



# ASIA-PACIFIC PROGRAMME FOR SENIOR NATIONAL SECURITY OFFICERS (APPSNO)

14 - 20 JANUARY 2007 ||  
THE SENTOSA RESORT AND SPA, SINGAPORE ||



NATIONAL SECURITY  
COORDINATION SECRETARIAT

# ASIA-PACIFIC PROGRAMME FOR SENIOR NATIONAL SECURITY OFFICERS (APPSNO)

REPORT ON A CONFERENCE ORGANIZED BY  
THE NATIONAL SECURITY COORDINATION SECRETARIAT (NSCS)  
AT THE PRIME MINISTER'S OFFICE, SINGAPORE  
AND  
THE CENTRE OF EXCELLENCE FOR NATIONAL SECURITY (CENS)  
AT THE S. RAJARATNAM SCHOOL OF INTERNATIONAL STUDIES (RSIS),  
NANYANG TECHNOLOGICAL UNIVERSITY, SINGAPORE

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## OPENING REMARKS



MR. BARRY DESKER, DEAN OF RSIS, WELCOMING THE PARTICIPANTS.

Mr. Barry Desker, Dean of the S. Rajaratnam School of International Studies (RSIS), warmly welcomed the guests and participants to the inaugural Asia-Pacific Programme for Senior

National Security Officers (APPSNO). Jointly organized by the Centre of Excellence for National Security (CENS) – a centre within RSIS – and the National Security Coordination Secretariat (NSCS) of the Prime Minister's Office, APPSNO brings together senior national security officers from the Asia-Pacific and beyond to network and learn from one another through inter-active programmes.

The traditional concept of 'national security' defined as homeland security – the internal security of the state – is currently being challenged by the emergence of diverse transnational threats, requiring a whole-of-government approach to national security. In this increasingly interconnected world where goods, people as well as ideas move at an unprecedented pace, cooperation between states is more necessary than ever.

Dean Desker asserted that a key objective of APPSNO is to promote such cooperation and interaction through the facilitation of the exchange of views and deliberation of important contemporary issues within the rubric of national security.

## OPENING ADDRESS



DEPUTY PRIME MINISTER PROFESSOR S JAYAKUMAR DELIVERING THE OPENING ADDRESS.

Professor S Jayakumar, Deputy Prime Minister, Coordinating Minister for National Security and Minister for Law, delivered the opening speech. He pointed out that by bringing together academics and government agencies from different countries to deliberate on national security challenges, APPSNO provides opportunities for its participants to broaden their mindsets and perspectives.

International cooperation is a key element in the fight against terrorism. According to Professor Jayakumar, the 9/11 attacks have highlighted the lethality and devastation of a global terror

network. By franchising its global brand of terror, Al Qaeda and its local affiliates are well-positioned to exploit local conflicts and local grievances, distort their ideological significance and expand their sphere of terrorist activity. For example, the Jemaah Islamiyah has shown its capacity to operate across national borders and inflict horrific casualties despite having its cells disrupted and some of its personnel on the run.

In the face of transnational terrorist threats, it is not possible for any single country to win this fight on its own. While individual countries can take measures to harden themselves as targets and prepare for the fallout from an attack, intelligence cooperation between security forces from different countries are critical in preventing terrorist attacks and crippling terrorist groups.

Although security agencies around the world have been successful in disrupting terrorist operations, the threat is by no means extinguished due to the determination of the terrorists who are in it for the long haul. The constantly evolving nature of terrorism forces nations to remain vigilant and resilient.

Hence the exchange of intelligence, ideas and best practices has to be an on-going process. To this end, APPSNO is designed to bring together senior national security officers in a multi-national, multi-cultural environment so that a shared understanding in the common fight against terrorism can be forged.

# SESSION I: THE CHALLENGE OF HOMELAND SECURITY IN THE 21<sup>ST</sup> CENTURY



CLARK ERVIN IDENTIFYING THE CHALLENGES TO NATIONAL SECURITY.

Clark Ervin focused the scope of his talk to addressing seven challenges to national security. The first challenge was the nature of terrorism. He felt it is impossible for any country to prepare for a terrorist attack as contemporary terrorism is unpredictable. The threats are also global in nature and so countries must work together to overcome the threat. He described the current threat of terrorism as existential in nature, underscoring the intention of the perpetrators to maximize the number of deaths, injure as many people as possible and disrupt their way of life by sacrificing their own lives for what they believe is a divine cause. A dilemma facing the intelligence community is the challenge of negotiating with the terrorists as these individuals are not driven by rationality and logic. He contrasted this with the experience of dealing with the communists who had a clearer agenda and a desire to ensure that a stable world order was maintained. Ervin argued that the international community's success in eliminating Al-Qaeda is significant but limited since Al-Qaeda has managed to regroup in recent times.

Second, he commented that the current odds favor terrorists. He believed that these terrorists are able to take refuge in failed states like Pakistan, Iraq and Somalia. In addition, given the unpopularity of the American government after the Iraq War, more terrorist attacks in the future are likely. He also admitted that it is difficult for the United States to prevent terrorism on communication links due to the extensive nature of these links in the US.

Third, he observed that governments are now increasingly faced with the issue of striking a balance between enforcing security and maintaining civil liberties. While, most people do not mind that certain aspects of their civil liberties are intruded upon and even at times sacrificed for the sake of security, certain extreme measures taken by the authorities such as the tracking of every single call in the US and rounding up American Arabs for interrogation irritate the larger community, as well as alienate the Arab-Muslim community at the time when their cooperation is most needed.

Fourth, Ervin pointed out that antiquated mindsets among officers in the different security agencies in the country constitute a challenge for national security. He explained that these agencies were spending more time squabbling among themselves than addressing the problems related to national security. For instance, in response to the events of Sept 11, little is being done to coordinate efforts of these agencies. It was only after the formation of the Department of Homeland Security that all the 23 relevant organizations were brought together to address concerns about national security. He suggested that despite the formation of this department, a single international organization is needed to counter terrorism effectively. Moreover, as the US government tends to draw a dangerous distinction between "national" and "homeland security" and accord priority to the former, the US Congress is not willing to spend on homeland security. He also felt that it is important for homeland security agencies to share information and go beyond classified information to use data from newspapers and magazines, because information which is not classified can also be important.

Fifth, although there is still a large security gap that exists in the US after 9/11, he believes that the US is a safer place right now than before. For instance, thousands of air marshals are now deployed to ensure the security of passengers on board planes. However, he admitted that it is not difficult for terrorists to sneak bombs into various custom checkpoints in 21 airports around the country. He added that as little as only 6% of container cargo coming into the US are inspected.

Sixth, he feels that the current measures taken to ensure national security are defensive in nature rather than offensive with little done to prevent the spread of terrorism. He feels that the American security agencies are not capturing or killing terrorists faster than the terrorists' ability to recruit new members. He called for an official strategy to stop the flow and creation of terrorist. While, he supported the spread of democracy in the Muslim World as a strategy to counter terrorism, he also believes that democracy must be allowed to grow organically. A failure to do this will result in the strengthening of radicals. On the economic front, he proposed that the world economy must result in visible and tangible improvements to people's lives. On the socio-cultural front, he believes that the American government must engage in dialogue with the Muslim World and encourage educational reforms.

Lastly, he pointed to the need for global support in the US' effort to protect its national security. He said that more needed to be done to ease the Arab-Israeli conflict. The US must also begin to engage Iran and Syria. He encouraged international cooperation and sharing of information to protect national security.

# PANEL DISCUSSION I: TRENDS IN TRANSNATIONAL TERRORISM



ROHAN GUNARATNA TRACING THE EVOLUTION OF THE TERRORIST THREAT.

Rohan Gunaratna presented on the evolving threats of terrorism, and explained the factors that contributed to the success and 'originality' behind Al Qaeda's attacks. Previously, terrorist organizations only had jihad agendas within their respective local contexts. However, Al Qaeda promoted a global jihad agenda that eventually appealed to the majority of them, hence causing a slight shift in their strategic postures. In light of this, the post-9/11 threat landscape has witnessed the shift of the epicenter of international terrorism from Afghanistan to Iraq. Iraq is both a magnet and a lightning rod, having a profound effect on Muslim territorial and diaspora communities. Just like Afghanistan which produced the previous generation of Mujahiddin warriors, Iraq too will produce a new generation of terrorists.

Since 9/11, the strategic environment has changed dramatically, with the emergence of various centres of gravity (Indonesia, Mindanao and Southern Thailand). Notwithstanding terrorism, ideological extremism will remain the tier-one regional threat in the foreseeable future. As such, Gunaratna stressed the need to create rehabilitation groups that will facilitate communication with Muslim communities, so as to mitigate the dangers posed by the "ideologization" of the population.

Gunaratna also identified three categories of threat: the traditional active structure of Al Qaeda, Southeast Asian fundamentalist groups associated with Al Qaeda, and the Al Qaeda-inspired home-grown cells. Terrorism, according to him, is a by-product of ideological extremism. He added that the changing ideological complexion leads to terrorist activities being increasingly ideologically-driven, whereas group affiliation has become less significant. Terrorists have also adopted pragmatic approaches such as devising a dual track strategy of political activism and military operations as well.

In terms of international and domestic responses, both U.S. and Australian assistance are regarded as pivotal in disrupting multiple operations. For greater successes against terrorist operational cells, the US and Australian presence will be greatly needed for better communications, precision analysis, and training and equipping elite forces in the region.

The current threat points to the growth of a robust terrorist organization, especially so in Southeast Asian countries where Abu Bakar Bashir, the spiritual leader of Jemaah Islamiyah (JI), is still on the loose. The poor enforcement of legal procedures in curbing terrorism has allowed the threat to shift towards Eastern Indonesia and Philippines, in turn creating a permissive environment for groups such as JI and MILF to operate.



MICHAEL MOODIE ASSESSING THE POTENTIAL IMPACT OF THE USE OF BIOLOGICAL WEAPONS IN THE WAR ON TERROR.

Next was the presentation by Michael Moodie on WMD terrorism. The potential use of biological weapons entails the following risks: enhanced access to materials and knowledge, covert production facilitated by lack of 'signatures', major gaps in deterrence and defence and advances in biotechnology. These risks tend to increase threat diversity and complexity. Under certain circumstances, they may also cause public panic and social disharmony. For example, given the right air conditions, the use of anthrax can cause 1-3 million casualties, illustrating the strategic impact of biological weapons. The cult Aum Shinrikyo not only conducted R&D efforts with anthrax, botulinum and sarin, it also tried to secure Ebola samples from Zaire. Moreover, both Al Qaeda and JI have a documented interest in acquiring chemical and biological weapons, though they have been unsuccessful so far.

