

POINTER

Journal of the
Singapore Armed Forces

Vol. 26 No. 4 [2000]

V26N4

The Gulf War: 'Triumph Without Victory?'

by MAJ Lim Yew Hock

The Gulf War began on 2 August 1990 when Iraqi troops poured across the Kuwaiti border. The Kuwaiti resistance was crushed within two days. Following this unprovoked aggression, the United Nations (UN) condemned the act and imposed sanctions of increasing toughness which culminated in the UN Resolution 6781, giving 15 January 1991 as the deadline for the unconditional withdrawal of all Iraqi troops from Kuwait. It also empowered the US-led coalition forces to use "all necessary means"² to drive the Iraqi forces out should they fail to comply.

The deadline came and went, and on the night of 16 January 1991, allied aircraft and cruise missiles attacked command and communications targets and air defence sites in Iraq. The allies' strategic air campaign set the stage for launching the land forces on 24 February 1991 after Iraq failed to meet a second deadline. The allied offensive burst on the Iraqi forces over a 500-km front, capturing tens of thousands of Iraqi prisoners. On 28 February 1991, after exactly 100 hours of land battle, a totally defeated Iraq agreed to rescind the annexation of Kuwait, accepting the various UN Resolutions.

While the world marvelled at the swift and overwhelming victory of the allied forces over the Iraqis, some critics and war analysts criticised George Bush for failing to complete his mission in the Persian Gulf by allowing Saddam Hussein to survive. There were debates on why George Bush did not go further to eliminate the root cause of the war - Saddam Hussein himself. In particular, modern historian Brian Bond, in his book "The Pursuit of Victory - From Napoleon to Saddam Hussein" commented:

"The ironic result of the Gulf War seems to be either Saddam Hussein will be left in power to build up his forces for renewed aggression or, by some means short of another great coalition war, he will have to be deposed. There can rarely have been a case in history where the chasm between a decisive military victory and an unsatisfactory political outcome has been so wide. It was a "triumph without victory".³

It is no wonder that Brian Bond made such a statement. Today, almost 10 years since the end of the Gulf War, with both George Bush and John Major out of office, Saddam Hussein is still very much in power and in control of Iraq. Although he had yet to "build up his forces for renewed aggression", there was enough left of his forces for him to stage a massive rampage to crush the Kurdish uprising in northern Iraq a few months after the Gulf War. Hundreds of Kurds were executed and thousands more were arrested. There were also reports of cruelties and atrocities committed which fuelled the criticism that Saddam Hussein should not have been allowed to survive in the first place. In the ensuing months to come, Saddam Hussein also showed defiance against complying with the UN Resolutions that he had agreed upon by not co-operating with the UN Weapons Inspection officers.

So was the Gulf Campaign really a "triumph without victory" for the coalition forces? This essay looks at the issue using Clausewitz's ideas on the relationship between the political purpose and the military objectives.

War as an Instrument of Policy

Carl von Clausewitz, the great military thinker of the 17th century, emphasised the central role of politics in war. "The political object is a goal, war is the means of reaching it, and means can never be considered in isolation from their purpose," according to Clausewitz.⁴ He viewed war as "an act of force to compel our enemy to do our will", stating that war comes about because of 'some political object' and that 'war is therefore an act of policy'.⁵

Defeating the enemy is not an end in itself but a means to achieve political objectives. It is the political objectives of a war that determine the form of the war and its intensity. The political policy determines the nature of the war, and political circumstances accordingly shape strategy.⁶

Besides being the central motivation for war, politics is also a key consideration in determining the end of war. As Clausewitz stated, "Since war is not an act of senseless passion but is controlled by its political object, the value of this object must determine the sacrifice made for it in magnitude and also its duration. Once expenditure of effort exceeds the value of the political purpose, the purpose must be renounced."⁷ Hence, besides the strategy that is being governed by political considerations, the decision to terminate war is also controlled by its political objectives.

Political Objectives of the Gulf War

The political objectives of the US-led coalition forces were clearly spelt out by George Bush in an address to his nation on 8 August, 1990:

*"Four simple principles guide our policy. First, we seek the immediate, unconditional and complete withdrawal of all Iraqi forces from Kuwait. Second, Kuwait's legitimate government must be restored to replace the puppet regime. And third, my administration, as had been the case with every President from President Roosevelt to President Reagan, is committed to the security and stability of the Persian Gulf. And fourth, I am determined to protect the lives of American citizens abroad."*⁸

Throughout the Persian Gulf crisis, the political goals of the coalition remained paramount. As the national, coalition, and theatre strategies shifted, the campaign plan was adapted to ensure that military action could adequately support those political goals established at the very beginning.⁹

Were these political objectives met? The first objective was situation-specific and was translated into the key military objective for liberating Kuwait. It was the main focus of the coalition forces throughout the campaign. This objective was met at the end of the Gulf War when the coalition forces were able to eject all Iraqi forces from Kuwait city. The second objective was also met when, following the withdrawal of the Iraqi forces, the legitimate government of Kuwait was restored to begin the uphill task of rebuilding the country. Furthermore, with Saddam Hussein's unconditional acceptance of the UN Resolution 68710, one can safely conclude that the first two objectives were accomplished.

As for the latter two objectives, however, it is not obvious whether they were met at the end of the war. They were more of reiterations of traditional, longer-term goals¹¹, and were the cause of debates on whether the termination of the war was premature.

Destruction of Saddam Hussein

Was the destruction of Saddam Hussein, be it his death or his removal from power, an objective of the coalition war effort? However desired or hoped, the destruction of Saddam Hussein was never stated as a political goal, presumably because it was not acceptable to the governments supporting the general US effort.¹² The Soviet Union and China, both members of the UN Security Council, stated that they were generally supportive of the coalition effort so long as the US objectives did not extend to a change of regime in Iraq.¹³ Furthermore, the UN mandate permitting the liberation of Kuwait made no reference to the invasion of Iraq.¹⁴

Nevertheless, it was the unofficial but widely assumed Allied war aim that an overwhelming military defeat would lead to the flight or enforced removal of Saddam Hussein.¹⁵ GEN Norman Schwarzkopf also mentioned, "At the strategic level we decided that Saddam Hussein was the key, but that we could do nothing about him legally and ethically. We could and did isolate him and cause the battle to be fought without centralised command."¹⁶

What were the possible reasons for George Bush not pressing on to Baghdad? Let us now try to understand why George Bush terminated the war and not push on to Baghdad and the considerations that he could have had.

Security and Stability of the Persian Gulf

The third political objective of the coalition forces was the security and stability of the Persian Gulf region. The first step towards achieving this was ensuring that Saddam Hussein did not have the capability to project military power and weapons of mass destruction beyond its borders. To achieve this, the destruction of the Republican Guard was the focus of the coalition effort. Saddam Hussein's power base was heavily dependent on the continued existence of the Republican Guard, as was his ability to defend Kuwait. It possessed the bulk of his offensive force projection capability and served as the heart of the domestic power base to retain control of the Iraqi government. Elimination of the Republican guard, if totally successful, would have eliminated a major source of his power.¹⁷

Towards the end of the war, Iraqi armoured forces were decimated and the elite Republican Guard was rendered ineffective. Thus Saddam Hussein's military power projection capability was clipped. Saddam Hussein had only about 500 tanks left from the initial 4,000 tanks. This was considered as "not enough left at all to be a regional threat to the region".¹⁸

As part of the cease fire agreement, the UN Resolution 687 also required Saddam Hussein to grant access to UN Weapons Inspection teams to inspect any suspicious installations that might be capable of producing weapons of mass destruction, such as nuclear, biological or chemical weapons. Thus, any other potential threat was also checked. Some may argue that Saddam Hussein should have been removed from power to ensure permanent security and stability in the region. However, there were others who were of the opinion that it was critical that Iraq remained an integrated country and not be fragmented so as to maintain the balance of power in the region. If Iraq was completely destroyed, either militarily or politically, a struggle between Syria and Iran, the next leading powers, was likely. The conflict might have expanded beyond Kuwait and Southeast Iraq and the whole region might have plunged into a series of factional wars - described by some as a 'regional Beirut'.¹⁹

There were further speculations that George Bush deliberately held back support to the Kurdish and Shiite

revolts and allowed Saddam Hussein to successfully suppress these domestic uprisings. If the Kurdish and Shiite revolts following the ground war had been allowed to succeed, Iraq might have disintegrated, thereby generating profound instability. Both the American and Saudi governments had been frightened by intelligence reports that Iranian-trained brigades had crossed into Iraq to provide the backbone to the Shiite revolt . 20

The conflict between ensuring the integrity of Iraq and disposing Saddam Hussein was that there was no obvious candidate, who was suitable or capable of holding the country together, available to replace him. Given Iraq's complex and volatile political system, it was believed that only someone with a firm hand was able to safely run the country - someone like Saddam if not Saddam himself. No Arab leader in the coalition sought Saddam Hussein's removal: they were of the view that they had coexisted with the government of Saddam Hussein and would be able to coexist and even co-operate with him.²¹ This same opinion generally prevailed among most governments in the region, with the exception of the Syrian government, which voiced support for Saddam Hussein's removal. Even the Israelis could see the advantages in having Saddam Hussein remain in power. With a new Iraqi dictator, it might soon be 'business as usual' when it came to arms supplies if the UN relaxes its supervision of Iraq. So long as Saddam Hussein was in power, he would be under close scrutiny and Iraq would be isolated and excluded from regional power plays.²²

In view of all the above considerations, not eliminating Saddam Hussein totally appeared to be the lesser of the two evils. Thus it would appear that the decision not to pursue Saddam Hussein in Baghdad was in line with the third objective.

Minimise Casualties

The fourth political objective called for the casualty rate to be kept to an absolute minimum. This may be seen as having stemmed from the fear of a repeat Vietnam-style imbroglio, and hence the twin imperatives of minimising casualties and avoiding a prolonged conflict.²³ Had the coalition forces pushed on to Baghdad, they would have inevitably been involved in urban warfare, generally characterised by high casualties rates - rates which coalition political leadership and citizens may have been unwilling to accept.²⁴

The coalition leaders' desire to limit friendly casualties therefore formed the basis for the decision to suspend offensive operations and the conduct of the operations was guided by the principle of proportional use of force. There was no longer a need to risk coalition lives unnecessarily when further gains were deemed to be only marginal. There was also a desire to prevent any wanton destruction of Iraqi forces since they had been effectively ejected from Kuwait and the legitimate Kuwaiti government restored. This would have been especially relevant since some Iraqi forces would definitely be required to maintain the territorial integrity of the Iraqi state.²⁵ This decision and its considerations were clearly stated by Gen Norman Schwarzkopf, "At that point we were at risk of killing Iraqi teenagers and American teenagers for no reason. The mission had been accomplished".²⁶

The decision to rapidly withdraw from southern Iraq was also due to the desire to minimise casualties by reducing the exposure of those ground forces to the casualty-producing effects of minefields, unexploded munitions and incidental contacts with trapped Iraqi forces withdrawing. Withdrawal from the Iraqi territory would tangibly demonstrate efforts to safeguard lives of US and coalition personnel while living up to the promises made to regional states, the Soviet Union, and UN members that the military objectives were limited. At this point, the greater political goals for regional stability and a "new order" based on international law and negotiated resolution of disputes were paramount.²⁷

Coalition Integrity

During the Gulf War, the integrity of the coalition forces was arguably its strategic centre of gravity. Saddam Hussein's provocation of Israel was an aimed attack on this centre of gravity.²⁸ By going into Baghdad, the war would inevitably be prolonged and the risk of Israel getting drawn in would increase. The situation would have been exacerbated had Israel embarked on military operations against Iraq. George Bush said that any decision to push on further into Iraq and target Saddam Hussein would have split the coalition as the move would not have been supported by some Arab countries and even some European states.²⁹ Many experts and war analysts agree that if Israel had been dragged into the war as Saddam Hussein had threatened, then Arab support for the coalition would have disintegrated.³⁰

To protect the integrity of the coalition forces, it was reported that the US put a great deal of pressure on Israel to resist being drawn into the battle and that the US would respond for Israel to any attack on that country.³¹ Israel had wanted to retaliate after the Iraqi Scud missile attacks but George Bush warned that he would not give them the IFF (Identification Friendly or Foe)³² codes and hence the Israeli airforce risked the threat of friendly fire.³³ In response, George Bush also promptly dispatched a high-level US negotiating team to Israel and deployed *Patriot* missiles in Israel. This was further reinforced by the high priority subsequently allocated to 'Scud hunting'.³⁴ Thus great effort had been made to contain the war to minimise destabilising the region as well as to curb the casualty rate.

Public Opinion And Support

Another probable consideration that George Bush had was that of public opinion and domestic support. Towards the end of the war, the withdrawing forces fleeing Kuwait were a disorderly rabble and were trapped along the road to Basra. They were attacked by waves of aircraft with hundreds of vehicles destroyed and thousands of casualties inflicted. The scenes of endless carnage were broadcast worldwide and dubbed, the "Highway of Death" and a "turkey shoot" by the newspapers. This created much upheaval and George Bush, sensing that any more carnage would lead to public revulsion, called a halt to the operation.³⁵

Anti-Americanism

Had the coalition gone ahead to destroy Saddam Hussein, they would subsequently have had to ensure peace in the region - a peace made difficult by the power vacuum left by the absent Iraqi army. The resultant instability in the region could have ranged well beyond the borders of a single nation.³⁶ The Bush administration was strongly opposed to assuming responsibility for governing Iraq. It feared that US forces would become bogged down in the quagmire of Iraqi politics and a welcomed liberation force would soon turn into an unwanted army occupation.³⁷ Had the fighting carried on, or the US military presence been perceived as more permanent, the regime in power might also have faced an overthrow as anti-Americanism overwhelmed economic concerns.³⁸ Again, the threat to the region's stability prompted the termination of the war.

Self-destruction of Saddam Hussein

Finally, assuming that George Bush had really wanted Saddam Hussein removed from power, he was likely to favour an internal revolt by Saddam's people rather than initiate any action on his part. The most notable evidence of this was in a statement where he invited the Iraqi people to "take matters into their own hands, to force Saddam Hussein, the dictator, to step aside".³⁹

In March 1991, George Bush was given an intelligence forecast predicting that Saddam Hussein would be out of office within a year. This same message also came from the Arab members of the coalition, who did not believe that Saddam Hussein would survive the post-war turmoil in Iraq.⁴⁰ This could have prompted George Bush to suspend his operation and await the inevitable fall of Saddam Hussein.

Conclusion

Did George Bush "goof" up in letting Saddam Hussein survive or was it a deliberate decision to allow him to survive? Nearly a decade after the end of the Gulf War, Saddam Hussein is still in power, but he is very much defanged and contained. He did not manage to rebuild his war machine or carry out more acts of aggression towards his neighbours. The casualty rate of the coalition forces was kept to an absolute minimum and the threat of further instability was removed by the early termination of the war. Hence, it can be concluded that the third and fourth political objectives were met.

Since all the political objectives were met, as Clausewitz propounds (that war is just a means to achieving political objectives), the coalition had indeed triumphed even though Saddam Hussein had not been totally eliminated. It is also according to the Clausewitzian view that the war terminated at a point where no further unnecessary sacrifice was made. On the other hand, a decisive military victory with Saddam Hussein ferreted out and totally destroyed would have in contrast, been a hollow victory, as too many lives would have been lost. In such a situation, the political objectives would not have been accomplished and according to Clausewitz, the essence of the war would have been lost.

From the political standpoint, George Bush had made the correct decision to terminate the war after achieving the political objectives and not to march on to Baghdad to eliminate Saddam Hussein. Seen in this light, Brian Bond's stand that the Gulf War was a "triumph without victory" cannot stand.

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The Korean War Explained With Termination of War Theories

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On 25 June 1950, North Korea, under the leadership of Premier Kim II Sung, invaded South Korea with the aim of reuniting the entire Korea under communist rule. The offensive was swift; Seoul fell to the North Korean Peoples' Army (NKPA) on 28 June 1950 and by 1 August 1950, the UN forces had been pushed to within the "Pusan Perimeter" on the southern tip of the Korean Peninsula.

Following the invasion by the North Koreans, the UN Security Council responded immediately and on 27 June 1950, passed a resolution to "repel the armed attack and to restore the international peace and security" in Korea. On 15 September 1950, the UN forces retaliated and with the successful amphibious landing at Inchon. Seoul was retaken on 28 September 1950. On 7 October 1950, the UN Security Council passed another resolution calling for the establishment of a "unified, independent and democratic government" in Korea. By 1 November 1950, the UN forces had defeated the North Korean Communists and had advanced to the Yalu River on the border with Manchuria.

On 5 November 1950, the Chinese reinforcements began their offensive and began driving the UN forces back over the 38th parallel. However, by January 1951, the Chinese offensive had lost its momentum. On 25 January 1951, the UN forces resumed the offensive and by March 1951, the Forward Edge of the Battlefield (FEBA) was re-established roughly along the 38th parallel. On 23 June 1951, a ceasefire was proposed by Jacob Malik, Deputy Foreign Commissar of the Soviet Union and Soviet Delegate to the UN. But it was only on 27 July 1953 that the Armistice was finally signed and the demilitarised zone re-established roughly along the 38th parallel.

When North Korea first invaded South Korea, its objective was the reunification of Korea under communist rule while the UN Security Council's resolution of 7 October 1950, set the objective for reuniting Korea under a democratically elected government. Both objectives were not achieved when the Armistice was signed on 27 July 1953. What were the factors that finally led both sides agreeing to the Armistice? This essay attempts to answer this using the termination of war theories to explain the end of the Korean War.

