

Environmental Bulletin of Kavala Airport “Megas Alexandros” (KVA)

Reference year 2023



Issue Year: 2024

Fraport Regional Airports of Greece A.S.A.



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1. Introduction

1.1 Location

Kavala “Megas Alexandros” airport is located at the east part of the Regional Unit of Kavala, at a distance of approximately 31Km to the south-east of the city of Kavala and of approximately 7.5Km to the south-west of Chrysoupoli settlement. The airport occupies an area of approximately 988 acres.

1.2 Administration

The Airport administratively belongs to the Municipality of Nestos and more specifically to the Municipal Unit of Keramoti and the Municipal Unit of Chrysoupoli in the area Agiasma Kavalas.

1.3 Environmental licensing

Approved Environmental Terms

E.T. Decision Reference number	84821/95/08.07.1996
	105624/14.11.2006
	200818/23.07.2012
	172044/09.04.2014
E.T. Amendment Decision Reference Number	24353/19.05.2017
	37774/20.12.2017
	55723/3711/19.05.2023

1.4 Airport Basic Data

Airport name IATA / ICAO	KVA / LGKV
Airport location – Airport Reference Point (ARP)	Latitude: 40° 54' 48" N Longitude: 24° 37' 09" E
Altitude	5m
Number of runways	1
Operation hours (summer)	Monday/Wednesday/Thursday/Friday 07:30 – 22:30 Tuesday/Saturday 08:30 – 23:30 Sunday 07:00 – 22:00
Operation hours (winter)	Monday/Friday 06:30 – 20:30 Tuesday/Thursday/Sunday 13:30 – 20:30 Wednesday/Saturday 06:30 – 14:30



Runways	Length/Width	Code
Runway	3,000m x 45m	05R/23L
Full length of parallel taxiway	3,000m	
Number of taxiways	5	
Apron capacity	A B C D E	1 (MARS)
	- - 5 -	



Terminal	
Total area (m ²)	8.569



Other buildings and service/storage areas	
RFF Station (m ²)	1.288



Employees	High season (31.08.2023)	Low season (30.11.2023)
Fraport Greece (FG) employees	26	21
Employees of other companies	452	340



Parking Areas	
Car parking spaces	245
Bus parking spaces	15
Taxi parking spaces	24

1.5 Airport facilities

1.5.1 Fuel Handlers

Number of fuel handler companies

Number of fuel handler companies operating at the Airport	3
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Installations inside the airport

	EKO	GISSCO	HAFCO
Environmental Management System (EMS)	YES	YES	YES*

1.5.2 Ground Handlers

Number of ground handler companies

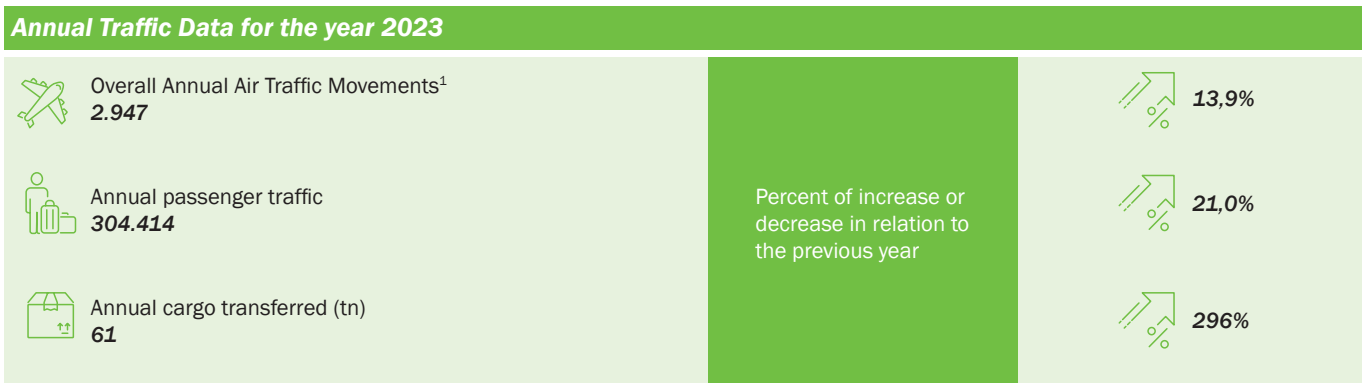
Number of ground handler companies operating at the Airport	3
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Installations inside the airport	SKYSERV	SWISSPORT	GOLDAIR
Environmental Management System (EMS)	YES	YES	YES

