

赴外求學交流見聞

Life Exploration by Studying Abroad

王曉葳

陸軍第六軍團指揮部參謀

前言 Preface

感謝主計局各級長官支持與鼓勵下，職才有機會獲得到美國念碩士的機會，一生中難得的時光，文化差異及語言隔閡是出國前從未想過的，但是跨越困難後收穫的果實是無法想像的豐富。

I am grateful for the chance to study in the United States for my master's degree and for the encouragements of the many senior officers in the Ministry of National Defense Comptroller Bureau. It was an unforgettable and precious life experience for me. Though I never thought about the culture difference and language barrier before I started, I received wonderful outcomes after overcoming all the obstacles.

出國前準備 Preparation before Departure

我從小生長於馬祖列島，雖然教學資源並不豐富，慶幸的是學校老師都充滿熱忱，國中時期開始學習英文，並參加夏令營，從那時

起，我便對英文充滿熱情，相信語言是與世界溝通的橋樑。

Although I grew up in Matsu, where educational resources were relatively limited, several ambitious English teachers organized camps that fostered my love for learning English and reinforced my belief that is a bridge to the world.

另外，在國家雙語政策推動下，學生們很早就開始學習英語，所以基本的閱讀跟聽力不構成問題，只是我們所處的環境並沒有需要全英語溝通，因此，我在準備托福考試時期，除了專心準備考試，也會透過收看美國影集嘗試模仿美國人道地的說話口音及語氣，以期自己能夠順利融入美國上課環境。

On the other hand, thanks to our Taiwan bilingual policy, students have started to learn English at an early age. We have no problem with reading and listening, but we are not very fluent in speaking since we do not use it in daily life. Therefore, when I was preparing my TOEFL test, I also tried to improve my oral skills by watching some American TV series to mimic the tone from native speakers.

語言隔閡 Language Barrier

由於就讀科系為財務管理碩士MBA，大部分的上課時間都在課堂討論，教授也特別注重學生參與度及發言，畢竟是針對中階領導幹部設計之課程，懂得如何清晰發表自己見解是很重要的環節，加上每個學季都會有小組報告的作業，如何與美國同學合作分工，如何在不同文化背景下順利溝通，實屬一大難題，幸運的是，由於大家都是服役經驗豐富的軍人，都明白任務導向優先，無論如何，我們都會竭力完成分組作業，部分美國同學由於曾經派駐海外，對國外事務會顯現出高度興趣，也會願意交流文化知識，進而建立起友誼的橋樑。

Most classes required participation and discussion since it was MBA program. Our professors liked to see us being involved and expressing our thoughts. How to clearly express ourselves is an important part for being a leader. We have group projects each quarter. How to cooperate with American military students and other foreign country students is quite hard for me. Fortunately, we are all militaries which means we are all mission orientated and will work hard together. Some of them have been deployed overseas so they are willing to learn different cultures and help out foreign militaries. Therefore, we can build friendship with these alliances based on school work.

跨國界團隊合作 Teamwork with Alliance

教授曾經告訴我，就算在同一個軍種，都會

因為意見分歧而有不同的語言，而NPS（美國海軍研究院）是一個讓美軍學生與世界各地國際學生共同合作的交流平臺，語言及文化的差異對合作是一大挑戰，但是透過適當的溝通協調，就能夠互相學習成長，我與兩位美國海軍軍官在英國籍教授指導下，共同以航空母艦林肯號（ABE）為研究對象，進行高速網路的商業分析，此項財務模型可提供給未來美軍各艦隊作效益評估模型，也有助於我國軍建置數位營區。

A professor told me, people could speak different languages even in the same branch since they have different thoughts. Not to mention here in NPS (Naval Postgraduate School) with students from entire world; however, we could still cooperate form each other by proper communication. Two U.S. Navy officers and I were instructed by a British professor for our thesis research. We did business case analysis (BCA) for high speed internet (HIS) based on the aircraft carrier Abrham Lincoln (ABE). The business model can not only provide benefits for U.S. navy fleet but also for us to build digital barracks.

