

ENVIRONMENTAL BULLETIN OF MITILINI “ODYSSEAS ELYTIS” AIRPORT (MJT)

Reference year 2020

Fraport Regional Airports of Greece B S.A.

July 2021

**Environmental Bulletin of Mitilini Airport
“Odysseas Elytis” (MJT) - 2020**



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Contents

1. INTRODUCTION	4
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
2. TRAFFIC DATA STATISTICS	6
2.1. Annual Traffic Data	6
2.2. High season traffic data	7
2.3. Low season traffic data	7
3. AIRCRAFT NOISE	8
3.1. Noise measurements during the reference year	8
3.2. Noise levels calculation based on noise simulation software	9
4. AIR QUALITY	10
4.1. Air quality measurements during the reference year	10
4.2. Air pollutants emission and dispersion modelling	11
5. WASTE MANAGEMENT	12
6. ECOSYSTEM AROUND THE AIRPORT	13
6.1. Flora-Fauna	13
6.2. Ecologically fragile areas	13
7. WILDLIFE HAZARD MANAGEMENT	14
8. CULTURAL HERITAGE	15
9. RESOURCES CONSUMPTION	16
9.1. Energy consumption	16
9.2. Fuel consumption	16
9.3. Heating oil or natural gas consumption	16
9.4. Water consumption	16
10. GREENHOUSE GAS EMISSIONS & CARBON FOOTPRINT	17
11. HUMAN COMSUMPTION WATER MONITORING PROGRAM	18
12. RAINWATER	19
13. GROUNDWATER AND/OR SOIL AND/OR SOIL GAS MONITORING	20
14. SEWAGE TREATMENT AND DISPOSAL	21

1. INTRODUCTION

1.1. Location

“Odysseas Elytis” airport of Mytilene is located at a distance of 6km from the capital of Mytilene island, near the east coast of the island of Lesbos. At the south-west the settlements Akrotiri, Taxiarches and Aghia Marina are located, at the north the settlements Neapoli and Vareia are located, whereas at the south the village Agrilia Kratigos is located.

1.2. Administration

The airport administratively belongs to the Municipal Community of Mytilene and the Local Community of Aghia Marina of the Municipal Unit of Mytilene of the Municipality of Lesbos 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	JMD 81441/20.12.2002
E.T. Amendment Decision Reference Number	Ref. No οικ. 23984/11.05.2016
	Ref. No οικ. 1004/16.01.2018

1.4. Airport Basic Data

Airport name IATA / ICAO	MJT / LGMT
Airport location – Airport Reference Point (ARP)	Latitude: 39° 03' 28" N Longitude: 26° 35' 55" E
Altitude	18.41 m
Number of runways	1
Operation hours (summer & winter)	00:01-24:00

Runways	Length/Width					Code
Runway	2,406m x 45m					14/32
Full length of parallel taxiway	N/A					
Number of taxiways	5					
Apron capacity	A	B	C	D	E	
	-	-	4	1	-	
Employees	High season (31.08.2020)			Low season (30.11.2020)		
Fraport Greece (FG) employees	27			26		
Employees of other companies	296			246		

Terminal	
➤ Total area (m ²)	7,140

Other buildings and service/storage areas	
➤ RFF Station (m ²)	1,198

Parking Areas	
Car parking spaces	-
Bus parking spaces	11
Taxi parking spaces	20

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
Vehicles (total number)	7	11	17
Environmental Management System (EMS)	YES	YES	YES

2. TRAFFIC DATA STATISTICS

2.1. Annual Traffic Data

Annual Traffic Data for the year 2020	
Overall Annual Air Traffic Movements ¹	3,729
Percent of increase or decrease in relation to the previous year	-43.3%
Annual passenger traffic	206,095
Percent of increase or decrease in relation to the previous year	-58.5%
Annual cargo transferred (tn)	228
Percent of increase or decrease in relation to the previous year	-34.57%

Aircraft types	
Prevailing aircraft types for domestic flights	
Aircraft type	No. of flights
A320	789
AT45	724
DH8D	714
AT75	648
AT72	404
A32A	128
A321	56
A20N	26
EC35	20
A319	12
Other	49
Prevailing aircraft types for international flights	
Aircraft type	No. of flights
B73H	104
A320	11
AN12	8
B738	8
AT75	4
DA42	4
C414	2
C25C	2
C680	2
CCB	2
Other	12

¹ Military and training flights not included.

