How the Concept of Agility Decisively Impacted the Campaigns in Far East Asia during the Second World War

AGILITY INTO VICTORY

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INTRODUCTION¹

This paper will investigate how the three core concepts of command and control agility can increase the chance for a successful outcome in military operations and what elements that should be strengthen within a military organization in order to achieve an agile approach to command and control.

This paper argues the concept was framed and tested during WWII in Burma and the Far East Asia campaign and that an agile approach to command and control is highly relevant for modern military organizations wishing to improve their warfighting capabilities.

In the early 2000’s NATO and allied researchers wanted to develop a new approach to transform command and control so it could enable a military organization to operate in the complex battlespace of the Information Age. The current military must be able to act swiftly and decisively in network centric operations or network centric warfare. In order to do so researchers came up with the following thesis:

- A robustly networked force enables the widespread sharing of information and unconstrained interaction between entities.
- Widespread information sharing and collaboration in the information domain improves the quality of awareness, shared awareness, and combined with broad allocation of decision rights, it will enable a force to think and act quicker than opposing actors.
- This results in a dramatic improvement in operational effectiveness and agility.

NATO System Analysis and Studies (SAS) research group came up with the concept of Command and Control Agility (C2 agility). Command and Control Agility is a concept that formulated a series of principals that, if adapted and followed, would increase mission success.

The questions often posed to the researchers working in this area are: 1) Is the principals of command and control really new and innovating? 2) does it really matter with agility? Will it really bring success in operations?

This paper will attempt to address the questions in two parts. The first part is a case study of the battle for Malaya in 1941-42. This case shows how the outcome of the campaign was decided, not on technologic superiority or attrition, but on skill of the commanders. One side followed the principals of command and control agility (the Japanese) and the other (the British Empire) side violated the principals with grave consequences to follow. The advantage of this case is that source material from both sides can be studied which might not always be possible with more modern scenarios.

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The second part of this paper will use the British Empire Army as a case study for an organization that transform itself into a very effective force by adopting the principals of command and control agility. This study will also show how the principals of command and control agility have been in use in WWII and is based extensive experience in the field.

THE CONCEPTUAL MODEL OF C2 AGILITY

Command and control agility is based on a sociotechnical approach. Sociotechnical theory builds around the social aspects of people, society, technical aspects of organizational structure, and processes. The focus is on procedures and related knowledge. Sociotechnical theory in organizational development is an approach to complex organizational work design that recognizes the interaction between people and technology in workplaces. The term also refers to the interaction between society’s complex infrastructures and human behaviour.²

C2 agility definition:
C2 Agility is the capability to successfully effect, cope with, and/or exploit changes in circumstances. While other factors will also influence outcomes, C2 Agility enables entities to effectively and efficiently employ the resources they have in a timely manner.³

Successfully is defined as operating within acceptable bounds. This includes defining the significance of “out of bounds performance” as a function of both magnitude (how far) and duration (how long).

Change in Circumstances, includes changes to the condition of the other entities and the environment and/or to the condition of oneself. These changes are not restricted to the physical domain, but also include changes to variables in the information, cognitive, and social domains as well. Further, in this context, changes of circumstances include changes of mission, strategy, or objectives within them.

Effect implies being proactive and therefore able to bring about a change in circumstances in order to improve performance, effectiveness or efficiency.

Cope with implies dealing with one or more of the above changes in circumstances that, if not appropriately addressed, would adversely affect performance (effectiveness and efficiency).⁴

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³ NATO SAS-085 final report p. 20

⁴ NATO SAS-085 Final Report p. 54
The aim is that increased C2 Agility contributes to mission success by enabling entities to adopt more appropriate approaches to C2 for the mission and to adjust their approaches as the mission and circumstances change.

The three core elements that constitute C2 agility are the following: how decision rights are allocated, how entities interact, and how information is distributed. These form the key dimensions of an entity’s approach to C2.6

The three elements are7

1) **Allocation of Decision Rights** refers to what level of command has been entrusted with the authority and the competence to make decisions “on the ground”. It varies from none to broad.

2) **Patterns of Interaction** are defined as the ability and willingness of the various sub-units, or entities, in the organization to interact and collaborate across unit-boundaries with other relevant units and authorities. It varies from tightly constrained to unconstrained.

3) **Distribution of Information** refers to the extent the needed information is shared and made available to each participant. It varies from none to broad.

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(5) NATO SAS-085 final report p. 20-21
(6) NATO SAS-085 final report p. 38
(7) The definitions are featured on p. 199-204 NATO SAS-085 final report
In practice, these dimensions are inter-dependent as, for example, the way decision rights are allocated will have a considerable influence on the patterns of interactions and information flows.

SAS-065 developed a NATO NEC C2 Maturity Model, which was further defined by SAS-085, which defined five increasingly network-enabled approaches to Collective C2: Conflicted C2, De-Conflicted C2, Coordinated C2, Collaborative C2 and Edge C2. The five approaches were graphically located along a diagonal in a Collective’s C2 Approach. The arrow indicates the level of agility according to the theory. Each C2 Approach occupies its own region in the C2 Approach Space. These regions vary from highly centralized, stove-piped hierarchies to loosely-coupled networks. Large organizations and Collectives usually do not employ a uniform C2 Approach. In fact, commanders will give certain subordinates more degrees of freedom than others even if they have similar responsibilities.

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(8) NATO SAS-065 final report
(9) NATO SAS-085 overview p. 3-4
(10) NATO SAS-085 final report p. 41
The various C2 approaches\(^{11}\) have the following traits associated with them (roughly). A **Conflicted C2 approach** has the various units working against each other completely ignorant of what their sister units are doing. A **De-conflicted C2 approach** is where all the entities are working together in a very strict top-bottom controlled hierarchical organization. The units are working according to a strict plan and timetable. The units cannot deviate from the plan or act outside of the preset boundaries. The **Coordinated C2 approach** is where the various subordinate units are working together in a combined effort in the collective. Each command entity is organized in separate cells but they are coordinating their actions and plans across unit boundaries. The commanding officer has set several milestones to be reach. **Collaborative C2 approach** is where all the different units are working together jointly. Unit boundaries have been limited and units of all specialties and from all branches are integrated into joint cells, literally living together. There are no milestones. **Edge C2 approach** is where all entities are independently cells working together almost without a chain of command, but all cells are working towards a common goal with cooperation at an ad-hoc manner whatever it is most appropriate\(^{12}\).

Over time, entities and collectives may need to be able to successfully operate in many regions in the endeavour space\(^{13}\). There will also be times when an entity is engaged in a highly dynamic situation where the mission, and/or the circumstances will change and one's current C2 Approach will no longer be appropriate. Under both circumstances there is a need to be able to employ more than one approach to C2 to be effective and to remain effective in the endeavor space\(^{14}\).