Issues of the Korean War

To better appreciate the Korean War and the application of the termination of war theories, the following issues are highlighted:

- It is debatable whether termination of war theories can be applied when no war was declared during the Korean War in the first place. When North Korea invaded South Korea, there was no open declaration of war. Similarly, when the UN forces retaliated, there was also an absence of declaration of war. However, the various termination of war theories are applicable to all forms of armed conflicts between states. In the case of the Korean War, it is of little significance that war was not declared prior to the hostilities.
- In the application of the theories on "proxy" wars, it was very clear in the Korean War, that North Korea was fighting the communists' war for the Russians. Their every plan, war support in arms and logistics were all controlled by the Russians. Even the involvement of the Chinese and the signing of the Armistice were done only with the approval of the Russians. On the UN's side, the US was very much in the driver's seat. The UN Security Resolution was drafted and put forward by the US, with US forces comprising the main bulk of the UN forces. The Korean War was clearly a proxy war between the Russians and the Americans. Though the Korean War was not a war between two states, the theories are still relevant in explaining why the war was terminated as the theories look into why those involved in the "war" chose to terminate the war. In this case, the essay will look at the leaders of Russia, the US, China and Korea.

- The third issue - whether the Korean War ended with the signing of the Armistice. Even now, the tension between North and South Korea remains due to differences in ideologies and the reason for the invasion remains unresolved, i.e. the reunification of the Korean peninsula.

"Termination" of War Defined

Termination of war refers to the ending of war. It could be the outcome of a single battle or the outcome of a series of battles leading to the final defeat of one of the armies. The various ways of terminating a war are as follows :

- Cease-fire or suspension of arms - an agreement by belligerents in a particular theatre to suspend hostilities for a short period.
- Armistice - ending of hostilities over a larger area or the entire war for a longer period or indefinitely.
- Capitulation - A one-sided military agreement in which the loser gives up control over an area.
- Unconditional surrender - one belligerent is completely defeated and the victor can dictate the peace terms.¹

With the signing of the Armistice in July 1953, the Korean War was terminated as defined above.

Termination of War Theories

Numerous theories have been put forward to explain why a state decides to terminate a war. This essay will examine the following four theories :

- **Winners and Losers**

This theory states that a war ends when one state wins and the other state is defeated. The theory predicts that when a state's forces are decisively defeated and the state's leaders realise that they have lost the war, they will be compelled to seek an end to the war. This is also applicable even if the loser's forces are exhausted through attrition warfare and there is a time lag between the turning point battle and the leaders' decision to quit fighting.

- **Cost/Benefit**

This theory assumes that the decision to terminate a war is a rational one, involving cost-benefit calculation. A state will pursue its objectives or war aims until it reaches a point where the marginal costs of continuing the war are not worth the objective. The state's leader will then decide to seek a termination to the war. This theory emphasises the need for states and their leaders to act as if they are evaluating their actions against their objectives and to continually re-evaluate their circumstances in the light of new evidence.

- **Hawk and Dove**

This theory by Fred Ikle states that statesmen who lead their country into war are too committed to that course to be able to rationally calculate or even to change their minds. Instead, they are replaced by new leaders who are less committed to the war and who seek peace.

- **Second Order Change**

This theory by Joseph Engelbrecht states that when leaders are faced with a dramatic political decision such as war termination, they undergo a psychological process which forces them to see the problem from a higher or second order paradigm. This theory argues that leaders involved in

the absorbing commitment of war concentrate on the task at hand, the means or solution to their aims. Their very persistence makes it difficult to consider other courses or judge incoming information. At some point the leaders realise the attempted solution (war itself) becomes the problem. From a second order perspective, leaders recognise that the war threatens another (higher) value which they hold dear. Thus, they see war termination as a necessary part of a future policy aimed at protecting this value.²

This essay will show the events leading to the signing of the Armistice and whether the four theories can adequately explain the "termination" of the Korean War.

Winner/Loser Theory

When the Korean War ended, there were no winners, only losers. The Korean people were the biggest losers. Many Koreans had to evacuate from their homes. The number of civilian casualties were estimated to be more than the armies of the Communists and the UN forces put together.

North Korea's aim to reunite the whole Korean peninsula was not achieved. Instead, it actually lost more real estate as the final signing of the Armistice put the Demilitarised Zone (DMZ) even more to the north of the 38th parallel. It was the communists who had wanted the Armistice more than the UN side. Had it not been for Stalin, the war would have ended in 1951.

For the UN, the initial aim was to drive back the communists over the 38th parallel and re-establish the boundary between North and South Korea. But following the successful landing of the UN forces at Inchon, the UN decided to fight for the reunification of the Korean Peninsula under a democratically elected government as its objective. This aim was not achieved at the signing of the Armistice in July 1953. The UN forces, especially the Americans, were also in favour of an Armistice because of the pressure from the public back home. Many soldiers at the front as well as their parents back in the US questioned the Truman administration's engagement of the communists in Korea to a "limited war". This was very evident during the senate hearing of the sacking of General MacArthur in May 1951.

From the readings, there is no decisive winner in the Korean War. Both the communists and the UN forces were in favour of the Armistice. The only exception was the South Korean President, Syngman Rhee. But then, President Rhee was not really in control of the war.

The Winner/Loser theory cannot adequately explain the termination of the Korean War.

Cost/Benefit Theory

As early as 1951, the Chinese and the North Korean had suggested to Stalin to end the war as both of them had sustained heavy casualties in the Korean War. In a letter from Mao Zedong to Stalin on 20 July 1951, Mao presented the following analysis of the Korean War in which his interest in achieving peace in Korea was obvious:

"... We perches should revise our stand on foreign troops in Korea. Earlier, for the sake of restoration of two separate North and South Koreas, we agreed to stop hostilities at the 38th parallel. We agreed to this mainly because our military forces are capable of chasing the enemy out of North Korea but they are not strong enough to chase the enemy out of South Korea. In the event of a prolonged war, we may inflict even more damage upon the adversary, but we'll severely undermine our finances, it will be difficult to increase our defence construction. If we continue to fight for 6-8 months, we might be able to chase the adversary out of South Korea, but the price will be too high, we'll face a crisis ... if the war ... resumes again, we'll have to continue a long war trying to achieve the unachievable ..".³

In 1951, 60 percent of China's tax revenue went to the defence budget. The military weapons from Russia were not free. By the end of 1952, the losses were more than one million Chinese soldiers. It must be

remembered that China had just ended a civil war in China and was looking to reunification with Taiwan. The Chinese did not favour the war in Korea, but were pressured by Stalin to assist the North Koreans.

China suffered a severe drain of experienced manpower and as evident in his letter to Stalin, Mao was of the opinion that there was little benefit in prolonging the war as the cost of the war was too high to justify any benefit that could be gained.

For North Korea, the loss was more than 520,000 soldiers and over 1 million civilian casualties. There was widespread shortage of food and the people were demanding for an end to the war. In a letter to Stalin dated 17 July 1952, Kim II Sung complained to Stalin:

"... The adversary, almost without any losses, constantly inflicts upon us enormous losses in human lives and material valuable ..".⁴

By the end of 1952, a total of about 142,000 US casualties were estimated:

Deaths	33,629
Killed in Action	23,300
Wounded in Action	105,785
Died of Wounds	2,501
Missing in Action	5,866
Died while Missing	5,127
Returned from Missing	715
Still Missing	24
Captured or Interned	7,140
Died While Captured.	2,701
Returned from Capture	4,418
Refused Depatriation	24
Total Casualties	142,091

The US casualties were estimated at more than 1,000 per week during the period of negotiations on the terms of the Armistice. The US had committed more than 1.2 million troops in Korea and more bombs had been dropped than had been used in WWII. Moreover, the American public and the soldiers in Korea were not sure if the prolonged war served any purpose and some questioned the need to send American soldiers to fight in Korea. President Truman did not run for re-election. He would have lost the re-election due to adverse opinions at home arising from the Korean War.

When Eisenhower took over the presidency in 1953, he remarked "... US is spending itself into bankruptcy", aptly summing the view of the Americans on the Korean War. The benefit was not worth the additional real estate that could be gained from the prolonged war in Korea. The Americans were very much in favour of the Armistice.

The ground war had been in a condition of stalemate since June 1951 and both sides were maintaining large armies along a static battle line at a cost exceeding the military value. Both sides had a simple choice: broaden the war to reach a decision or arrange a truce. The Americans had opted for a "limited war" or risked losing the support of the other UN forces and also risked the potential outbreak of WW III. Similarly, the Chinese had no desire to extend the war to other areas and risk air and naval bombardment of their mainland as recommended by General MacArthur.

In the end, both sides decided the cost was too great for both to carry on with the war. The only stumbling block was Stalin, but that too was removed in March 1953 when Stalin passed away.

Hawk/Dove Theory

By June 1951, it was evident that the Chinese and the North Koreans had suffered heavy losses and were not keen to prolong the war. In June 1951, Kim Il Sung and Gao Gang went to Moscow to convince Stalin to agree to the necessity of an Armistice. While the Soviet leader gave his consent, he was in fact interested in prolonging the Korean War. In his assessment, the war tied up America's hands and stirred up tensions among the Western allies and within America as well. It also prevented the Chinese from befriending the Americans which was one of Stalin's fears since the 1930s when Mao had confidential talks with American representatives.

From the correspondences between Stalin and his allies, Stalin was constantly persuading the Chinese and the North Koreans to prolong the war. On 19 November 1951, Stalin sent a letter to Mao telling him to carry on negotiations for the Armistice "without a strong interest in the early completion of negotiations". On 7 March 1952, he passed a resolution stating that the communist should not "hurry the process of negotiations" and it was not in their interest.

Throughout 1952, Stalin constantly repeated to Mao and Kim to prolong the war as the Americans needed it more than them and that the War had shown the weakness of the Americans.

That Stalin was the "Hawk" in the Korean War is very evident as the communists quickly reversed their position immediately after Stalin's death on 3 March 1953. The Kremlin was quick to write to Mao and Kim on 19 March calling for an end to the war and expressing the desire to achieve peace. The letter specified exactly what the Chinese and the Koreans were to do to terminate the conflict and to achieve peace.

The Americans were prepared to avoid a breakdown in the negotiations and showed some flexibility. As General Bradley remarked "It is better to make concessions than to risk an all-out war with China".⁵ The failures of the initial negotiations were due mainly to pressures from Stalin to prolong the negotiations.

Second Order Change Theory

There is little evidence to show that this theory can be applied to explain the termination of the Korean War. Truman did not choose to end the war even though his political career was badly affected by the prolonged negotiations since June 1951 until he handed over the presidency to Eisenhower. In fact, Truman was conscious of the fact that while it was desirable to end the war quickly, it was not to be done at the expense of conceding too much advantage to the communists. In 1952, he chose not to run for re-election.

For the communists, Stalin's death changed nothing except to allow the "Dove" to end the war. The communists were suffering from the loss of lives but they were still firmly in power. The Chinese and the Russians were very much aware that the UN Forces were not willing to extend the war into China and Russia so there was no threat to their national survival. At the same time, it was clear to the North Koreans that the Chinese and the Russians would never allow the UN Forces to take over North Korea.

The only dramatic change during this period was the death of Stalin and the change in US presidency. Still, the result of this change had not resulted in any second order change in the Korean War.

Conclusion

Of the four theories discussed, it is evident that the main reason for the Armistice to proceed was the death of Stalin. Stalin was the stumbling block during the negotiations. Following his death in March 1953, the Armistice was signed in July 1953.

The Winner/Loser Theory cannot be used to explain the termination of the Korean War as there was no "winner" in this conflict. Had the UN followed its original objective of driving out the communist aggressors and re-establishing the 38th parallel, it might be argued that the UN Forces were the winners. Even so, there is no evidence of the communists being so decisively defeated that they had to look for an end to the Korean War.

The Second Order Change Theory cannot be used as there is no evidence to show the leaders were made to "undergo a psychological process", forcing them to see the problem from a higher or second order paradigm" ie, threat to their political career or the existence of the state itself.

The Cost/Benefit theory is able to explain why the Communists and the Americans were eager to end the conflict. However, this theory cannot explain why the Armistice negotiations dragged on for over two years. Even with the ongoing negotiations, battles were fought along the 38th parallel to secure more territories. In fact, just before the signing of the Armistice, the communist launched a final offensive and managed to capture a few outposts from the UN forces.

The Hawk/Dove Theory does not explain why the communists and the Americans were eager to end the conflict but it does explain why the negotiations were dragged on for more than two years before the Armistice was finally signed on 27 July 1953. Stalin was the "Hawk" that refused to allow the Chinese to compromise during the negotiations and had hidden interests in prolonging the conflict.

None of the theories can on their own adequately explain the termination of the Korean War. A combination of the Cost/Benefit and the Hawk/Dove theories however, can explain the termination of the Korean War.

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Leadership and Moral Responsibility in Just War

by MAJ Lee Heok Chye

*Of the many attributes and virtues often used to characterise military commanders, the use of relatively subjective qualities such as "good" or "moral" as military qualities is rare. The underlying rationale is simple - the military is, or generally perceived to be, a disciplined and ordered operating environment with little room for subjective and ambiguous interpretation or judgement of the lingo. Every attempt is made to define military terminology with the utmost accuracy and correctness. "A Good General is a Moral Man" in the military context, is therefore abstract and subjective, and would probably invite as many views as there are military theorists. This thesis aims to analyse what is militarily "good" and "moral", and affirm that a "good general" is necessarily a "moral man." The essay also defines the concept of *jus in bello* in conjunction with the military characteristics of command responsibility and obedience to superior orders. The dilemma of reality and obedience to superior orders versus conforming to morality will also be examined using examples of the American military leadership during the Vietnam War, to highlight that a "good general" must first and foremost, be impeccably moral. Finally, the paper concludes with an analysis of the issues of morality on the modern battlefield, with reference to the Gulf War.*

The "Good General" And "Moral Man"

"General" refers to a military leader in the multiple echelons of military leadership and command, particularly officers. The "general" in question is a military leader who is directly involved in the conduct of warfare, be it at strategic, operational or tactical levels.

"Good general" refers to a military leader who upholds the virtues of the military profession and achieves military objectives in a just and legal manner. Unlike a "great general", who may have extraordinary accomplishments while compromising on universally accepted military virtues or values, a "good general" is measured by his conduct and the means by which he achieves his military objectives, rather than the degree of his achievements. The analogy is drawn on a sportsman who triumphs through unfair means. Regardless of his achievement, he will not be considered a "good sportsman." By biting off his opponent's ear, Mike Tyson immediately lost his appeal as a "good" boxer, although his record may be unsurpassed.

"Moral" concerns with the principle of right or wrong in conduct and character.¹ A "moral" man conforms and upholds the standards of good behavior and rules of right conduct. He is capable of distinguishing between right and wrong, and is judged by his own conscience to be ethical.

Morality in War - *Jus in Bello*

A "good general" is legal and just in his conduct of warfare. While the legality aspect of warfare is generally easier to define and has been documented extensively under the respective customs and laws of warfare, the justness of war involves the issue of morality and has been a constant source of debate among military scientists and theorists. The moral reality of war is divided into two independent components; *jus ad bellum* and *jus in bello*. *Jus ad bellum* refers to the justice of war, which judges whether a particular war is just or unjust. It provides for the moral principles that justify the waging of war by independent states against one another. This has no relevance in the discussion on the behaviour of military leaders in the various levels of war. *Jus in bello*, on the other hand, deals with whether a war has been fought justly.² The theory of *jus in bello* will form the main pillar of the analysis on the morality of military leaders in the conduct of warfare.

Among the theories expounding the concept of *jus in bello* is Sidgwick's two-fold rule, taking the utilitarian approach. He is of the view that, in the conduct of hostilities, it is not permissible to do "any mischief which does not tend materially to the end [of victory], nor any mischief of which the conduciveness to the end is

slight in comparison with the amount of the mischief." In essence, he argues against inflicting excessive harm, which, in turn, can be determined using the criteria of military necessity, i.e. the victory itself, and the notion of proportionality i.e. weighing the "mischief done" against the contribution of the mischief in achieving victory.³

Walzer, however, feels that Sigdwick's theory fails to address the human rights aspect of warfare, and falls short in attending to the most critical aspect of the moral dilemma that often confronts military leaders in the reality of war. According to Walzer, "a legitimate act of war is one that does not violate the rights of the people against whom it is directed".⁴ Herein lies the principle of non-combatant immunity, which stipulates that non-combatants preserve the rights that alienate them from direct involvement in the conduct of warfare. Walzer further argues that the state exists to defend these rights, and the military is the primary instrument through which the state carries out this function. Incidentally, the rights of non-combatants are also conferred upon combatants who lose their ability to fight, either voluntarily or non-voluntarily. The problem arises, however, in distinguishing combatants from non-combatants, for often than not, "soldiers are only coerced civilians, and civilians are willing supporters of their armies in the field".⁵ In attempting to reconcile the absolute prohibition against attacking non-combatants with the legitimate conduct of military activities, Walzer proposes the principle of double effect, which argues that acts likely to have evil consequences (the killing of non-combatants) are permissible only under the following conditions:

- The act is good in itself or at least indifferent, which means...that it is a legitimate act of war.
- The direct effect is morally acceptable - the destruction of military supplies, for example, or the killing of enemy soldiers.
- The intention of the actor is good, that is, he aims only at the acceptable effect; the evil effect is not one of his ends, nor is it a means to his ends.
- The good effect is sufficiently good to compensate for allowing the evil effect; it must be justifiable under Sigdwick's proportionality rule.⁶

Military Virtues and *Jus in Bello*

In evaluating the "goodness" and "morality" of military leaders in war, it is necessary to apply the theory of *jus in bello* in conjunction with the two peculiar characteristics which invariably distinguish the military from the other professions: command responsibility and the virtue of obedience to superior orders. Historically, the seeming contradiction between these two military characteristics and the theory of *jus in bello* has led many military leaders to grapple with the dilemma of de-conflicting the obligations of his profession and the higher order of his conscience. A "good general" must be one who is able to reconcile the exacting demands of his profession and morality.