However, the extent of terrorist capability is still ambivalent as far as the usage of biological weapons is concerned. There are scholars who would argue that advanced capabilities are not likely to become available to real world terrorists in the near future, while another camp contends that sophisticated practical knowledge are already ubiquitously available, even at the high school level. Yet to argue over the issue of capability only misses the larger danger of underestimating the potential risks of biological weapons. For clarity sake, Moodie defined the complex terrorist threat as composing the following elements:

- Actors (motivations, objectives, capabilities)
- Agents (clinical, technical, objectives)
- Delivery (options, technical, efficiencies)
- Targets (people, locations, symbols, events, food supply, plant and animal)

Moodie's observations gave rise to several threat findings. First, potential pathways are found to be more numerous than commonly described, such as actors with diverse objectives and motivations, a wide variety of potential agents as well as numerous delivery methods. Second, terrorists always seek to inflict maximum damage with minimum cost, without actually needing an advanced capacity to achieve that objective. Third, there is increased proliferation. It is not just the problem of use, but more pertaining to access with an increasing flow of not just materials and equipment but knowledge as well. This phenomenon accounted for the emergence of "proliferation entrepreneurs" who would use the same networks for drug smuggling and human trafficking.

In conclusion, governments cannot cope with all types of WMD terrorist threats in the global fight against terrorism. Moodie thus advocated a shift from threat-based to risk-based approaches. The aim is not to predict the unforeseeable but to try to respond to it effectively. There should also be risk, scientific, and impact assessment underlying the need for public-private partnerships. Key players such as the scientific community and life sciences industries who have traditionally been indifferent towards security issues must be encouraged to promote a culture of responsibility amongst their constituents. Ultimately, the problem does not lie in identifying specific threats for elimination, but understanding how the risk of such threats can be managed.



KUMAR RAMAKRISHNA PROBING INTO THE CONTEXTUAL, PSYCHOLOGICAL AND IDEOLOGICAL MOTIVATIONS OF THE JEMAAH ISLAMIYAH.

Finally, Kumar Ramakrishna talked about the Jemaah Islamiyah (JI) threat. He started his presentation by emphasizing its transnational aspect, before assessing intelligence measures in the distinction between "counter-terrorism early warning" and "counter-terrorist early warning". For the former, he proposed an analytical framework that would take into account contextual, psychological and ideological factors.

Contextual factors include socio-economic and political elements. (e.g. objective reality of political and socio-economic marginalization viz. "second-class citizenship" in Southern Thailand/Southern Philippines); coercive elements (e.g. insensitive government and security force behaviour in South Thailand and South Philippines, repression of politically mobilized Muslim constituencies in Indonesia); cultural and historical elements where pockets of regional socio-cultural space may, in certain circumstances, be conducive to radicalization (e.g. "warriorlike" West Javan Bontanese in Indonesia). This also depicts the "trans-generational transmission" of radicalism within certain Southeast Asian Muslim families (e.g. JI second generation al-Ghuraba cell being incubated in Karachi).

As for psychological factors, Kumar pointed out that "concretist" personalities prefer certainty to ambiguity, and think in distinct "us-versus-them" categories. Such an attitude is characteristic of religious fundamentalism, where its adherents are usually highly dogmatic, intolerant, and more emotional than analytical. Seeking to impose their worldviews on others, they are prone to believe illogical untruths despite discordant empirical information. In the domain of social psychological factors, the importance of group identity was identified as the source of distinctiveness, dignity and emotional wellbeing. For instance, if group members perceive that the "group tent" is under attack, they will mobilize to defend it. This provides one of the reasons why Singapore militants joined JI and even MILF despite the transnational nature of these organizations. Perception of group persecution reinforces the innate binary, "us-and-them", good-versus-evil worldview of religious fundamentalists in particular.

On ideological factors, Ramakrishna described Islamism in Southeast Asia as a complex phenomenon. Underlying its complexity is a mixture of indigenous and Arabized elements. While Islamists can be seen as religious fundamentalists in general, adopting a rigid "us-versus-them" mindset, many Islamists are actually non-violent (e.g. PAS in Malaysia and Hizbut Tahrir Indonesia). The most dangerous Islamist ideology is "Al Qaedaism", which portrays Islam as involved in a cosmic war for survival with an "evil Jewish-Crusader Axis" led by the US, Israel and a Western coalition. Al Qaedaists exalt the religious principle of *al-walaa wal-baraa*, espousing the unity of all Muslims against non-Muslims to the extreme, deeply reinforcing a rigid binary worldview and thereby justifying the employment of extra-normal violence against Western civilian populations.

In sum, the transnational, networked and non-state threat of Jemaah Islamiyah arises from the specific conjunction of localized contextual factors, social psychological variables, and specific ideological impulses. There is a need to understand the circumstances in which these factors actually come into play.

## SESSION II: THE SINGAPORE MODEL OF NATIONAL SECURITY



LEE ARK BOON OUTLINING SINGAPORE'S APPROACH TO NATIONAL SECURITY.

Lee Ark Boon presented on Singapore's national security context. He provided a brief overview of the local and regional situation, made salient by the presence of major terrorist organizations (e.g. Jemaah Islamiyah and Abu Sayyaf) as well as their affiliations to other extremist groups. He recalled that the seriousness of the terrorist threat to the region after 9/11 compelled the creation of the National Security Secretariat (NSS), a unit designed to strengthen coordination among Singapore's existing security agencies. NSS sought to forge and strengthen inter-agency links between these organizations and other relevant government ministries, directing efforts against the emerging threats of non-conventional warfare and transnational terrorism.

Subsequently, NSS (under the Ministry of Defence) was renamed the National Security Coordination Secretariat (NSCS). NSCS comprises the National Security Coordination Centre (NSCC) and the Joint Counter Terrorism Centre (JCTC). NSCS was placed under the Prime Minister's Office. As part of NSCS, NSCC's operations include developing programs for risk assessment, public awareness and education. It also monitors the on-going development of capabilities to address threats

stemming from biological, chemical, radiological and cyber terrorism, as well as initiatives to enhance aviation, maritime and land transport security. In essence, a very important responsibility of the NSCC is to build up, together with national think-tanks, a better and deeper understanding of the ideology which fuels the anger and motivations of terrorists.

According to Lee, 9/11 reinforced the urgency and importance of dealing with terrorism and, where necessary, to put in place several ad hoc coordinating arrangements to protect Singapore and Singaporeans from terror attacks. Much had already been achieved in hardening Singapore against terrorist attacks through these measures, especially in the areas of aviation security, land transport security and maritime security. Enhanced security measures were also incorporated to protect land entry points, airport, ports, critical installations and key public areas with improvements in technical capabilities to deal with explosives, and chemical and biological threats. Since 2001, the overall vigilance and readiness had been raised, closing obvious capability gaps identified. But over time, there is a need to replace such ad hoc arrangements by robust institutional structures. As a result, the Singapore security framework was reviewed in 2003-2004, and now consists of a Security Policy Review Committee (SPRC) comprising two committees, namely the National Security Co-ordination Committee (NSCCom) and the Intelligence Co-ordination Committee (ICC). Both NSCCom and ICC meet monthly to not only discuss ways and methods in dealing with terrorism, but also provide risk assessments of various security issues. In addition, Inter-Ministry Committees (IMCs) have been established to focus on specific areas such as public transport security, homeland crisis management and communications.

In short, the approaches and strategies used in coping with national security challenges encompass security policy networks with linkages (both local and international), a set of physical hardening measures nationwide as well as an awareness and cohesion campaigns to counter ideological radicalization.

# SESSION III: DEVELOPING A WHOLE-OF-GOVERNMENT APPROACH TO HOMELAND SECURITY



SIR RICHARD DEARLOVE HIGHLIGHTING THE CONCEPTUAL AND PRACTICAL ISSUES OF ADOPTING THE WHOLE-OF-GOVERNMENT APPROACH TO NATIONAL SECURITY.

Sir Richard Dearlove spoke on the challenges of implementing a whole-of-government approach in organizing homeland security. Underlying this strategy is the need to appreciate the wider societal context that has changed in two ways. Firstly, the revised perception of vulnerabilities that have deepened because of globalization has resulted in rising public expectation for the government to act. Secondly, increasing interconnectedness and the “just-in-time” culture of modern living mean that disruptions to any of the diverse nodes of communication or key installations could paralyze the nation. An effective inter-agency homeland security strategy depends firstly on a clearer definition and understanding of the threat. While terrorist acts of the past had specific political ends, terrorist acts in the vein of Al Qaeda have no clear-cut agenda. Perceptions of the threat also differ in context and region, for example, some states have to deal with the extremists within their borders while other governments are more concerned about these extremists penetrating their societies. There is also the challenge of appropriating the limited resources available to deal with present threats while preparing for long term ones.

Secondly, the various government agencies have to be clear on what the strategic aims are. So if the aim is to deny the terrorists their quest to disrupt the people’s way of life by maintaining normalcy, there is a need to guard against over-emphasising the terrorist messages inadvertently. Control at the strategic level should focus on setting the agenda for policies but avoid micro-managing the response on the ground level by empowering the middle-management to act on their own.

Thirdly, states have to address the issue of public information, especially education on terrorism without singling out particular communities. How media reports are managed during a crisis to provide a consistent message is also crucial.

Lastly, the traditional separation between internal and external defence has been blurred as terrorist networks and operations transcend traditional boundaries. As such, the different services need to understand each other’s roles to improve capabilities. Transnational cooperation should also be enhanced through developing personal contacts with security counterparts in other countries. This will ease the sharing of sensitive intelligence vital for neutralizing the threat of transnational terrorism.

All these developments have forced governments to reassess traditional configurations of intelligence and security organizations, and how national security objectives are prioritized and responded to. The following strategies for a whole-of-government approach to effective counter-terrorism were suggested:

1. Have a defensible and achievable goal.
2. Live by your principles and not be goaded by the terrorists to behave differently.
3. Know your enemy intimately.
4. Isolate the terrorists from their own community.
5. Engage others in countering terrorism with you.
6. Have patience, keep your perspective, and be prepared for the long term.
7. Build a process that is unambiguous and can function operationally and strategically. It should be open-ended to the extent that it can embrace all agencies within the government.

On the issue of whether the terrorist threat was over-stated, Sir Richard was of the view that public anxiety generated by terrorist activities is to be expected as unlike conventional terrorist attacks, the current strand appears to be driven more by religious rather than political conviction. In this sense, the threat is real, although anxiety should not be stoked to the level of social paralysis. Unfortunately, most assumptions about terrorism are based on projections of the worst possible outcomes, fuelling perceptions of vulnerability and uncertainty.



It was also observed that the current trend of radicalism should be placed within the wider debate on the role of religion in modern society. Due to the historical tradition in Europe, it is widely accepted that religion should be kept a private matter and not encroach on governance. Seen in this light, radicalism in the name of Islam is more symptomatic of the strains in reconciling Islam with modernity than it is of imperfect foreign policies.

What would the elements of a curriculum for the future generation of analysts to effectively operate in a whole-of-government environment entail? Sir Richard observed that governments often misread the lessons from history. This is because the bureaucracy is preoccupied with operational problems and pressure to prevent the next attack on a daily basis that little time is left for reflection and to think strategically about the past. This is where the expertise of the academic community can complement government efforts.

However, relying on past experiences to frame current understanding of security challenges can be misleading. So what can be done to help policy-makers assess future threats more accurately? How does one appropriate resources for short and long term threats? Sir Richard postulated that it was necessary to focus on long-term issues but it is difficult to project beyond three years. A long-term priority should be to avoid being bogged down by tactical details and focus on building understanding and respect with Muslim countries within a broader multinational framework.

