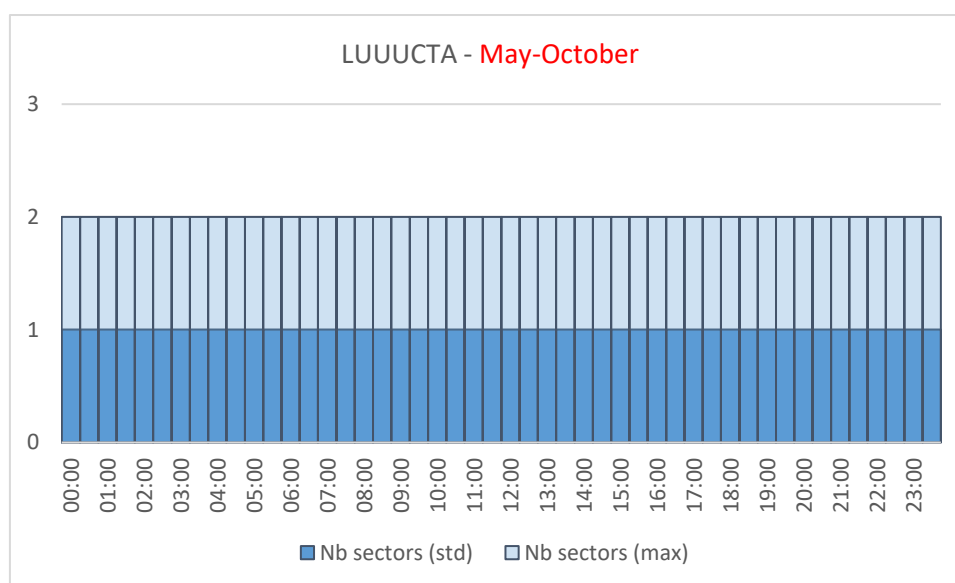
2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	
Airport & TMA Network Integration	Redesign of Chisinau TMA & CTR (implementation 22 April 2021)
Cooperative Traffic Management	
Airspace	
Procedures	
Staffing	
Technical	HW & SW ATM system upgrades starting in spring 2021 (Phase 1)
Capacity	
Significant Events	
Additional information	

Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

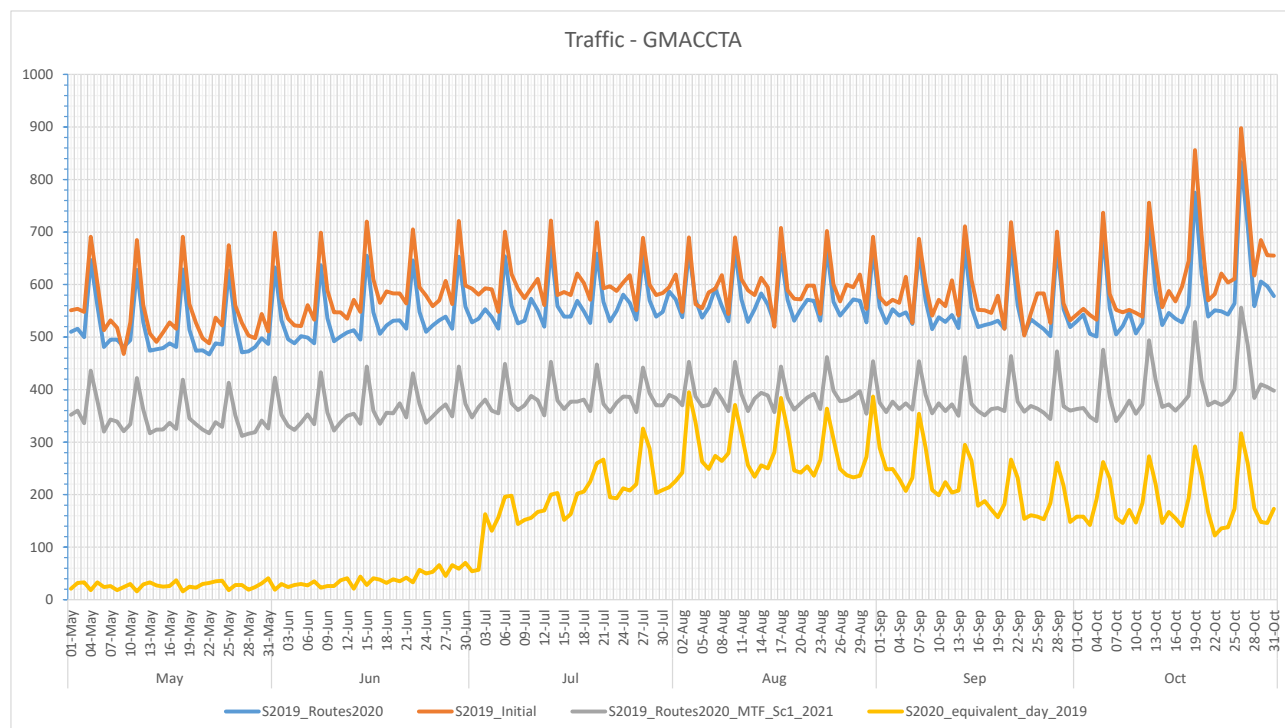
Start Date	End date	ACC/Airport	Event
Spring 2021		LUUU/LUKK/BL/BM	HW & SW ATM system upgrade (phase 1)
Jan-22		LUUU/LUKK/BL/BM	HW & SW ATM system upgrade (phase 2)
24-Feb-22		LUUU	To expand SEE FRA phase 3; by merging with FRA Moldova

Sectors available - Summer 2021



Expected Performance

No capacity issues are foreseen for Chisinau ACC in Summer 2021.

MOROCCO**AGADIR ACC****Traffic forecast****Planned capacity enhancement measures**

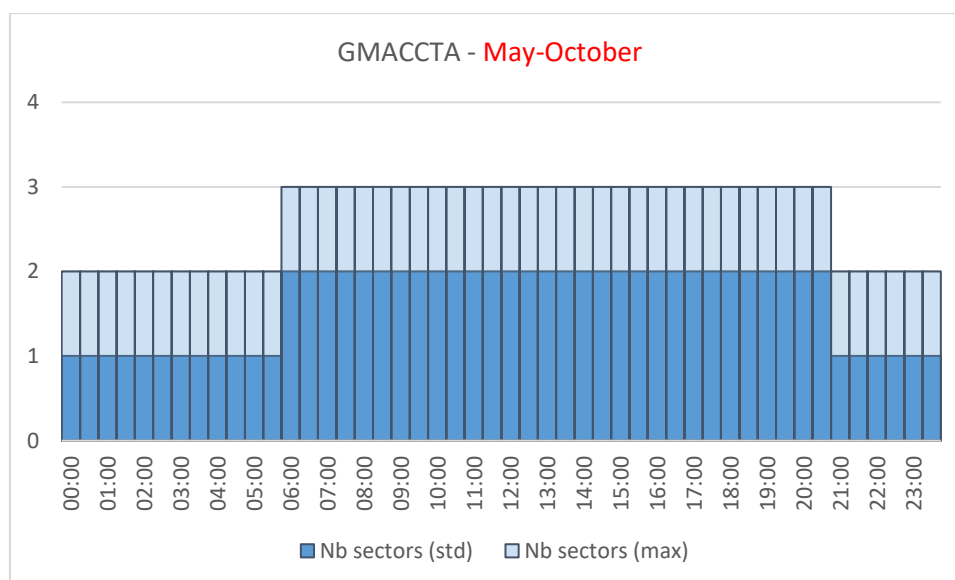
2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	
Airport & TMA Network Integration	
Cooperative Traffic Management	
Airspace	New Interface with Canarias and Lisboa ACCs
Procedures	
Staffing	Continuous recruitment process to gradually increase current staffing levels
Technical	
Capacity	
Significant Events	
Additional information	

Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

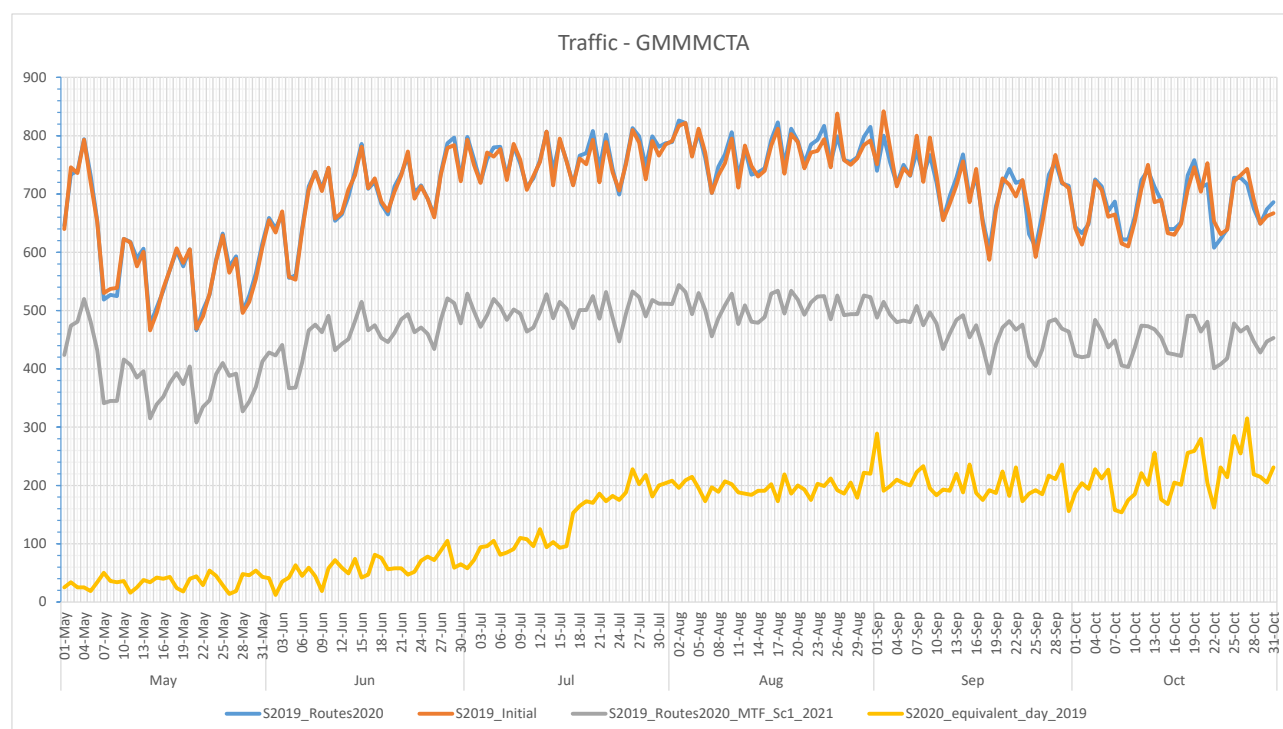
Start Date	End date	ACC/Airport	Event
04-Nov-21		GCCC/GMAC	Interface Agadir/Canarias ACCs - phase 1c
04-Nov-21		GCCC/GMAC	Interface Agadir/Canarias ACCs - phase 1d
Spring 2022		GMAC	Free Route Airspace, MORFRA Phase 2 To implement H24 Free Route Airspace within Agadir ACC, FL195- FL460
Summer 2022		LPPC/GMMM/GMAC/GCCC	Lisboa / Casablanca / Canarias Axis Phase 2

Sectors available - Summer 2021



Expected Performance

No capacity issues are foreseen for Agadir ACC in Summer 2021.

MOROCCO**CASABLANCA ACC****Traffic forecast****Planned capacity enhancement measures**

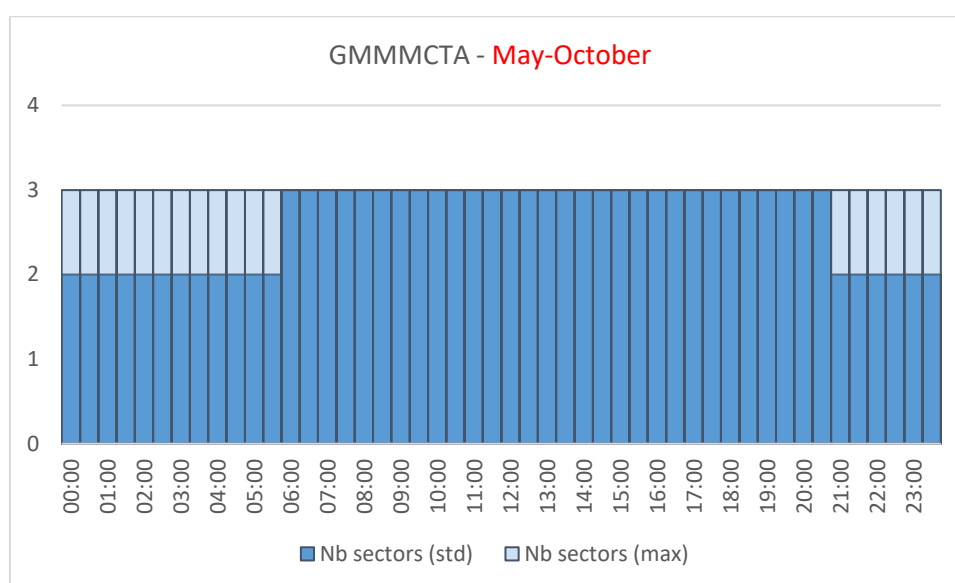
2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	
Airport & TMA Network Integration	Reorganisation of Casablanca TMA- New AoR and procedures (Phase II)
Cooperative Traffic Management	
Airspace	
Procedures	
Staffing	Continuous recruitment process to gradually increase current staffing levels
Technical	
Capacity	
Significant Events	
Additional information	

Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
Spring 2021		LECM/GMMM	ATS Route Improvement Madrid UIR/ Casablanca FIR. To implement, as permanent southbound ATS route segment GALTO - FES.
Summer 2022		LPPC/GMMM/GMAC/GCCC	Lisboa / Casablanca / Canarias Axis Phase 2
Spring 2022		GMMM	New ATC system

Sectors available - Summer 2021

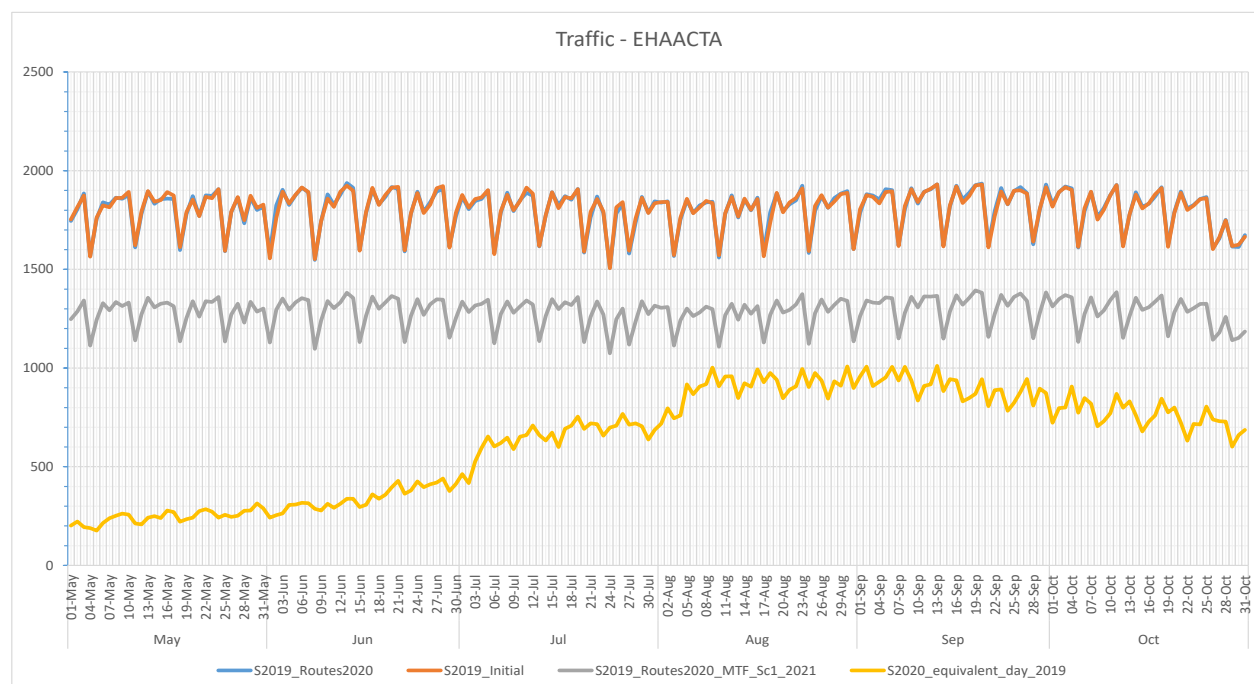


Expected Performance

No capacity issues are foreseen for Casablanca ACC in Summer 2021.

THE NETHERLANDS

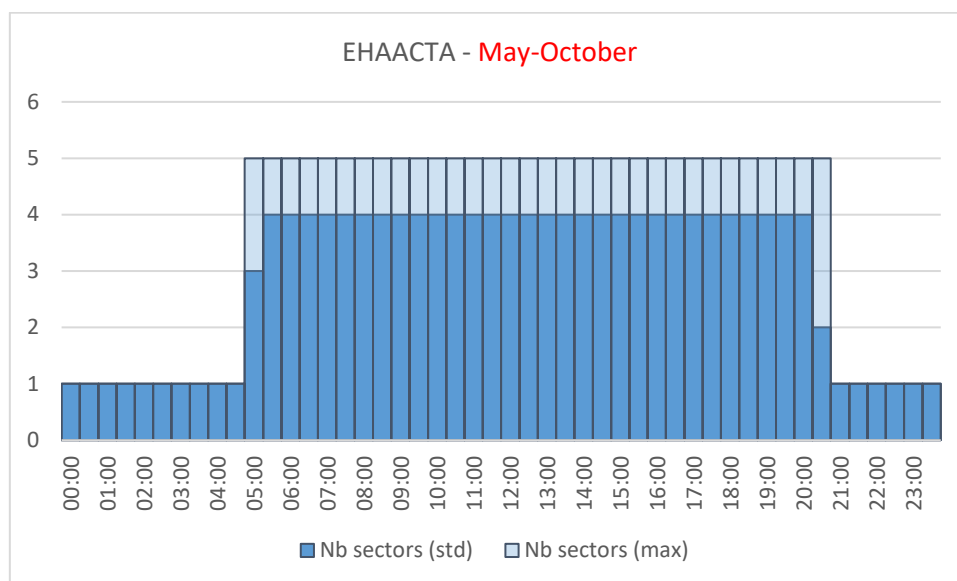
AMSTERDAM ACC

Traffic forecast**Planned capacity enhancement measures**

2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	AMC front office (completion Airspace Management Cell NL)
Airport & TMA Network Integration	Implementation of RECAT-EU and TBS at Schiphol
Cooperative Traffic Management	D-1 OPS plan shared with Airport and NM
Airspace	Redesign route structure sector 3 (implemented December 2020)
Procedures	
Staffing	Continuous recruitment and training to maintain levels of ATCOs
Technical	
Capacity	Workload assessment for sectors other than sector 2 and 3 (sector 2 and 3 already done)
Significant Events	
Additional information	

Events

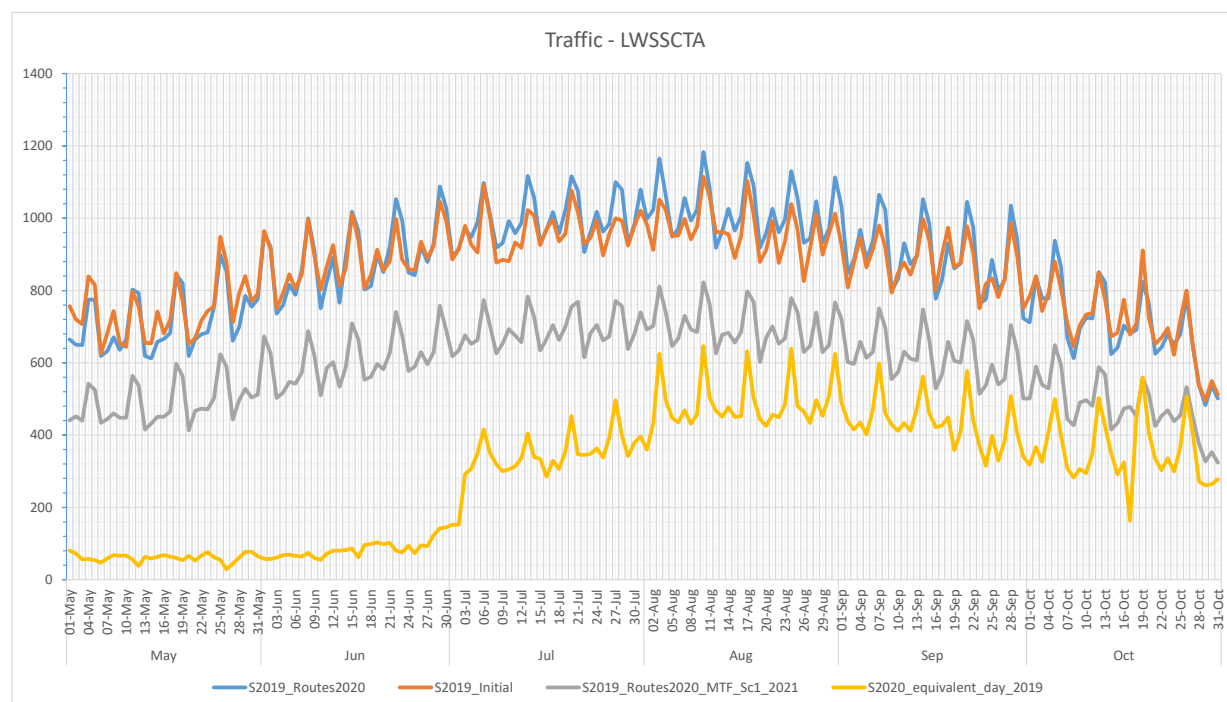
All events (including airport and military events) can be found in Chapter 7. Further updates are reported every week in the rolling seasonal NOP.

Sectors available - Summer 2021**Expected Performance**

No capacity issues are foreseen for Amsterdam ACC in Summer 2021.

NORTH MACEDONIA

SKOPJE ACC

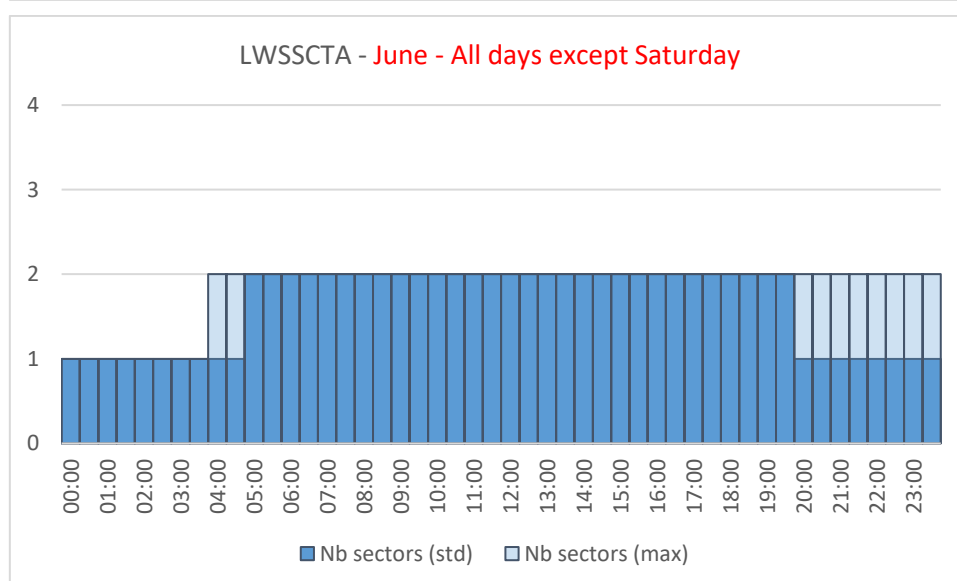
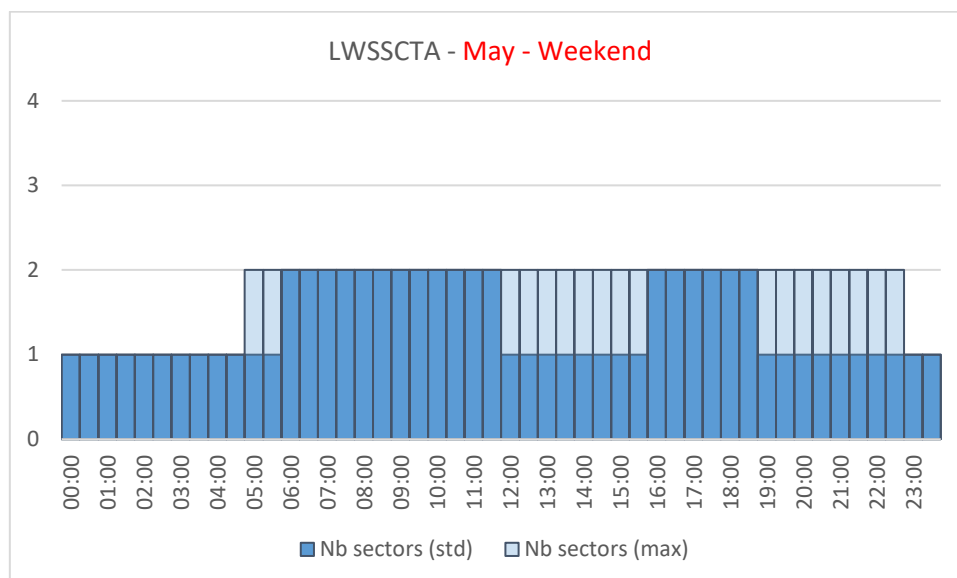
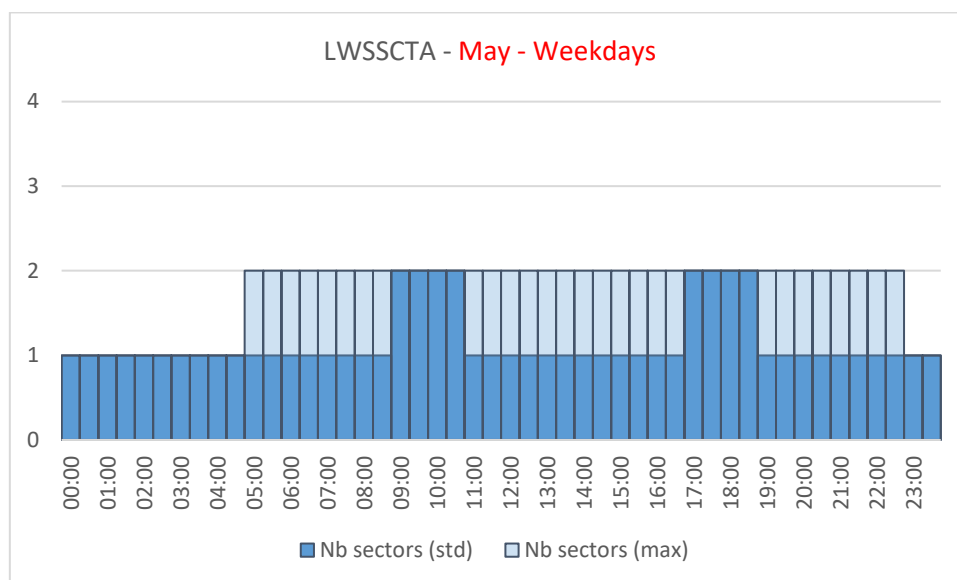
Traffic forecast**Planned capacity enhancement measures**

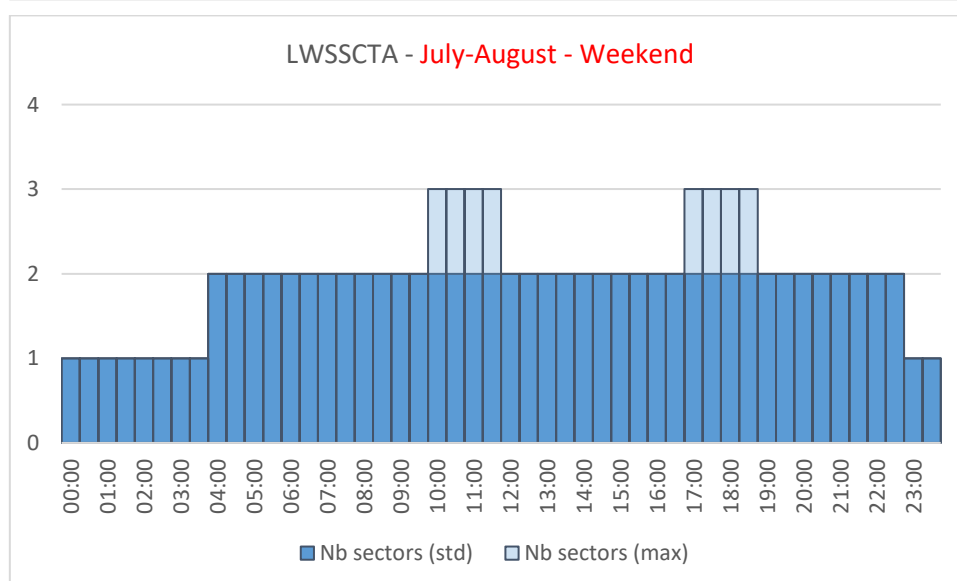
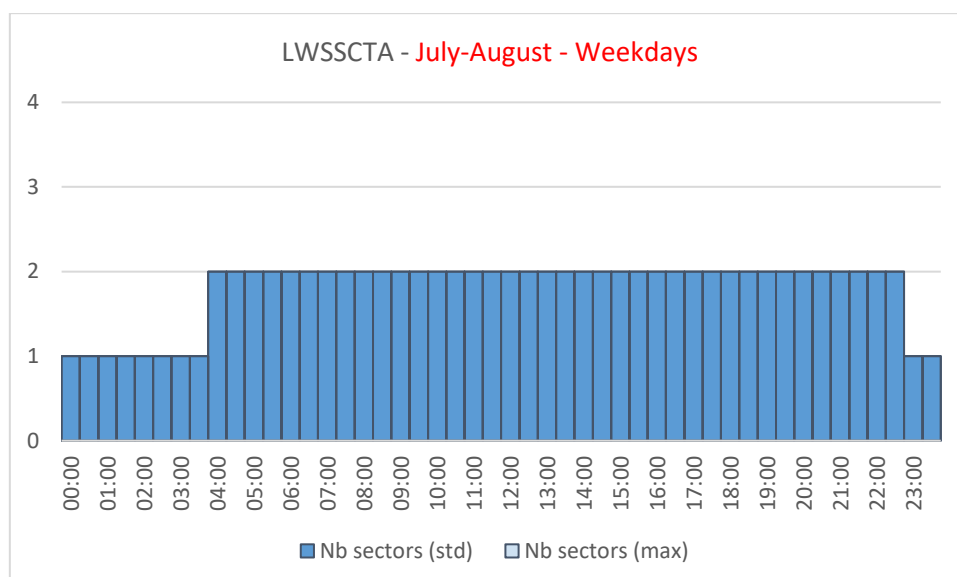
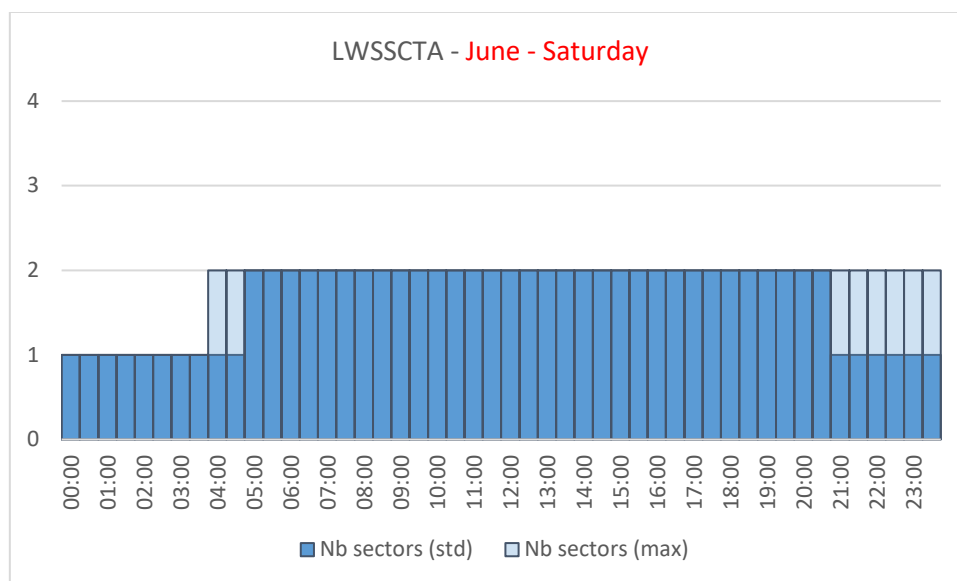
2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management	
Advanced FUA	
Airport & TMA Network Integration	
Cooperative Traffic Management	
Airspace	
Procedures	
Staffing	5 additional ATCOs
Technical	VHF replacement
Capacity	
Significant Events	
Additional information	Capacity will be temporarily reduced during VHF replacement (July/August 2021)

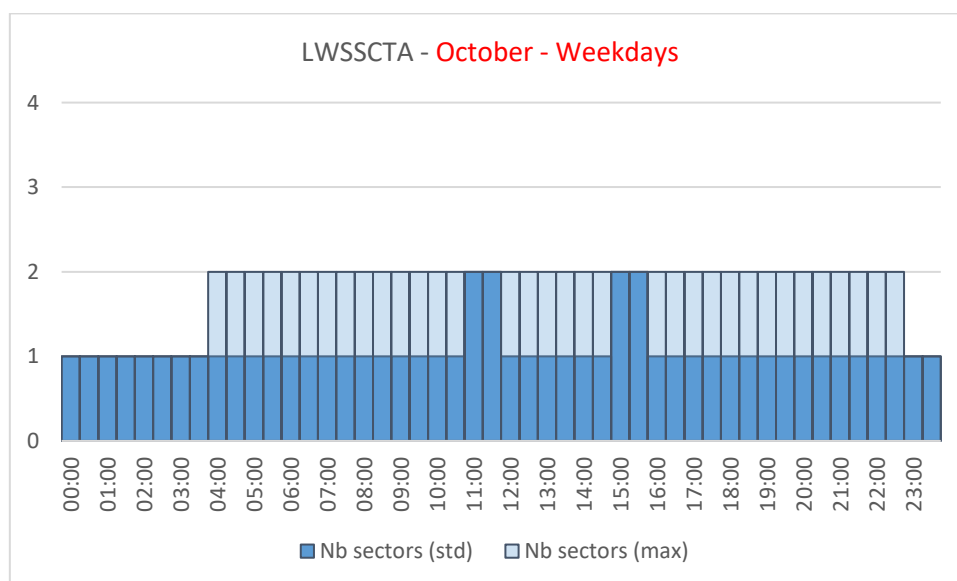
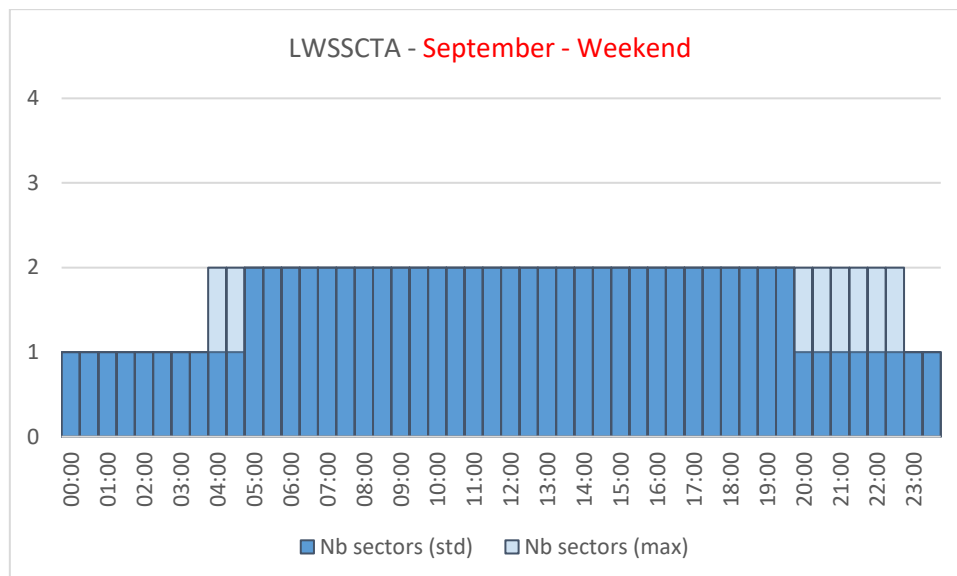
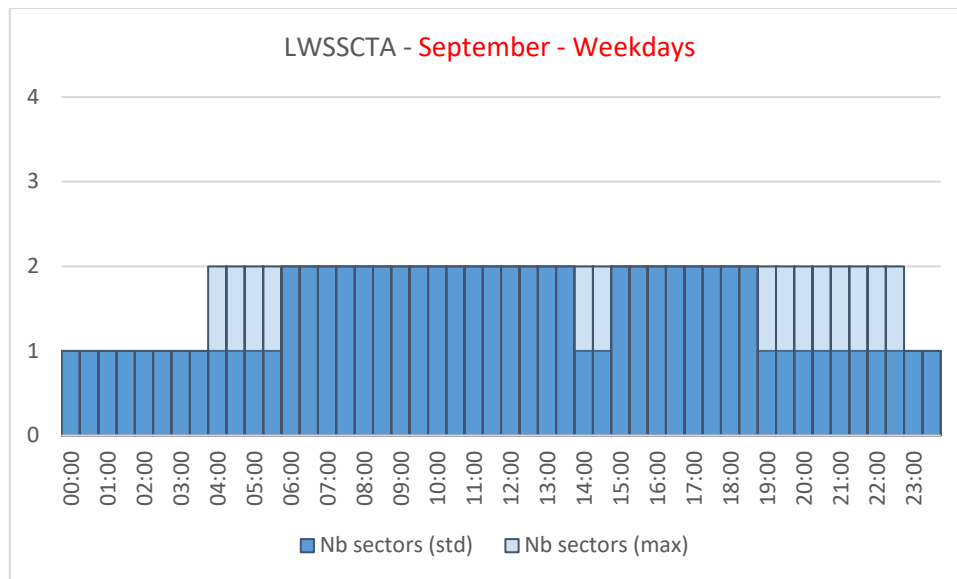
Events

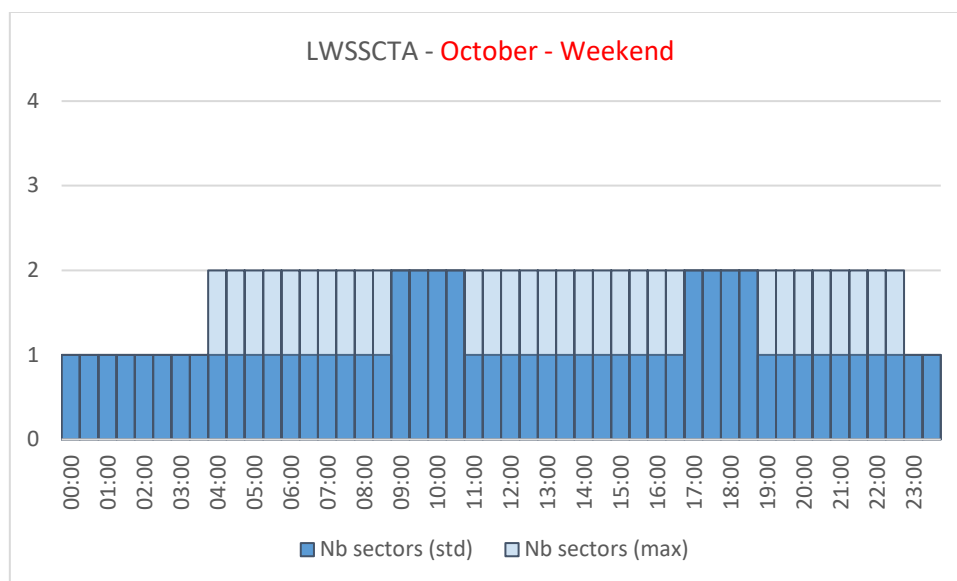
All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
Summer 2021		LWSS	Major project of VHF replacement. Capacity impact expected between 15 July 2021 and 15 August 2021

Sectors available - Summer 2021



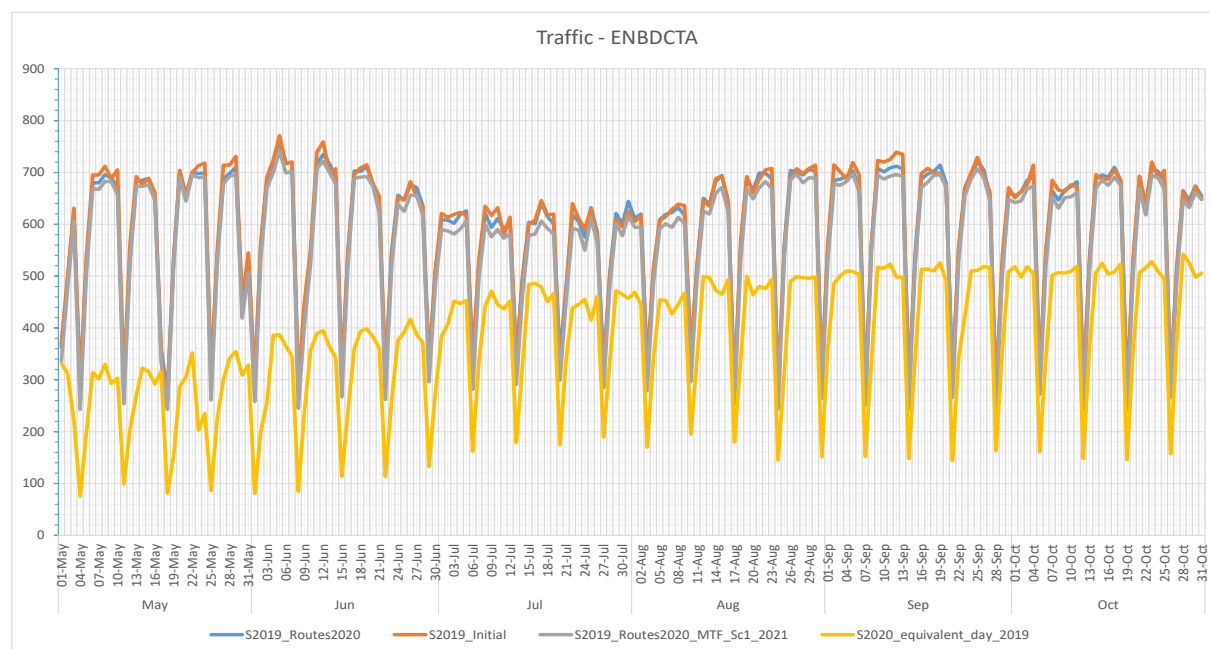




Expected Performance

No capacity issues are foreseen for Skopje ACC in Summer 2021.

