

ENVIRONMENTAL BULLETIN OF MIKONOS AIRPORT (JMK)

Reference year 2022

Fraport Regional Airports of Greece B S.A.

Issue year: 2023

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1. INTRODUCTION

1.1. Location

The airport of Mykonos, with an IATA code JMK, has been operating since 1971 and is located at 1.2 km to the south-east from the Town of Mykonos and at a very short distance of approximately 1.5km from the coastline of the island.

1.2. Administration

The airport administratively belongs to the Municipal Community of Mykonos, of the Municipality of Mykonos of the homonym Regional Unit that belongs to the Region of South Aegean.

1.3. Environmental licensing

Approved Environmental Terms	
E.T. Decision Reference number	32650/04.11.1994
E.T. Amendment Decision Reference Number	103324/18.04.2016
	175511/15.10.2014
	39773/26.09.2017
	2976/02.02.2018
	38064/2593/06.04.2023

1.4. Airport Basic Data

Airport name IATA / ICAO	JMK / LGMK
Airport location – Airport Reference Point (ARP)	Latitude: 37° 26' 14" N Longitude: 25° 20' 50" E
Altitude	123.45m
Number of runways	1
Operation hours (summer)	00:00-23:59
Operation hours (winter)	Monday 07:30 – 19:00 Tuesday /Wednesday /Thursday /Friday Saturday /Sunday 09:00 – 19:00

Runways	Length/Width					Code
Runway	1.902m x 30m					16/34
Full length of parallel taxiway	N/A					
Number of taxiways	2					
Apron capacity	A	B	C	D	E	
	-	-	5	-	-	
Employees	High season (31.08.2022)			Low season (30.11.2022)		
Fraport Greece (FG) employees	40			29		

Employees of other companies	510	215
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Terminal

➤ Total area (m ²)	14.304
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Other buildings and service/storage areas

➤ RFF Station (m ²)	1.144
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Parking Areas

Car parking spaces	73
Bus parking spaces	33
Taxi parking spaces	15

1.5. Airport facilities

1.5.1. Fuel Handlers

Number of fuel handler companies

Number of fuel handler companies operating at the Airport	2
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Installations inside the airport	EKO	GISSCO	HAFCO
Environmental Management System (EMS)	YES	YES	Not operating at the airport

1.5.2. Ground Handlers

Number of ground handler companies

Number of ground handler companies operating at the Airport	3
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Installations inside the airport	SKYSERV	SWISSPORT	GOLDAIR
Environmental Management System (EMS)	YES	YES	YES

2. TRAFFIC DATA STATISTICS

2.1. Annual Traffic Data

Annual Traffic Data for the year 2022	
Overall Annual Air Traffic Movements ¹	19.415
Percent of increase or decrease in relation to the previous year	19,1%
Annual passenger traffic	1.688.010
Percent of increase or decrease in relation to the previous year	60,4%
Annual cargo transferred (tn)	30
Percent of increase or decrease in relation to the previous year	-60,1%

Aircraft types	
Prevailing aircraft types for domestic flights	
Aircraft type	No. of flights
AT76	1.878
A320	1.283
A319	779
A32A	388
AT72	214
DH8D	136
C56X	119
A20N	109
EC20	92
A321	90
Other	1.626
Prevailing aircraft types for international flights	
Aircraft type	No. of flights
A320	2.979
A32A	1.410
B738	879
B73H	879
A319	717
A20N	549
C56X	387
E190	259
CL60	258
H25B	226
Other	4.158

¹ Military and training flights not included.

2.2. High season traffic data

High season traffic data (June-September)	
Highest traffic month	July
Air traffic movements during the month with highest traffic	4.741
Air traffic movements daily average number during the month with highest traffic	153