我們的研究目的是針對美國航空母艦林肯號在靠港期間或遠航期間的財務成本做一個商業案例分析，三個主要的網路財務模型分別是光纖網路、5G電信及衛星網路，運用於海上而增加工作及生活品質，並量化成金額後，做一個淨現金流量分析，以此證明將對軍種帶來正面效應並鼓勵後續相關研究，以期打造更加有創造力、效率及向心力的海軍艦隊。

Our thesis purpose is a Business Case Analysis (BCA) examining the financial costs of maintaining continuous and reliable internet access for USS Abraham Lincoln (ABE, CVN-

72) both in-port and at sea. The three main methods of connectivity analyzed were Cox pier side fiber internet, Fifth Generation or Long-Term Evolution (5G/LTE) cellular internet and Starlink commercial satellite internet. To estimate monetized benefits of Sailors having improved Quality of Work (QoW) and Quality of Life (QoL) at sea, to calculate an overall Net Present Value (NPV). This thesis serves as a financial proof of concept to encourage further research and analysis into this field, to enable a more productive, efficient and connected naval fleet.

研究問題目的在解決生活中真實的問題，美國海軍現在使用衛星網路連接不穩定且網路緩慢，這些衛星網路僅僅在於提供官兵工作所需，非常低限度的在提升官兵休閒所用，大部分官兵的工作需仰賴網路，船艦上的公務電腦也僅供公務所需，非常少設置休閒網路供官兵使用，另外，船艦上也沒有wifi，官兵需要在靠港時準備好自己的休閒讀物供遠洋使用，即使靠港期間的網路訊號仍低於正常水準，大部分海軍軍艦都要求官兵在有限頻寬內完成高難度生產力的工作，新的證據顯示科技與網路將為海軍問題的解決方法開啓一道門。

Let me introduce our problem statement.
Internet connectivity aboard U.S. Navy ships via



論文簡報與指導教授合影
Thesis presentation with team members
and instructor

traditional military satellite systems is historically unreliable and slow. These satellite systems are typically reserved for military purposes only (QoW) leaving very little room for sailors' personal or leisure access (QoL). A significant amount of sailors' work needs to be accomplished over the internet; therefore, the government computers on the ship are primarily used for work purposes only, and very rarely – if ever – used for leisure. Additionally, most U.S. Navy ships do not have Wi-Fi access aboard, for sailors' leisure. Sailors must bring with them all desired digital entertainment content before the ship leaves port.

Internet connectivity in-port is also well below standards for today's interconnected society. Most U.S. Navy ships have limited bandwidth and computer access, even when moored to the pier for a maintenance availability. Anecdotal evidence suggests computer access and low bandwidth may seriously hamper productivity in shipyard availabilities by making it difficult for sailors and shipyard workers to accomplish their work in a timely manner.

New advances in technology and connectivity have opened the door to potential solutions for the Navy.



畢業典禮與論文小組合影
Our thesis team on graduation day

文化體驗 Culture Experience

華盛頓特區參訪團

Washington DC Fieldtrip

利用機會參與學校安排各國國際軍官至東岸參訪，行程包含五角大廈、國務院、蓋茲堡戰場、維農山莊以及美國海軍官校，蓋茲堡會戰為美國內戰期間，在1863年7月發生在蓋茲堡半島的戰役以大量傷亡為轉捩點，導遊大哥帶領我們實地到戰場感受當初雙方交鋒的部隊走向，透過實地演練方式讓我們體會到當初部隊交鋒情形；另外，我們也實地到美國海軍官校參訪，並在學生餐廳與臺灣學生一起用餐，人在異鄉能見到同為臺灣軍校的學弟們，倍感親切。

I have attended an NPS field trip for international students to Washington DC. It was a great chance to visit some famous spots that included: Pentagon, State of Department, Gettysburg battlefield and the US Naval academy. The Battle of Gettysburg was fought in July, 1863, in and around the town of Gettysburg, Pennsylvania, by Union and Confederate forces during the American Civil War. The battle involved the largest number of casualties of the entire war and is often described as the war's turning point. Also we got the chance to visit the US Naval Academy and had lunch with Taiwan students who were sent to study there. It was a nice tour to see where brilliant navy officers are produced from Taiwan.



