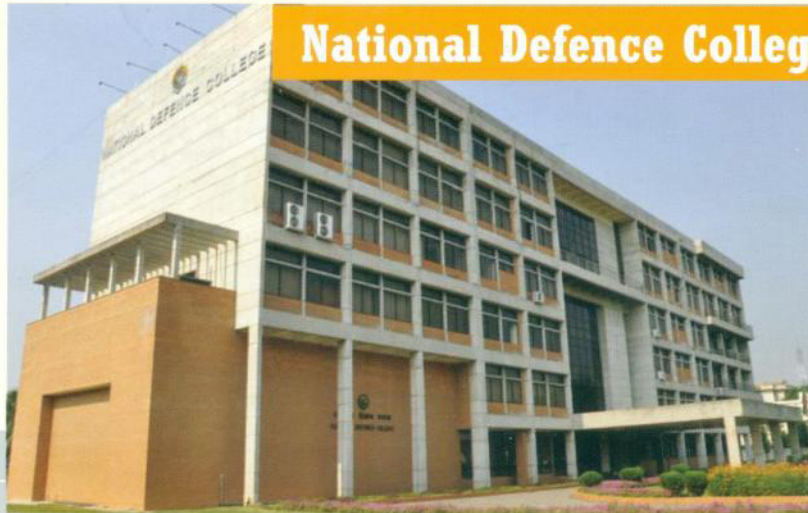




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National Defence College, Bangladesh



Commandant's Note

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I am extremely delighted to see the 2nd edition of NDC newsletter, which has quite vividly portrayed the glimpses of course curriculum and activities conducted in the college. I am sanguine that the course members, faculty, staff, and the alumni alike would love to scan down the booklet to stroll through the nostalgic and colourful memory lane.

The contemporary world is marked with phenomenal technological development, particularly in the fields of social-media and IT. While the Armed Forces today is depending more and more on superiority of data collection and weaponry, the multi-faceted non-traditional

threats have taken the centre stage in the security parlance round the globe. We observe these everyday in our curriculum, in war games and in our research. Through these and with the criss-cross interactions among the course members across the continents, we endeavour at developing the balanced view and vision to provide effective and knowledge based leadership at strategic and operational realm.

I appreciate the sincere efforts of the AFWC wing and acknowledge the solemn endeavour of the editorial board to bring out the current issue of the newsletter.

"Rabbi Zidni Ilma (O my Lord! Advance me in knowledge)"

The Board:

Chief Patron

Lt Gen Mollah Fazle Akbar
Commandant

Patron

Brig Gen Mesbah Ul Alam Chowdhury
CI, AFWC
Gp Capt Javed Tanveer Khan
DS (Air), AFWC

Editorial board

Capt K M Azim, BN
Gp Capt S M Muiet Hossain
Lt Col Md Akhtar Iqbal
Lt Col Khairul Islam



Commandant with Myanmar Naval Chief



Finance Minister Abul Maal Abdul Mubith, MP in the Certificate Awarding Ceremony of Capstone Course

"Those willing to give up a little liberty for a little security deserve neither"
- Benjamin Franklin

"Learn from yesterday, live for today, hope for tomorrow. The important thing is not to stop



Commandant Attending a Defence Seminar at Colombo, Sri Lanka

Key Events



Academic Events



NDC 2014



AFWC 2014



Capstone Course 2014

Internal Study Tour and Local Visits

Internal study tours and local visits are aimed at providing an in-depth understanding of the state organs, security and defence organizations, business world, non-government and social institutions, industrial base as well as the culture and traditions of Bangladesh.



Visit of NDC 2014 to National Mausoleum



Visit of AFWC to National Parliament



ND Course after witnessing Joint Reveille at Benapole Border



AFWC at AHQ



A Sunny Day at AFD



ND Course during Cox's Bazar Visit



Distinguished Visitors and Guest Speakers

Ministers, members of parliament, senior military officers, academicians, intelligentsia, , business leaders, technocrats, ambassadors and high commissioners are invited to share their multi-dimensional experience, knowledge and wisdom through lectures, open discussions and interactive sessions.



