

ETUDES HELLENIQUES

HELLENIC STUDIES

**La République de Chypre: 50
ans après**

**The Republic of Cyprus: 50
Years After**

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British Bases in Cyprus and Signals Intelligence

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RÉSUMÉ

Le but de cet article est d'examiner pourquoi Chypre a été et continue d'être essentielle pour les intérêts stratégiques occidentaux. L'auteur souligne que pendant la Guerre froide, les renseignements recueillis à Chypre ont contribué à maintenir le fragile équilibre avec le bloc soviétique, en évitant une Guerre nucléaire mondiale destructrice et en projetant la puissance du Royaume-Uni, des Etats-Unis et de l'OTAN au Moyen-Orient et au-delà. La République de Chypre a complètement échoué à participer à ce grand jeu régional, même comme un spectateur actif. Au lieu de gagner, elle a accusé une grande perte.

ABSTRACT

The aim of this paper is to examine the question why Cyprus has been and continues to be vital for Western strategic interests. It points out that during the Cold War, Intelligence gathered in Cyprus helped maintain the fragile balance with the Soviet Bloc, avoiding a destructive global nuclear war and projecting UK, US and NATO power in the Middle East and beyond. The Republic of Cyprus failed utterly to participate in this regional Great Game even as an active spectator. Instead of gain, there was great loss.

The Embassy does not believe that the loss of Cyprus-owned physical infrastructure, nor the interruption of key resource exports from the island, would immediately affect the security, national economic security, and/or public health or safety of the United States. A Connecticut-sized Mediterranean island some 5000 miles from the East Coast of the United States, Cyprus simply is too small, too distant, and too lacking in natural resources to affect U.S. interests in that fashion. [...] Under the terms of the 1960 independence treaties, Great Britain was allowed to retain two "Sovereign Base Areas" (SBAs) and several isolated sites scattered

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throughout Cyprus, such as the RAF radar dome on Mt. Olympus, the island's highest point, and various antenna arrays in Ayios Nikolaos, near Famagusta. Via varied formal agreements and informal arrangements, the United States enjoys some access to and benefits from these UK facilities. Unlike the Cyprus-owned infrastructure noted above, the damage or complete loss of SBA-housed facilities would pose a threat to our national security interests in the eastern Mediterranean.¹

This arrogant but perhaps realistic assessment by the US Ambassador in Nicosia sets the stage for what follows in this brief report. Comprising 254 sq km or approximately 3% of Cyprus territory, the so-called Sovereign Base Areas are probably the most important Western Intelligence listening post in the Eastern Mediterranean, monitoring communications in the Middle East, North Africa, the Balkans, Russia and beyond. Cyprus has also been a staging point for various UK-US Intelligence and military operations, one of the earliest being the overthrow of Iran's Prime Minister Mohammad Mossadegh in 1953 in the now infamous Operation AJAX.² Until very recently RAF Akrotiri was actively involved in the reconnaissance and air support of the war in Libya, as part of Operation Ellamy.

It was not until June 1947 that the full potential of Cyprus as a listening post started to be exploited, with the transfer of British personnel and equipment from Palestine and the creation of the Ayios Nikolaos Station near Famagusta, to house the 2 Wireless Regiment, later renamed as the 9 Signal Regiment. Soon, another British Signals Intelligence (SIGINT) station was moved from Iraq to the village of Pergamos, near Ayios Nikolaos, where it operated until September 1968. Up to one thousand British radio operators and technicians were stationed in the two sites during those first years, living in tents, surrounded by mud and exposed to the elements.³ Through the years the Ayios Nikolaos Station, in 1999 renamed as Joint Service Signals Unit (Cyprus), became one of the largest and most important SIGINT and ELINT (Electronic Intelligence) sites of the British Government Communications Headquarters (GCHQ), second only to RAF Menwith Hill in Yorkshire.

Cooperation between GCHQ and its US counterpart, the National Security Agency (NSA), in Cyprus was close from the beginning, albeit sometimes tense, based on the UKUSA Security Agreement.⁴ Ayios Nikolaos Station collected SIGINT and ELINT during the 1948 Arab-Israeli War, the 1956 Suez Crisis, the EOKA 1955-1959 Cypriot liberation struggle against British colonialism,⁵ the clashes between Greek- and Turkish Cypriots in 1963, the 1967 Six-Day War and the 1973 Yom Kippur War, to name just a few of the older and seemingly

never-ending conflicts in this volatile part of the world. The final Intelligence product was of huge importance to the decision makers in London and Washington, as it allowed them to plan and shape their policies with the immense advantage of near real-time flow of accurate information from the political arena as well as the battlefield.

