

# ENVIRONMENTAL BULLETIN OF CHANIA “IOANNIS DASKALOGIANNIS” AIRPORT (CHQ)

## Reference year 2022

Fraport Regional Airports of Greece A S.A.

Issue year: 2023

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## Contents

<b>Contents .....</b>	<b>3</b>
<b>1. INTRODUCTION .....</b>	<b>4</b>
1.1. Location .....	4
1.2. Administration .....	4
1.3. Environmental licensing .....	4
1.4. Airport Basic Data .....	4
1.5. Airport facilities .....	5
1.5.1. Fuel Handlers .....	5
1.5.2. Ground Handlers .....	5
<b>2. TRAFFIC DATA STATISTICS .....</b>	<b>6</b>
2.1. Annual Traffic Data .....	6
2.2. High season traffic data .....	6
2.3. Low season traffic data .....	7
<b>3. AIRCRAFT NOISE .....</b>	<b>8</b>
3.1. Noise measurements during the reference year .....	8
3.2. Noise levels calculation based on noise simulation software .....	8
<b>4. AIR QUALITY .....</b>	<b>9</b>
4.1. Air quality measurements during the reference year .....	9
4.2. Air pollutants emission and dispersion modelling .....	10
<b>5. WASTE MANAGEMENT .....</b>	<b>11</b>
<b>6. ECOSYSTEM AROUND THE AIRPORT .....</b>	<b>12</b>
6.1. Flora-Fauna .....	12
<b>7. WILDLIFE HAZARD MANAGEMENT .....</b>	<b>13</b>
<b>8. CULTURAL HERITAGE .....</b>	<b>14</b>
<b>9. RESOURCES CONSUMPTION .....</b>	<b>15</b>
9.1. Energy consumption .....	15
9.2. Fuel consumption .....	15
9.3. Heating oil or natural gas consumption .....	15
9.4. Fuel consumption for generator .....	15
9.5. Water consumption .....	15
<b>10. GREENHOUSE GAS EMISSIONS &amp; CARBON FOOTPRINT .....</b>	<b>16</b>
<b>11. HUMAN COMSUMPTION WATER MONITORING PROGRAM .....</b>	<b>17</b>
<b>12. RAINWATER .....</b>	<b>18</b>
<b>13. GROUNDWATER AND/OR SOIL AND/OR SOIL GAS MONITORING .....</b>	<b>19</b>
<b>14. SEWAGE TREATMENT AND DISPOSAL .....</b>	<b>20</b>

## 1. INTRODUCTION

### 1.1. Location

Chania Airport is located at the centre of the Akrotiri peninsula, to the north-east of the town of Chania at a distance of approximately 15 km from the town, and operates within the military airport, in an area provided by HASGS for this purpose.

### 1.2. Administration

The Airport belongs to the Region of Crete, Regional Unit of Chania, and specifically to the Municipality of Chania, encompassing the former Municipalities of Akrotiri, El. Venizelos, Keramies, Nea Kidonia, Therisos, Souda and Chania.

### 1.3. Environmental licensing

Approved Environmental Terms	
E.T. Decision Reference number	51226/25.10.2016
E.T. Amendment Decision Reference Number	5100/05.03.2018
E.T. Amendment Decision Reference Number	62349/4292/17.06.2022

### 1.4. Airport Basic Data

Airport name IATA / ICAO	CHQ/LGSA
Airport location – Airport Reference Point (ARP)	Latitude: 35° 31' 53" N Longitude: 24° 09' 04" E
Altitude	149,4m
Number of runways	1
Operation hours (summer)	00:00 – 23:59
Operation hours (winter)	Monday / Tuesday / Wednesday / Friday / Saturday / /Sunday 06:30 – 22:30 Thursday/ 06:30 – 23:00

Runways	Length/Width					Code
Runway	3,348m x 45m					11/29
Full length of parallel taxiway	3.348m					
Number of taxiways	6					
Apron capacity	A	B	C	D	E	
	-	-	8	-	2	

Employees	High season (31.08.2022)	Low season (30.11.2022)
Fraport Greece (FG) employees	42	36
Employees of other companies	1103	601

<b>Terminal</b>	
➤ Total area (m <sup>2</sup> )	36.196

<b>Other buildings and service/storage areas</b>	
➤ RFF Station (m <sup>2</sup> )	2.566

<b>Parking Areas</b>	
Car parking spaces	586
Bus parking spaces	56
Taxi parking spaces	82

## 1.5. Airport facilities

### 1.5.1. Fuel Handlers

<b>Number of fuel handler companies</b>	
Number of fuel handler companies operating at the Airport	2