Capacity will be temporarily reduced during VHF replacement (July/August 2021 tbc). The transition plan will be coordinated between NM and M-NAV during Winter/Spring 2021 to avoid any significant impact operations.

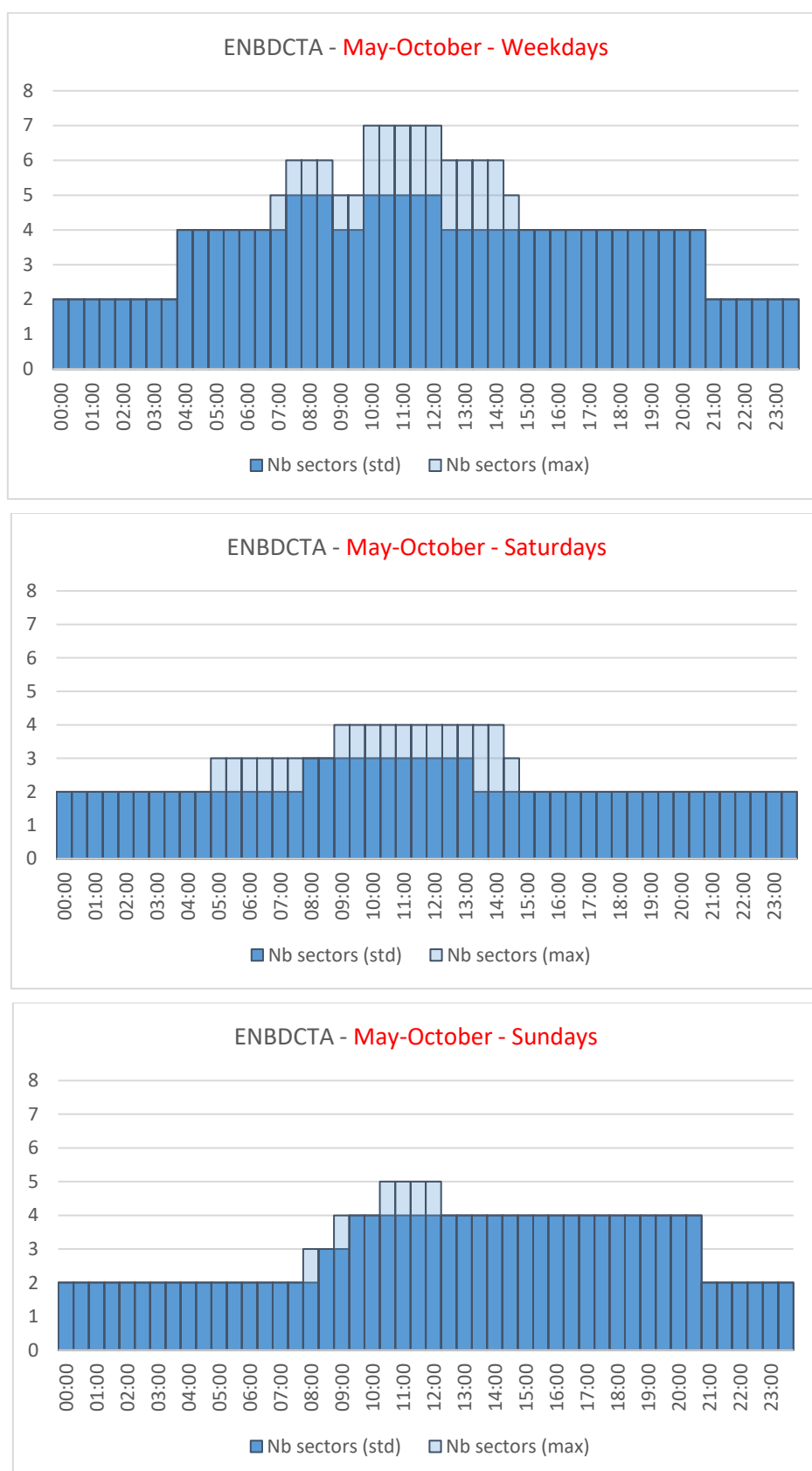
NORWAY**BODO ACC****Traffic forecast****Planned capacity enhancement measures**

2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	
Airport & TMA Network Integration	
Cooperative Traffic Management	
Airspace	Airspace project southern part
Procedures	
Staffing	Flexible rostering of ATC staff
	Recruitment and training of air traffic controllers.
Technical	
Capacity	
Significant Events	Military exercise 7 th to 18 th of June 2021
Additional information	

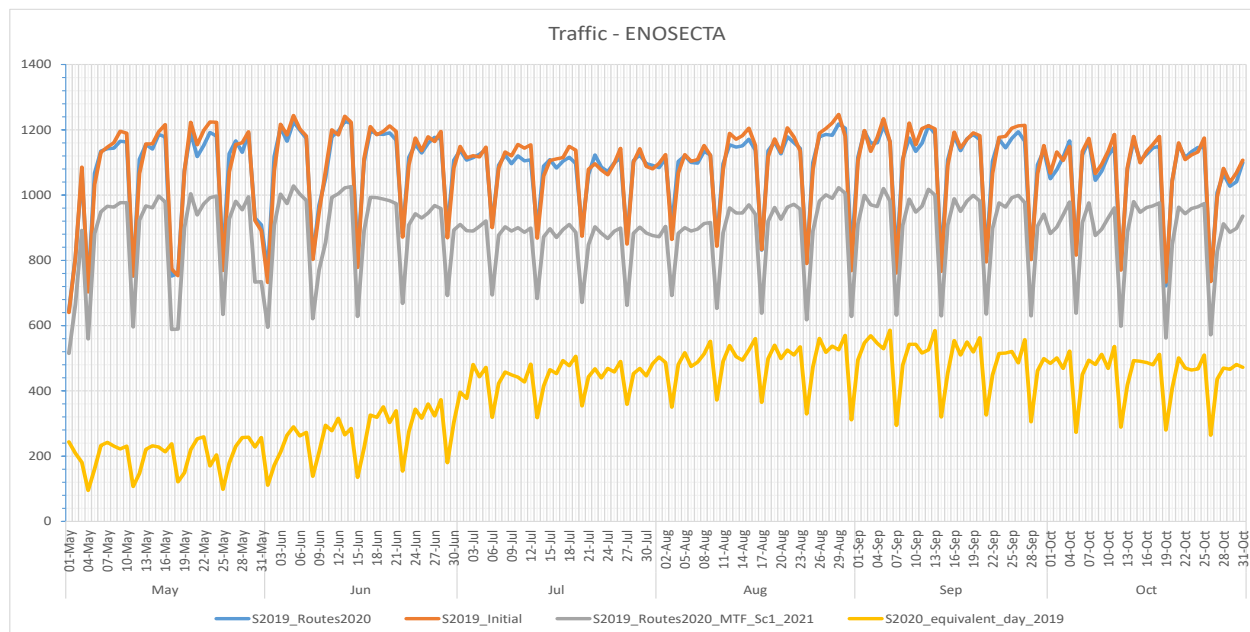
Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
Summer 2021		ENOR/BIRD	FIR border harmonisation Norway FIR - Bodo Oceanic FIR
Autumn 2021		ULMM/ENOR/ENOB	FIR border re-alignment between Murmansk FIR and Bodø FIR / Norway FIR.

Sectors available - Summer 2021**Expected Performance**

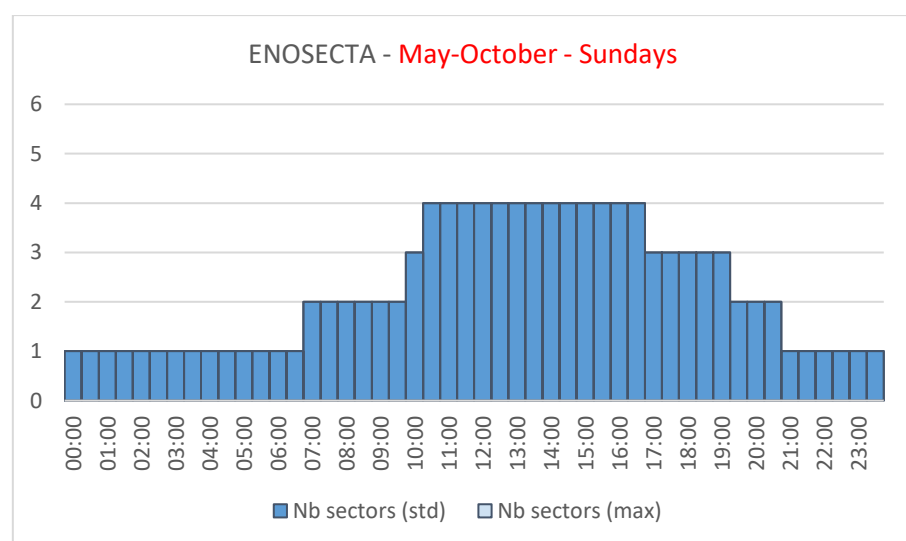
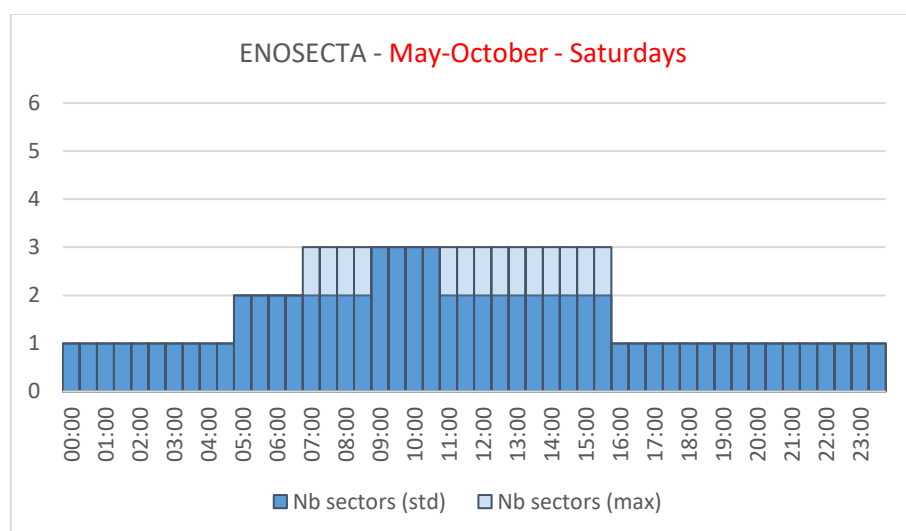
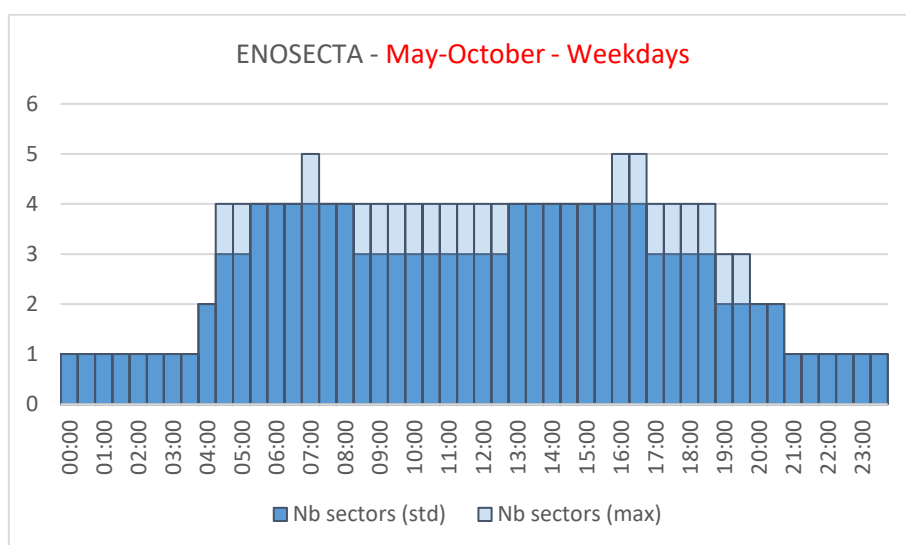
No capacity issues are foreseen for Bodo ACC in Summer 2021.

NORWAY**OSLO ACC****Traffic forecast****Planned capacity enhancement measures**

2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	New/changed FUA-areas Q4 2021
Airport & TMA Network Integration	
Cooperative Traffic Management	
Airspace	
Procedures	
Staffing	Flexible rostering of ATC staff
	Recruitment and training of air traffic controllers.
Technical	
Capacity	
Significant Events	
Additional information	

Events

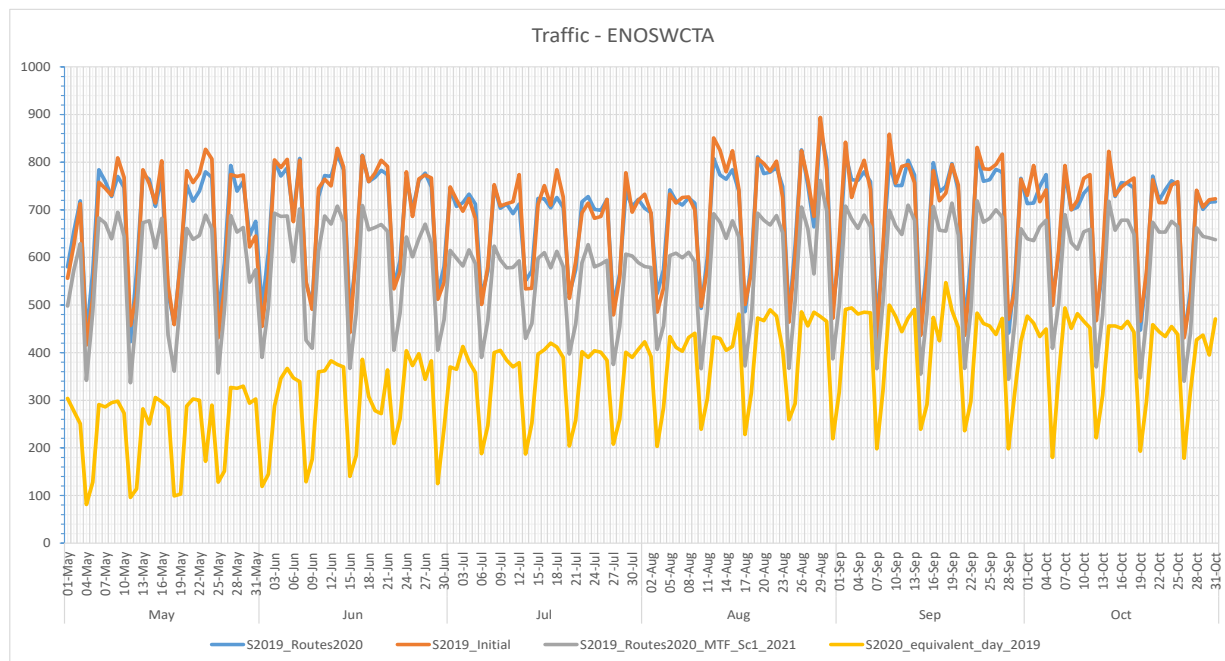
All events (including airport and military events) can be found in Chapter 7. Further updates are reported every week in the rolling seasonal NOP.

Sectors available - Summer 2021

On Saturdays, there is a possibility to flexibly open an additional sector to cover short traffic peaks during the day.

Expected Performance

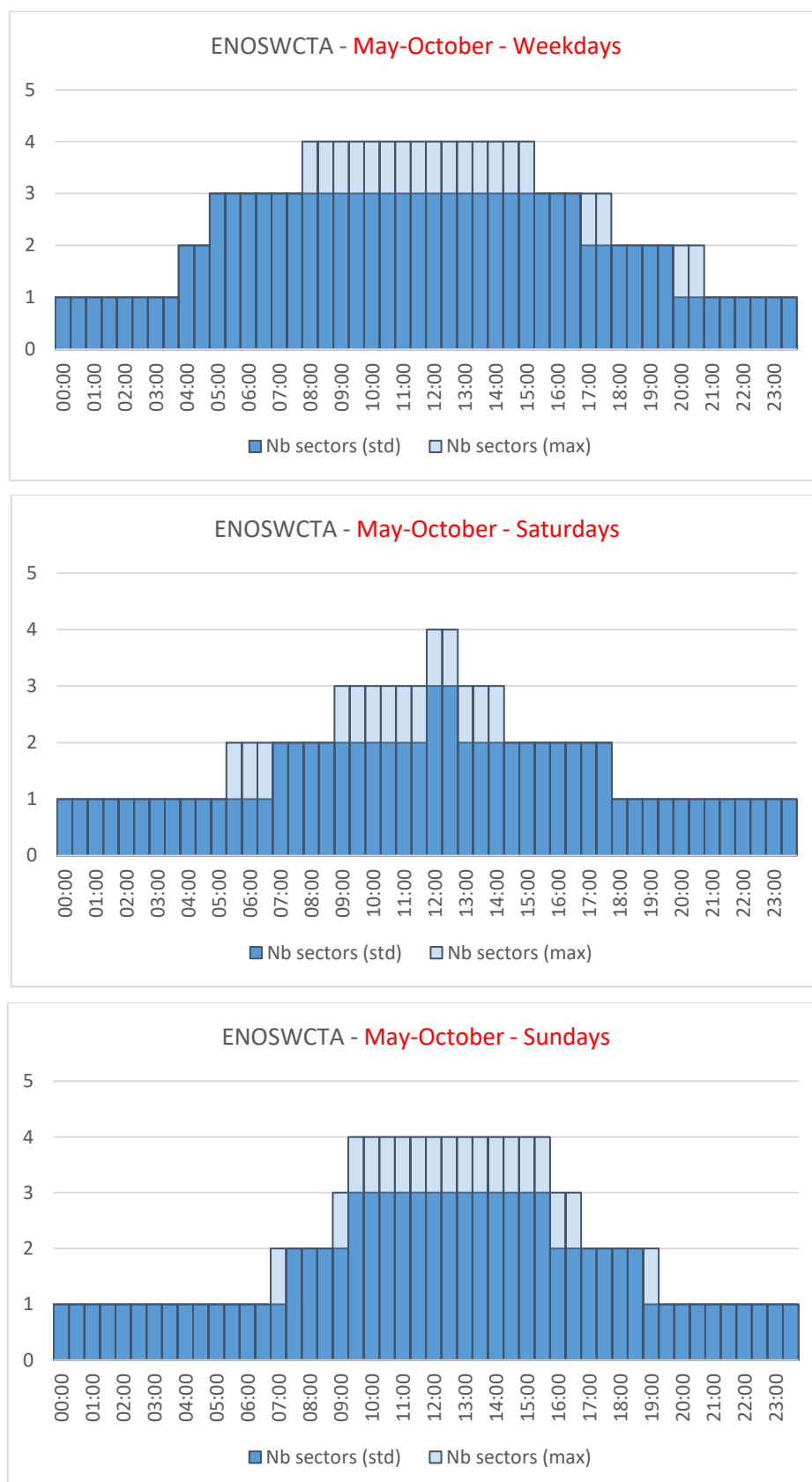
No capacity issues are foreseen for Oslo ACC in Summer 2021.

NORWAY**STAVANGER ACC****Traffic forecast****Planned capacity enhancement measures**

2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	New/changed FUA-areas Q4 2021
Airport & TMA Network Integration	
Cooperative Traffic Management	
Airspace	
Procedures	
Staffing	Flexible rostering of ATC staff
	Recruitment and training of air traffic controllers.
Technical	
Capacity	
Significant Events	
Additional information	

Events

All events (including airport and military events) can be found in Chapter 7. Further updates are reported every week in the rolling seasonal NOP.

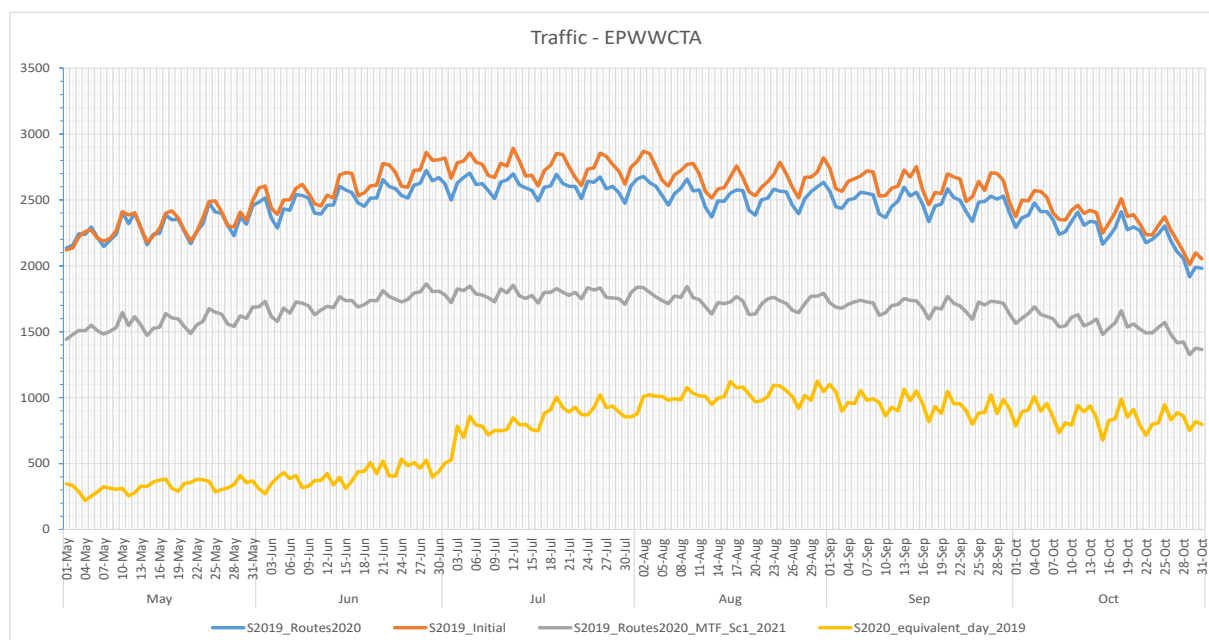
Sectors available - Summer 2021**Expected Performance**

No capacity issues are foreseen for Stavanger ACC in Summer 2021.

POLAND

WARSZAWA ACC

Traffic forecast



Planned capacity enhancement measures

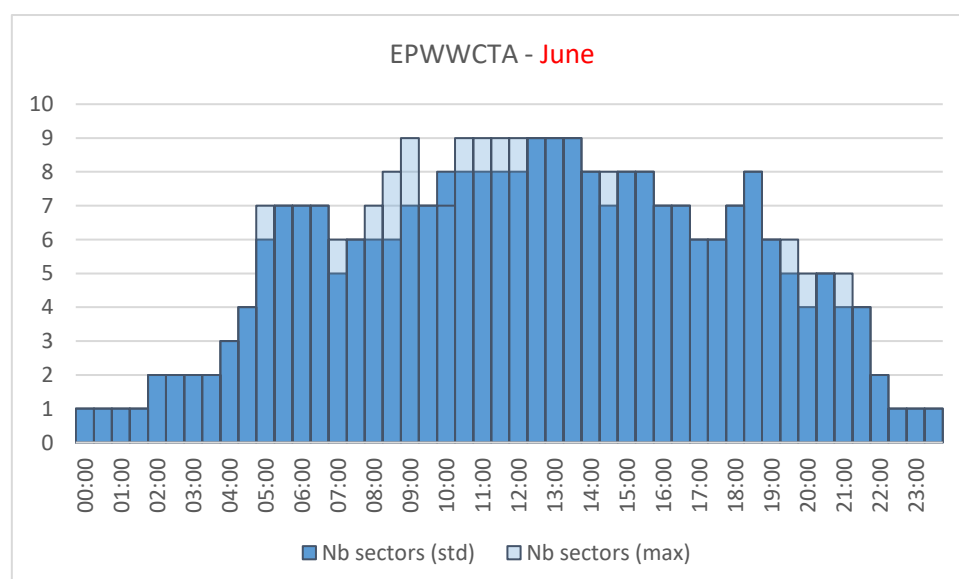
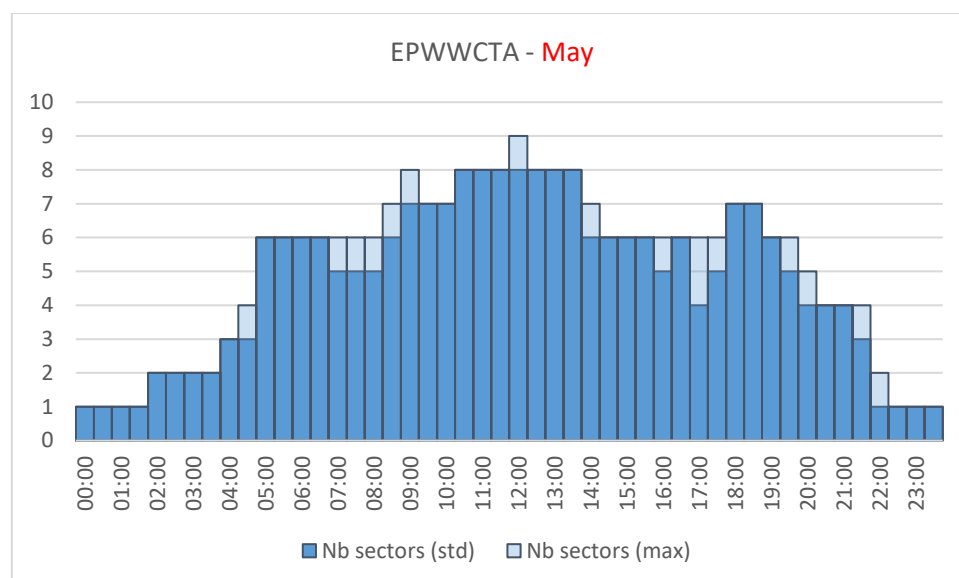
2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	Evolutionary ASM Tool to support for Advanced FUA
Airport & TMA Network Integration	Redesign of all TMAs in Warsaw FIR
Cooperative Traffic Management	Advanced ATFCM techniques, including STAM, workload and complexity estimation, and improved predictability
Airspace	
Procedures	
Staffing	Additional controllers
Technical	
Capacity	TCT implementation
	Continuous development of sector configurations and management
Significant Events	
Additional information	

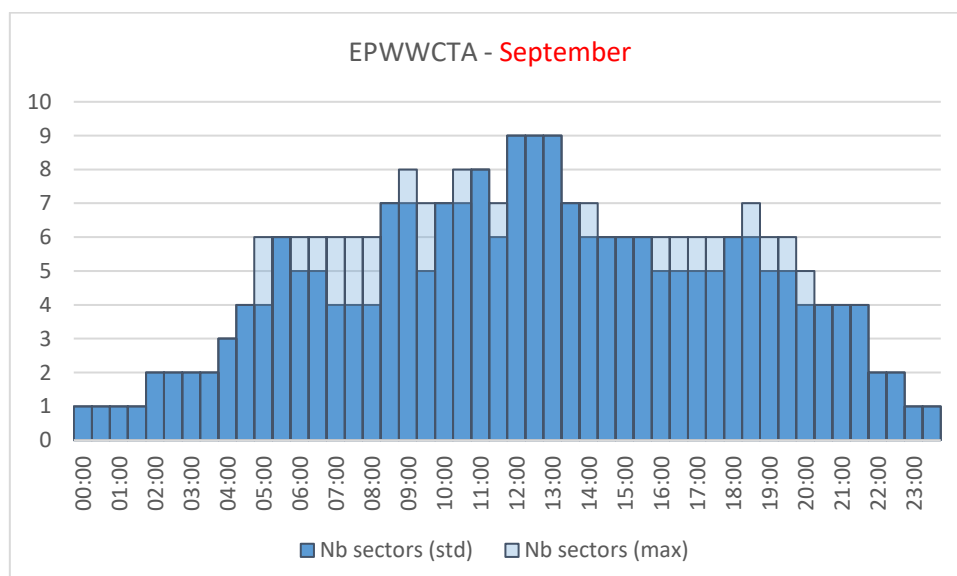
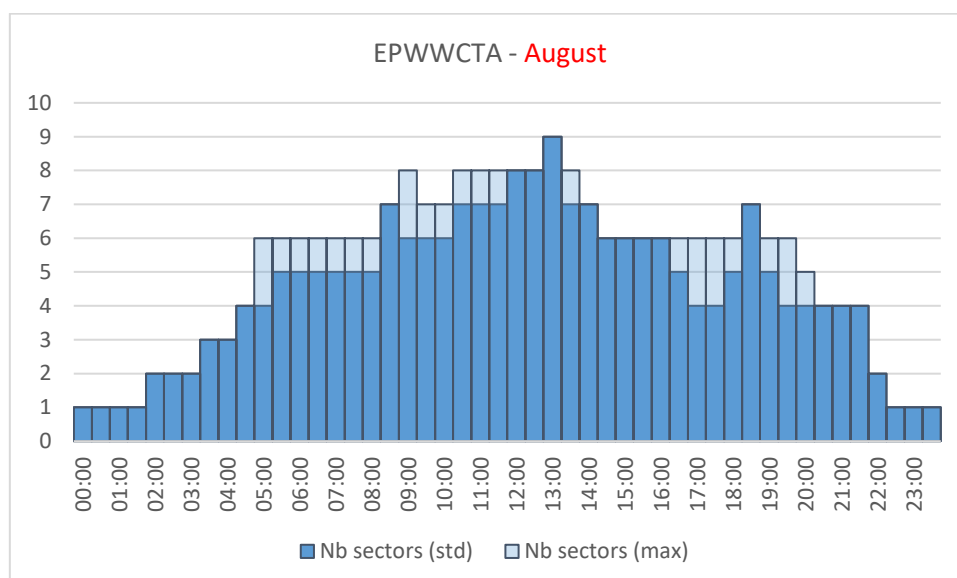
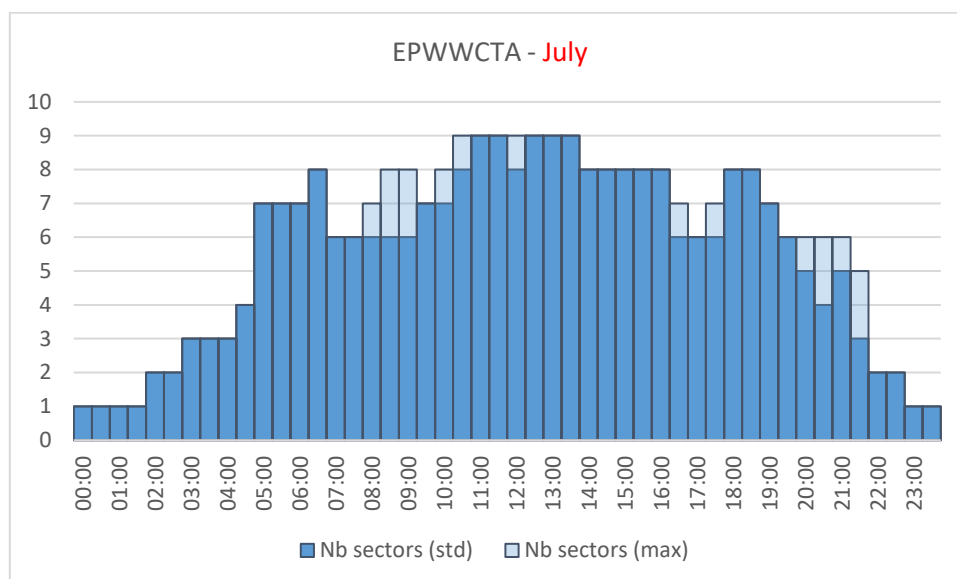
Events

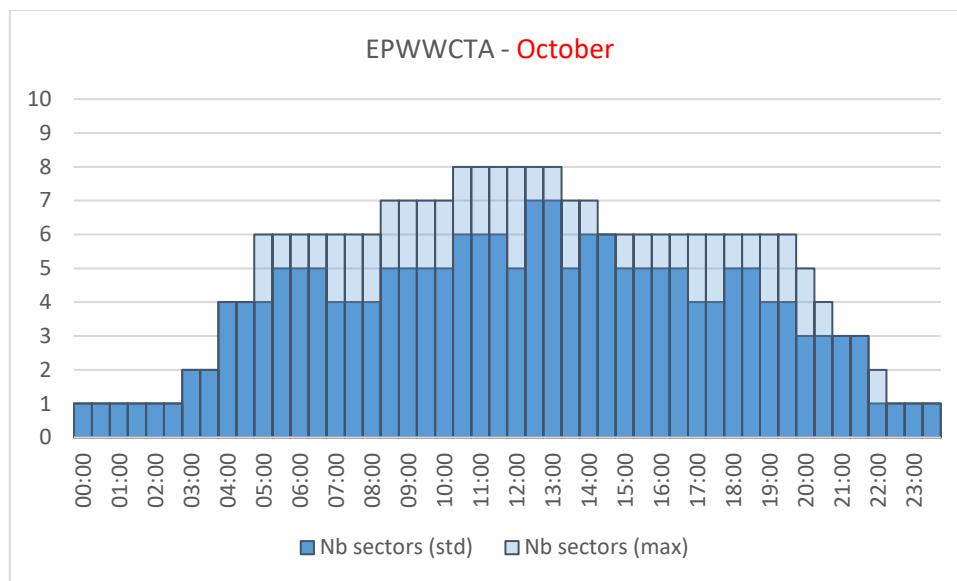
All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
22-Apr-21		EPWW	Krakow TMA re-organisation
22-Apr-21		EPWW	Poznan TMA re-organisation
22-Apr-21		EPWW	Warsaw TMA improvements
24-Feb-22		EPWW/LZBB	H24 Crossborder FRA between Warsaw and Bratislava
24-Feb-22		EYVC/EPWW	Baltic FAB cross border FRA To implement H24 cross border FRA within the Baltic FAB area.
Spring 2022		EPWW	Reorganisation ACC Warsaw sector configuration- three layer division- step 1

Sectors available - Summer 2021





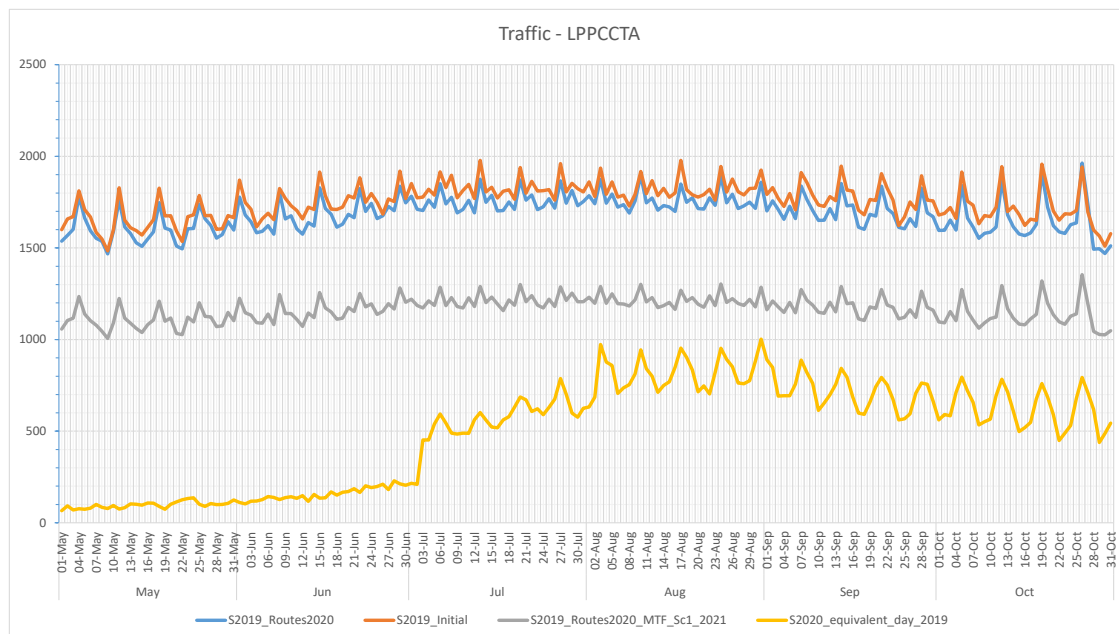


Expected Performance

No capacity issues are foreseen for Warszawa ACC in Summer 2021.