The ideal approach an organization should have is as follows:

1. Recognizing the significance of changes in circumstances that affect the appropriateness of one's C2 Approach,
2. Understanding which C2 Approach, given the new mission and/or evolving circumstances are now more appropriate.
3. To undertake a transition, as necessary, to a more appropriate C2 Approach.\(^{15}\)

\(^{11}\) Alberts and Hayes defines the various approaches a bit different than NATO SAS-085. They have defined six approaches including Cyclic, Interventionist, Problem-Solving, Problem-Bounding, Selective Control and Control Free. Broadly speaking Cyclic and Interventionist compares to De-conflicted. Problem-Solving and Problem-Bounding compares to Coordinated. Selective Control compares to Collaborative. Control Free compares to Edge. The details of the various stages vary but the research is in general agreement on the different C2 approaches. "Power to the Edge" p. 20-26

\(^{12}\) These are short and general descriptions of the characteristics of the various C2 approaches. The characteristics are taken from a summary of the C2 approaches as they appear in the case studies of NATO SAS-085 final report p. 155-178

\(^{13}\) Also called the operational environment

\(^{14}\) NATO SAS-085 overview p. 5-6

\(^{15}\) NATO SAS-085 overview p. 6
Therefore, organizations that wish to improve their C2 Agility must monitor not only the external situation but also themselves so that they understand what adjustments in their C2 approach may be needed in order to effectively and efficiently maneuver in the C2 Approach Space. By following these conceptual guidelines, an organization should be able to identify the most suitable way to achieve a successful outcome. It is an iterative process for the organization in order to achieve maximum agility.

C2 agility enablers\(^\text{16}\): The agility enablers, sometimes called the components of agility, are defined below:

- **Flexibility** is the ability to employ multiple ways to succeed, and the capacity to move between the different ways.
- **Adaptiveness** is the ability to change work processes, and the ability to change the organization.
- **Responsiveness** is the ability to react to a change in the environment in a timely manner.
- **Versatility** is the ability to maintain effectiveness across a range of tasks, situations, and conditions.
- **Innovativeness** is the ability to do new things, and the ability to do old things in a new way.
- **Resilience** is the ability to recover from, or adjust to misfortune, damage, or a destabilizing disturbance in the environment.

The enablers\(^\text{17}\), or agility components, are interdependent on the C2 agility elements (allocation of decision rights, patterns of interaction, and sharing of information). A high degree of allocation of decision rights, unrestricted patterns of interaction and a high degree of sharing of information can be a prerequisite for achieving greater flexibility, adaptiveness, responsiveness, versatility and resilience. A high degree of agility can facilitate an organization's ability to perform with the abovementioned qualities. On the other hand, it may be necessary to innovate the command structure or to make certain elements in the force more resilient in order to achieve a higher degree of C2 agility. An organization does not have to have all enablers but an agile C2 approach will develop or enhance the agility enablers which in turn can enhance the

\(^\text{16}\) Definitions taken from NATO SAS-085 final report p. 199-205
\(^\text{17}\) Alberts and Hayes have defined the same six enablers or attributes of agility. They call versatility Robustness instead. The definition is the same. Alberts and Hayes do not discuss whether C2 agility gives the organization the agility attributes, or if it is necessary to adopt the agility enablers in order to be agile in C2. Alberts and Hayes “Power to the Edge” p. 127-159
organizations performance in operations\(^{(18)}\). There are also several ways these enablers could interact, creating synergies that enhance an entity’s agility. Innovativeness makes it possible to create new options to add to one’s toolkit; while flexibility enables entities to take full advantage of the available options. Responsiveness interacts with a number of enablers. One way to be more responsive is to anticipate changes rather than wait for an event to be detected. If one is able to do this, then the time available to mount a response increases. Time is also a factor. Having more time available may mean that some options that were not feasible because they took too much time to implement or took too much time to create effects may become feasible, increasing flexibility. More time may also provide an opportunity for increased innovativeness\(^{(19)}\). As such the enablers can be traits gained by having an agile C2 approach or they can be a facilitator to gain agility in command and control.

**THE LOSS OF MALAYA AND SINGAPORE – A CASE STUDY OF HOW THE AGILITY ADVANTAGE WAS A CENTRAL FACTOR IN THE CAMPAIGNS IN THE FAR EAST ASIA DURING WWII**

This case study will investigate how the concept of C2 agility on the battlespace decisively affected the course of the war in Far East Asia during the Second World War. The Malaya ’41-42 case has been selected because it shows how the three basic components of the agility concept (distribution of information, patterns of interaction and allocation of decision rights) are being exercised extensively by the Japanese Imperial Army, while it was neglected by the British Commonwealth Force in the early part of the war. This study will argue that the failure to be agile for the British Commonwealth Force\(^{(20)}\) against the very agile Japanese forces resulted in the dramatic result on the 15\(^{th}\) of February 1942 with the fall of Singapore.

Cases from WWII may seem a little old to pick at first. However the purpose is to illustrate the core principles of the command and control agility theory as used in a real world case where command and control was central in tipping the balance between success and failure during the campaign. The case of Burma is also remarkable because it is the oldest case where the core principals of agility are described by a contemporary practician.

The case of Burma ’44 will investigate how the changes by the British Commonwealth Force generated greater agility on the battlespace which in turn resulted in an improved fighting capability in 1944-45.

The WWII campaigns of Malaya, Singapore and Burma were won and lost, in great part, due to skill in planning and skill in the tactical engagements. Factors like technological superior-

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(18) NATO SAS-085 final report p. 55-61 and David Alberts ”The Agility Advantage” Chapter 14 p. 203-204.

(19) NATO SAS-085 Final Report p. 61

(20) British Commonwealth Force covers the UK British, Indian, Gurkha and Australian units.
ity, overwhelming logistical superiority or attrition were less decisively in this campaign as in the other campaigns in WWII.

The sources available include post-operational analysis by both British and Japanese sources, as well as first-hand accounts from relevant perspectives of both sides. The completeness of the sources make it possible to do a throughout investigation of the command and control of both sides, something that might not possible with more modern cases.

This case study will contribute to a growing range of case studies that will attempt to illustrate the advantage an organization can achieve when adopting the concept of agility.

The events are presented in historical sequence to give the reader an impression of how the campaign in Malaya progressed.

Each historical action will include a narrative which will focus on how the principles of command and control agility were imperative for the outcome of the action. The actions at Jitra and Gurun have been highlighted in detail as a vignette in order to show the extent at which command and control agility was essential for many of the tactical decisions and the outcome for both sides. The actions were one of the decisive engagements in the Malaya campaign.

The Loss of Northern Malaya 8th-15th December 1941

The loss of Northern Malaya was a critical point in the campaign for Malaya and Singapore. It highlighted the deficiencies of the British Imperial command and control against the efficient Japanese command and control. The main British Imperial fighting force, the 3rd Indian Corps (consisting of 11th Indian Division and the 9th Indian Division) was severely battered. The British lost the operational initiative and never regained it. The majority of the study will be centered on the actions at Jitra and Gurun in the period of 8th-15th December.

