Environmental Bulletin of Kerkira “Ioannis Kapodistrias” Airport (CFU)

Reference year 2023

Issue Year: 2024

Fraport Regional Airports of Greece A S.A.

Corfu Airport

Contents

1. Introduction

1.1 Location

Kerkira Airport “Ioannis Kapodistrias” is located S-SW of the city of Kerkira and east of Chalikiopoulos lagoon in an area of approximately 760 acres.

1.2 Administration

The Airport administratively belongs to the Regional Unit of Kerkira of the Region of the Ionian Islands in the Municipal Unit of Kerkira of the Municipality of Kerkira.

1.3 Environmental licensing

Approved Environmental Terms	
E.T. Decision Reference number	11945/08.03.2017
E.T. Amendment Decision Reference Number	7208/30.03.2018
	123235/8107/23.11.2022
	56546/3776/02.04.2024

1.4 Airport Basic Data

Airport name IATA / ICAO	CFU / LGKR
Airport location – Airport Reference Point (ARP)	Latitude : 39° 36’ 07” N Longitude : 19° 54’ 42” E
Altitude	2m
Number of runways	1
Operation hours (summer)	0:00 – 23:59
Operation hours (winter)	07:30 – 22:30

Runways	***Length/Width***	***Code***
Runway	2.373 m x 45 m	16/34
Full length of parallel taxiway	N/A	
Number of taxiways	3	

Apron capacity	A	B	C	D	E
	-	-	8	2	-

Terminal	
Total area (m^2)	31.696

Other buildings and service/storage areas	
RFF Station (m^2)	1.606
Guard House (m^2)	77

Employees	***High season (31.08.2023)***	***Low season (30.11.2023)***
Fraport Greece (FG) employees	52	47
Employees of other companies	1068	484

Parking Areas	
Car parking spaces	350
Bus parking spaces	28
Taxi parking spaces	55

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] ***29.425***	Percent of increase or decrease in relation to the previous year	***-0,2%***
Annual passenger traffic ***4.068.053***		***8,5%***
Annual cargo transferred (tn) ***57***		***46%***

[1] Military and training flights not included.

Aircraft types	
Prevailing aircraft types for domestic flights	
Aircraft type	No. of flights
AT76	1.450
A320	1.057
B738	274
AT45	234
A20N	228
AT75	168
A321	132
AT72	126
A21N	76
C56X	38
Other	568
Prevailing aircraft types for international flights	
Aircraft type	No. of flights
B738	11.962
A320	6.749
A20N	1.136
A21N	874
A319	757
A321	734
B737	216
C56X	216
B753	190
ESSP	116
Other	2.124

2.2 High season traffic data

High season traffic data (June-September)	
Highest traffic month	August
Air traffic movements during the month with highest traffic	6.062
Air traffic movements daily average number during the month with highest traffic	195

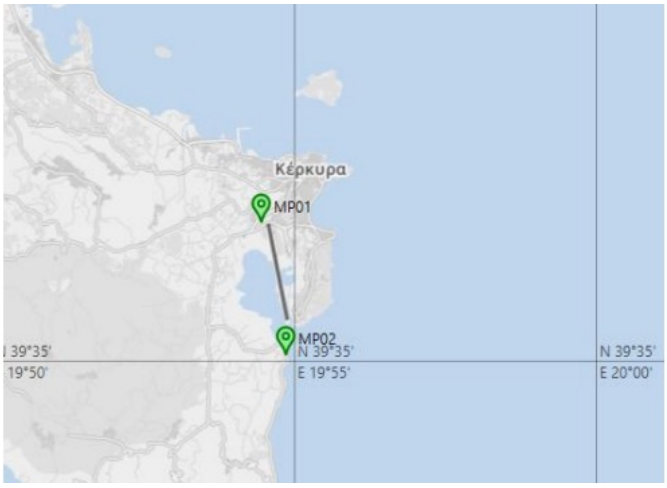
2.3 Low season traffic data

Low season traffic data (October-May)	
Lowest traffic month	February
Air traffic movements during the month with lowest traffic	172
Air traffic movements daily average number during the month with lowest traffic	6

3. Aircraft noise

3.1 Noise measurements during the reference year

Noise Monitoring Stations



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

Measurement points coordinates	*Measurement points description*
MP01: 39° 36' 45.43'' N 19° 54' 26.84'' E	East of the airport, in KTEO parking lot, in 500 meters distance.
MP02: 39° 35' 04.03" N 19° 54' 51.22" E	Located in Perama, south of the runway in the garden of a hotel. Affected by departures from runway 17 and arrivals on runway 35.
Measurement period	24.01.2023 – 31.12.2023
Noise indicators	L_{den}, L_{night}

Noise complaints: 1

One complaint was received regarding aircraft noise from a hotel unit owner, which was promptly responded to. The hotel unit is located far away from the airport boundaries, with low levels of aircraft noise.

