Environmental Bulletin of Mikonos Airport (JMK)

Reference year 2023

Issue Year: 2024

Fraport Regional Airports of Greece B S.A.

Mykonos Airport

Contents

1. INTRODUCTION 3
- 1.1 Location 3
- 1.2 Administration 3
- 1.3 Environmental licensing 3
- 1.4 Airport Basic Data 3
- 1.5 Airport facilities 3
  - 1.5.1 Fuel Handlers 3
  - 1.5.2 Ground Handlers 3

2. TRAFFIC DATA STATISTICS 4
- 2.1 Annual Traffic Data 4
- 2.2 High season traffic data 4
- 2.3 Low season traffic data 4

3. AIRCRAFT NOISE 5
- 3.1 Noise measurements during the reference year 5
- 3.2 Noise levels calculation based on noise simulation software 6

4. AIR QUALITY 7
- 4.1 Air quality measurements during the reference year 7
- 4.2 Air pollutants emission and dispersion modelling 8

5. WASTE MANAGEMENT 10

6. ECOSYSTEM AROUND THE AIRORT 11
- 6.1 Flora - Fauna 11

7. WILDLIFE HAZARD MANAGEMENT 12

8. CULTURAL HERITAGE 13

9. RESOURCES CONSUMPTION 14
- 9.1 Energy consumption 14
- 9.2 Fuel consumption 14
- 9.3 Heating oil or natural gas consumption 14
- 9.4 Fuel consumption for generator 14
- 9.5 Water consumption 14

10. GREENHOUSE GAS EMISSIONS & CARBON FOOTPRINT 15

11. HUMAN COMSUMPTION WATER MONITORING PROGRAM 16

12. RAINWATER 17

13. GROUNDWATER AND/OR SOIL AND/OR SOIL GAS MONITORING 18

14. SEWAGE TREATMENT AND DISPOSAL 19

1. Introduction

1.1 Location

The airport of Mykonos, with an IATA code JMK, has been operating since 1971 and is located at 1.2km 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
	24442/1574/14.03.2022
	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)	9:00 – 20:00

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	-	-

Terminal	
Total area (m^2)	14.304

Other buildings and service/storage areas	
RFF Station (m^2)	1.144

Employees	***High season (31.08.2023)***	***Low season (30.11.2023)***
Fraport Greece (FG) employees	43	26
Employees of other companies	565	391

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

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

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 2023

Overall Annual Air Traffic Movements[1]
18.232 **-6,1%**

Annual passenger traffic
1.659.187 **-1,7%**

Annual cargo transferred (tn)
59 **98%**

Percent of increase or decrease in relation to the previous year

[1] Military and training flights not included.

Aircraft types

Prevailing aircraft types for domestic flights	
Aircraft type	No. of flights
AT76	2.182
A320	1.816
A319	995
AT72	322
AT46	124
AT75	122
A20N	110
EC35	92
C56X	69
EC20	66
Other	1.277
Prevailing aircraft types for international flights	
Aircraft type	No. of flights
A320	3.459
B738	1.999
A20N	905
A319	587
C56X	401
A21N	348
E190	252
CL35	218
CL60	218
H25B	204
Other	2.466

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	4.616
Air traffic movements daily average number during the month with highest traffic	149

2.3 Low season traffic data

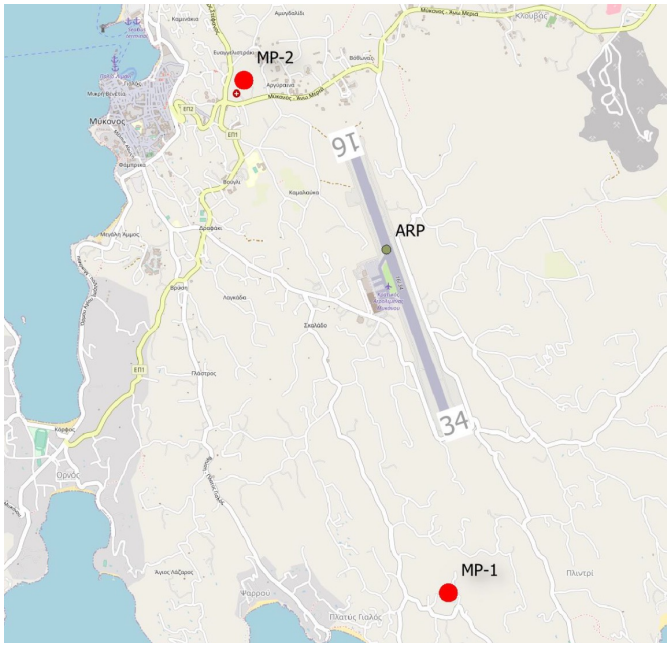
Low season traffic data (October-May)

Lowest traffic month	February
Air traffic movements during the month with lowest traffic	175
Air traffic movements daily average number during the month with lowest traffic	6

3. Aircraft noise

3.1 Noise measurements during the reference year

Measurement points



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.