2.3. Low season traffic data

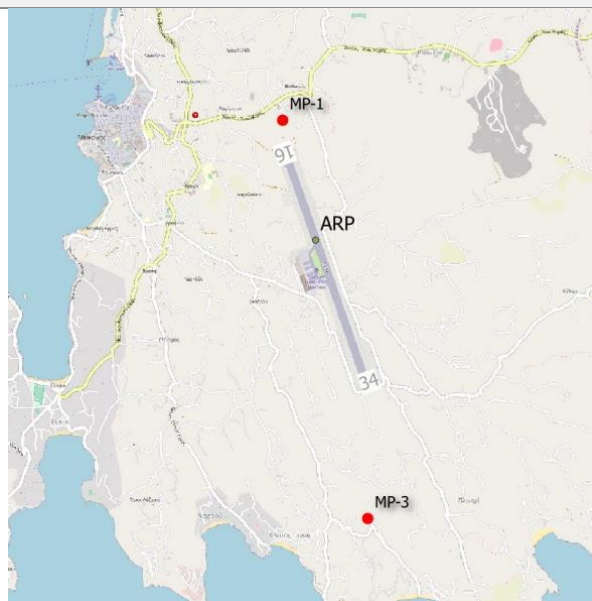
Low season traffic data (October-May)	
Lowest traffic month	February
Air traffic movements during the month with lowest traffic	148
Air traffic movements daily average number during the month with lowest traffic	5

3. AIRCRAFT NOISE

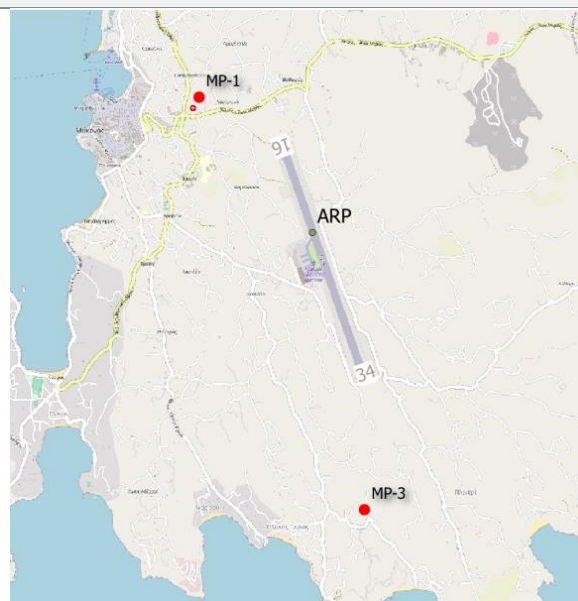
3.1. Noise measurements during the reference year

Have noise measurements at the airport's surrounding area been performed during the reference year?	YES
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Measurement points



Measurement points – June 2022



Measurement points – July & August 2022

Measurement points coordinates	Measurement points description
MP-1: 37° 26' 46" N 25° 20' 39" E	West of Mykonos city, north of the runway on a house roof. Affected by arrivals RWY 16 and departures RWY 34.
MP-1: 37° 26' 51" N 25° 20' 11" E	
MP-2: 37° 24' 58" N 25° 21' 07" E	Platis Gialos area, south of the runway in a hotel's yard. Affected by arrivals RWY 34 and departures RWY 16.
Measurement period	13.06.2022-21.06.2022 14.07.2022-20.07.2022 01.08.2022-08.08.2022
Noise indicators	L _{den} , L _{night}

Summary of measurement results:

Noise levels are monitored according to the airport's monitoring program and new approved environmental terms. No exceedance of noise indicators levels L_{den}=70 dB(A) and L_{night}=60 dB(A) was observed.

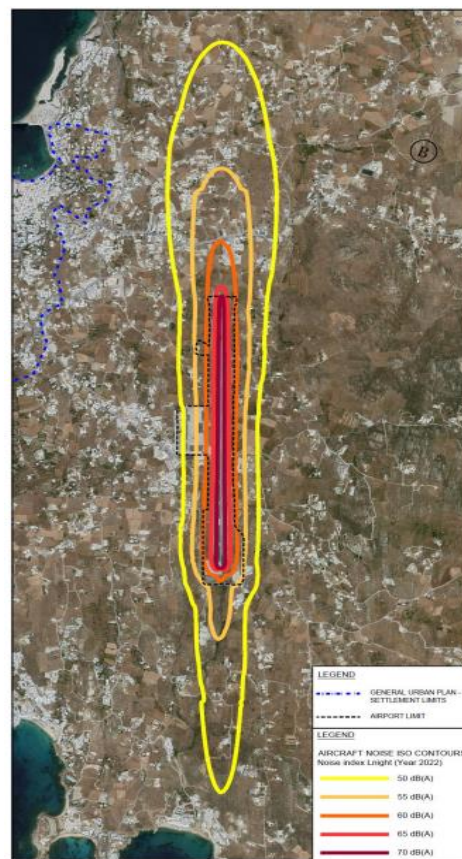
3.2. Noise levels calculation based on noise simulation software