Command Responsibility

In analysing command responsibility, Walzer finds that an officer is responsible upward to his military and civilian commanders and through them "to the sovereign people, whose 'officer' he properly is and to whose collective safety and protection he is pledged." His obligation is "to win the battle that he fights...obeying the legal orders of his immediate superiors...and he is responsible up the chain...to the ordinary citizens of his country who are likely to suffer for his failures." The military officer is also responsible downward to the soldiers he commands. He is bound to "minimise the risks his soldiers must face, to fight carefully and prudently, and to avoid wasting their lives, that is, to not persist in battles that cannot be won, to not seek victories whose costs overwhelm their military value." But beyond these hierarchical responsibilities, Walzer lays out yet a third responsibility: as a moral agent, the officer has outward responsibility for "the civilian casualties of the battles he fights".⁷

In its 1956 edition of *The Law of Land Warfare*, the US army added a new section dealing with an officer's responsibility for the actions of his subordinates:

...military commanders may be responsible for war crimes committed by subordinate members of the armed forces, or other persons subject to their control...when troops commit massacres and atrocities against the civilian population of occupied territory or against prisoners-of-war, the responsibility may rest not only with the actual perpetrators but also with the commander. Such a responsibility arises directly when the acts in question have been committed in pursuance of an order of the commander concerned. The commander is also responsible if he has actual knowledge, or should have knowledge...that troops or other persons subject to his control are about to commit or have committed a war crime and he fails to take the necessary and reasonable steps to insure compliance with the law of war or to punish violators thereof.⁸

Obedience to Superior Orders

On obedience of military orders, Stanley wrote: "It was an accepted principle that military orders should demand and receive absolute and unqualified obedience. Unquestioned dedication was deemed necessary in order to preserve discipline and to assure efficiency and [dispatch]...It was the soldier's duty to obey his superiors, military and political, and not to impose his views upon them. It was the Bushido code."⁹ The English Law postulated the binding quality of military orders until 1749, when limits were imposed upon the military code of absolute obedience. Henceforth, obedience was to be confined to lawful orders only. This qualification has remained an essential part of English military law ever since.¹⁰ A new dimension was added to this condition when the American Chief Justice in the Supreme Court case, *Mitchell v. Harmony*, 1851, stated that a military officer could not plead in defence of an unlawful act that he did it under the order of a superior.¹¹

In all cases, however, a "lawful" order is not defined. What is "lawful" and what is "unlawful" remains an open question. It is possible that a legal order may be immoral and vice versa.¹² The dilemma situation is created when a military leader orders his subordinate to carry out actions that are both not legal and moral. On the one hand, the subordinate is subject to the military discipline of obedience to superior's order, and on the other hand, he has moral obligation to himself to defy immoral orders. Lawful order must be both legal and moral. The military virtue of obedience to superior's order can only be upheld when the military leaders are persons of moral character, and they issue lawful orders to their subordinates. The apparent contradiction is therefore resolved, and the personal and military basic values become complementary to each other in the military profession. If a "good general" is one that upholds the military virtue [of obedience to the superior's orders], then he must also first and foremost, be moral!

Vietnam War - Reality versus Morality in War

The conflicting multi-tier responsibilities and self-consciousness in morality unfolded in many dilemma situations for military leaders like James McDonough, a platoon leader, in the Vietnam War. Confronted with the increasing toll exacted by booby traps on his men, McDonough resorted to the tactic of enlisting the aid of local villagers who are non-combatants, to point out booby-trapped routes. He knew very well that "a leader who arbitrates when the laws of land warfare are taken over by pragmatic concerns is treading on dangerous ground." But realising that he "could not afford the comfort of a philosophical debate on the issues," he tried to "behave in a humane manner" when interrogating the locals. That, he felt, he owed his men. Until one day, a soldier of his platoon was hit in the leg when a stay-behind ambush element was engaged in a firefight. When trying to outflank the enemy, he discovered that the base of the hill he was about to ascend was heavily mined. A farmer, who was nearby, had refused initially to guide his way through the minefield. At the height of his anger and frustration, McDonough took out his knife and ordered through his translator, "Nhan, tell him I'll kill him right now if he doesn't tell us." Immediately, McDonough realised that he "had crossed the line". Weighing against the bleeding soldier who was awaiting his rescue, he had chosen to compromise his morality momentarily. In retrospective, he wrote, "war is the suffering and death of people you know, set against a background of the suffering and death of people you do not. That reality tends to prejudice the already tough choices between morality and pragmatism."¹³ In the eyes of his men, McDonough had probably scored as a "good" platoon leader. But that was as far as it went. To his own conscience, he had allowed the stone wall of his morality to be breached, and failed to discharge his outward responsibility towards the civilians to whom he was a "moral agent." He was inwardly conscious and guilty

that he had undermined the ethics of the military profession, and the trust that was conferred upon him with his commission. He was no longer a "good" military officer at the very moment he compromised his morality.

My Lai Massacre - Command Responsibility and Superior Order

On 16 March 1968, Charlie Company, 1/20 Infantry Regiment, 11th Infantry Brigade, American Division, entered the hamlet of My Lai 4 on a search-and-destroy mission against Viet Cong (VC) guerillas. They massacred more than 400 non-combatants.¹⁴ In his account of the infamous incident, Bruce Watson discovered that the Company Commander, Captain Medina, had done an excellent job in welding his men into an efficient fighting unit, and was regarded as an "outstanding officer". From the outset, the plan that was conceived by the task force commander, Lieutenant Colonel Barker, had assumed that the Son My complex was a known VC stronghold and all the inhabitants were therefore VC guerillas or sympathisers. No warning of the attack was to be given to the inhabitants. There was confusion among the troops with regards to the rules of engagement; a group of soldiers believed that the order [by Medina] was to kill everyone, but Medina said his men were to use "common sense". The coordinated assault on the village encountered no VC resistance. Medina's lead platoons proceeded with indiscriminate execution of evidently unarmed non-combatants, who were mainly old persons, women, and children. Medina's command squad chose to stay in a defensive position and did not influence the operations. The most dramatic moment saw 2nd Lieutenant Calley's platoon herding a clutch of women and children, with the order from Calley, "I want them dead...Waste them." Medina looked grim when he entered My Lai 4, but did nothing to stop the slaughter. The truth of the incident did not reach the top of the chain of command, and General Westmoreland commended Charlie Company for an outstanding action that dealt the VC a severe blow. Barker suggested to Medina that he tell his men not to say anything. The massacre was overshadowed by the conspiracy of silence.¹⁵

The My Lai incident typified a chain of military command that was morally flawed. Each link of the military leadership failed miserably to exercise its command responsibility. Collectively, they had chosen to allow their sense of morality to be conveniently overshadowed by obedience to the superior's orders, which was based on the unsubstantiated assumption that the helpless women and children running and screaming for mercy were supposedly VC guerillas. Such wanton violations of the moral principles and the laws of war will continue to plague military operations as long as the men in the loop, i.e. the military leaders, are not impeccable in their moral sense.

Gulf War - Morality in Modern War

The Gulf War in 1990-91 complicated the morality issue of the modern battlefield with its demonstration of technologies that potentially transcended the traditional space constraint to strike at the distant enemy to achieve a decisive victory. The potency of the destructive power raised concern that the modern war is "by its nature grossly and disproportionately destructive, beyond rational control, and inherently at odds with any reasonable political purpose."¹⁶ Debates in the aftermath over the ethical conduct of the war put the morality of then US President George Bush and the coalition force commander General Schwarzkopf under tight scrutiny. Though debatable, moral conduct in the Gulf War generally prevailed over acts that violated the moral principles.

The Gulf War was propagated as an air campaign directed with unprecedented precision, solely at military targets. The bombs were "smart" and the pilots were morally sensitive. Conscious effort to limit civilian casualties was reflected in clear-cut orders for pilots to abandon their missions whenever they were unable to get a clear "fix" on the designated targets. The pilots were warned against dropping bombs in the general vicinity of the targets; they were not to aim freely at "targets of opportunity" except in specified battle zones. In their bombing runs, they were to accept risks for themselves to reduce the risk of causing collateral damage to civilians. Although studies after the war indicate that bombs were often dropped from altitudes too high for accurate aiming, the policy reflected a genuine concern and adherence to the moral principles of *jus in bello*. The eventual civilian casualties were kept relatively low, considering the scale of the war.¹⁷

Controversial morality issues arose from the bombing campaign policy when the coalition (or US President and General Schwarzkopf) decided that the Iraqi economic infrastructure was a legitimate military target: communication and transportation systems, electric power grids, government buildings, water pumping stations, and purification plants. It seemed to be at odd with the double effect principle advocated by Walzer. A more focused approach would have indicated that the coalition was conducting a war not against the Iraqi nation, but against its political-military leadership, its regime infrastructure, and its capacity to mount offensive military action in the immediate future. It was not a war against the people of Iraq - although the Iraqis were surely to suffer during and after the war. The power grid that provided electrical capacity to Saddam's regime and military infrastructure also helped light Iraqi homes and hospitals. And that, according to George Wiegand, tragically, is one of the consequences of wars: they cause suffering beyond the battlefield, particularly when one of the belligerents organises his country such that attacks on military targets will inevitably have after-effects on civilians. The more relevant question is whether the suffering outside the theatre of combat is directly intended, or a result of legitimate military actions.¹⁸

The US or coalition forces were labeled immoral to "turkey shoot" the retreating Iraqi forces at the Mutla Ridge during the third and fourth day of the ground war, inflicting numerous casualties. But it was clear from the second day that surrender was an option for the Iraqi soldiers who realised that there was no escape from the overwhelming military superiority of the allied forces. The thousands who did surrender were treated humanely and conferred non-combatant rights.¹⁹ Controversially, Iraqi soldiers who opted to flee, remained as combatants and constituted legitimate military targets. If the aim was to incapacitate the Iraqi military, the successful withdrawal of a large Iraqi force would allow the re-building of Saddam's military and foil the Allies' mission. Strictly from a moral viewpoint, the principle of *jus in bello* was maintained. Nevertheless, the concerns aroused by the episode in some coalition countries may have been one of the factors prompting President Bush to suspend the offensive action the next day.²⁰

The morality conscience of the Gulf War, however, was compromised on several occasions. For example, the US bombing of the Amiriya bunker in Baghdad on 13 February caused over 300 civilian casualties. This appears to have been the tragic outcome of an intelligence error and Iraq's mingling of civilian and military activities.²¹ The use of fuel-air explosives against concentrations of Iraqi forces equally raised concerns on the kinds of weapon systems that were morally acceptable.²²

General Schwarzkopf was undoubtedly a war hero, and a "good general." Although some may disagree, he has generally lived up to his morality. More importantly, the Gulf War signified a decadence of close-quarter combat warfare, epitomised by the Vietnam War. It demonstrated the potency and destructive power of modern weapon systems, and revolutionised new warfare areas that sought to achieve a decisive victory at the strategic level. It does not, however, in any way alleviate the moral responsibility of the military leaders in the conduct of war. In fact, the onus is for the new generation military leaders, to formulate strategies that are morally coherent with the essence of *jus in bello*.

Conclusion

In his discussion of a soldier's conscience, General Glover concludes:

*"a man of character is a man of courage in war. As Aristotle taught, character is a habit, the daily choice of right and wrong...The conflict between morality and necessity is eternal. But at the end of the day the soldier's moral dilemma is resolved only if he remains true to himself."*²³

This applies as much, if not more, to the military leaders as it does to soldiers. Various examples have demonstrated that the reality of war often degrades the ethics of the military profession. A military leader can only be a "good general" in war if he exacts upon himself to be morally upright. There is no question then, that being a "moral man" precedes being a "good general."

Endnotes

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Victory in Low-intensity Conflicts

by MAJ Matthew Kee Yeow Chye

Despite the end of the Cold War, the historic warming of relations between the two Koreas and the initiatives for a peace process in the Middle East, low-intensity conflict (LIC) still remains a serious threat in many countries. This is largely due to the underlying causes of bitter ethnic and religious struggles, which to this day, has remained unresolved.

There are a combination of military and political elements which ensure that LIC will continue to be the most likely form of conflict in the future. Foremost of which are the capabilities of the major powers, both nuclear and non-nuclear, and the ability to project this around the world. This development has made high-intensity conflict too costly. The other main reason - the deep social, economic, and political problems of Third World nations and the recently formed states in the Balkans, create fertile ground for developing insurgencies and other conflicts.

This paper examines why governments have such difficulty in attaining success, particularly political success, for a lasting victory in LIC.

Low-intensity Conflict Defined

Despite the effort by nations to equip their conventional military forces in the defence of their homeland, most analysts agree that the major threat or type of conflicts of the future would be low-intensity in nature.¹ Military theoreticians have categorised all conceivable conflicts with military involvement into three broad groups, ranging from the lowest conflicts to a strategic nuclear war. Confrontations like WW II, the Gulf War or a nuclear war are in the "high-intensity conflicts/wars" category. Confrontations in the scale of the Korean or Vietnam wars are regarded as "medium-intensity conflicts" while all other confrontations below these levels would be classified as LIC.

In the 1970s, the US conceptualised LIC as a broad range of conflicts less intense than full-scale conventional warfare.² They were considered low-intensity in nature because the country combating such LIC usually committed relatively limited military resources. However, the same cannot be said for the party initiating the LIC as they may involve all that they have.

The US Joint Chiefs of Staff's more definitive explanation of LIC in 1986 is as follows:

"Low-intensity conflict is a limited politico-military struggle to achieve political, social, economic, or psychological objectives. It is often protracted and ranges from diplomatic, economic, and psychosocial pressures through terrorism and insurgency. Low-intensity conflict is generally confined to a geographic area and is often characterized by constraints on the weaponry, tactics, and level of violence. LIC involves the actual or contemplated use of military means up to just below the threshold of battle between regular armed forces".³

There are a few key elements in this definition. First, it states that the objective of LIC does not end at the military level alone but transcends to political, social, economic and even psychological levels. This is important as some observers may assume LIC as an exclusive military affair. Second, it makes clear the upper limits on the use of military force beyond which the concept no longer applies.

With so many possible types of conflicts under the LIC classification, it is not surprising that disagreements would abound when governments try to come up with measures to counter them as each conflict deserves unique treatment. To presume that a single general approach can counter such conflicts is a fallacy and the

onset of defeat for governments. Although conflicts like counter-insurgency, anti-terrorism and guerrilla warfare are popularly associated to LIC, other conflicts like peacekeeping missions, drug interdiction, and contingency operations have been known to be classified as low-intensity operations as well. This paper will focus on the first three types of LIC.

It must be emphasised that LIC is not primarily a military matter. The aim is not military conquest, but social control, for whose attainment military means can be employed as a tool for resolving the conflict. Conceptually, LIC is primarily politically oriented and requires an integrated policy approach containing military elements. As such, the definition of LIC should not concentrate on the military level of conflict, but on its political character.

Winning in LIC, therefore requires an accurate understanding of what it really is.

Victory Defined

Many debates have gone into the definition of what victory in warfare means. The *Collins Cobuild English Language Dictionary* defines 'victory' as 'a situation in which you gain complete success, for example, in defeating an opponent in a war or in any other hard struggle'. By this definition, victory in LIC would mean being able to resolve the conflicts by *completely* eradicating groups that wage such LIC through their removal, surrender, or by winning them over.

From the many internal wars that have been waged, it is clear that it is not easy to completely remove such insurgency or guerrilla movements once they have established themselves, as in the case of the Irish Republican Army (IRA). But is victory in LIC merely the termination of such groups, or should governments concentrate on ending the causes fought by these groups? Often the coups, revolts and revolutions may be prevented and defeated, but the causes for which these are fought for are seldom completely defeated.⁴ In such situations, victory may end up having only a temporal effect and hence ineffective.

The experience of LICs fought since World War II shows that many governments were ill-prepared to handle them; even for major powers like the US. War, The US tried to turn the Vietnam War into a series of conventional military operations that were more suited for the plains of Europe than the jungles of Vietnam.⁵ Even if the opponents in such LICs were eventually defeated, the amount of damage, casualties, suffering and political objectives created by the opponents made such victories by the governing powers meaningless.⁶ Hence, true victory by the governing regime, if we are to follow the definition strictly, is often difficult to achieve; if not impossible.

Victory in any conflict can come in various forms: militarily, politically or economically.⁷ In Clausewitz's trinity on the nature of war, he concluded that there are three main pillars that determine the success or failure of a war - the people, the military forces and the government.⁸ Hence, attaining military success alone may not be enough to achieve an overall success in the war against LIC. Lasting victory in LIC comes more from achieving political success rather than military or economic success. Unlike conventional wars where defeating the opposing military forces would usually secure victory for the state, the mere capture or destruction of such LIC forces would not totally remove their influence on the populace due to the existence of sympathisers. New groups would simply spring up to continue the fight since the root cause of LIC has not been resolved. The political aspects in LIC therefore take paramount importance over the military and other aspects.

Why Victory is Difficult

Many countries have fallen into the trap of handling LIC as if it were any other conventional conflict. One of the main reasons why the US failed in the Vietnam War was its failure to realise that employing conventional military tactics in an unconventional operation would be totally ineffective. Unlike conventional warfare, LIC poses some unusual problems making victory difficult to achieve.

- **Conventional Military Forces Not Suited for LIC**

Conventional military power is often irrelevant in LIC.⁹ In LIC, the concentration of military forces tend to be an exceptional occurrence. This is because the operations are mainly carried out by small groups or because they cannot be easily identified, especially in terrorism. In the case of insurgency war, the insurgents know that they are no match against the country's military force as they will be easily outnumbered and outgunned. They will instead avoid decisive battle and use their military forces to gain "maximum political effect at minimum military cost".¹⁰ Firepower is thus of secondary importance.

US Air Force Colonel Cardwell comments that generally it is a case of "unconventional, social-political, enduring and manpower-intensive warfare".¹¹ For democracies that have configured their military forces to fight a conventional war, it is often difficult for them to adapt to unconventional warfare. A case in example is the US Armed Forces which despite its military might, failed to adapt itself adequately for the unconventional setting in Vietnam, and some may argue, even in Kosovo. The common mistake is assuming that the capability to handle conventional warfare automatically equips the military force for unconventional warfare. Although conventional warfare skills can be applied in peacekeeping and contingency missions, they are ill-suited for counter-terrorism or counter-insurgency operations.

The insurgents in Vietnam did not win by defeating the US on the ground; they eroded its political capability to wage war.¹² Targeting the divisions within the American society for their support of the war, the North Vietnamese made it domestically impossible for the US to continue to fight. More recently, in the 1999 Kosovo conflict, President Milosevic avoided the strength of the US and NATO forces and fought instead on an asymmetrical plane to try to win the conflict. Although NATO has eventually succeeded in bringing the conflict to an end, it was not the bombing raids but other political and economic factors that led to the termination of the conflict.