Prelude to the Invasion of Malaya:
The British plan for defense of Malaya and Singapore was based on the naval task force (Force Z) stationed in Singapore. The Battlecruisers HMS Repulse and HMS Prince of Wales were tasked to meet and engage a hostile invasion fleet approaching Singapore. Force Z would be supported by aircrafts from various airfields in Northern Malaya. On the 10th of December 1941 reconnaissance aircraft spotted the Japanese invasion fleet heading towards Northern Malaya and Siam (Thailand). The order was given for Force Z to engage the Japanese fleet but the Royal Air Force and Royal Australian Air Force could not keep up with Force Z due to obsolete aircrafts with a poor range. Force Z steamed ahead with no air cover. The British fleet commanders (Admiral Phillips and Captain Tennent) did not worry about air cover because they assumed the Japanese air force operating from French Indo-China (Vietnam) could not reach Force Z. Their assumption was incorrect and around 98 Japanese dive bombers ambushed
Force Z\textsuperscript{21}. Both battlecruisers sunk and Force Z suffered heavy losses. The defense of Malaya and Singapore depended now entirely of the ground forces. Force Z was defeated due to lack of air cover because there was no interaction between the fleet and air force. The Japanese exploited this weakness by attacking the fleet and air force separately\textsuperscript{22}.

**Operation Matador:** The purpose of Operation Matador was for the 11\textsuperscript{th} Indian Division to advance into neutral Siam (Thailand) and occupy favorable defensive positions. Potential landing points were identified on the east coast of Siam and British planners believed that it was more advantageous to stop a hostile landing force closer to the landing areas. Furthermore the terrain in Northern Malaya was not well suited for a defensive operation by the ground forces. It was necessary to initiate Operation Matador 24 hours prior to a hostile landing if the troops were to have sufficient time to prepare defensive positions. The tactical commander responsible for the action was Major-General Murray-Lyon CO 11\textsuperscript{th} Indian Division, however due to the political controversial decision to violate a neutral country, the go-ahead had to be giving from London and Commander-in-Chief (CinC) of British Far East Command Air Chief Marshal Robert Brooke-Popham to General Officer Commanding Malaya and Singapore Arthur Percival to Lieutenant-General Lewis Heath CO III Indian Corps and further down the chain of command to Major-General David Murray-Lyon\textsuperscript{23}. All allocation of decisions rights were removed from the key commanders. The units who had to enact Operation Matador had no decision rights and were forced to stand idle. In the event the permission for initiating Operation Matador came far too late and the plan had to be abandoned\textsuperscript{24}.

**ACTION AT JITRA AND GURUN - MALAYA 1941**

Late on the 8\textsuperscript{th} of December Generals Percival and Heath decided that 11\textsuperscript{th} Indian Div. would occupy a defensive position at Jitra while an ad-hoc force, mostly of elements from the 3/16\textsuperscript{th} Punjab Infantry battalion, would be sent into Siam on a rear guard mission. The force engaged the lead elements of the Japanese 5\textsuperscript{th} Div. at two points in Siam. The Punjabis skirmished with the recon elements of the 11\textsuperscript{th}, 41\textsuperscript{st} and 42\textsuperscript{nd} Japanese Infantry Regiments. Japanese tanks and truck-borne infantry quickly outflanked the blocking positions and the Punjabis had to retire\textsuperscript{25}.

\textsuperscript{21} Peter Thompson “The Battle for Singapore” p. 188-189 Most of the RAF and RAAF were lost while attacking the Japanese landing force at Kota Bahru.


\textsuperscript{23} Major-General S. Woodburn Kirby ”The War Against Japan. The Loss of Singapore” Crown Copyright 1957, P. 173-175

\textsuperscript{24} Peter Thompson ”The Battle for Singapore” p. 182 – General Heath was furious that the decision rights to initiate Matador was out of his hands. He blamed General Percival for the indecisive period.

\textsuperscript{25} Colin Smith "Singapore Burning" P. 232-233
The British Perspective
The Plan of Defense

Maj. Gen. Murray-Lyon's plan for the defense of Jitra:

1st Leicester (four companies) stationed west of Jitra town and on the main road

2nd East Surrey (four companies) covering the west flank of the 1st Leicester. The East Surrey covered a large open area of rice paddies and wetland.

Two companies of 2/16th Punjab covered the west flank of the East Surrey and extended their position from Alor Star airfield down to the coast.

To the east of the 1st Leicester, covering the east of Jitra and the main road, was stationed the 2/9th Jats (four companies). The Jats also covered a large area with rice paddies, rubber plantation and scattered bushes.

Behind the main line (south) was 2/2nd Gurkha (four companies) and 1 company from the 1/8th Punjab. Two companies of 2/16th Punjab covered a rear support position at the town of Kelubi.

Ahead of the defense position (north of Jitra) the 2/1st Gurkha defended Asun and the 1/4th Punjab deployed at Changlum. Both battalions, at four companies each, were acting in a rear guard role. Their task was to hit and delay the Japanese advance guard and then pull back behind the main line of resistance at Jitra.

Early on the 10th December the 1/14th Punjab ambushed the leading elements of Colonel Saeki's detachment (including 5th Reconnaissance regiment and II/41st Battalion together with a light mountain artillery battery, a tank company and an engineer platoon in support). The ambush went reasonable well for the Punjabis. The British commander wanted to fall back towards Asun but Maj. Gen. Murray-Lyon wanted another ambush north of Asun. On the morning of the 11th December disaster struck the Punjabis as they were caught completely unprepared in the town of Nangka by a company of Japanese tanks. The Punjabis were overwhelmed and disintegrated. The extremely aggressive Colonel Saeki drove on and overwhelmed the Gurkha battalion. Later on the evening the 11th December the Japanese arrived at the main line of resistance at Jitra. The initial probing attack, along the main road by Colonel Saeki's detachment, was halted by elements of the 1st Leicester with anti-tank guns.

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(27) See page 29 for map
(29) Colonel Masanobu Tsuji "Japan's Greatest Victory" p. 72, the officer in charge, Colonel Saeki was allocated with full decision rights to continue the attack on his own initiative.
The 11th Division was in dire straits. The loss of 2 battalions at such an early stage of the campaign was a severe blow to the moral, and it affected the tactical capabilities of the division. Maj-Gen Murray-Lyon had to allocate elements from the division-reserve 28th Gurkha Brigade to 15th Brigade (east side of Jitra) in order to provide it with a reserve. The remaining of the 28th Brigade had to guard Alor Star, a RAF airfield. Gen. Murray-Lyon had no divisional reserve when the Japanese attacked.31

There were a number of issues with the British Commonwealth defensive positions. The individual companies had too large an area to cover. It was not physically possible to influence all of the terrain assigned to the individual units. Due to the above factors, the pattern of interaction was extremely constrained because it was not physically possible for the units to interact with each other. Communications was limited to runners/couriers and the field telephones were made unreliable by the wet ground.

Due to the British doctrine that dictated defensive operations to be conducted in a series of defensive lines (it was based on WWI experience) the commanders of the companies and battalions had very little opportunity to take important decisions on the ground. They were physically removed from the action and with the current communication means they had no chance to interact. The allocation of decision rights was limited at the top level.