Aircraft noise levels calculation based on noise simulation software	YES
Software used: IMMI Noise Prediction Software (evaluation method CNOSSOS-EU according to JMD KYA ΥΠΕΝ/ΔΚΑΠΑ/13757/255/Β/16.02.2022)	
Noise indicators and respective contours calculation: L_{den} , L_{night}	

Noise contours:



L_{den}





L_{night}

Summary of results:

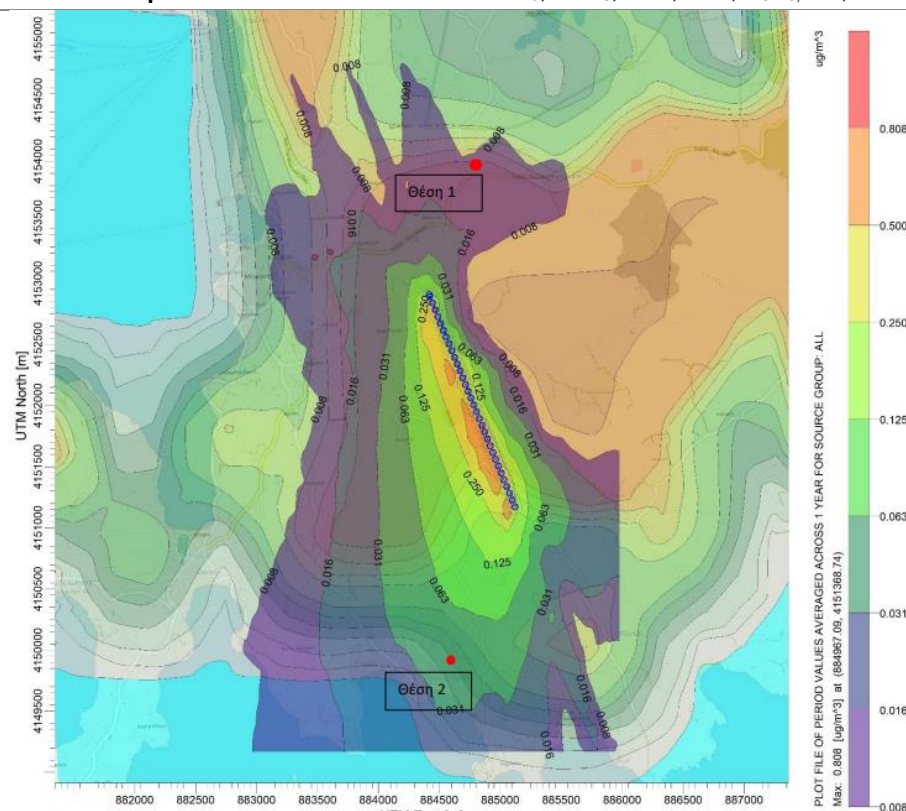
For the year 2022 no buildings inside official settlement boundaries were found to be exposed to noise levels higher than the limits $L_{den}=70$ dB(A) and $L_{night}=60$ dB(A).