If a state had limitless resources, where should the line be drawn in implementing security measures to avoid over-policing? Sir Richard observed that one would only know that the line is crossed when it happens. Nevertheless, a balance has to be struck between heightened surveillance and sustaining civil liberties. He noted that despite heightened security measures in place in the UK, most people accept it as it has not been abused by the government. Moreover, only a fraction of the tracked materials are scrutinized or acted on.

#### Syndicate Discussion

In general, it was felt that the terms “homeland security” and “national security” were ambiguous. Two possible ways of understanding the terms developed from the discussions. Firstly, homeland security refers to all security issues within the borders of a state while national security refers to issues beyond the borders of a state that can have an effect on it, although the two spheres do intersect at certain points. Secondly,

homeland security is a US-specific term coined after 9/11 as a rhetorical tool to rally the American people. Countries such as France, the UK and Singapore have always had Interior Ministries charged with similar responsibilities.

The term “whole-of-government” approach to Homeland Security could be expanded to encompass the “whole-of-society” as modern governments can only do so much to mitigate the threats emanating from the complex and uncertain hyperglobalized world of our current historical moment. What is demanded from this lamentable condition is a unified coherent response from all segments of society such as the business community, religious congregations and schools.

While there was agreement that linking various agencies, especially ones that did not traditionally have a role in security, was important, challenges and obstacles to developing such an approach were raised. There needs to be a greater understanding of the “strategic level” of understanding and the activity that is required. Clearly the main focus of the strategic level of direction lies with the commitment of the national leadership at the presidential or prime ministerial level and the cabinet, and a culture of sustained inter-agency collaboration. However, it is also clear that lower authorities at the sub-state level also need to have a greater understanding of the national level problems and how local issues ties into national or international issues. Without at least a broad overview of international problems and national views, local activity will not be effective. It was also noted that bureaucratic infighting over resources and promotional opportunities as well as the different threat perceptions stemming from the different vistas each ministry is perched upon would complicate working together.

It was highlighted that the response to any event will most likely occur at the local level first. It will be the citizens and the front line officials at the lowest rank that have the initial response. Hence it is important to invest in empowering them by allocating resources and training.

Another concern raised pertained to the issue of trust. Without a high degree of faith of the locals in their government, there will be little the government could actually do in a time of crisis. The citizens also needed to have some degree of trust in their neighbors, especially in a multi-cultural society. Without this trust, events in a time of crisis could easily worsen rather than improve.

# VISIT TO THE MARITIME AND PORT AUTHORITY OF SINGAPORE (MPA): PORT AND SHIP SECURITY

Lee Cheng Wee gave an overview of the security challenges faced by Singapore ports. In addition, he highlighted the measures adopted by the Maritime and Port Authority of Singapore (MPA) post 9/11 to strengthen and tighten port and critical infrastructure (e.g. Jurong Island and Offshore Oil Refinery Rigs) security. This includes the implementation of the International Ship and Port Facility Security (ISPS) code and the monitoring of sea traffic.

On average, more than 128, 922 vessels call at Singapore in a year, making it both the busiest commercial port and bunker port in the world. Given the amount of transactions (e.g. transshipping bunkering and passenger cruising) that the individual ports have to handle in Singapore, and the location of such offshore critical installations as the oilrigs and chemical process plants on Jurong Island, maritime security is of paramount concern. Singapore's Maritime Security Strategy is twofold in nature: protection and recovery. This involves the protection or hardening of the maritime industry against attacks, and, should an attack occur, the commencement of recovery work to take place as soon as possible. With this in mind, Singapore has subscribed to several international maritime security conventions and practices since 9/11.

In post-9/11 Singapore, besides "round-the-clock" monitoring of vessel traffic and port activities, marine routes were re-chartered such that no vessels are allowed to sail near prohibited areas or islands that house sensitive installations. Not only do vessels have to follow dedicated routes, they can only dock at dedicated landing points. This allows for better control of vessels entering Singapore ports, and also more efficient mobilization and response of patrol and emergency response teams to distress calls in times of a crisis. Furthermore, a whole-of-government, inter-agency approach has also been adopted to enhance response efforts. The MPA, Republic of Singapore Navy (RSN), Police Coast Guard (PCG) and the Immigration and Checkpoints Authority of Singapore (ICA), for example, conduct joint patrols and checks on vessels regularly.

The security strategies of each agency are to both complement one another such that security gaps are minimized.

As the designated authority for port facilities, the MPA exercises the same governing power over the ISPS in Singapore. It reserves the right to approve and award ISPS certificates of compliance to the ports and liners in Singapore and conduct random inspections and auditing of security practices of port facilities. This is on top of the 24-hour surveillance it conducts through its Maritime Security Unit.

The ISPS code focuses strictly on commercial port facilities and large vessels. The MPA, as a security precautionary measure and initiative, established several sets of guidelines for non-ISPS compliant ships or ports. The guidelines include a security checklist which non-ISPS compliant ships have to complete before their entry into Singapore waters.

The MPA believes that a multi-agency approach as well as international cooperation is necessary for the smooth functioning of the various security measures. The first coordinated effort to conduct joint maritime security patrols along the Straits of Malacca by Indonesia, Malaysia and Singapore, i.e. Eyes in The Sky, is a case in point. Furthermore, Singapore is the first Asian Country to take part in the IMO's "Protection of Vital Shipping Lanes" initiative. It has also signed and helped ratify the Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP).

Effective maritime security measures require:

1. A high degree of multi-agency and multi-level co-ordination;
2. Security agencies and stake-holders to work closely and review security measures regularly;
3. Regional cooperation; and
4. Active participation in international maritime security best practices fora.

# DISTINGUISHED DINNER LECTURE: PROTECTING THE CITY – OBSERVATIONS AND LESSONS FROM NEW YORK



RICHARD FALKENRATH PRESENTING AN OVERVIEW OF NEW YORK CITY'S COUNTER TERRORISM STRATEGY.

Richard Falkenrath provided a brief review of the New York Police Department's (NYPD) approach to counter-terrorism in a dense city environment. He started by outlining the terrorist threat from the New York City perspective. Firstly, he noted that major cities are likely terrorist targets, even though the planning may take place in outlying areas, because of the density of population, transportation and infrastructure. Being the hub of the daily flow of people, it is easier for perpetrators to go undetected. Secondly, he stated that terrorism is global phenomena that can take place anytime and anywhere and is likely to remain a permanent condition, especially since there is still no clear understanding of the goals of the extremists. Thirdly, terrorist tradecrafts are becoming increasingly readily available in the public domain, primarily over the internet, making it easy for attacks to be perpetrated by people without special training. In the long term, it is conceivable that terrorists may use biological and even nuclear weapons.

NYPD adopts a multi-layer defence system that taps on the cooperation and expertise of different agencies in countering extremism. Eight areas of the NYPD's efforts to securing the city were fleshed out. First, intelligence and enforcement activities are vital for preemptive measures to thwart plots that are developing. There are two separate channels that come together at the top of the NYPD for analysis. One is the joint terrorism task force led by the FBI to look into federal terrorist investigations. The other is the unilateral collection programme that is unique to New York City operating under its own legal authority, thereby making it more nimble and effective. The former is dominated by electronic surveillance while the latter largely relies on human intelligence collection.

Second, there is a core of civilian analysts to make sense of the intelligence collected for both the leadership and officers

in the field. The third pillar is training and exercises for officers to understand why and how to carry out their duties effectively. The fourth key programme is vulnerability assessment. This involves identifying parts of the city that are particularly vulnerable to a major attack by combing through the city to cover both the obvious and non-obvious potential targets. Apart from mapping the geography of the city, "red cells" made up of detectives are deployed to identify and plug any loopholes that may exist in New York City's defences.

The fifth step will be to reduce the vulnerability that has been identified. This labour-intensive exercise may require the cooperation of the private sector and regular citizens if it involves non-government installations and infrastructure. The NYPD also works with vendors who deal with products deemed to have potential utility by the terrorists for deadly ends. For example, the sale of used ambulances is monitored as it is a type of vehicle that has easy access to a scene of an attack to carry out a secondary attack.

The sixth main area pertains to counter-terrorism operations. For example, the critical response vehicle programme involves large numbers of police officers running surveillance daily in the key areas of New York like the financial district to familiarize themselves with the protocols in a real attack. Such exercises also serve to deter Al Qaeda operatives that are surveilling these areas from mounting strikes.

The seventh area covers transportation. He speculated that the most likely place for an attack to take place is in the subway system, based on the track record of recent Al Qaeda plots around the world. The volume of commuters is also very high, exceeding half a million per day in the Manhattan area alone. Hence there is an entire bureau specializing in securing the subway system alone.

Lastly, the NYPD has in place the NYPD Shield, an outreach programme to the private sector. All the major private firms in New York City have security forces that are trained and briefed by the NYPD.

The hallmark of this approach is specialization. It was stressed that the intelligence and counter-terrorism operations are esoteric to regular law enforcement officers. Hence it is necessary to develop a very large range of highly specialized capabilities to secure the city. In order for this approach to be effective, there is first a need for a big consolidated jurisdiction,

making it only possible for big cities to pull it off. The police department also has to be very large (the NYPD has 52,000 people). This is necessary for specialization in the various fields. However, in order for the police department to extend its jurisdiction with the support of the people and government, it needs to be successful at its core mission of keeping crime rates in check. Another requirement is large resources of people and money to devote to ideas and projects that may not yield daily benefits. The department then needs the authority to get the job done, especially pertaining to acting on intelligence.

Next, there is a need to cultivate relationships to better understand the other actors – other government agents, the private sector and other countries – that have information and expertise that the department needs. Lastly, there needs to be a pool of people who are competent in their area of expertise.

Falkenrath summed up the presentation by pointing out that this programme has been in place for some time and may not be easily replicated in other cities as different cities face different challenges.

## PANEL DISCUSSION II: HORIZON SCANNING – ITS PROMISE AND APPLICATIONS



THOMAS QUIGGIN EVALUATING THE ROLE OF RISK ASSESSMENT IN AN ASYMMETRIC THREAT ENVIRONMENT.

The first speaker, Thomas Quiggin, began by delineating the various dynamics that affect the modern state's role today. For a start, small groups of individuals or even single individuals now have the power and capability to effect major change at both the state and international levels. In addition, the creation of the welfare state meant that the modern state is not just a protector but also a provider. Moreover, with the globalization of the economy, the state is now forced to adapt to new global economic trends that can threaten its security.

All this has implications for way in which national security is being understood. Critically, national security must now address a wider spectrum of challenges, in which asymmetric threats such as supply chain disruptions, pandemics, transnational organized crime, radicalization and political extremism are becoming more relevant.

In order to prevail against such asymmetric threats, it is not enough to rely on conventional hard power alone. More than that, knowledge is the key weapon. Without developing a greater understanding of the nature of the changes surrounding states as well as the environment in which they operate, it becomes very difficult to produce the right response.

To this end, Quiggin emphasized a number of areas in which national security efforts can improve. First, there has to be greater networking between government agencies so as to bridge “information” silos and to build the knowledge needed to prevail in an uncertain threat environment. Second, there is a need to cast the intelligence net a lot further out and to involve front-line officers in the collection process, without which the “fine grains” of intelligence or the so-called “faint signals” needed for pattern detection are frequently missed. Third, there is a need to leverage more on open source intelligence where there is a ready wealth of knowledge and “faint signals” waiting to be tapped. And finally, given the expansion of national security threats, an integrated and “all-of-government” approach is required.