PORTUGAL

LISBOA ACC

Traffic forecast**Planned capacity enhancement measures**

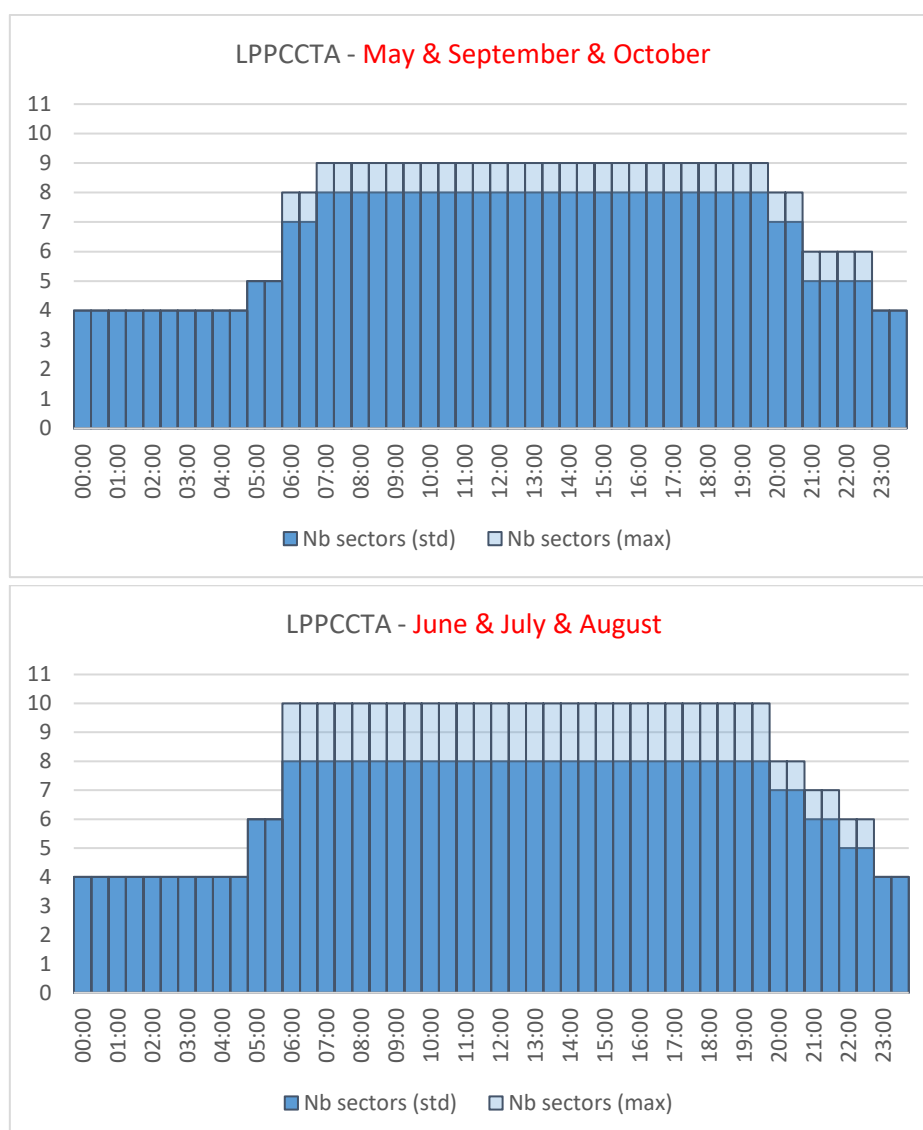
2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	
Airport & TMA Network Integration	
Cooperative Traffic Management	Enhanced ATFCM procedures, including STAM
Airspace	New Madeira TMA (25 Feb 2021)
Procedures	PBN Madeira TMA (25 Feb 2021)
Staffing	Flexible rostering
	Availability of ATCOs to open up to 8/10 sectors (6/7 ENR, 2/3 TMA)
Technical	
Capacity	Dynamic split of SOUTH sector
	Flexible sector opening schemes
Significant Events	Training for the new system (TOPSKY ATC)
	TIGER MEET 21 (EST 2/14 May 2021)
Additional information	

Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
02-Dec-21		LPPO	Free Route Airspace Santa Maria FIR - Phase 2 To reconsider existing boundary points between Santa Maria FIR and Lisboa FIR and implement new in support of FRA operations.
Winter 21/22		LPPC	Remove the distinction between Upper and Lower ATS routes "U" prefix with Lisboa FIR
Q2 2022		LPPC	Start of implementation TopSky in LP TWRs (LPPR/FR/PS/CS/MA/PT)
Spring 2022		LPPC	Implementation TopSky in Lisbon ACC - transition to new room
Summer 2022		LPPC/GMMM/GMA C/GCCC	Lisboa / Casablanca / Canarias Axis Phase 2

Sectors available - Summer 2021



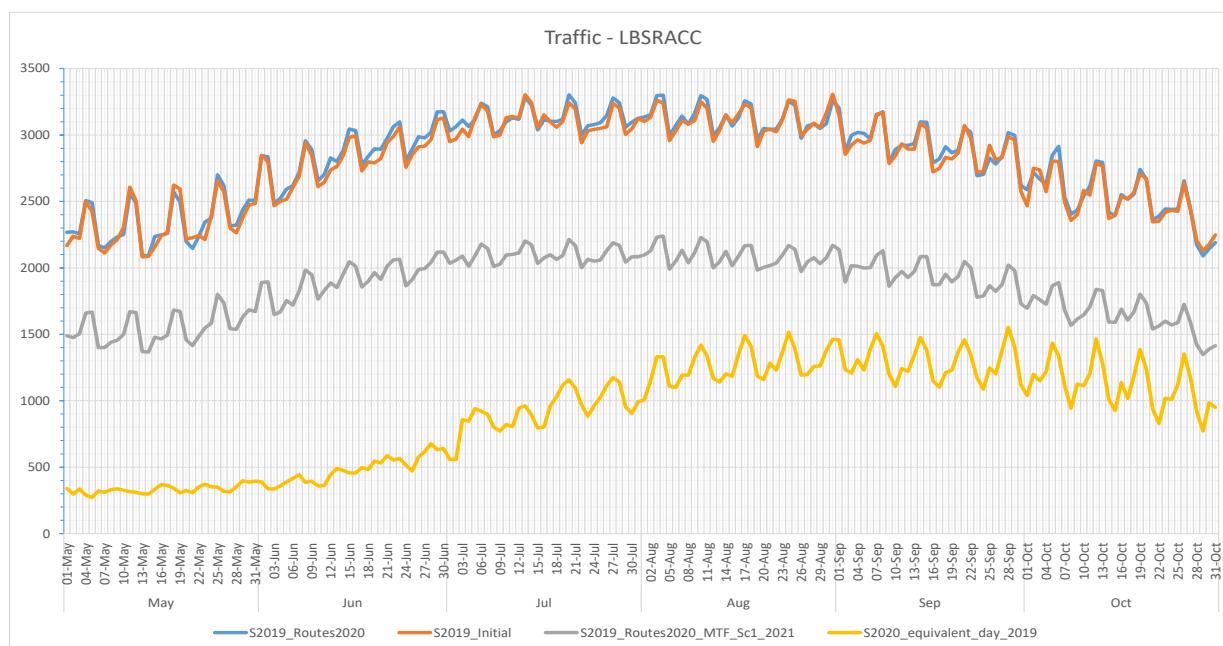
Expected Performance

Traffic demand is expected to be above declared capacity with planned number of sectors during weekends in May and October, and most days in June, July, August and September. Some flexibility might be needed to open extra sectors during traffic peaks but the maximum number of sectors should be sufficient for the whole period. Thanks to high flexibility between planned and maximum number of sectors, no capacity issues are expected.

ROMANIA

BUCUREȘTI ACC

Traffic forecast



Planned capacity enhancement measures

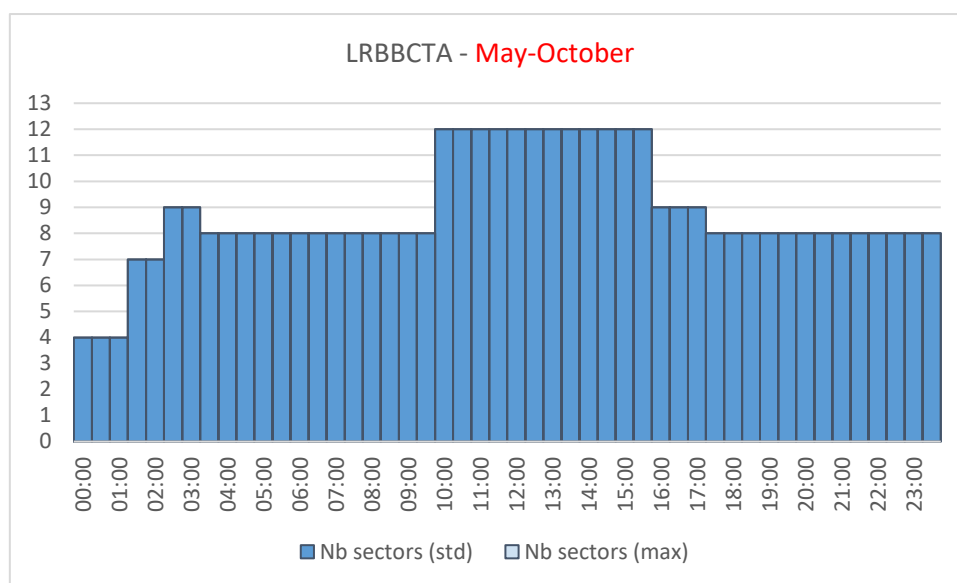
2021 Summer Capacity Plan	
Free Route Airspace	Stepped Implementation of FRA. H24 FRA operations implemented in LRBB CTA (SEE FRA Project). Expansion with Bratislava CTA.
Airspace Management Advanced FUA	Single CDR category implementation
Airport & TMA Network Integration	
Cooperative Traffic Management	Improved ATFCM, including use of occupancy counts
Airspace	ATS route network and sectorisation improvements
Procedures	LoAs and ATS Instructions for Bucharest ACC Sectors review on regular basis
Staffing	Staff ensured in line with traffic demand and with the available updated traffic outlooks.
Technical	CCAMS activation
	Automated Support for Traffic Complexity Assessment (FCM06) – see Capacity section
Capacity	ATM System optimised functionalities (ATM system modernisation Phase 2)
	Automated Support for Traffic Load (Density) Management & Traffic Complexity Assessment (FCM06) - Tender documentation finalised and approved. Postponed procurement process. Implementation foreseen for Summer 2024.
Significant Events	CCAMS activation (Q1 2021)
	ATM System Phase 2 transfer into operations (Q4 2021).
Additional information	

Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

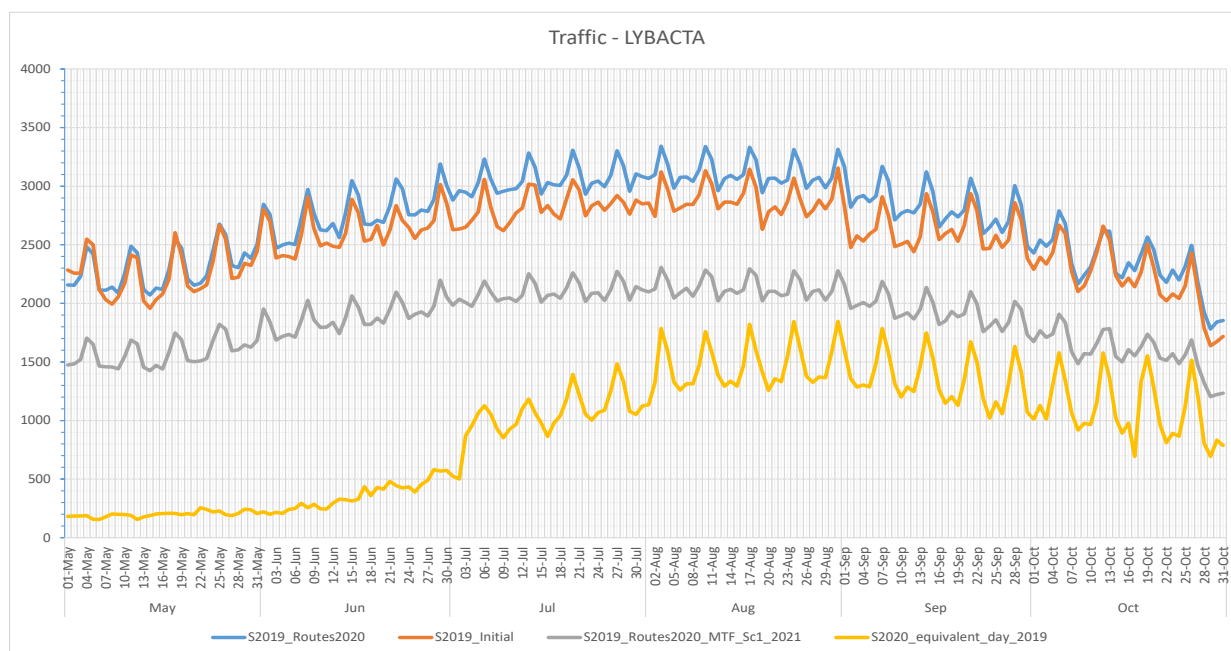
Start Date	End date	ACC/Airport	Event
Q2 2021		LRBB	Removal of ATS routes over FL105
Nov-21		LRBB	ATM system, phase 2 - transfer into operations
Winter 21/22		LRBB	Bucharest ACC re-organisation

Sectors available - Summer 2021



Expected Performance

No capacity issues are foreseen for Bucuresti ACC in Summer 2021.

SERBIA**BEOGRAD ACC****Traffic forecast****Planned capacity enhancement measures**

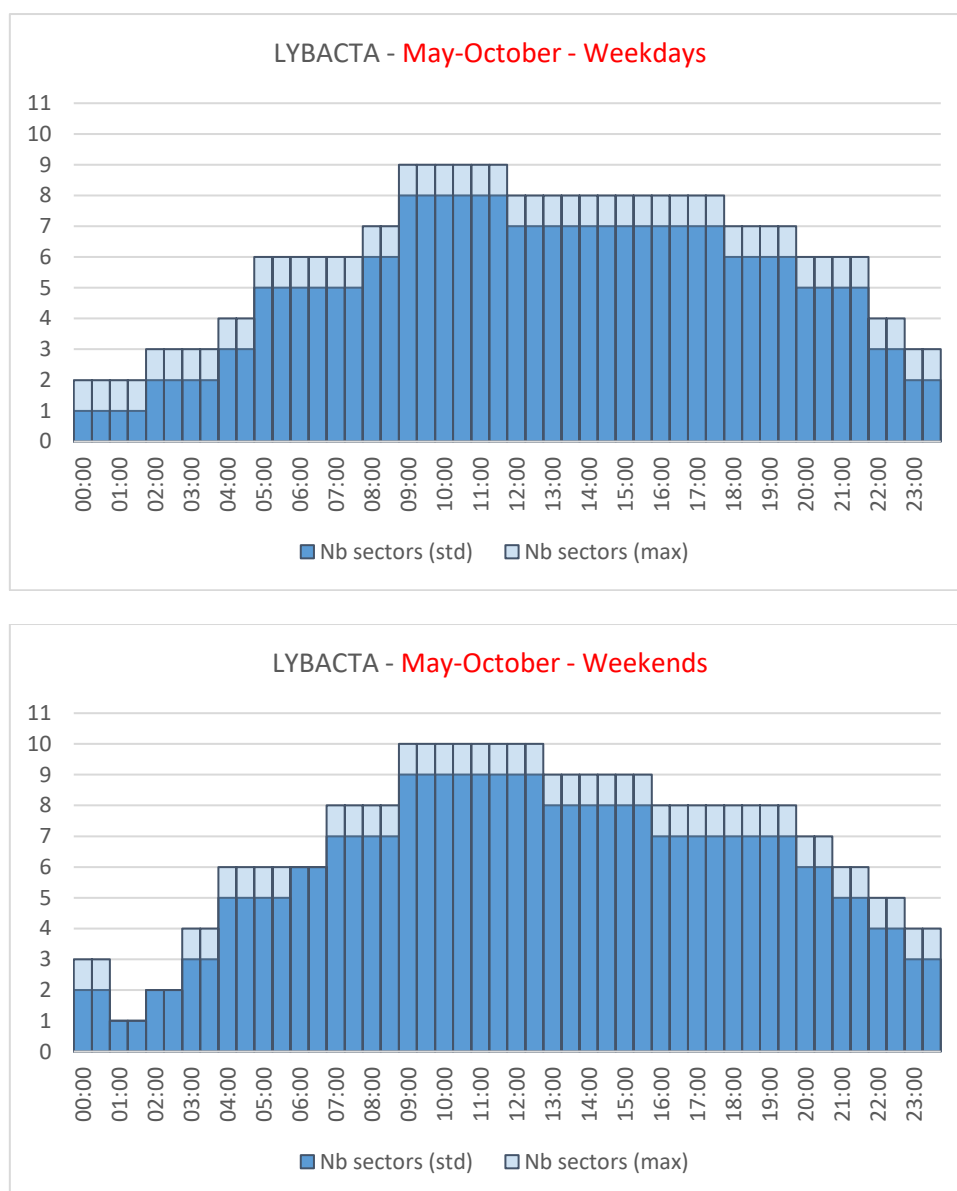
2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	AMC Montenegro fully operational
Airport & TMA Network Integration	LYNI TMA Reorganization of SIDs and STARs
Cooperative Traffic Management	
Airspace	
Procedures	
Staffing	3 new ATCOs
Technical	
Capacity	
Significant Events	
Additional information	

Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

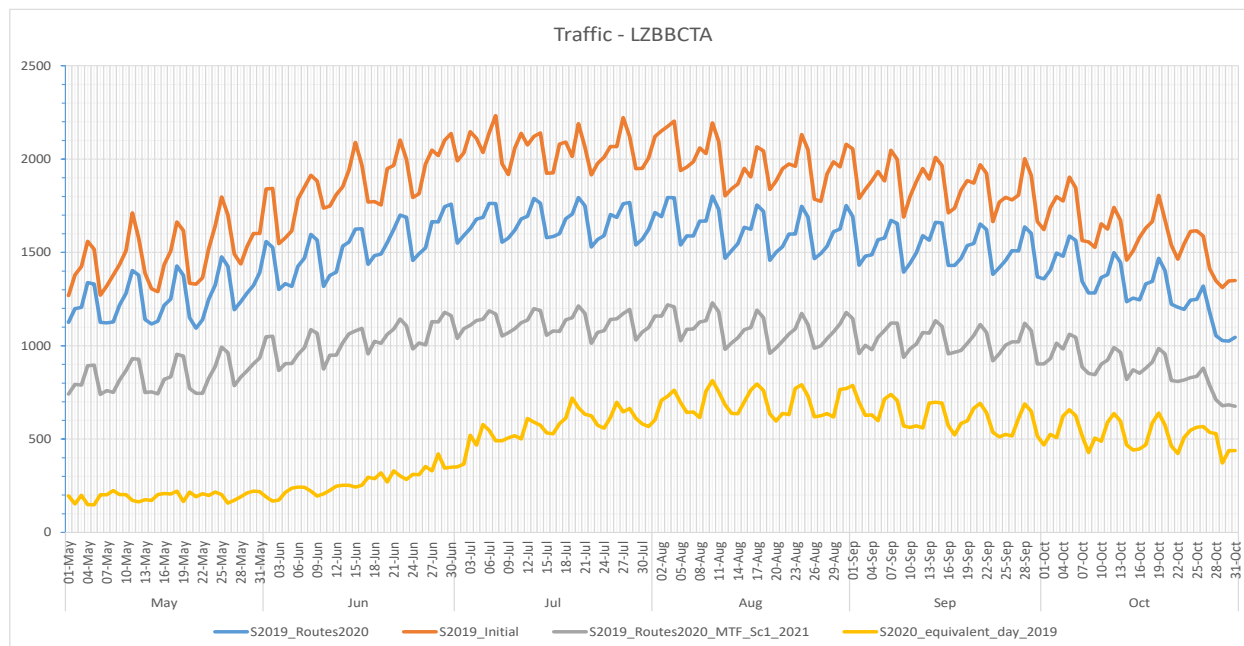
Start Date	End date	ACC/Airport	Event
Autumn 2021		LYBA	New LYBT TMA (merge from LYVR +LYBT)
Autumn 2021		LYBA	New LYKV TMA (merge from LYKV +LYUZ)
Spring 2022		LYBA	ATM system SW/HW upgrade. Step1/phase 2

Sectors available - Summer 2021



Expected Performance

No capacity issues are foreseen for Beograd ACC in Summer 2021.

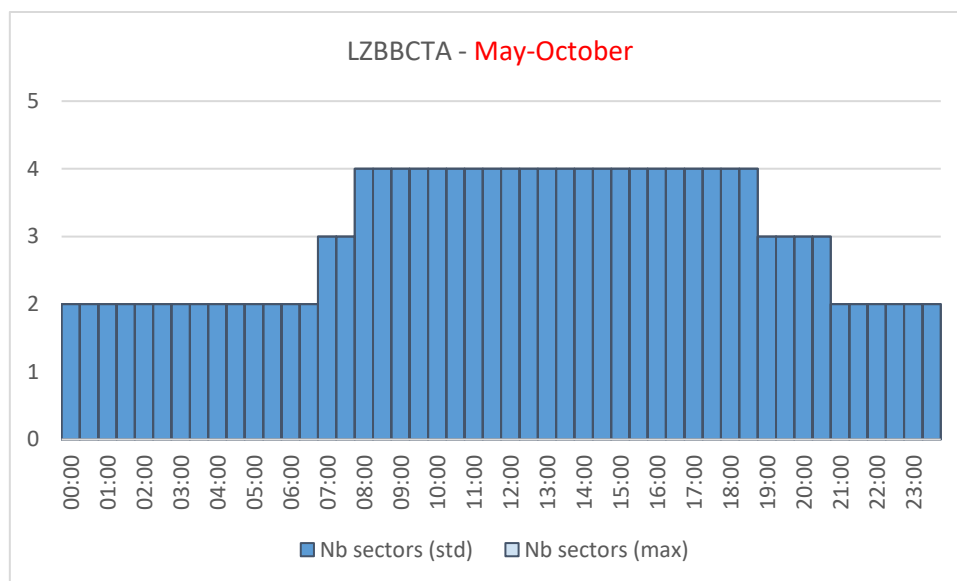
SLOVAKIA**BRATISLAVA ACC****Traffic forecast****Planned capacity enhancement measures**

2021 Summer Capacity Plan	
Free Route Airspace	H24 SEEFRA operations
Airspace Management Advanced FUA	
Airport & TMA Network Integration	
Cooperative Traffic Management	Improved ATFCM techniques, including STAM
Airspace	Continuous improvements of the route network and sectorisation
	Enhanced sectorisation according to FABCE airspace plan
Procedures	
Staffing	Continuous recruitment to increase staff level
Technical	HW/SW Upgrade
	AGDL
Capacity	Optimisation of sector opening times
Significant Events	
Additional information	

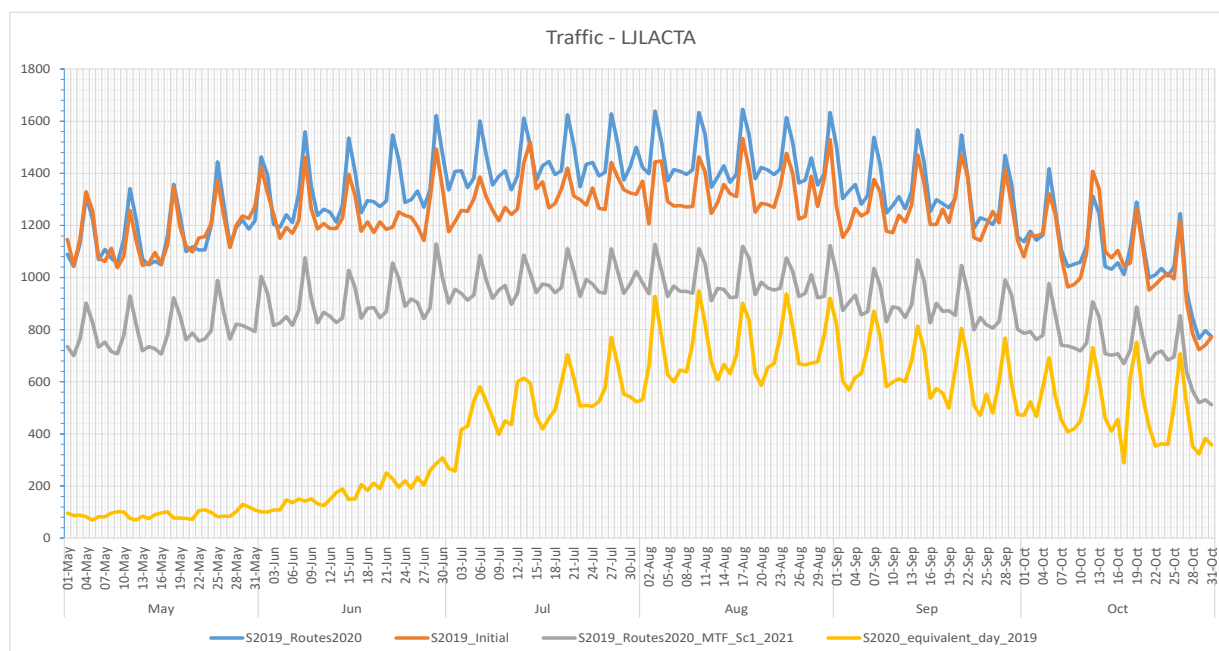
Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
24-Feb-22		EPWW/LZBB	H24 Crossborder FRA between Warsaw and Bratislava
Summer 2022		LZBB	Bratislava ACC re-sectorisation - step 2

Sectors available - Summer 2021**Expected Performance**

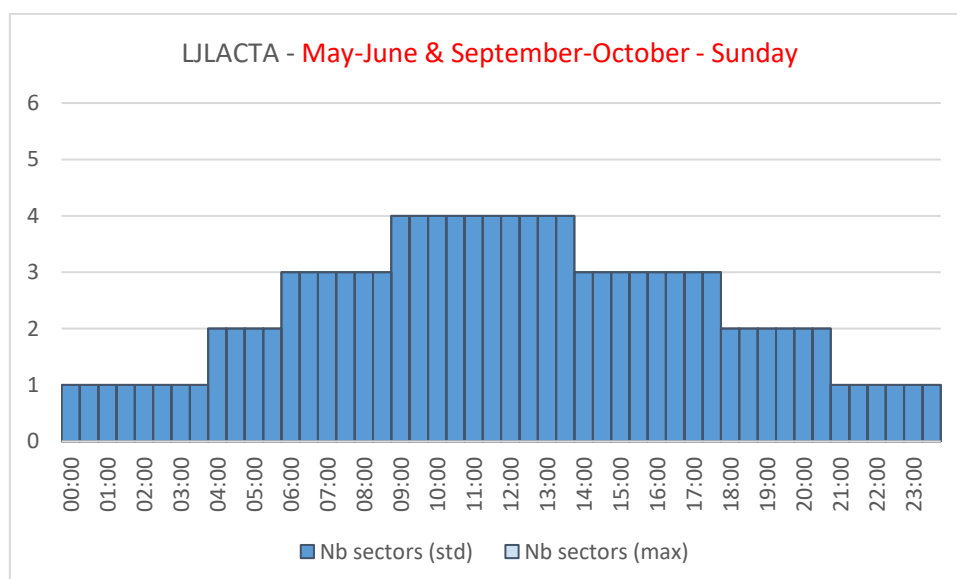
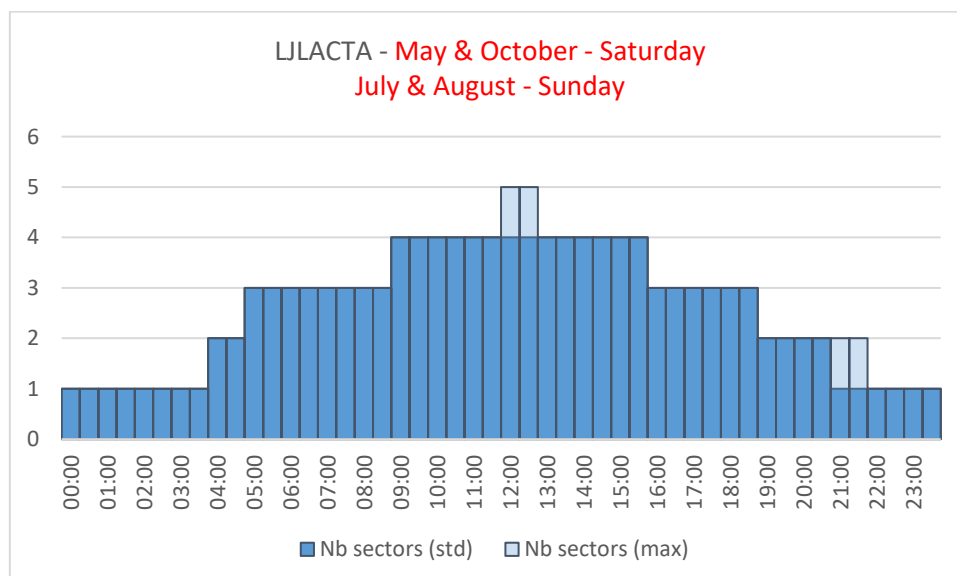
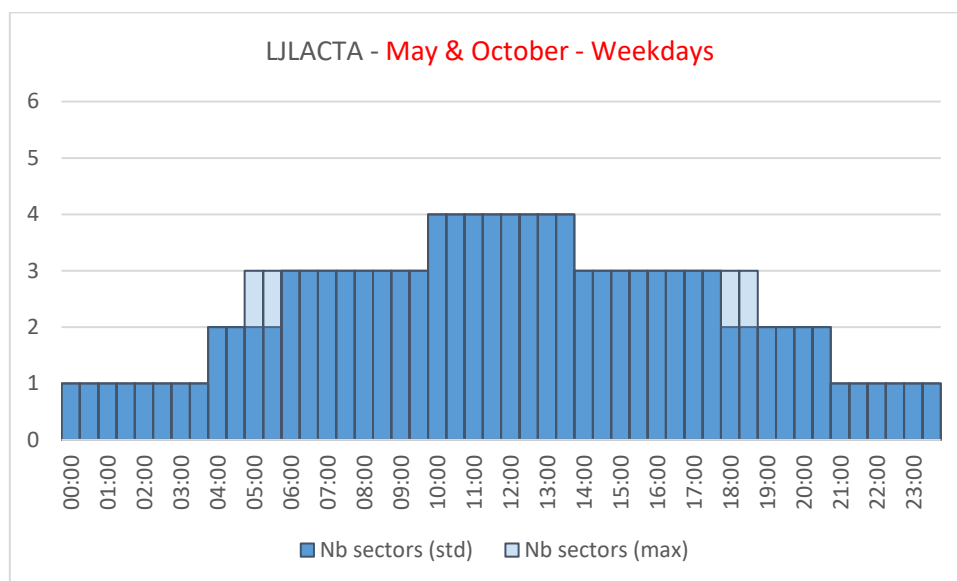
No capacity issues are foreseen for Bratislava ACC in Summer 2021.

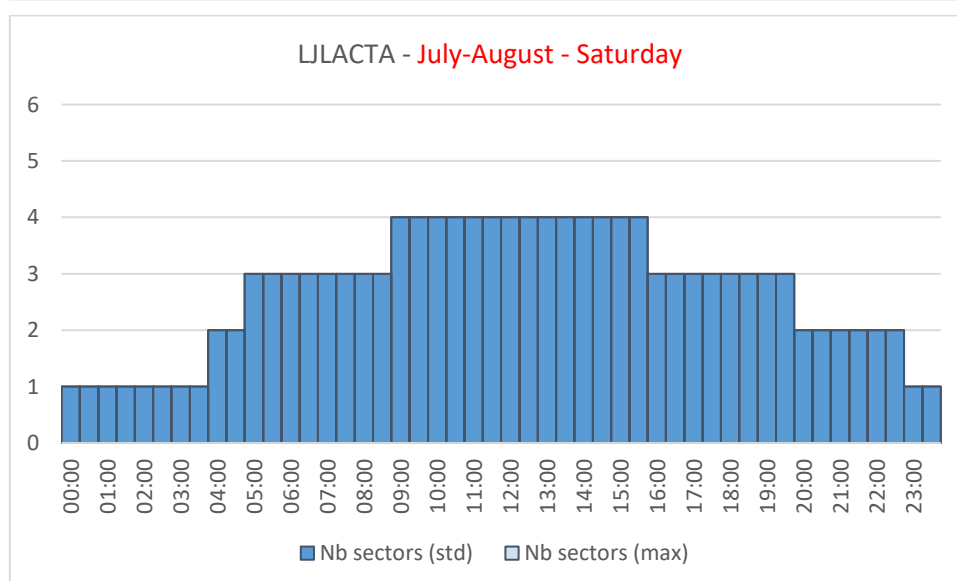
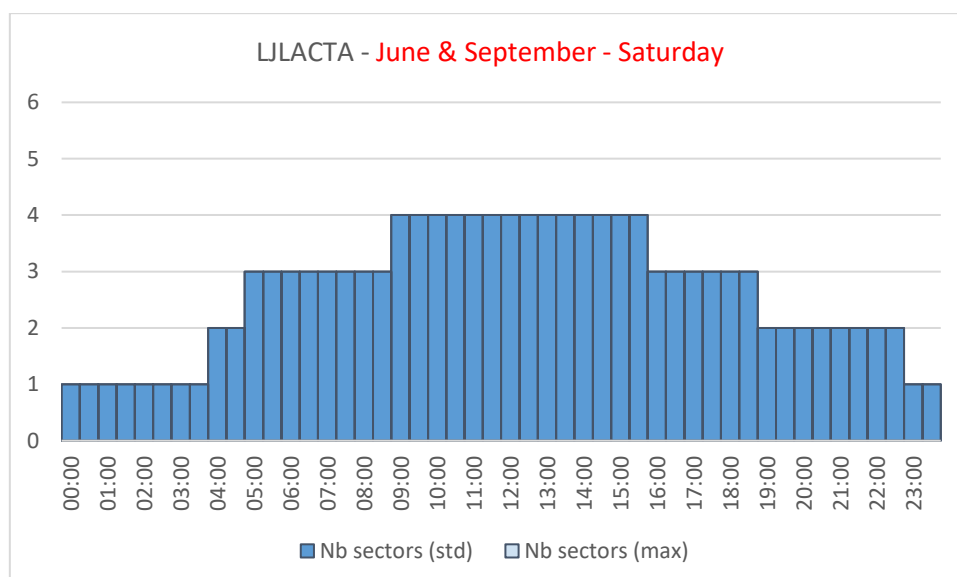
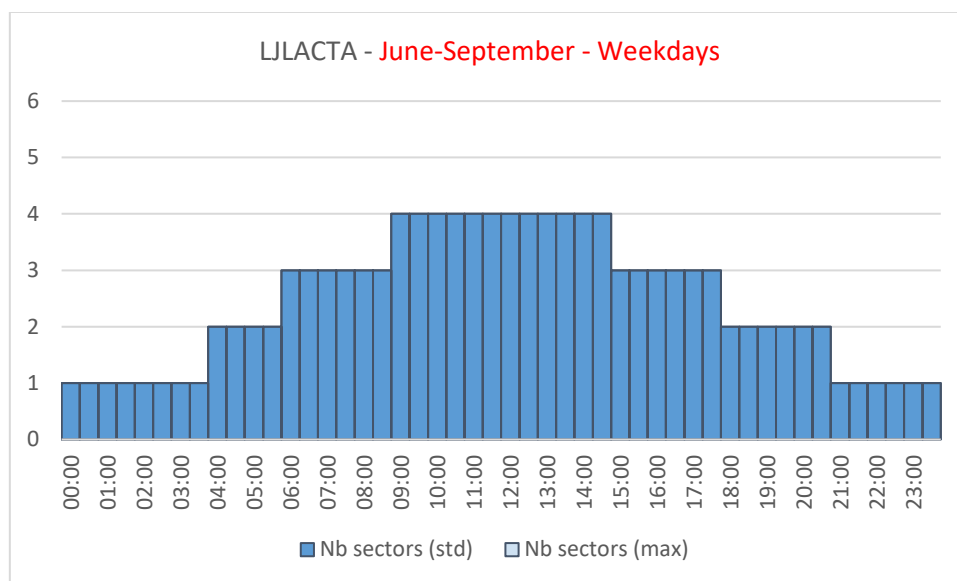
SLOVENIA**LJUBLJANA ACC****Traffic forecast****Planned capacity enhancement measures**

2021 Summer Capacity Plan	
Free Route Airspace	Stepped implementation of FRA according to the FAB CE Airspace Plan, SAXFRA project, SECSI FRA project and new FRA related initiatives, if any, will be reflected in FAB CE Airspace Plan
Airspace Management Advanced FUA	
Airport & TMA Network Integration	
Cooperative Traffic Management	Enhanced ATFCM techniques, including STAM
Airspace	ATS route network deleted, traffic organisation changes will depend on the changes in flows resulting from FRA projects in the region (SECSI FRA, FRAIT, SEENFRA...)
	Enhanced sectorization according to the FAB CE Airspace Plan
Procedures	
Staffing	Additional ATCOs will be recruited as necessary
Technical	Minors system upgrades as necessary
Capacity	Flexible sector configurations, adapting regularly based on demand
Significant Events	
Additional information	

Events

All events (including airport and military events) can be found in Chapter 7. Further updates are reported every week in the rolling seasonal NOP.