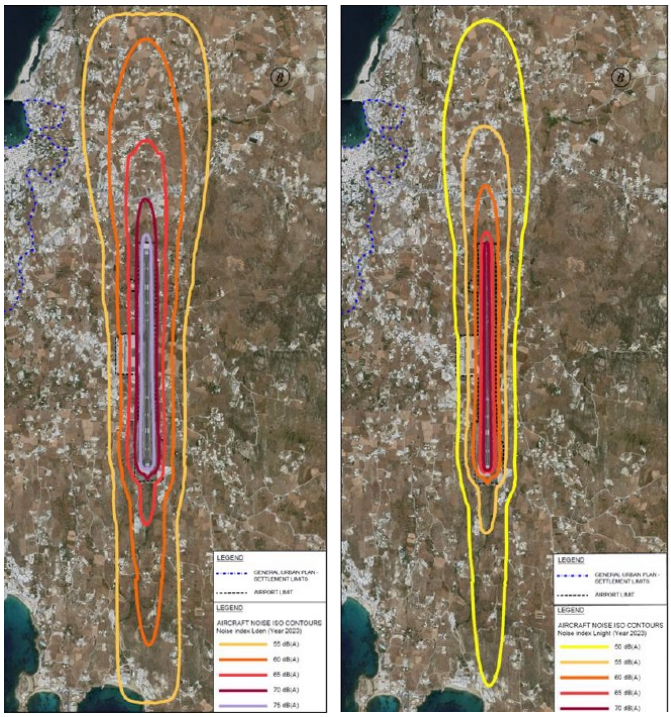
Have noise measurements at the airport's surrounding area been performed during the reference year?	*YES*

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	12.06.2023 - 20.06.2023 25.07.2023 - 01.08.2023 01.08.2023 - 08.08.2023
Noise indicators	L_{den}, L_{night}

Noise complaints: 0

3.2 Noise levels calculation based on noise simulation software

Noise contours



Aircraft noise levels calculation based on noise simulation software	***YES***
Software used:	IMMI Premium 2021
Noise indicators and respective contours calculation	L_{den} & L_{night}

Summary of results

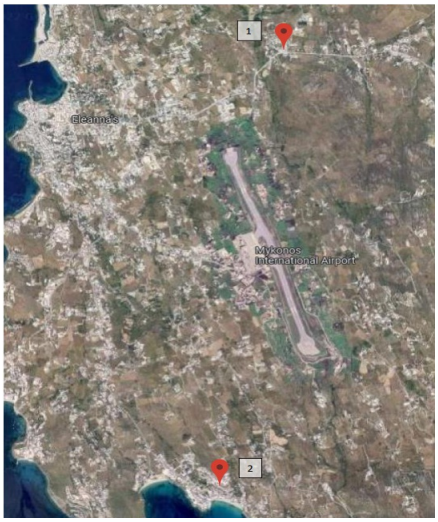
For the year 2023 no buildings inside official settlement boundaries were found to be exposed to noise levels higher than the limits L_{den}=70 dB(A) and L_{night}=60 dB(A).

4. Air quality

4.1 Air quality measurements during the reference year

Measurement points

Measurement points March



Measurement points June & July

Measurement points August

Have air quality measurements at the airport's surrounding area been performed during the reference year?	***YES***

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	06.03.2023 – 22.03.2023 13.06.2023 – 28.06.2023 29.06.2023 – 13.07.2023 21.08.2023 – 05.09.2023
Pollutants measured: CO, C_6H_6, NO, NO_2, O_3, PM_{10}, $PM_{2.5}$ and SO_2	