Quiggin also pointed out that much of what passes for risk assessment now is nothing more than a list of threats with no indication of probability or response. As a result, policy makers frequently make weak or ineffective responses that lack focus and misallocate limited resources due to a fundamental lack of understanding of what constitutes threat and risk. Without an appreciation of the difference between threat and risk policymakers are more prone to making bad policy decisions.

To highlight the distinction between the two terms, he clarified that a threat is merely the potential for an individual or a group to exercise an action which exploits a particular vulnerability. It does not automatically imply that the level of danger exists.

Risk, on the other hand, is defined as the probability of harmful consequences arising from an action taken by an agent to exploit a known vulnerability. In other words, an assessment based on risk will be more meaningful as it provides some sense of how policymakers should respond: resources and attention should be channeled to those areas that are assessed to be more vulnerable.

In conclusion, Quiggin reiterated that knowledge, not power, is the key element needed to prevail in a climate marked by asymmetric threats. At the same time, given the “all-of-government” problems that states face today, an “all-of-government” response is needed. Lastly, national security efforts should be risk-driven and not threat-driven.



PATRICK NATHAN PRESENTING THE RISK ASSESSMENT AND HORIZON SCANNING PROJECT IN SINGAPORE.

The second speaker, Patrick Nathan, noted that since 9/11, Singapore has done much to raise the overall security baseline. Nathan argued that Singapore can still do more in the identification of “wild cards” – threats which are low in likelihood but nonetheless high impact in consequence.

Singapore has also, for some time now, used scenario planning as a strategic tool to plan for the future. However, this approach has focused mainly on long term issues with a time horizon of 10-30 years. In today’s strategic context where national security practitioners are left with much shorter reaction times, he emphasized that there is a need for a coherent framework to systematically pick up near-term issues with a 6 month to 2 year time horizon.

In light of these considerations, Singapore has embarked on a national Risk Assessment and Horizon Scanning (RAHS) project, designed to deal with near-time strategic surprises as well as the sort of events that could cause serious dislocation to Singapore. While RAHS will focus on terrorism-related threats in the near future, it will be eventually extended to other national domains of strategic significance.

Nathan noted that there are a number of strategic level challenges facing RAHS. First, how does one make RAHS relevant across the government? Second, how does one get decision-makers to participate? And finally, what does it take to network agencies? To these pertinent questions, he suggested a number of propositions. For a start, RAHS has to be embedded as an integral and indispensable component of the government’s strategic planning process. And in order to get decision-makers involved, customizable computer desktop dashboards can be used to give policy makers access to up-to-date alerts and intelligence as it arrives and evolves. And with regards to the networking of government agencies, the technological infrastructure needed to hardwire agencies in an online collaborative environment should be developed.

Meanwhile, there are also a number of operational level challenges. First, government agencies are inherently stove-piped and there are bureaucratic barriers to information sharing and collaboration. To overcome this constraint, he stressed that there is a need to connect “silos” and expand mindsets. The second challenge lies in the cognitive aspects of RAHS. This entails the need to exploit the “wisdom of crowds” and to encourage diversity and multiple perspectives. Indeed, the whole point of having diversity is to avoid becoming inadvertently blindsided by one perspective. The last challenge involves the technical dimensions of RAHS. This is where resources need to go into practical areas such as data anonymization to enable non-obvious relationships and anomalies to be tagged between disparate yet sensitive databases. “Holy grail” areas such as auto-indexing of data and automatic pattern matching should also be explored.

Nathan described the broad technological design needed to operationalize RAHS: essentially, this entails the hardwiring of agencies together so as to form a truly inter-operable collaborative network. But instead of creating a central database where all information is made to reside in one single repository, the system will be based on a service-oriented platform and by selected networking agencies. Meanwhile, lying at the heart of the network is the Horizon Scanning Centre (HSC), which will be responsible for coordinating and driving the overall horizon scanning efforts of Singapore’s national security community. The HSC will also inform policy makers of emergent changes to the national security landscape as well as alert operational agencies to impending threats.

Nathan concluded by underscoring that the vision for RAHS is to expand beyond the security cluster to include social and economic groups. Eventually, RAHS should also be extended to domain experts in the private sector and beyond Singapore

#### Syndicate Discussion

Given that horizon scanning still entails the use of an inclusively broad variety of perceptual frameworks to make sense of incoming information, some participants voiced their concerns about the complexity involved in making sense of the information. Some envisaged that different perspectives and interpretations of the incoming information might proliferate to such an extent that they become unmanageable.

On the whole, however, the general consensus is that horizon scanning might be useful in helping policymakers to become aware of the developments that might redound to the benefit or detriment of their countries’ security. It was also observed that horizon scanning has always been practiced—albeit expressed in alternative terms.

The issue of how the number of interpretive frameworks for analyzing information in horizon scanning could be broadened was raised. Some suggested more regional and international dialogue, where details about different countries’ frameworks and experiences could be shared. Others proposed more collaboration and exchange of ideas between the private and public sectors of society in dealing with security challenges. Another recommended a deeper engagement with history, or at the very least, become acquainted with, the lessons of the past.

Indeed, there was a worry that an overemphasis on future trajectories might lead to a failure in appreciating past lessons.

Participants also discussed the process by which extant analytical frameworks used in horizon scanning at a particular period of time could be reviewed periodically. Members agreed that external and internal auditors should be involved in initiating periodic reviews of the horizon scanning process. Meanwhile, there was some concern about the tension between maintaining official secrets and transparency. One member submitted that government agencies especially need to address this issue.

A number of participants agreed that it would be valuable if the various agencies tasked to make risk assessments concur with a common definition and methodology so that there can be a more rigorous approach to risk assessment across government. However, there were also those who felt that the terms such as “risk” and “threat” were not independently existing states. In their view, whether or not something can be constituted as a risk or a threat, is ultimately a political decision. More often or not, this decision will also be influenced by one’s individual experience and cognitive frameworks.

## VISIT TO WOODLANDS CHECKPOINT: BORDER CONTROL AND MANAGEMENT

Chua Sze How’s presentation began with a milieu of globalisation and a security landscape shaped by terrorism as well as other critical driving forces which led to the formation of Immigration and Checkpoints Authority of Singapore (ICA) on 1<sup>st</sup> April 2003. ICA is the *Guardian of Singapore’s Gateway*, and ensures that the movement of people, goods and conveyances through the checkpoints is legitimate and lawful. ICA also administers and upholds laws on immigration, citizenship and national registration fairly and effectively. ICA, being responsible for the security of Singapore’s borders against the entry and exit of undesirable persons, goods and conveyances, handles one of the busiest air, land and sea checkpoints in the world. In 2006, ICA cleared 135,671,270 people, 1,457,274 containerised cargo and 5,000,657 conventional cargo consignments.

To ensure Singapore remains a land of opportunity and a vibrant hub for tourism and trade without compromising security and suffocating the flow of genuine and legitimate people, goods and conveyances into Singapore, ICA adopts a two-pronged strategic approach. The first prong is to reduce risk by making as much as possible of the unknown known so as to devote resources and pay more attention to the high risk group and while leveraging on technology to automate clearance for the low risk known group. The second element is to minimise and mitigate risk through a layered clearance process mainly comprising of pre-clearance, primary clearance and secondary clearance.

### People Clearance

The 3 key focus areas for people clearance is to establish the identity of the traveller, the purpose of travel and the travel document presented is genuine and not tampered with. Visa is utilized as a means of pre-clearance. ICA adopts a calibrated approach and regularly fine-tuned visa requirements and procedures to facilitate the entry of bona fide visitors. ICA implemented the Visa Electronic Transmission System (VETS) to help distinguish genuine visas holders. VETS allows the issuance of visas with enhanced security features to

successful applicants. It has also been introduced in overseas missions in India, China, Pakistan, Bangladesh, Saudi Arabia, Iran and Egypt.

At primary clearance, all travellers must undergo face-to-face check upon arrival at the checkpoints. ICA officers are trained to conduct risk profiling by questioning and observing the traveller as well as examination of the travel document. The Entry & Exit Control Upgraded System or EECUS is deployed at the primary clearance counter to provide security screening of travellers and the capturing of travellers’ entry/exit information. Complementary to the EECUS is the Matrix/Sentinal scanners which are capable of scanning the bio-data page of passports to perform counter forgery detections.

To facilitate travel while complementing security efforts, biometric technology is employed by ICA to effectively reduce the space for movement of undesirable people and tightening border control and surveillance. The Immigration Automated Clearance System (IACS) was introduced since 1997 to clear travellers in less than 12 seconds harnessing smart card and biometric technology which is both efficient and without compromising security. The IACS was enhanced in 2006 (e-IACS) to allow Singapore Passport holders to enjoy automated and faster clearance using the passport.

At the secondary clearance, the biometrics technology is further exploited as a means of secondary check for suspected ex-immigration offenders and persons of interest. The Biometrics Database for Immigration Clearance (BDIC) system was developed and deployed in June 2005 to screen suspected travellers’ biometric information against a database of Immigration Offenders and other persons of interest using fingerprint matching technology. Alongside is the deployment of various non-intrusive screening equipments such as baggage x-ray machines, Walk thru Metal Detectors (WTMD) and other handheld detectors to ensure security and other contrabands are not smuggled into Singapore.

## Goods Clearance

Traders are required to make a declaration and obtain the necessary permits before the goods enter Singapore through a nationwide system known as TradeNet. ICA uses the information in TradeNet for profiling and pre-clearance. A set of rules is written into the pre-clearance system as auto-targeting criteria and ICA officers also perform on-line analysis and targeting of all import consignment.

At the primary clearance, ICA also deploys latest non-intrusive radiographic and backscatter technology to enhanced detection of undesirable goods. For example, the Vehicle and Cargo Inspection System (VACIS) and Integrated Cargo Inspection System (ICIS) employed state-of-the-art radiographic scanning technology to enable ICA officers to screen and “see” the contents of the container or cargo conveyances without having to physically inspect. Those containers or conveyances deemed suspicious by ICA officers during the scanning process will then undergo secondary inspections aided by other handheld equipments such as explosive, radiation and chemical detectors.

Chua Sze How’s presentation also highlighted that ICA maintains a close collaborative relationship with international counterparts, Home Team (HT) and Homefront (HF) agencies as well as other strategic partners.

At the international front, ICA worked with US Customs and Border Protection (CBP) to implement the Container Security Initiative Program (CSI) in Mar 2003. Under this program, high-risk containers bound for US are targeted for radiographic scanning and inspection. ICA also participated in the Radiation Detection Initiative fronted by US Department of Energy (DOE). Under this initiative, radiation detection equipment would be deployed at mega ports of the world to deter, detect and interdict nuclear weapons and radioactive materials.

At the home front, for example, ICA and Singapore Civil Defence Force (SCDF) jointly implemented the Drivers’ Identity

Verification System (DIVS) on 1 Apr 2003 at Tuas Checkpoint to clear Hazardous Materials (HAZMAT) goods. This system serves to regulate the safety and security of transporting Hazmat and also uses biometric technology to authenticate and verify a driver’s identity, and to verify that he holds a valid Hazardous Material Driver’s Transportation Permit (HDTP). In addition, ICA also regularly conducts operations with other Home Team agencies such as Singapore Police Force and Central Narcotics Bureau to curb smuggling activities.