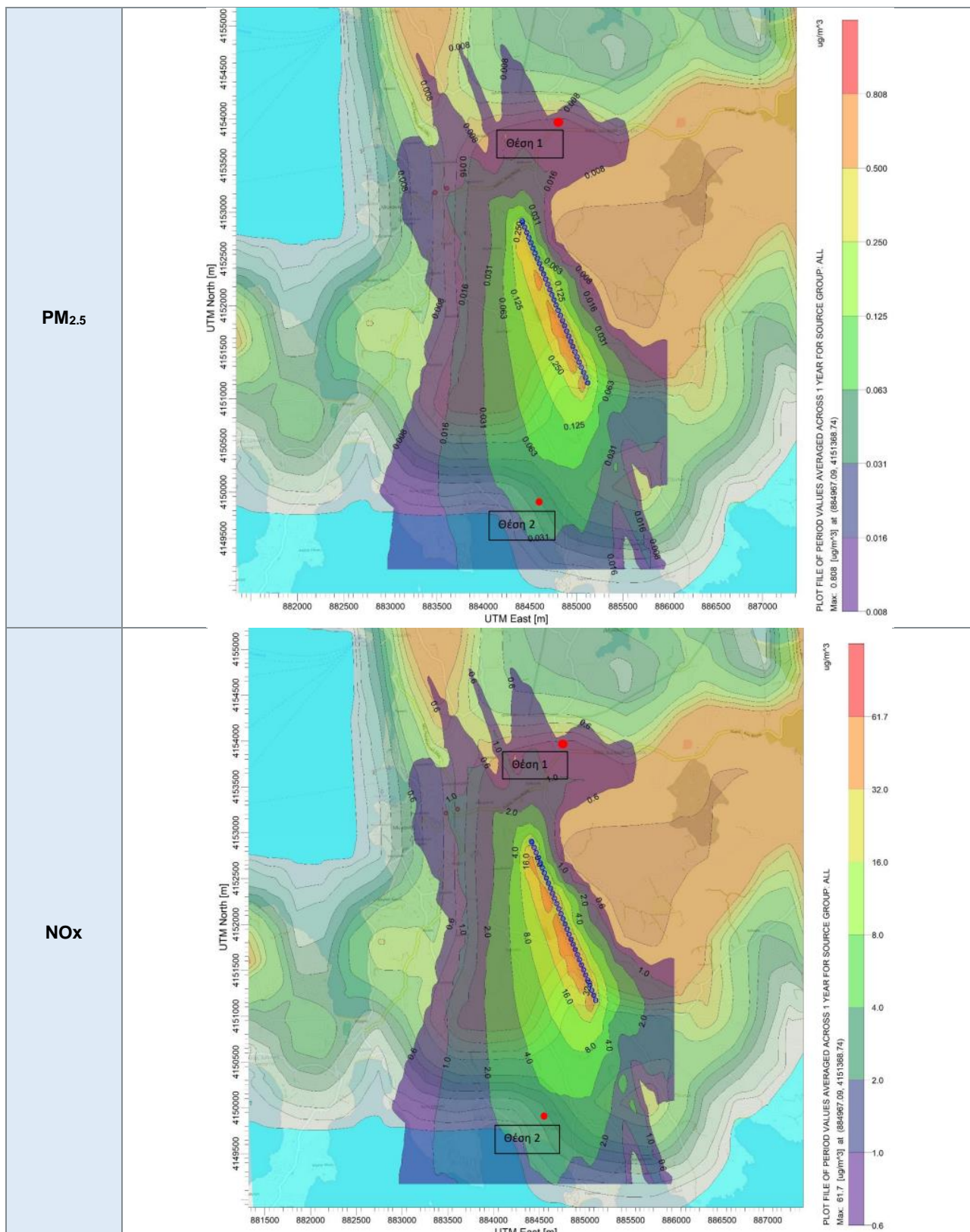
4. AIR QUALITY

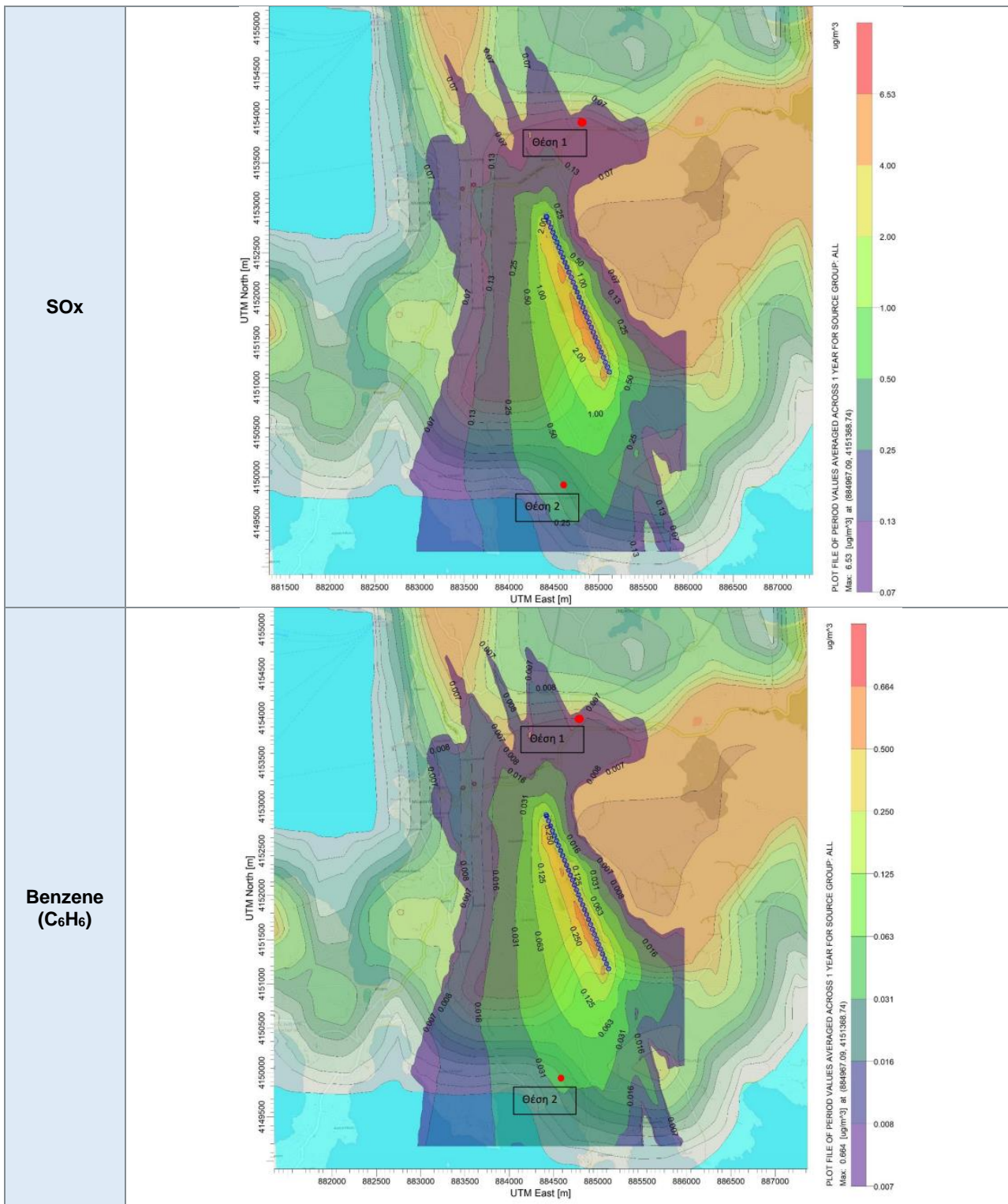
4.1. Air quality measurements during the reference year