Dr Gowher Rizvi interacting with the course members of ND Course



Minister of Agriculture Delivering Lecture at NDC



CNS in a Session with AFWC



COAS with his Vision with AFWC members



CGS Delivering Lecture to AFWC



RCDS Team's Visit to NDC



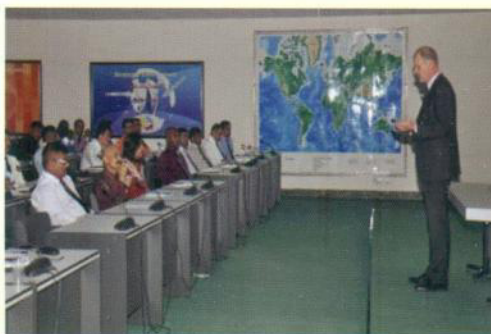
Dr Hossain Zillur Rahman Delivering a Lecture to ND Course Members



Tanzanian Delegation Visiting NDC



JOPP, UK Team with AFWC Members



Mr. Johannes Zutt, Country Director, WB Interacting with ND Course



Lt Gen Dan 'FIG' Leaf (Retd), Director, Asia Pacific Centre for Security Studies with ND Course



Knowledge Corner

Military Application of Nano Technologies

Historically, nanotechnology is a child of the nuclear weapons labs. During and after the wars in Iraq, Yugoslavia and Afghanistan; it was felt that some new earth-penetrating weapon was needed to destroy deeply buried command posts, or facilities related to weapons of mass destruction. The need was amply met by the emergence of a powerful new weapons with the inner space of matter to be conquered by the science of nanotechnology, i.e., the science of designing microscopic structures in which the materials and their relations are machined and controlled atom-by-atom. Today Scientists are using nanotechnology to create materials with properties that will



revolutionize military technology. In fact, nanotechnology is no longer a dream discipline for future research-it is creating products for specific applications today. High strength nano-composite plastics are soon expected to replace metal and thus reduce weight and radar signature of military weapon platforms. Nano-fabrics are currently being researched for use in military camouflage. A development called 'active camouflage' allows the wearer or object to blend into its surroundings, much similar to the cuttlefish that has remarkable ability to change colour to protect themselves from predators. Considering that nanotech-

nology is already an integral part of the development of modern weapons and other military gadgets, it is important to realize its immediate as well as long term potential in military applications. Nanotechnology is not a difficult technology to acquire. Indeed, many less developed states and emerging economies are investing heavily on nanotechnology industries. Emerging economies could take advantage of a greater flexibility in developing entirely new armament manufacturing capabilities that effectively incorporate latest nano-technological innovations and developments. Nanotechnology may thus serve as a potential 'game changer' in the military landscape.

Future of Navy: Laser, Electric Guns and Water as Fuel

Imagine ships that fire missiles at seven times the speed of sound without using explosives, or that use lasers to destroy threats at the cost of about a dollar a shot, and vessels making fuel from the very seawater in which they are floating. That is the glimpse of the high-tech future ships. The Laser Weapon System (LWS) can be fired by one sailor using a video game-like console and spending about \$1 per shot of a directed-energy source. The other weapon prototype, the electromagnetic railgun, uses electromagnetic force to



send a missile at 7.5 times the speed of sound. The railgun projectiles could cost about 1/100th the price of current missiles. There has also been proof-of-concept on the ability to draw carbon dioxide and hydrogen from seawater and turn it into forms of gasoline. All these can change the way we plan and think of conducting warfare.

Future Soldier System

Today's combat troops are the best trained men and women in the history. The military is constantly adapting to the requirement of the challenging battlefield. Researchers around the world are devoting themselves to equip the 21st century soldier with latest gadgets and cutting edge weapons to overpower the enemy. Not long before, the ground combatant marched his way through the muds and bloods depending on his rifle and boots. Much have changed, today soldiers are equipped with corner-shot guns, bulletproof vests, personal GPS, night vision goggles and host of other high-tech gadgets.



But what awaits in future? The future is always uncertain. However, by applying logic and imagination to current situations and tech-

nologies, the 'Future Soldier System' concept was developed to identify capabilities a Soldier might carry into battle. The 'Future Soldier System' concept envisioned the radical use of technologies such as nanotechnology, powered exoskeletons, and fluid-based body armor to provide the infantry with significantly higher force multiplier than the opposing force. As the asymmetric battlefield continues to evolve, a future soldier will probably equipped with a single unmanned platform capable of operating in all environments of the complex battle space conducting missions through the mazes of city buildings, streets, vehicles, tunnels, and waterways along with operations in mountain valleys, ridges, caves, and rivers. Efforts are on in developing a Harry Potter style invisible cloak to hide the soldiers from enemy detection.