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	440
Air traffic movements daily average number during the month with highest traffic	14

2.3. Low season traffic data

Low season traffic data (October-May)	
Lowest traffic month	April
Air traffic movements during the month with lowest traffic	130
Air traffic movements daily average number during the month with lowest traffic	4

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*
Measurement points		
N/A		
Measurement points coordinates	Measurement points description	
1) Position: N/A	N/A	
2) Position: N/A	N/A	
3) Position: N/A	N/A	
Measurement period	N/A	
Noise indicators	N/A	

Summary of measurement results:

*Fraport Greece, during the years 2018-2019, has implemented a noise & air pollution monitoring program, according to the Approved Environmental Terms of the airport. The monitoring program included the implementation of special simulation tools in combination with confirmation measurements, of air pollution and noise, in representative positions around the airport.

At the end of the two year period of the program in April 2020, in implementation of the Environmental Terms, a Technical Evaluation Report was submitted to the Directorate for Climate Change and Air Pollution of the Ministry for Environment & Energy, with proposals for the most suitable in terms of effectiveness, air pollution & noise monitoring program for the years ahead (ref. number 39833/833/29.4.2020).

Given the situation with the COVID-19 pandemic and the subsequent dramatic decrease of the airport traffic no noise measurements were performed during the peak period of the reference year and the competent Ministry for Environment & Energy was informed accordingly.

3.2. Noise levels calculation based on noise simulation software

Aircraft noise levels calculation based on noise simulation software	NO*
Software used: N/A	
Noise indicators and respective contours calculation: N/A	
Noise contours: N/A	

Summary of results:

*Fraport Greece, during the years 2018-2019, has implemented a noise & air pollution monitoring program, according to the Approved Environmental Terms of the airport. The monitoring program included the implementation of special simulation tools in combination with confirmation measurements, of air pollution and noise, in representative positions around the airport.

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Given the situation with the COVID-19 pandemic and the subsequent dramatic decrease of the airport traffic no noise software simulation was performed during the peak period of the reference year and the competent Ministry for Environment & Energy was informed accordingly.

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	Measurement points description	
Position 1	At a distance of approximately 700m to the north of the runway.	
Position 2	Settlement Agrilia Kratigos at a distance of approximately 2 km from the runway	
Measurement period:	05.02.2020 – 20.02.2020	
Pollutants measured:	PM ₁₀ , PM _{2,5} , NO ₂ , SO ₂ , C ₆ H ₆ , O ₃	

Summary of measurement results:

Air quality is monitored according to the airport’s monitoring program.
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		NO*
Software used: N/A		
Pollutants concentrations and respective contours calculation: N/A		
PM ₁₀		N/A
NO _x		N/A
SO _x		N/A
Benzene (C ₆ H ₆)		N/A

Summary of results:

*Fraport Greece, during the years 2018-2019, has implemented a noise & air pollution monitoring program, according to the Approved Environmental Terms of the airport. The monitoring program included the implementation of special simulation tools in combination with confirmation measurements, of air pollution and noise, in representative positions around the airport.

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Given the situation with the COVID-19 pandemic and the subsequent dramatic decrease of the airport traffic no air pollution software simulation was performed during the peak period of the reference year and the competent Ministry for Environment & Energy was informed accordingly.

5. WASTE MANAGEMENT

Waste	Collection	Management/Disposal
Recyclables (paper, plastic, metals, glass)	Separate collection by the Municipality of Lesvos	Disposal at material recovery facility or transshipment for recycling
Residues (Mixed Waste) and Bulky Waste	Collection by the Municipality of Lesvos	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?	NO
<i>(if YES)</i> Short description:	
Fauna	
Are there protected species of fauna/birds in the broader airport area?	NO
<i>(if YES)</i> Short description:	

6.2. Ecologically fragile areas

The airport is located outside the limits of the protected areas included in the National Protected Areas Network and is at long distance from them.

The nearest areas of the NATURA 2000 network is the SCI & SAC “Lesvos: Kolpos Geras, Elos Dipi and Mount Olympos” (GR4110005) and the SPA “Lesvos: Kolpos Geras, Eli Dipi and Charamida” (GR4110013), at a distance of approximately 5km from the airport.

The nearest Wildlife Sanctuary (WS) is “Divolo-Akothi (Loutron)” with code K293, also at a distance of approximately 5km from the airport.