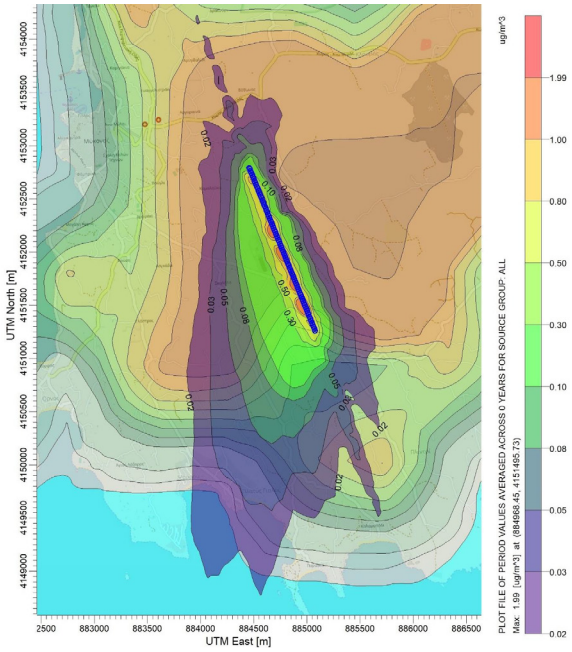
Summary of measurement results

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.

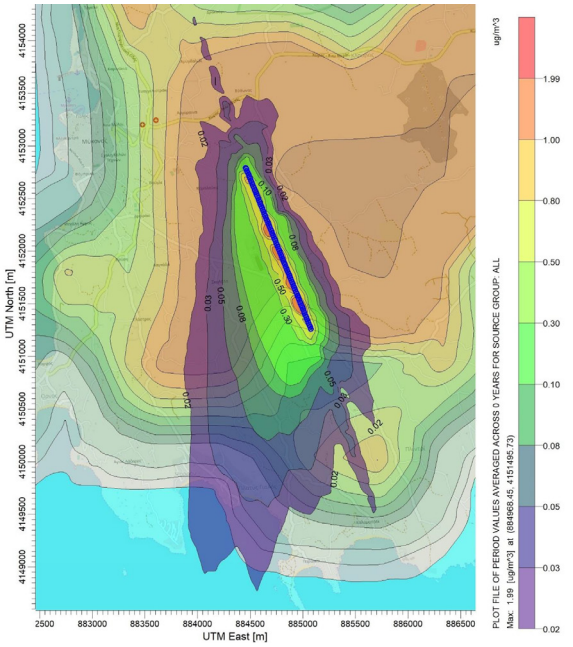
4.2 Air pollutants emission and dispersion modelling

Calculation of air pollutants concentrations based on an emission and dispersion modelling software	***YES***
Software used	Aviation Environmental Design Tool (AEDT) - US Federal Aviation Administration & US Environmental Protection Agency AERMOD
Pollutants concentrations and respective contours calculation:	PM_{10}, $PM_{2.5}$, NO_x, SO_x, C_6H_6, CO, CO_2