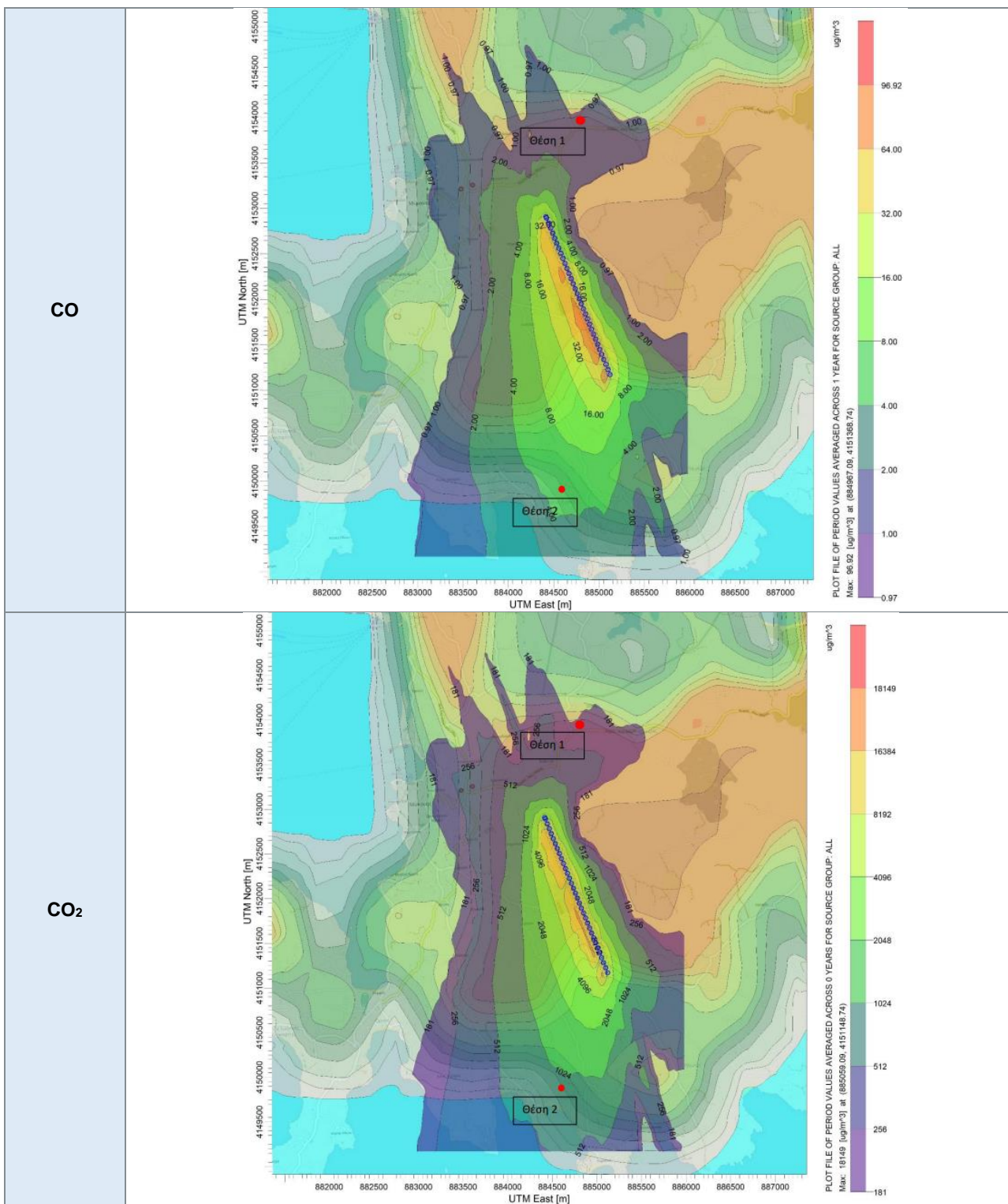
Have air quality measurements at the airport's surrounding area been performed during the reference year?		YES
Measurement points		
		
Measurement points June, July & August		Measurement points December
Measurement points	Measurement points description	
Position 1	Airport parking area at a distance less than 1km	
Position 2	At a distance of approximately 1.6km, to the north of the airport in private area	
Measurement period:	16.06.2022 – 02.07.2022 03.07.2022 – 18.07.2022 26.08.2022 – 11.09.2022 28.11.2022 – 13.12.2022	
Pollutants measured:	CO, C ₆ H ₆ , NO, NO ₂ , O ₃ , PM ₁₀ , PM _{2.5} και SO ₂	
Summary of measurement results:		
Air quality is monitored according to the airport's monitoring program and new approved environmental terms. No exceedance of the air quality limits was observed.		

4.2. Air pollutants emission and dispersion modelling

<p>Calculation of air pollutants concentrations based on an emission and dispersion modelling software</p>		<p>YES</p>
<p>Software used: Aviation Environmental Design Tool (AEDT) - US Federal Aviation Administration & US Environmental Protection Agency AERMOD</p>		
<p>Pollutants concentrations and respective contours calculation: PM₁₀, PM_{2.5}, NO_x, SO_x, C₆H₆, CO, CO₂</p>		
<p>PM₁₀</p>		







Summary of results:

Air quality is monitored according to the airport's monitoring program.
 No exceedance of the air quality limits was observed.