The distribution of information was confused and disordered for the British command. Bad radio and telephone communications, a shortage of liaison officers and the sheer time it took to get around northern Malaya in wet weather often made it impossible to check-out dismal tidings at the sharp end. During the night between the 11th and 12th Japanese patrols probed the front of the 6th Brigade (east of Jitra). Japanese sniped at the forward positions and simulated an attack with mortar fire. Inaccurate reports came back to 15th Brigade HQ that Japanese infantry had infiltrated the right flank. Brigadier Carpendale (CO 15th Brigade) and Brigadier Lay (CO 6th Brigade) decided to deploy their brigade reserves to counter this imaginary threat. It is a good example of unit interaction resulting in swift action, but the action was based on inaccurate and false information begin shared32. It had grave results for the British position.

Colonel Tsuji had analyzed the terrain and planned a concentrated attack along a narrow front. He deployed a detachment (ad-hoc formations of battalion size) along the road. He would then rotate the detachments when they became tired. This tactic required a high level of interaction between the various detachments in order to maintain momentum33.

(33) Colonel Masanobu Tsuji “Japan’s Greatest Victory” p. 39
The Attack Goes In. The Tactical Perspective:

Colonel Saeki’s detachment reached the Jitra line on the night between 11th and 12th December. Lieutenant Oto, commander of the forward platoon, had made a personal reconnaissance and thought that the Jitra line was thinly held. He believed that an assault along the main road would break the British lines. There was no time to wait for the main force; the attack should go in at once in order to achieve surprise and momentum. Information was shared with the officers at front\textsuperscript{34} and Colonels Saeki and Tsuji allocated Lieutenant Oto with full decision rights to do what he judge to be best. Lieutenant Oto was right that an assault down the main road would break the British position but his unit ran into the 1st Leicester who held their ground\textsuperscript{35}. Despite that the night attack did not break the British line, the incident illustrates the Japanese approach. Allocation of decision rights was broad and commanders at the point of contact could make the necessary decisions\textsuperscript{36}.

On the 12th of December the second attack of Colonel Saeki’s detachment went in. They succeeded in driving a wedge between 2/9th Jats and the 1st Leicester by using Infantry and tanks supported by mortars and light guns. Colonel Saeki intended to cut open the main road running through Jitra. The right flank of the 1st Leicester and the left flank of the Jats were now exposed to a flank attack. Gen. Murray-Lyon decided to rearrange the line in order to plug the gap. The regrouping happened under much difficulty because unconfirmed and false rumors of Japanese infiltration were shared. Gen. Murray-Lyon feared that his lines of communications would be cut and his flanks threatened. He had no reserves and the moral of the troops was very low. He did not expect his troops to repel a new Japanese attack the following day. On the 13th December Gen. Murray-Lyon decided to break contact and pull 11th Division back to a new defensive position at Gurun. General Heath (CO III Indian Corps) wanted to give up the entire Northern Malaya but General Percival vetoed the decision because he thought such a large loss of territory at this early stage of the campaign would be a severe blow to the moral\textsuperscript{37, 38}.

Japanese reconnaissance quickly discovered the British withdrawal. The information was quickly and accurately distributed to the forward units and the decision was made to rapidly pursue the British in order to increase the momentum of the attack\textsuperscript{39}.

Action at Gurun

The next stand was at Gurun. The defensive plan for Gurun was as follows\textsuperscript{40}:

\textsuperscript{34} Made much easier because the officers were present at the front of the attack.
\textsuperscript{35} Colonel Masanobu Tsuji “Japan’s Greatest Victory” p. 99 The young Lieutenant became wounded in the fighting and would die from his wounds.
\textsuperscript{36} Colin Smith “Singapore Burning” p. 242
\textsuperscript{38} Peter Thompson “The Battle for Singapore” p. 228-229
\textsuperscript{39} Colonel Masanobu Tsuji “Japan’s Greatest Victory” p. 102
\textsuperscript{40} Maj-Gen. Kirby “The War Against Japan: The Loss of Singapore” map 10
The main road ran from the north to the south through the town of Gurun. The area around Gurun was mostly rubber plantation, rice fields and some primary jungle.

West of the main road was the 2nd East Surrey

Covering the west flank was the understrength 1/8th Punjab plus one company of the 2nd East Surrey.

Covering the road was the severely disorganized 2/16th Punjab. East of the main road was the 2/9th Gurkha. Covering their east flank was the 2/1st Gurkha and covering their east flank was the 2/2nd Gurkha.

In reserve was the extremely tired and disorganized 15th Brigade

Like at Jitra the British defensive operation was conducted according to current doctrine by using defensive lines.

The Tactical Action

The regrouping around Gurun was much disorganized due to orders going astray. The sharing of information was very limited in 6th Brigade. The work started late and the troops were weary and hungry. There was very little time to prepare the defense because the Japanese advanced far more quickly than had been expected.

The Okabe detachment from the 21st Infantry Regiment spearheaded the next Japanese assault. Colonels Tsuji and Okabe decided to push down the road the next day, with infantry and tanks, in an effort to split the British Commonwealth defensive line in two. The two officers decided that it was better to attack now without divisional support (which was still well to the rear with the field artillery not yet ready) than to wait and risk the British and Indian troops could dig in. The Japanese leadership displayed a high level of unit interaction and broad allocation of decision rights. The Saeki detachment, tired from the previous days fighting, was quickly relived by the fresh Okabe detachment ready without loss of momentum\(^{41}\). The decision to push was not taken by Division or Army commanders but by the leading officers at the point of action\(^{42}\).

When the attack came on the 14th December, it fell on the 1/8th Punjab. The Infantry from Colonel Okabe’s detachment broke through the Punjabi positions, infiltrated the 2nd East Surrey position and overran battalion HQ of the East Surrey. Brigadier Lay (CO 6th Brigade)

\(^{41}\) In tactical military operations it requires a high level of cooperation to replace a forward unit without loss of momentum. The Japanese vanguard achieved this very efficiently. Colonel Masanobu Tsuji “Japan’s Greatest Victory” p. 109-110

\(^{42}\) Colin Smith “Singapore Burning” p. 254-255
organized an ad-hoc force and counter-attacked. Against the odds, the force halted the Japanese attack for the day\textsuperscript{43}.

After the 14\textsuperscript{th} December, which had seen heavy fighting with considerable casualties, a commanders’ conference took place between General Heath (CO III Indian Corps) and General Percival (CO UK ground forces Malaya and Singapore). Gen. Heath had seen the 11\textsuperscript{th} Division and had come to the conclusion that the division must retreat a long bound southwards in order to regroup and prepare proper defensive positions in depth along the road (main axis of the Japanese attack) and not in the linear formations. General Percival refused the request and stated clearly that III Corps was not to withdraw further south without his permission to do so. \textbf{The decision rights} of the senior tactical commanders (Generals Murray-Lyon and Heath) were taken away from them and as a result the 11\textsuperscript{th} division was exposed at the unfavorable position at Gurun\textsuperscript{44}.