Sectors available - Summer 2021

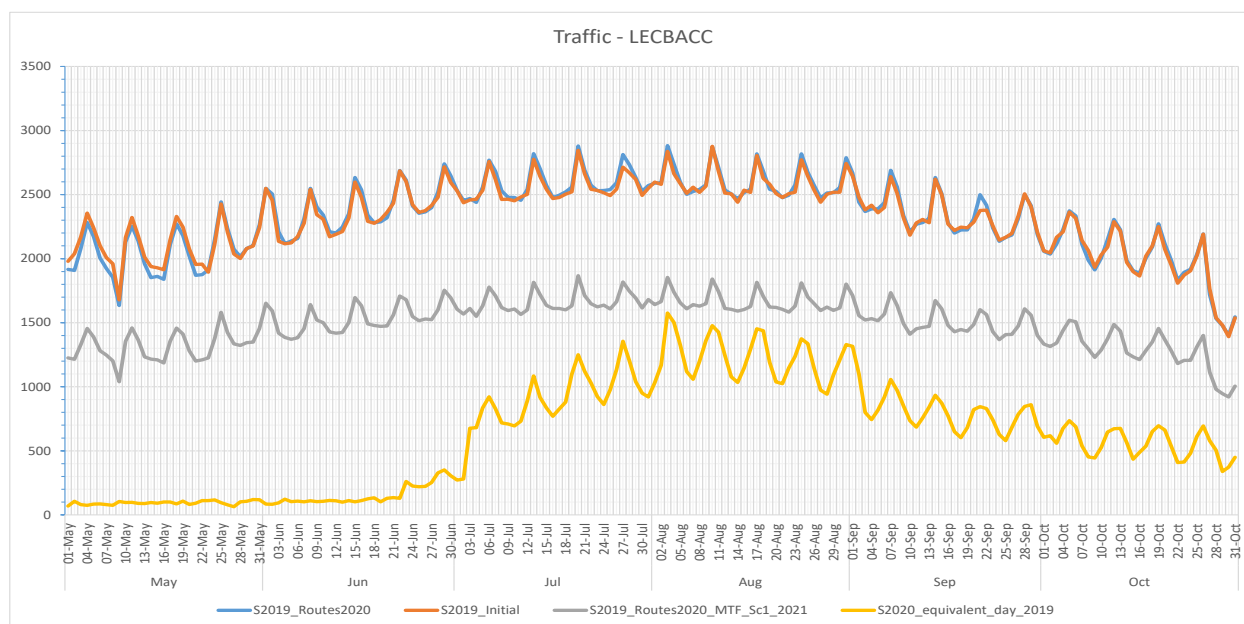


Expected Performance

No capacity issues are foreseen for Ljubljana ACC in Summer 2021.

SPAIN

BARCELONA ACC

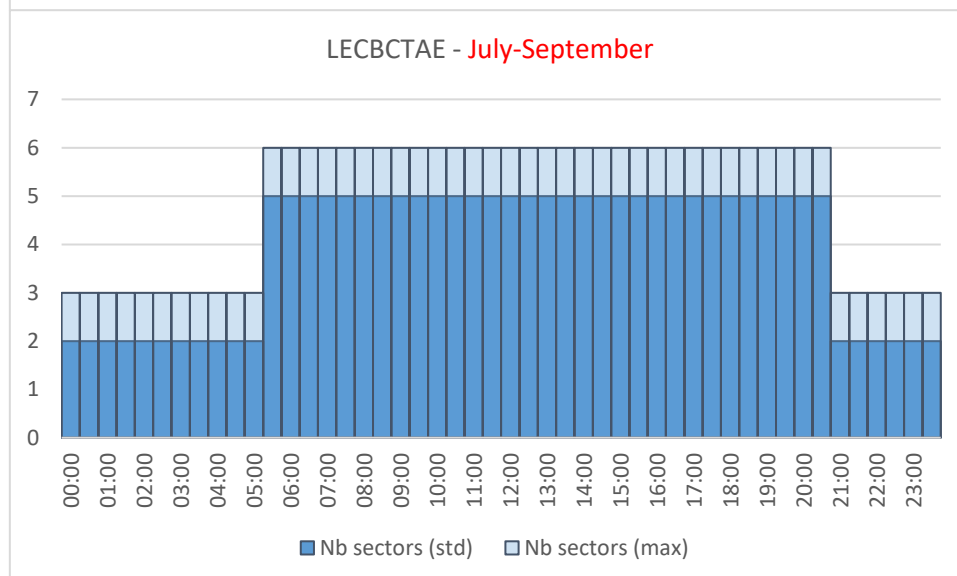
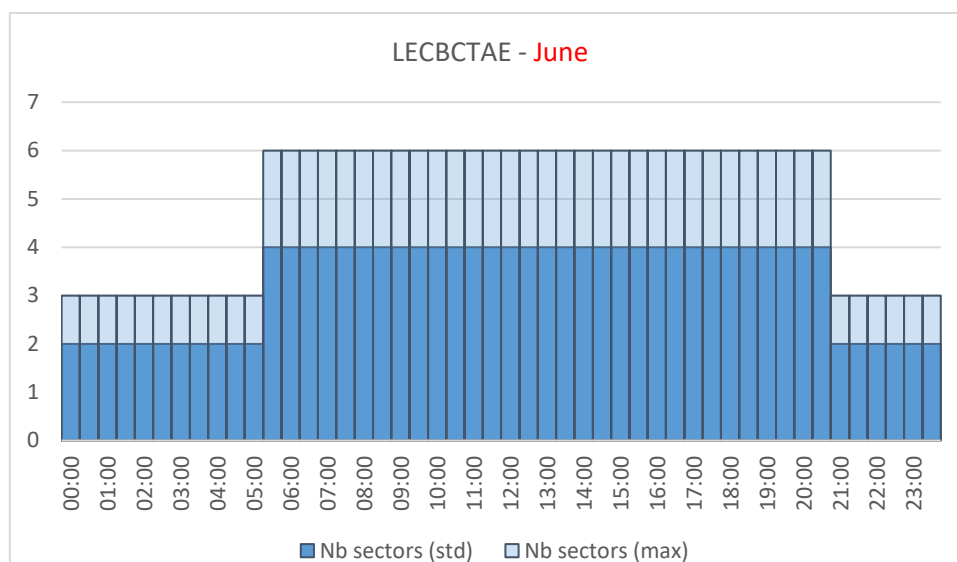
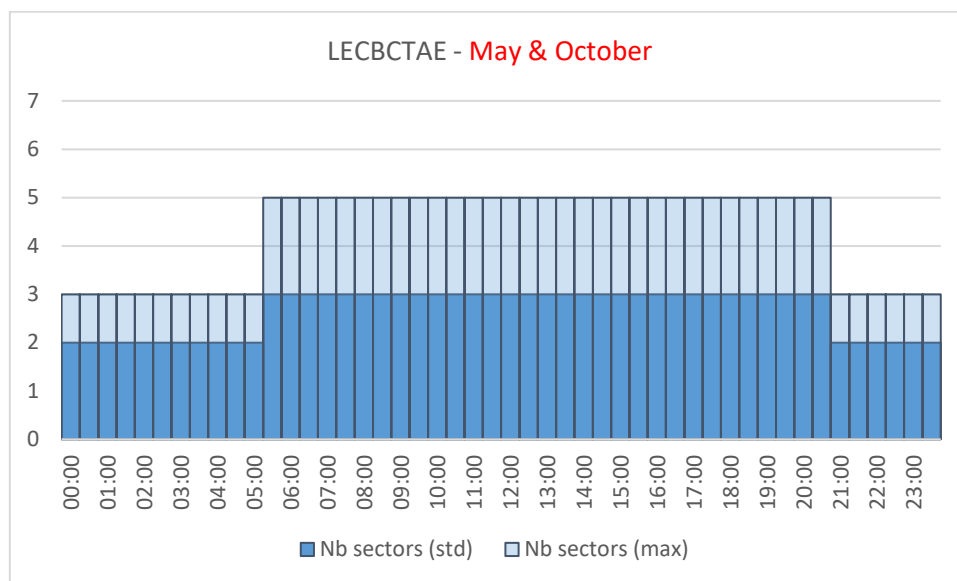
Traffic forecast**Planned capacity enhancement measures**

2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	PRISMIL to be implemented in December 2021
Airport & TMA Network Integration	
Cooperative Traffic Management	Improved ATFCM
Airspace	
Procedures	
Staffing	Net increase of ATCOs continues but at lower rate than initially planned due to COVID19
Technical	
Capacity	Optimised sector configurations & sector capacities
Significant Events	TLP – European military activity (4 times per year)
	EAGLE EYE – European military activity (once per year)
Additional information	

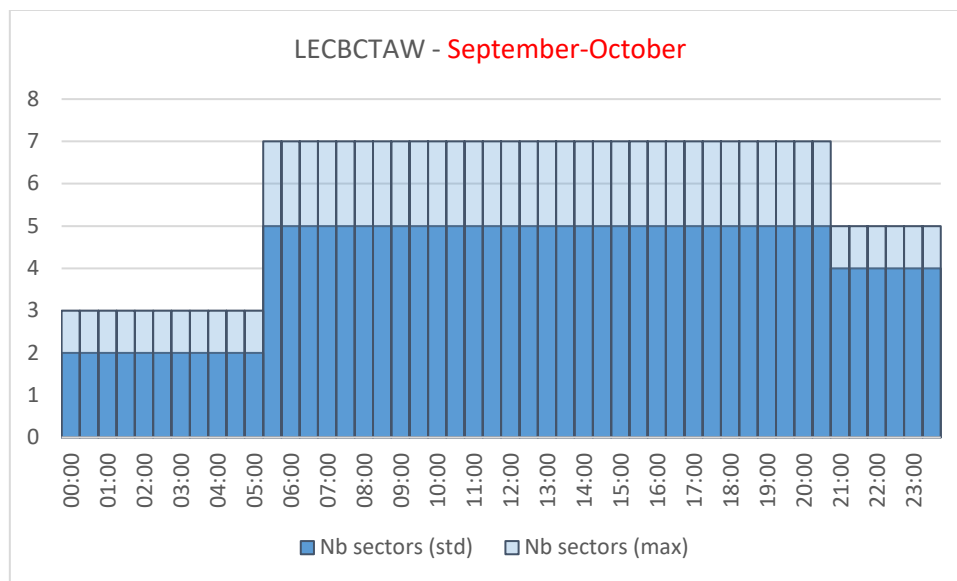
Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
04-Nov-21		LECM/CB/CS	Free Route Airspace Spain - ESFRA Phase 2 To implement H24 FRA within Madrid FIR/UIR and Barcelona FIR/UIR as single FRA area FL245-FL660
Spring 2022		LECB	Barcelona TMA - Phase 2 To introduce new PBN SIDs/STARs and IAP structure for Barcelona TMA.

Sectors available - Summer 2021





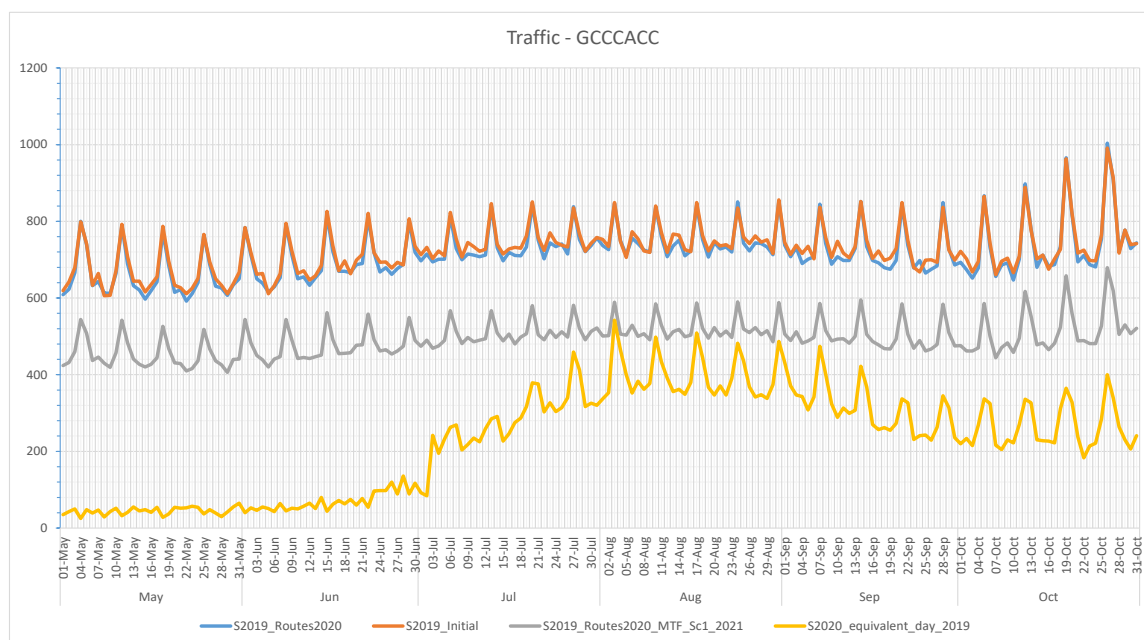
Expected Performance

No capacity issues are foreseen for Barcelona ACC in Summer 2021.

SPAIN

CANARIAS ACC

Traffic forecast



Planned capacity enhancement measures

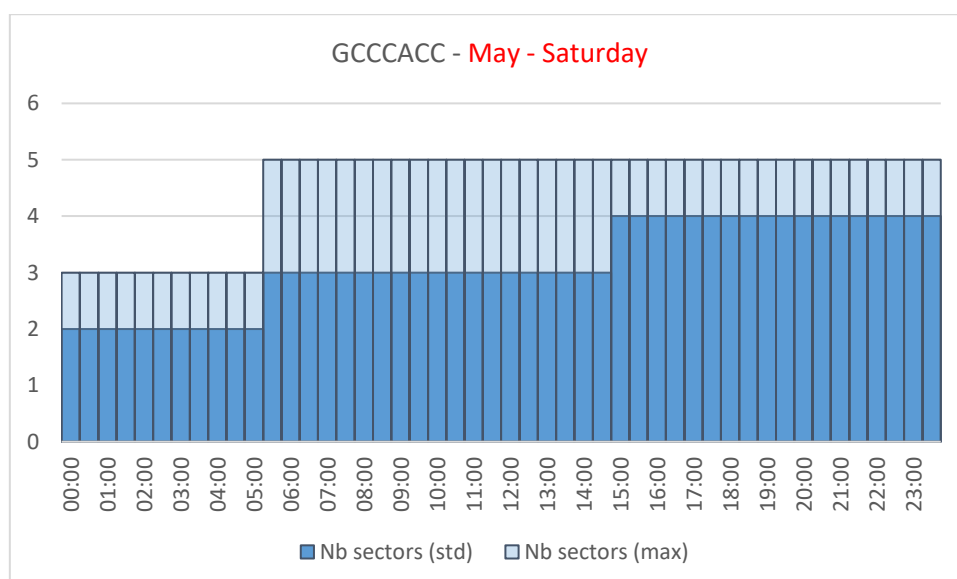
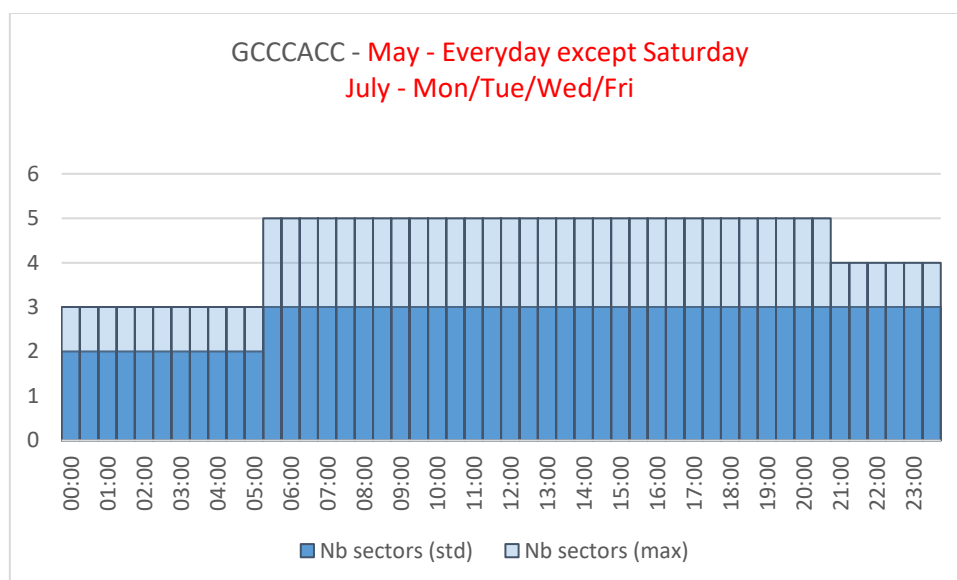
2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	PRISMIL to be implemented in December 2021
Airport & TMA Network Integration	
Cooperative Traffic Management	Improved ATFCM
Airspace	Improvement of NW sectors Split NE Sector for high season in Canarias
Procedures	
Staffing	Net increase of ATCOs continues but at lower rate than initially planned due to COVID19
Technical	EVEREST
Capacity	Optimised sector configurations & sector capacities 11 th sector (second cluster) with the split of NE sector
Significant Events	OCEAN SKY - military event (Once per year)
Additional information	

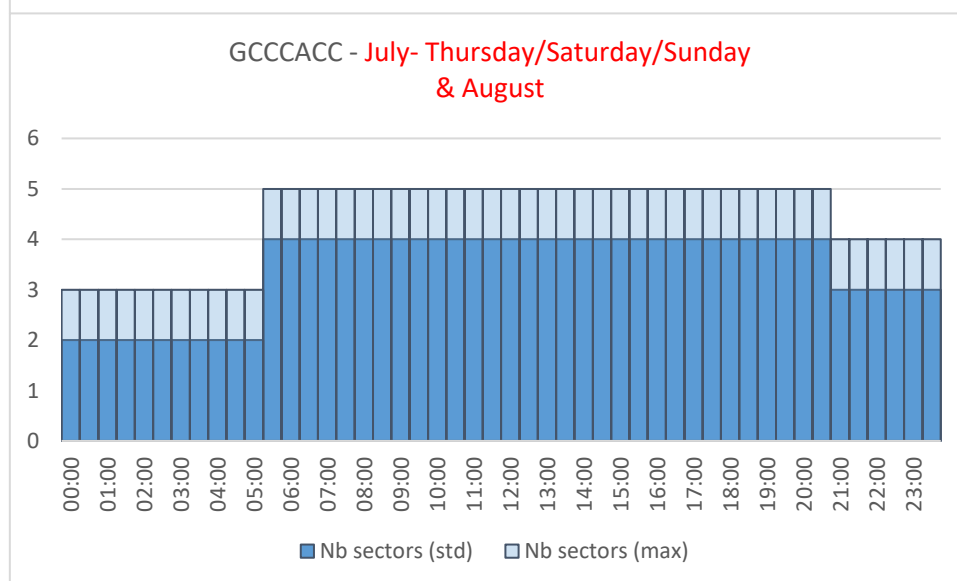
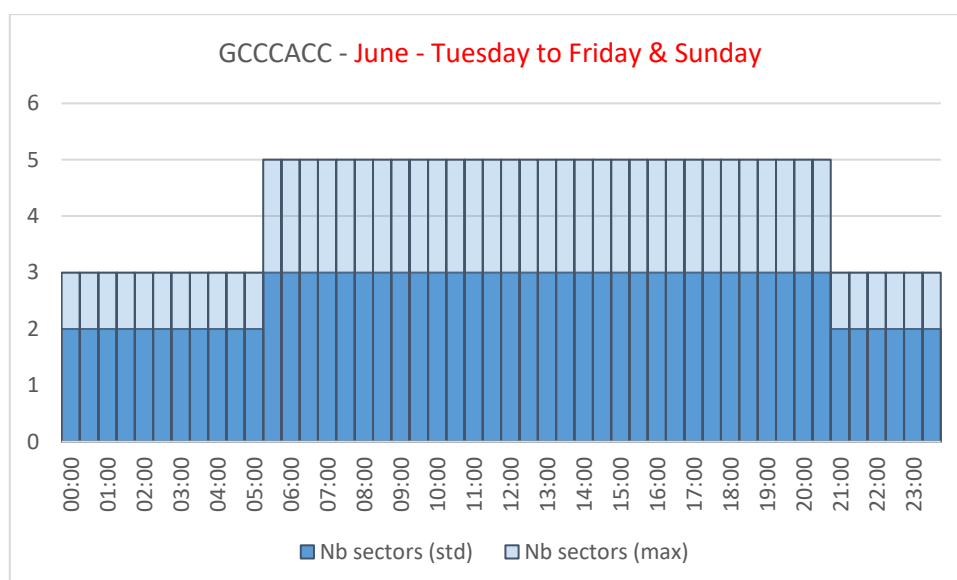
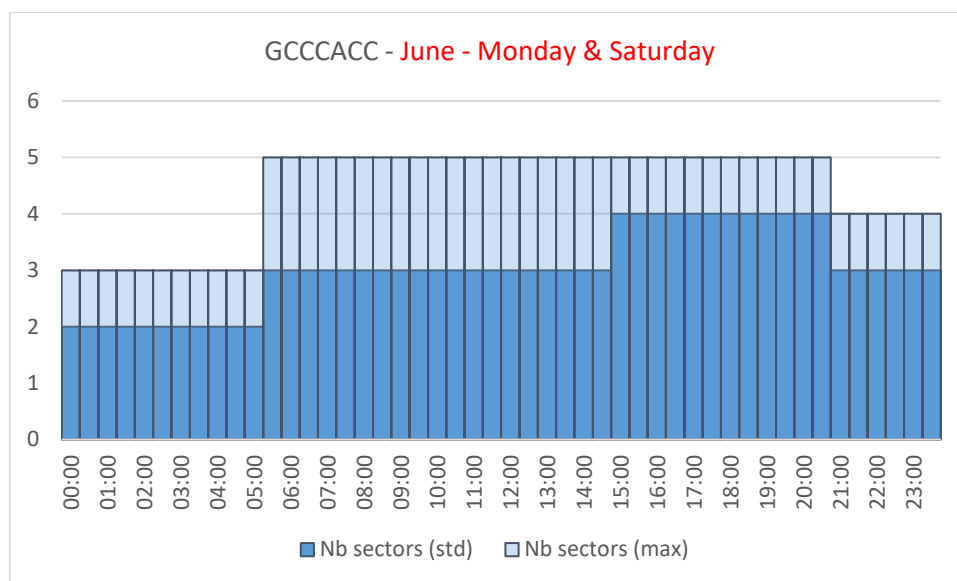
Events

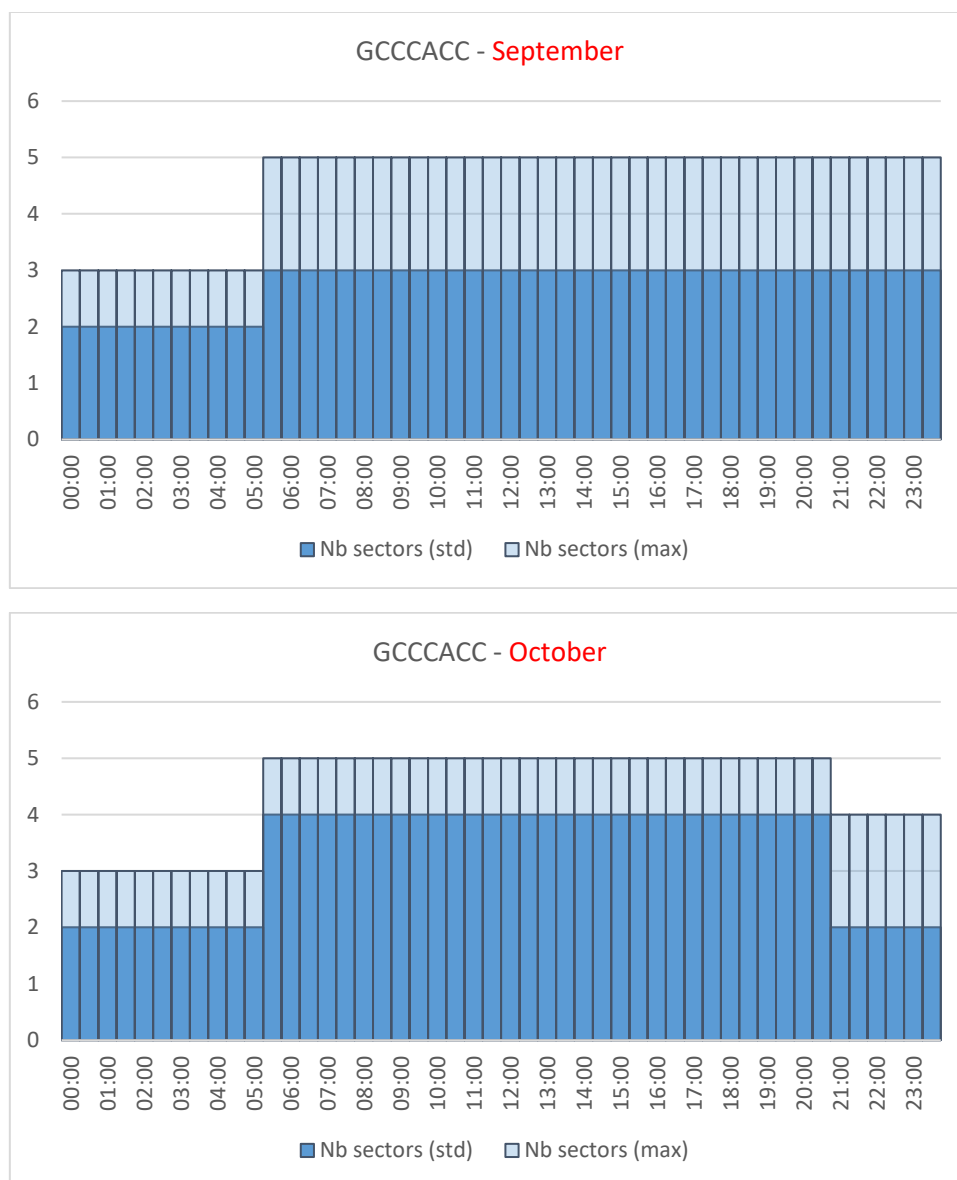
All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
07-Oct-21		GCCC	Free Route Airspace Spain - ESFRA Phase 1 To implement H24 Free Route Airspace within Canarias UIR FL 305-660
07-Oct-21		GCCC	To split the existing Canarias ACC NE sector (FL125 - UNL).
04-Nov-21		GCCC/GMAC	Interface Agadir/Canarias ACCs - phase 1c
04-Nov-21		GCCC/GMAC	Interface Agadir/Canarias ACCs - phase 1d
Summer 2022		LPPC/GMMM/GMAC/GCCC	Lisboa / Casablanca / Canarias Axis - phase 2

Sectors available - Summer 2021





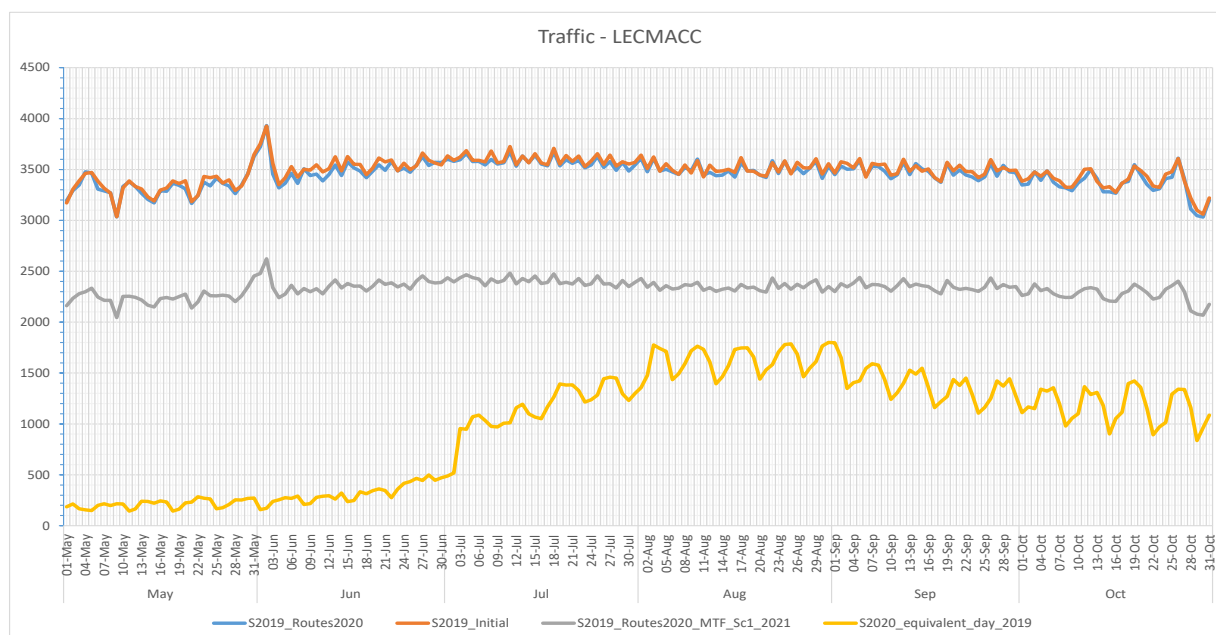


Expected Performance

No capacity issues are foreseen for Canarias ACC in Summer 2021.

SPAIN

MADRID ACC

Traffic forecast**Planned capacity enhancement measures**

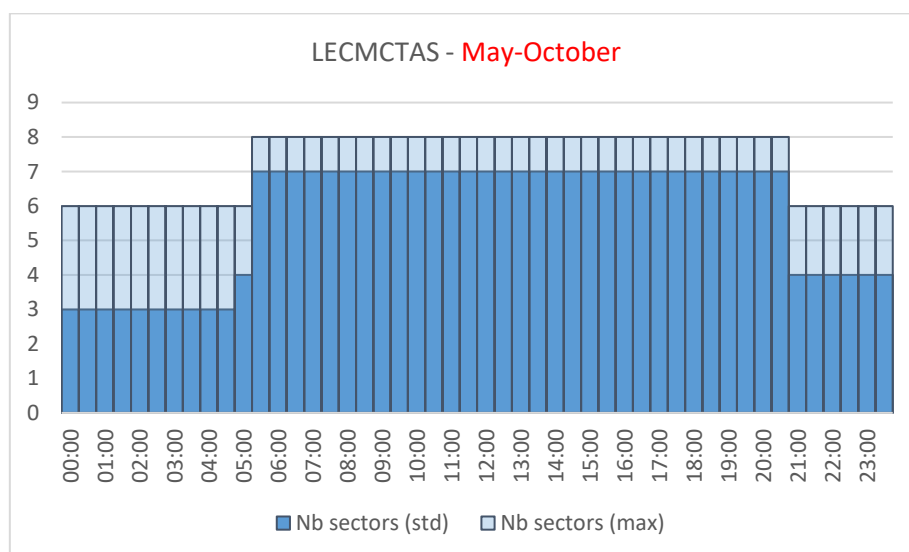
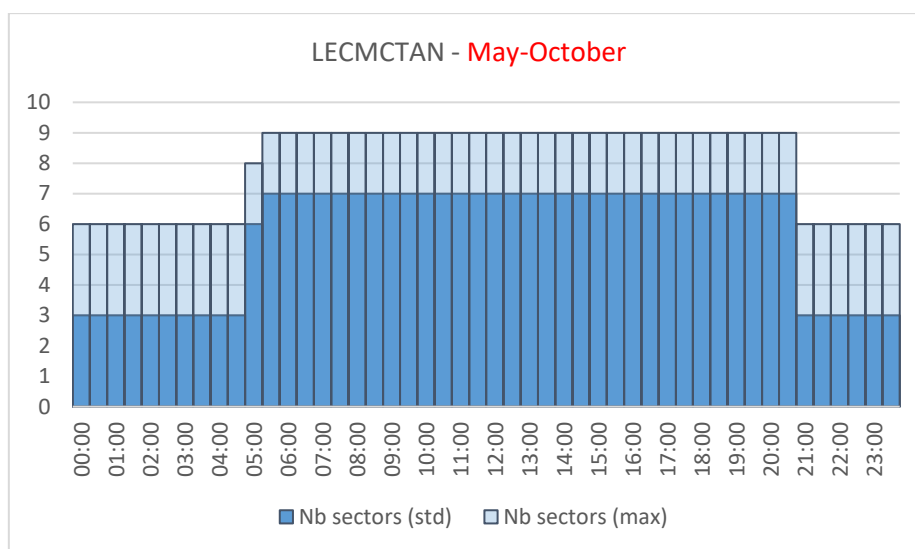
2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	PRISMIL to be implemented in December 2021
Airport & TMA Network Integration	
Cooperative Traffic Management	Improved ATFCM
Airspace	
Procedures	
Staffing	Net increase of ATCOs continues but at lower rate than initially planned due to COVID19
Technical	
Capacity	Optimised sector configurations & sector capacities
Significant Events	TLP – European military activity (4 times per year)
	ETAP – European military activity (once per year)
	DESERT LIBERTY - European military activity (once per year)
Additional information	

Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
04-Nov-21		LECM/CB/CS	Free Route Airspace Spain - ESFRA Phase 2 To implement H24 FRA within Madrid FIR/UIR and Barcelona FIR/UIR as single FRA area FL245-FL660
Spring 2021		LECM/GMMM	ATS Route Improvement Madrid UIR/ Casablanca FIR. To implement, as permanent southbound ATS route segment GALTO - FES.
24-Feb-22		LECM	Split ZGZ / TER upper sector To increase capacity in Madrid ACC: by introduction of upper sector in ZGZ/TER sectors

Sectors available - Summer 2021



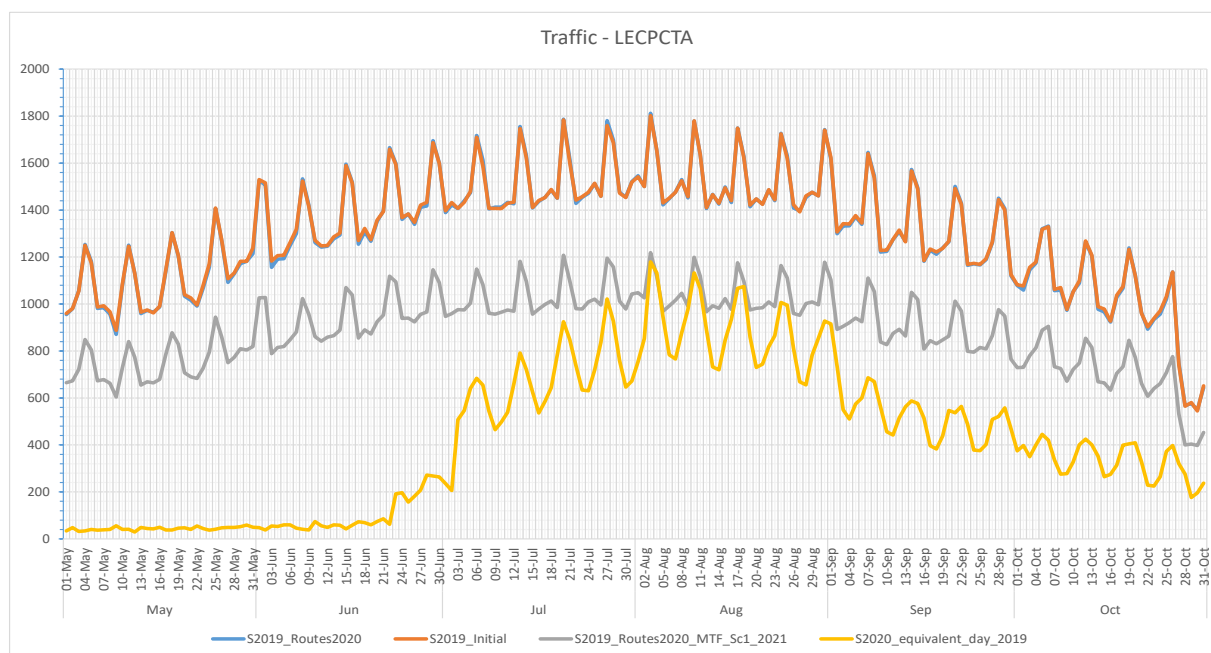
Expected Performance

No capacity issues are foreseen for Madrid ACC in Summer 2021.