蓋茲堡紀念碑
Gettysburg monument



美國海軍官校
United States Naval Academy

優勝美地參訪團

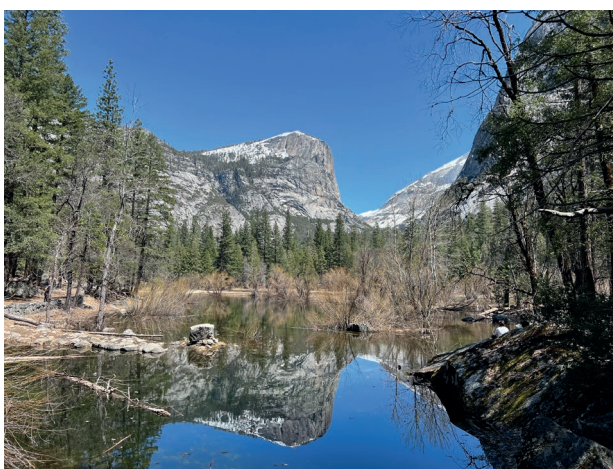
Yosemite National Park Fieldtrip

美國地大物博，國家公園不計其數，戶外活動盛行，有幸參與國際學生參訪團至加州優勝美地國家公園，優勝美地為加州排名第一的國家公園，距離學校3至4小時車程，擁有全世界最美的U型冰河谷地形，第一次踏進國家公園被大自然的芬多精震懾，奇岩巨石以及壯觀的瀑布，離開城市的喧囂並且能夠盡情沐浴在陽光綠葉，與國際學生一同爬山健行，除了欣賞風景，鍛鍊體力，還能消除壓力，同時交流不同國家風土民情，不禁讚歎大自然的鬼斧神工及人類的渺小，期許自己能夠更謙虛且更勤勉地面對學業與生活。

There are tons of incredible national parks in the US and people are willing to do outdoor activities such as hiking. I joined another field trip to Yosemite National Park which has been ranked as the best national park in California. It took us 3 to 4 hours to drive there, which is not that far compared to other national parks. Yosemite is known for the most beautiful U shape glacier valley. As soon as I stepped into the park, I was struck by the sights and smells of the strange rocks and magnificent waterfalls. I left the hustle and bustle of the city and bathed myself in sunlight and green leaves. Hiking with international students was really fun, not only for the views we saw on the road, but also learning different cultures from different countries. I was astonished by the great power of nature and how tiny human beings are. Through the trip, I had made a wish for myself to be more diligent on school work and daily life.



國際生校外參訪團 - 優勝美地合影
NPS international student field trip



優勝美地國家公園 - 鏡子湖
The Mirror Lake of Yosemite National Park

美式飲食文化 American Foodies

民以食為天，到了美國，當然要融入當地的飲食習慣，既然到了加州，就要體驗加州最有名的美式連鎖漢堡店In-N-Out，新鮮的牛肉漢堡排以及現切的馬鈴薯炸出來的薯條，另外，別忘記點動物薯條，那是隱藏版菜單！

There is an old saying which is: when in Rome, do as the Romans do. Since I lived in the US for a period of time, I told myself to get used

to their cuisine as well. Of course, they are famous for burgers. The most popular one in California is “In-N-Out Burger”. Their burgers are made from fresh beef and vegetables. Do not forget to order the animal-style french fries which is a secret menu item.



In-N-Out 漢堡套餐
In-N-Out burger

結語 Conclusion

你不能決定生命的長度，但是可以決定生命的寬度與深度，我真心的感謝能夠有這樣的機會去看世界，學習如何廣泛思考及與不同國家的同僚合作，看過令人驚豔的風景同時也在忍受孤獨後獲得獨立的禮物。

You cannot control the length of your life, but you can control its width and depth. I am sincerely thankful for the chance to see the world. I have learned how to think broadly and how to cooperate with partners from different countries. I have seen amazing scenery and suffered from being lonely. In the end, I have gained the ability to be independent.