To ensure ICA operational readiness, joint exercises with Home Team and Homefront agencies are regularly conducted to coordinate and align the various response plans in times of crisis. Amongst others, Ex Hydra and Ex Carina were successfully carried out to test and evaluate the response to a simulated bomb explosion and chemical agent leak at the land checkpoints. Another example is Ex Sparrowhawk II, whereby ICA supports Ministry of Health (MOH) in the national flu pandemic exercise involving border health control measures.

Last but not least, Chua Sze How’s presentation gave an overview of the success of border and inland enforcement result. In 2006, 1,107 forged/tampered travel documents and 20,630 contraband cases were detected at the checkpoints while a total of about 5,248 overstayers and 3,760 illegal immigrants were dealt with.

To sum up, Chua Sze How underlined that ICA will continue to strive to be a leader in Immigration and Checkpoint Security, and a *Force to be Reckoned With*. The world is changing rapidly and getting ever more complex. ICA will continue to build on her strengths, and reinforce on technological advancements to introduce initiatives to make the unknown known so as to facilitate the entry of genuine and legitimate persons, goods and conveyances, at the same time, maintaining vigilance at the checkpoints to detect and deter undesirable persons, goods and conveyances.

# DISTINGUISHED DINNER LECTURE: SUPPLY CHAIN SECURITY



CHOI SHING KWOK DISCUSSING THE RATIONALE FOR SUPPLY CHAIN SECURITY.

Choi Shing Kwok began with the observation that global trade is the lifeblood of nations with international trade growing steadily for the past 15 years. For example, world trade volume has tripled since 1992 while world container movement has increased by almost 366% ever since 1990.

Meanwhile, globalization has led to all economies and businesses becoming more closely connected. Indeed most products today undergo multiple border crossings from the stage of raw materials to manufacturing; warehousing; in-land transportation; import/export and finally to the distribution of finished consumer goods. In essence, an extensive global supply chain has been formed.

He highlighted the problem of the global supply chain as an attractive target for terrorist forces. Other than seeking to inflict human casualties to make a political statement, terrorist elements also seek to impose maximum psychological and economic impact on society, rendering the global supply chain a seductive target. Furthermore, Choi noted that the global supply chain is inherently vulnerable. Given the unavoidable tensions between transportation efficiency and security measures, only 5-6% of all cargo containers are being screened now. So clearly, there are chinks in the global supply chain that can be exploited by extremist elements.

He emphasized that the economic impact of a terrorist-initiated disruption to the global supply chain and consequently trade, would be very serious. Highlighting an Economic Impact Study

commissioned by Singapore in 2006 whereby a 30 day shut-down of US ports was envisaged, Choi said that the 12 APEC (Asia-Pacific Economic Cooperation) economies would suffer cumulative losses amounting to US\$137 billion in Gross Domestic Product as well as some US\$159 billion in trade.

That said, he cautioned against adopting knee-jerk responses like implementing 100% screening of containers to secure the global supply chain. Not only is full screening of containers unfeasible, the implementation of such a policy would effectively slow-down the entire global supply chain and impose higher costs that may have significant repercussions for the world economy.

Given the complexity and international nature of the global supply chain, he recommended that a holistic approach be adopted instead – total supply chain security. This entails the distribution of responsibilities across the entire supply chain, whereby all players undertake the relevant security measures for their activities. The advantage of such an approach is that costs are spread out across all the nodes and not just one or two specific nodes. In addition, the involvement of all players means that there will be less duplication of security duties, thereby leading to greater efficiency (faster checks and movement of goods) and ultimately, lower costs.

Choi pointed out that, in order for total supply chain security to work, international co-operation and understanding are critical. This is especially so given the globalized nature of the supply chain and interdependence of the world's markets. In that respect, Singapore has been taken the lead at APEC for supply chains security, in which the island-state has hosted the 2006 APEC Symposium on Total Supply Chain Security. Meanwhile, APEC also endorsed Singapore's proposal to study the feasibility of a trade recovery programme (in the event of a terrorist-instigated incident).

In sum, Choi stressed that economic losses resulting from a global supply chain disruption would be enormous given the criticality of the chain for international trade. More than ever,

a holistic approach covering every node will be required while international co-operation is central to the success of this approach.



## SESSION IV: FROM SARS TO BIOTERRORISM TO PANDEMICS – NEW TOOLS AND OLD MEDICINE TO PROTECT THE PUBLIC



DAVID HEYMAN FIELDING QUESTIONS ON MANAGING PANDEMICS.

According to David Heyman, health care in the 1980s was predominantly based on just-in-time manufacturing in a bid to reduce costs and revenues of healthcare manufacturers. This resulted in a reduction in the availability of health services, thus putting many of the sick at a disadvantage and increasing the risk of infectious diseases. These risks, however, cannot be afforded in the 21<sup>st</sup> century given the mounting global threats posed by bioterrorism and infectious diseases. What is required is a proactive, responsive healthcare system rather than a passive. While it may not fully eliminate the problem of infectious diseases, a responsive healthcare system can effectively manage it. Heyman argues that while it is difficult to assess and protect ourselves from emerging pandemics of this century, we can effectively respond to the challenges. Such a task requires a multifaceted approach with the cooperation of the various sectors of society, including national, provincial as well as local communities.

Heyman made note of three tools available for countering the threat of infectious diseases. The first two are vaccines and anti-viral treatments. However, vaccines would not be effective in the event of a first pandemic wave because a strain of the virus would first be needed in order to find an antidote. Moreover, mass production of vaccines and anti-viral treatments would require a minimum of six to nine months. The third tool is infection control and social distancing, which are the best mechanisms to effectively manage a pandemic outbreak, as they delay the onset of disease and reduces the rate of mortality. Unfortunately many governments fail to give this third tool enough attention.

Heyman gave a series of examples of the impact of pandemics and bioterrorism. Citing the 2001 anthrax attacks in the US, which infected 18 people mainly via inhalation across five

states, the economic consequences were tremendous – 40,000 others required post-exposure prophylaxis, the Supreme Court and Congress was temporarily shut down, there were delays in postal services and \$30 million was spent on decontamination measures. Costs were also incurred internationally as the attacks also resulted in investigations and precautions taken as far away as Europe and Japan. What is noteworthy is the fact that the anthrax virus is not contagious and would only infect those who inhaled or came into contact with it via the four to five letters that contained it. In relation to current challenges such as the avian flu, only those in contact with infected birds are vulnerable. In actual fact, diseases spread between humans in three main ways – direct contact, indirect (aerosol transmission) and contact with secretions.

He also highlighted the responses in tackling pandemics in various countries. Preventive methods include vaccination, isolation, wearing protective gear and import controls, while protective methods included surveillance, diagnosis, reporting and culling of infected animals. He also compared national responses to SARS in Toronto, Taiwan and Singapore, noting that the latter had been the most effective with its comprehensive integrated approach of social responsibility, surveillance, anti-viral treatment, border control and quarantines in dealing with the SARS virus.

Heyman suggested that an effective strategy for countering pandemics would be the Disease Exposure Control (DEC) mechanism, which focuses on limiting the contact between unaffected individuals and potential spreaders. DEC consists of the following components – limiting interaction, using a new toolkit of exposure control measures, increasing the scope of crisis response, employing the least restrictive means necessary and to engage the public as a partner in dealing with infectious diseases.

In explaining a new toolkit of exposure control measures, he ranked the following exposure control measures in relation to the amount of time, funds and effort that should be utilized for them, beginning with the measure requiring the least effort and resources – isolation, quarantine, community restrictions, sheltering (i.e. staying homebound) and infection control. Sheltering, he noted was an important aspect as public areas were vulnerable breeding grounds for infectious diseases. Schools in particular are highly susceptible as children and teens are deemed major infectors. By using the toolkit, the pathway of viruses would be restricted as much as possible and in turn, vital resources such as antiviral stockpiles could be conserved. Heyman provided evidence of this based on the Logini model, a mathematical model for predicting the geographic spread of infectious diseases.

Besides physical separation, he also noted the benefits of infection control, hand hygiene and humidification in controlling the spread of diseases. Comparison was also drawn between the experiences of Philadelphia and St Louis based on their control measures and corresponding death rates during the 1918 flu outbreak. Moreover, Heyman noted the importance of rethinking the concept of quarantines. Often the definition of “quarantine” lacks clarity, causing confusion which hampers the efficient management of, and increased weariness and hostility towards, quarantine measures, which are perceived to infringe on civil liberties.

Heyman emphasised the importance of grassroots support in addressing the issue of infectious diseases. It is vital for government officials to engage local communities and individuals in countering infectious diseases, as they can either prevent an outbreak or play host to an infectious virus. Moreover, the DEC mechanism would be a critical mechanism in ensuring a targeted and layered approach to addressing infectious diseases.

It was also noted that in a state of emergency, the first to arrive in hospital emergency wards were not those affected by infectious diseases but rather the “worried well”, comprising of paranoid uninfected individuals, followed by the media and the relatives of the “worried well”. Not only would this human element reduce the ability of health officials to respond to the crisis effectively, it would also leave the worried well susceptible to infection thus further spreading the disease.

In addition to this, there was the concern of contradictory messages given by experts – scientists versus medical health experts on the gravity of the issue - which would cause further confusion. Heyman noted that it was important for a multifaceted approach rather than simply a reliance on doctors, who lacked expertise on national security and germ warfare. He further emphasized the importance of promoting simple practices such as ensuring personal hygiene which are undemanding yet often overlooked precautions in addressing the situation.

#### Syndicate Discussion

Many felt that the organizational methods required to respond to a biological crisis may not be in place in all governments. Among the issues brought up were challenges to quarantining specific sectors of the population, social distancing and the need for community level leaders to be engaged in this process. Though school closures were recognized to be an important tool to limit the spread of an epidemic, the problem of ensuring children stayed at home was raised.

The identification of the threat at hand as soon as possible was found to be of utmost importance. It was discussed that most diseases that could become pandemics exhibit symptoms similar to regular influenza – thus uninformed doctors may be unaware of what they are up against when an outbreak first occurs.

It was pointed out that in the event of a health crisis, it is important not to lose sight of small measures that can have a significant impact. For example, it was argued that the decision for teachers not to wear masks when taking the temperatures of children during the SARS crisis went very far in averting panic amongst the kids.

The need for a well-oiled Business Continuity Plan (BCP) that could be operationalised rapidly was stressed. Participants emphasized that BCP was equally important for civil servants as the state to remain functioning.

Participants also noted that there may not be a series of procedures in place to dispose of bodies in the event of a mass casualty event such as a pandemic or bioterrorism attack. Problems arising here may be fairly straightforward but difficult, such as striking a balance between respecting the bereaving families’ ceremonial wishes and adhering to pandemic procedures. Governments also need to carry out exercises to test the feasibility of their procedures.

As with many national security problems, the success or failure of the outcome will depend on the citizens and the front line authorities. If the citizens are reasonably well informed ahead of time, then they may be counted upon to respond well. If not, problems will result. The recent SARS experience in Singapore revealed that pressure from neighbours and friends to cooperate was effective in public education on the need for all citizens to cooperate in social distancing and other reactive procedures. It was also noted the information gap between mainstream society and those that do not possess a radio, read the papers or watch TV had to be plugged in times of a crisis.