SPAIN

PALMA ACC

Traffic forecast



Planned capacity enhancement measures

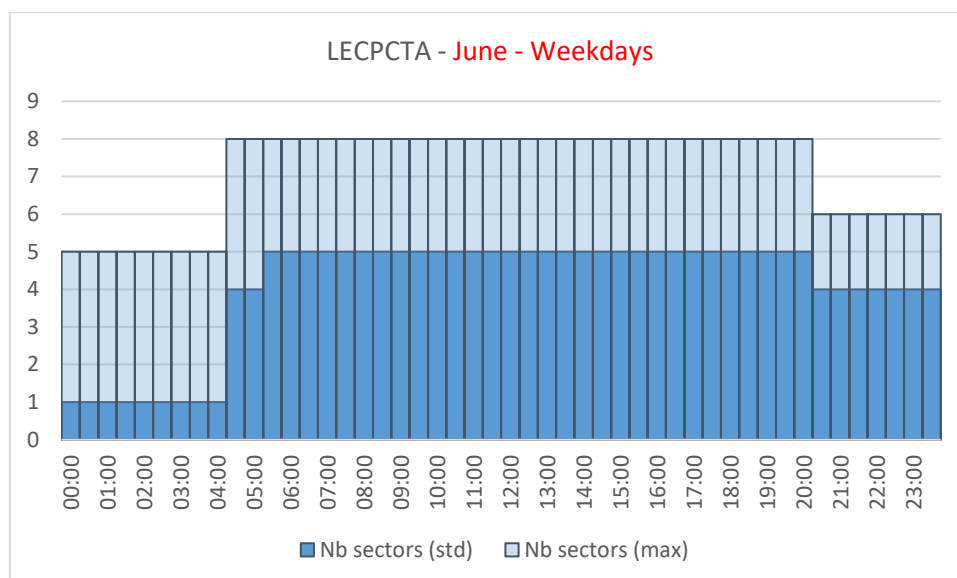
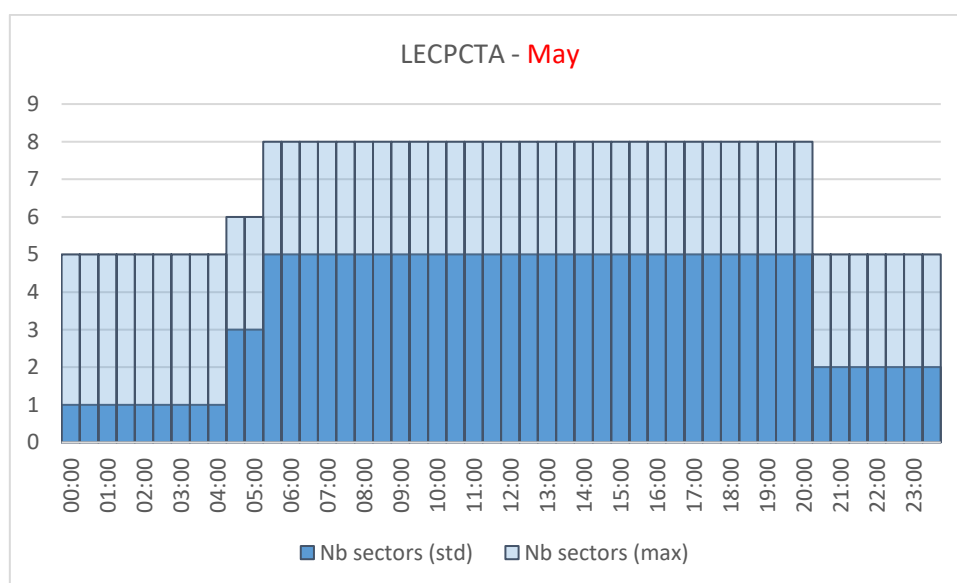
2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	PRISMIL to be implemented in December 2021
Airport & TMA Network Integration	
Cooperative Traffic Management	Improved ATFCM
Airspace	
Procedures	
Staffing	NET increase of ATCOs continues but at lower rate than initially planned due to COVID19
Technical	
Capacity	Optimised sector configurations & sector capacities
	Palma Final Approach Improvements
Significant Events	
Additional information	

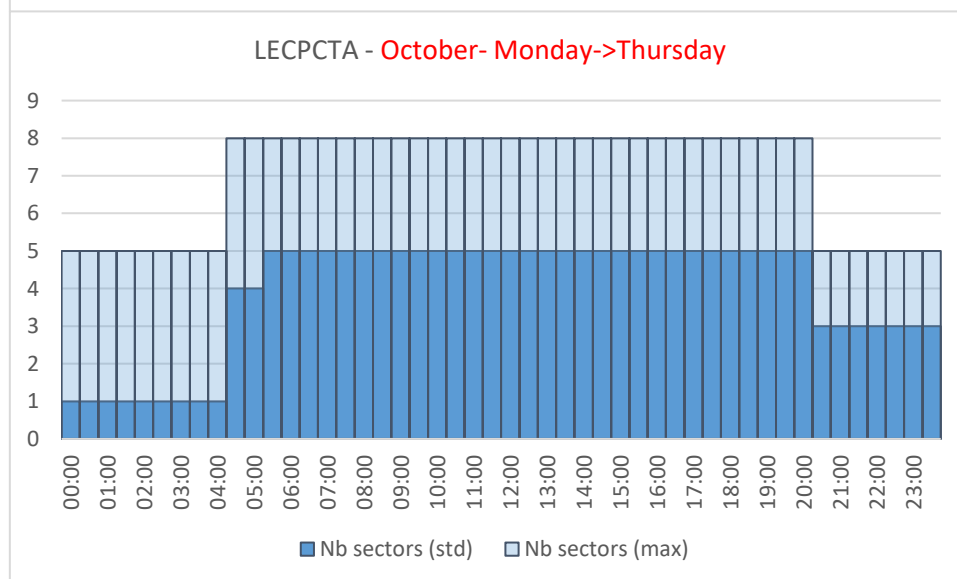
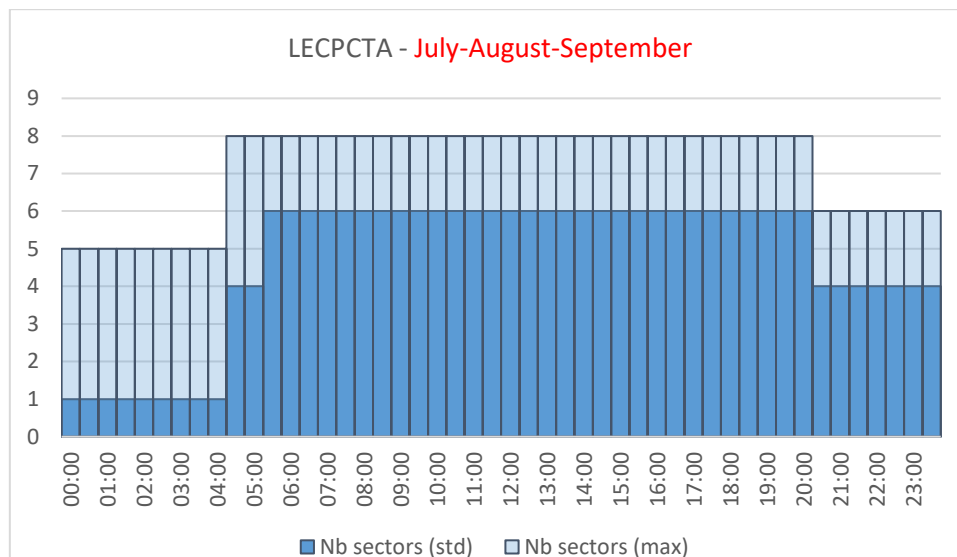
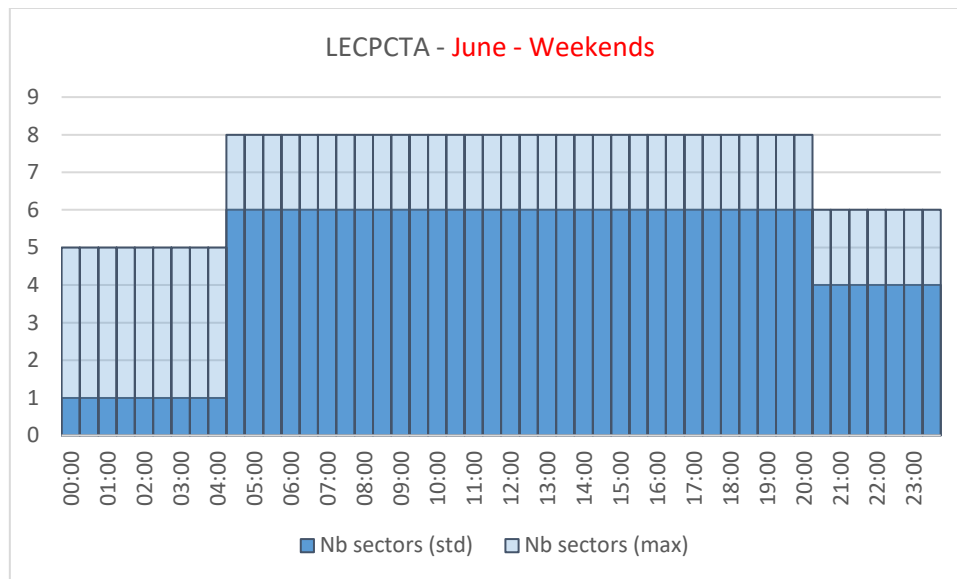
Events

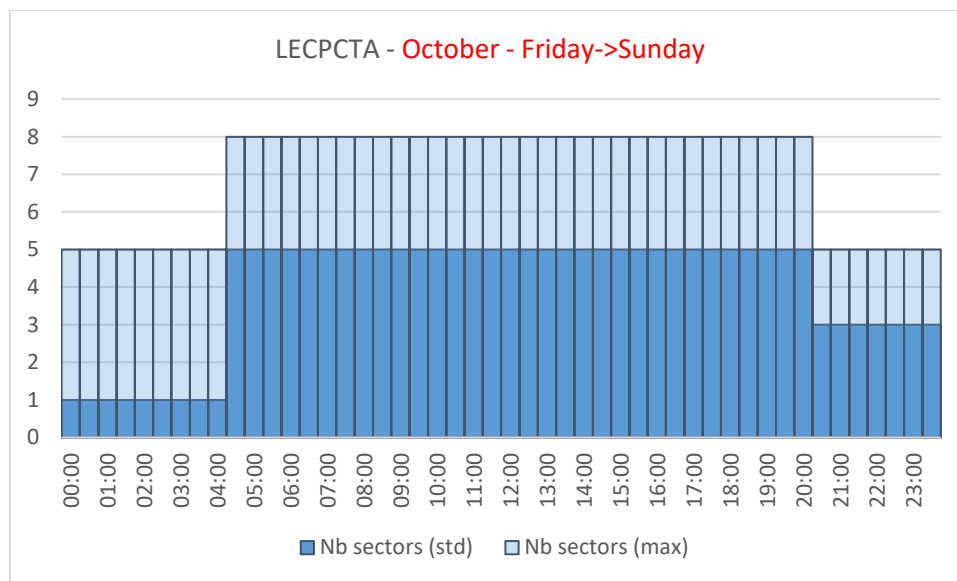
All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
Spring 2022		LECP	Palma TMA re-organisation Phase I East - linked with 77.029
Spring 2022		LECP	PALMA TMA Reorganisation -phase III West - linked with 89.011

Sectors available - Summer 2021







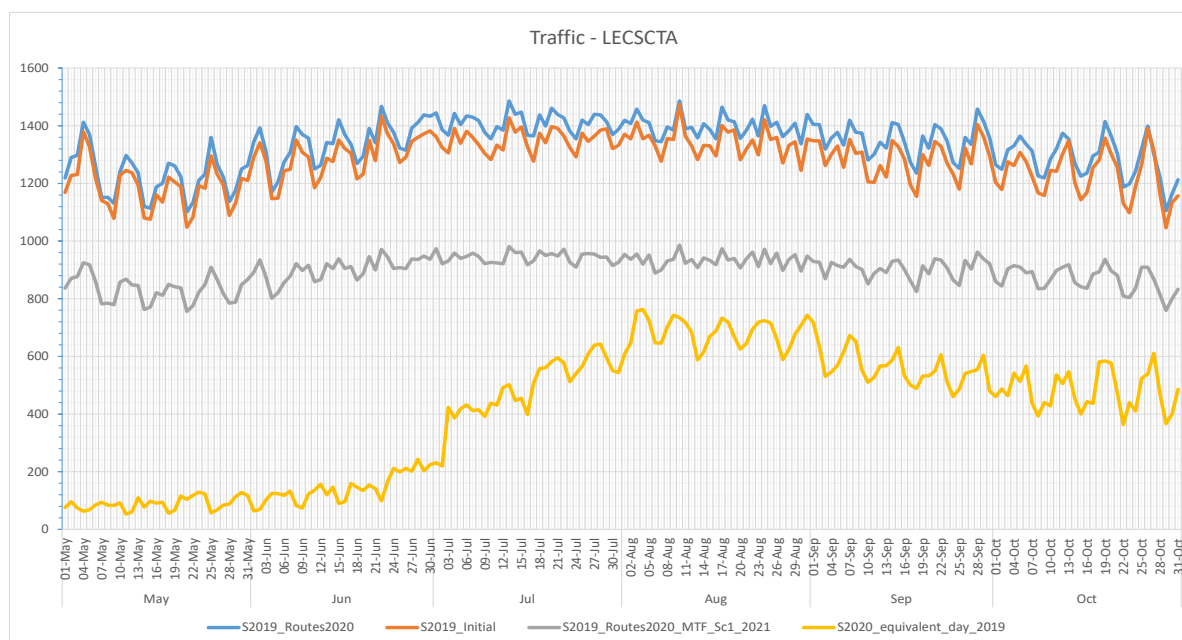
Expected Performance

No capacity issues are foreseen for Palma ACC in Summer 2021.

SPAIN

SEVILLA ACC

Traffic forecast



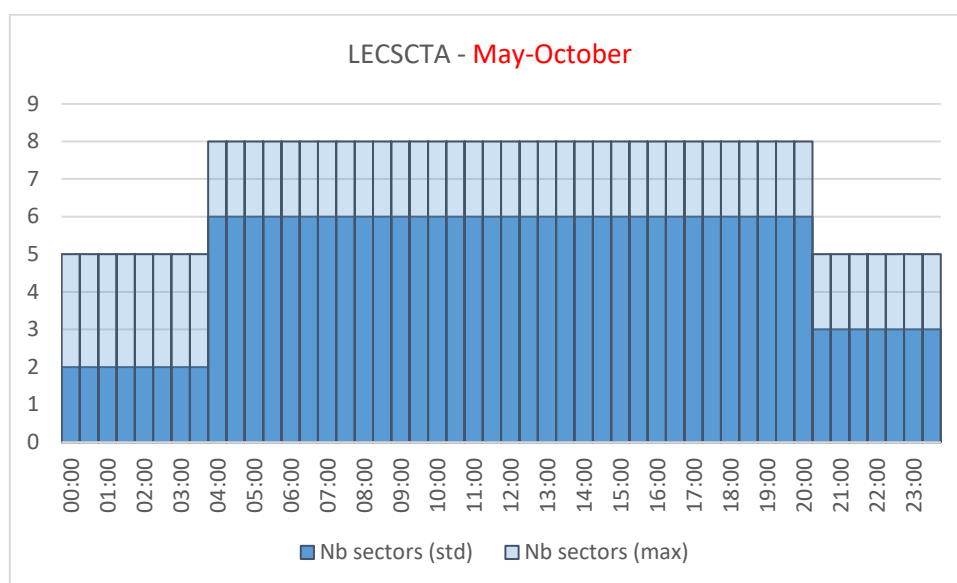
Planned capacity enhancement measures

2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	PRISMIL to be implemented in December 2021
Airport & TMA Network Integration	Improvement of operation mode TWR-APP LEMG
Cooperative Traffic Management	Improved ATFCM
Airspace	
Procedures	
Staffing	New ATCOs to maintain current number
Technical	EVEREST
Capacity	Optimised sector configurations & sector capacities
Significant Events	TLP – European military activity (4 times per year)
	SIRIO – European military activity (once per year)
	EAGLE EYE – European military activity (once per year)
	DESERT LIBERTY - European military activity (once per year)
Additional information	

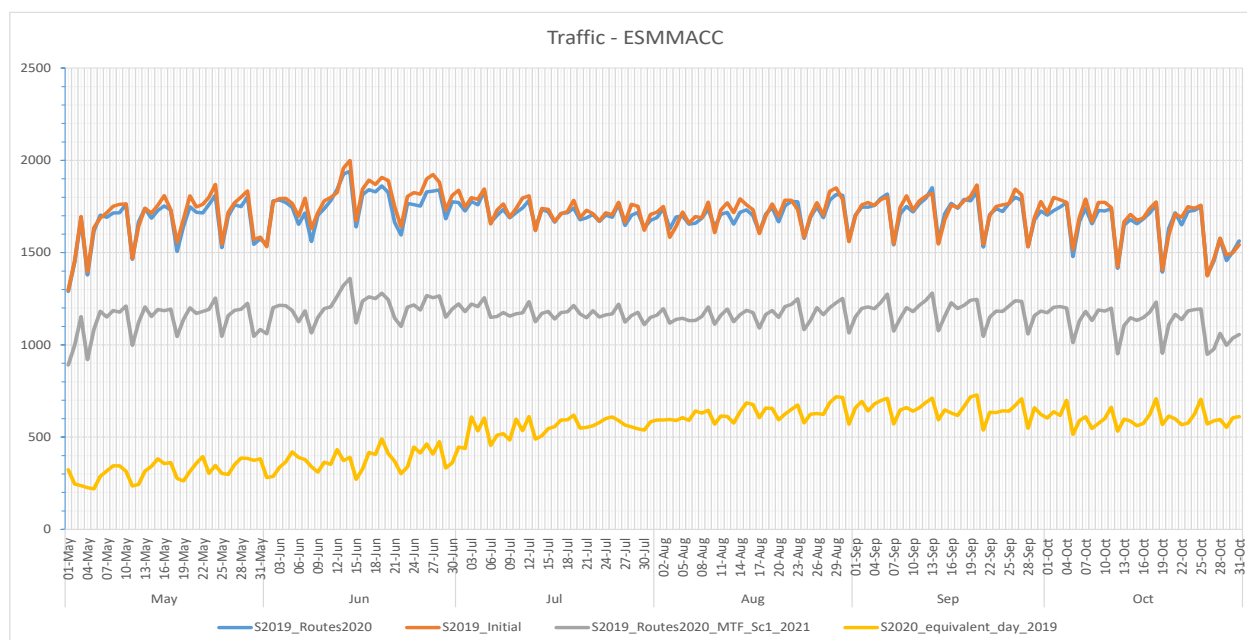
Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
04-Nov-21		LECM/CB/CS	Free Route Airspace Spain - ESFRA Phase 2 To implement H24 FRA within Madrid FIR/UIR and Barcelona FIR/UIR as single FRA area FL245-FL660

Sectors available - Summer 2021**Expected Performance**

No capacity issues are foreseen for Sevilla ACC in Summer 2021.

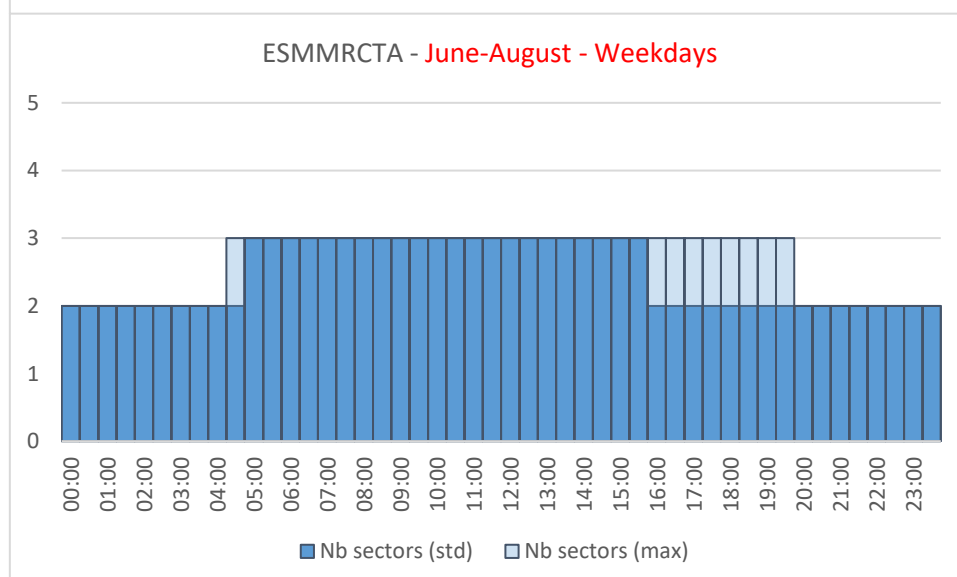
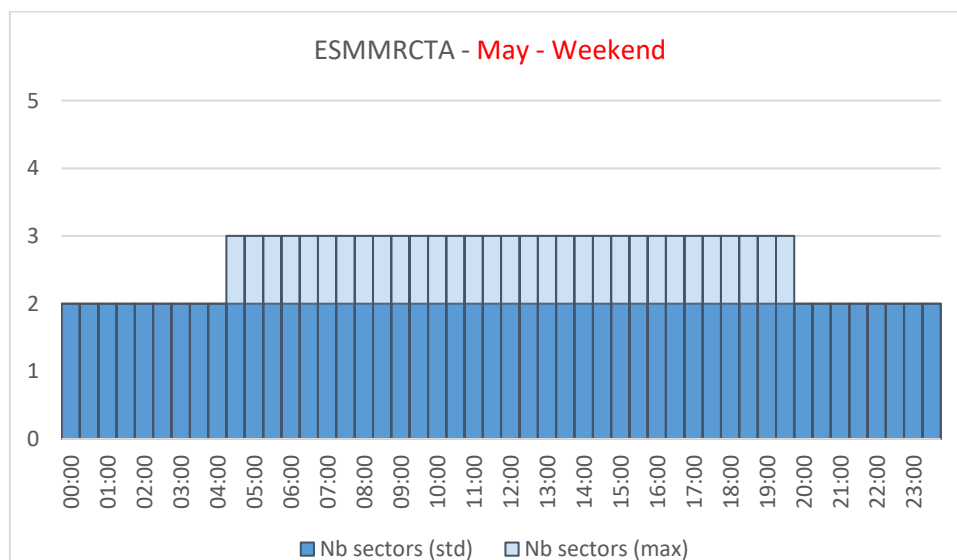
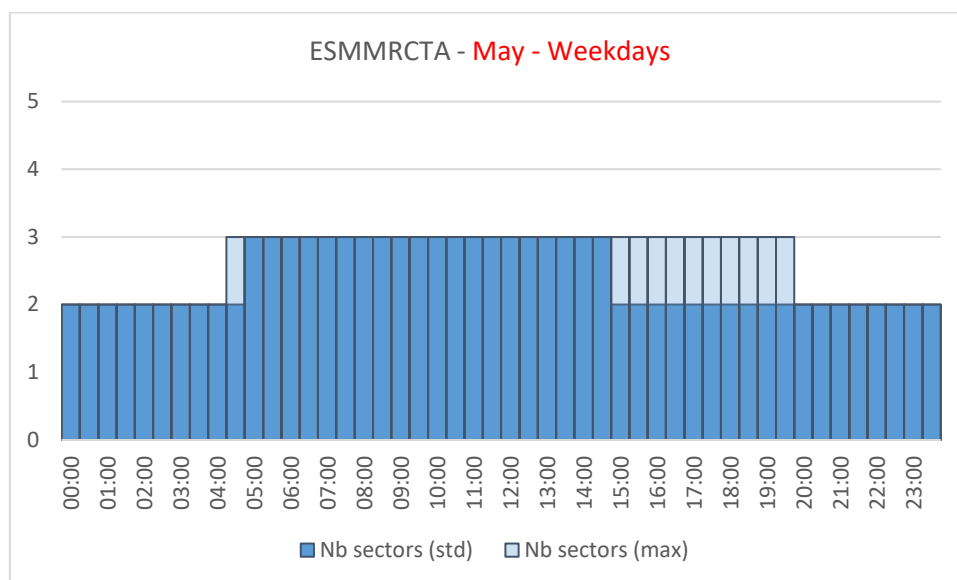
SWEDEN**MALMÖ ACC****Traffic forecast****Planned capacity enhancement measures**

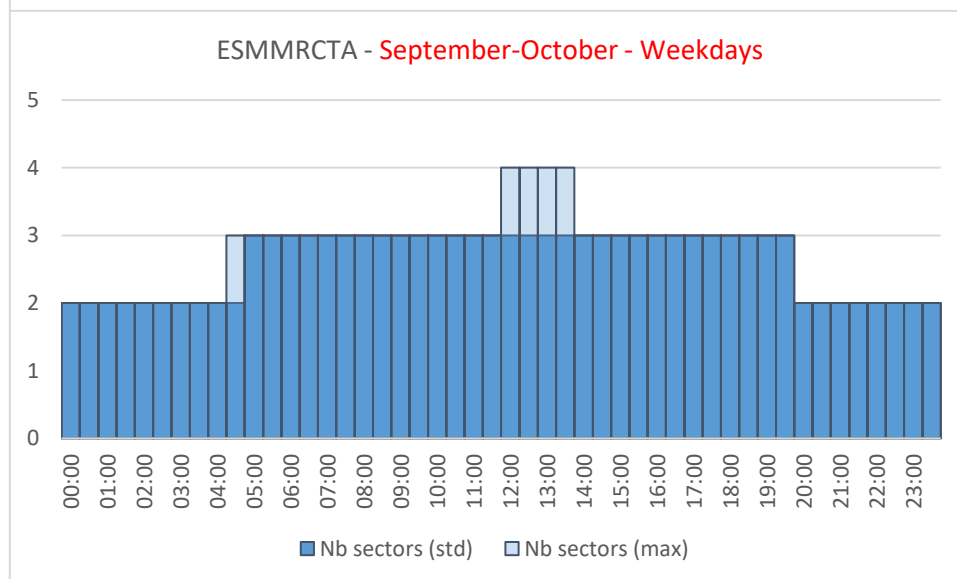
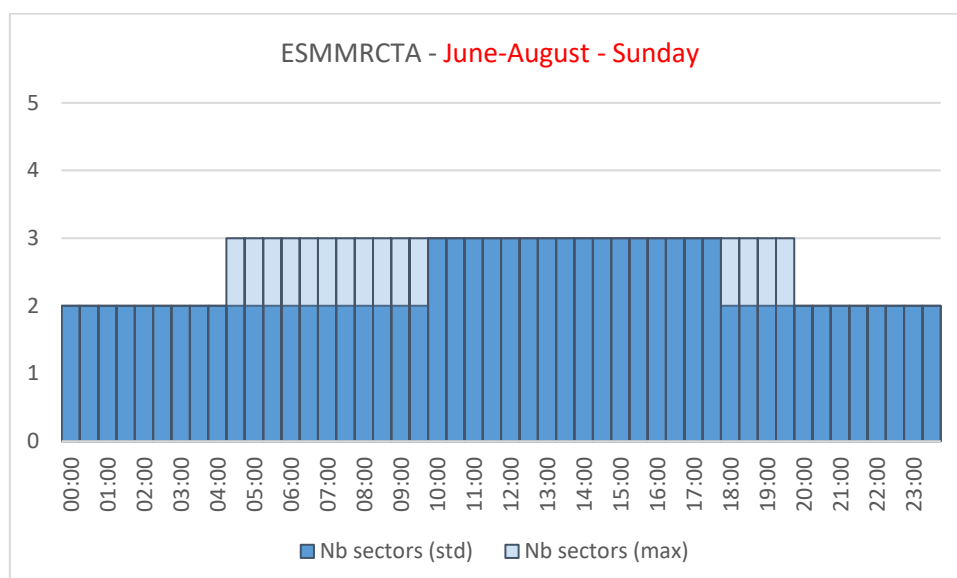
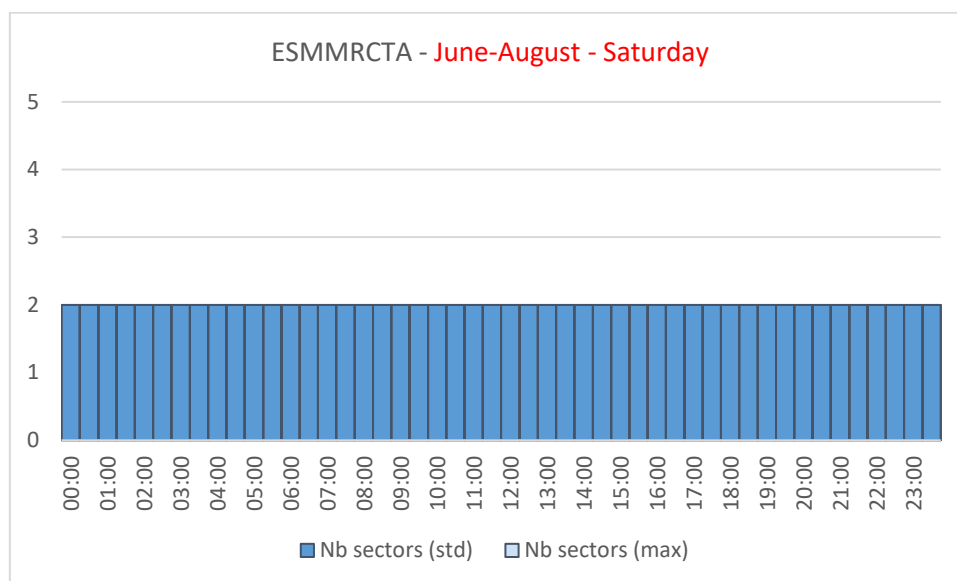
2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	Optimising the use of FRA when military areas are active
Airport & TMA Network Integration	SWEA (Swedish Airspace Project) Phase I
Cooperative Traffic Management	Improved ATFCM techniques
Airspace	Continuous improvements on the ATS route network and FRA sectorisation
Procedures	
Staffing	Maintain appropriate level of staffing to open up to 11 sectors
Technical	Minor updates of ATM system
Capacity	Sector configurations adapted to traffic demand
Significant Events	
Additional information	

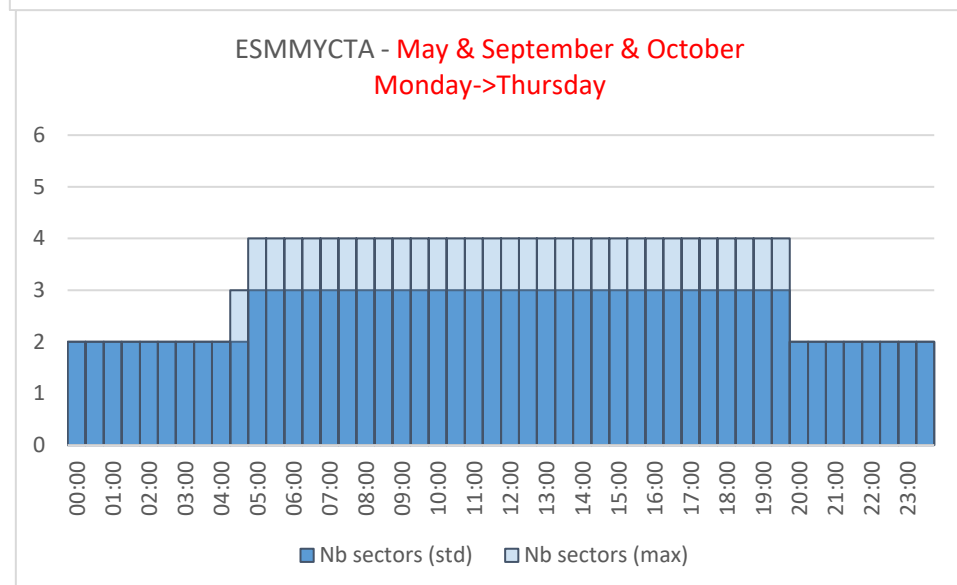
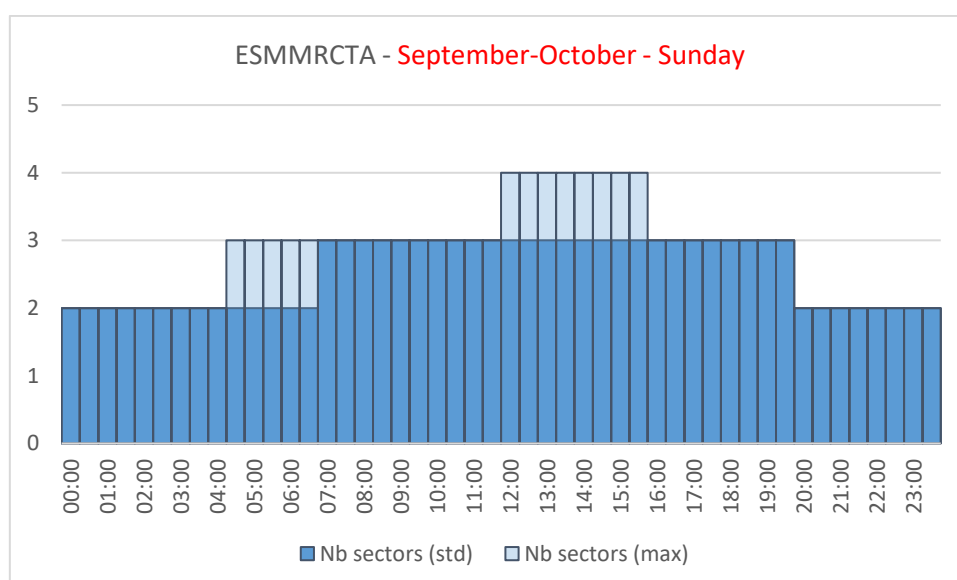
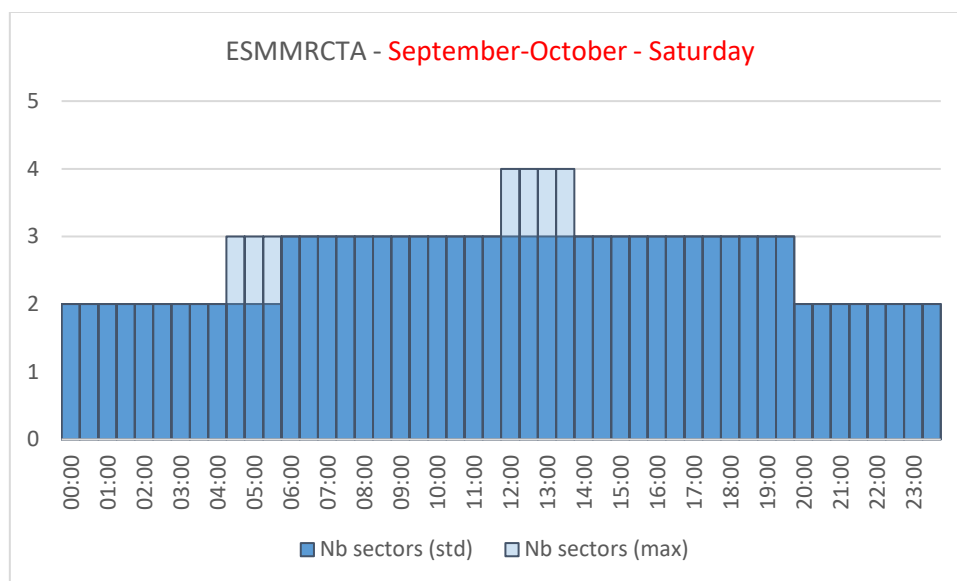
Events

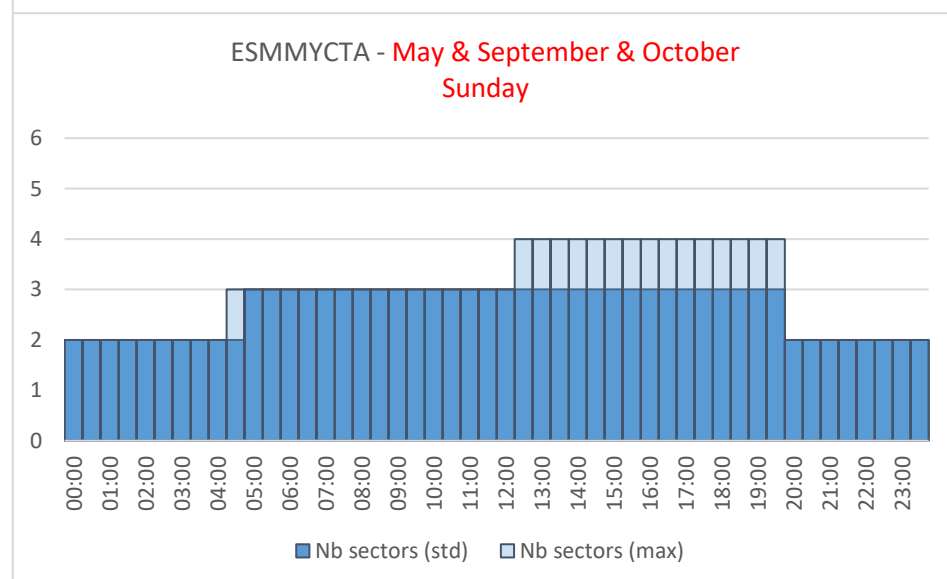
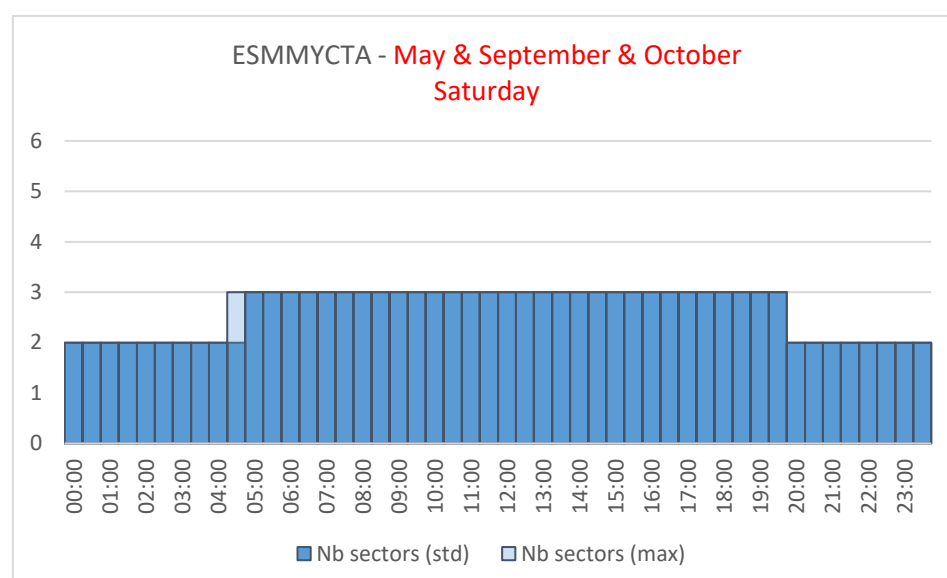
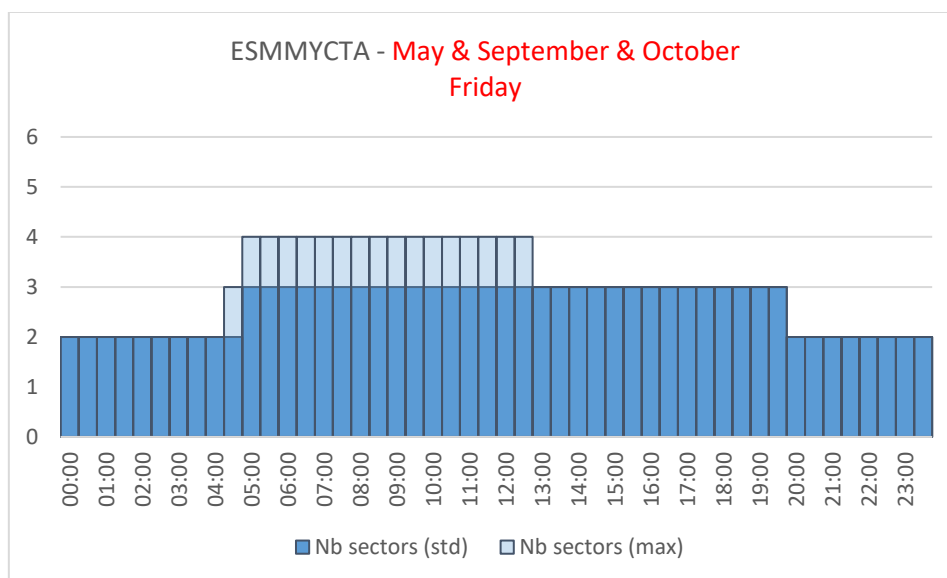
All events (including airport and military events) can be found in Chapter 7. Further updates are reported every week in the rolling seasonal NOP.