7. WILDLIFE HAZARD MANAGEMENT

Wildlife strikes and wildlife hazard management measures	
Wildlife species that suffered a strike	Strikes (%)
<i>Columba livia</i> (Pigeon)	11%
<i>Corvus cornix</i> (Hooded crow)	11%
<i>Corvus monedula</i> (Jackdaw)	11%
<i>Hirundo rustica</i> (Barn swallow)	11%
<i>Galerida cristata</i> (Crested lark)	11%
<i>Larus michahellis</i> (Yellow-legged gull)	11%
<i>Motacilla alba</i> (White wagtail)	11%
<i>Passer domesticus</i> (House sparrow)	11%
Passeriformes spp.	11%
Wildlife strike risk mitigation measures:	
<ul style="list-style-type: none"> • Drainage ditches are regularly monitored and when necessary cleaned, to ensure efficient water run-off and, thus, reducing the attractiveness of the airside to the wildlife • Regular grass cutting at the airside • Fence maintenance • Systematic monitoring of bird species populations and their habitat on and off-airport (at a distance of 13km from the airport). • Seminar awareness video on the identification, conservation and safe relocation of reptiles (snakes), under the collaboration with the Lalitsa Non-Profit Association • Awareness video on the safe handling and relocation of stray dogs 	
Reference year summary results:	
<p>The Hellenic Civil Aviation Authority (Section D3/B, Wildlife Strike Risk Prevention Office) receives annual reports referring to the risk assessment of the wildlife hazard as well as to the wildlife hazard management at the 12 regional airports operating by Fraport Greece. Aktion Airport and Chania Airport “Ioannis Daskalogiannis” are excluded, in accordance with the Concession Agreement, Annex 20, paragraph 6.3.3 & 6.3.4.</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)	1,495,340

9.2. Fuel consumption

Fuel consumption		
Number of FG vehicles at the airport	6	
Number of firefighting vehicles at the airport	4	
Total annual fuel consumption	Diesel (lt)	8,592
	Unleaded gasoline (lt)	192

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. Water consumption

Water consumption	
Total annual consumption (m ³)	6,927

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)
	2020
Direct emissions form heating fuel (scope 1)	0.0
Direct emissions from fuel used for fleet vehicles (scope 1)	15.8
Direct emissions from fuel used for firefighting vehicles (scope 1)	7.6
Direct emissions from fuel used for generators (scope 1)	4.8
Indirect emissions from electricity consumption (scope 2)	931.6
Total (t)	959.8
Kg CO₂ /passenger	4.66

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 was certified during the reference year according to ACA (Airport Carbon Accreditation)

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 Lesvos
Is sampling of the airport's water network performed?	YES
<i>(if YES)</i> 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 <u>within the legislative limits</u> 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

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:	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. According to FG's analyses results and based on the abovementioned specifications, the airport's rainwater environmental condition is adequate and no further treatment measure is necessary.	

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:	According to the Environmental Terms
<p>Parameters analyzed: Groundwater: TPH, BTEX, benzene, MTBE, PAH (16 priority compounds according to USEPA, except Naphthalene) PAH [Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3,c,d)pyrene, Benzo(g,h,i)perylene], Naphthalen & Soil gas: Acetone, Benzene, 2-Butanone, Chlorobenzene, Chloroform, Chloromethane, 1,2-Dichloroethane 1,2-Dicholoroethene (trans), Ethylbenzene, n-hexane, 4-methyl-2-perntanone (MIBK), methyl-tertiary-butylether (MTBE), Napthalene, Styrene, Tetracholoroethylene (PCE), Toluene, 1,1,1-Trichloroethane, Tricholoroethylene (TCE), Vinyl chloride (VC), Xylene (total)</p>	
Summary of results:	
<p>Groundwater quality is monitored according to the airport’s monitoring program. In addition, the fuel handling companies monitor the quality of groundwater according to the environmental terms. According to the environmental monitoring reports of the fuel handlers EKO and GISSCO, regarding the condition of groundwater and soil gas after the completion of the remediation works, the concentrations of the chemical parameters in the analyzed samples of soil gas and groundwater remained in non detected levels and as a result below the target concentrations defined in the Technical Report of 08/12/2017 (Technical specifications for soil and groundwater remediation and target concentrations in fuel handling facilities polluted areas at the 14 Regional Airports). No remediation measures are necessary.</p>	

** During the reference year and due to the low level of the groundwater aquifer it was not possible for samples to be collected from the boreholes managed by Fraport Greece. The results indicated above refer to the samplings performed by the Fuel Handlers*

14. SEWAGE TREATMENT AND DISPOSAL

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

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	Secondary treatment & chlorination
Treatment method	Prolonged ventilation
Disposal of treated wastewater	Limited irrigation during March-October Enrichment of the aquifer during the period from November to February.
Sludge disposal	Landfill
Sampling frequency of WWTP effluent	Monthly
Parameters analyzed	BOD, SS, TN,TP, T. Coliforms, E.coli, pH, residual Cl ₂
Summary of quality of WWTP effluent	Limits as set in Table 1 of the Annex of JMD 145116/2001

**The data above refer to the WWTP which was upgraded in the context of the Imminent Works during the reference year. Due to the fact that the irrigation field construction works had not been completed the treated effluent was transported to the local municipal WWTP via tank trucks during the reference year.*