<b>Installations inside the airport</b>	<b>EKO</b>	<b>GISSCO</b>	<b>HAFCO</b>
Environmental Management System (EMS)	YES	YES	Not operating at the airport

### 1.5.2. Ground Handlers

<b>Number of ground handler companies</b>	
Number of ground handler companies operating at the Airport	3

<b>Installations inside the airport</b>	<b>SKYSERV</b>	<b>SWISSPORT</b>	<b>GOLDAIR</b>
Environmental Management System (EMS)	YES	YES	YES

## 2. TRAFFIC DATA STATISTICS

### 2.1. Annual Traffic Data

<b>Annual Traffic Data for the year 2022</b>	
Overall Annual Air Traffic Movements	23.271
Percent of increase or decrease in relation to the previous year	44,0%
Annual passenger traffic	3.290.802
Percent of increase or decrease in relation to the previous year	83,3%
Annual cargo transferred (tn)	178
Percent of increase or decrease in relation to the previous year	-13,8%

<b>Aircraft types</b>	
<b>Prevailing aircraft types for domestic flights</b>	
Aircraft type	No. of flights
A320	2.017
AT76	1.709
A20N	931
A32A	702
B73H	492
A321	195
P28R	84
A21N	54
B738	51
DA40	34
Other	301
<b>Prevailing aircraft types for international flights</b>	
Aircraft type	No. of flights
B73H	4.140
B738	2.934
A320	2.219
7M8	1.246
A20N	1.168
A32A	1.020
A321	949
A32B	869
A21N	666
B734	270
Other	1.220

### 2.2. High season traffic data

<b>High season traffic data (June-September)</b>	
Highest traffic month	August
Air traffic movements during the month with highest traffic	3.818

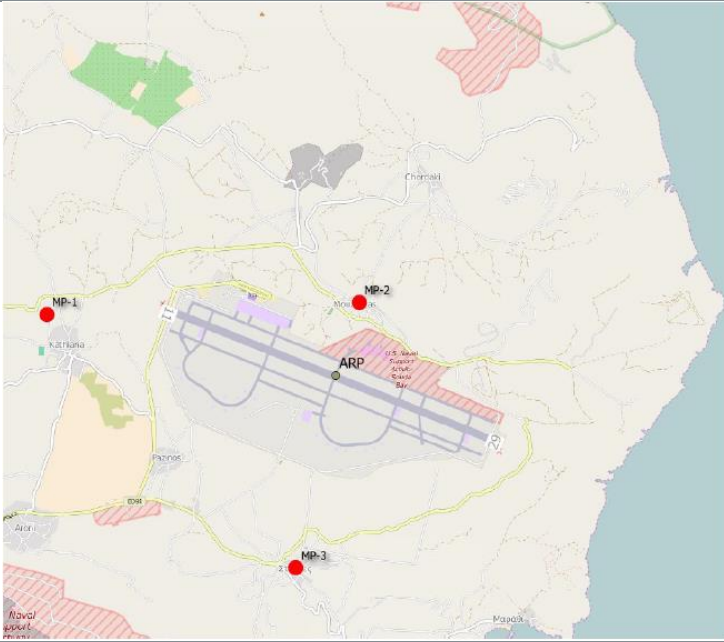
Air traffic movements daily average number during the month with highest traffic	123
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### 2.3. Low season traffic data

Low season traffic data (October-May)	
Lowest traffic month	February
Air traffic movements during the month with lowest traffic	430
Air traffic movements daily average number during the month with lowest traffic	15

### 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
<b>Measurement points</b>		
		
Measurement points coordinates	Measurement points description	
Position 1: 35° 32' 16" N 24° 06' 48" E	Kathiana area, to the west of the runway at the centre of an oil plantation. Affected by arrivals RWY 11 and departures RWY 29.	
Position 2: 35° 32' 21" N 24° 09' 15" E	Mouzoura area, to the north of the runway, at the roof of the cultural centre's building. Affected by all arrivals/departures to and from both directions	
Position 3: 35° 30' 40" N 24° 08' 45" E	Sterna area, to the south of the runway, at the balcony of a public building. Affected by all arrivals/departures to and from both directions	
<b>Measurement period</b>	01.06.2022 – 02.06.2022	
<b>Noise indicators</b>	L <sub>den</sub> , L <sub>night</sub>	