The need for international cooperation during a health crisis was mentioned. However, the differing abilities of different states to cooperate effectively as well as differing political will between states were identified as stumbling blocks.

# DISTINGUISHED LUNCH TALK: RECONSTRUCTION OF A FAILED STATE



ASHRAF GHANI SHARING THE AFGHAN EXPERIENCE IN RECONSTRUCTION.

Ashraf Ghani presented a broad-ranging analysis of the challenges to Afghanistan's current reconstruction process. The international architecture of 1945 envisioned sovereign states as the focal nexus of stability. However, during the 1940s to 1960s many of the newly established states had legal sovereignty but lacked effective governance. With the increasing forces of globalisation and free market dominating the mechanics of the international community, more effective management and governance to ensure stability in states is needed. Ghani cited examples in the developing world based on his experiences to highlight the complexity in effectively managing the stability of states. An overarching theme was that of an "open moment" – a moment in which the past was no longer determinative of the future and that structure momentarily gives way to agency and imagination.

Using the case of Nepal when political parties teamed up with Maoist rebels against the monarchy, Ghani highlighted the issues necessary in ensuring stability in the state. First, there is a need for a definitive set of rules and laws. Second, is the need to know the shape the state would take after restructuring, the extent to which centralization or decentralization will be acceptable by all parties, and how to manage such a system. Third, there is a need to define and differentiate between the concept of "security" and "stability". Stability would not come with the use of force and that the 19<sup>th</sup> century style of subjugation was obsolete. In the 21<sup>st</sup> century, expectations are global and not limited to a privileged few. As a result, there is a need to lower these expectations so as to meet the demands of the wider population realistically. Fourth, there is a need to constitute the financial markets of the state as a major enterprise. Economic competition needs to function just as vitally as political competition. And lastly, it is vital to mobilize resources – both

natural and human – and facilitate access to the global market so as to reduce the dependency on foreign aid.

In a bid to understand the complex nature of contexts that failed states arise from, Ghani cited the case of Sudan. He noted seven patterns of transitions, which comprise current and envisioned circumstances that are radically different and require distinct capabilities to make the changes. First there is the transition from autocracy to a pluralist and federal system of governance. Second is the transition from a state of violence to one of peace and political competition. The third transition is that of a centralist to pluralist model. In this, there are increased levels of governance and those in power often have a weak understanding of these various levels – national, provincial, local, etc. Fourthly is the increasing transparency in the movement of public finances. Ghani noted that nearly two-thirds of states do not disclose their budgets. The fifth transition is that from subsistence livelihood to sustainable development, especially with resource scarcity and globalization. Also noted was the need for a transition from merely advocating justice to the delivery of social goods and services. Last is the transition from rule of the gun to rule of law. This transition is the most significant transition that would make or break a state as rulers accustomed to being above the law, would find it difficult to being subjected to legislation.

Using the case of Lebanon, Ghani noted the visible and less visible structural impacts of war on a state. First, the visible impact of Israeli aggression in Lebanon in 2006 amounted to a loss of \$6.5 billion in damages. The structural impact were not as evident. Firstly, the war resulted in a fragmentation of Lebanese society, which thus had vast economic repercussions including a slump in tourism, an outflow of \$2 billion from the banking sector and ultimately a government deficit. The war also widened the socio-economic gap amongst Lebanese – the privileged few living on \$4000 per capita and 800,000 others living on \$2 a day. This would have political implications, as it would be difficult for the two groups to find middle ground. The war also exacerbated the problem of corruption, including a misappropriation of foreign aid.

Turning to Afghanistan, Ghani proposed three possible futures for this failed state. The first is a creation of a "narco-morphic" state, in which criminalization of the economy occurs. While there is a process of peacemaking, stability is assumed but often absent. The second future is that of stalled development, where the government "runs enormously to stay in place" and thirdly is the preferred future of an efficient reconstruction of a failed state, making it prosperous.

Ghani went on to outline the mechanisms needed to achieve a better Afghan future. The first would be political mechanisms – by using benchmarks for achieving peace and dividing the process into phases to better entrench political legitimacy and build credibility for the proposed vision. Furthermore, it is vital to engage all levels of society right down to the villages, and give them political rights to enhance their loyalty to the new government in rebuilding the state. The second mechanism is the need to effectively coordinate aid donors. Apart from being a highly time consuming process, much of the aid does not reach the locals but rather the consultants that have been hired to administer the aid distribution. It is therefore vital to ensure a cost-benefit accounting system in dealing with foreign aid. In addition to this, it is important to improve mechanisms to provide better sources of revenue generation. Ghani argues

that insufficient attention is given to the potential of a failed state's economy, especially the state's ability to maximize its utility.

Ghani concluded with his concept of a state. First, he noted that the state is not a single standard of organization but has multiple functions. He advocated a state that performs the will of the people. Moreover, stability forces governments to think systemically and make the common man a stakeholder of the state's future. Effective state building is both a discipline as well as an art and requires government officials to depart from perceived wisdoms of the past. What is required in contemporary times is a comprehensive agenda that meets both human and international security obligations.

## VISIT TO CHANGI INTERNATIONAL AIRPORT: CHALLENGES TO CIVIL AVIATION SECURITY

Lim Boon Wee began his presentation by highlighting the point that the global aviation industry is both a critical enabler and contributor to global economic growth by facilitating transportation and creating jobs. Changes in the civil aviation landscape include expansion and improvements in airport facilities and aircraft, as well as an increase in the number of airlines, especially low cost carriers. However, greater air traffic and more air travellers also translate to more targets for terrorists.

The civil aviation industry in Singapore is expected to continue growing at a rapid rate. Not only does the aviation sector contribute over 9% of Singapore's GDP, the Changi Airport and Singapore Airlines are regarded as national icons. All this makes for attractive terrorist target. Although the civil aviation industry in Singapore has faced security threats in the past, such as the 1991 hijack of SQ117, they were resolved with minimal casualties. After 9/11, the nature of attacks on the industry across the globe is becoming deadlier and the methods employed more sophisticated. Moreover, the foiled Jemaah Islamiyah plot in Singapore revealed the Changi Airport control tower as a target, underscoring the need to remain vigilant.

Due to the transnational nature of aviation security threats, international cooperation is vital in securing the industry. Some

measures taken by Singapore in this respect include the review of ICAO Annex 17 Standards and Recommended Practices post-9/11 to cover not just domestic but also international flights. The National Civil Aviation Security Committee was also formed in 2002 to formulate and manage aviation security policies and issues at the strategic level, adopting a whole-of-government approach to balancing security and economic needs in achieving practical solutions.

Enhanced security measures were also taken, for example, in passenger and baggage screening processes, joint armed patrols between the police and armed forces, and proposed legislative amendments to the Air Navigation Act to increase regulation and enforcement.

While many measures have been taken, challenges to civil aviation security persist. New emerging destructive devices that are readily concocted with ubiquitous materials are difficult to detect, such as liquid explosives. Other challenges include differing security standards among airlines, unilateral restrictions imposed by states, and increasing requirements for extensive manpower and equipment. Ultimately, the way forward is to avoid allowing this looming threat to cripple the aviation industry, which is the goal of the terrorists.

# PANEL DISCUSSION III: COMMUNICATIONS AND NATIONAL RESILIENCE IN CRISES



**BILL DURODIÉ ON THE ROLE OF THE CITIZENS IN A CRISIS.**

Bill Durodié highlighted the elements that make individuals, institutions, and societies resilient in the face of unpredictable shocks. In his view, too much emphasis has been placed on technical solutions. Real national resilience is a social attitude, derived from a nation's quiet confidence in its intended goals and objectives. To respond effectively to terrorism and other disasters, policy-makers and emergency planners should incorporate community responses in their approaches. They should not ostracize the efforts of ordinary people who assume responsibility for their own circumstances, in favor of the contributions of a few professionally trained emergency responders.

How people respond to a crisis is only partly determined by the nature of the crisis and its underlying causes. There are cultural and social dimensions that explain our varied attitudes to disaster. Emergencies signify different things depending on what they represent to particular societies at particular times. This does not depend solely on the basis of objective indicators such as real costs and lives lost. For example, the tragic significance ascribed to the death of seven astronauts aboard the 1986 Challenger spacecraft does not bear close scrutiny when compared to the hundreds of thousands of people who die from road accidents each year.

Disasters destroy physical and economic capital. Yet, they present a rare, if unfortunate opportunity to create and enhance social capital. This is what authorities and professionals need to take into consideration and put into effective use when preparing emergency responses. Spontaneous action of concerned citizens has contributed significantly to the positive outcome of a number of disastrous situations. Durodié gave the example of the 1995 Tokyo subway attack and the 2004 Beslan hostage crisis. Nonetheless, rather than learn from such experiences, policy-makers and emergency professionals tend to opt for technical solutions. Most counter-terrorism measures

put in place since 2001 emphasize surveillance, endless checks at airports, and technical machines and gadgets to detect chemical, biological, or radiological agents. While seeking to secure society from the outside, such measures fail to engage society from the inside. As such, they contribute to 'doing the terrorists' job for them.'

By contrast, any effective solution to the threat posed by terrorism – or any other threat, for that matter – would be to place such threats in their appropriate context. Ascribing objective meaning to events and reaching out to the general public to educate and engage them is the best form of response. Not only that, but we also need to promote a healthy debate as to our aims and purposes as a society. Missing is an interactive effort to increase social resilience by building bonds of trust and a shared sense of purpose. This can only be achieved if authorities find a way to engage citizens in matters pertaining to broader strategic issues of concern. More often than not, it's realizing that there is something more important to life and something worth fighting for that sustains us as a society through times of great crises.



**S.H. MULADI PROVIDING INSIGHTS ON NATIONAL RESILIENCE IN INDONESIA.**

On his part, S.H. Muladi highlighted the Indonesian experience with regard to national resilience. He pointed out that the term first entered the national vocabulary in 1994, when President Suharto renamed the National Defence Institute the National Resilience Institute. This shift marked an even more important transformation in the patterns of thinking among Indonesia's defence and security community. Rather than focus solely on military problems and solutions, the nation's elite realized the importance of adopting a comprehensive approach to national security. The revised concept incorporated both static determinants such as geographic, demographic, and environmental factors, and dynamic determinants such as political, economic, and socio-cultural factors.

Especially in developing countries like Indonesia, security concerns should encompass not only threats and vulnerabilities that arise from the international context, but also risks and factors that are indigenous to the political, economic, and social conditions of the nation. As such, issues like the consolidation of democracy, the protection of human rights and the rule of law, the achievement of social justice and economic development are just as important as issues of sovereignty, territorial integrity, and political independence. To this end, the Indonesian government has set out to create a comprehensive framework of responses to tackle such challenges.

In effect, the Indonesian model distinguishes between two critical paradigms of national resilience. One is engineered resilience, which is designed as an effort to return a system

to its original state or function, once it has been disrupted. The second model is ecological resilience, which is meant as a response mechanism for situations of high uncertainty, where persistence and adaptation are the best responses. Indonesia has adopted such conceptions of national resilience in conjunction with its national goals as stipulated in the country's Constitution. They include the principles of Pancasila, the principle of the Unitary State, and the principle of Unity in Diversity. Throughout Indonesia's existence, the Indonesian people have been able to uphold their national consensus and to pave a common path for themselves by employing these principles to guarantee their sovereignty, territorial integrity, and political independence. As such, they should also form the ideological basis for Indonesia's attempts to build national resilience for the future.