Fine details of the way Ayios Nikolaos operated in the 1960s were revealed to the Scottish investigative journalist Duncan Campbell by Corporal John Berry on 18 February 1977. Berry had served at Ayios Nikolaos from 1966 until 1970 and gave Campbell an extensive account of his work there:

We were responsible for Iraqi, Egyptian, Greek Cypriot and Turkish Cypriot illicit communications. We also intercepted some Israeli, although I was never really sure who was basically responsible for Israeli interceptions, whether it was us or the Americans. There was certainly a task – there was a bank of sets in the intercept room that picked up Israeli communications. But we also got stuff fed back from NSA that they picked up as well. We had an American at 9 Signals. A guy called Dave Mallory who was NSA. I was involved with Iraqi intercept. And we had specific tasks, which were allocated to us from GCHQ. We had to intercept Iraqi Diplomatic, Air Force and Military traffic. Once you've identified a net, as an Iraqi Army net, it's fairly elementary, especially the Arab countries, to keep track of it. I mean the Russians employ very sophisticated techniques with changes of frequency and everything else. The Arabs employ much less sophisticated techniques and it's fairly easy to break their frequency rotas and times of new schedules, the times at which they transmit. Most of the Intelligence that we derived from Arab communications was concerned with whereabouts of units and the buildup subsequent to the Middle East War. We were very anxious to have information about the sort of Iraqi presence in Jordan in the 18 months following the June war in '67. [...] I certainly saw lots of other NATO countries intercept. Which was – well I mean a lot of it was casual, because the operators would be tuned in to a particular frequency, would pick up some Italian Diplomatic traffic or some French. [...] It was possible to get quite a lot of information about what the state of arms in the Turkish Cypriot fighting units was. Quite a lot of the communications were concerned with – and also interestingly – with illegal acquisition of British arms, because there was quite a leak at

one point. And various people were court-martialled selling British Army rifles to Turkish Cypriots.⁶

The range and scope of British and American SIGINT operations in Cyprus during the first decades of the Cold War become more evident after a very recent revelation concerning the mysterious circumstances surrounding the death of the UN Secretary General Dag Hammarskjöld in a supposed plane accident on 18 September 1961 in Northern Rhodesia - now Zambia. An American Intelligence officer stationed at the NSA Naval Security Group Command installation at Yerolakkos,⁷ west of Nicosia, recounts how he intercepted the transmission of the pilot of another plane in the area of the subsequent crash, closing in on the DC6 with Hammarskjöld on board, firing his plane's guns and then shouting "*I've hit it!*".⁸ The American officer was thus able to monitor clearly the apparent attack that took place 5,340 km away.

A few years later the NSA station at Yerolakkos focused on the Palestinian Liberation Organization, Yasser Arafat's Fatah party and the Black September Organization, sometimes with deadly results. An NSA Arabic linguist responsible for the PLO Desk at Yerolakkos revealed that "*NSA would send intercepts detailing the movements of suspected terrorists to the CIA, which would in turn pass them on to Israeli intelligence – and some guy was dead. We'd get a message that so and so was coming through the Athens Airport and then you'd read in the Jerusalem Post that some poor sucker had been killed in an airport.*"⁹

British and American SIGINT installations in Cyprus continued their work throughout Turkey's invasion in 1974 and intercepted the very message by which the military junta in Nicosia reported to its Athens headquarters that the coup d'état against Archbishop Makarios had begun.¹⁰ Other examples of Ayios Nikolaos activities included monitoring the 1980-1988 Iran-Iraq war and the Soviet naval presence in the Eastern Mediterranean. Soviet ballistic missile tests in mainland USSR were possible since around 1964 by use of a US RCA company designed over-the-horizon (OTH) backscatter radar (codenamed COBRA SHOE) in the Akrotiri SBA.¹¹

Apart from various High Frequency (HF) antennae used for intercepting mainly military and diplomatic signals from around the world, Ayios Nikolaos also houses a HF Direction Finder (DF) that enables its operators to triangulate, pinpoint and analyze transmissions within a range of thousands of kilometers, monitoring bearings of transmitters and signal strength, thus enabling the construction of a virtual electronic map of troop movements and similar activities. Next to the HF DF, several satellite antennae form part of the UKUSA