#### Summary of measurement results:

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

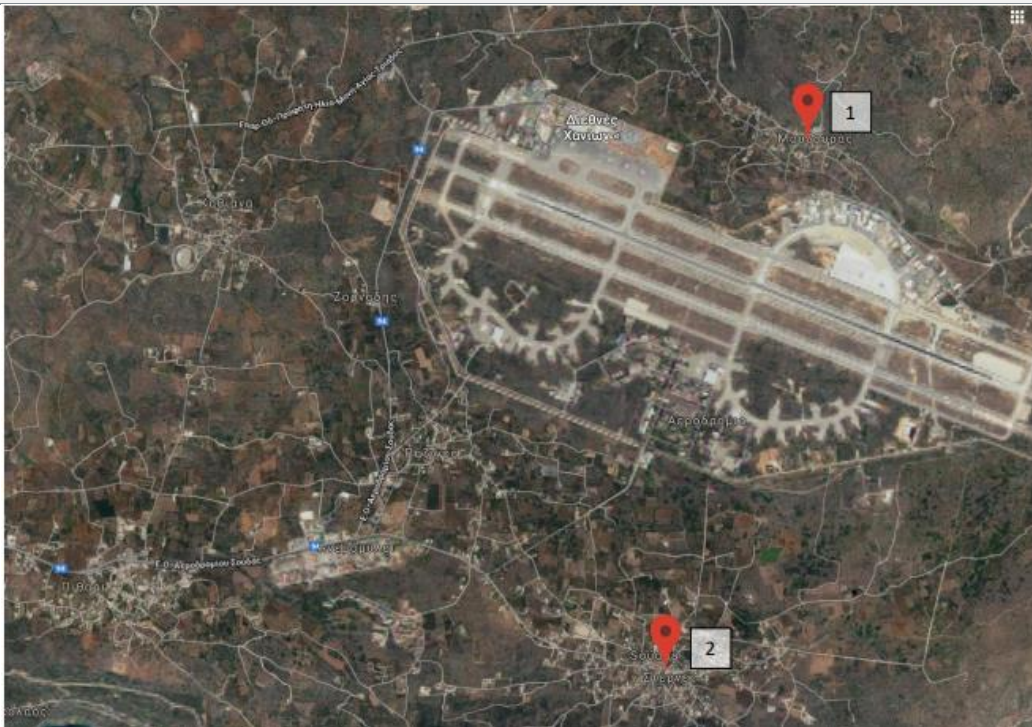
#### 3.2. Noise levels calculation based on noise simulation software

Aircraft noise levels calculation based on noise simulation software	NO
<b>Software used:</b> N/A	
<b>Noise indicators and respective contours calculation:</b> N/A	
<b>Summary of results:</b>	
According Approved Environmental Terms, in 2022 the aircraft noise simulation was not foreseen.	



## 4. AIR QUALITY

### 4.1. Air quality measurements during the reference year

<b>Have air quality measurements at the airport’s surrounding area been performed during the reference year?</b>		<b>YES</b>
<b>Measurement points</b>		
		
<b>Measurement points</b>	<b>Measurement points description</b>	
Position 1	Sterna area, approximately 2km to the south of the runway.	
Position 2	Mouzoura area, approximately 700m to the north of the runway.	
<b>Measurement period:</b>	09.05.2022 – 24.05.2022 15.12.2022 – 30.12.2022	
<b>Pollutants measured:</b>	PM <sub>10</sub> , PM <sub>2,5</sub> , NO <sub>2</sub> , SO <sub>2</sub> , C <sub>6</sub> H <sub>6</sub> , O <sub>3</sub> , CO	

#### Summary of measurement results:

Air quality is monitored according to the airport’s monitoring program, and the new provisions of environmental terms. No exceedance of the air quality limits was observed for PM<sub>10</sub>, PM<sub>2,5</sub>, NO<sub>2</sub>, SO<sub>2</sub>, C<sub>6</sub>H<sub>6</sub>, O<sub>3</sub>, CO

#### 4.2. Air pollutants emission and dispersion modelling

<b>Calculation of air pollutants concentrations based on an emission and dispersion modelling software</b>	NO
<b>Software used:</b> N/A	
<b>Pollutants concentrations and respective contours calculation:</b> N/A	
<b>Summary of results:</b>	
According Approved Environmental Terms, in 2022 the air quality simulation was not foreseen.	