## GROUP SHARING ON HOMELAND SECURITY WHOLE-OF-GOVERNMENT APPROACH BEST PRACTICES

In the final session, presentations were made highlighting the policy lessons learned in response to the following three questions: 1) What are the defining threats and challenges of the current security environment; 2) what are the practical steps needed to develop a whole-of-government approach; and 3) is a whole-of-society response either attainable or desirable?

The vast range of threats and challenges that are prevalent in the current security environment was noted. From traditional security concerns such as state sovereignty and national defence to 'softer' issues such as environmental, demographic, health, and economic security, the new international system is rife with concerns for both governments and societies. Three threats stand out in particular – terrorism, migration, and infectious diseases. However, a concern was voiced that national security might become meaningless if so many issues and responses are incorporated under its jurisdiction. While there are real threats and real issues, a line must be drawn somewhere for the sake of efficiency.

The government's role is also to create an effective system through which to anticipate the kinds of problems that may arise without warning. Horizon scanning exercises are essential because they provide dynamic planning scenarios and focus efforts and strategic thinking. In addition, perennial risk assessments will help separate real risks from fake threats and encourage the state to prioritize by allocating resources on the basis of state capacity. Such issues and policy responses need to be continuously reviewed to adapt them to changing circumstances.

It was suggested that the social causes of terrorism be debated. In the post-9/11 security environment, the pre-eminent focus is on religiously inspired terrorism. Nonetheless, most acts of

violence have little to do with religion. Postulating fringe elements and their ideologies as the driving mechanism behind global terrorism results in government paralysis since only defensive and reactive responses are considered. On the contrary, a more proactive and preventive response framework is needed to deal with asymmetric threats. Private sector cooperation is also imperative due to the knowledge, resources, and infrastructure that exist outside government circles.

In terms of a whole-of-government approach, the salient issue is the need to balance different perspectives. On the one hand, real threats and real challenges exist, but on the other hand, people must be allowed to continue their normal existence. Government officials must find a way to resolve the tension between enhancing security while maintaining everyday life. To achieve this, it is imperative for the basic framework and infrastructure of governance to be put in place. Additional practical steps include educating and engaging different segments of society, as well as non-governmental organizations, in order to encourage them to participate in the implementation phase. Horizon scanning and risk assessment exercises are helpful, but they need to be operationalized to be effective.

The need to move beyond a whole-of-government response to a whole-of-society approach was highlighted. Important components in this transition will be the building of trust among the citizens, horizon scanning, perennial risk assessments, effective communication, and private sector involvement. In addition, a common vision through which they can build consensus for the types of responses necessary must be created. In turn, these responses should be administered through common structures, common mechanisms, and common processes. Governments should also consider the need for informal coordination, a key feature of which is the

willingness of their citizens to work together, especially since ordinary citizens are always the first line of defence in times of crisis. This can only be realized if government officials provide clear leadership and strategic direction. They also need to invest in building structures of governance through which they can achieve effective process management. Any reforms implemented must also result in permanent cultural and behavioral shifts. Only when such shifts occur will effective allocation of resources and effective process management – the two defining characteristics of a successful whole-of-government approach – be effectively realized.

On the other hand, government paralysis might occur if citizens are consulted on everything and expected to form a consensus leading to decision-making and subsequent policy responses.

The whole-of-society approach is about creating the opportunities for people to choose to engage, whereas forcing them to engage might push this endeavor backwards. Another limitation raised was the marginalization of Muslim communities in the context of the whole-of-government and the whole-of-society response. While much progress has been achieved in Europe since the 1960s and 1970s, ever since 9/11 and 7/7, modern societies are ablaze with questions about Islam and Muslims. Although enlightening, such discussions are counter-productive because, irrespective of nationality, most Muslims are concerned with exactly the same issues as other ordinary citizens such as a good education for their children, normal living conditions, and a stable economy. Pushing the debate into cultural and religious issues only serves to obfuscate matters.

## CLOSING REMARKS



MR. PETER HO SUMMING UP THE KEY ISSUES DISCUSSED.

Mr. Peter Ho, Permanent Secretary for National Security and Intelligence Co-ordination, recapitulated some of the pertinent themes and issues raised at APPSNO. First, the determination and adaptability of terrorists in the face of counter-terrorism efforts leaves states no choice but to remain vigilant for the long haul. To cope effectively, countries must form a network between the agencies within their government and with the private sector as well.

Second, the threat of terrorism transcends national boundaries and no single country can tackle it alone. Hence it is imperative that like-minded countries join together as a network in order to neutralize the terrorists' amorphous franchised network more effectively. Past examples of success includes the close

cooperation both within ASEAN countries as well as with other foreign countries that led to the arrests of key Jemaah Islamiyah leaders.

Third, states must harness the right technology to fight terrorism. Technology, such as the Risk Assessment and Horizon Scanning Project, can help the various stakeholders work more closely together and also assist countries in connecting the dots and trigger the appropriate action to capture the terrorists and foil their plans.

Nevertheless, ultimately it is the shared desire to defeat the threat of transnational terrorism that can make the difference in preventing terrorist attacks and crippling terrorist groups. While APPSNO is one example of the useful consultations and dialogues at various levels in multilateral and international fora, from which useful principles have been developed, it is necessary to move beyond principles to practice, to go beyond rhetoric to concrete cooperative measures to secure real capabilities for prevention, protection and consequence management.

He concluded by thanking the participants, speakers and panelists, as well as the organizers, for making APPSNO a success.

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Edited by:  
Kumar Ramakrishna and Yolanda Chin

**ASIA - PACIFIC PROGRAMME  
FOR SENIOR NATIONAL SECURITY OFFICERS  
14 - 20 JANUARY 2007  
THE SENTOSA RESORT AND SPA, SINGAPORE**

Sunday, 14 January 2007

*Associate Professor Kumar Ramakrishna,*  
Acting Head, CENS, RSIS

1900 – 2130 Welcome Dinner hosted by  
Ambassador Barry Desker,  
Dean, S Rajaratnam School of  
International Studies (RSIS)  
(Venue: Sentosa Resort)

Chairperson:  
*Associate Professor Ralf Emmers,*  
Head of Studies, RSIS

Q and A

Monday, 15 January 2007

0830 – 1020 Opening Remarks  
  
*Mr. Barry Desker,*  
Dean, S. Rajaratnam  
School of International Studies (RSIS)

1630 – 1730 Session II:  
The Singapore Model of National Security

Speaker:  
*Mr. Lee Ark Boon,*  
Director,  
National Security Coordination Centre  
(NSCC), Prime Minister's Office, Singapore

Chairperson:  
*Dr. Bernard Loo,*  
Assistant Professor and Coordinator,  
Revolution in Military Affairs Programme,  
Institute of Defence and Strategic Studies  
(IDSS), RSIS

Q and A

1020 – 1040 Group Photo-taking

1040 – 1100 Introduction to CENS, NSCC and APPSNO  
*Associate Professor Kumar Ramakrishna,*  
Acting Head, Centre for Excellence for National  
Security (CENS), RSIS

1730 – 1900 Free and Easy

1100 – 1230 Session I: The Challenge of Homeland  
Security in the 21st Century

1900 – 2130 Dinner hosted by Mr. Lee Ark Boon,  
Director, NSCC

(Venue: Night Safari)

Speaker:  
*Mr. Clark Ervin,*  
Director,  
Homeland Security Initiative,  
The Aspen Institute

End of Day 1

Chairperson:  
*Mr. Thomas Quiggin,*  
Senior Fellow and Coordinator,  
Risk Assessment and Horizon Scanning  
Programme, CENS, RSIS

Tuesday, 16 January 2007

Q and A

1230 – 1330 Lunch

0830 – 0930 Foreign Participant Presentations on  
Homeland Security Management

1330 – 1630 Panel Discussion I:  
Trends in Transnational Terrorism

0930 – 1130 Session III: Developing a Whole-of-  
Government Approach to Homeland Security

Speaker:  
*Sir Richard Dearlove,*  
The Master,  
Pembroke College, Cambridge

Speakers:  
*Associate Professor Rohan Gunaratna,*  
Head, International Centre for Political  
Violence and Terrorism Research (ICPVTR),  
RSIS

Chairperson:  
*Dr. Joseph Liow,*  
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RSIS and Coordinator, Civil and Internal  
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*Mr. Michael Moodie,*  
Private Consultant

Q and A



1130 – 1230	Syndicate Discussion on Session III  Facilitators: <i>Dr. John Harrison</i> , Assistant Professor and Coordinator, Transportation Security Programme, CENS, RSIS  <i>Mr. Thomas Quiggin</i> , Senior Fellow and Coordinator, Risk Assessment and Horizon Scanning Programme, CENS, RSIS  <i>Dr. Norman Vasu</i> , Assistant Professor and Coordinator, Social Resilience Programme, CENS, RSIS	<i>COL (NS) Patrick Nathan</i> , Deputy Director, National Security Coordination Centre, Prime Minister's Office, Singapore  Chairperson: <i>Dr. John Harrison</i> , Assistant Professor and Coordinator, Transportation Security Programme, CENS, RSIS  Q and A
1230 – 1330	Lunch	
1330 – 1630	Visit to Maritime and Port Authority of Singapore (MPA): Port and Ship Security (Venue: Port Operations Control Centre (POCC) II)  Speaker: <i>Captain Lee Cheng Wee</i> , Deputy Director (PORT) / Deputy Port Master, Port Master's Office, Maritime and Port Authority of Singapore	1130 – 1230 Syndicate Discussion on Panel Discussion II  Facilitators: <i>Dr. John Harrison</i> , Assistant Professor and Coordinator, Transportation Security Programme, CENS, RSIS  <i>Dr. Joey Long</i> , Assistant Professor and Coordinator, United States Programme, RSIS  <i>Dr. Norman Vasu</i> , Assistant Professor and Coordinator, Social Resilience Programme, CENS, RSIS
1630 – 1830	Free and Easy	1230 – 1330 Lunch
1830 – 2130	Cocktails followed by Distinguished Dinner Lecture hosted by Mr. Barry Desker, Dean, RSIS  (Venue: Raffles Hotel)  Distinguished Dinner Lecture: Protecting the City – Observations and Lessons from New York  Speaker: <i>Dr. Richard Falkenrath</i> , Deputy Commissioner for Counterterrorism, New York Police Department (NYPD)  Chairperson: <i>Mr. Barry Desker</i> , Dean, RSIS	1330 – 1730 Visit to Woodlands Checkpoint: Border Control and Management (Venue: Immigration and Checkpoints Authority (ICA))  Speaker: <i>Mr. Chua Sze How</i> , Head Operations Planning, Immigration and Checkpoints Authority, HQ Operations Division  1730 – 1900 Free and Easy  1900 – 2130 Distinguished Dinner Lecture hosted by Yeong Gah Hou, Director, JCTC (Venue: Sentosa Resort)  Distinguished Dinner Lecture: Supply Chain Security  Speaker: <i>BG (NS) Choi Shing Kwok</i> , Permanent Secretary (Transport), Ministry of Transport, Singapore  Chairperson: <i>Mr. Yeong Gah Hou</i> , Director, JCTC
End of Day 2		
Wednesday, 17 January 2007		
0830 – 0930	Foreign Participant Presentations on Homeland Security Management	
0930 – 1130	Panel Discussion II: Horizon Scanning – Its Promise and Application  Speakers: <i>Mr. Thomas Quiggin</i> , Senior Fellow and Coordinator, Risk Assessment and Horizon Scanning Programme, CENS, RSIS	End of Day 3  Thursday, 18 January 2007  0830 – 0930 Foreign Participant Presentations on Homeland Security Management