ECHELON system,¹² automatically intercepting fax, emails, Internet, mobile phones, telephones etc from a multitude of geostationary communications satellites. However, the SIGINT importance of ECHELON has been in drastic decline during the past decade due to the wide use of fiber-optic communications.¹³

Twenty kilometers east of Ayios Nikolaos, Cape Greco used to be a NATO early warning communications site, part of the ACE HIGH¹⁴ network until the late 1980s. It ran from Norway through the UK and France, Italy, Greece and Turkey, where the Incirlik Air Base was linked with Cape Greco via troposcatter antennae. Cape Greco was in turn connected via microwave link to the RAF radar on top of Mount Olympus, providing NATO with live coverage of the airspace in the area. Armed Avro Vulcan strategic bombers were stationed at RAF Akrotiri as part of Britain's nuclear deterrent from 1969 to 1975, and were ready to retaliate in case of conflict with the Warsaw Pact, if the order was given via the ACE HIGH network. In 1994 the Cape Greco installation was destroyed with explosives by the British army before the site was returned to the Republic of Cyprus to become a National Guard camp.

Since 1970 Cape Greco has also been home to a powerful HF transmitter for Radio France. Since 2002 Voice of America also uses the 2MW transmitter, whereas British propaganda is broadcast by the British East Mediterranean Relay Station in Zygi and its apparent sister station just west of the Lady's Mile beach in Limassol, with both transmitting the BBC World Service in several languages. All stations cover much of the Middle East and North Africa.

The RAF radar on Mount Olympus continues to monitor civil and military air traffic over and around Cyprus, Syria, Lebanon, Israel and parts of Egypt and Turkey. The Troodos Station, Golf Section, formed in 1878 near the Troodos Square, is the oldest remaining British site in Cyprus. Being a detachment of the JSSU, it provides military planners and commanders with invaluable ELINT collected with a variety of sensors, looking for weaknesses in the defense networks of neighboring countries and detecting ships and aircraft by their radar and other electromagnetic radiation. The addition of the Starbrook system in 2006 allows Britain to scan the skies for satellites and other objects in space as small as 1,5m.¹⁵

The Episkopi Satellite Ground Section is also part of the JSSU and its primary role, according to the MoD, is to provide secure satellite communications off Cyprus, probably via the British Skynet satellite system, bridging the gap with the UK. Recently two of the three radomes of the station were removed; however security around the remaining radome and the nearby HF DF continues to be very high.

For many years the Akrotiri SBA was the site of a powerful shortwave transmitter, the Lincolnshire Poacher, a “Numbers Station” used by the Secret Intelligence Service (MI6) to transmit encrypted one-time pad instructions to undercover British agents in unfriendly regimes. The station went silent in July 2008, perhaps indicating that British spies have found easier and more efficient ways to communicate with their Legoland headquarters on the bank of the river Thames.

Next to the Akrotiri salt lake lies a huge curtain antenna, code-named PLUTO, which is a 100m tall, 200m wide, 1 MW OTH radar, detecting airplanes and missiles in countries as far as Afghanistan, Kazakhstan and parts of the Russian Federation. The vast receiving array of this OTHR lies in three rectangular structures at Ayios Nikolaos.

RAF Akrotiri is the biggest RAF air base outside the UK. Apart from its role as a staging post for military planes and troops for a wide range of operations, since the 1960s it has also been the base of American U-2 spy planes, flying as high as 20 km as far as Afghanistan, monitoring communications and collecting high resolution photos of territories being overflown. Recently the U-2s in Akrotiri participated in the enforcement of the no-fly zone over Libya. More controversial, however, is their use over Turkey and Lebanon, which in 2008 caused a diplomatic incident with the British government.

As revealed by WikiLeaks diplomatic cables, the U-2s were being used by the US to fly missions codenamed Cedar Sweep over Hezbollah locations in Lebanon, after which the Americans passed the Intelligence to the Lebanese authorities to help them track down Hezbollah militants. Likewise, the U-2s gathered Intelligence over Turkey and northern Iraq and the information was secretly supplied to the Turkish authorities in an operation codenamed Highland Warrior. The UK protested that *"in both cases, intelligence product is intended to be passed to third-party governments"*. What the UK actually feared was the possibility of being complicit in unlawful acts, or the Cyprus government finding out.¹⁶

It would be an omission in the context of this report not to refer briefly to some more recent US SIGINT operations in Cyprus. One was NSA's alleged collaboration with Crypto AG, the Swiss cryptographic and secure communications supplier trusted by many governments worldwide. According to various sources, NSA agents convinced Crypto AG to install backdoors on its equipment sold around the world, enabling the Americans to access the encrypted traffic produced by the machines used by foreign governments. From 1972 until 1992 Cyprus had been using 13 Crypto AG teleprinters linking the Ministry of Foreign Affairs in Nicosia with Cyprus diplomatic missions abroad.