## 5. WASTE MANAGEMENT

Waste	Collection	Management/Disposal
<b>Recyclables (paper, plastic, metals, glass)</b>	Collection by Chania Solid Waste management Body (DEDISA SA)	Disposal in a mechanical recycling-composting facility for material recovery
<b>Residues (Mixed Waste) and Bulky Waste</b>	Collection by Chania Solid Waste management Body (DEDISA SA)	Disposal in a mechanical recycling-composting facility for material recovery and disposal in 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 in most cases (central management), while in a few other cases they handled them autonomously. The implementation of a fully central system by Fraport Greece A is expected.
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, 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 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**

<b>Flora</b>	
Are there protected zones of vegetation/habitats in the broader airport area?	NO
<i>(if YES)</i> Short description:	
<b>Fauna</b>	
Are there protected species of fauna/birds in the broader airport area?	NO
During the wildlife surveys there were no observations of protected species. The field survey dates will gradually increase during the following years.	

## 7. WILDLIFE HAZARD MANAGEMENT

<b>Wildlife strikes and wildlife hazard management measures</b>	
<b>Wildlife species that suffered a strike</b>	<b>Strikes (%)</b>
-	-
<b>Wildlife strike risk mitigation measures*:</b>	
*The Hellenic Air Force (HAF) is responsible for the management of birdstrike risk.	
<b>Reference year summary results:</b>	
-	

## 8. CULTURAL HERITAGE

<b>Have new cultural heritage properties been discovered during the reporting period?</b>	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)	6.968.248,50

### 9.2. Fuel consumption

Fuel consumption		
Number of FG vehicles at the airport	7	
Total annual fuel consumption	Diesel (lt)	8.358,79
	Unleaded gasoline (lt)	252,12

### 9.3. Heating oil or natural gas consumption

Heating oil or natural gas consumption	
Total annual heating oil consumption (lt)	62.555,00
Total annual heating natural gas consumption (m <sup>3</sup> )	N/A

### 9.4. Fuel consumption for generator

Fuel consumption of generator	
Total annual consumption (lt)	4.269,77

### 9.5. Water consumption

Water consumption	
Total annual consumption (m <sup>3</sup> )	30.348,15

## 10. GREENHOUSE GAS EMISSIONS & CARBON FOOTPRINT

Greenhouse gas emissions that were included in the carbon footprint calculation are the CO<sub>2</sub> 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 <sub>2</sub> Emissions (t)
	2022
Direct emissions form heating fuel (scope 1)	166,9
Direct emissions from fuel used for fleet vehicles (scope 1)	22,9
Direct emissions from fuel used for firefighting vehicles (scope 1)	11,4
Direct emissions from fuel used for generators (scope 1)	31,5
Indirect emissions from electricity consumption (scope 2)	2.926,8
<b>Total (t)</b>	<b>3.128,0</b>
<b>Kg CO<sub>2</sub> /passenger</b>	<b>0,95</b>

### 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 COMSUMPTION WATER MONITORING PROGRAM

Human consumption water quality	
Water supply (public water network or airport's boreholes)	Municipal Water & Sewage Company (DEYA) of Chania
Is sampling of the airport's water network performed?	YES
(if YES) Sampling frequency:	Quarterly
<b>Summary of results:</b> The results of the microbiological and chemical analyses show that the parameters analyzed as regards the airport's water network are <b>within the legislative limits</b> defined by the Ministerial Decision Γ1 (δ)/ΓΠ οικ. 67322/ GG 3282 B/19-9-2017 regarding the quality of human consumption water.	

## 12. RAINWATER

<b>RAINWATER (collection, treatment disposal and recipient)</b>		
<b>Area</b>	<b>Collection/treatment/disposal</b>	<b>[YES/NO]</b>
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

<b>Rainwater quality</b>	
Is sampling of the airport's rainwater performed?	YES
<b>(if YES)</b> Sampling frequency:	Yearly
<b>Parameters analyzed:</b> pH, conductivity, TSS, DO, NO <sub>3</sub> , NO <sub>2</sub> , Oil & grease, BOD, COD, Total Petroleum Hydrocarbons (TPH), PAHs, BTEX, Heavy metals, PCBs, Detergents	
<b>Summary of results:</b>	
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
<b>(if YES)</b> Sampling frequency:	Yearly
<b>Parameters analyzed:</b> TPH, BTEX, MTBE, PAH	
<b>Summary of results:</b>	
Groundwater quality is monitored according to the airport’s monitoring program. 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

<b>Sewage</b>	
Sewage network to the municipal waste water treatment plant (WWTP)	YES
Autonomous airport’s waste water treatment plant (WWTP)	NO

<b>Blue water</b>
<b>Collection and disposal:</b> Collection in watertight tank and disposal to the municipal sewage network.

<b>Waste water treatment plant description (where applicable)</b> <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