In LIC, military strength is often not the decisive factor for victory. For counter-insurgency war, the skill in separating the population from the insurgents is more useful than military power.¹³ According to the Clausewitzian trinity, controlling the population is an important aspect for success. This can be achieved by building an effective program of incentives and disincentives to convince the population to stop supporting or accommodating the insurgents. Strong-arm tactics or employing harsh military measures may actually push the population to sympathise with the insurgents, thus nullifying any military effort taken.

- **Limited War Breeds Limited Success**

LIC is a limited war. A full-scale war between states threatens survival, while LIC for a major power does not. An important difference between the two forms of conflicts is the acceptability of defeat. Once survival becomes an issue, defeat becomes unacceptable. In a limited war where survival of the nation is not at stake, governments have no compelling reasons to place high priority on the resolution of such conflicts over other national goals. Consequently, unlike an interstate full-scale war which becomes the pre-occupation of the entire country, nations caught up in LIC are willing to commit only limited resources to it. This frequently yields indecisive results. The problems of terrorism and insurgency have been likened to pest problems rather than a real sickness in need of permanent healing. Although the besieged country may be fighting a limited war, it may be a total war for the opponent fighting in a guerrilla or a revolutionary war. This mismatch in the level of commitment makes a clear-cut victory hard to achieve. Hence, if victory is not assured, then varying degrees of failure are possible, including outright defeat.

Military objectives must support the political objectives. Although this intention is easily seen in a full-scale war, the relationship between military success and political success in an LIC is not that straightforward. In full-scale war, as the enemy is steadily being destroyed and territories are being captured, it is easy to see the attacking country approaching closer to the political objective of

causing the enemy's collapse. The ability to dictate the terms of peace becomes obvious. In LIC, this clear relationship does not exist. Tactical successes that facilitate the overall victory in a full-scale war do not necessarily produce the same results in LIC. There is no guarantee that military successes will stop the insurgents or guerrillas from attacking in the future. In fact, the guerrillas seeing themselves as fighting a full-scale war against an oppressive government, will resist more strongly and refuse to negotiate.¹⁴ Indeed, such military victories in LIC do not necessarily bring the opponents to the negotiation table to achieve the desired political outcome.

- **Need to Eliminate External Support**

Another reason why insurgent and guerrilla groups have been able to withstand the onslaught of the more powerful military is due to the external aid it receives. Without cutting off this umbilical cord from external parties, these groups will be sustained indefinitely.¹⁵ Similarly, many terrorist groups get funds and training from foreign states. As long as the aid continues, it would be almost impossible to eliminate the subversive elements and a political compromise may be the only solution for a besieged government.

- **Dilemma of Governments**

The types of LIC that are likely to appear in Third World countries are guerrilla, insurgency and revolutionary war. Such internal wars are a result of deep societal problems caused by maldistribution of wealth, poverty, corruption, repression, and collapse of social structure.¹⁶ Because of these deep-seated problems, the real solutions are impossible in the short-term and agonisingly difficult in the long-term. In such a condition, complete victory over the instigators may only come by implementing harsh and ruthless measures.¹⁷ However, this may be more achievable in autocratic societies where public opinion is not that important.

For democracies, such measures are unwelcomed by the public. Democratic governments, which depend on public support are unwilling to jeopardise their position in office by exacting such unpalatable measures against the insurgents or guerrillas. Often, counter-terrorism measures involve the assassination of known terrorists. Although this may be acceptable in countries like Israel where terrorist acts hit at their very existence, such acts are considered distasteful in Western democracies and would not be supported by the people. Furthermore, the insurgents or terrorists would be almost indistinguishable from the general public and any tough measures taken may result in many innocent people getting hurt. The victory that may be attained will be meaningless then.

Divisions also develop among the population as some people may support the government's efforts or call for firmer action while others may demand immediate cessation to the hostility. These divisions create a dilemma for the government trying to resolve the LIC. The government has to grapple with a need to maintain the balance between the views of the government, the people and the military force within the context of the Clausewitzian trinity of war.

As such, the need to appease the public with more acceptable yet effective measures makes it difficult, often impossible, for democracies to achieve complete success against the insurgents and guerrillas.

- **Lack of Stamina**

One common characteristic of LIC is that it lasts a long time. Unlike conventional war where it can be terminated in a relatively short time, as in the Gulf War, it would take a long time to produce tangible results in LIC. The Huk rebellion in Philippines took up to 10 years to end. Although the IRA's ongoing fight against the British started in 1969, the Irish rebellion against the British dates back to late 18th century. The long duration reflects the complexity of the conflict, which is not

merely a military confrontation but one that essentially contains a political and social dimension to the conflict.

One of the main reasons why modern democratic governments have difficulty in resolving LIC is their short term in office. With such a short term in office, politicians would be more inclined to invest their efforts in areas that bring more tangible results during their tenure. To ensure re-election and maintain public support, politicians tend to show that they have contributed positively to the community during their term of office. Unfortunately, efforts to resolve LIC does not show this as even the smallest success in LIC can take years to yield fruitful results.¹⁸ Without the determination and patience to tackle LIC, the problem is merely handed over from one administration to another, at times, without much progress.

Another significant effect of a protracted war is the risk of high casualties. As a consequence of the defeat in Vietnam, Americans began to show a low tolerance for casualties. The subsequent wars involving the US had to show a high certainty of success with low casualty rates. This was especially prevalent in the Kosovo conflict where the US was unwilling to send in ground forces for fear of sustaining casualties. Casualties have become a new centre of gravity for the US and other western democracies which can be exploited by the LIC forces.¹⁹ The LIC forces are willing to prolong the struggle and slowly bleed the government and military forces hoping that this will weaken the leaders eventually. Achieving victory in such a situation will be less meaningful if the country has lost many innocent civilians, military personnel and even political leaders in the process.

- **Mutual Hatred Affecting Objectivity**

As LIC usually last a long time, inflicting high casualties on both sides, this gives ample reasons for both sides to hate each other. The devastation, the memory of friends and family killed in the conflict and the scepticism about living in peace with people seen as the enemy, pose insurmountable difficulties.²⁰ The harsh treatment or torture experienced by the opponents often toughens their resolve to fight even more instead of surrendering or negotiating for peace. Such deep-rooted hatred make it difficult for the opponents to be objective when evaluating the offers of the government, no matter how accommodating they may be.

- **Adaptability**

As the nature of warfare differs in LIC, there is a need to adapt and modify structures or methods to accommodate the variances. This may involve creating specialise forces schooled in the art of 'small wars' instead of relying on massive firepower or manoeuvre to win the war.

Although some aspects of conventional military operation can be adapted for LIC, there are many other aspects that require re-organising the forces, equipment and tactics. Some military leaders however, are resistant to effect the changes as they are unconvinced of the importance of LIC to justify the effort to train, organise, and equip for it.²¹ Military leaders also fear that too much effort on LIC will erode their preparedness for conventional war since their already limited resources have to be diverted for the cause.

This resistance to adapt and change for what would more likely involve the military in the future, results in the military forces being ill-prepared to handle LIC when it occurs.

Conclusion

The diverse range of LIC calls for different strategies to be deployed for an effective resolution. The government cannot go for quick fixes but must work out a robust plan to address the root cause of the problem. More importantly, the end state of what is to be achieved needs to be determined: Is complete

victory desired? Is a compromise acceptable in the pursuit for peace? To resolve the issue, these fundamentals cannot be ignored.

Despite the advances in technology and progress in society, it is unclear if governments will ever be prepared to cope with LIC, since conventional military forces are inadequate, the opponents may not be rational people, and the governments themselves may be unable to stomach the realities of the nightmare.

Governments must realise that LIC is a very real threat. Proficiency in conventional warfare does not equate to the capability to handle LIC.

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A Tale of Two Cities and the Trojan Horse: Lessons in Biological Defence

by CPT (DR) (NS) Donald Poon and CPT (DR) Khaw Seong Lin

History is replete with ancient civilisations decimated to virtual extinction by the introduction of novel pathogens to a uniformly vulnerable people. Unlike any projectile or explosive, infectious disease, like wildfire, is self-perpetuating until successful containment or exhaustion of substrate.

The conquest and colonisation of the New World for example, was aided in no small part by the largely inadvertent but advantageous exposure of the indigenous population to new diseases that accompanied the Europeans settlers, to which they were completely defenceless. In fact, there were occasions when this was exploited as a deliberate tactic. The American whites are documented to have offered blankets used by smallpox sufferers as peace offerings to obstinate local Indian tribes.¹ Biological warfare (BW) is thus certainly not a recent invention.

International awareness of the chillingly destructive potential of biological agents has in the last decade been heightened for three reasons.

Firstly, BW and BT (biological threat) tap into the same visceral fear of emergent lethal pathogens already deeply etched in the public psyche by the bloody footprints of the *human immunodeficiency virus* (HIV), the architect of the most recent global pandemic.

Adding fuel to the fire has been the massive and wide-ranging nature of several recent outbreaks. For example, the 1994 *salmonellosis*² outbreak traced to contaminated ice cream, affected over 250,000 Americans, while mass water contamination caused over 400,000 cases of *cryptosporidiosis* in Milwaukee. Meanwhile, the world has also witnessed urban epidemics of the pneumonic plague in Surat, India, *Ebola* haemorrhagic fever in Central Africa, avian influenza (H5N1)³ in Hong Kong, Hendra virus⁴ in Australia, Nipah virus in Malaysia and Singapore, and the *West Nile* virus in New York City.

The second key factor has been the public confirmation during this decade of the existence of state-sponsored advanced biological weapons development programs. Firstly, post-Gulf War United Nations Special Commission (UNSCOM) investigations in Iraq have corroborated Iraqi claims of possessing at least 25 SCUD/Al-Hussein missiles, each armed with a warhead carrying 145 litres of a wide variety of biological agents including *botulinum* toxin, *anthrax* spores or *clostridium perfringens* spores⁵.

More recently has been the disclosure of the true scale of biological weapons research in the former Soviet Union, including the admission of an accidental release in 1979 of *anthrax* spores from a Soviet military research facility in Sverdlovsk⁶, which resulted in 66 deaths. With the disintegration of the Soviet Union, the security of both the technology and products of the program has become a matter of some concern.

Most nations have the capability to develop and manufacture biological weapons in facilities which are inexpensive and inconspicuous, under the guise of legitimate commercial or research purposes. Some 18 nations are believed to have done so, including several which the US State Department lists as supporting terrorism. In addition, there are more than 1,500 biological culture libraries worldwide as well as numerous research institutions which maintain sample cultures of various BW agents⁷. These constitute a broad and easily accessible reservoir of knowledge and material, which is effectively impossible to police.

Thirdly, the revelation that the Japanese cult *Aum Shinrikyo*⁸ had made repeated but failed attempts on at least 10 occasions to disperse BW agents in aerosol form, prior to their notorious 1995 sarin nerve gas attack on the Tokyo subway, shocked the world into accepting the reality of the emerging threat of BT. BT is

however not new. In 1984, the *Rajneeshee* cult used *salmonella typhimurium* bacteria to contaminate restaurant salad bars in Oregon, causing 751 cases of non-fatal food poisoning. Fortunately, such incidents are rare, with only 66 criminal events and 55 terrorist events⁹ involving biological agents recorded between 1960 and 1999, although most (mainly hoaxes) have occurred in recent years.

There is clearly the need for an effective national biological defence system, to provide a mechanism for the early detection and containment of both naturally occurring and artificially spawned disease outbreaks. Two recent outbreaks offer useful lessons and insights into the critical prerequisites for such a system.

A Novel Virus in Malaysia

An epidemic of viral *encephalitis* affecting mostly pig farm workers in the state of Perak, Malaysia, was first reported in late 1998. Early suspicions focused on *Japanese encephalitis* (JE), a locally endemic, mosquito-borne virus known to cause periodic outbreaks of such illness. Pigs are the natural reservoir for JE, and the disease thus tends to occur in pig farming areas.

At about the same time, a cluster of sudden severe illness and deaths among domestic pigs was noted in Ulu Piah Tambun and Ampang near Ipoh town; Sikamat Nipah, Sawah and Bukit Pelanduk in Negri Sembilan, and Sepang and Sungei Buloh in Selangor. Because of the similarity in timing and location, the pig disease was attributed to the same virus by public health authorities.¹⁰

Measures routinely used to control *Japanese encephalitis*, such as mosquito fogging, were stepped up, but failed to contain either the human or pig epidemics. The number of cases continued to mount, as did the number of areas affected.

From October to May 1999, 265 cases of viral *encephalitis* with 105 deaths were recorded, and eventually, more than 50 farms in Perak, Malacca, Penang, Selangor and Johor were identified to have been infected.

The virus was able to propagate to the extent that seven Singaporean abattoir workers developed the disease, after contact with infected pigs from Malaysia.

The lack of success of control efforts, and increasing inconsistencies in the epidemiology of the outbreak led to a search for an alternative causative agent. International assistance was sought from the Centres for Disease Control and Prevention (CDC) as well as laboratories in Australia.

This led to the discovery of a new virus, belonging to the *paramyxoviridae* family, which had never been encountered. It was named 'Nipah', after the village Sungei Nipah in Negri Sembilan, which was home to the first human identified to have been infected with the virus. The virus was subsequently confirmed to be the same agent responsible for the human and pig disease.

With the discovery of the etiological agent of the outbreak, an immediate 'stamping out' policy was instituted to cull all pigs in the outbreak areas. A total of 901,228 pigs from 896 farms were destroyed in the infected areas from 28 February to 26 April 1999. The culling programme was stopped when a new test was made available to identify infected farms in a national pig testing and surveillance programme. 172,750 pigs from 50 positive farms were further culled under this surveillance programme. The epidemic was successfully controlled by May 1999.

West Nile Encephalitis in New York

In late August 1999, the CDC was called in by the New York City Health Department to assist in investigating a cluster of viral encephalitis cases.¹¹ Tests were performed on blood and spinal fluid taken from the patients, for antibodies to six insect borne viruses commonly seen in the US. They returned positive results for *St Louis encephalitis*, a mosquito borne viral disease usually found in south-eastern US. Immediately, a mosquito eradication campaign was launched to halt further transmission of the virus.

Since late July 1999, officials at the Bronx Zoo had been receiving calls regarding birds dying suddenly in the Bronx and Queens. Within four days of the *St Louis encephalitis* outbreak being declared, several exotic birds at the zoo perished. Pathological examination of the birds revealed severe brain and heart damage of an uncertain cause.

The head of the Department of Pathology at the zoo suspected a link between the bird deaths and the human *encephalitis* outbreak. There was however, one significant inconsistency - the *St Louis encephalitis* virus is not lethal to birds.

To elucidate the cause of the bird fatalities, samples from the dead birds were sent to the National Veterinary Services Lab which is a part of the US Department of Agriculture. They were however, unable to identify the causative agent. Samples were also sent to the CDC. Unable to contact anyone at the agency, she contacted a friend at the US Army Medical Research and Material Command, which usually does not handle civilian requests, for assistance. He agreed to analyse some samples, which was sent on 21 September.

Meanwhile, the CDC had also begun to make the association and requested for more samples the same day.

On 23 September, both agencies came to the conclusion that *West Nile* virus was the agent killing the birds in New York City. There was also a strong suspicion that it was the same virus killing humans. On 24 September, a laboratory in California, which had received brain tissue samples taken from people who had died from the outbreak, confirmed that they had been infected with the *West Nile* virus.

The *West Nile* virus had never previously been seen in the Western hemisphere as it is usually found in Africa and Asia, with occasional outbreaks in Europe. The virus is closely related to the *St Louis encephalitis* virus. Both are flaviviruses, sharing a similar clinical spectrum, mode of transmission (mosquitoes) and reservoir (birds). This close relationship accounts for the early false positive tests for *St Louis encephalitis*. Also, the flawed initial diagnosis did not have any actual detrimental effect, as the control measures employed were entirely appropriate.

Lest We Forget

The two outbreaks share many uncanny parallels, illustrating clearly the shortcomings of the present biological threat surveillance and management systems, and present opportune lessons which demand closer scrutiny and application. A tabulated summary comparing them is as follows:

The Trojan Horse - Two Cases of Mistaken Identity

In both outbreaks, the aetiological agents were not immediately recognised. The outbreak in Malaysia was initially and erroneously thought to be caused by the JE virus, while the causative agent in the New York outbreak was first mis-diagnosed as the *St Louis encephalitis* virus.

The adage "common things occur commonly" is a useful guiding principle for efficient targeting of investigative efforts, but it also lays a trap for the unwary and complacent.

	Nipah Virus Outbreak (October 1998 - May 1999)	West Nile Virus Outbreak (August 1999 - October 1999)
Biological Agent	<i>Paramyxovirus</i> family - newly emerged virus never before isolated, structurally similar to Hendra	<i>Flavivirus</i> family - not known to exist in New York or the Western Hemisphere before outbreak.

	virus.	
Animal Reservoir	Pigs, bats	Birds
Transmission	Direct contact with infected pig's excreta and secretions.	Vector borne - bite of infective mosquito belonging to <i>Culex spp.univittatus, pipiens, molestus</i> .
Affected Areas	Malaysia and Singapore	New York City
Duration of Outbreak	6 months	3 months
No of Casualties	265	54
No of Deaths	105 (40%)	7 (13%)

Twice, unknown pathogens sparked mysterious clusters of disease, and twice, health authorities were quick to attribute blame to known local pathogens. While this is usually a sound epidemiological practice, it becomes a pitfall if investigators then rest on their laurels, as they did here. They failed to question their initial conclusions until much later, even in the light of increasing inconsistencies. An example of the latter was the unusual casualty age distribution during the *Nipah* virus outbreak. Victims were overwhelmingly working age adults. This is epidemiologically inconsistent with JE, which tends to affect those at the extremes of age - the young and elderly.

There is the need for an open-minded and lateral approach to disease outbreaks, that appreciates the implications of increasing urbanisation and global traffic, and consequently, the effective breakdown of natural geographic barriers. Diagnostic kits targeting the usual bacteria and viruses will no longer suffice as micro-organisms skip from continent to continent, from animal to human, and from the jungle, into our cities. And of course, non-indigenous diseases may be artificially introduced in the BT and BW context.