When the Cyprus government was informed of the possibly compromised machines in 1992, their use was immediately discontinued. However, if the teleprinters were indeed rigged, it would mean that for twenty years the Americans had unimpeded access to virtually all the diplomatic correspondence of Cyprus.¹⁷

Another operation of the NSA in Cyprus, still ongoing, is enjoying diplomatic immunity. The roof of the US embassy in Nicosia is covered with various kinds of SIGINT antennae, installed by the secretive Special Collection Service¹⁸ and able to intercept nearly the full spectrum of frequencies. Mike Frost, a veteran of the Communications Security Establishment, the Canadian counterpart of the NSA, was trained by the SCS in Maryland on how to install similar systems in US and Canadian embassies around the globe and amassed 34 years of experience in SIGINT. In November 2000, together with Duncan Campbell, Frost prepared at my request a detailed analysis of several photos of the US embassy in Nicosia, concluding *inter alia* that

*At least part of the top floor of the US Embassy in Cyprus, is being used as an Operations Room to conduct a massive SIGINT collection operation. This operation consists of at least eight whip antennae of varying length, at least eight semi-directional Yagi antennae, two possible long wire HF antennae and at least five antenna boxes used to conceal an assortment of directional antennae. From the number and types of antennae and boxes visible it is thought that this is a 24/7 operation and covers most if not all of the radio spectrum. Below is a partial list of signals a site such as this would be able to listen to and copy: cellular telephones, nationwide and two way pagers, Internet communications, analogue and digital cordless telephones, radio frequency wireless modems, satellite telephone up/down links, terrestrial and satellite microwave communications, credit card and ATM transactions, HF radio communications and Tempest Radiation.*¹⁹

It is clear from Frost's analysis that the US embassy in Cyprus has sought and indeed has managed to complement to a great extent the SIGINT obtained and shared by the British on the island. This applies also to open source Intelligence gathering. A year after the closure of the FBIS station at Karavas in 1974, the US government obtained permission by the Cypriot Council of Ministers to reopen the station in Nicosia, where it operated as part of the US embassy. In 1985, FBIS was relocated to its present site at Archangelos,²⁰ having been absorbed by the Open Source Center in 2005, according to the recommendation of the 9/11 Commission. The station employs automatic speech recognition and translation and several other technologies to gather Intelligence from a variety of open sources including the Internet, public databases, the Press, radio, television,

video, geospatial data, photos and commercial imagery. In total, the OSC collects open source Intelligence from more than 160 countries in more than 80 languages.²¹

Despite being a Connecticut-sized Mediterranean island, too small and too distant from the US, for the better part of a century Cyprus has been and continues to be vital for Western strategic interests. During the Cold War, Intelligence gathered in Cyprus helped maintain the fragile balance with the Soviet Bloc, avoiding a destructive global nuclear war and projecting UK, US and NATO power in the Middle East and beyond. Unfortunately, the Cyprus state failed utterly to participate in this regional Great Game even as an active spectator. Instead of gain, there was great loss.

Since the beginning of the 21st century new transnational challenges have emerged. International terrorism and militant forms of radicalization, weapons proliferation, international organized crime, narcotics and human trafficking and the geo-political implications of climate change are now at the top of the agenda for policymakers worldwide.²² It remains to be seen if Cyprus will find a way to get even a small share of the profits in the international trade of Intelligence.

NOTES

1. Confidential diplomatic cable sent by US Ambassador in Nicosia Ronald L. Schlicher to the State Department on 29 January 2008, published by *WikiLeaks* on 1 September 2011 (Reference ID 08NICOSIA70). See <http://www.cablegatesearch.net>.
2. See *Politis* daily newspaper, 10 October 2000, p. 16.
3. For a more detailed review of the creation of the Ayios Nikolaos Station see the first part of my TV documentary *To Nησί των Κατασκοπίων* (The Island of Spies) first broadcast by the CyBC on 24 March 2005 and available online at <http://video.google.com/videoplay?docid=620430361579534374>. See also Richard J. Aldrich, *GCHQ*, HarperPress, 2010, pp. 161-163, and Brendan O'Malley and Ian Craig, *The Cyprus Conspiracy*, I.B. Tauris, 1999, pp. 79-82.
4. See Nicky Hager's investigative masterpiece *Secret Power*, Craig Potton Publishing, 1996, and O'Malley and Craig, *op. cit.*, pp. 83 and 125.
5. See in general Peter Wright, *Spycatcher*, Viking, 1987, pp. 153-159.