0930 – 1130	<p>Session IV: From SARS to Bioterrorism to Pandemics – New Tools and Old Medicine to Protect the Public</p> <p>Speaker: <i>Professor David Heyman,</i> Director and Senior Fellow, Homeland Security Program, Centre for Strategic and International Studies</p> <p>Chairperson: <i>Dr. John Harrison,</i> Assistant Professor and Coordinator, Transportation Security Programme, CENS, RSIS</p> <p>Q and A</p>	<p>Speakers: <i>Dr. Bill Durodié,</i> Senior Lecturer in Risk and Corporate Security, Cranfield University, Defence Academy of the United Kingdom</p> <p><i>Professor Muladi, S. H.,</i> Governor, National Resilience Institute, Republic of Indonesia</p> <p>Chairperson: <i>Dr. Tan See Seng,</i> Assistant Professor, Deputy Head of Studies and Coordinator, Multilateralism and Regionalism Programme, IDSS, RSIS</p> <p>Q and A</p>
1130 – 1230	<p>Syndicate Discussion on Session IV</p> <p>Facilitators: <i>Dr. John Harrison,</i> Assistant Professor and Coordinator, Transportation Security Programme, CENS, RSIS</p> <p><i>Mr. Thomas Quiggin,</i> Senior Fellow and Coordinator, Risk Assessment and Horizon Scanning Programme, CENS, RSIS</p> <p><i>Dr. Norman Vasu,</i> Assistant Professor and Coordinator, Social Resilience Programme, CENS, RSIS</p>	<p>1130 – 1230</p> <p>Syndicate Discussion on Panel Discussion III</p> <p>Facilitators: <i>Dr. John Harrison,</i> Assistant Professor and Coordinator, Transportation Security Programme, CENS, RSIS</p> <p><i>Mr. Thomas Quiggin,</i> Senior Fellow and Coordinator, Risk Assessment and Horizon Scanning Programme, CENS, RSIS</p> <p><i>Dr. Norman Vasu,</i> Assistant Professor and Coordinator, Social Resilience Programme, CENS, RSIS</p>
1230 – 1430	<p>Distinguished Lunch Talk: Reconstruction of a Failed State (Venue: Sentosa Resort)</p> <p>Speaker: <i>Dr. Ashraf Ghani,</i> Chancellor, Kabul University</p> <p>Chairperson: <i>Professor Amin Saikal,</i> Visiting Professor, RSIS</p>	<p>1230 – 1330</p> <p>Lunch</p> <p>1330 – 1520</p> <p>Preparations for Group Sharing</p> <p>1520 – 1540</p> <p>Tea/Coffee Break</p> <p>1540 – 1730</p> <p>Group Sharing on Homeland Security Whole-of-Government Approach Best Practices</p> <p>Speakers: Syndicate Representatives</p> <p>Chairperson: <i>Associate Professor Kumar Ramakrishna,</i> Acting Head, CENS, RSIS</p>
1430 – 1730	<p>Visit to Changi International Airport: Challenges to Civil Aviation (Venue: Civil Aviation Authority of Singapore (CAAS))</p> <p>Speaker: <i>Mr. Lim Boon Wee,</i> Deputy Secretary (Transport), Ministry of Transport</p>	<p>1730 – 1815</p> <p>Course Evaluation</p> <p>1815 – 1900</p> <p>Free and Easy</p> <p>1900 – 2130</p> <p>Certificate Presentation Ceremony and Closing Dinner hosted by Mr. Peter Ho, Permanent Secretary for National Security and Intelligence Co-ordination (NSIC), Singapore (Venue: Sentosa Resort)</p>
End of Day 4		
Friday, 19 January 2007		
0830 – 0930	<p>Foreign Participant Presentations on Homeland Security Management</p>	
0930 – 1130	<p>Panel Discussion III: Communications and National Resilience in Crises</p>	<p>End of Programme</p>

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Mr Yao Chuan Sam  
Director, Public Transport Security  
Land Transport Authority, Singapore  
Singapore

Mrs Yu Sing Tong  
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## ABOUT NSCS

The National Security Coordination Secretariat (NSCS) was set up in the Prime Minister's Office in Jul 2004 to facilitate national security policy coordination from a Whole-Of-Government perspective. NSCS reports to the Prime Minister through the Coordinating Minister for National Security (CMNS). The current CMNS is the Deputy Prime Minister Professor S. Jayakumar, who is also Minister for Law.

NSCS is headed by Permanent Secretary (National Security and Intelligence Coordination). The current PS(NSIC) is Mr Peter Ho, who is concurrently Head of Civil Service and Permanent Secretary for Foreign Affairs.

NSCS provides support to the ministerial-level Security Policy Review Committee (SPRC) and Senior official-level National Security Coordination Committee (NSCCom) and Intelligence Coordinating Committee (ICC). It organizes and manages national security programmes, one example being the Asia-Pacific Programme for National Security Officers. NSCS also fund experimental, research or start-up projects that contribute to our national security.

NSCS is made up of two components: the National Security Coordination Centre (NSCC) and the Joint Counter-Terrorism Centre (JCTC). Each centre is headed by a director.

NSCC performs three vital roles in Singapore's national security: national security planning, policy coordination, and anticipating strategic threats. As a coordinating body, NSCC ensures that government agencies complement each other, and do not duplicate or perform competing tasks.

JCTC is a strategic analysis unit that compiles a holistic picture of terrorist threat. It studies the levels of preparedness in areas such as maritime terrorism and chemical, biological and radiological terrorist threats. It also maps out the consequences should an attack in that domain take place.

More information on NSCS can be found at [WWW.NSCS.GOV.SG](http://WWW.NSCS.GOV.SG)

# ABOUT CENS

## ABOUT CENS

The Centre of Excellence for National Security (CENS) is a research unit of the S. Rajaratnam School of International Studies (RSIS) at Nanyang Technological University, Singapore. Established on 1 April 2006, CENS is devoted to rigorous policy-relevant analysis of a range of national security issues. The CENS team is multinational in composition, comprising both Singaporean and foreign analysts who are specialists in various aspects of national and homeland security affairs.

## Why CENS?

In August 2004 the Strategic Framework for National Security outlined the key structures, security measures and capability development programmes that would help Singapore deal with transnational terrorism in the near and long term.

However, strategizing national security policies requires greater research and understanding of the evolving security landscape. This is why CENS was established to increase the intellectual capital invested in strategizing national security. To this end, CENS works closely with not just other RSIS research programmes, but also national security agencies such as the National Security Coordination Secretariat within the Prime Minister's Office.

## What Research Does CENS Do?

CENS currently conducts research in three key areas of national security:

- Risk Assessment/Horizon Scanning
  - The art and science of detecting “weak signals” emanating from the total security environment so as to forewarn policymakers, the private sector and the public about approaching “shocks” such as terrorism, pandemics, energy crises and other easy-to-miss trends and ostensibly distant events.
- Social Resilience
  - The capacity of globalized, multicultural societies to hold together in the face of systemic shocks such as diseases and terrorist strikes.
- Transportation Security
  - The security of land-based, aviation and maritime transport networks and increasingly, the total supply chain vital to Singapore's economic vitality.

## How Does CENS Help Influence National Security Policy?

Through policy-oriented analytical commentaries and other research output directed at the national security policy community in Singapore and beyond, CENS staff members promote greater awareness of emerging threats as well as global best practices in responding to those threats. In addition, CENS organizes courses, seminars and workshops for local and foreign national security officials to facilitate networking and exposure to leading-edge thinking on the prevention of, and response to, national and homeland security threats.

## How Does CENS Help Raise Public Awareness of National Security Issues?

To educate the wider public, CENS staff members regularly author articles in a number of security and intelligence related publications, as well as write op-ed analyses in leading newspapers. Radio and television interviews have allowed CENS staff to participate in and shape the public debate on critical issues such as risk assessment and horizon scanning, multiculturalism and social resilience, intelligence reform and defending critical infrastructure against mass-casualty terrorist attacks

## How Does CENS Keep Abreast of Cutting Edge National Security Research?

The lean organizational structure of CENS permits a constant and regular influx of Visiting Fellows of international calibre through the Distinguished CENS Visitors Programme. This enables CENS to keep abreast of cutting edge global trends in national security research.

## *For More on CENS*

Log on to <http://www.rsis.edu.sg> and follow the links to “Centre of Excellence for National Security”.



## ABOUT RSIS

The S. Rajaratnam School of International Studies (RSIS) was established in January 2007 as an autonomous School within the Nanyang Technological University. RSIS's mission is to be a leading research and graduate teaching institution in strategic and international affairs in the Asia Pacific. To accomplish this mission, it will:

- Provide a rigorous professional graduate education in international affairs with a strong practical and area emphasis
- Conduct policy-relevant research in national security, defence and strategic studies, diplomacy and international relations
- Collaborate with like-minded schools of international affairs to form a global network of excellence

### Graduate Training in International Affairs

RSIS offers an exacting graduate education in international affairs, taught by an international faculty of leading thinkers and practitioners. The Master of Science (MSc) degree programmes in Strategic Studies, International Relations, and International Political Economy are distinguished by their focus on the Asia Pacific, the professional practice of international affairs, and the cultivation of academic depth. Over 120 students, the majority from abroad, are enrolled in these programmes. A small, select Ph.D. programme caters to advanced students whose interests match those of specific faculty members. RSIS also runs a one-semester course on *The International Relations of the Asia Pacific* for undergraduates in NTU.

### Research

RSIS research is conducted by five constituent Institutes and Centres: the Institute of Defence and Strategic Studies (IDSS, founded 1996), the International Centre for Political Violence and Terrorism Research (ICPVTR, 2002), the Centre of Excellence for National Security (CENS, 2006), the Centre for the Advanced Study of Regionalism and Multilateralism (CASRM, 2007); and the Consortium of Non-Traditional Security Studies in ASIA (NTS-Asia, 2007). The focus of research is on issues relating to the security and stability of the Asia-Pacific region and their implications for Singapore and other countries in the region. The S. Rajaratnam Professorship in Strategic Studies brings distinguished scholars and practitioners to participate in the work of the Institute. Previous holders of the Chair include Professors Stephen Walt, Jack Snyder, Wang Jisi, Alastair Iain Johnston, John Mearsheimer, Raja Mohan, and Rosemary Foot.

### International Collaboration

Collaboration with other professional Schools of international affairs to form a global network of excellence is a RSIS priority. RSIS will initiate links with other like-minded schools so as to enrich its research and teaching activities as well as adopt the best practices of successful schools.