Moreover, interpreting tests for exposure to viruses, which usually involve isolation of antibodies produced in the course of the body's defence, is often complicated by cross-reactivity - closely related but distinct viruses may induce the production of similar antibodies. Therefore, exposure to the West Nile virus may result in a positive *St Louis encephalitis* antibody test.

The obvious means of maximising the speed and accuracy with which outbreak-causing pathogens are identified, is to maintain diagnostic capabilities for the widest possible variety of biological agents. Investigations into the *West Nile* outbreak were hampered by the limited capabilities of the National Veterinary Services Lab, which was first lab to receive the bird samples. There are only about 50 candidate micro-organisms¹² suitable for use in BW and BT. Once BW or BT is suspected, every possible test, as guided by clinical presentation, should be applied to all animals and human beings deemed to have succumbed to the attack.

It is an expensive proposition to stockpile a wide range of diagnostic equipment with only narrow applicability. Because of resource constraints, only a very limited number of centres will be able to maintain such capabilities. It is essential that the doors to these centres be kept open. The diagnostic technology must be made as accessible as possible to all who are in a position to sound the alarm bells.

It is an unfortunate fact of life however, that many of these personnel are not able to recognise situations in which such resources should be called into play. Most physicians in industrialised countries have never seen cases of many exotic diseases such as anthrax, and the last case of naturally acquired small pox worldwide¹³ was seen in October 1977. Adequate specific training is critical if our frontline personnel are to effectively operate as the first echelon of defence. Learning to maintain an open mind and awareness of the

myriad manifestations of BW and BT must be reinforced. It would be ideal to have at least one BW/BT trained physician in all emergency and outpatient departments.

A particularly unsavoury aspect of BW/ BT is that they may not be immediately manifest, unlike conventional or chemical attacks, because of the incubation period inherent in all diseases. This facilitates the geographic dissemination of the disease.

At the forefront of a truly sensitive and responsive biological defence therefore, must be a vigilant and broad network of sentinels, providing data for consolidation and assimilation by a centralised body. Such pooling of information means not only a more accurate situation appraisal, but also facilitates more simplified and direct links with those responsible for effecting a response.

The 10 Commandments

Just as crucial as collecting adequate data is its appropriate interpretation. The following 10 epidemiological clues¹⁴ do not constitute proof of intentional use of biological agents but they can assist greatly in determining if further investigation is warranted. A biological threat must not be urgently ruled out if any of the 10 conditions prevail:

- A large epidemic with greater case loads than expected especially in a discrete population.
- More severe disease than expected for a suspected pathogen, as well as unusual routes of exposure.
- A disease that is unusual for a given geographic area, is found outside the normal transmission season, has unusual spectrum of casualties or is impossible to transmit naturally in the absence of the normal vector for transmission.
- Multiple simultaneous epidemics of different diseases.
- A disease outbreak with animal as well as human consequences, as many of the potential threat agents are pathogenic to animals.
- Unusual strains or variants of organisms or antimicrobial resistance patterns.
- Association between attack rate and being predominantly indoors or outdoors during the time preceding the outbreak. This may reflect release of an aerosolised inside or outside of the building.
- Intelligence that an adversary has access to a particular agent or agents.
- Claims by terrorists of the release of a biologic agent.
- Direct evidence of the release of an agent, with findings of equipment, munitions, or tampering.

Applying these principles to our two case studies, it is evident that conditions (i), (iii), (v) and (vi) were present in the two outbreaks. Condition (viii) was relevant in the New York outbreak as there were reports of Iraq experimenting with the *West Nile* virus for BW/BT purposes.¹⁵ Even though a deliberate source of the outbreak was categorically ruled out, a good biological defence system triggered by this association could possibly have achieved a more rapid identification of causative agent.

Of Birds and Pigs

The BW/BT frontline is not limited to human disease surveillance. Few pathogens infect humans exclusively. The great majority are far from finicky about their victims, and latent carriage in a variety of animals provides a lasting reservoir of infection. Human disease in fact, often represents the mere tip of the iceberg, in terms of the disease burden of a given locality.

In the course of investigating the two outbreaks, important clues provided by disease patterns in local animals were completely overlooked by public health professionals initially. The fact that pigs are only the amplifying hosts for the *Japanese encephalitis* virus, and do not die from infection was astutely pointed out by certain veterinarians and microbiologists¹⁶. The observation to the contrary during the *Nipah* outbreak should have been the first vital clue that it was due to some other agent.

History repeated itself in New York. Once again, the significance of the dying birds was not immediately appreciated by human disease specialists. It took an attentive veterinary pathologist to spot the anomaly. Furthermore, her observation that emus in the Bronx zoo were thriving enabled her to eliminate another candidate pathogen - the *equine encephalitis* virus, which is usually lethal to that species.

The need to include professionals from all walks in a holistic biological defence system cannot be overemphasised. As illustrated in the two outbreaks, it is not only the medical care provider who is in the position to make crucial observations. Key information can come from the microbiologist seeing unusual strains of organisms, the zoo keeper noticing strange deaths in animals, pharmacists distributing more antibiotics than usual, or even funeral directors with increased business.

Once again, the common denominator must be an easily accessible and well known central surveillance agency tasked to capture such input, analyse the information and aggressively track the leads.

Most of the discussion so far has centred on an impromptu information supply rather than a proactive one. While a reactive detection system may on occasion be able to provide early warning of a health threat, proactive surveillance on strategic fronts is the key to pre-emptive intervention. Disease in animals presents one hitherto untapped area which potentially offers a wealth of invaluable data.

Dead Birds Do Tell Tales

In the month prior to the recognition of the New York City viral encephalitis outbreak, municipal health departments had received well over 1,000 reports of birds dying suddenly around the region. Investigations after the outbreak confirmed that a significant proportion of these had resulted from exposure to the *West Nile* virus.

Likewise, reports of pigs dying in Malaysia were received months before the virus spread to humans. And that these pigs were not the only animals being infected at this time is demonstrated by the results of a sero-survey done after the outbreak, which found that wild fruit bats, dogs and even pigs from farms outside the epidemic areas¹⁷ had already been exposed to the *Nipah* virus.

These findings point to the possible ubiquity of both viruses in the animal reservoir prior to the human outbreaks. Had this been detected earlier, they may well have been preventable.

As many biological agents may be amplified in zoonotic hosts, routine sentinel surveillance of disease in both native and imported animal species is clearly valuable. In fact, much useful intelligence may be clandestinely garnered about the health threats of a particular area by testing animals commercially imported from there.

Animal disease surveillance will also guard against wilful introduction of biological agents through livestock. Biological agents need not always be delivered by the dramatic release of millions of spores in an air drop as popularly imagined. A single bird carrying a genetically engineered agent may be enough to infect the local population of birds establishing endemicity in the ornithic reservoir before spilling over to the human population.

Maintaining sentinel flocks of birds or herds of other animals for the purpose of revealing the entry of foreign pathogens, or estimating local disease burden, is analogous to the centuries old practice of using canaries to detect poisonous gases in the coal mines, or even, in the military context, using special papers to detect toxic chemical agents.

Peeping into the Trojan Horse - Is It Worth It?

To summarise the discussion so far, the key components of any responsive bio-defence system, as demonstrated by the two outbreaks, are as follows:

- i) Comprehensive diagnostic capabilities.
- ii) Continuing BW/BT emergency/primary physician training.
- iii) Established and accessible communication links between relevant agencies.
- iv) Centralised collection and analysis of peripheral input.
- v) Randomised and selective zoonotic disease surveillance.

The overall effectiveness of such a system is of course contingent upon the availability of appropriate intervention. This means that stockpiles of costly vaccines, therapeutic drugs and prophylactic drugs, and post-attack damage control plans must already be in existence. How much is such a system worth? Is it economically viable?

Using the insurance model is one way to estimate the benefits of investment in a bio-defence system¹⁸. An actuarially fair annual premium is calculated on the basis of savings from averted health care costs, as well as the value of economically productive activities which would have been lost due to the morbidity and mortality resulting from any outbreak. The latter includes not only the human and livestock cost resulting from the disease itself, but also from control measures. After the *Nipah* outbreak, the standing pig population in Malaysia was reduced from 2.4 million to 1.32 million and the number of farms was reduced from 1885 to 829

In the context of bio-defence, a significant consideration which influences its cost effectiveness is the speed with which post-detection intervention can be delivered. Using these principles, an elaborate biological defence system may or may not be justifiable depending on the cost and risk assessment done by individual nations.

It must be emphasised that a bio-defence system will address not only the threat of low intensity sabotage or rogue weapons of mass destruction, but also the equally serious danger of emerging infectious diseases such as the *Nipah* and *West Nile* viruses. Thus many benefits be reaped even in the absence of biological attacks.

Last Words

In the 1500s, 95 percent of the Aztec Indian population perished within a matter of months as a result of having zero immunity to smallpox, which was unintentionally introduced by the Spanish Conquistadores¹⁹. It happened in an age without motor highways, railroads or supersonic air travel, when physical boundaries were still formidable. With these amenities in the present age, will this tragedy be repeated on a global scale?

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The Chem-bio Terrorism Threat Assessed

by MR How Siang Meng

The scourge of terrorism remains an issue of international concern in the new millennium. The potential for terrorism has increased, so has the means available to the terrorists. In fact, the character of terrorism has evolved to a state where the threat to human life is even greater than before because the terrorists of today have the potential to inflict mass casualties with a single act of terror.

Despite the long history of terrorism and high public awareness of the threat, scholars, policy-makers and those operationally involved in dealing with terrorism are still unable to come to a consensus on a definition of terrorism. Even the terrorist regards himself as a "freedom fighter". One of the most authoritative definitions of terrorism offered by the US Department of State defines terrorism as "premeditated, politically-motivated violence, perpetrated against non-combatant targets by sub-national groups or clandestine agents, usually intended to influence an audience".¹ Another good definition by the US Department of Defense, "unlawful use of, or threatened use, of force or violence against individuals or property to coerce and intimidate governments or societies, often to achieve political, religious, or ideological objectives".²

Changes in the Terrorism Landscape

Terrorism is a fluid phenomenon that changes with political and socio-economic conditions. It is, therefore, not surprising that the character of terrorism in the Cold War era is distinctly different from that in the post-Cold War period. Terrorist strategy, tactics and motivations also change with time.

During the Cold War, the dominant flavour of terrorism was leftist politico-ideology, principally, that of Marxism, Leninism and Maoism. Major terrorist groups of the period, such as the *Japanese Red Army* and the *Baader Meinhof*, were either Marxist-oriented or pawns in the proxy games played by the two superpowers, particularly by the Soviet Union. To the superpowers, terrorism was a convenient tool that could be used against each other "without bringing the danger of a major conventional war escalating to nuclear conflict".³

The end of the Cold War sounded the death knell for such left-leaning groups. The vacuum left by the leftist groups was soon filled by more amorphous groups which have more fuzzy orientations, objectives and foci. During the Cold War, terrorist groups fell into three distinctive genres: the politico-ideological, the ethno-nationalist and the separatist organisations. With the end of the Cold War, groups with less comprehensible nationalistic and ideological motivations have sprung up to take their place. Some of these groups are religiously-motivated, some even harbouring apocalyptic visions, while others are inspired by hate agendas ranging from hatred for the state and authority to ethnic groups. They also lack a clear organisational structure, operating on a linear rather than on a hierarchical basis.⁴ Some are trans-national. The end result is the evolution of terrorism in the 1990s into one where terrorists, whether individuals or groups, have little regard for their public image and therefore, have no qualms about inflicting mass casualties. Walter Laqueur calls it "postmodern terrorism"⁵ describing it as "a radical transformation, if not a revolution, in the character of terrorism".⁶

US-compiled statistics on terrorism released by the US Department of State in their annual publication, *Patterns of Global Terrorism*, support the observation that terrorists of today are less averse towards staging mass casualty attacks where casualties may number in thousands or tens of thousands. These statistics show the increasing number of casualties from terrorist attacks over the years. For example, in 1998, the casualty figure from terrorist incidents perpetrated worldwide hit a record high of 6,693 with 741 dead and 5,952 injured. This is a drastic jump over the 1997 figure of 914 casualties and the 1996 figures of 3,225 casualties (see Table 1).

The increasing lethality is even more alarming when viewed against the fact that the number of terrorist incidents perpetrated worldwide has actually been decreasing since the end of the Cold War. The 273 terrorist acts staged in 1998 is the lowest figure recorded since 1971 (see Table 2).

While the US report provides no explanation for the underlining cause of the rise in lethality, scholars agree that the changed character of terrorism is responsible for this. Bruce Hoffman, for example, asserts that the "volatile combination of religion and terrorism are major factors".⁷ Similarly, Peter Chalk blames the "variables of rationale and instrumentality", which he describes as militant religious and *ad hoc* amateur terrorism, and increasing access to arms, including weapons of mass destruction (WMD), referring specifically to nuclear, chemical and biological weapons.⁷

The issue of terrorists having increasing access to WMD and inflicting mass casualties gained ground in the 1990s, especially after 1995, when the *Aum Shinrikyo* staged the sarin gas attack in the Tokyo subway system.⁹ Up to that time, there was widespread belief that the possibility of such attacks could have been exaggerated and even a product of Cold War fantasy. Now, it is recognised as a "threat unprecedented in the history of mankind".¹⁰ The question that is increasingly asked is not "if" but "when" such an attack will take place. Experts believe that when it takes place, it will be by biological agents and not chemical agents. This is because biological agents are more toxic and hence, have a higher kill-ratio than chemical weapons. This paper disagrees with this point of view. In fact, it will be argued that chemical weapons are the more likely choice of terrorists in the next WMD attack. The scope of this paper will be confined to chemical and biological (chem-bio) weapons.

Attraction of Chemical and Biological Weapons

- **Chemical Weapons**

Chemical weapons have been used in wars since the early 1900s. It was in 1995 that chemical weapons were first used by a non-state actor, the *Aum Shinrikyo*, in the Tokyo nerve gas incident. Since its first appearance, many types of chemical agents have been developed and they have become increasingly toxic. The first generation agents are mainly choking, blood or blister agents like chlorine and phosgene. Compared to these, the second generation agents are more toxic. These are the G-series nerve agents which include *sarin*, *soman* and *tabun*. Even more toxic are the V-series nerve agents developed in the 1950s. These third generation agents include VX, VM and VG. It takes only 10mg of VX on the skin to kill an average adult.¹¹ Currently, the most toxic chemical agents are the fourth generation novichok which are binary nerve agents¹² developed by the Russians circa 1987.

"*Novichok*" is rated as perhaps, 10 times stronger than VX, the most toxic chemical in the Western military arsenal.¹³ Of the thousands of highly poisonous chemicals, experts believe that terrorists will choose to use nerve agents because of their toxicity.

Chemical weapons are an attractive option to terrorists because they are easy to make and are relatively cheap. The techniques for making them are not difficult for those with a basic working knowledge of chemistry.¹⁴ A chemist with some graduate training can actually synthesise *sarin* and even VX in any clandestine laboratory.¹⁵ Most of the chemical agents can actually be made at home with some basic laboratory equipment.

Terrorists know that open literature, including the Internet, carries extensive information on how to make such agents.¹⁶ Jessica Stern writes about the wide availability of poison manuals and how one such manual even instructs readers on how to disseminate chlorine in a crowd.¹⁷ The formulae for many of these agents are also easily obtainable from various scientific texts.¹⁸ Even the formula for the highly toxic VX nerve agent is available as it has been declassified by both the US and the UK.¹⁹ To acquire the precursor chemicals needed to manufacture a chemical weapon, terrorists can simply purchase them from agricultural or industrial chemical supply companies.²⁰ Chemical weapons can also be stolen from military storage facilities,²¹ bought from the black market²²

(although the veracity of this is hard to establish) or obtain them from state sponsors of terrorism. While there have been concerns about this possibility, Christopher Joyner pointed out in 1990 that "as yet, no state is known to have done so, though this does not mean such reluctance necessarily will be perpetual".²³

Chemical agents are also cheap to produce, especially when viewed against its mass casualty potential. A group of chem-bio experts claim that one needs to use only \$600 worth of nerve agents to inflict the same number of casualties per square kilometre compared to \$2000 with conventional weaponry.²⁴

- **Biological Weapons**

Biological agents can be classified into two main groups: pathogens and toxins. Pathogens are organisms that cause diseases in man. There are four main types of pathogens which can be easily cultivated in any makeshift laboratory: bacteria, rickettsiae, viruses and fungi. The other group of biological agents are the toxins. They are either lethal or highly incapacitating. Some are so toxic that no antidote is available. A well-known example is ricin (extracted from castor beans) which was used in an "umbrella gun" terrorist attack against two Bulgarian defectors in 1978.²⁵ Besides pathogens and toxins, there is also speculation that terrorists may turn to genetically-engineered organisms or exploit the bioregulators²⁶ present in our bodies. This view is, however, challenged by some experts²⁷ who have expressed doubts that terrorists can have such state-of-the-art technology without any state support.