High Energy Liquid Area Defence System

Enemy surface-to-air threats to manned and unmanned aircraft have become increasingly sophisticated, creating a need for rapid and effective response to this growing category of threats. High power lasers can provide a solution to this challenge, as they harness the speed and power of light to counter multiple threats. Defense Advanced Research



Projects Agency (DARPA) has plans for a system that neutralizes surface-to-air threats to aircraft with its High Energy Liquid Area Defense System (HELADS). The goal of the HELADS program is to develop a 150 kilowatt (kW) laser weapon system that is ten times smaller and lighter than current lasers of similar power, enabling integration onto tactical aircraft to defend against and de-

feat ground threats as well as provide additional capability for offensive missions, adding precise targeting with low probability of collateral damage. The weapon system can also be mounted on armoured combat vehicles and patrol ships.

Security and Development Nexus: A Jigsaw Puzzle?

Most contemporary wars are intrastate conflicts, which often have far-reaching regional as well as international dimensions and ramifications. Such conflicts are often thought to be the consequence of the failure of a country's developmental efforts. The interactions of security and development are frequently encapsulated in the maxim "No security without development, no development without security". Therefore, they are increasingly regarded as overlapping policy fields, although they are not always congruent.



Linking security and development can result in the securitization of development rather than the 'developmentalization' of security. Many in the development sector remain concerned about the subordi-

nation of development to the security priorities. For development actors, securitization of a development issue may raise their prominence on the political agenda, which can lead to immediate action, political prioritization and mobilization of funds. As such, although several authoritative policy documents state a direct link between development and security, the link remains contested both in policy and academic communities.

Fabian Strategy: Origin of Asymmetric Warfare?



Quintus Fabius was a Roman General during the Second Punic War (218-202 BC), in which the dictator of the Roman Republic gave him the task of

defeating the great Carthaginian General Hannibal in southern Italy. He advocated avoiding open battle, which later came up as the famous 'Fabian Strategy'. The 'Fabian Strategy' is a military strategy where pitched battles and frontal assaults are avoided in favor of wearing down an opponent through a war of attrition. While avoiding decisive battles, the side employing this strategy harasses its enemy through skirmishes to cause attrition, disrupt supply and affect morale.

Ptolemaic and Copernican views and analogies to common war fighting perspective



Ptolemy reasoned that the universe revolved around the earth—like the way some think about ground operations being at the center of all warfare. Copernicus set science straight, recognizing that the earth was but one part of a much greater universe, which revolved around the sun—like the actual relationship between air, land, and sea operations and how they contribute to a joint theater campaign.



Social Events

Social programmes are arranged for course members and their families in order to make life at NDC more enjoyable



Ice Breaking Programme - A Special Moment



A glimpse of Commandant's Garden Party



Ladies Trying out Putting during Annual Picnic



Ladies Gathered during Commandant's Dinner



Eso-be-Boishakh... Welcoming Bangla New Year 1421



Exotic Food Display during Pohela Boishakh



Cricket Champ—ND Team Receiving Trophy



A Cricket Moment

Sports

Various sports competitions like cricket, tennis, golf and volleyball are organized by the college in order to provide much needed relief



Sweating Out Through an Exciting Volleyball Match



NDC-Janik Golf Tournament

Ladies Club

Ladies club programme is another attraction for families of both Bangladeshi and allied course members



Chair Person of NDC Ladies Club



Senior Ladies in Ladies Club Programme



Ladies Club Programme on Rabindra Nath Tagore



Ladies Club Programme Celebrating Birthday of the National Poet



Alumni Page

Capstone Course Reunion 2014



A Glimpse of Important Visitors

Major General M L Riddle Webstar	Director, CMT, UK Defence Academy	02 March 2014
Lieutenant General Charles Lawrence Makakala	Commandant NDC, Tanzania	30 March 2014
Lieutenant General Dan 'FIG' Leaf (retd)	Director, APCSS	28 April 2014
Admiral Zeya Kyan Htin Thura Thet	C-in-C, Myanmar Navy	08 May 2014
Lieutenant General Sir David Bill KCB (retd)	Commandant, RCDS	05 June 2014

National Defence College (NDC) was established on 7 December 1996. It is located at Mirpur cantonment in Dhaka city. NDC conducts two major courses, ND course and the Armed Forces War Course (AFWC). Besides, NDC also conducts Capstone Course for the highest level policy makers of the country. Courses in NDC are designed for the training of senior officers of the armed forces and civil services for higher responsibility in the direction and management of defence and national security.

National Defence College, Bangladesh

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