Summary of measurement results

Noise levels are monitored according to the airport's monitoring program.

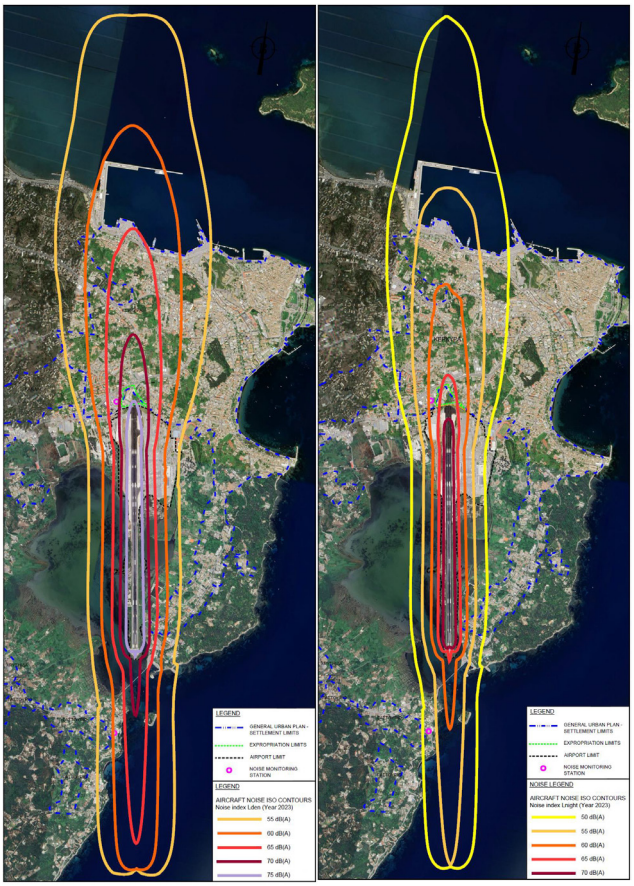
MP01: L_{den}=71,1 dB(A) & L_{night}=63,3 dB(A)
MP02: L_{den}=61,4 dB(A) & L_{night}=53,2 dB(A)

Exceedance of the noise indicators levels L_{den} > 70 dB(A) and L_{night} > 60 dB(A) in MP01 was observed.

Aircraft noise exceedances are due to Airport operations, however noise abatement measures and procedures are being considered. In addition, according to E.T 5.5.1.6, YPEN/DIPA/56546/3776/02.04.2024 "a special noise study will be prepared through technical cooperation between the airport operator, the Hellenic Aviation Service Provider (HASP) and the Hellenic Civil Aviation Authority (HCAA) for the examination of measures and to mitigate the aircraft noise, as provided for in European Regulation EC 598/2014 for the imposition of operating restrictions due to noise at the airports of Union within a balanced approach. The study will be submitted for approval to the competent authorities."

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 year 2023, exceedance for L_{den} & L_{night} are observed. More specific, 94 residential buildings (1%) are in 70-75 dB(A) zone for L_{den} & 86 residential buildings (1,1%) are in 60-65 dB(A) zone for L_{night}.

4. Air quality

4.1 Air quality measurements during the reference year

Air Quality Monitoring Network

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

Measurement points	*Measurement points description*
Position: 39° 36' 44.9'' N 19° 54' 28.4'' E	East of the airport, in KTEO parking lot, in 500 meters distance.
Measurement period	01.01.2023 – 31.12.2023
Pollutants measured	PM_{10}, $PM_{2,5}$, NO_2, SO_2, C_6H_6, O_3

Summary of measurement results

Air quality is monitored according to the airport's monitoring program. Exceedances in PM10 were observed, probably from the operation of two asphalt plants (one for EASA works and one outside airport's boundaries).