The main attraction of biological agents to terrorists is that these agents are inherently much more toxic on a weight-to-weight ratio than chemical agents²⁸ and can contaminate a larger area. Anthrax, for example, is very toxic²⁹, easy to produce and disseminate³⁰, and does not perish easily when exposed to sunlight. The anthrax contamination of Gruinard Island in Scotland by British military tests in 1941 led to a ban on human entry up till 1994.³¹ Because of the high level of toxicity, experts believe that terrorists will choose to use biological weapons in a WMD attack. This is augmented by the fact that being living organisms, biological agents are able to reproduce themselves. Therefore, only a small quantity is needed to infect a large population.³² Compared to chemical agents, they are also easy to disseminate. This could be done through the simple aerosol spray,³³ contamination of food and liquid or indirect transmission through infected animals or direct human contact.³⁴

Terrorists also have easy access to the information and materials needed to make biological weapons. Information on how to culture biological agents are also readily available from open literature³⁵ and a high level of expertise is not needed to make a biological agent.³⁶ Acquiring the organisms needed is equally easy: one can purchase them from hospitals, research organisations or mail order companies; steal them from a legitimate establishment such as a research institution³⁷; or obtain them from state sponsors.³⁸ It is also possible to extract or isolate the organisms from their natural environment although this may require a higher level of technical competence. The equipment needed to make biological agents are common fermenting equipment which are no different from that employed in the brewery industry.³⁹

New Threshold in Terrorism

A new threshold in the annals of terrorism was reached in the early morning rush hour of 20 March 1995. An apocalyptic religious cult in Japan, the *Aum Shinrikyo* (Supreme Truth) carried out a nerve gas attack in the Tokyo subway system, making it the first-ever large-scale WMD attack by a non-state actor with the specific intention of causing mass casualties. The *sarin* used not only caused respiratory discomfort in the commuters who came into contact with it, but it also contaminated the trains. As the trains continued their journey and the coughing and wheezing passengers disembarked at stations along the lines, secondary contamination developed at these locations as well. Eventually, 16 stations were contaminated. Two of the lines had to be shut down. The final casualty toll was 12 dead and more than 5,500 injured.⁴⁰ The fact that

the Aum used low grade sarin of only 35 percent purity⁴¹ is probably the most important contributory factor for the low casualty rate, considering the fact that the train cars were enclosed spaces and packed with commuters rushing to work.⁴²

What is interesting about the Tokyo incident is that the Aum chose to use *sarin* - a chemical nerve agent although the group possessed both chemical and biological weapons in its arsenal. While the reason is not exactly clear⁴³, it is contrary to what most experts have been saying: that terrorists are more likely to use biological weapons if they have a choice between the two. These experts point out the comparatively more toxic nature of biological weapons which would better serve the purpose of mass casualty terrorism.

Preference for Chemical Weapons

Using WMD in a terrorist attack is not the same as say, hijacking an aircraft. An aircraft has a definite number of hostages and hence, casualties. There is no escape route for the hijackers if the crisis is not resolved peacefully. Staging a hijacking, therefore, carries inherent risks and circumstances beyond the control of the terrorists. But in a WMD attack, the terrorists can inflict mass casualties while they remain free to choose whether to claim credit for the incident. The terror value of the WMD incident will also be disproportionately very much higher than that of a conventional terrorist act. Against this backdrop, it is interesting to ask what has restrained terrorists from staging a WMD attack for so long. Jenkins provides one of the more convincing explanations: "With an explosion, you get a bang and some blood and you can calculate it pretty much. In the case of chemical weapons, there's a lot of uncertainties. Terrorists tend to abhor uncertainty."⁴⁴ The Tokyo incident, therefore, set a new precedent for terrorism. In doing so, it wiped out many of the uncertainties that Jenkins talked about. The Aum proved that terrorism by chemical weapons works even with a primitive delivery system and that dissemination of chemical agents is not as difficult as some experts contend.

- **The Copycat Syndrome**

The success of the Tokyo incident would encourage similar-styled incidents in the future. Essentially, terrorists are copycats and loath trying something new to ensure the success of their operations.

The history of terrorism bears out this observation. Among terrorists, there are few innovators but many followers. A successful new tactic or method will be copied and will remain a constant feature until something better comes along.

- *Aircraft hijackings*

A good illustration of this is the hijack of commercial airliners. The first aircraft hijack by terrorists was in 1968, when the Palestinians hit upon the idea of seizing an aircraft and holding its occupants hostage until all their demands were met. The Popular Front for the Liberation of Palestine (PFLP) seized an Israeli El Al jet in mid-air while en-route from Rome to Tel Aviv, and in the process, not only started a new trend, but also internationalised terrorism. Suddenly, it dawned upon terrorists that terrorism could be exported overseas to a target country or even to a country which was indifferent to their cause. The media also helped by flashing images of terrorism around the world. As hijacking of aircraft became fashionable in the 1970s, airport security measures and commando storming techniques improved to meet this threat. By the mid-1980s, the measures began to bite and the incidence of aircraft hijackings started tapering off. The cost to the terrorists had become too much to bear.

Although aircraft hijacking is considered passe, it is interesting to note that even now, a successful attempt will encourage copycat attempts. On 6 April 1993, two Chinese nationals seized a Chinese airliner and forced it to fly to Taiwan in their bid to seek political asylum. The success of this incident led to six similar hijackings in the next seven months.⁴⁵ More recently, two aircraft hijackings occurred back-to-back on the Indian subcontinent. On 24 December 1999, an *Indian*

Airlines plane was hijacked by Kashmiri separatists and forced to land in Afghanistan.⁴⁶ The hijackers demanded the release of a leading Kashmiri separatist leader. Two months later, an Afghan airliner was hijacked to the UK. The hijacking was apparently for the purpose of seeking political asylum.⁴⁷ While the objectives behind the two incidents differ, it is reasonable to believe that the second incident was inspired by the first.

- *Suicide bombings*

Another example of the copycat syndrome is suicide bombing. The successful 1983 suicide truck bombing of the US military barracks in Beirut by the *Hizbollah* (an Islamic extremist group), prompted similar suicide attacks. When concrete barriers built at the entrances to high-risk targets made this difficult,⁴⁸ the terrorists modified the method by strapping the bomb to a suicide bomber. The phenomenal success of using a walking bomb soon resulted in its widespread use, especially in the 1990s. Terrorists realised that security forces had great difficulty preventing suicide bombings compared to other forms of bombing attacks. The LTTE, for example, formed the suicide Black Tigers, which scored phenomenal successes with high profile assassinations of VIPs, including ex-Indian Prime Minister Rajiv Gandhi in 1991 and Sri Lankan President R Premadasa in 1993.⁴⁹ In 1995, Sikh separatists adopted this tactic. In their first ever suicide bombing, they successfully assassinated the Punjab Governor, Beant Singh.⁵⁰ Even the Kurdish Workers' Party (PKK), well-known for its low level terrorist attacks, used a suicide bomber for the first time on 30 June 1996.⁵¹

These examples are evidence of the prevalence of the copycat syndrome among terrorists. It is argued therefore that the success of the Tokyo incident will, therefore, spur another attack in almost a similar fashion. This prognosis is strengthened by the fact that there were a series of copycat attacks using chemical agents immediately following the Tokyo incident. In April 1995, two such incidents occurred in Yokohama where several people were hospitalised after inhaling a foul odour.⁵² The closest to a mass casualty attack took place the following month in Tokyo's busiest train station, Shinjuku.⁵³ The precursor chemicals were discovered just before they synthesised, otherwise, the number of casualties could have been between 10,000 to 20,000.⁵⁴ While the Tokyo incident has not been repeated to-date, it is only a matter of time before another large scale strike with chemical agents happens.

- **Impact of Chemical Weapons**

In planning a terrorist attack, the terrorist must weigh all factors in order to ensure the success of his operation. Therefore, if he decides to use WMD, he has to consider the effects of these weapons and the impact they would create. Although biological weapons are more lethal than chemical weapons, the terrorist is more likely to choose chemical weapons because of the immediate impact of these agents. Within minutes of the agent being delivered, the location is contaminated and awash with victims showing signs of poisoning. Some will die an agonising death on the spot, increasing the level of terror and panic. When the emergency forces arrive, cordon off the area and start rescue operations in their protective suits, the effect on the general population will be one of anxiety and fear.⁵⁵ The end result is headline-grabbing media coverage. After all, as Jenkins once said, terrorism is theatre and in this, the media plays an important role.⁵⁶ Current research reveals that terrorist incidents often make interesting lead-in stories on prime time TV news and on the front pages of the print media.⁵⁷ It is also said that "modern terrorism and public relations share a symbiotic relationship"⁵⁸ - they feed off each other. Thus, the terrorists create the perfect setting to claim credit, be recognised and be feared.

A biological attack, on the other hand, lacks this immediacy and impact. When the agents are released, victims usually show no signs of infection. It is only after an incubation period, which could last for weeks, that medical symptoms manifest themselves. By then, the position may have become disadvantageous to the terrorist. As biological agents are naturally occurring organisms, the incident would logically be attributed to a naturally occurring epidemic and treated as such. Unless evidence to the contrary is found, claims for responsibility by terrorists are unlikely to be taken

seriously.⁵⁹ In contrast, chemical agents do not occur naturally in the environment hence, claims for responsibility are more credible.

- **Unpredictability of Biological Agents**

Being living organisms, biological agents are less predictable than chemical agents. They could perish before infecting the people when released into the environment. Even if they survive the changed climatic conditions, there is no guarantee that they will behave as intended by the perpetrators. They may not infect the targeted population as planned or achieve the projected casualty figures. If the intention of doomsday groups is to create or hasten the apocalypse as the experts would have us believe, it is thus inconceivable that they will choose to use biological weapons. VX nerve agent would have done the job in quicker time and more reliably. It should also be acknowledged that not all groups staging such incidents are apocalyptic like the *Aum*, or believe in dying together with their victims in a biological weapons attack. There are always the deranged individuals who want to emulate the *Aum*.⁶⁰

- **Psychological Impact**

The psychological impact of the threatened use or actual employment of chemical weapons in a large scale terrorist attack will definitely sow more terror than a biological weapons attack. This is because memories of chemical warfare are still vivid. Images of the Iran-Iraq War in the 1980s and more recently, the Gulf War in 1991, remain fresh in people's minds. People can still recall CNN's images of terror on the faces of Israelis huddled together, putting on gas masks whenever Iraq launched a *Scud* missile. There are also the media images of the Tokyo incident. In fact, in a survey finding published in 1980, respondents ranked nerve gas as among the top five of 90 possible hazards they feared.⁶¹ Interestingly, they had ranked nerve gas higher than guns and surgery. It is reasonable to assume that this fear could have increased after the Tokyo incident.

Conclusion

With the Tokyo incident, mass casualty terrorism is no longer a taboo⁶² and the chances of a recurrence of a WMD attack increased significantly. Conditions in the post-Cold War period are largely responsible for this. Leftist ideology lost its credibility when the communist Soviet Union collapsed. With the demise of left-leaning terrorist groups, terrorism was embraced by new groups and individuals with murky motivations, ranging from religious extremism to hate agendas. These post-modern terrorists pose an even greater threat than their predecessors. They see destruction as an end in itself and hence, have no qualms about causing mass casualties, whether by powerful home-made explosives or by weapons of mass destruction. According to experts, these terrorists are responsible for the rising casualty toll in the past years even as the incidence of terrorist attacks perpetrated worldwide has fallen concurrently. These "qualitative" and "quantitative" changes⁶³ combined make terrorism a major security challenge facing the world today.⁶⁴

While it is undeniable that biological weapons are inherently much more toxic than chemical weapons, it would be naïve to believe that terrorists would, therefore, choose to use biological weapons in an attack, based on this premise alone. Perpetrating a terrorist act takes meticulous planning because the terrorist may not get a second chance if he fails. He will want to weigh all options and costs in order to reap maximum mileage from the incident. The surest way to success is to follow a precedent model - the Tokyo incident would be a guiding beacon. If a terrorist chooses to use WMD in his attack, he will favour chemical weapons instead of biological weapons.

Endnotes

1. The US Department of State's definition of terrorism is published in their annual publication on terrorism, *Patterns of Global Terrorism 1998*, Washington DC: US Government Printing Office, April 1999 p vi. This journal contains their study of the developments in worldwide terrorism for 1998.

2. Laqueur, Walter, *The New Terrorism: Fanaticism and the Arms of Mass Destruction*, New York: Oxford University Press, p 5.
3. Wilkinson, Paul, 'Uncomfortable Truths About International Terrorism', *Across The Board*, New York: Vol. 19, Issue 1, January 1992, p 81.
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5. Laqueur, Walter, 'Postmodern Terrorism', *Foreign Affairs*, Vol. 75 No. 5, Sep-Oct 1996, p 34.
6. Laqueur, *The New Terrorism: Fanaticism and the Arms of Mass Destruction*, p 4.
7. Hoffman, Bruce, 'Holy Terror': The Implications of Terrorism Motivated by a Religious Imperative', *Studies in Conflict and Terrorism*, Vol. 18 No. 4, Oct-Dec 1995, p 280.
8. Chalk, Peter, 'The Evolving Dynamic of Terrorism in the 1990s', *Australian Journal of International Affairs*, Vol. 53 No. 2, 1999, pp 159-164.
9. See 'Prophet of Poison', *TIME*, 3 April 1995.
10. Laqueur, *The New Terrorism: Fanaticism and the Arms of Mass Destruction*, p 79.
11. Central Intelligence Agency, *The Biological & Chemical Warfare Threat*, Washington DC: US Government Printing Office, Revised Edition, 1999, p 26.
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13. 'Ex-Soviet Scientists Says Gorbachev's Regime Created New Nerve Gas in '91', *The Baltimore Sun*, 16 Sep 1992.
14. Mullins, Wayman, 'An Overview and Analysis of Nuclear, Biological and Chemical Terrorism: The Weapons, Strategies and Solutions to a Growing Problem', *American Journal of Criminal Justice*, Vol. 16 No. 2, 1992, pp 108-109.
15. Mullen, Robert K, 'Mass Destruction and Terrorism', *Journal of International Affairs*, Vol. 32 No. 1, Spring/Summer 1978, pp 71-72.
16. There are a plethora of web-sites on the Internet that provides information on how to construct simple terrorist devices, including chemical and biological weapons. Unabridged copies of D-I-Y manuals like *The Terrorist's Handbook* and *The Anarchist's Cookbook* can also be downloaded from the Net..99
17. Stern, Jessica Eve, 'Will Terrorists Turn To Poison?', *Orbis: A Journal of World Affairs*, Vol. 37 No. 3, p 400.
18. Douglass, Joseph D Jr & Neil C Livingstone, *America the Vulnerable: The Threat of Chemical and Biological Warfare*, Lexington, MA: Lexington Books, 1987, p 16.
19. Clarke, Richard Charles, *Technological Terrorism*, Old Greenwich, CT: Devin Adair, 1980, p 110.
20. Barnaby, Frank, *The Role and Control of Weapons in the 1990s*, London: Routledge, 1992, p 85.
21. Livingstone, Neil C, *The War Against Terrorism*, Lexington, MA: Lexington Books, 1982, p 111.
22. Marshall, Patrick G, 'Obstacles to Bio-Chemical Disarmament', *Editorial Research Reports*, Vol. 1 No. 24, 29

June 1990, p 372. According to Marshall, the widespread deployment of chemical weapons in the Iran-Iraq war of the 1980s would have increased the availability of such weapons in the black market.

23. Joyner, Christopher, "*Chemoterrorism: Rethinking the Reality of the Threat*" in Alexander, Yonah & H Foxman (eds), *The 1988 Annual on Terrorism*, The Netherlands: Kluwer, 1990, pp 138-139.

24. Douglass & Livingstone, *America The Vulnerable: The Threat of Chemical & Biological Warfare*, p 16. Another good example of the low cost of producing chemical agents is available in Ponte, Lowell, "The Dawning Age of Technoterrorism", *Next*, July-August 1980, p 53. According to Ponte, an article in *Science* magazine (no details given) mentioned that a quart of VX, which contains several million lethal doses, cost about US\$5 to manufacture.

25. Harris, R & Paxman, J, *A Higher Form of Killing: The Secret Story Of Gas and Germ Warfare*, London: Chatto & Windus, 1982, pp 197-198.

26. The potential use of altered bioregulators as a chemical weapon is mentioned in Central Intelligence Agency, *The Biological & Chemical Warfare Threat*, p 2.

27. See "*Technology Against Terrorism: Structuring Security*", US Congress, Office of Technology Assessment (OTA), 1992, pp 38-39 and Wiener, Stanley L, "*Chemical and Biological Weapons and Terrorism*", in Flood, Susan (ed), *International Terrorism: Policy Implications*, Office of International Criminal Justice, University of Illinois, Chicago, 1991, p 71.

28. Berkowitz B J. et al, *Superviolence: The Civil Threat of Mass Destruction Weapons*, ADCON (Advanced Concept Research) Corporation, Report A72-034-10, September 1972, pp VIII-54.

29. According to Jenkins, Brian & Alfred P Rubin, 'New Vulnerabilities and the Acquisition of New Weapons by Nongovernmental Groups' in Evans, Alona E & John F Murphy (eds), *Legal Aspects of International Terrorism*, Lexington, MA: Lexington Books, 1978, p 226, untreated anthrax is invariably fatal. Even with medical treatment, the prognosis is usually poor.

30. Berkowitz et al. *Superviolence: The Civil Threat of Mass Destruction Weapons*, pp VIII-73.

31. See Feeney, Michael, 'Anthrax as a Weapon of Terrorism and Difficulties Presented in Response to its Use', *Defence Journal*, December 1998, in web-site address: <http://www.defencejournal.com/dec98/anthrax.htm> and 'West Seeks Lasting Curbs on Iraq', *International Herald Tribune*, 20 January 1998.

32. Jenkins & Rubin, 'New Vulnerabilities and the Acquisition of New Weapons by Nongovernmental Groups', p 225.

33. Berkowitz. et al, *Superviolence: The Civil Threat of Mass Destruction Weapons*, pp VIII-52 & 54.

34. Other than the aerosol spray, there is some debate over the other modes of delivery. Kupperman & Trent, *Terrorism, Threat, Reality, Response*, pp 58 & 65 and Mengel, R W, 'Terrorism and New Technologies of Destruction: An Overview of the Potential Risk', Appendix 2, *Disorders and Terrorism*, 1976, p 455. On the other hand, scholars like Ponte, 'The Dawning Age of Technoterrorism', p 52, believed that this is possible if the right biological agent and the right proportions are used. To-date, there has been no documented case of a deliberate and successful attempt. As for contamination of food, there are some isolated incidents; a well-known example is the contamination of salad bars in Oregon with salmonella typhi (typhoid) by the Rajneesh cult in 1984. Kupperman, Robert H and Jeff Kamen, *Final Warning: Averting Disaster in the New Age of Terrorism*, New York: Doubleday, 1989, p 107 suggest that food contamination is best done at the production line of a food factory.

35. Baum, Matthew, 'Biological Nightmare Awaits: Clock Is Ticking for US to Tackle New Threat', *Defense News*, 6-12 December 1993, p 17.