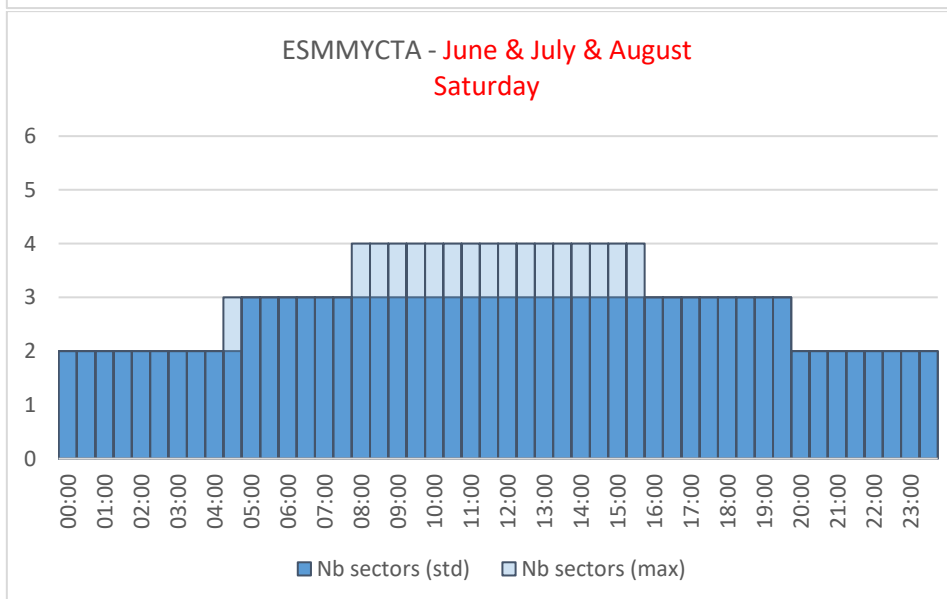
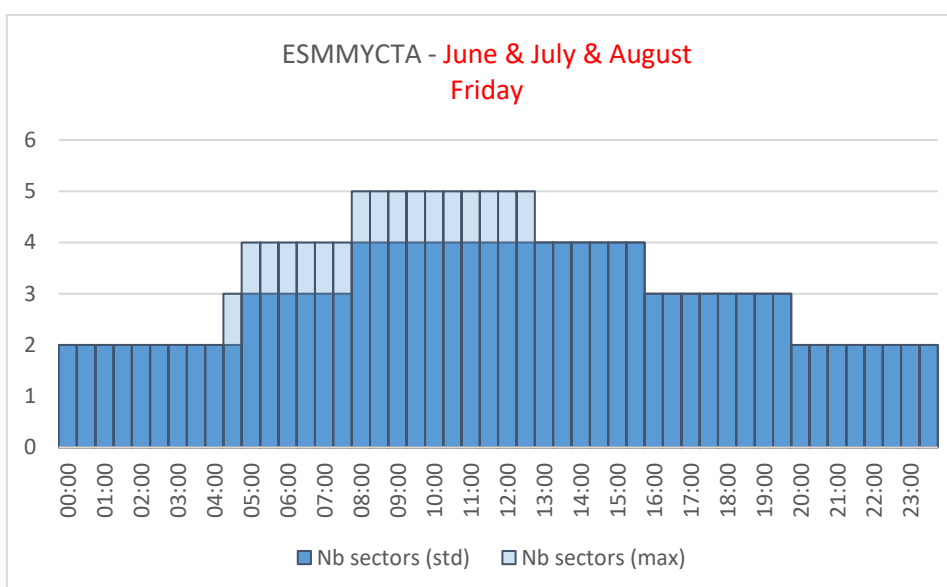
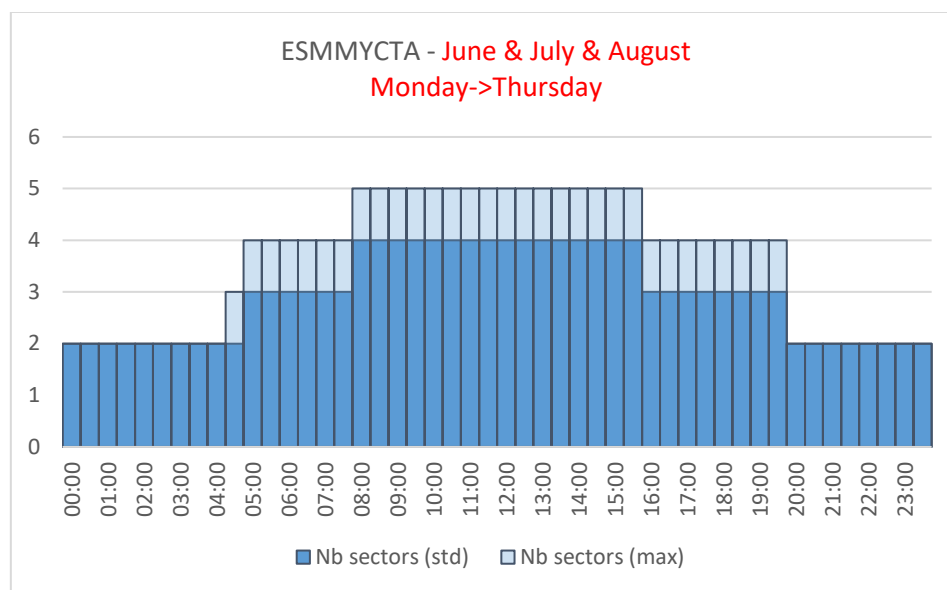
Start Date	End date	ACC/Airport	Event
04-Nov-21		ESAA	ATS route dismantling in part of ESAA FRA (above FL285)

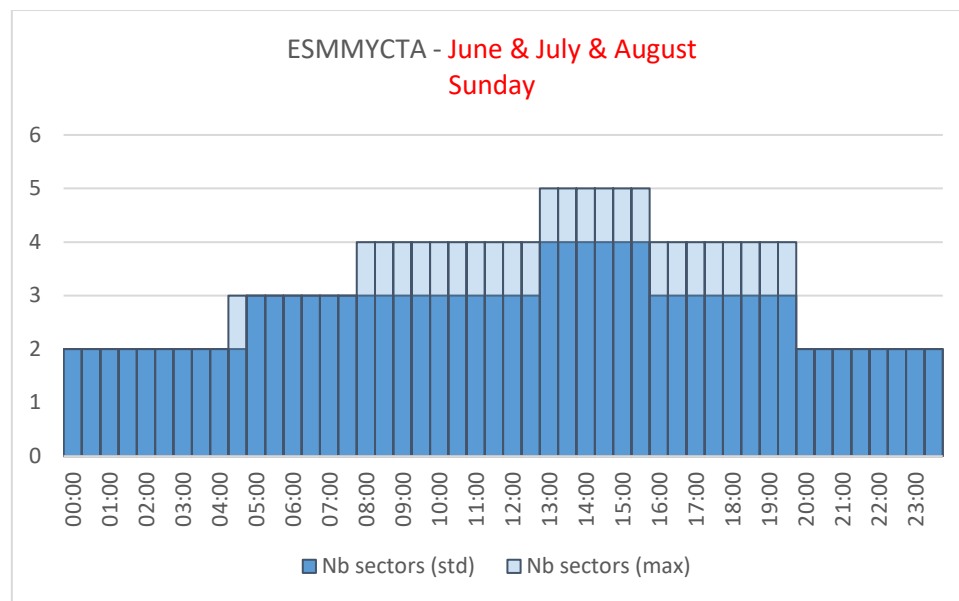
Sectors available – Summer 2021





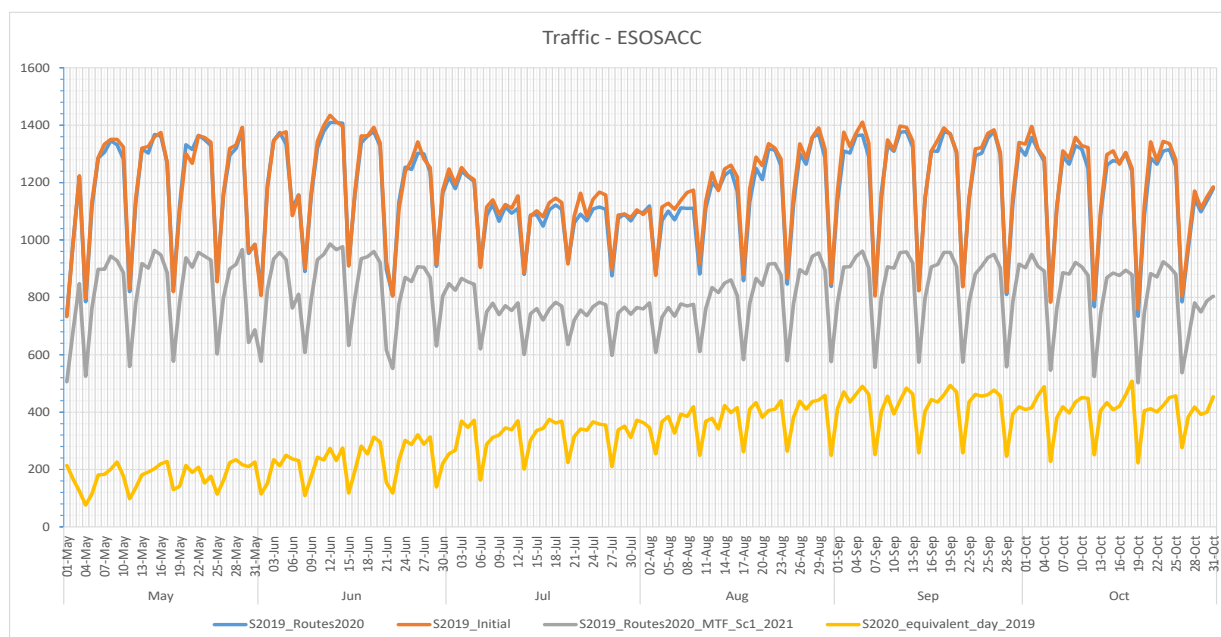






Expected Performance

No capacity issues are foreseen for Malmö ACC in Summer 2021.

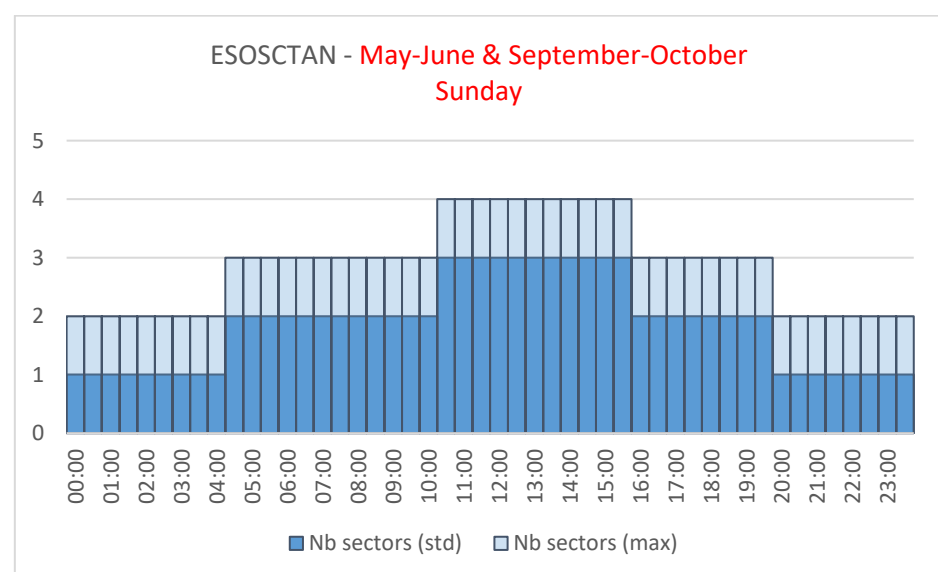
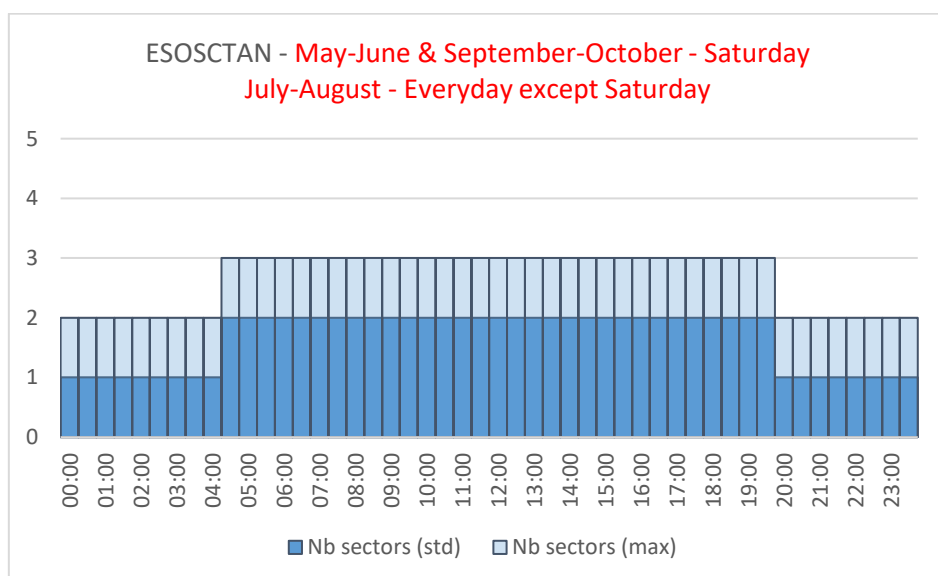
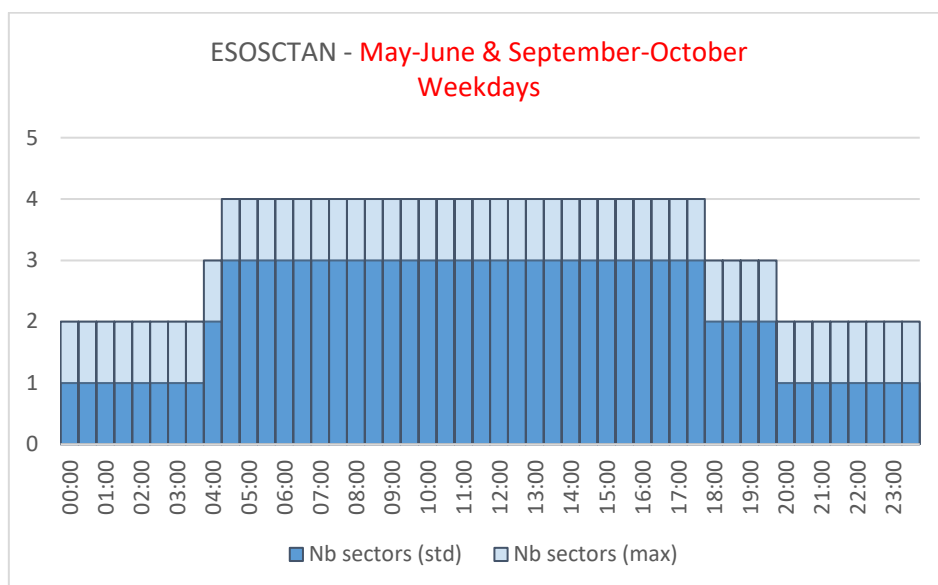
SWEDEN**STOCKHOLM ACC****Traffic forecast****Planned capacity enhancement measures**

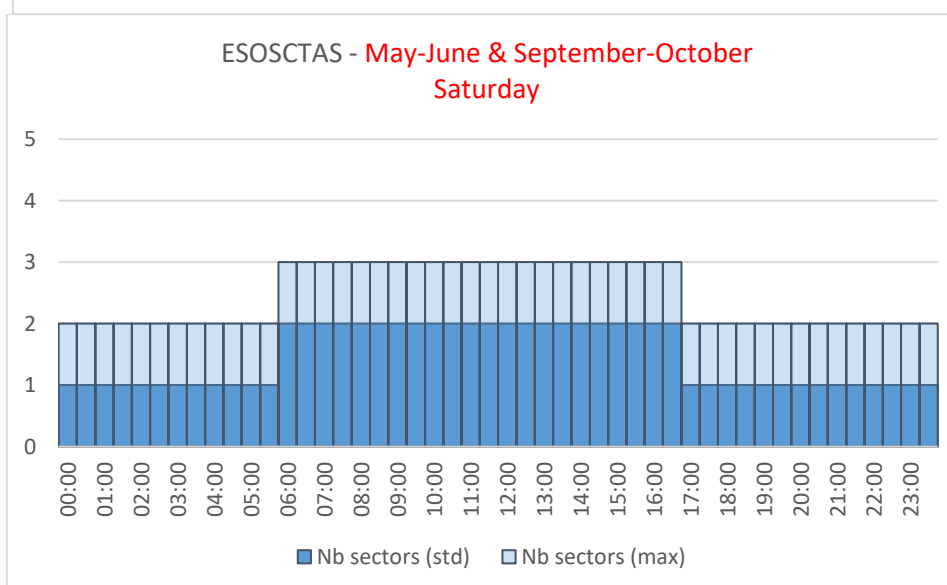
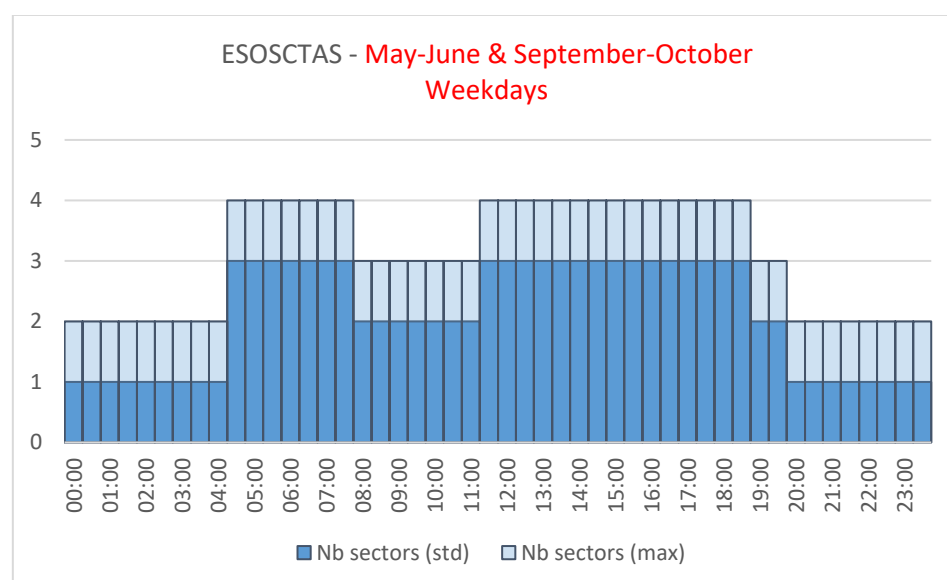
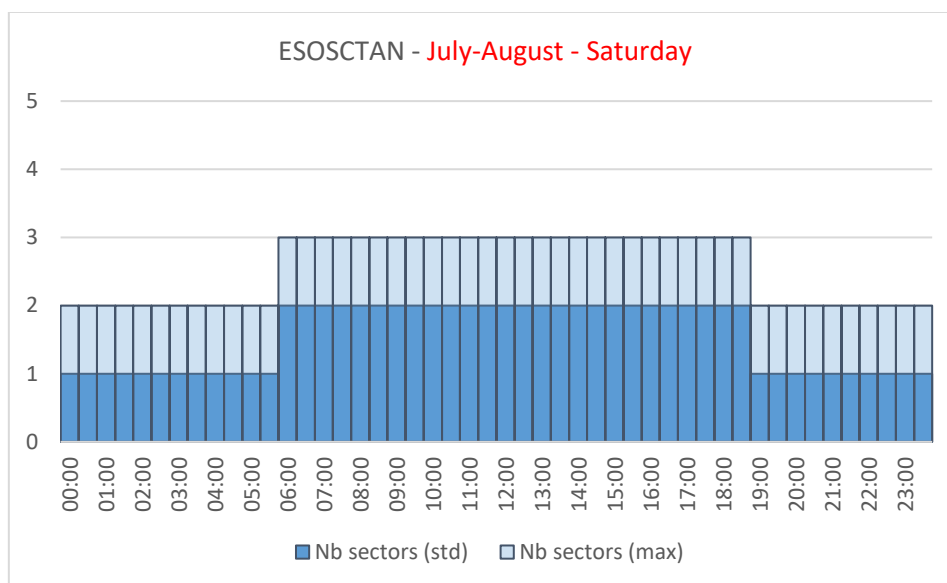
2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	Optimising the use of FRA when military areas are active
Airport & TMA Network Integration	SWEA (Swedish Airspace Project) Phase I
Cooperative Traffic Management	Improved ATFCM techniques
Airspace	Continuous improvements on the ATS route network and FRA sectorisation
Procedures	
Staffing	Maintain appropriate level of staffing to open up to 11 sectors
Technical	Minor updates of ATM system
Capacity	Sector configurations adapted to traffic demand
Significant Events	
Additional information	

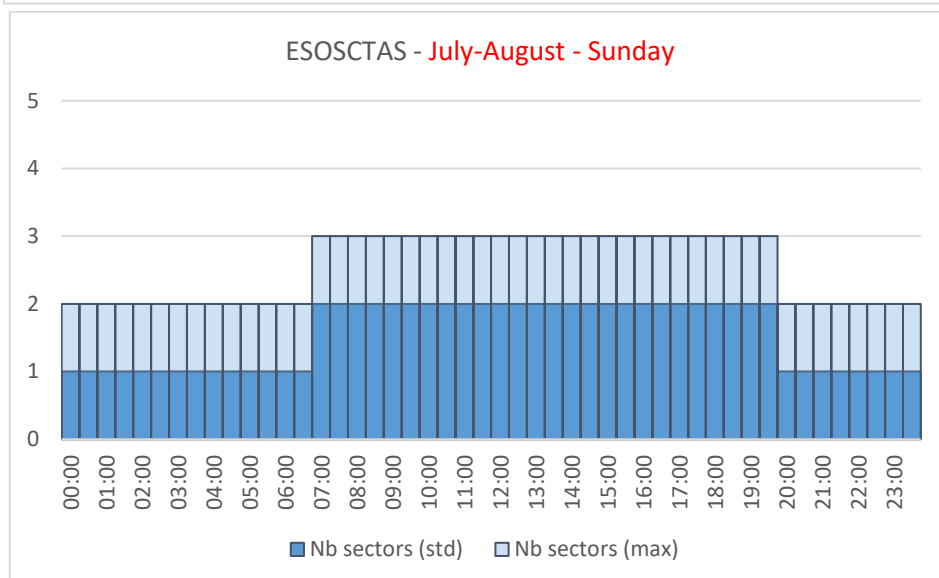
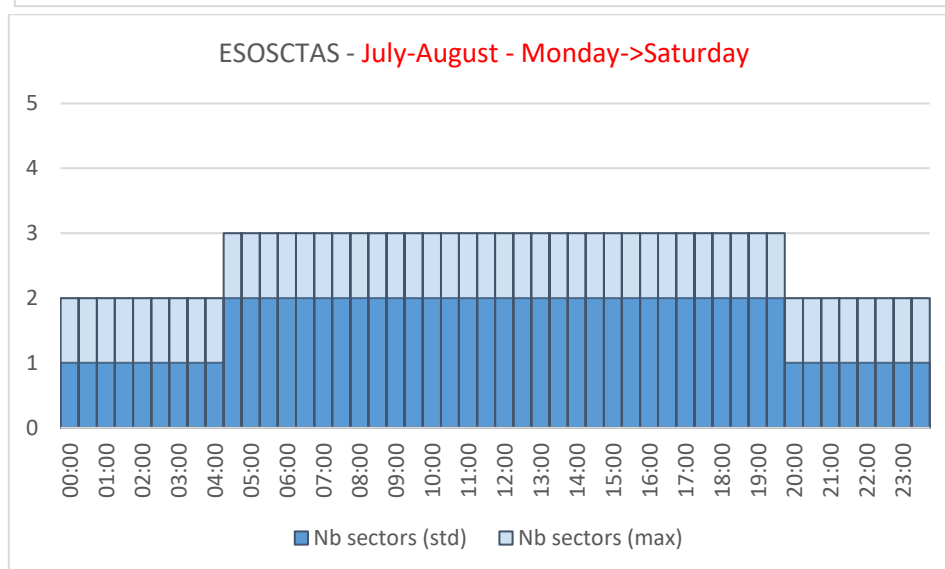
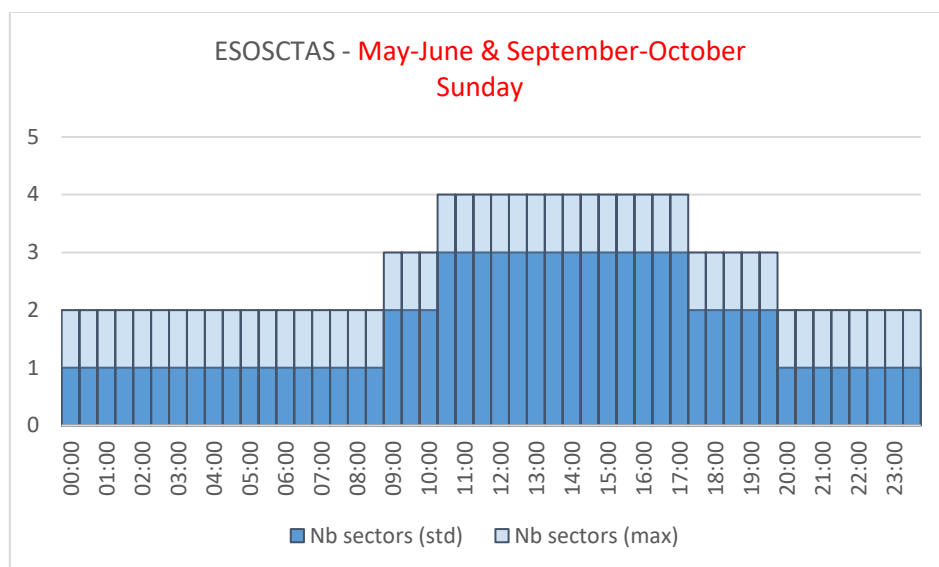
Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
04-Nov-21		ESAA	ATS route dismantling in part of ESAA FRA (above FL285)

Sectors available – Summer 2021





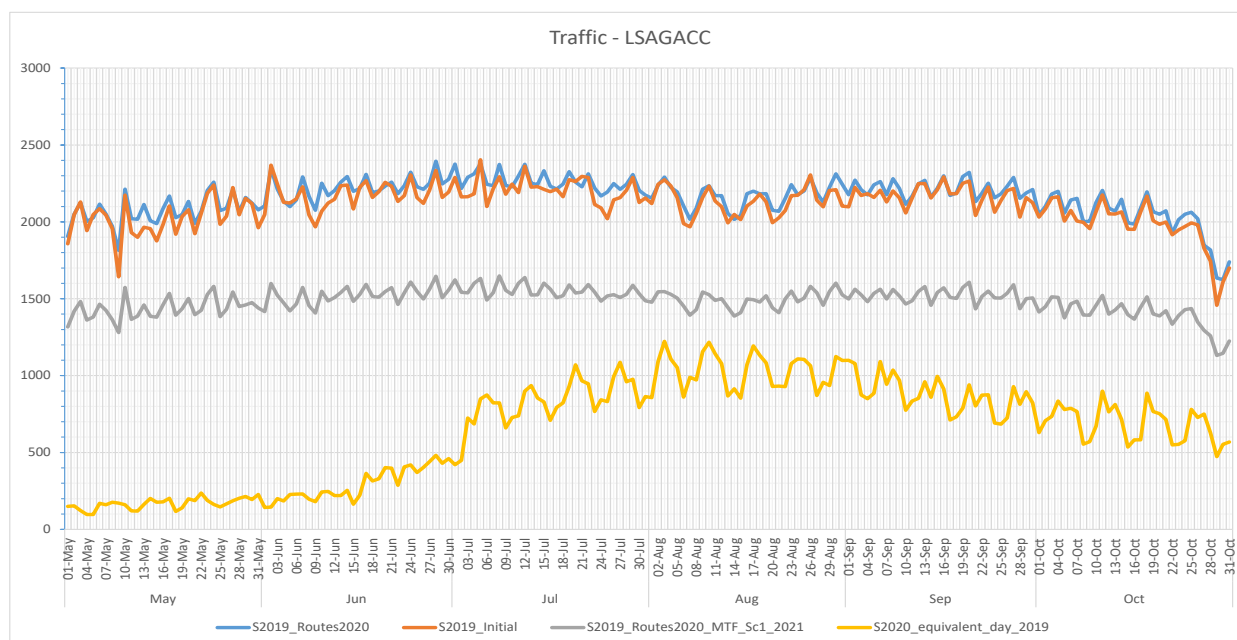
Expected Performance

No capacity issues are foreseen for Stockholm ACC in Summer 2021.

SWITZERLAND

GENEVA ACC

Traffic forecast



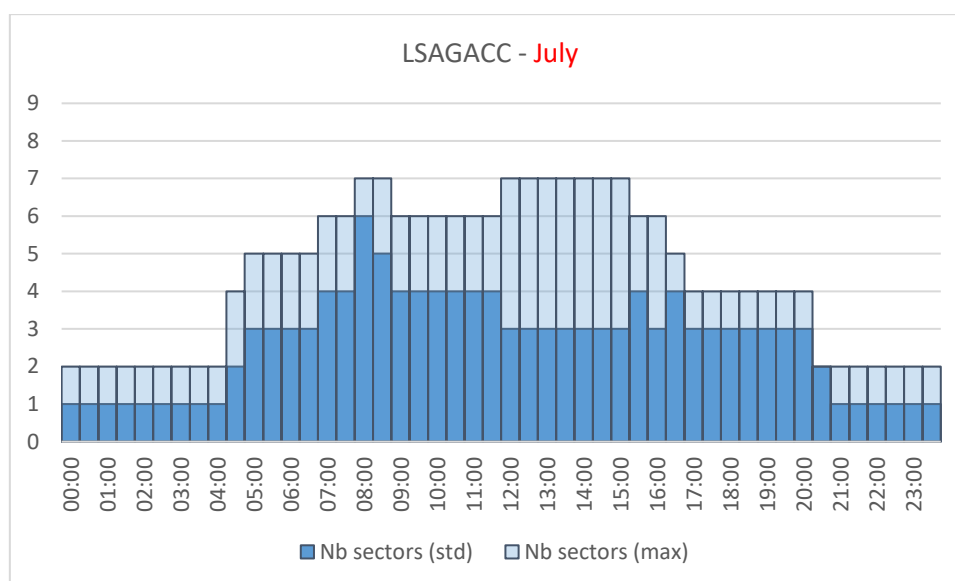
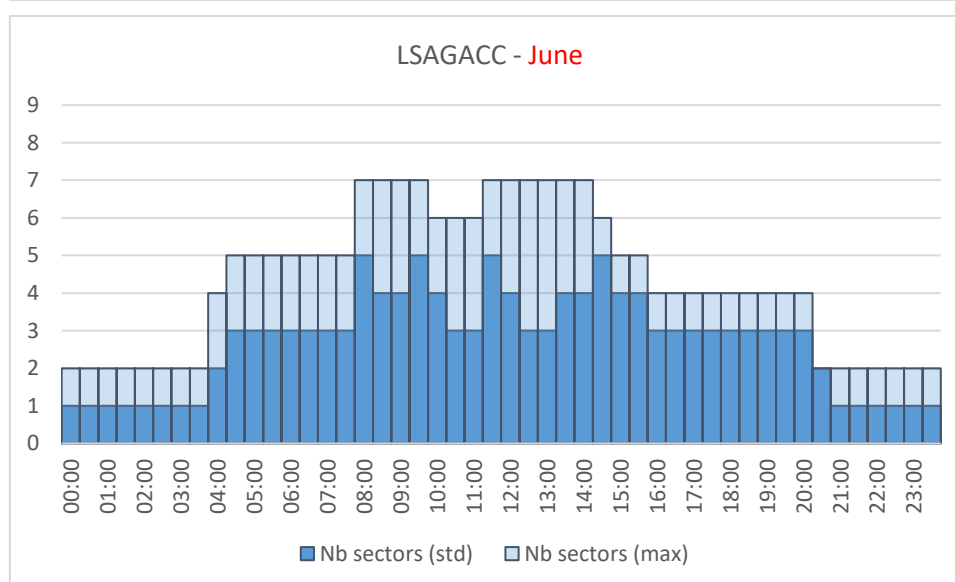
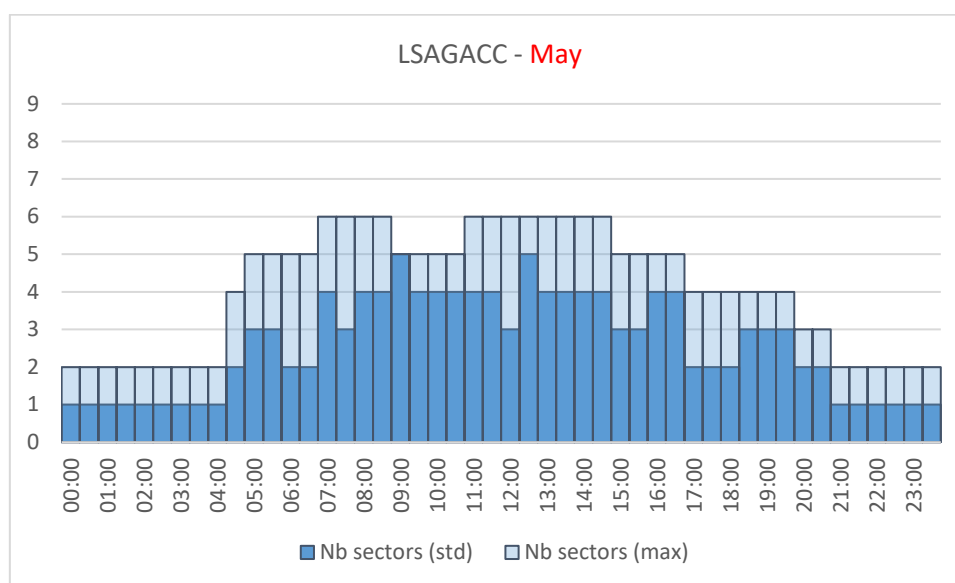
Planned capacity enhancement measures

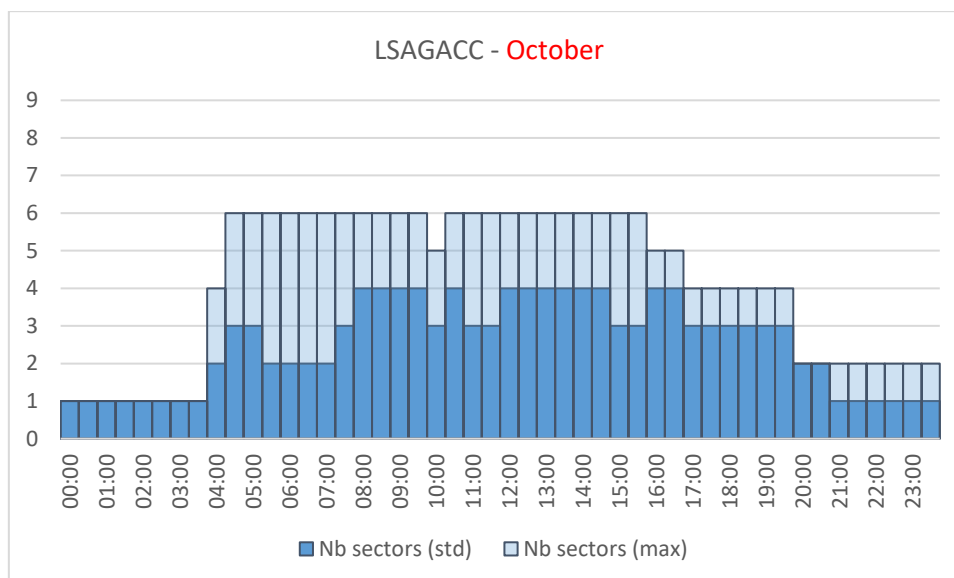
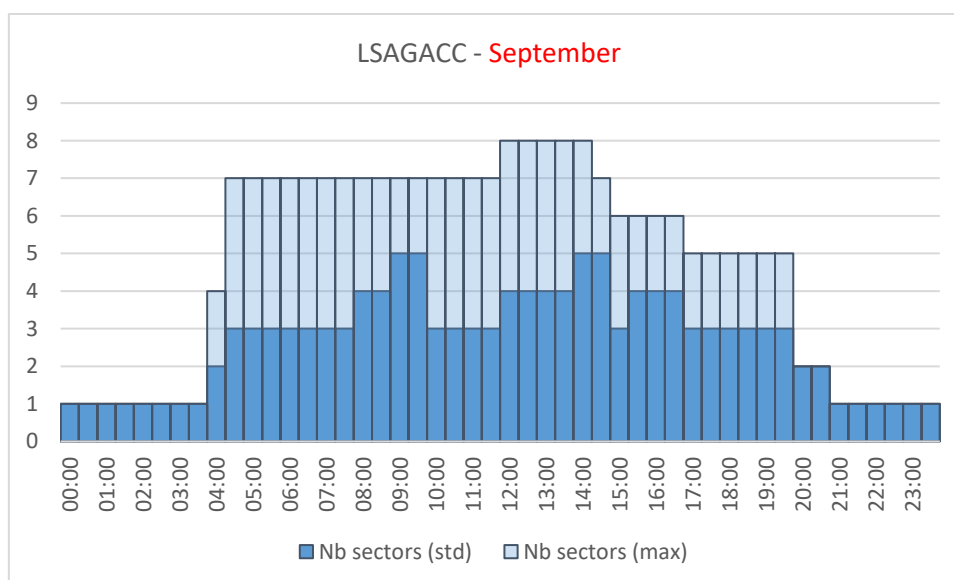
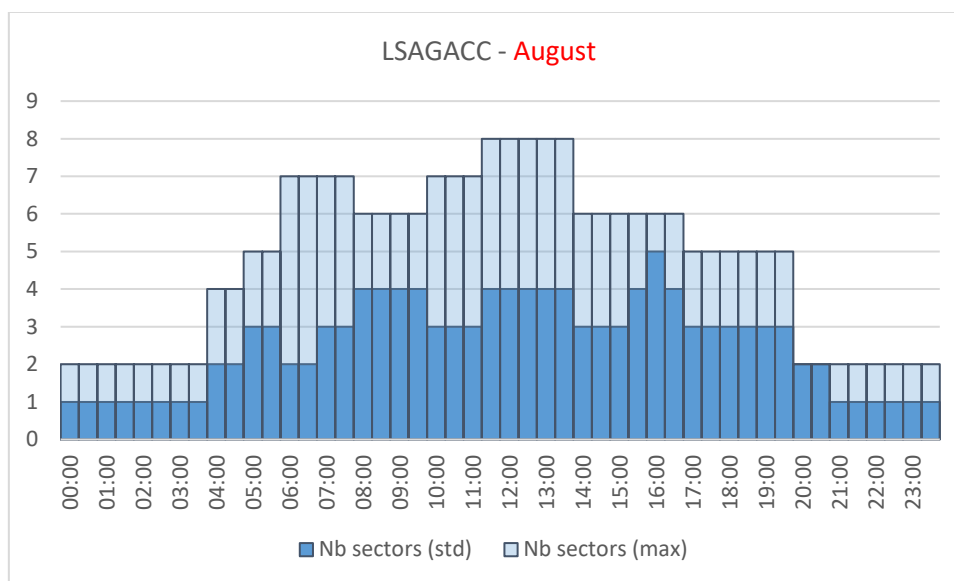
2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	ATFCM/ASM Step 2 : CDM procedures for Airspace Request Levels 2 and 3
Airport Capacity	LSGG iLVP (14/12/2020)
	Continuous improvements to Crystal TWR/APP – Traffic and complexity prediction tool
Airport & TMA Network Integration	
Cooperative Traffic Management	Improved ATFCM Procedures and STAM
	Continuous improvements to Crystal ACC – Traffic and complexity prediction tool
Airspace	New sector configuration in the Lower Airspace
Procedures	
Staffing	Recruitment as necessary to maintain the required staffing levels
Technical	Virtual centre
Capacity	
Significant Events	
Additional information	

Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
Q4 2021 tbc		LSAG	FDP upgrade - NHR3 (New Route Handling Phase 3) implementation in Geneva.