5. WASTE MANAGEMENT

Waste	Collection	Management/Disposal
Recyclables (paper, plastic, metals, glass)	Separate collection by the Municipality of Mikonos	Disposal at material recovery facility for recycling
Residues (Mixed Waste) and Bulky Waste	Collection by the Municipality of Mikonos	Disposal in landfill

Notes:

1. Regarding the different categories of the MSW (recyclables, mixed waste, bulky waste), the Airport Users handle their waste together with Fraport Greece B (central management).
2. Regarding the 'alternative management' waste categories (Waste lubricant oil WLO, WEEE, etc.):
 - i. Waste Lubricant Oil (WLO): Collection and management by authorized collector "CYTOP S.A."
 - ii. Waste Electrical & Electronic Equipment (WEEE): Collection and management by alternative management system "Appliances Recycling S.A."
 - iii. Accumulators: Collection and management by alternative management system "Re-Battery S.A."
 - iv. Small batteries: Collection and management by alternative management system "AFIS S.A."
 - v. Used tires: Collection and management by alternative management system "ECOELASTIKA S.A."
3. The total quantities of the hazardous waste further to the above-mentioned and produced at the airport, are managed by licensed private companies which have a contract with Fraport Greece B, according to the provisions of the legislation in force.
4. The total quantities of the produced waste by category resulting from all activities of the airport, the collectors and final recipients, are recorded by Fraport Greece B and submitted in the Electronic Waste Registry of the Ministry for Environment and Energy via the Annual Waste Producer Report according to the provisions of the legislation in force.

6. ECOSYSTEM AROUND THE AIRPORT

6.1. Flora-Fauna

Flora	
Are there protected zones of vegetation/habitats in the broader airport area?	YES
<p>(if YES) Short description: Mikonos Airport is near to the Natura 2000 site:</p> <ul style="list-style-type: none"> GR4220027 - Nisides Mykonou (Rineia, Chtapodia, Tragonisi) (Area:18,508.59ha) 	
Fauna	
Are there protected species of fauna/birds in the broader airport area?	YES
<p>(if YES) Short description:</p> <p>Mikonos Airport is near to the Important Bird Area GR197: Rineia, Chtapodia and Tragonisi islets, Mykonos (Area: 18,564.25ha).</p> <p>The protected bird species that have been observed at Mikonos airport since April 2017 are presented below:</p> <p>Collared pratincole (<i>Glareola pratincola</i>), Long-legged buzzard (<i>Buteo rufinus</i>), Squacco heron (<i>Ardeola ralloides</i>), White stork (<i>Ciconia ciconia</i>)</p>	

7. WILDLIFE HAZARD MANAGEMENT

Wildlife strikes and wildlife hazard management measures	
Wildlife species that suffered a strike	Strikes (%)
Gulls	60%
Pigeons	20%
Small passerines	20%
Wildlife strike risk mitigation measures:	
<p>The presence and behavior of wildlife species at Mikonos airport is monitored in regular intervals, daily, from dawn to dusk. Some of the wildlife control methods applied at Mikonos airport are: distress calls (bioacoustics), digital sounds, anti-bird laser, etc. Preventive long-term actions that are mainly related to habitat management measures (e.g. grass cutting, water body management) are also taken to further reduce the presence of species constituting a risk to flight safety. In addition, a NOTAM is published and regularly updated.</p>	

8. CULTURAL HERITAGE

Have new cultural heritage properties been discovered during the reporting period?	NO
<i>(if YES)</i> Details provided in the table below:	

Location	Date of discovery	Type of discovery	Additional protection measures taken

9. RESOURCES CONSUMPTION

9.1. Energy consumption

Energy consumption (monthly electric energy consumption, in Kwh)	
Total annual electric energy consumption (in Kwh)	2.880.928,54

9.2. Fuel consumption

Fuel consumption		
Number of FG vehicles at the airport	3	
Total annual fuel consumption	Diesel (lt)	15.065,53
	Unleaded gasoline (lt)	13.853,11

9.3. Heating oil or natural gas consumption

Heating oil or natural gas consumption	
Total annual heating oil consumption (lt)	-*
Total annual heating natural gas consumption (m ³)	N/A

*Heating and air conditioning is performed via heat pumps

9.4. Fuel consumption for generator

Fuel consumption	
Total annual consumption (lt)	1.847,77

9.5. Water consumption

Water consumption	
Total annual consumption (m ³)	11.035,00

10. GREENHOUSE GAS EMISSIONS & CARBON FOOTPRINT

Greenhouse gas emissions that were included in the carbon footprint calculation are the CO₂ emissions included in scope 1 & 2 of the GHG protocol:

- Scope 1: Direct GHG emissions that occur from sources that are owned and/or controlled by the airport,
- Scope 2: Indirect GHG emissions from the generation of purchased electricity, steam, heat or cooling consumed by the airport.