36. According to '*Technology Against Terrorism: Structuring Security*', OTA, 1992, p 37, second and third year medical or microbiology students can easily prepare an agent and with minimal risk to themselves. Douglass & Livingstone, *America the Vulnerable: The Threat of Chemical and Biological Warfare*, p 23, added that the manufacture of substantial quantities of dangerous pathogens and toxins are only about as complicated as making beer and less dangerous than refining heroin.

37. Scholars like Mullins Wayman, 'An Overview and Analysis of Nuclear, Biological and Chemical Terrorism: The Weapons, Strategies and Solutions to a Growing Problem', *American Journal of Criminal Justice*, Vol. 16 No. 2, 1992, p 103 and Douglass & Livingstone, *America the Vulnerable: The Threat of Chemical and Biological Warfare*, p 24, have voiced concerns over the security of such establishments. Most are said to have inadequate security measures and the staff are either not properly screened nor security conscious. Joseph W Foxell Jr in his article, 'The Debate on the Potential for Mass-Casualty Terrorism: The Challenge to US Security', *Terrorism & Political Violence*, Vol. 11 No. 1, Spring 1999, p 106, raises concerns about security at Russian facilities.

38. While some of the experts like Mullins, 'An Overview and Analysis of Nuclear, Biological and Chemical Terrorism: The Weapons, Strategies and Solutions to a Growing Problem', p 103 and McGeorge, Harvey J II, 'The Deadly Mixture: Bugs, Gas and Terrorists', *NBC Defense & Technology International*, Vol. 1 No. 2, May 1986, pp 59-60, have speculated on the possibility of states providing biological weapons to terrorists, others like Simon, Jeffrey D, *Terrorists and the Potential Use of Biological Weapons: A Discussion of Possibilities*, Santa Monica, CA: RAND Corporation, R/3771-AFMIC, December 1989, p 7 fn 3 and Laqueur, in his article 'Postmodern Terrorism', p 34, caution about this possibility.

39. According to Falkenrath, Richard A, 'Confronting Nuclear, Biological & Chemical Terrorism', *Survival*, Vol. 40 No. 3, Autumn 1998, p 54, a wide range of equipment, such as fermenters and tools for measuring aerosols, are now widely available in the market as a result of the rapid expansion of the biotechnology industry.

40. See 'Prophet of Poison', *TIME*, 3 April 1995.

41. According to Anthony Tu (Department of Biochemistry & Molecular Biology, Colorado State University), the figure of 35 percent purity was confirmed by a sample analysis done by the Japanese police during the incident. The highly efficient ventilation system of the Tokyo subway system helped to discharge the gas, leading to the low fatality rate. Tu, who assisted Japanese police during the Tokyo incident, made these points in his presentation at the Chem-Bio 98 Conference. The Conference, organized by Jane's Information Group, was held in Washington DC from 6 to 7 October 1998.

42. 'Sect Could Make Deadlier Gas', *Japan Times*, 30 March 1995; Laqueur, *The New Terrorism: Fanaticism and the Arms of Mass Destruction*, p 53, also attributed the low casualty rate partly to the low grade sarin used and to the primitive method of dissemination.

43. Joseph Foxell Jr, 'Trends in Bio-Terrorism: Two Generations of Potential Weapons', *Journal of Contingencies and Crisis Management*, Vol. 7 No. 2, June 1999, p 117 Note 3.

44. Quoted in Marshall, Patrick G, 'Obstacles to Bio-Chemical Disarmament', pp 372-373.

45. See 'Hijackings Strain China-Taiwan Relations', *The Ottawa Citizen*, 13 November 1993.

46. See 'India Accused of Foot-Dragging in Handling Hijack', *The Straits Times*, 8 December 1999.

47. See 'Destination Unknown', *TIME*, 21 February 2000. The Afghan Ariana Airlines Boeing 727 was hijacked at Kabul and the aircraft stopped at Uzbekistan, Kazakhstan, Moscow and finally, Stansfeld Airport outside London. Negotiations lasted three days before all the hostages on board were freed unharmed. The circumstances surrounding the incident suggested that the hijackers had planned the hijack together with some of the hostages. There was a lack of any clear demands and immediately upon release, 74 of the hostages applied for political asylum.

48. Laqueur, *The New Terrorism: Fanaticism and the Arms of Mass Destruction*, p 42.

49. See 'Black Tigers Keep Suicide Bomb Fears Alive in Sri Lanka', *AFP*, 6 January 2000.

50. See 'Indian PM Vows To Punish Killers of Sikh Chief Minister', *AFP*, 31 August 1995.

51. US Department of State. *Patterns of Global Terrorism 1996*, Washington DC: US Government Printing Office, April 1997, p 11. The suicide attack took place at a Turkish military parade in Tunceli, killing 9 security forces personnel and wounding 35. Prior to the incident, the PKK was more well-known for its arson attacks.

52. See 'Police Baffled By Gas Poisoning', *The Guardian*, 21 April 1995. See also 'Woman Shows Phosgene Symptoms in Yokohama Incident', *Jiji Press*, 20 April 1995; 'Japanese Evacuate Store in New Alert Over Poison Fumes - Yokohama', *The Times (UK)*, 22 April 1995.

53. On 5 May 1995, alert security guards discovered two plastic bags, each containing a different chemical, which were left in a toilet in Shinjuku station. One of the bags was flaming and the fire would have spread to the other had it not been discovered on time. The two bags were arranged so that the flames spreading from one bag to the other would result in a reaction producing hydrogen cyanide in the process. See 'Chronology - Events Involving Aum Shinrikyo', *Nikkei Weekly*, 22 May 1995.

54. See 'Shinjuku Station Narrowly Escapes Cyanide Attack That Could Kill 20,000', *Daily Yomiuri*, 7 May 1995.
55. In the Tokyo incident, the Japanese public lost confidence in the Murayama government. See 'Japan's Murayama Embarrassed in First Poll Test', Reuters, 9 April 1995.

56. Brian Jenkins wrote in his report, *International Terrorism: The Other World War*, Santa Monica, CA: RAND Corporation, 1985, p 9: "Terrorist attacks are often carefully choreographed to attract the attention of the electronic media and the international press. The victims themselves often mean nothing to the terrorists. Terrorism is aimed at the people watching, not the actual victims. Terrorism is theater."

57. Alali, Odasuo and Byrd, Gary, *Terrorism and the News Media*, Jefferson, NC: McFarland & Company, 1994, p 9.

58. Rada, S. E, 'Trans-national Terrorism as Public Relations', *Public Relations Review*, Vol. 11 No. 3, Fall 1985, pp 26-33.

59. The difficulty in claiming credit when using biological agents is summed up by the US House Armed Services Committee as follows: "...unpredictability and the difficulty in ascertaining whether an outbreak of disease is a natural occurrence or is the result of a terrorist act, in the view of some authorities, weigh against such weapons being chosen by terrorist groups. In many cases, terrorist activities occur for the purpose of making a political statement, and if the source of a disease cannot be identified and claimed by the terrorist group, the effectiveness of the political statement is lost." See 'Countering the Chemical and Biological Weapons Threat in the Post-Soviet World: Special Inquiry Into The Chemical and Biological Threat', US House of Representatives, Committee on Armed Services, 23 February 1993, p 26.

60. Laqueur, *The New Terrorism: Fanaticism and the Arms of Mass Destruction*, p 267, mentions deranged individuals as one of the candidates likely to stage mass casualty attacks. They include those with paranoid or homicidal tendencies.

61. Slovic, P., Fischhoff, B. & Lichtenstein, S, 'Facts and Fears: Understanding Perceived Risks', *Risk: Analysis, Perception and Management*, The Royal Society, 1980, p 104, quoted by Adrian Dwyer in his presentation, "'Sarinoia' - A Subjective View" at the Chem-Bio 98 Conference in October 1998. (See endnote 41 for details of the conference.)

62. Jenkins, Brian as quoted by Ron Purver, in 'The Threat of Chemical & Biological Terrorism', *Canadian Security Intelligence Service*, Commentary, No. 60, 1995.

63. Hoffman, Bruce, 'The Confluence of International and Domestic Trends in Terrorism', *Terrorism and Political Violence*, Vol. 9 No. 2, Summer 1997, p 8.

64. US President Bill Clinton declared that terrorism is the one of the major security challenges that the US and the world faced in the new millenium. See 'Clinton Calls on UN To Fight Terrorism', CNN Interactive World, 21 September 1998, cited in Chalk, Peter, 'The Evolving Dynamic of Terrorism in the 1990s', *Australian Journal of International Affairs*, Vol. 53 No. 2, 1999, p 152.

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The Five Power Defence Arrangements : If It Ain't Broke...

by DR Khoo How San

Behind every surviving institution is its purpose and history. Purpose conveys the idea of relevance while history is full of ups and downs and is not necessarily a guide to the future. The multilateral Five Power Defence Arrangements (FPDA) emerged as a successor to a bilateral defence pact during a troubled period of maritime Southeast Asia's history, and survived despite chronic questioning about its purpose. Today, it still has five members, and it still ain't broke, although the recent Asian crisis did create a scare. This paper examines the setting and dynamics involved in the FPDA, and assesses its relevance in the new millennium.

Common Bonds, Enduring Fears

Malaya - a federation of nine small states - became independent from Britain in 1957. Two years later, Britain permitted Singapore to be self-governing. The military bases on the island accommodated not only British forces but also Australian and New Zealand forces (the ANZUK forces). As well, the British continued to help Malayan counter-insurgency forces fight the communist remnants. The Butterworth air base, opposite Penang island in peninsular Malaya, continued to be used by ANZUK air forces while Johor in the south was the location for joint jungle training. British forces were also stationed in British North Borneo (Sabah), Sarawak and the oil-rich protectorate, Brunei.

Thus, when Indonesia under President Sukarno began to oppose Malayan Prime Minister Tunku Abdul Rahman's idea of an enlarged federation (to include Singapore, Brunei, British North Borneo and Sarawak), ANZUK forces were in place in Malaya as well as in the remaining British colonial territories. From one perspective, it can be argued that the proposed new federation, Malaysia, would help to stabilise the sub-region and therefore provide security to the widely scattered Indonesian archipelago. From Sukarno's perspective, however, Malaysia was a neo-colonial creation. Moreover, Sukarno had not been consulted! Sukarno was also facing domestic problems and he wanted to divert attention to foreign policy. His tirades increasingly took on a threatening tone.

In this atmosphere, the 1957 Anglo-Malayan Defence Agreement (AMDA) provided a security umbrella for independent Malaya. AMDA (unlike the future FPDA), was a bilateral defence agreement. When Malaysia was formally created in 1963 (without Brunei's inclusion), AMDA - renamed the Anglo-Malaysian Defence Agreement - continued to provide some measure of security to the new federation. Just as important, ANZUK forces were still based in Butterworth and Singapore. These forces helped Malaysia resist Indonesia's policy of "Confrontation" which included military action or terrorist activities in Johor, Singapore, and Sarawak.

Confrontation engendered an enduring fear of Indonesia as a regional source of instability under certain conditions, such as internal challenges to its unity and the emergence of an "adventurous" ultra-nationalist or religious leader (or leadership). But this common fear did not diffuse domestic tensions between the Malay-dominated central government in Kuala Lumpur (the Malaysian capital) and the Chinese-dominated government in the city-state of Singapore. Racial tensions followed. In August 1965, Singapore separated from Malaysia.

Externally, Britain had meanwhile decided by 1967 to pull out its military forces "east of Suez". Given that Confrontation had by then been effectively countered, and also given that a process of conciliation had begun between Indonesia and Malaysia, the dangerous years could be said to have passed for Malaysia and Singapore. But, because the long history of security cooperation among British, Australian, New Zealand and Malayan/Malaysian forces had always been mutually satisfying, both Malaysia and Singapore were keen to keep some form of this "it ain't broke" security structure going. So were the Australians and New Zealanders. Canberra, in particular, posited forward defence as its strategic doctrine.

By 1971, just such a "coalition of the willing" had emerged - the FPDA - in a formula that imposed no undue strain or obligation on any party. Defence ministers of the five nations met in London on 16 April 1971 to conclude the formation of the FPDA which obliges them to consult each other in the event of an external aggression or threat of such attack against Malaysia and Singapore. There was no requirement for physically stationing multinational forces in Malaysia or Singapore. On 1 September 1971, the five nations decided to form the Integrated Air Defence System (IADS) within the framework of the FPDA to assume responsibility for the air defence of Malaysia and Singapore. Finally, on 1 December 1971, Malaysia and Singapore separately concluded bilateral exchange of notes with the other three partners of the FPDA to effect the new defence arrangements.¹

The key term in this multilateral successor to the bilateral AMDA is the plural noun, "arrangements". Yet, many commentators continue to refer, incorrectly, to the "Five Power Defence Arrangement". The FPDA, as described above, is a set of arrangements that allow two parties or more to consult and cooperate under the FPDA rubric in the defence of Malaysia and Singapore. In this sense, this "FPDA minus x" formula predated the famous "ASEAN minus x" formulation! This in-built flexibility has proven useful in practice. For example, the most geographically distant partner, Britain, nevertheless can still assemble the most formidable array of assets for major FPDA exercises. But its absence during a number of years was not seen as a lack of commitment.

Flexibility apart, gradualism was another FPDA hallmark. For a whole decade, the IADS was about the most active component of the FPDA, with air defence exercises conducted annually since 1972. Then, in 1980, the leaders of the five countries decided to initiate regular land and naval exercises. Between 1981 and 1986, Australia and New Zealand alternately hosted annual FPDA land exercises. In 1987, Malaysia hosted its first land exercise and in 1989, Singapore was the host. The 1990 land exercise was held in Malaysia but hosted by Britain. Sea exercises, also held since 1981, are alternately hosted by Malaysia and Singapore in the South China Sea.²

Apart from the usefulness of the various exercise series, the FPDA - especially in the early years - provides the teeth for a vital aspect of the defence of Malaysia and Singapore: the Integrated Air Defence System (IADS) located at Butterworth, under an Australian commander. This deliberate decision was a practical one, given the unspoken discomfort Malaysian and Singaporean leaders would have in having an IADS commander from either country.

Certainly, the FPDA played a useful role in confidence-building between Malaysia and Singapore, especially in the early post-separation years when bilateral external security cooperation between the two countries (other than the unbroken internal security cooperation) was all but absent. Importantly, the creation of the IADS symbolised the indivisibility of the defence of peninsular Malaysia and Singapore. Illustrative of the FPDA's gradual evolutionary nature, the IADS itself has proven to be adaptive, and is being transformed into the Integrated Area Defence System. This name change reflects the emphasis on joint activities.

Finally, on the issue of deterrence, although leaders of the two regional countries have not pretended that the legacy of Indonesia's Confrontation had affected their security perceptions, the FPDA is best seen as providing a form of "potential" deterrence, in which no actual enemy is identified.³ Some observers have referred to the "psychological deterrence" provided by the FPDA; others note that Australian F/A-18 fighter jets based in Tindal in northern Australia are only a few hours flight time from the sub-region.

FPDA in the New Millennium

If the several features of the FPDA proved its resilience since 1971, predicated on commonsensical "it ain't broke" premises and gradual enhancement comfortable to all its members, what possible challenges to its relevance may be identified in the new millennium?

The impression should not be given that the FPDA did not have its share of structural weaknesses, political difficulties, intra-mural tensions and viability questions. In the first place, the external powers are not obligated to come to the defence of the two regional powers since the FPDA carries no treaty obligations. In

addition, although the IADS does have a command structure, the FPDA itself does not. Politically, although Indonesia was not identified as the potential threat to be deterred, it cannot be said to be enthusiastic about the existence of a set of defence arrangements which arose in the aftermath of Confrontation. Much credit could be given to the previous Suharto administration for its passive acquiescence in accepting Malaysia and Singapore's membership of the FPDA as part and parcel of the regional web of bilateral and multilateral security links outside the ASEAN framework. One may also speculate that Brunei's "lukewarm" interest in the FPDA has been due to sensitivity to Indonesia's possible reaction. One novel Indonesian attempt to revisit the FPDA concept arose in 1990 when former foreign minister Mochtar Kusuma-atmadja suggested in a regional journal article that the FPDA be gradually disbanded over a period of five years and a new Three-Power Defence Arrangement be created comprising only Indonesia, Malaysia and Singapore. He felt that the "abandonment of the [FPDA] by Malaysia and Singapore would immeasurably strengthen the political and psychological basis for the continued growth of a three-power ASEAN military cooperation".⁴ He added that Australia could participate in the proposed pact's joint exercises as a "friendly neighbouring power".⁵

Problems in the political relationship between Malaysia and Singapore have also affected the FPDA. The most recent was Malaysia's last-minute withdrawal from a major maritime exercise (Stardex) in 1998. Kuala Lumpur said its decision was a result of the Asian economic and financial crisis but observers noted that it came at a time when Malaysia-Singapore relations were affected by a number of issues. However, Malaysia resumed its participation of Stardex in 1999.

There is always the question of sustaining the interest of external partners in any security arrangement. The FPDA has been no exception. Britain did not take part in the air defence/maritime exercise *Lima Bersatu* for more than a decade and only resumed its participation since 1988. The present Labour government in Britain shows its interest in engagement with FPDA partners but it cannot be said that future governments - Labour or Conservative - will be similarly disposed. New Zealand's involvement has been comparatively modest and indeed, the current government has indicated its strategic focus is its immediate neighbourhood. Australia, on the other hand, continues to play an active role in the FPDA. Indeed, whereas during the Suharto era, when some Australian commentators had suggested that the country's involvement in the FPDA might be a disincentive with regards to closer Canberra-Jakarta ties, the situation today may be the opposite. The FPDA continues to provide Australia with a regional presence.

In sum, the FPDA has not faced any major challenge since its inception because of two principal reasons. First, its purpose and design were pragmatic, demanding not too much from its "coalition of the willing". Secondly, Indonesia under Suharto had chosen to accommodate the FPDA which in turn has always been sensitive to Jakarta, such as conducting its major maritime exercises in the South China Sea. But circumstances can change. The very fact of its flexible arrangement means that any member who has become "less willing" can leave the FPDA, thus weakening both the indivisible defence of peninsular Malaysia and Singapore element and the so-called psychological deterrence element. Conceivably, a more assertive Indonesia may in future raise questions about the FPDA's relevance.