Sectors available – Summer 2021



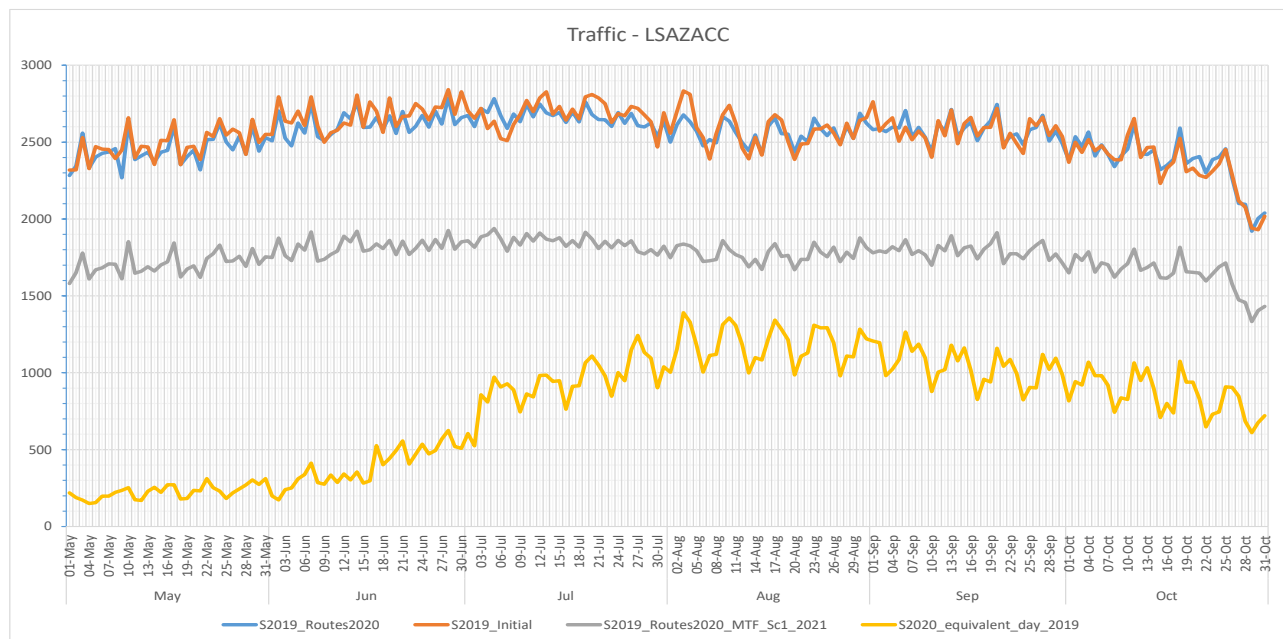
The charts above show an outline of available sector configurations in the ACC. They should be considered as an indication only, given that sector configurations at Geneva ACC are planned for each day of the year, based on the traffic forecast for each specific day (normally provided by NM through seasonal rolling NOP). In particular, Geneva ACC has some flexibility to adapt the sector openings to the expected traffic peaks during the day. Therefore, the planned sector configurations are fully flexible from one day to another, but are fully dependent on the forecast quality, which is itself based on the information delivered by aircraft operators, hence having a direct impact on operational performance.

Expected Performance

No capacity issues are foreseen for Geneva ACC in Summer 2021.

SWITZERLAND

ZURICH ACC

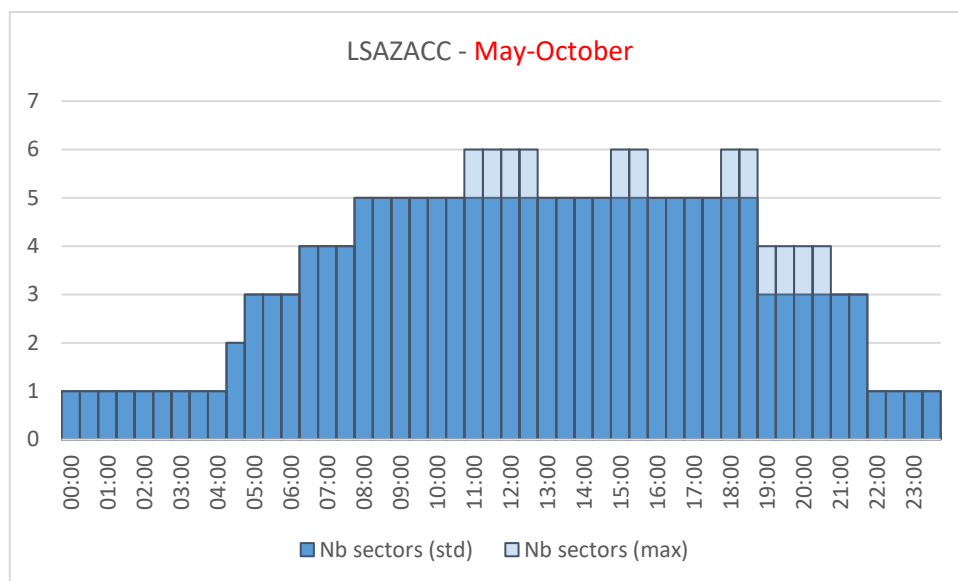
Traffic forecast**Planned capacity enhancement measures**

2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	FABEC ATFCM/ASM Step 2 : CDM procedures for Airspace Request Levels 2 and 3
Airport Capacity	Continuous improvements to Crystal TWR/APP – Traffic and complexity prediction tool
	CROPS (Crossing Runway O Peration S) - combined DEP RWY 28 and ARR RWY 34
Airport & TMA Network Integration	
Cooperative Traffic Management	Improved ATFCM Procedures and STAM
	Continuous improvements to Crystal ACC – Traffic and complexity prediction tool
Airspace	
Procedures	
Staffing	Recruitment as necessary to maintain the required staffing levels
Technical	Virtual centre
Capacity	
Significant Events	
Additional information	

Events

All events (including airport and military events) can be found in Chapter 7. Further updates are reported every week in the rolling seasonal NOP.

Sectors available – Summer 2021



The charts above show an outline of available sector configurations in the ACC. They should be considered as an indication only, given that sector configurations at Geneva ACC are planned for each day of the year, based on the traffic forecast for each specific day (normally provided by NM through seasonal rolling NOP). In particular, Geneva ACC has some flexibility to adapt the sector openings to the expected traffic peaks during the day. Therefore, the planned sector configurations are fully flexible from one day to another, but are fully dependent on the forecast quality, which is itself based on the information delivered by aircraft operators, hence having a direct impact on operational performance.

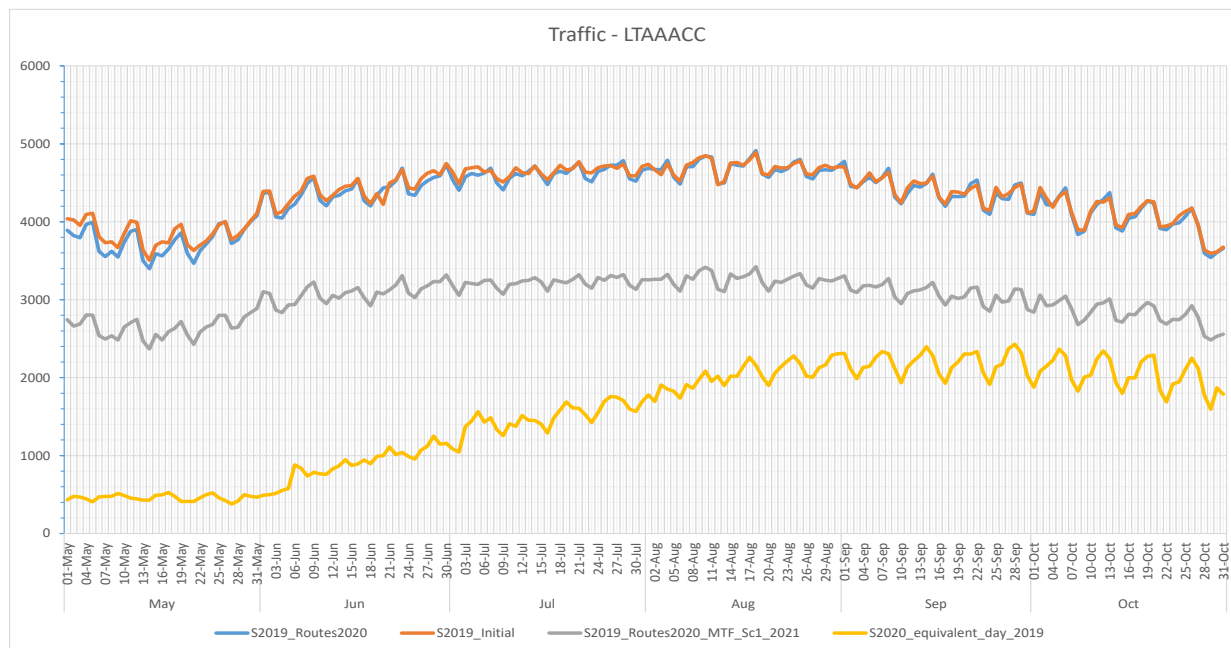
Expected Performance

No capacity issues are foreseen for Zurich ACC in Summer 2021.

TURKEY

ANKARA ACC

Traffic forecast



Planned capacity enhancement measures

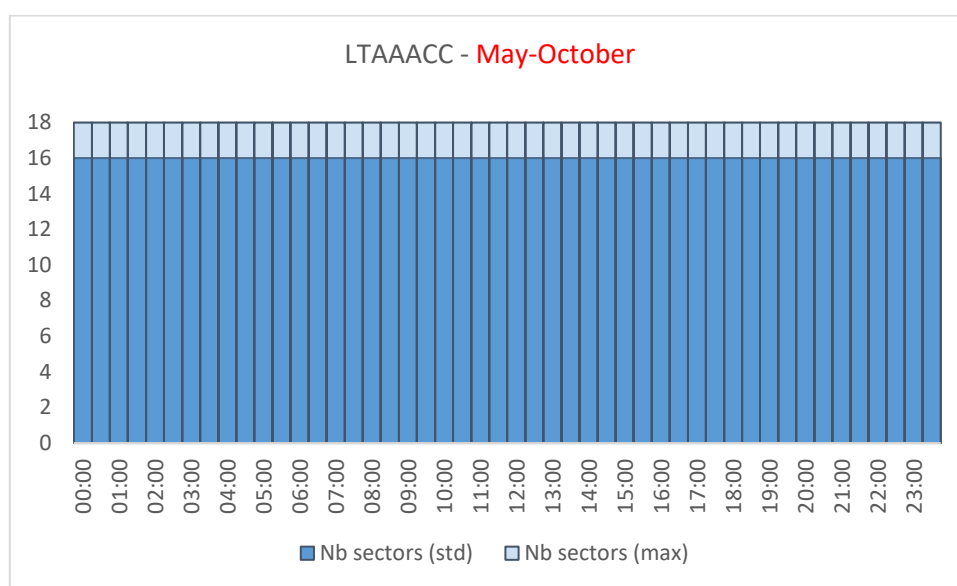
2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	Improved civil/military coordination
Airport & TMA Network Integration	Independent parallel operations at LTFJ
Cooperative Traffic Management	Improved ATFCM, including STAM
Airspace	ATS route structure development
Procedures	
Staffing	Additional controllers (45 per year for en-route)
Technical	
Capacity	
Significant Events	
Additional information	

Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
Q4 2021		LTAA/BA/AC/AI/BJ/BS/FE	Completion of ATC System Upgrade and Support Project
Winter 21/22		LTAA	FRATURK - Phase 1: To implement Night FRA Operations above FL335 in Turkey.
Summer 2022		LTAA	New upper sectors withing Izmir TMA and Dalaman TMA

Sectors available - Summer 2021



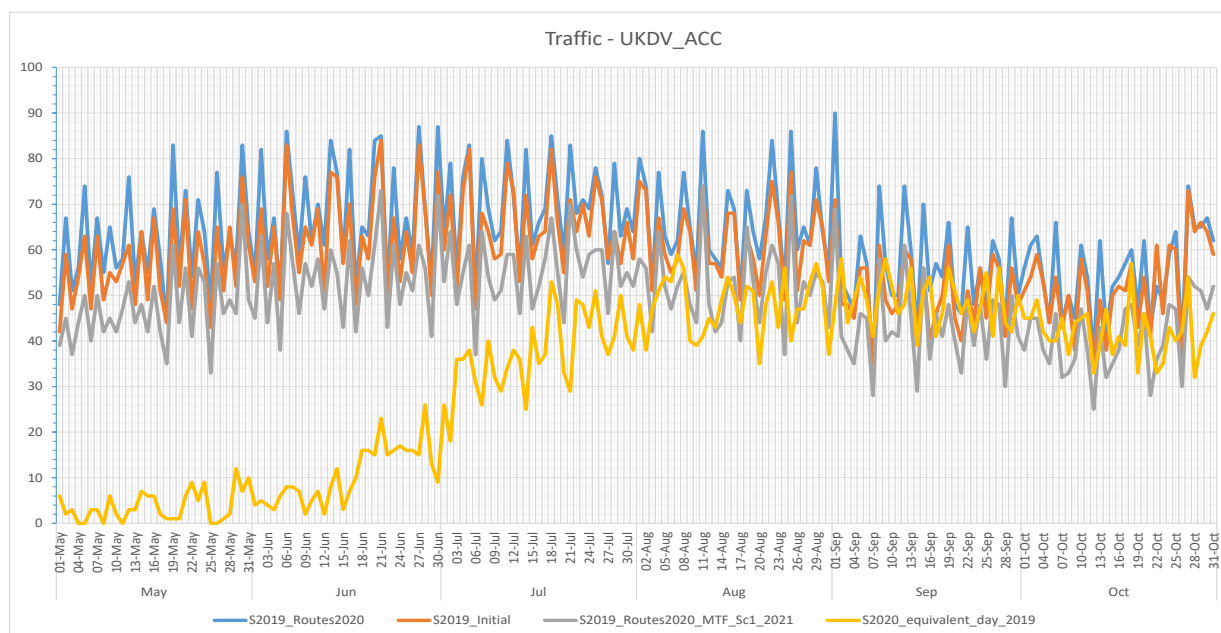
Expected Performance

No capacity issues are foreseen for Ankara ACC in Summer 2021.

UKRAINE

DNIPRO ACC

Traffic forecast



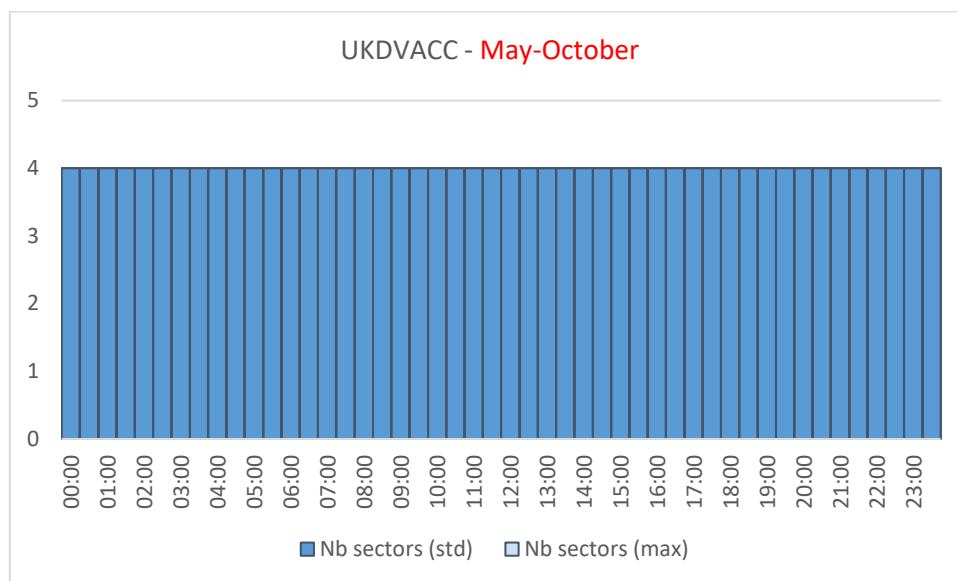
Planned capacity enhancement measures

2021 Summer Capacity Plan	
Free Route Airspace	Cross-border FRA Lviv (H24) plus FRA KIDRO(H24), FL275 – FL660 within FRAU Step 2
Airspace Management Advanced FUA	Partly implementation of Full rolling ASM/ATFCM process and ASM information sharing in line AOM 19.3.
	Partly implementation of ASM Management of Real-Time Airspace Data in line AOM 19.2.
Airport & TMA Network Integration	
Cooperative Traffic Management	
Airspace	
Procedures	
Staffing	
Technical	
Capacity	
Significant Events	
Additional information	

Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
winter 21/22		UKLV/BV/OV/DV	Cross border H24 Free Route Airspace Ukraine-FRAU Step 2 (Sc 2a)- withinLviv, Kyiv, Odesa and Dnipro ACC from FL275 to FL660

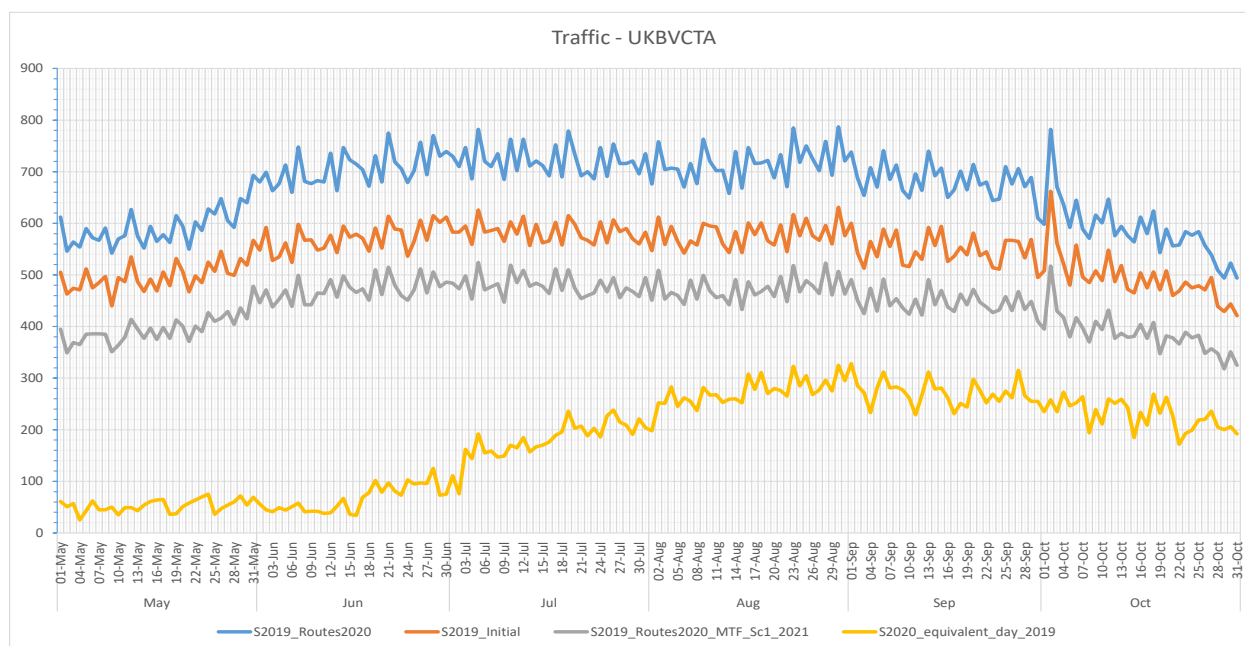
Sectors available - Summer 2021**Expected Performance**

No capacity issues are foreseen for Dnipro ACC in Summer 2021.

UKRAINE

KYIV ACC

Traffic forecast



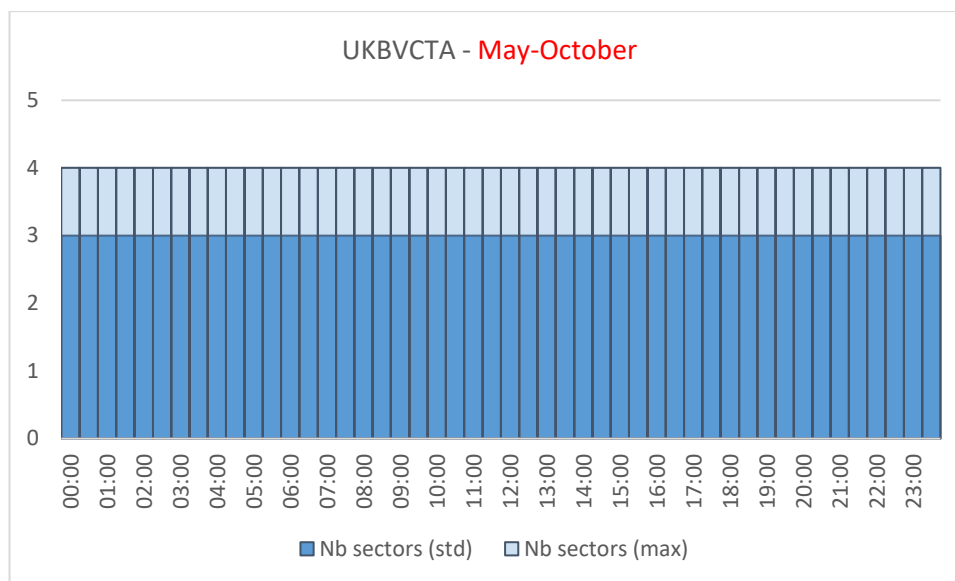
Planned capacity enhancement measures

2021 Summer Capacity Plan	
Free Route Airspace	Cross-border FRA Lviv (H24) plus FRA KIDRO(H24), FL275 – FL660 within FRAU Step 2.
Airspace Management Advanced FUA	Partly implementation of Full rolling ASM/ATFCM process and ASM information sharing in line AOM19.3.
	Partly implementation of ASM Management of Real-Time Airspace Data in line AOM19.2.
Airport & TMA Network Integration	
Cooperative Traffic Management	
Airspace	
Procedures	
Staffing	
Technical	
Capacity	
Significant Events	
Additional information	

Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

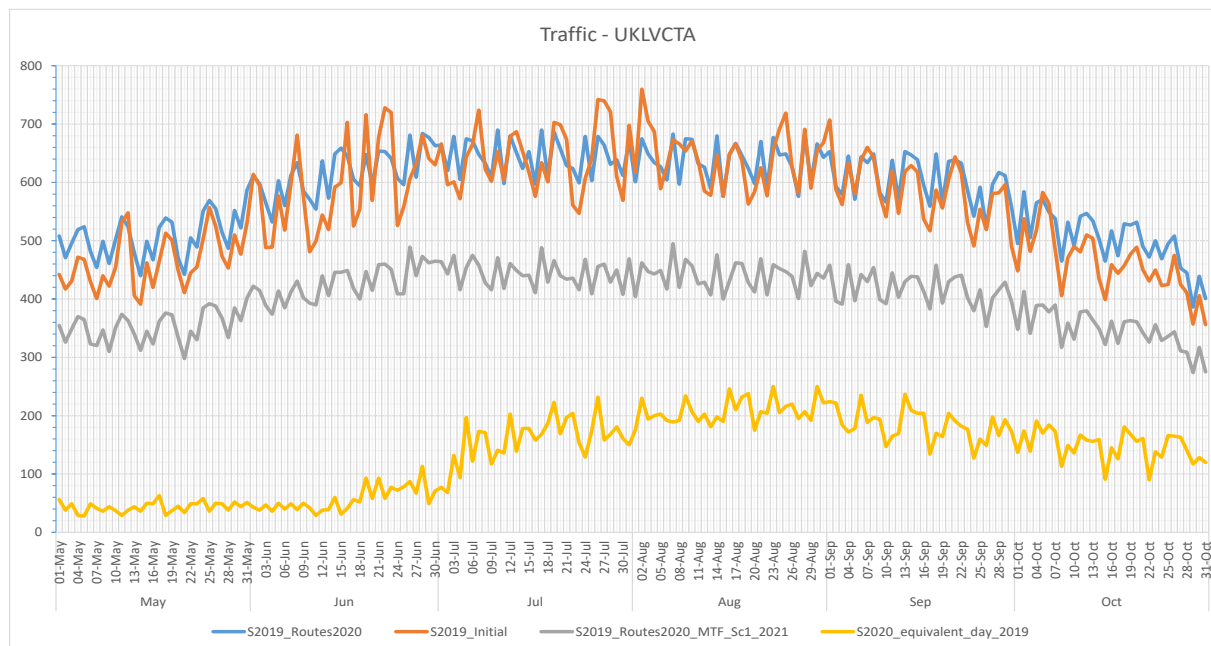
Start Date	End date	ACC/Airport	Event
winter 21/22		UKLV/BV/OV/DV	Cross border H24 Free Route Airspace Ukraine-FRAU Step 2 (Sc 2a)- withinLviv, Kyiv, Odesa and Dnipro ACC from FL275 to FL660

Sectors available - Summer 2021**Expected Performance**

No capacity issues are foreseen for Kyiv ACC in Summer 2021.

UKRAINE

L'VIV ACC

Traffic forecast**Planned capacity enhancement measures**

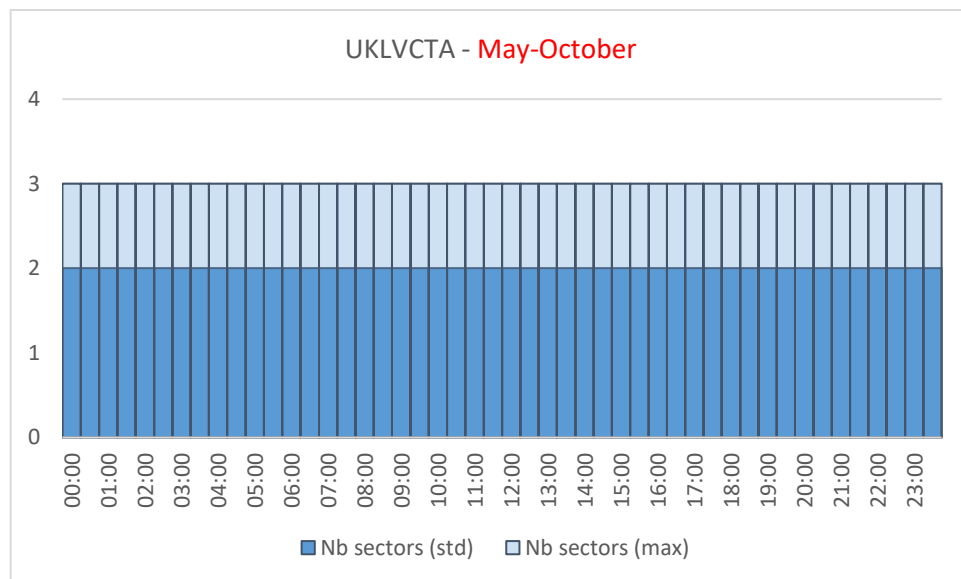
2021 Summer Capacity Plan	
Free Route Airspace	Cross-border FRA Lviv (H24) plus FRA KIDRO(H24), FL275 – FL660 within FRAU Step 2
Airspace Management Advanced FUA	Partly implementation of Full rolling ASM/ATFCM process and ASM information sharing in line AOM19.3
	Partly implementation of ASM Management of Real-Time Airspace Data in line AOM19.2
Airport & TMA Network Integration	
Cooperative Traffic Management	
Airspace	
Procedures	
Staffing	
Technical	
Capacity	
Significant Events	
Additional information	

Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
winter 21/22		UKLV/BV/OV/DV	Cross border H24 Free Route Airspace Ukraine-FRAU Step 2 (Sc 2a)- within Lviv, Kyiv, Odesa and Dnipro ACC from FL275 to FL660

Sectors available - Summer 2021



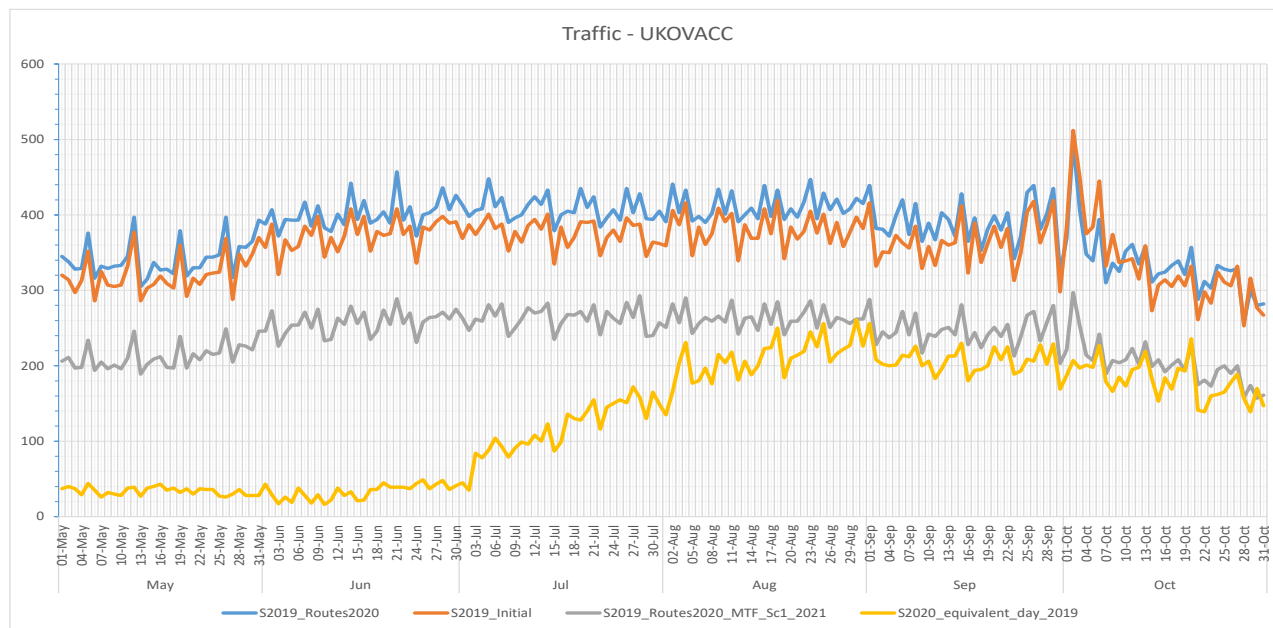
Expected Performance

No capacity issues are foreseen for L'viv ACC in Summer 2021.

UKRAINE

ODESA ACC

Traffic forecast



Planned capacity enhancement measures

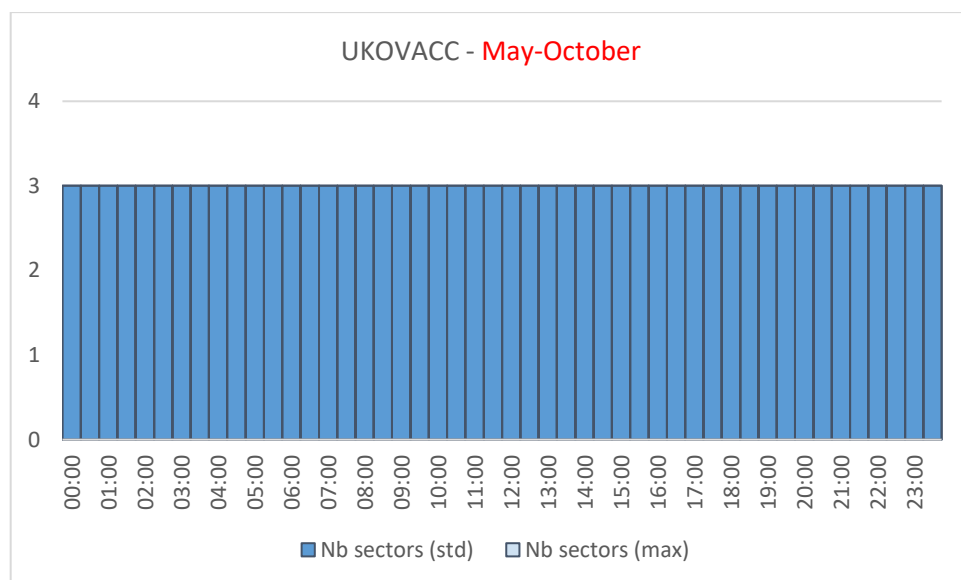
2021 Summer Capacity Plan	
Free Route Airspace	FRA Odesa (H24) FL275 – FL660.
Airspace Management Advanced FUA	Partly implementation of Full rolling ASM/ATFCM process and ASM information sharing in line AOM19.3.
	Partly implementation of ASM Management of Real-Time Airspace Data in line AOM19.2.
Airport & TMA Network Integration	
Cooperative Traffic Management	
Airspace	
Procedures	
Staffing	
Technical	
Capacity	
Significant Events	
Additional information	

Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
22-Apr-21		UKOV	Free Route Airspace Ukraine, Step 1(Sc 1b) - Ph 3 To implement H24 - Free Route Airspace operations within Odessa ACC (excl sectors OVS/L/U) from FL275 to FL660
winter 21/22		UKLV/BV/OV/DV	Cross border H24 Free Route Airspace Ukraine-FRAU Step 2 (Sc 2a)- withinLviv, Kyiv, Odesa and Dnipro ACC from FL275 to FL660
Mar-22		UKOV	New ATM System (AIRCON2100) implementation Odessa

Sectors available - Summer 2021

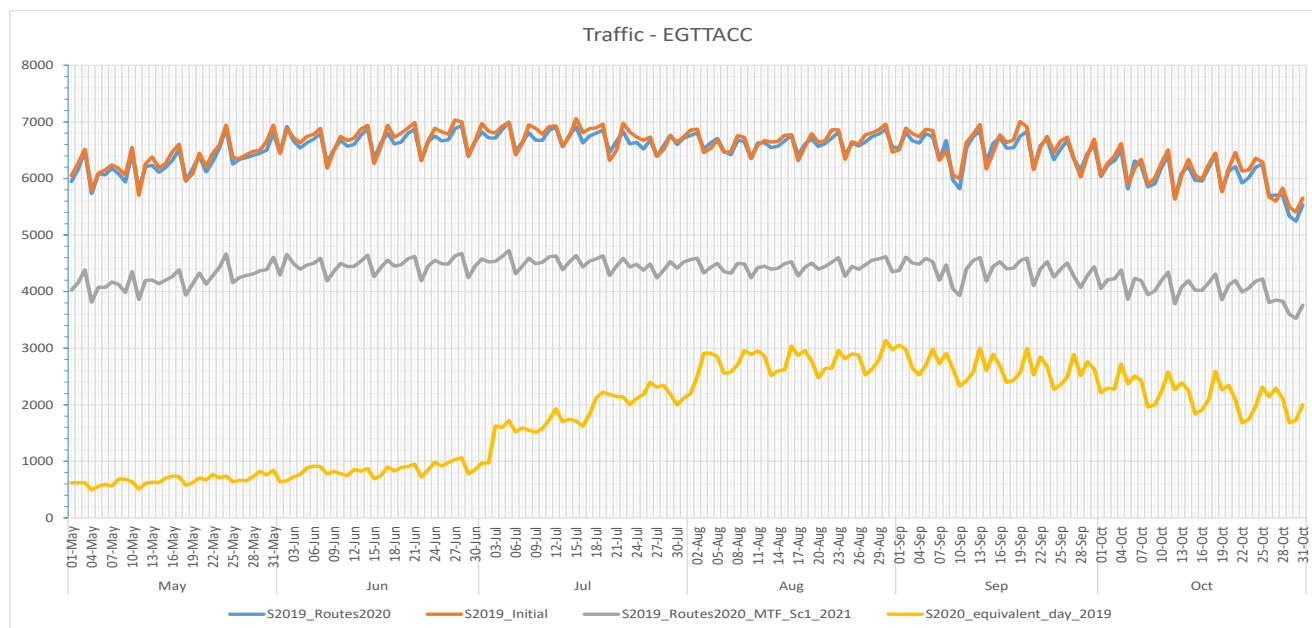


Expected Performance

No capacity issues are foreseen for Odesa ACC in Summer 2021.