6. To the best of my knowledge this is the first time that even a part of Berry's original account is published, as it is still considered Top Secret by Her Majesty's Government. The British Security Service, more widely known as MI5, had been monitoring Berry's account to Campbell and immediately arrested both. For their subsequent prosecution, the ABC Trial, see Geoffrey Robertson, *The Justice Game*, Vintage, 1999, pp. 104-134.
7. This NSA station operated from June 1957 until 23 April 1974. Other US monitoring sites in Cyprus included Mia Milia to the northeast of Nicosia and the US embassy. A CIA Foreign Broadcast Information Service (FBIS) station, collecting, translating and analyzing Intelligence from open sources in countries of the Iron Curtain was operating at Karavas. See O'Malley and Craig, *op. cit.*, pp. 82-84. FBIS Karavas was established in 1949. At the time of its closure on the day of the Turkish invasion on 20 July 1974 it had 85 employees, including 13 Americans. See document titled *Eyewitness Reports From The FBIS Mediterranean Bureau 20-23 July 1974*, dated 18 September 1974, describing the employees' escape to safety.
8. Susan Williams, *Who Killed Hammar skjold?*, C Hurst & Co (Publishers) Ltd, 2011, pp. 139-150.
9. See James Bamford's supplemental notes with updates published online for *Body of Secrets*, Anchor Books, 2001, at <http://www.randomhouse.com/features/bamford/notes.html#page166>.
10. O'Malley and Craig, *op. cit.*, p. 168.
11. According to US government declassified documents. There are indications that this OTHR was moved to Ayios Nikolaos in the years following 1974. Whatever the case, the design and orientation of a specific antenna to the southeast of the Ayios Nikolaos station suggest it is an OTHR covering the former USSR. See the third part of my TV documentary *To Νησί των Κατασκόπων* (The Island of Spies), *op. cit.* Another OTHR, code named AN/FSQ-76 (over-the-horizon forwardscatter receiver) was located in Cyprus, probably in the 1950s and 1960s, to detect missile launches in the USSR.
12. See Hager, *op. cit.* and second part of my TV documentary *To Νησί των Κατασκόπων* (The Island of Spies), *op. cit.*
13. James Bamford, *The Shadow Factory*, Doubleday, 2008, pp. 161-163.
14. See http://www.subbrit.org.uk/rsg/features/ace_high.
15. See the European Space Agency's Bulletin 133, February 2008.
16. See *The Guardian* story titled *UK overruled on Lebanon spy flights from Cyprus, WikiLeaks cables reveal* at <http://www.guardian.co.uk/world/2010/dec/01/wikileaks-cables-cyprus-rendition-torture> and the actual cable titled HMG OUTLINES NEW PROCEDURES FOR REQUESTING INTEL FLIGHT CLEARANCES at <http://www.cablegatesearch.net>.
17. See my TV report for the CyBC, broadcast 15 July 1999, partly reproduced in the

Greek daily *Eleftherotypia* on 17 July 1999, p. 3. For more information on this extraordinary story see also http://en.wikipedia.org/wiki/Crypto_AG.

18. See Bamford, *The Shadow Factory*, *op. cit.*, pp. 213-214 and also Bamford, *Body of Secrets*, *op. cit.*, pp. 477 and 479-480.
19. Based on Frost's assessment I prepared an explosive story for the *Politis* daily newspaper, the owner of which eventually refused to publish it without even covering my agreed expenses. In the end it was published in two parts on 20 and 21 January 2001 on the front page of the daily *Haravgi* newspaper, which predictably excluded from my story Frost's SIGINT analysis of the Russian Embassy in Nicosia.
20. Cypriot Government Spokesman statement, 11 March 1987.
21. See OSC website at <https://www.opensource.gov>.
22. Roger Z. George, *Meeting 21st Century Transnational Challenges: Building a Global Intelligence Paradigm*, Center for the Study of Intelligence, Studies in Intelligence, vol. 151, no. 3, 10 September 2007.