*HAFCO facility was not operating during the reference year.

2. Traffic data statistics

2.1 Annual Traffic Data



¹ Military and training flights not included.

Aircraft types

Prevailing aircraft types for domestic flights	
Aircraft type	No. of flights
AT76	656
AT72	160
A320	63
C172	16
A321	13
A319	12
C525	11
GLF5	10
GLEX	8
A109	8
Other	179
Prevailing aircraft types for international flights	
Aircraft type	No. of flights
A320	587
B738	555
A319	281
A321	154
A20N	52
E75S	40
B737	38
C172	23
P180	7
B739	6
Other	182

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	533
Air traffic movements daily average number during the month with highest traffic	17

2.3 Low season traffic data

Low season traffic data (October-May)

Lowest traffic month	January
Air traffic movements during the month with lowest traffic	73
Air traffic movements daily average number during the month with lowest traffic	2

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? **NO**

Noise complaints: 0

Summary of measurement results

Noise levels are monitored according to the airport's monitoring program and new approved environmental terms.

No noise measurements were foreseen for 2023.

3.2 Noise levels calculation based on noise simulation software

Aircraft noise levels calculation based on noise simulation software **NO**

Summary of results

Noise levels are monitored according to the airport's monitoring program and new approved environmental terms.
No noise modeling was foreseen for 2023.

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? **NO**

Summary of measurement results

Air quality is monitored according to the airport's monitoring program, and the new approved environmental terms.
No air quality measurements were foreseen in 2023.

4.2 Air pollutants emission and dispersion modelling

Calculation of air pollutants concentrations based on an emission and dispersion modelling software **NO**

Summary of results

Air quality is monitored according to the airport's monitoring program.
No air quality modeling was foreseen in 2023.

5. Waste management

Waste	Collection	Management/Disposal
Recyclables (paper, plastic, metals, glass)	Separate collection by the Municipality of Nestos	Disposal at material recovery facility or transshipment for recycling
Residues (Mixed Waste) and Bulky Waste	Collection by the Municipality of Nestos	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 A (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 A, after a Tender process according to the provisions of the legislation in force.

4. In the year 2023 Fraport Greece A managed a total of 11.77 tons of Hazardous waste (FG A 7.05 tn, third parties 4.72 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 A 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: Kavala Airport "Megas Alexandros" is near to the Natura 2000 sites:

- GR1150010 Delta Nestou and Limnothalasses Keramotis-Evryteri Periochi and Paraktia Zoni (Area: 23,028.11 ha)
- GR1150001 Delta Nestou and Limnothalasses Keramotis and Nisos Thasopoula (Area: 14,773.69 ha)
- GR1150014 Thalassia Periochi Kavalas-Thasou (Area: 75,686.03 ha)



Fauna

Are there protected species of fauna/birds in the broader airport area?