At the front, the commander of the 1/8\textsuperscript{th} Punjab decided to withdraw because he feared the battalion would be isolated. Had there been a \textit{distribution of accurate information} between the 2\textsuperscript{nd} East Surrey, 1/8\textsuperscript{th} Punjab and 6\textsuperscript{th} Brigade HQ, the CO 1/8\textsuperscript{th} Punjab would have discovered that his battalion position was not as dangerous as he thought. The retreat happened without any coordination with Brigade HQ or the other battalions. Due to his \textit{lack of interaction between the units} there was a dangerous gap in the line by this sudden withdraw. Because of the poor condition of the troops and the position, it was decided to pull back from Gurun and abandon northern Malaya\textsuperscript{45,46}.

\textbf{Conclusion on the Actions at Jitra and Gurun}

There were a number of factors that contributed to the outcome of the fighting for northern Malaya. Many of the Indian battalions consisted of the most inexperienced troops available because the best troops had been shipped to the Middle East against the Germans. Most of the Indian soldiers were teenagers and only partial trained\textsuperscript{47}. On the other side the Japanese were veteran troops from China and they were supported by tanks and airplanes. Contemporary accounts do not credit the air support as a deciding factor in any of the engagements in Malaya\textsuperscript{48}. Tanks supported by veteran infantry who attacked, using infiltration and encirclement tactics, proved to be a formidable opponent for the Commonwealth troops. However the British artillery was very effective, both in terms of skill and quality, and the more experi-

\begin{itemize}
  \item \textsuperscript{43} Colin Smith "Singapore Burning" P. 254-255
  \item \textsuperscript{44} Maj-Gen. Kirby "The War Against Japan: The Loss of Singapore" p. 215-216
  \item \textsuperscript{45} Colin Smith "Singapore Burning" p. 256
  \item \textsuperscript{46} Maj-Gen. Kirby "The War Against Japan: The Loss of Singapore" p. 216-217
  \item \textsuperscript{47} This problem seems to be found only in the Indian battalions and the Australian reinforcement. The Indian Army had a force in North Africa with an extremely good reputation. In order to keep up their performance, other Indian formations were milked of the best officers and men
  \item \textsuperscript{48} Peter Thompson "The Battle for Singapore" p. 231 and contemporary comments from Generals Heath and Percival.
\end{itemize}
enced battalions, like the 1st Leicester, 2nd Argyll and Sunderland Highlanders, 2/9th Gurkha, the combined Sikh-Punjab battalion at Kampar and the Australian brigades, fought several successful engagements with the Japanese\(^49\). The causes for the British Commonwealth defeat shall be found elsewhere.

**The lack of interaction** between the battalions became an issue with each Japanese breakthrough of the lines. Due to the linear defensive positions the battalions could not effectively counter a Japanese attack. Once the Japanese attacked, the unengaged battalions were sitting isolated in their slit trenches while the Japanese could concentrate all their efforts at a single point. The entire division became vulnerable to flank attacks and had to retire because a single battalion was infiltrated and had to pull back. Poor communication means (lack of radios, waterlogged country not good for telephone lines and few good roads) also contributed to the lack of interaction.

The lack of sharing accurate information caused the British commanders too late to appreciate the Japanese tactical procedures (advancing by concentrating on the main road). General Murray-Lyon recommended deploying his division in depth to avoid defeat in detail at Gurun, but it was too late at the time. No clear evidence exists on why the British commanders did not adopt this new approach later in the campaign. **A lack of distribution of information and a lack of decision rights** can be a possible explanation\(^50\).

A **lack of allocation of decision rights** is evident at two different levels. At a tactical level the unit commanders did not have many opportunities to make decisions due to the linear positions. Commanders could not communicate clearly with each other and many units were physical removed from the point of action. At the top level General Percival (stationed in Singapore) limited the decision rights of Generals Heath and Murray-Lyon (stationed in northern Malaya) both close to the point of action. As a result an inappropriate decision to hold in northern Malaya, when a withdrawal was advocated by the commanders at the front, was enforced by Gen. Percival.

The British Commonwealth force had lost the first major land and sea battle. A failure to appreciate the value of an agile command and control approach in the battlespace caused a defeat in detail by the Japanese force.

The Japanese operation was very successful. At the operational level, the Japanese Army and Navy created a joint planning group and executed the plan with **unrestricted interaction**

\(^49\) There are many examples of British and Empire troops engaging the Japanese successfully and stopping both infantry and tanks. The tactical engagements are described in detail in the several of the source material cited in this work.

between the services. This played an important part in initial stages of the operation\(^5\). During the land operations an unrestricted pattern of interaction and very broad allocation of decision rights ensured tactical success. It should be mentioned that the Japanese did not deploy very large formations at a time and these formations were concentrated in a relative small area. This eases considerably the practical issues of implementing the three core elements of command and control agility.

**THE FALL OF MALAYA – ACTION AT KAMPAR, SLIM RIVER AND JOHORE**

The next stand was conducted at Kampar. The area was more open country including an open tin mining area. The positions had a large jungle-clad hill as their back and the open country to the front. It was properly the best place to stop the Japanese advance. On New Year’s Day 1942 the Japanese regiments 41 and 42 attacked the Kampara position. The British and Indian troops held their positions and repulsed several attacks. The Japanese infiltrated elements of the 11th infantry regiment and 4th Guards regiment down by the coast. Fearing the lines of communication might get cut General Percival decided to withdraw\(^6\) (properly immaturely).

At Slim river the Japanese Colonel Ando with one tank company, one infantry battalion and air support attacked, and penetrated, the lines of the 11th Division. General Yamashita had *given full decision competence* to Colonel Ando and Major Shimada to spearhead the attack. They had the authority to make any decision necessary for the plan of the attack. It was Major Shimada who decided on a night attack with tanks, unheard of at the time, which caused complete surprise. The small size of the force made it very mobile and it was *easy to share the information among the units and cooperate* between the fire support role and the maneuver roll. It was necessary to know when to push against collapsing resistance and when to outflank stubborn resistance. It is acknowledge that the Japanese also had luck on their side. The result was the route of the entire 11th Indian Division from Slim River. Central Malaya was lost\(^7\).

The state of Johore in southern Malaya was selected as the final stand. The defensive operations would be carried out by the 8th Australian Division. The Australians managed to ambush the lead Japanese units. The Japanese Imperial Guard outflanked the Australian position and attacked the totally unprepared and inexperience 45th Indian Brigade. The Australians discovered the dangers from the open flank too late to react and had to pull out in order to avoid encirclement. On the 31\(^{st}\) January 1942 Malaya was abandoned\(^8\).

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\(^{5}\) Colonel Masanobu Tsuji "Japan's Greatest Victory" p. 46-48


\(^{7}\) Maj.-Gen. Kirby "The War Against Japan: The Loss of Singapore" map 16 and p. 274-282

\(^{8}\) Maj.-Gen- Kirby "The War Against Japan: The Loss of Singapore" p. 342-346
The End – Fall of Singapore
The use of Singapore as a naval station was no longer practical after the loss of Malaya. Still the British Commonwealth forces prepared to defend Singapore. The Japanese troops landed and slowly pushed back the defenders. In the process the vital water reservoir was damaged. On the 15th of February General Percival and General Yamashita had a meeting to discuss the surrender of the British Commonwealth force. General Percival agreed to surrender and issued the last communique:

“Owing to losses from enemy action, water, petrol, food and ammunition practically finished. Unable therefore to continue the fight any longer. All ranks have done their best and grateful for your help”\(^\text{55}\)

Singapore had fallen.

