

Global Climate Change Impacts on Airport Infrastructure on the Island of Cyprus

A Proposal for Further Research

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The [Republic of Cyprus](#) has two international airports serving as a gateway to the outside world. The largest one is located in the coastal town of [Larnaca](#) with two terminals, [one old and one currently under construction](#). The old terminal which has been in operation since 1975 (*latitude: 34.882°*, *longitude: 33.629°*) is due to close to international air traffic as of November 2009. The new terminal in Larnaca to open in November will take over all international air traffic (*latitude: 34.869°*, *longitude: 33.610°*) and will function as the main, new and modernized international gateway for passengers in and out of Cyprus. The [second largest international airport in Cyprus](#) is located in the coastal town of [Paphos](#) (*latitude: 34.718°*, *longitude: 33.487°*) and acts as a gateway mainly for tourists visiting the Western part of the island. The figure below shows a satellite photograph of Cyprus with the location of both international airports in red.



Figure 1: Location of International Airports in Cyprus

As of 12th May 2006, both airports came under the new management of [Hermes Airports Ltd.](#), an international consortium of nine major shareholders who won a government tender to modernize both facilities under a 25-year [Build-Operate-Transfer \(BOT\)](#) concession agreement. The major shareholders are listed in the table below:

Shareholder	Name	Country	Percent Share
	Bouygues Batiment International	France	22 %
	Egis Projects	France	20 %
	Cyprus Trading Corporation	Cyprus	11.34 %
	Hellenic Mining	Cyprus	11.33 %
	Vancouver Airport Services	Canada	11 %
	Aer Rianta International	Ireland	11 %
	Iacovou Brothers	Cyprus	5.665 %
	Charilaos Apostolides	Cyprus	5.665 %
	Aéroport Nice Cote d'Azur	France	2 %

Table 1: Major Shareholders in Hermes Airports Ltd.[1]

The major [global climate change](#) implication for airport infrastructure in Cyprus has been identified as global [sea-level rise](#) affecting the low-lying runways and other facilities in both Larnaca and Paphos. Reports dating back from June 26th, 1997 show that there is concern, at least at the [Cyprus Meteorological Service](#), that if [global warming](#) continues at current levels, Larnaca and the airport located there would be flooded within 50 years.[2] There seems to be concern in other government ministries and departments too, however as of June 22nd, 2009, no relevant reports or data was available online on this issue. This could be due to significant delays in posting materials on government websites in Cyprus. It should be noted that only recently has Cyprus' government begun to transfer its operations online and the process is likely to take several more years to complete. These circumstances have created an environment of information drought which makes researching this issue very complicated.

Larnaca International Airport

The figure below shows a satellite photograph of the location of Larnaca International Airport, both the old and new terminals. The location of the old terminal should be noted. It is very close to the coastline with the runway touching the sandy beach. The elevation above sea level ranges from 0-1m for the runway to 3m for airport facilities. This places the old terminal at a very unfavorable and dangerous situation for future sea-level rise. It is no surprise that Hermes Airports decided to move the location of the new airport terminal deeper inland to a safer elevation of 8m above sea level. However the runway remains at sea-level throughout its length which makes it the first object to be flooded if sea levels do rise in the future.



Figure 2: Location of the Old and New Terminals in Larnaca

The figure below shows a photograph of the new terminal in Larnaca. Note the runway and the visible flat sandy beach in the background. The terminal is due to open in November 2009.



Figure 3: New Terminal of Larnaca International Airport

Paphos International Airport

The figure below shows a satellite photograph of the location of Paphos International Airport. The location of the terminal should be noted here once again. It is very close to the coastline. The runway is deeper inland than the airport facilities. The facilities are located at an elevation of 7m above sea-level, with the run-way 10m above sea-level. In this case, the airport facilities will be first to be flooded in the case of sea-level rise.



Figure 4: Location of the New Terminal in Paphos

The figure below shows a photograph of the new terminal in Paphos. Note the runway and the proximity of the airport to the sea. The terminal was opened in November 2008.



Figure 5: New Terminal of Paphos International Airport

The following is a list of some departments and people who should be involved in resolving climate change issues related to airport infrastructure in Cyprus.

Nicolas K. Shacolas	Chairman, Shacolas Group of Companies
Daniel Rigout	Vice Chairman, Bouygues Batiment International
Rik Joosten	Director, Egis Projects S.A.
George Casey	Director, YVR Airport Services Ltd
John Boland	Director, Aer Rianta International cpt
Panayiotis Hadjipantelis	Director, Hellenic Mining Group
Iacovos Iacovou	Director, Iacovou Bros Construction Ltd & Charilaos Apostolides Public Ltd
Christophe Petit	Director, Bouygues Batiment International
Renaud Beziade	Director, Egis Projects & Nice Côte d' Azur

Table 2: Hermes Airports Ltd. Board of Directors[3]

Mr Alfred van der Meer	Chief Executive Officer
Mr Eric Delehay	Deputy Chief Executive Officer
Mr Yanis Papastefanou	General Manager, Larnaca International Airport
Mr Olivier Baric	General Manager, Paphos International Airport
Mr Panikos Papadakis	General Manager, Finance and Administration
Mr Michalis Miltiades	General Manager, Support Services
Ms Diane Jones	Owners Representative
Mr Emmanuel Bernard	Manager, Finance
Mr Matthew Thomas	Manager, Commercial
Mr Christian Escoffier	Manager, Technical
Mr Andreas Varelias	Manager, IT

Table 3: Hermes Airports Ltd. Managerial Team[4]

Hermes Airports Ltd
Head Office
 PO Box 43027
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 International Airport
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 Cyprus



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Table 4: Hermes Airports Ltd. Contact Information

[Ministry of Communications and Works](#)

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[Department of Civil Aviation](#)

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[Larnaca Municipality](#)

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Paphos Municipality

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Office of the Mayor

Tel. No.: +357 26822352

Fax No.: +357 26944641

E-mail: mayor.office@pafos.org.cy



References

[1] About Us. In *Hermes Airports Ltd., Larnaca International Airport*. Retrieved June 21, 2009, 23:14 from <http://www.cyprusairports.com.cy/showpage.php?PageID=5>.

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[3] Board of Directors. In *Hermes Airports Ltd., Larnaca International Airport*. Retrieved June 21, 2009, 23:16 from <http://www.cyprusairports.com.cy/showpage.php?PageID=36>.

[4] Managerial Team. In *Hermes Airports Ltd., Larnaca International Airport*. Retrieved June 21, 2009, 23:18 from <http://www.cyprusairports.com.cy/showpage.php?PageID=37>.

*Please note that several issues have hindered more research for the purpose of this paper. Firstly, there is virtually nothing on sea-level rise implications on airport infrastructure in Cyprus published anywhere in the world or available online. Secondly, the author had no access to any resources on the Harvard Libraries online resource website for the duration over which this paper was written. Coupled with a severe lack of time for the preparation of this document has led to the current situation where very little in terms of references is available on the issue.