UNITED KINGDOM

LONDON ACC

Traffic forecast**Planned capacity enhancement measures**

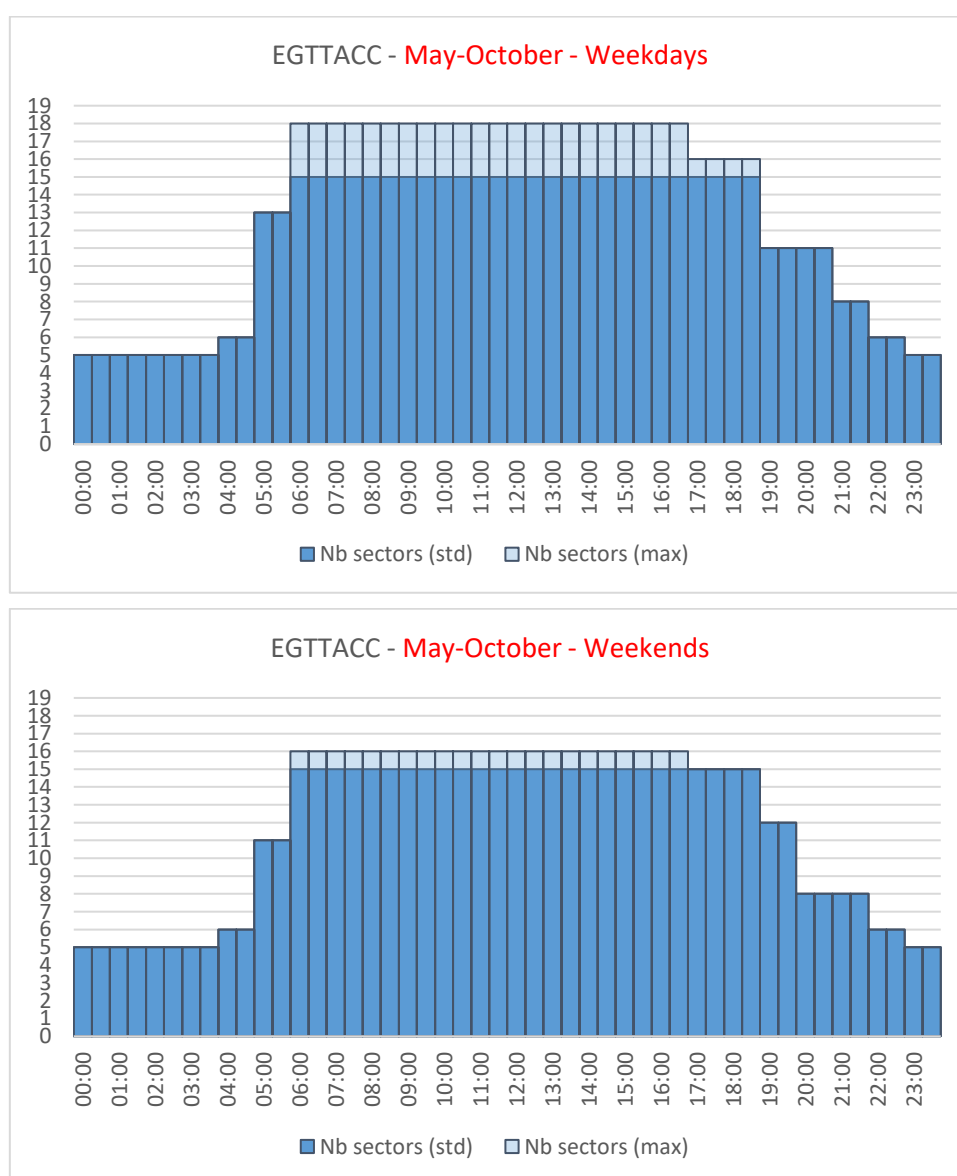
2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management	
Advanced FUA	
Airport & TMA Network Integration	
Cooperative Traffic Management	Improved ATFCM, including STAM
Airspace	UK / Ireland FAB initiatives
	RP2/RP3 Airspace Development Programme
	Maturing Queue Management programme
Procedures	
Staffing	Flexible use of existing staff (including cross-sector training) more closely related to sector demand
	Maintain agreed business service levels
Technical	
Capacity	Complexity reduction and improved traffic presentation between sectors / ANSPs
	Traffic Management Improvements
	Adaptation of sector configurations to demand
Significant Events	FS21 (May/June 2021)
Additional information	

Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
09-Sep-21		EGTT	DVOR removal projects (TNT, MCT); changes to STARs
Autumn 2021		EGTT/EISN/LFRR	Route Rationalisation & U Removal 1. To remove the U prefix from route designator of ATS routes UM30, UN22 and UN32. 2. To redesignate UN34 as N27 and UP620 as N36.

Sectors available - Summer 2021

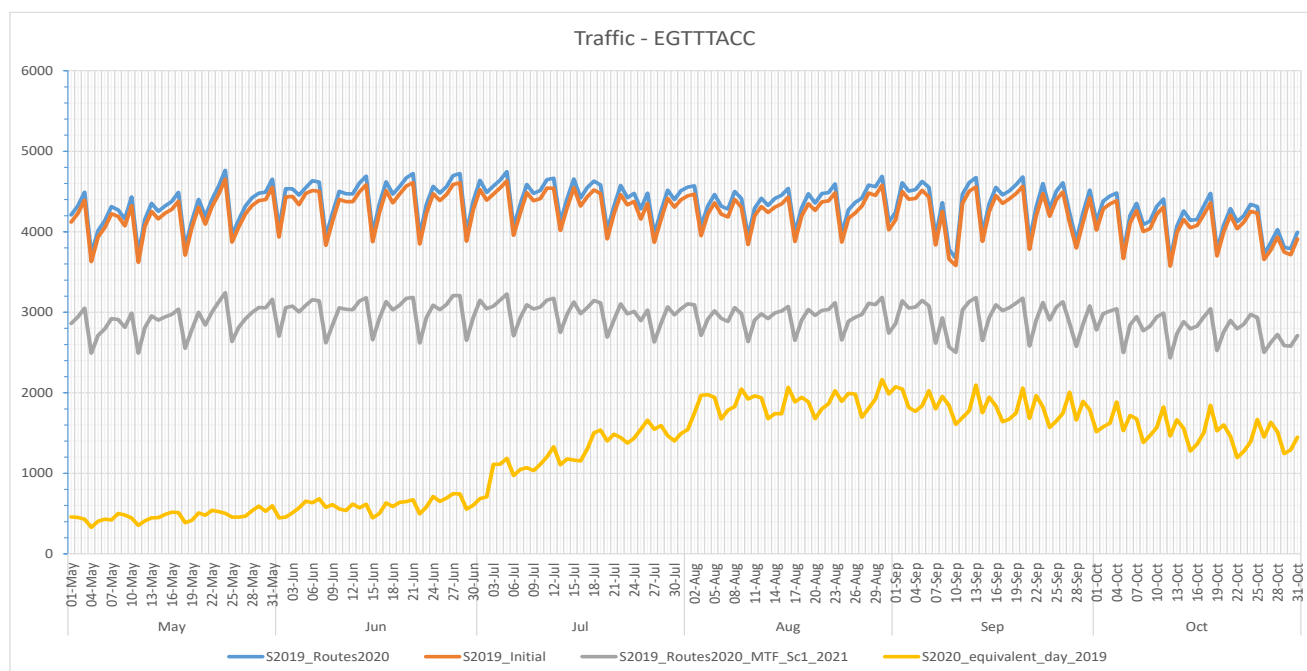


Expected Performance

No capacity issues are foreseen for London ACC in Summer 2021.

UNITED KINGDOM

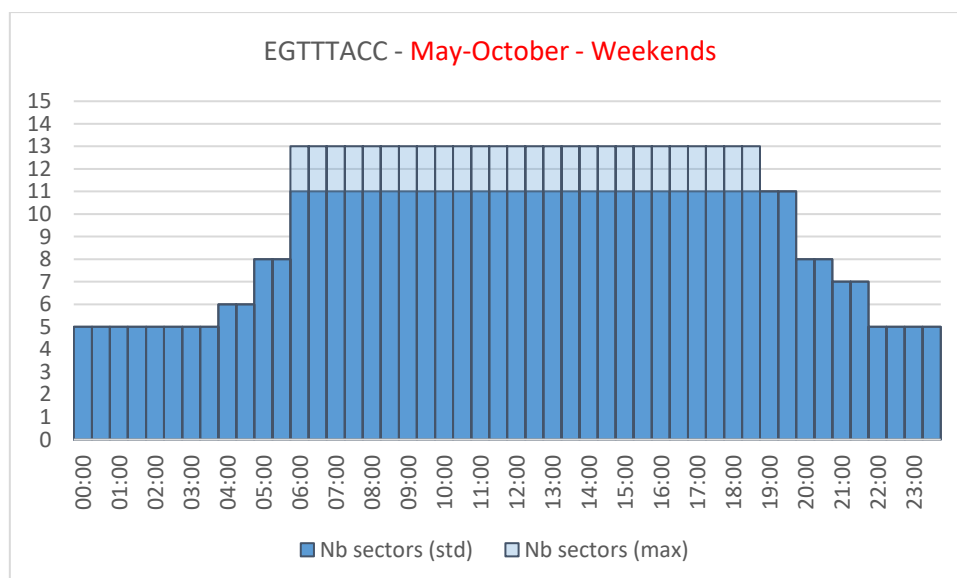
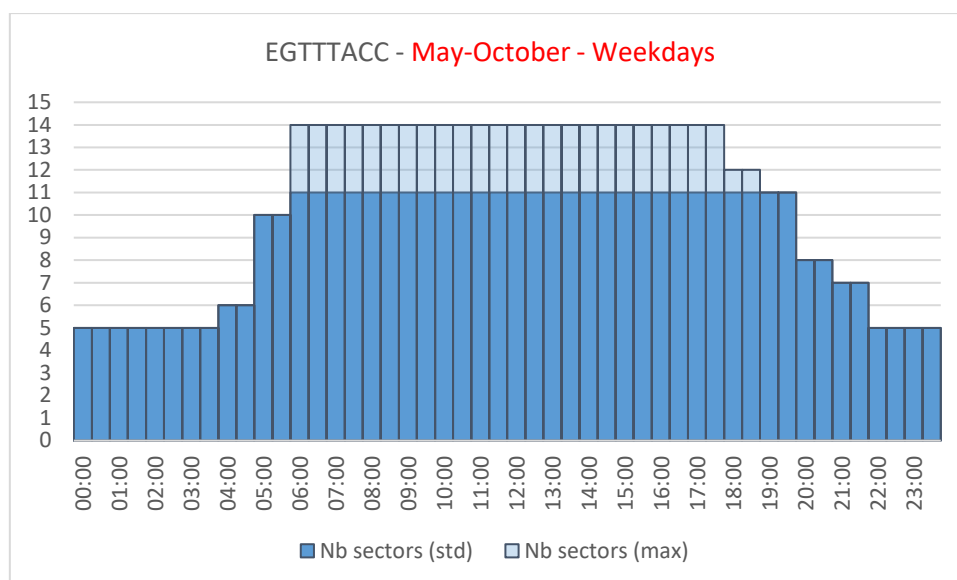
LONDON TC

Traffic forecast**Planned capacity enhancement measures**

2021 Summer Capacity Plan	
Free Route Airspace	
Airspace Management Advanced FUA	
Airport & TMA Network Integration	AMAN Standsted
Cooperative Traffic Management	Improved ATFCM, including STAM
Airspace	RP2/RP3 Airspace Development Programme
Airspace Deployment	
Procedures	Developing Queue Management programme
Staffing	Flexible use of existing staff
	Maintain agreed business service levels
Technical	
Capacity	Adaptation of sector configurations to demand
	Traffic Management Improvements
	Complexity reduction and improved traffic presentation between sectors / ANSPs
Significant Events	Training for AD6
Additional information	

Events

All events (including airport and military events) can be found in Chapter 7. Further updates are reported every week in the rolling seasonal NOP.

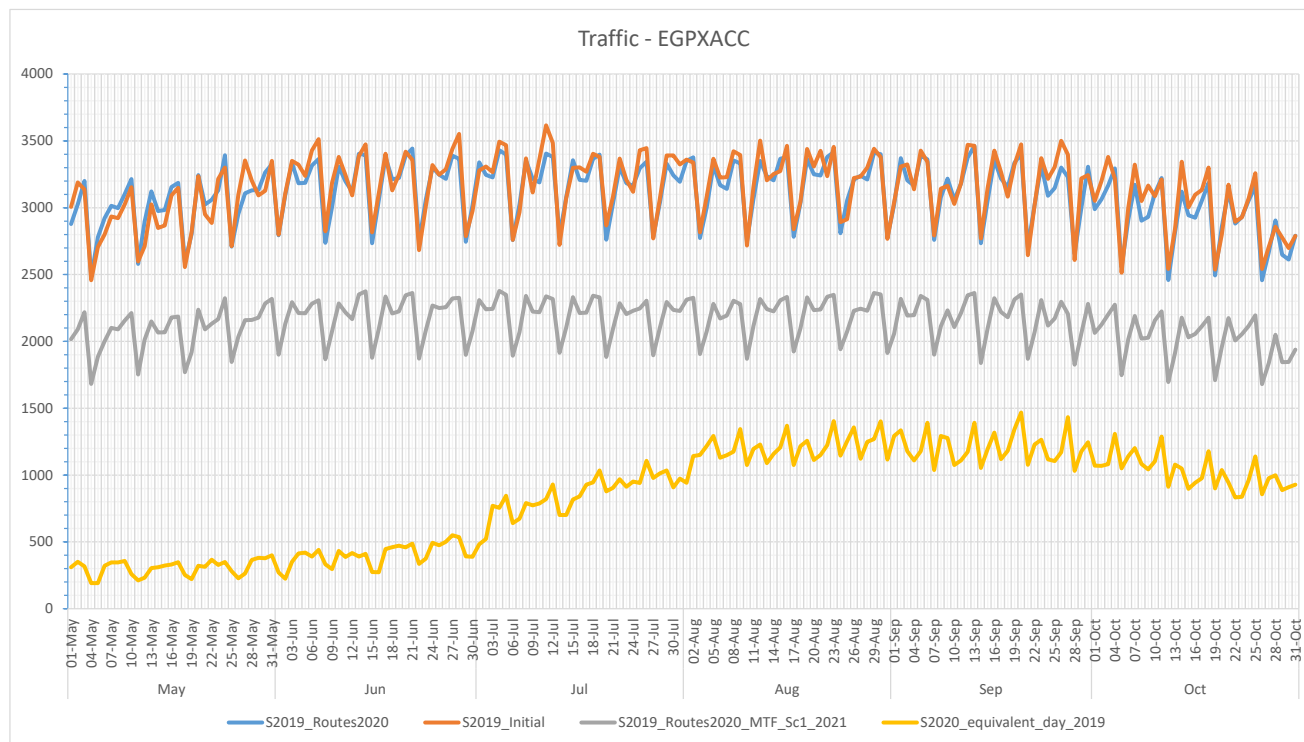
Sectors available - Summer 2021**Expected Performance**

No capacity issues are foreseen for London TC in Summer 2021.

UNITED KINGDOM

PRESTWICK ACC

Traffic forecast



Planned capacity enhancement measures

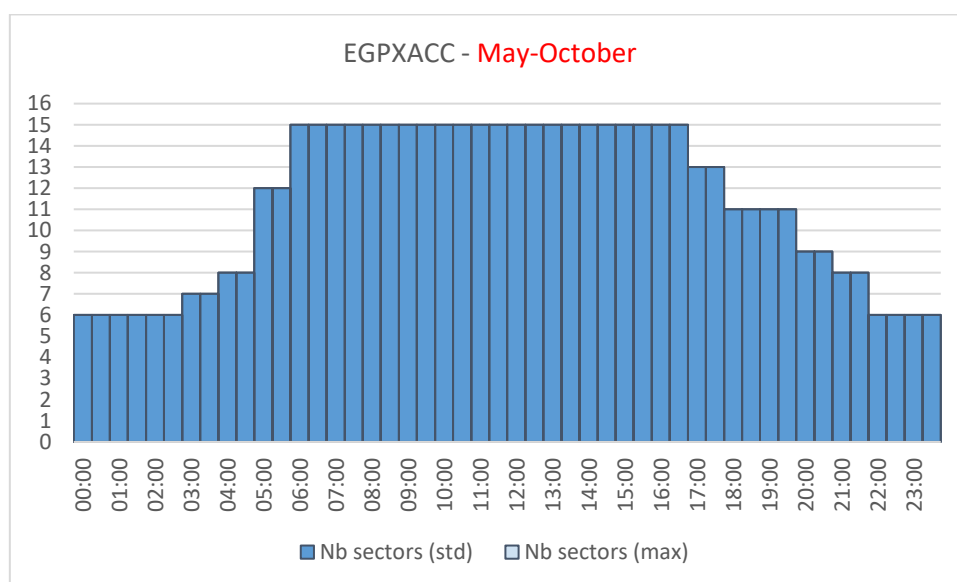
2021 Summer Capacity Plan	
Free Route Airspace	FRA Dec 2021
Airspace Management Advanced FUA	
Airport & TMA Network Integration	
Cooperative Traffic Management	Improved ATFCM, including STAM
Airspace	UK / Ireland FAB initiatives
Airspace Deployment	
Procedures	CPDLC
	Developing Queue Management programme
Staffing	Flexible use of existing staff
	Maintain agreed business service levels
Technical	
Capacity	Adaptation of sector configurations to demand
	Traffic Management Improvements
	Complexity reduction and improved traffic presentation between sectors / ANSPs
Significant Events	Training for FRA (Autumn 2021) FS21 (May/June 2021)
Additional information	

Events

All events (including airport and military events) can be found in Chapter 7. The table below contains events related to ACCs based on the information available in January 2021. Further updates are reported every week in the rolling seasonal NOP.

Start Date	End date	ACC/Airport	Event
02-Dec-21		EGPX	Borealis FRA - step 4: H24 Free Route Airspace above FL255 at Prestwick ACC AoR in 7 sectors (see comment)
Spring 2022		EGPX	Future Airspace Strategy Implementation - North (FASI-N): To re-design the Northern Terminal Control Area/ NTCA of Prestwick ACC (formerly Manchester TMA project) and then PLAS 2b.
Spring 2022		EGPX	Future Airspace Strategy Implementation - North (FASI-N) To improve airspace of Prestwick ACC AoR:

Sectors available - Summer 2021



Expected Performance

No capacity issues are foreseen for Prestwick ACC in Summer 2021.

ANNEX 2 – AIRPORTS

This Annex presents detailed airport information not included in previous sections. Capacity reported by airports will continue to be updated and shared with stakeholders in the Public Airport Corner https://ext.eurocontrol.int/airport_corner_public/seasonal_nop_information. In addition, all relevant airport information is available under the weekly Rolling Seasonal NOP (six-week forecast) and NDOP Coordination Cell will maintain all relevant airport information up to date.

1. Airport Corner information

A summary of the airports' answers to the latest Airport Corner survey on Operational Recovery for summer 2021 is shown in Section 6.2. Tables from 1 to 4 below show the detailed list of qualitative answers, anonymising the individual airport that provided the information respecting the agreed confidentiality

Table 2: Do you foresee any COVID related challenges that will prevent your airport from handling the indicated 2021 traffic levels? Please share any relevant information

Do you foresee any COVID related challenges that will prevent your airport from handling the indicated 2021 traffic levels? Please share any relevant information
We have set up a COVID 19 Testing center at the Airport. Social Distancing is in force. We do not foresee any issues with the estimated traffic for 2021.
The only challenge might be if the number of long-term grounded aircraft that will stay at our airport will be higher than we are able to accommodate on long-term parking stands.
Due to a continuous exchange of information between us and all relevant stakeholders (e.g. Slot Coordinator, Airlines) we are able to always adjust our landside and airside capacity to the foreseeable needs.
If staff is available the indicated levels will be no problem.
The airport processes are managed in such a way that we can increase capacity. A problem that can occur is when social distancing must be in place even though traffic and number of passengers increases like scenario 1.
Staffing will be adapted according the needs through a close collaboration between the airport, ANSP and hub carrier.
As we are a charter airport, expectations in 2021 will vary according to the prevalence of the vaccine and the pandemic in the world.
Consideration for social distancing

Table 3: What operational changes do you foresee for summer 2021? (e.g. cost efficiency measures, reduction of activities, placing underutilised infrastructure on standby, operational improvements at airside or landside). Continues...

What operational changes do you foresee for summer 2021? (e.g. cost efficiency measures, reduction of activities, placing underutilised infrastructure on standby, operational improvements at airside or landside)
Operational infrastructure which is currently closed will be reopened according demand. Currently unknown government decisions on COVID-19 passenger testing, etc. will influence the capacity.
Close focus on cost efficiency while traffic numbers are evolving
Opening / closing of infrastructure is continuously evaluated based on actual traffic numbers and forecasts
Need for social distancing will be the major point of attention
1. Cost based operations,
2. Possible problem with number of staff due to health issues
In case of low traffic, we expect to continue placing underutilised infrastructure (stands, gates) on standby being able to return them back in service within few days according to estimated volume of operations.
No new changes compared to current operational model.
Reduction of activities
S21 traffic depends on airline forecasts. The airport will adapt infrastructures depending on traffic.
Due to cost efficiency measures projects will be postponed until traffic will recover.
No operational changes planned, more personnel for check-in and terminal procedures are planned
Airside should be fine, Landside will probably be way more challenging due to all additional measures that might be needed in terms of testing etc.
Cost efficiency measures like using the subvention of the authority for reduced working hours
no activities like exhibitions, business trips and expensive trainings (of course necessary trainings for operational staff will take place but most of them online to save costs for the trip and to prevent them from infections)
Increase of pax and traffic
Rather early to foresee. For sure, availability of the required resources will be commensurate with the traffic demand.
Cost efficiency measures, reduction of activities
We forecast reduction of activities
Cost efficiency measures. Reduction of activities
Cost efficiency measures, reduction of activities, placing underutilised infrastructure on standby
Cost efficiency measures, reduction of activities, placing underutilised infrastructure on standby, operational improvements at landside, long parking grounded aircrafts
- cost efficiency measures;
- temporary layoffs (furlough);
- placing underutilised infrastructure on standby (e.g. terminal, gate, stand);
- provide capacity for testing areas, that will probably be the next normality;
- find method to provide certified test document (app, blockchain software).
Cost efficiency measures, underutilised infrastructure on standby
No changes
It is not planned to postpone operational infrastructure we will enforce more efficiency and have staff qualified to handle the future need of our airspace.
New procedures/routes for passenger movements within the terminal (including revision of evacuation plans)
Tactical shutdown of equipment/lighting as part of our efforts to reduce electrical consumption
Clearing of areas frequented by passengers to reduce clutter + increase cleaning effectiveness
Terminals and runways will be re-opened in line with airline customer demand. The aviation industry has used the government's job retention scheme (furlough) to retain as many staff as possible, however with expected traffic for S21 onwards, right sizing and headcount reductions have, and will continue to be made.

Table 2: ...continuation

What operational changes do you foresee for summer 2021? (e.g. cost efficiency measures, reduction of activities, placing underutilised infrastructure on standby, operational improvements at airside or landside)
Reduction of activities
Cost efficiency measures in relation to staff and reliability of assets.
Cost efficiency measures
Cost efficiency measures, placing underutilised infrastructure on standby, operational improvements at airside or landside
Operational improvements at airside or landside
cost efficiency measures
placing underutilised infrastructure on standby
operational improvements at airside
Operational improvements at airside or landside, cost efficiency measures
Reduction of activities
Operational improvement
Cost efficiency measures
Not known yet, depending of traffic demand.
Operational changes in hub based air companies that implies high peak hours with up to 70% of normal pre-COVID traffic, but dealing with services accommodated to average 30-40% daily traffic recovery.
Reduction of activities compared with 2019.
Also an improvement in some landside facilities has been made.
Cost efficiency measures.
Cost efficiency measures
Organisational changes
Difficult to recruit /train new staff
Covid travel pass
Matching Airport capacity with unknown demand
Cross-trained staff
Various activities are currently on hold or cancelled for the benefit of short time work. Certain infrastructure is on standby but thanks to the local demand predictions it is assured that those can be re-activated if needed.
We cannot make any predictions at the moment. We will act according to the situation of the pandemic all over the world and the vaccination process.
We already plan our resources and infrastructure according to the demand. We will continue to operate with the same approach for summer 2021.
Sensitive parking stand capacity utilization/planning, reduction of activities,
Social Distancing Measures and therefore space
Cost measures
Cost efficiency measures to continue
The airport will operate with infrastructure required based on demand. Underutilised capacity will be placed on standby until required.
Updated 80/20 waiver and short notice for slot cancellations will create operational planning issues impacting front line numbers and financial forecasts.
Testing facilities and unknown/non-standard entry requirement framework will cause increase operational disruption, delays, missed flights for customers.
In addition, documentation check increases at boarding and check-in desks will create delays and increased facility requirements and gate times (non-planned vs standard slot times). We also expect slower processes in security and sub-optimal operational delivery due to continued social distancing measures likely needing to be enforced throughout the season.

Table 4: What operational support from the Network Manager would facilitate your operations in summer 2021?

What operational support from the Network Manager would facilitate your operations in summer 2021?
Close monitoring of delays en route, to avoid disturbances of ground operations
Availability to discuss with airlines / ANSP flight priorities, based on APOC collaborative decision making
1. Reduction with delays
Push AOs to adjust airport slots with minimum 4 weeks to day of operation.
General S21 forecasts (ANSP, AO, APTS) with potential regulations concerned by sectors.
Stable network operation to support ontime performance will prevent unplanned peak situations at the airport.
It seems like airlines are struggling a lot to give stable and reliable traffic forecasts seasonwise (which is fully understandable). They continue to react on short notice. Therefore it is always very helpful to also receive your traffic outlook scenarios to always have the best guessing and to be able to prepare accordingly.
Nothing
1. Operation of the NMOC Airport Function will be very helpful.
2. NMOC's understanding of the fact that until some stability is resumed, the time horizon of planning cannot be more than 3 weeks. To date, it has been proved that any schedule estimate beyond 3 weeks, includes at least 30% junk information.
Presumably no extra operational support is required
Traffic flow optimisation also due to A-CDM platform installed
Demand forecasts at airport level updated periodically to plan the reopening of infrastructures and the increase in available capacity.
Traffic volumes spread throughout the whole operational day avoiding to high passengers peaks
Weekly forecast of the traffic.
Year volume of expected ATMs in months or week level.
No need
Increasing the efficiency of security controls
A quick response to any traffic disruption
Support to ongoing projects namely IAOP in order to improve readiness when 2019 traffic levels return
Traffic forecast monthly reviewed
Know better in advance the traffic demand.
Information about operators fleets (many of them reducing their fleets), grounded planes, summer schedules, etc...
A good prediction of the movements would be helpful.
A better and more realistic forecast should be desirable.
Information regarding demand as early as possible
No additional support needed at the moment.
We would like Network Manager to continue to support us about the best practices, recent developments and COVID situation in the Network.
Accurate movement schedule
Increased visibility on likely fly schedule as early as possible, reduction in changes to the schedule and standardisation of fit-to-fly requirements.
Whilst we understand the need for an extension to the 80/20 waiver, we would like for historic slots that have not been utilised by carriers who are no longer flying to be returned to the pool We have made ATC changes that will impact to deliver runway rates back to 2019 levels in a quick manner. In addition financial support for extended furlough would be necessary if the 3 week notice without penalty is kept through S21 as it will encourage airlines to speculate with flights, forcing us to roster-plan for them and we will be left exposed financially once those flights are removed from the schedule.

Table 5: Additional information

Additional Information
Great uncertainty on the traffic demand, which is not only related to the availability of an effective vaccine, but rather on the propensity to travel, as a result of financial constraints faced by a significant part of the traveling public, especially for leisure purposes.
Social distancing is the most changelling issue we could face according to the current terminal building
Effective foresee related the COVID process is not made.

A conclusion based on the airports answers, is that airports anticipate high uncertainty regarding traffic demand, which will have an impact on their capacities during summer 2021. However, most of them do not foresee any issues to cope with forecasted summer 2021 demand. As a reference, Figure 9 shows the historical capacities reported by airports during summer 2020. The capacities are reported as a percentage of the airport nominal capacity, while the nominal capacity as provided by airports is available via the Airport Corner Public access, https://ext.eurocontrol.int/airport_corner_public/seasonal_nop_information, section Capacity – Normal Conditions.

In Figure 9 the graph presents the reported airport capacity in colour code from red (0%) to green (100%). The colouring of the graphic **does not reflect any issues at airports** due to capacity-demand imbalance, it only reflects lower capacity with respect to the declared (nominal) capacity.

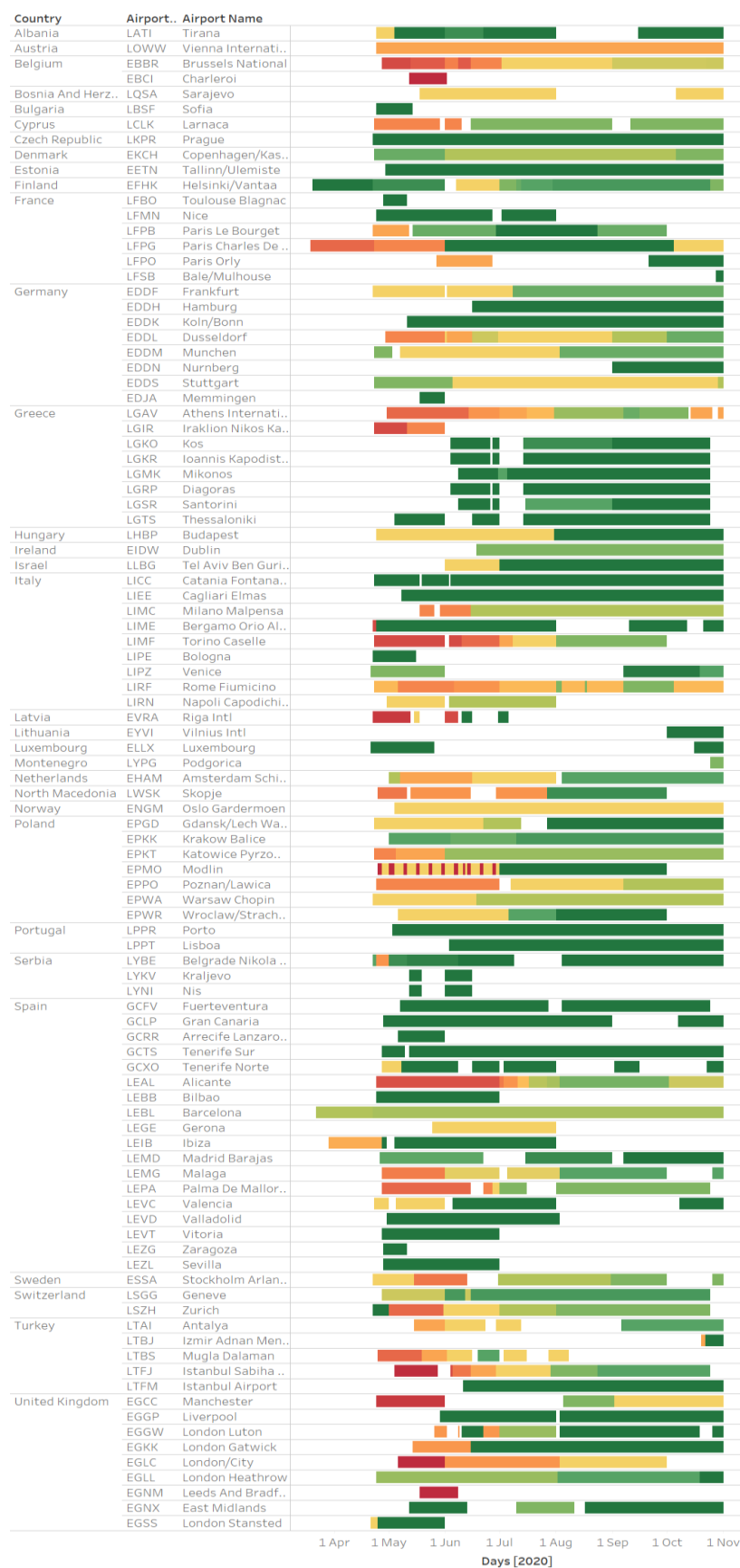
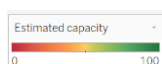


Figure 9: Detailed reported airport capacities during summer 2020

Latest non-confidential updates from the airports, including the ones not presented in this annex, are available any time via the Public Airport Corner https://ext.eurocontrol.int/airport_corner_public/seasonal_nop_information

2. Traffic variability per airport

Table below shows the traffic variability for the summer of 2019 (left) and the summer of 2020 (right). As explained in section 9.2, they show the mean and standard deviation of the weekly traffic and most important, the ratio between the two, which gives a good indicator of the rate of variability of the traffic per airport for the summers of 2019 and 2020.

Table 5: Traffic variability for summer 2019 and 2020

Country	Airport Name	ICAO	mean weekly	std weekly	std/mean	Country	Airport Name	ICAO	mean weekly	std weekly	std/mean
Turkey	Antalya	LTAI	5672,0	1208,4	21%	Turkey	Antalya	LTAI	1341,1	1214,8	91%
Italy	Milano Malpensa	LMC	5159,2	967,9	19%	Turkey	Istanbul Sabiha Gokcen	LTFJ	1817,1	1476,3	81%
Turkey	Istanbul Airport	LTFM	8570,9	1568,6	18%	Spain	Palma De Mallorca	LEPA	1587,8	1270,9	80%
Spain	Palma De Mallorca	LEPA	5775,9	772,0	13%	United Kingdom	London Gatwick	EGKK	807,2	639,2	79%
Greece	Athens International / Eleftherios Venizelos	LGAV				France	Paris Orly	LFPO	1048,7	815,0	78%
			5040,4	669,6	13%	Spain	Malaga	LEMG	943,2	712,2	76%
Israel	Tel Aviv Ben Gurion	LLBG	3601,8	410,8	11%	United Kingdom	Manchester	EGCC	852,5	622,6	73%
Czech Republic	Prague	LKPR	3235,9	294,9	9%	Spain	Barcelona	LEBL	1646,8	1107,3	67%
Norway	Oslo Gardermoen	ENGM	5022,2	408,0	8%	Portugal	Lisboa	LPPT	1139,6	761,4	67%
Sweden	Stockholm Arlanda	ESSA	4641,8	373,2	8%	Poland	Warsaw Chopin	EPWA	1083,8	705,0	65%
United Kingdom	Manchester	EGCC	4378,3	308,7	7%	Austria	Vienna International	LOWW	1537,6	958,8	62%
Spain	Malaga	LEMG	3231,2	201,1	6%	Turkey	Istanbul Airport	LTFM	2223,5	1370,9	62%
France	Paris Orly	LFPO	4517,6	272,0	6%	Germany	Berlin Tegel	EDDT	807,6	494,4	61%
Turkey	Istanbul Sabiha Gokcen	LTFJ	4545,9	251,6	6%	United Kingdom	London Stansted	EGSS	1289,7	775,4	60%
Denmark	Copenhagen/Kastrup	EKCH	5358,5	288,4	5%	Germany	Munich	EDDM	1788,4	1058,6	59%
United Kingdom	London Gatwick	EGKK	6025,8	288,2	5%	Switzerland	Geneve	LSGG	1029,3	603,5	59%
Italy	Rome Fiumicino	URF	6452,6	306,1	5%	Spain	Madrid Barajas	LEMD	1929,1	1127,4	58%
Turkey	Ankara Esenboga	LTAC	1799,2	76,5	4%	Turkey	Ankara Esenboga	LTAC	652,2	380,3	58%
Poland	Warsaw Chopin	EPWA	3938,1	163,2	4%	Germany	Dusseldorf	EDDL	1066,1	619,4	58%
Germany	Dusseldorf	EDDL	4687,7	191,8	4%	Denmark	Copenhagen/Kastrup	EKCH	1244,2	703,1	57%
Germany	Munich	EDDM	8420,3	333,2	4%	Czech Republic	Prague	LKPR	680,6	372,1	55%
Belgium	Brussels National	EBBR	4758,7	187,5	4%	Germany	Hamburg	EDDH	895,3	483,4	54%
United Kingdom	London Stansted	EGSS	4144,3	151,4	4%	Switzerland	Zurich	LSZH	1479,0	778,6	53%
Finland	Helsinki/Vantaa	EFHK	3839,7	135,5	4%	Netherlands	Amsterdam Schiphol	EHAM	3411,3	1790,0	52%
Switzerland	Geneve	LSGG	3469,6	120,4	3%	Greece	Athens International / Eleftherios Venizelos	LGAV	2063,1	1073,2	52%
Spain	Barcelona	LEBL	7295,5	251,1	3%	France	Paris Charles De Gaulle	LFPG	3218,4	1591,6	49%
Ireland	Dublin	EIDW	5012,2	170,3	3%	Ireland	Dublin	EIDW	1112,5	541,9	49%
Spain	Madrid Barajas	LEMD	8544,7	286,5	3%	Italy	Rome Fiumicino	URF	1423,0	691,7	49%
Portugal	Lisboa	LPPT	4555,2	149,4	3%	Italy	Milano Malpensa	LMC	1505,8	718,7	48%
Germany	Hamburg	EDDH	3072,8	96,3	3%	Belgium	Brussels National	EBBR	1223,1	545,6	45%
Germany	Berlin Tegel	EDDT	3873,1	119,9	3%	Sweden	Stockholm Arlanda	ESSA	976,7	416,2	43%
France	Paris Charles De Gaulle	LFPG	10322,1	318,0	3%	United Kingdom	London Heathrow	EGLL	2596,2	1015,2	39%
United Kingdom	London Heathrow	EGLL	9431,5	266,1	3%	Finland	Helsinki/Vantaa	EFHK	799,3	286,9	36%
Austria	Vienna International	LOWW	5856,8	154,0	3%	Germany	Frankfurt	EDDF	2969,2	1043,2	35%
Switzerland	Zurich	LSZH	5515,9	134,9	2%	Norway	Oslo Gardermoen	ENGM	1793,8	586,3	33%
Germany	Frankfurt	EDDF	10559,1	242,3	2%	Israel	Tel Aviv Ben Gurion	LLBG	581,7	179,0	31%
Netherlands	Amsterdam Schiphol	EHAM	10383,1	197,5	2%						

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