The Transformation:
1942 ended desperately for the British Empire. Malaya, Singapore and most of Burma were lost to the Japanese advance. It was clear that an urgent reorganization and retraining of the Commonwealth Force was necessary in order to survive. 1943 ended with the first battle of Arakan. The performance of the Commonwealth Force was disappointing and it would take a considerable effort to develop effective fighting skills. By 1944 the British leaders had developed new operational concepts and fighting methods that secured a Commonwealth victory in the second battle in the Arakan, the siege of Imphal and the battle at Kohima\(^\text{56}\). By 1945 the Commonwealth Army launched a major offensive, crossed the Irrawaddy River, and reconquered Burma.

IMPLEMENTING THE AGILITY CONCEPTS AT THE TACTICAL AND OPERATIONAL LEVEL
The transformation started at the lowest tactical level with the individual soldier, and went up to the operational level at 14th Army Headquarters. At tactical level, all soldiers had to pass through jungle courses held in various camps and training centers in India. The purpose was to teach survival in tropical conditions (it gave resilience to the individual soldier and made the tactical units adapt to the new terrain in Burma), Infantry tactic courses in close terrain (it gave the infantry tactical flexibility towards a tactical problem)\(^\text{57}\) and exercises in all arms cooperation at battalion and brigade level. These exercises made the units adapt to the new kind of terrain and enemy they would likely encounter in Burma\(^\text{58}\).

\(^\text{55}\) Maj.-Gen- Kirby "The War Against Japan: The Loss of Singapore" p. 441
\(^\text{58}\) The training in the UK was more focused on mechanized warfare in Europe.
Junior leaders and individual soldiers trained battle drills. It was standard tactical maneuvers known to all soldiers. The purpose was to give all units broader decision rights, decentralize command decisions and limit the chain of command\(^{59}\). The battle drills also quicken small units\(^{60}\) response time when confronted by a sudden enemy action because the standard drill could quickly be carried out under any condition.

The training centers ensured standardization across all units in India. It also ensured that the latest information about the terrain, battlefield conditions and the enemy was distributed throughout the entire army\(^{61}\).

**The Box Concept:**
The vast increase in training (both quantity and quality) improved the tactical level. However, it was a new operational concept that ensured innovation on the battlespace for the British Commonwealth forces. The innovating concept was the defensive box\(^{62}\). The box concept was a departure from the traditional thinking of conduction operations in line.

To quote the official publication MTP no. 9:

“Our boxes will, therefore, be placed astride the enemy’s lines of approach. They must be made as strong as possible artificially with wire, mines, booby traps, automatic fire, etc. – in order to economize the men. They must be in depth along the lines of communication so that if the enemy by-passes the first he will bump into the second and so on, and so that he can be squeezed between them by counter attack from each side.”\(^{63}\)

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\(^{59}\) Alan Jeffreys “The British Army in the Far East 1941-45” Osprey publishing p. 60 + 71

\(^{60}\) Defined as section, platoon, company and to a certain extent also battalion.


\(^{62}\) General William Slim and Lt. Gen. Sir Philip Christison analyzed the Japanese doctrine and anticipated a Japanese outflanking and encirclement of a defensive position. Instead of retreating the troops would stand fast and go into an all-around defense supplied from the air. The concept was first tried – with some trial and error in the Arakan with the 7th Indian division going into a box defense in response to a Japanese offensive. Field Marshal Viscount Slim “Defeat into Victory” (1956) Pan Books 1999 edition, p. 233.

\(^{63}\) Military Training Pamphlet (India) No. 9 Jungle Warfare 3rd edition, August 1942, p. 26. A similar concept was also used in North Africa against the Germans.
The box involved a brigade or battalion formation forming a compact square-like formation with the fighting units at front and supporting units in the center. It would contain units form all arms in an integrated entity. The box could fight a defensive battle at 360 degrees with no open flank and send out aggressive patrols and counter attacks. The whole box would be resupplied by American-made Dakotas dropping bags of supplies. The compact formation allowed good communication and sharing of information between the units. An unrestricted interaction was practiced between the ground force and the air force (regarding air supply, air reconnaissance, and close air support). Infantry, artillery, engineer, tanks and air support worked together in smaller formations so they could be tactical flexible, adaptive and versatile.

Gone were the rigid lines, long road-dependent transport and the cumbersome chain of command from Jitra, 1941. The defensive box forced the Japanese to commit their forces to against the box. This tied down their resources and restricted their freedom of movement. It was resource heavy to eliminate a force in a defensive box and it was a constant threat to the Japanese lines of communication. The Japanese could not afford to bypass the box because the box would send out patrols and counter attack the Japanese rear and cut the lines of communication. At Arakan, Imphal and Kohima the box concept withstood all Japanese attempts to eliminate them. The Japanese had lost their ability to maneuver and to infiltrate weak and vulnerable points in the Commonwealth defensive lines. Now the British could hit the Japanese supply lines as the Japanese became increasingly more dependent on these in order to bring up resources to attack the boxes. The innovative infiltration tactic, which had worked effectively in Malaya '41-'42, was now ineffective. The tactic, which was the Japanese strength

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(64) It was recognized from the Malaya-Burma campaign of 1941-1942 that command and control provided with several issues. At first every soldier, squad, section and platoon had to be able to act on their own initiative (allocations of decision rights) and be able to cooperate with sister units (patterns of interaction). The key was to defend the lines of communication (roads). For that job the conventional linear formations were inadequate. The enemy's command and control could be attacked by laying ambushes along the road or by infiltration around in the forest/jungle and attack the road at the vulnerable points. During Arakan, Imphal and Kohima 1944 the defense boxes were a constant threat to the Japanese lines of communication. The Japanese could not continue their advance without clearing of the defensive boxes. The British-Indian troops in the boxes did not need roads because they were supplied by the air force. The concept of resupply by air was a battlefield innovation that contributed to the defeat of the Japanese in 1944-45. T. R. Moreman "The Jungle. The Japanese and The British Commonwealth Armies at War 1941-45" p. 14-15 + 99


(66) Air resupply worked very well and to a large extent it freed the Commonwealth armies of their tie to motor vehicles and roads. Field Marshal Viscount Slim "Defeat Into Victory" p. 242-243 and p. 544.


(68) As an example the box defense in the Arakan exposed the lines of communication of the Japanese attack force. As the Japanese brought up supplies and reinforcement they were ambushed at the roads and waterways by ambush patrols, commando raids, and air raids. Field Marshal Viscount Slim "Defeat Into Victory" p. 240-241.
in Malaya, had become their weakness and the Commonwealth forces forced the Japanese into a protracted engagement. The Japanese could not afford this type of combat because they lacked the firepower and the logistics for sustained operations. The Japanese agility had been targeted by a counter tactic and turned into a weakness which the Commonwealth forces could attack and defeat.