Source Flows	Total CO ₂ Emissions (t)
	2022
Direct emissions form heating fuel (scope 1)	0,0
Direct emissions from fuel used for fleet vehicles (scope 1)	75,4
Direct emissions from fuel used for generators (scope 1)	4,9
Indirect emissions from refrigerants (scope 1)	9,4
Indirect emissions from electricity consumption (scope 2)	1.210,0
Total (t)	1.290,3
Kg CO₂ /passenger	0,76

Notes:

Fraport Greece B is committed to the monitoring, management and reduction of its airports carbon footprint. In order for this target to be achieved:

- Direct and indirect carbon emissions from all the emission sources in the airports' boundaries are calculated and reported, based on the GHG Protocol (scope 1 & 2)
- The airport is certified according to ACA (Airport Carbon Accreditation), Level-1

11. HUMAN COMSUMPTION WATER MONITORING PROGRAM

Human consumption water quality	
Water supply (public water network or airport's boreholes)	Private borehole*
Is sampling of the airport's water network performed?	YES
(if YES) Sampling frequency:	Quarterly
<p>Summary of results: The results of the chemical analyses show that the water supplied from the private drilling is not potable due to the existence of high concentrations of Sodium and Chlorine (brackish water). The results of the microbiological and chemical analyses show that the rest of parameters analyzed as regards the airport's water network are within the legislative limits defined by the Ministerial Decision Γ1 (δ)/ΓΠ οικ. 67322/ GG 3282 Β/19-9-2017 regarding the quality of human consumption water.</p>	

**During summer, there is also a supply from a private tank.*

12. RAINWATER

RAINWATER (collection, treatment disposal and recipient)		
Area	Collection/treatment/disposal	[YES/NO]
Apron and manoeuvring area	Collected in drainage ditches leading to the sea	YES
Other runoffs (runway etc.)	Collected in drainage ditches leading to the sea	YES
Treatment of rainwater by oil-separator		YES

Rainwater quality	
Is sampling of the airport's rainwater performed?	YES
(if YES) Sampling frequency:	Yearly
Parameters analyzed: pH, conductivity, TSS, DO, NO ₃ , NO ₂ , Oil & grease, BOD, COD, Total Petroleum Hydrocarbons (TPH), PAHs, BTEX, Heavy metals, PCBs, Detergents	
Summary of results:	
Surface rainwater quality is monitored according to the airport's monitoring program. Due to the absence of designated recipients and relevant national quality limits for surface rainwater, the Environmental Health & Safety Guidelines of the International Finance Corporation (IFC) are adopted. Surface rainwater monitoring for 2022, was not performed.	

13. GROUNDWATER AND/OR SOIL AND/OR SOIL GAS MONITORING

Groundwater and/or soil and/or soil gas quality	
Is sampling of the airport's groundwater and/or soil and/or soil gas performed?	YES
(if YES) Sampling frequency:	Yearly
Parameters analyzed: Volatile hydrocarbons, aliphatic, aromatic and chlorinated (soil gas)	
Summary of results:	
Groundwater quality is monitored according to the airport's monitoring program from boreholes managed by Fraport Greece. Groundwater monitoring for 2022 was not performed. According to the approved environmental terms, monitoring of groundwater and air from the Fuel Handlers is not foreseen for the year 2022.	

14. SEWAGE TREATMENT AND DISPOSAL

Sewage	
Sewage network to the municipal waste water treatment plant (WWTP)	YES
Autonomous airport's waste water treatment plant (WWTP)	NO

Blue water
Collection and disposal: Collection in watertight tank and disposal to the municipal sewage network.

Waste water treatment plant description (where applicable) <i>Description of characteristics and condition of the airport's WWTP including possible problems. Type and frequency of the effluent quality measurements.</i>	
Degree of treatment of airport's WWTP	N/A
Treatment method	N/A
Disposal of treated wastewater	N/A
Sludge disposal	N/A
Sampling frequency of WWTP effluent	N/A
Parameters analyzed	N/A
Summary of quality of WWTP effluent	N/A