YES

(if YES) Short description: Kavala Airport "Megas Alexandros" is near to the:

- Important Bird Area GR012: Nestos Delta and Coastal Lagoons (Area: 22,311.70ha)
- Important Bird Area GR250: Gulf of Kavala and marine area of Thasos island (Area: 83,801.97ha)
- Important Marine Mammal Area Northern Coast and Islands of the Thracian Sea (Area: 544,100ha)

The protected bird species that have been observed at Kavala airport since April 2017 are presented below:

Black kite (*Milvus migrans*), Black tern (*Chlidonias niger*), Collared pratincole (*Glareola pratincola*), Dalmatian pelican (*Pelecanus crispus*), Eurasian skylark (*Alauda arvensis*), Eurasian spoonbill (*Platalea leucorodia*), Eurasian stone-curlew (*Burhinus oedicnemus*), European roller (*Coracias garrulus*), Glossy ibis (*Plegadis falcinellus*), Great egret (*Casmerodius albus*), Great white pelican (*Pelecanus onocrotalus*), Lapwing (*Vanellus vanellus*), Lesser grey shrike (*Lanius minor*), Lesser kestrel (*Falco naumanni*), Long-legged buzzard (*Buteo rufinus*), Marsh harrier (*Circus aeruginosus*), Mediterranean gull (*Larus melanocephalus*), Montagu's harrier (*Circus pygargus*), Pallid harrier (*Circus macrourus*), Pied avocet (*Recurvirostra avosetta*), Pheasant (*Phasianus colchicus*), Red-footed falcon (*Falco vespertinus*), Slender billed gull (*Larus genei*), Shelduck (*Tadorna tadorna*), Spur-winged lapwing (*Vanellus spinosus*), Stock dove (*Columba oenas*), White stork (*Ciconia Ciconia*)

7. Wildlife hazard management

Wildlife strikes and wildlife hazard management measures

Wildlife species that suffered a strike	Strikes (%)
Small passerines	50%
Birds of prey	23%
Waders	15%
Gulls	8%
Corvids	4%

Wildlife strike prevention measures

The presence and behavior of wildlife species at Kavala airport is monitored in regular intervals, daily, from dawn to dusk. Some of the wildlife control methods applied at Kavala airport are: distress calls (bioacoustics), digital sounds, anti-bird laser, pyrotechnics, etc. Preventive long-term actions that are mainly related to habitat management measures (e.g. grass cutting, fence maintenance, water body management) are also taken to further reduce the presence of hazardous wildlife species constituting a risk to flight safety. In addition, a Notice to Airmen (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)	1.406.321,62*
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*Third parties' consumption is excluded

9.2 Fuel consumption

Fuel consumption

Number of FG vehicles at the airport	16
	Diesel (lt) 22.534,91
Total annual fuel consumption	Unleaded gasoline (lt) 1.780,61

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)	3.954
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9.5 Water consumption

Water consumption

Total annual consumption (m ³)	7.669,74
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10. Greenhouse gas emissions & carbon footprint



Greenhouse gas emissions that were included in the carbon footprint calculation are the CO₂, CH₄ & N₂O 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 e (t) Emissions (t)
	2023
Direct emissions form heating fuel (scope 1)	0,0
Direct emissions from fuel used for fleet vehicles (scope 1)	64,2
Direct emissions from fuel used for generators (scope 1)	10,2
Indirect emissions from electricity consumption (scope 2)	751,1
Total (t)	825,5
Kg CO₂e /passenger	2,71

Notes

Fraport Greece A 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 consumption water monitoring program



Human consumption water quality

Water supply (public water network or airport's boreholes)	Municipal Water & Sewage Company (DEYA) of Nestos
Is sampling of the airport's water network performed?	YES
(if YES) Sampling frequency:	Quarterly

Summary of results

The results of the microbiological and chemical analyses show that the 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		NO

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 (C₁₀-C₄₀) (µg/l) and detergents 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: TPH, BTEX, MTBE

Summary of results

Groundwater monitoring within airport boundary - Fraport Greece

Groundwater quality is monitored according to the airport's monitoring program from boreholes managed by Fraport Greece. Groundwater monitoring for 2023 was performed. The results show no exceedances.

Groundwater and/or soil and/or soil gas monitoring at fuel farms- Fuel Handlers

According to the approved environmental terms, monitoring of groundwater from the Fuel Handlers was performed by EKO (2022), GISSCO (2023) and HAFCO (2023). Results are satisfactory with 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