Conclusion

The FPDA is an example of the "if it ain't broke" phenomenon, discussed in this paper. It has played an important role in the stability and regional security of maritime Southeast Asia. The major concern of regional security analysts today is whether the two important bilateral US security treaties with Japan and South Korea will survive. Already, the trilateral ANZUS alliance has been allowed to languish, although US-Australian security cooperation is still sustained. If the FPDA were to lapse, it will be missed. Once broke, it can never be fixed.

This paper was presented as part of the ASEAN Regional Forum's professional development programme for foreign affairs and defence officials held in Brunei Darussalam from 23 to 28 April 2000.

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The Fall of the Shah of Iran: A Case Study in Crisis Decision making

by MAJ Lawrence Ng

Among America's foreign policy disasters, the Carter administration's foreign policy towards Iran was perhaps the most humiliating for the US.¹ The Americans not only lost its strongest ally in the Middle East, but had to endure two hostile takeovers of its embassy in Iran.² The Americans failed to get any cooperation from the hostile anti-American Islamic Republic, formed after the fall of the Shah of Iran, for a quick settlement of the second hostage crisis.

To understand why the Carter administration lost Iran, the systemic, organisational and bureaucratic forces at work need to be examined. The bureaucratic forces at work will shed the most light, followed by the organisational and systemic forces. Relying on systemic-level explanations alone does not give a complete picture. The Carter administration's foreign policy towards Iran offers an interesting case study because of the scope it offers for study from alternative angles.

Allison's Three Models³ will be used to show that improved explanations of the same question can be obtained after considering the organisational and bureaucratic forces at work.

US Policy Towards Iran: Systemic Considerations

In the containment strategy, Iran played a crucial role along with Turkey, Pakistan and Afghanistan in the "Northern Tier" against the USSR.⁴ The US had a patron-client relationship with Iran. However, in the aftermath of the Vietnam War, as Nixon sought to reduce America's far-flung military commitment⁵ and restructure the American forward position around the perimeters of USSR⁶, the US-Iran relationship evolved into a more equitable one. In the context of reinforcing containment, Nixon decided to cultivate Iran (and Saudi Arabia) as substitutes for the departed UK and weakened Pakistan.⁷ After 1971, a decision was made to supply huge quantities of advanced American military hardware to Iran. However, the emphasis was later broadened to include economic modernisation, political liberalisation and military construction.⁸ This was because the US wanted to strengthen Iran further in order for the latter to play a more prominent and independent regional role.⁹ Hence, a move towards a more equitable and balanced partnership was initiated.

When Carter became President, he continued America's close strategic ties with Iran and saw the Shah as a strong ally.¹⁰ Although Carter's human rights and arms transfer policies soon became testing ground for this close relationship, he was prepared to make an exception for the Shah. In the area of human rights, "Carter exempted the Shah from a crucial aspect of his overall human rights policy: the linkage of arms transfers to human rights conditions".¹¹ He even violated his presidential election campaign promise to restrain arms transfers and halted the introduction of new weapon systems into a region by selling seven Awacs aircraft (the Awacs were just being introduced into the USAF at the time) to Iran.¹² This indicated the strategic value Carter placed on Iran.

In addition, the Shah offered support to Carter's prized project - the Middle East peace accord between Israel and Egypt.¹³ The Shah supported Sadat's moves to normalise relations with Israel (unlike other Islamic Middle East countries) and assisted in Carter's effort to establish an overall energy policy by reducing sudden price hikes on crude oil.¹⁴ Therefore, one could reasonably conclude that Carter saw the Shah's regime as instrumental to safeguard US interests in the Middle East.

Hence, Carter's continuous move to a more equitable and balanced relationship between the US and Iran eventually resulted in "an American effort to promote the culmination of the transition from autocracy to

constitutional monarchy".¹⁵ This effort is the subject of study in this essay. The Carter administration mishandled the effort by sending confusing signals to the Shah on the US position during the crisis faced by the Shah.¹⁶ Eventually, the events in Iran overwhelmed Washington's monitoring ability. With Khomeini's return, an anti-American Islamic government was set up. The US lost control of the situation and concentrated on evacuating their citizens and protecting their embassy.

Carter's Advisory System

In analysing foreign policy, the structure of the advisory system must be included. When Carter became President, he vowed to end centralisation and the abuse of power which had characterised the Nixon administration.¹⁷ Carter had opted for a system resembling an open collegial model.¹⁸ Advisors were free to express diverse views with Carter at the centre of the advisory wheel. Carter did not appoint a Chief of Staff. In fact, he was his own Chief of Staff and he believed he could co-ordinate the various arguments coming to him on any issue.¹⁹

Carter also created two inter-agency committees. The Policy Review Committee (PRC) was in charge of topical and regional foreign policy, defence and international economic issues. The chairman was selected on the basis of the type of issue under consideration.²⁰ The Special Co-ordination Committee (SCC), with the National Security Advisor (NSA) as its chairman²¹, looked at intelligence and arms control issues and functioned as the crisis management committee. The NSA also had the role of coordinating, facilitating and integrating the paper flow in both committees. He also set the agenda for these meetings in consultation with the rest of the secretaries as well as full NSC meetings. PRC and SCC meetings were held after NSC meetings to discuss policy options.²²

Framing the Question

This is the most challenging part. If the question is framed wrongly, the focus of the inquiry will be biased and inaccurate conclusions will be drawn. The intention is to explore the robustness of Allison's argument by applying his theory to a different set of circumstances.²⁴ To lead us to the right question, assumptions will have to be made first. With the benefit of hindsight, a reasonable one will be that the Iranian revolution was unavoidable and that the autocratic regime of the Shah was unsustainable. Therefore, logically the US should have used its influence to ensure a friendly democratic regime in order to safeguard US interests in Iran. However, the events did not turn out this way. What went wrong?

The Carter administration initially wanted the Shah to remain in power but was unclear on communicating its position to him. The Shah felt insecure about US support for him and began looking towards Washington for guidance.²⁵ Therefore, one can reasonably conclude that it was these unclear and confusing signals which resulted in the loss of a strong ally in Iran. Focusing on the type of signals will probably lead us to make judgements based on hindsight. To get a value-free discussion, we should focus on why the US signals were unclear and confusing. A second corollary question would be why the Carter administration believed that the Shah was still viable as a monarch.

Allison's Three Models

Allison's three models will be used to answer the two questions because it offers a diverse range of explanations. The three models are:

- **Rational Actor Model (Model I)** In this model, government behaviour is explained in terms of the government's choice based on goals and objectives of the nation. Explanation of the government's actions are generated by calculating the rational action in a certain situation, given specific objectives.²⁶
- **Organisation Process (Model II)** The black box approach of Model I ignores the role played by the government machinery with outputs that have an effect on government behaviour. Within the government machinery, there are sub-organisations that often pursue only partially common goals

with other sub-organisations. There is a need to account for these organisational processes that also affect governmental choices. Model II is based on organisation theory. The unit of analysis is organisational output based on the strength, standard operating procedures and repertoires of organisations.²⁷

- **Governmental Politics (Bureaucratic) Politics (Model III)** This model explains the governmental action based on political bargaining among the key actors in the government. The unit of analysis is a political resultant based on perceptions, motivations, positions, power and manoeuvres of the players. Explanations are done "by identifying the game in which an issue has arisen, the relevant players, and their relative power and skill".²⁸ However, there is difficulty in operationalising the general propositions in Allison's Model III because it is impossible to establish "where you stand depends on where you sit"²⁹ among the advisors. There was no clear linkage between their preferred options and their appointments, for e.g., a plausible explanation could not be found for the hawkish stand of the National Security advisor who had an academic background.³⁰ Therefore, the focus is on the theme of "game-playing". Here, I will use Garrison's conception of the strategic games that advisors play³¹ to improve upon Model III which are:
 - Manipulating who participates in the advisory process.
 - Manipulating how information is presented in the advisory process.
 - Shaping status and perceptions that influence interpersonal relationships.

Firstly, primary sources are used whenever they are available, otherwise, secondary sources will have to be used. Even primary sources based on personal accounts may be biased. This is overcome by checking against another source.

Secondly, one may argue that Allison's three models were originally meant to explain outcomes, i.e., decisions rather than the process leading to the outcome. The question has been framed to focus on the process rather than the outcome, i.e., on why the signals were confusing rather than why the signals were sent at all. If I succeed in using Allison's theory to explain processes, I would have achieved my aim of reinforcing the strength of his theory when applied to a new set of circumstances. A lesser spin-off would be to imply that the utility of Allison's theory is towards explaining processes rather than outcome which some readers may have sensed after reading his book.

Model I

The US government's goal was to maintain Iran as a strong regional ally in the Middle East. Their objective was to safeguard American interests as follows:

- A forward listening post for collecting intelligence on USSR.³²
- American business interests in Iran including arms sales.³³
- Stable oil prices³⁴ and safeguarding the access to Iranian oil fields.³⁵
- Support for US peace efforts in the Middle East.³⁶

The Shah was always supportive of Carter's policies in the Middle East. He even pre-empted Carter on the issue of human rights by announcing several political and judicial reforms to increase political freedom in Iran.³⁷ This showed the willingness of the Shah to cooperate with Carter's policies on human rights.

Using Model I theory, Carter's support for the Shah in the transition from autocratic to constitutional monarchy is expected given the American goal, objective and interests and the proven track record of the Shah. However, if Carter wanted the Shah to stay, why did he not communicate his intentions clearly and provide guidance?

A possible explanation would be to examine why the US did not respond to the unrest in Iran until the fall of 1978.³⁸ Carter was pre-occupied with other major policy initiatives such as Camp David, normalisation of relations with China and SALT negotiations.³⁹ In addition, "nobody seriously believed that the Shah could not deal adequately with the unrest".⁴⁰ Hence, there were no contingency plans if the Shah's position was

seriously threatened.⁴¹ Lastly, virtually all the intelligence reports during the spring and summer of 1978 indicated that the unrest would not pose a challenge to the Shah and he was still viable as a monarch. For example, a CIA report in August 1978 concluded that "Iran is not in a revolutionary or even pre-revolutionary situation."⁴²

The Model I analysis will have us believe that Carter was pursuing other more important goals internationally. He saw no threat to the Shah and believed that the Shah could take care of matters himself. Therefore, there was no need for him to invest too much effort in Iran. This was a rational thing to do.

Model II

In the Model I approach, the Carter administration, prioritised various goals rationally. It was possible that Iran might have slipped down the priority list, because of inaccurate intelligence reports. Thus, Carter did not pay much attention and ended up giving confused signals to the Shah. The explanation using Model I hints at the carelessness on the part of the Carter administration, but it is unable to explain this carelessness satisfactorily. Using the Model II approach, this carelessness can be accounted by looking at it as an organisation output. What caused the relaying of confused signals and the continued faith in the Shah's ability to remain as a monarch?

As organisational output is a result of the inputs received, this needs to be examined. Firstly, Washington's perception of events in Iran differed significantly from its staff in Iran.⁴³ Carter relied mainly on the CIA, which in turn was getting its intelligence from SAVAK, the Shah's feared secret police.⁴⁴ The CIA dismantled many of its operations in Iran and was relying on the SAVAK for information. Contacts between American officials, state or CIA, were disapproved of by the SAVAK. Hence, the quality of intelligence on Iran declined steadily.⁴⁵ It is reasonable to conclude that the SAVAK was deliberately painting an optimistic picture to the CIA. On the other hand, the American ambassador's pessimistic picture of Iran to Washington was largely ignored⁴⁶ despite the unrest and riots in Iran. The reason why the Carter administration chose to believe the CIA over the ambassador could be due to the fact that taking the CIA seriously was the standard practice of intelligence interpretation. When Carter realised that the quality of intelligence was suspect, he raised it with the CIA. The CIA director acknowledged the problem but said there was little he could do in the short term.⁴⁷

Secondly, there were disagreements within Carter's advisory sub-organisations regarding the signals to be sent to the Shah. The Shah had sent three proposals to Washington which were a coalition government with the Shah as the key player, a constitutional monarchy or a military crackdown on the opposition.⁴⁸ In a meeting on 28 December to discuss the Shah's proposals while the President was away at Camp David, all the three main sub-organisations initially agreed to retain the Shah (based on the optimistic picture painted by the intelligence community). But, they disagreed on his role and the form of government.⁴⁹ The various positions were:

- The State Department argued for a coalition government and took a firm opposition against a military crackdown on the opposition.⁵⁰
- The National Security Council Staff and Defense Department argued for a military government under the Shah and recommended a military crackdown on the opposition. They opposed any contacts with the opposition for a coalition government.⁵¹

Although disagreements were unavoidable, the desire for each sub-organisation to preserve and control their preferred option resulted in an impasse. Eventually, they agreed on a compromise message that was subtle enough to preserve each sub-organisation's preferred option. Carter was not presented all the policy options because he was not involved in the decision-making process. The message presented to him represented each of his sub-organisation's "desire to control rather than present choices".⁵² Hence, the resulting signal to the Shah had the effect of advising him to do whatever in his opinion was necessary to maintain order in Iran.⁵³ This was a confusing signal to the Shah as he expected more guidance and assurance.⁵⁴

Model III

Model III's focus on political resultant goes beyond Model II's limitation to pursue conflicting goals by the sub-organisations. It examines the key players and how they arrived at the confusing signal.

The key players were Carter, Cyrus Vance and Zbigniew Brzezinski. Harold Brown did not play a key role because he did not have as much access to Carter compared to Vance and Brzezinski.⁵⁵ Brzezinski was thought to be more aggressive and innovative than Vance but Vance was believed to be more skilful than Brzezinski in assessing the feasibility of policy options.⁵⁶ Carter had different expectations from both men due to their different strengths. "Carter believed he would benefit from hearing both the cautious, bureaucratic considerations of Vance and the more action-oriented and abstract considerations of Brzezinski."⁵⁷

Brzezinski was the more hawkish of the two. He was convinced of the need to maintain a pro-American regime in Iran. He established close contact with the Iranian ambassador to America, Zahedi, who sought to get American support for the Shah through Brzezinski.⁵⁸ Brzezinski was painting a more optimistic picture of the Shah to Carter and was determined to keep the Shah in power.⁵⁹ He was a strong advocate for a military clampdown on the opposition.⁶⁰ Later, he even advocated a military coup but Carter was not in favour of a military crackdown or coup.⁶¹

Brzezinski manipulated the advisory process. When Henry Precht (Department of State Desk Officer for Iran) proposed that the US remove the Shah and seek contact with Khomeini's forces for a coalition government, Brzezinski excluded Precht from SCC meetings.⁶² On 24 October, the State Department had produced a memo on how to deal with the situation in Iran. As he disagreed entirely with the memo, he shelved it permanently.⁶³ Later, he attempted to change Carter's policy subtly by calling the Shah on the telephone on 3 November and stated American support for "any actions that the Shah considered necessary",⁶⁴ thus implying a military crackdown. He also tried to encourage the Shah to crackdown on the opposition through Zahedi.⁶⁵ On the other hand, William Sullivan, the US ambassador to Iran, told the Shah that the US would not be responsible for such actions.⁶⁶ Hence, the Shah was confused by these conflicting messages.

On the other hand, Vance argued that the US could not assume responsibility for a bloodbath in Iran⁶⁷ and recommended large-scale political reforms.⁶⁸ He sought a broad-based coalition government that included forces from Khomeini's camp.⁶⁹ There was a possible move by Vance to move Carter towards his views. The Carter administration had commissioned George Ball, the former Deputy Secretary of State, as an independent consultant. Ball recommended a civilian coalition government.⁷⁰ A SCC meeting was convened on 13 December to discuss Ball's proposal. On the same day, Sullivan sent a cable recommending the same policy.⁷¹

It was plausible that the Ball episode was "a clever and sophisticated move to bring Carter around to Vance's view".⁷² Initially, everyone, including Brzezinski, liked the idea of appointing an independent consultant. Later on, Brzezinski regretted this move when he realised that Ball was a good friend of Vance's. This move eventually failed because Carter insisted upon a coalition government without Khomeini.⁷³ While Vance was telling the Shah through Sullivan to swiftly establish a civilian government,⁷⁴ Brzezinski was encouraging a military government.

Finally, to shed more light on the compromise message drafted for Carter while he was away at Camp David, we should examine how each player attempted to manipulate the information presented to Carter. At the meeting on 28 December, Brzezinski took the lead in drafting the message for Carter. He tried to ensure that the message was subtle enough to include the military option.⁷⁵ The message first stated that the US preferred a coalition government. "If there was uncertainty about the underlying orientation of such a government or its capability to govern, or if the army was in danger of being fragmented" , ⁷⁶ "then a firm military government under the Shah may be unavoidable".⁷⁷ Vance was in charge of bringing the message to Carter. At Vance's urging, Carter changed the language to ensure that the military option would not be considered.⁷⁸ Instead of "a firm military government", the message now advised "a government which would end disorder, violence and bloodshed".⁷⁹ The Shah failed to see any guidance in this message.

A Comparison

Model I's rational choice approach cannot satisfactorily explain the reasons for the Carter administration's confusing and unclear message although one can infer carelessness as to how Carter dealt with the situation in Iran. An improved explanation was obtained by using Model II's organisational output approach which focused on the misleading intelligence on Iran by the CIA and the pursuance of competing goals by different sub-organisations. The output from the Carter administration was confusing as it was a result of each sub-organisation's desire to control options rather than presenting them.

Using Model III, the most satisfactory answer was obtained by examining how the key players manipulated the advisory process to present information. Confusing messages were sent to the Shah from two different sources that were back channels of the two key players, Vance and Brzezinski. Hence, we are able to pinpoint with more precision the reasons for the confusion.

Conclusion

Carter's foreign policy failure on Iran resulted in the loss of a strong ally and the creation of an anti-American regime in Iran. Although the Iranian revolution was unavoidable, the US could have used its influence to ensure at least that a friendly regime succeeded the Shah's autocratic regime. The Carter administration's confusing and unclear signals to the Shah was the main cause of the foreign policy failure.

In conclusion, an improved version of Allison's Model III gives the most satisfactory explanation as it accurately pinpoints the source of the confusion.

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