Learning from the defeats in the early war, the British commanders changed their way of command and control, so they became more agile on the battlespace69. This in turn enabled the Commonwealth Force to conduct operations well suited for the operational environment, which resulted in success in 1945.

**THE SECOND ARAKAN CAMPAIGN – AN EXAMPLE OF THE ROLE OF AGILITY IN MILITARY OPERATIONS**

On the 9th of January 1944 the 2nd Arakan Campaign started. The Japanese launched an offensive with their 55th Division supported by various specialist units, artillery and the Indian National Army70. The whole force was divided into three groups with the ambitious object to destroy the British-Indian 5th and 7th Divisions, and open the way for a Japanese advance into the plains of Bengal and India. The Japanese tactic was flanking and encirclement like in Malaya. They anticipated that the British-Indian Divisions would retreat once they were in danger of being surrounded.

The British-Indian 7th Division, under the command of Major-General Frank Messervy, was at an exposed position. The Japanese quickly outflanked and infiltrated the Division. Despite of intense Japanese attacks, the 7th Division managed to conduct two counterattacks which gave the Division time to regroup and reorganize. The 7th Division did not retreat as the Japanese expected, but according to orders given for such a situation, dug in for all-around defense in defensive boxes. Each Brigade formed its own defensive box (Divisional Headquarters and administrative units, 33rd, 89th, 114th Indian Brigade and 9th Brigade from 5th Indian Division). Each box was able to give mutual support and cover to each other. The defending troops prepared to harass and attack Japanese supply lines and lines of communication. The position of the 7th Division, and elements of the 5th Division, was of a rough rectangle some seven miles wide and four miles deep. The location was between the Ngakyedauk Chaung pass and Buthidaung71. The entire 7th Division would be supplied from the Royal Air Force72.

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(69) An interesting additional benefit of improving the organization is the soldier will see that the organization, to which he belongs, is striving to attain the objectives in the most effective manner possible. This can raise the moral considerably. Field Marshal Viscount Slim “Defeat into Victory” p. 182

(70) Indian soldiers, from the fall of Malaya and Singapore, who had joined the Japanese army in their own formation.

(71) Major-General S. Woodburn Kirby The War against Japan “The Decisive Battles” P. 143

(72) Field Marshal Viscount Slim “Defeat Into Victory” P. 237 -241
The forming of the defensive boxes happened according to General Slim’s plan. In a theater where troops were few and the country was vast, lines of defence could always be turned as had happened in Malaya. The boxes would be placed at tactically important terrain to cover areas which the enemy would be forced to attack to open up a line of communication for his own advance. Mobile forces from the boxes would seek out and destroy the enemy forces along his vulnerable lines of communication\(^\text{73}\).

The Japanese knew they had to defeat 7th Division because otherwise their own lines of communication would be exposed and vulnerable. The fighting was extremely intense, and particular the box containing the administrative units came under repeated attacks. The Admin Box, as it became known, was reinforced by British infantry, tanks, and Gurkha infantry. The operation was conducted as a mobile defensive operation supported by offensive operations. The final Japanese assault came on the 14th February. The Admin Box held and it was relived on the 27th February. The Japanese operation failed with very heavy casualties and without achieving any objectives\(^\text{74}\).

When the Japanese advance has halted, the British-Indian XV Corps attacked and cleared the tactical important Ngakyedauk Pass. The outcome of the 2nd Battle of the Arakan was psychologically of immense value. It showed that there was an answer to the Japanese infiltration and enveloping tactics which had been so invariably successful. The outcome raised the confidence in Britain and India, that the Army in India had the ability to defeat the Army of Japan in the South-East theatre of war\(^\text{75}\).

RELEVANCE FOR MODERN OPERATIONS

In what way can the events in the green jungles and flooded rice paddies in the 1940’s be relevant for a modern operation?

Today’s western armies are, on many areas, different than the British Commonwealth army in the 1940’s, the terrain might be (or might not be) different and the opponent of today is certainly very different from the Japanese Army of the 1940’s.

Nevertheless the operations in South East Asia had many similarities with the military operations of today.

- Units are operating over a large area of difficult terrain with limited resources.
- The opponents were using a (relative to the period) unexpected and innovative tactic.
- The outcome will depend on skill and not on attrition or superior technologic.

\(^{73}\) Major-General S. Woodburn Kirby *The War Against Japan “The Decisive Battles”* p. 127
\(^{74}\) Alan Jeffreys “The British Army in the Far East 1941-54” Osprey Publishing p.31-35
\(^{75}\) Major-General S. Woodburn Kirby *The War Against Japan “The Decisive Battles”* p. 150-152
Field Marshal Slim described, in his own words, the principals behind agility as the essential for conducting military operations in small wars with dispersed fighting.

The ability to work in joint operations is critical. In Burma, operational air transport and air supply was vital for the successful conduct of the land operations\(^\text{(76)}\). This ability is just as important (if not more so) in modern military operations where there are several branches in the field including Land, Sea, Air, Special Forces, host nation, other non-military organizations and non-governmental organizations. It requires mutual confidence and understanding of each component. In all operations each component commander must not only be in close touch, they must live together\(^\text{(77)}\). This joint relationship creates **unconstrained patterns of interaction** and facilitates a **broad sharing of information** at both the operational level and at the tactical level. This allows a collaborative approach to command and control which, empirical evidence have shown, was a prerequisite for success.

In Burma the operational conditions required a broad allocation of decision rights to the unit commanders. Divisions and corps commanders in Burma had the same decision competence as corps and army commanders had in the Mediterranean or North West Europe theater of operations\(^\text{(78)}\).

Field Marshal Slim writes "Commanders at all levels had to act more on their own; they were given greater latitude to work out their own plans to achieve what they knew was the Army Commander's intention. In time they developed to a marked degree a flexibility of mind and a firmness of decision that enabled them to act swiftly to take advantage of sudden information or changing circumstances without reference to their superiors.... Acting without orders, or acting without waiting for approval for orders, yet always within the commander's overall intention, must become second nature in any form of warfare where formations do not fight closely en cadre. This principal must go down to the smallest units. It requires in the higher command a corresponding flexibility of mind, confidence in its subordinates, and the power to make its intentions clear right through the force\(^\text{(79)}\)."

In short a **broad level of decision rights** and **unrestricted interaction between the units** are essential for the conduct of operations. But these decisions must be made on a well-informed basis therefore **sharing for accurate information** is equally important\(^\text{(80)}\).

A contemporary study of agility in counter insurgent operations in Afghanistan was conducted by William Mitchell. Mr. Mitchell explores how a change in the organizational structure, from

\(^{(76)}\) Field Marshal Slim "Defeat into Victory" p. 544  
\(^{(77)}\) Field Marshal Slim "Defeat into Victory" p. 546 – Field Marshal Slim describes the air-land cooperation but his observations are just as relevant in the modern operation.  
\(^{(78)}\) Field Marshal Slim "Defeat into Victory" p. 541  
\(^{(79)}\) Field Marshal Slim "Defeat into Victory" p. 541-542  
\(^{(80)}\) The Jitra case showed how inaccurate information could do great damage to the operation
a hieratical structure to a network based C2 approach, resulted in an increased operational performance for the Danish Battlegroup in Helmand, Afghanistan 2010-11.