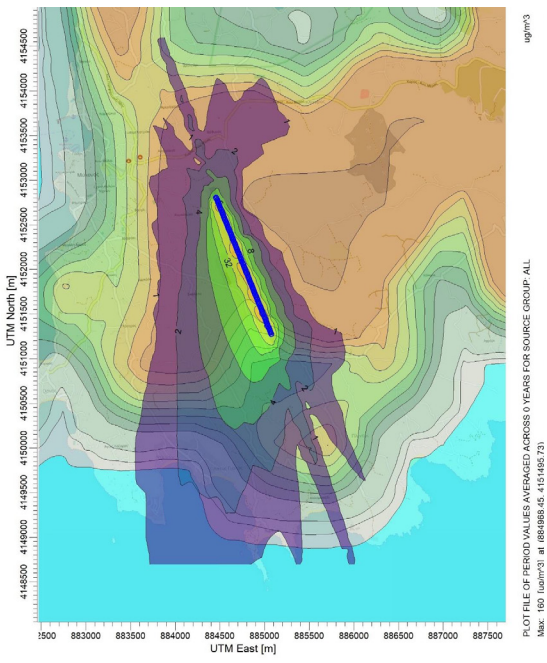
PM_{10}



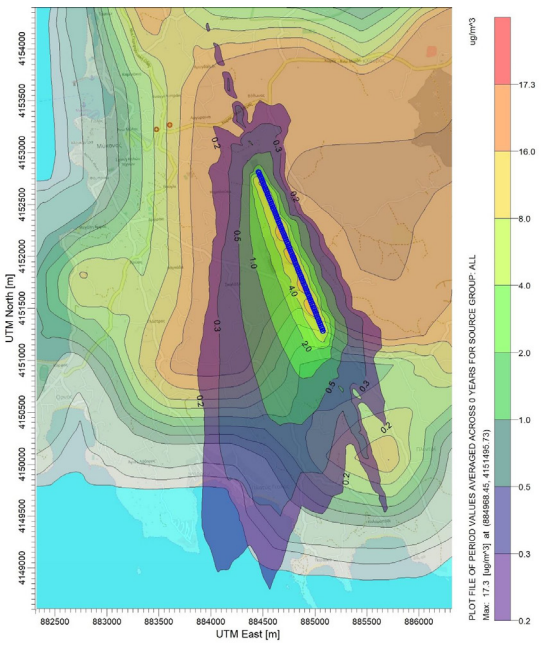
$PM_{2.5}$



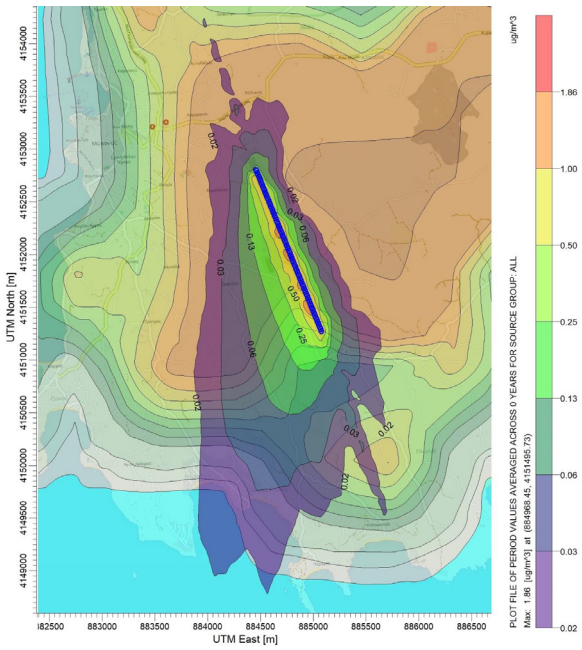
NO_x



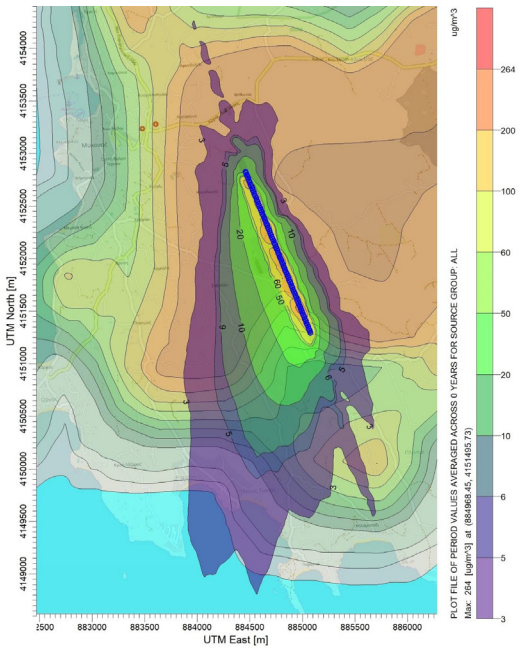
SO_x



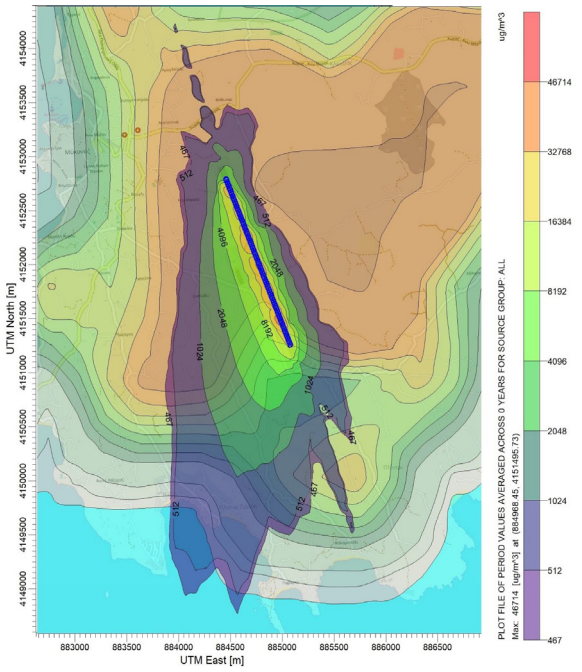
Benzene (C_6H_6)