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

According to approved E.Ts, air quality modeling is not foreseen in 2023.

5. Waste management

Waste stream	*Collection*	*Management/Disposal*
Recyclables (paper, plastic, metals, glass)	Separate collection by appropriately licensed private company	Disposal at Kerkira material recovery facility for recycling
Residues (Mixed Waste) and Bulky Waste	Separate collection by appropriately licensed private company	Disposal at Kerkira's XYTA (TEMPLONI) for materials recovery and disposal to landfill afterwards

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 Tender process according to the provisions of the legislation in force.
4. In the year 2023 Fraport Greece A managed a total of 68,22 tons of Hazardous waste (FG A 1,52 tn, third parties 66,7 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: Kerkira Airport "Ioannis Kapodistrias" is near to the Natura 2000 site: GR2230005 Paraktia Thalassia Zoni Apo Kanoni Eos Mesongi (Area: 867.29 ha)	

Fauna

Are there protected species of fauna/birds in the broader airport area?	YES
(if YES) Short description: Kerkira Airport "Ioannis Kapodistrias" is near to the • Important Bird Area GR083 Lagoons of Kerkyra island (Area: 1,993.74 ha) • Important Marine Mammal Area Ionian Archipelago (Area: 960,600ha) where the species Delphinus delphis and Monachus monachus are recorded • Important Marine Mammal Area Hellenic Trench (Aea: 5660000ha) where the species Physeter microcephalus and Ziphius cavirostris are recorded The protected bird species that have been observed at Kefallinia airport since April 2017 are presented below: Eurasian curlew (Numenius arquata), Eurasian spoonbill (Platalea leucorodia),Eurasian stone-curlew (Burhinus oedicnemus), Garganey (Anas querquedula), Glossy ibis (Plegadis falcinellus), Great egret (Casmerodius albus), Lapwing (Vanellus vanellus), Lesser kestrel (Falco naumanni), Marsh harrier (Circus aeruginosus), Mediterranean gull (Larus melanocephalus), Pallid harrier (Circus macrourus), Red-footed falcon (Falco vespertinus), Sandwich tern (Sterna sandvicensis), Shelduck (Tadorna tadorna), Purple heron (Ardea purpurea), Squacco heron (Ardeola ralloides)	

7. Wildlife hazard management

Wildlife strikes and wildlife hazard management measures

Wildlife species that suffered a strike	Strikes (%)
Small passerines	48%
Birds of prey	18%
Corvids	13%
Ducks, Herons, Waders	12%
Pheasants	9%

Wildlife strike risk mitigation measures

The presence and behavior of wildlife species at Kerkira airport is monitored in regular intervals, daily, from dawn to dusk. Some of the wildlife control methods applied at Kerkira airport are: distress calls (bioacoustics), digital sounds, anti-bird laser, pyrotechnics, selective culling using firearms (only after the application of the previous measures) etc. Preventive long-term actions that are mainly related to habitat management measures (e.g. grass cutting, water body management, ground levelling) are also taken to further reduce the presence of hazardous wildlife 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)	4.801.553*

*Third parties' consumption is excluded

9.2 Fuel consumption

Fuel consumption		
Number of FG vehicles at the airport	17	
Total annual fuel consumption	Diesel (lt)	27.600,56
	Unleaded gasoline (lt)	1.055,99

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)	5.500,97

9.5 Water consumption

Water consumption	
Total annual consumption (m^3)	9.082,31

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)	75,9
Direct emissions from fuel used for generators (scope 1)	14,5
Direct emissions from refrigerants scope 1)	-
Indirect emissions from electricity consumption (scope 2)	2.564,5
Total (t)	2.654,9
Kg CO_2e /passenger	0,65

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)
- 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)	Municipal Water & Sewage Company of Kerkira
Is sampling of the airport's water network performed?	YES
(if YES) Sampling frequency:	Quarterly

Summary of results

The results of the chemical analyses show that the water provided by the Municipal Water & Sewage Company of Kerkira is non potable due to high concentration of sulphates. The rest of 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		YES

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 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, PAH	

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. The 2023 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 and soil from the Fuel Handlers was performed by both EKO (2022) and GISSCO (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

Contact

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