CO



CO_2



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 (January-May) and from a licensed private company (June-December New contract)	Disposal at material recovery facility for recycling
Residues (Mixed Waste) and Bulky Waste	Collection by the Municipality of Mikonos(January-May) and from a licensed private company (June-December New contract)	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, after a tender process according to the provisions of the legislation in force.
4. In the year 2023, Fraport Greece B managed a total of 4.29 tons of Hazardous waste (FG A 2.05 tn, third parties 2.23 tn).
5. 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
(if YES) Short description: Mikonos Airport is near to the Natura 2000 site: • GR4220027 - Nisides Mykonou (Rineia, Chtapodia, Tragonisi) (Area:18,508.59ha)	

Fauna

Are there protected species of fauna/birds in the broader airport area?	YES
(if YES) Short description: Mikonos Airport is near to the • Important Bird Area GR197: Rineia, Chtapodia and Tragonisi islets, Mykonos (Area: 18,564.25ha) • Important Marine Mammal Area Central Aegean (Area: 5826,500ha) where the species Monachus monachus is recorded The protected bird species that have been observed at Mikonos airport since April 2017 are presented below: Collared pratincole (Glareola pratincola), Long-legged buzzard (Buteo rufinus), Squacco heron (Ardeola ralloides), White stork (Ciconia ciconia)	

7. Wildlife hazard management

Wildlife strikes and wildlife hazard management measures

Wildlife species that suffered a strike	Strikes (%)
Gulls	72%
Small passerines	28%

Wildlife strike prevention measures

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.

8. Cultural heritage

Have new cultural heritage properties been discovered during the reporting period?	***NO***

9. Resources consumption

9.1 Energy consumption

Energy consumption (monthly electric energy consumption, in Kwh)	
Total annual electric energy consumption (in Kwh)	3.038.813,42*

*Third parties' consumption is excluded

9.2 Fuel consumption

Fuel consumption		
Number of FG vehicles at the airport	9	
Total annual fuel consumption	Diesel (lt)	5.736,33
	Unleaded gasoline (lt)	3.537,52

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

9.4 Fuel consumption for generator

Fuel consumption	
Total annual consumption (lt)	530,51

9.5 Water consumption

Water consumption	
Total annual consumption (m^3)	10.538,00

10. Greenhouse gas emissions & carbon footprint

Greenhouse gas emissions that were included in the carbon footprint calculation are the CO_2, CH_4 & N_2O 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_2e (t) Emissions (t)*
	2023
Direct emissions form heating fuel (scope 1)	0,0
Direct emissions from fuel used for fleet vehicles (scope 1)	23,7
Direct emissions from fuel used for generators (scope 1)	1,4
Indirect emissions from refrigerants (scope 1)	0,0
Indirect emissions from electricity consumption (scope 2)	1.623,0
Total (t)	1.648,1
Kg CO_2e /passenger	0,99

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

*During summer, there is also a supply from a private tank.
The borehole was inoperative from the months June-December 2023.

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 Δ1(δ)/ΓΠ οικ. 27829/2023 (GG 3525/B` 25.5.2023) regarding the quality of human consumption water.

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[1]		YES

[1] In the reference year the o/w separator was not operational due to a defect. Repair works are ongoing.

Rainwater quality

Is sampling of the airport's rainwater performed?	YES
(if YES) Sampling frequency	Annual
Parameters analyzed: pH, conductivity, TSS, DO, NO_3, NO_2, Oil & grease, BOD, COD, Total Petroleum Hydrocarbons (TPH), PAHs, BTEX, Heavy metals, 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 2023, was performed and the quality of the water is in accordance with the IFC guidelines. However, presence of hydrocarbons (C_{10}-C_{40}) (μg/lt) and pathogens is recorded, which will be further investigated.

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	Annual
Parameters analyzed: Volatile hydrocarbons, aliphatic, aromatic and chlorinated (soil gas)	

Summary of results

Groundwater monitoring within airport boundary - Fraport Greece
Groundwater quality is monitored according to the airport's monitoring program from the airport's water borehole managed by Fraport Greece.

Groundwater and/or soil and/or soil gas monitoring at fuel farms– Fuel Handlers
According to the approved environmental terms, monitoring of underground air and soil from EKO and GISSCO for the reference year 2023, were performed. The results show no exceedances.

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)
Description of characteristics and condition of the airport's WWTP including possible problems. Type and frequency of the effluent quality measurements.

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

Contact

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