Mr. Mitchell calculated the Quantity Effects Quotient by multiplying the numbers of targets generated for the Battlegroup with the number of targets the Battlegroup acted on. When the numbers of possible targets generated were increased, the Battlegroup had more opportunities to take effective action that would lead to desired effects. The desired effects were defined in the commander’s intent and provided with the measurement of effect of the actions. His conclusion was that an increased adoption of the agility elements within C2 increased the overall performance in the battlespace. A network organization increased the units’ ability to share information, interact with each other and give an increased decision competence. Although Mr. Mitchell’s operations and the battlespace were very different from the campaign in Burma 1944-45, the conclusions are the same. The agility concept increases the operational effectiveness of a military organization.

Agility facilitates less rigidly controlled and more individualistic operations with smaller self-contained formations with tactical independence, yet working together in an overall operational framework. These qualities will be essential in past and current operations.

In large mechanized battles or in the nuclear battlefield there will be other factors, like superior firepower and attrition, which might be more decisive than command and control agility. However dispersed fighting in small wars will require agility in command and control and agility in the battlespace in order to succeed.

Field Marshal Slim defined the principals behind command and control agility, and he used these principals to good, well documented effect in operations from 1944-45 at a scale far greater than in any modern operation.

It is unlikely that there will be a future conflict like the war in Asia 1941-45 but the basic principles of conducting operations in a complex environment, first formulated by Field Marshal Slim in 1956, later conceptualized by task group SAS-085 as Command and Control Agility, will remain paramount for success in operations.

(81) Intelligence generated possibly targets for the Battlegroup consisting of regular infantry companies and attached Special Forces
(83) Field Marshal Slim "Defeat into Victory" p. 549-550
(84) Alberts and Hayes “Power to the Edge” p. 218. Alberts and Hayes discusses how a networked and edge C2 approach have the following attributes. Leadership is by competence, decision-making is everyone’s job, information is shared, information flows independent of chain of command. Many of these traits were present in Field Marshal Slim’s Army in Burma.
The complexity of the modern battlespace is increasing with a multitude of factors including political strategy, military involvement, dynamic economy, social environment, and information sharing in cyberspace. The opponent can come in various guises. In order to keep pace with current developments, the modern military must maintain a high degree of agility if they are to be proactive.\(^\text{85}\)

The concept of command and control agility helped bring the British Commonwealth Force to victory in South East Asia during WWII. The concept of agility can be a vital tool for improving the capabilities of the modern military.

\(^{85}\) Mitchell, William "Agility and Interoperability for 21st Century Command and Control", The International C2 Journal, 4th November 2010 p. 2-6 and 9-10 for a precise description of the complexity of the modern battlespace. William Mitchell uses different terms to describe the traits of the battlespace but there are numerous similarities with Field Marshal Slim’s understanding of the WWII Burma battlespace.
CONCLUSION
Operations in a complex operational environment will benefit from agility in order to enhance a successful outcome.

A lack of adherence to the three basic elements of command and control agility will increase the chance of failure to meet the objectives.

The inability to work together between the units, the inability of the commanders at front to make the decisive decisions, the spreading of unconfirmed rumors and the lack of sharing accurate information in a timely manner were all factors that contributed to the defeat of the British Empire force in Malaya 1941-42. This case study serves as an example – together with other case studies begin conducted by other researchers – that agility in command and control is an essential part of achieving success on military operations. A lack of agility will have fatal consequences for the outcome.

The study of the transformation of the British Commonwealth Force shows how broad allocation of decision rights, broad sharing of information and unrestricted patterns of interaction were a direct cause for success in the Burma campaign. The British Commonwealth forces were strengthen on many aspects, but vital for success was innovative concepts which were made possible by agility on the battlefield. This case study shows how an organization transformed from a non-agile approach to a high degree of agility in their performance with an increased operational performance.

Furthermore this case study describes how the principals and core elements behind command and control have been in used extensively in combat operations during the 1940’s and that the core elements of the agility theory can be traced back to the experience of Field Marshal Slim’s 14th Army in the Burma campaign during WWII.

The principals of agility are as relevant today as they were in WWII and their effectiveness is proven. This paper would like to encourage all to embrace the principals of agility when engaged in active operations.

Increased C2 Agility contributes to mission success by enabling entities to adopt more appropriate approaches to C2 in more situations and to adjust their approaches as the mission and circumstances change. Conversely, a lack of C2 Agility can contribute to a lack of mission success.
## BRITISH COMMONWEALTH FORCES EVIDENCE TABLE

<table>
<thead>
<tr>
<th>Concept/ Component</th>
<th>Malaya 1941-42 incl. Actions at Jitra and Gurun</th>
<th>Burma '43 1st Battle of Arakan</th>
<th>Burma '44 2nd Battle of Arakan, Kohima and Imphal</th>
<th>Burma '45 Crossing the Irrawaddy and the final British push</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>C2 Maneuver Agility</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Endeavour Space Complexity</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Appropriate (required) C2 Approach</td>
<td>Collaborative</td>
<td>Collaborative</td>
<td>Collaborative</td>
<td>Collaborative</td>
</tr>
<tr>
<td>Actual C2 Approach</td>
<td>De-conflicted</td>
<td>De-conflicted</td>
<td>Co-ordinated to Collaborative</td>
<td>Collaborative and Edge during the Irrawaddy river crossing</td>
</tr>
<tr>
<td>Self-Monitoring</td>
<td>Very limited</td>
<td>In a process of learning and implementing new concepts</td>
<td>Very high</td>
<td>High</td>
</tr>
<tr>
<td><strong>C2 Approach Space</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Allocation of Decision Rights</td>
<td>Centralized at higher HQ. Unit CO's had little opportunity make important decisions when they were faced away from the action.</td>
<td>In training, decision rights and competence were allocated to lower level commanders but it was not yet fully implemented in the field</td>
<td>Broad</td>
<td>Broad</td>
</tr>
<tr>
<td>- Distribution of Information</td>
<td>Limited. Much inaccurate information were shared with little opportunity to verify it.</td>
<td>Still limited by poor radios and organization.</td>
<td>Broad</td>
<td>Broad</td>
</tr>
<tr>
<td>- Patterns of Interaction</td>
<td>Tightly Constrained</td>
<td>Somewhat Constrained</td>
<td>Unconstrained</td>
<td>Unconstrained</td>
</tr>
<tr>
<td><strong>C2 Approach Agility</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flexibility</td>
<td>Low</td>
<td>Low</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Adaptiveness</td>
<td>Low</td>
<td>Medium</td>
<td>High</td>
<td>High</td>
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<tr>
<td>Responsiveness</td>
<td>Low</td>
<td>Low</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Versatility</td>
<td>No Evidence</td>
<td>No Evidence</td>
<td>No Evidence</td>
<td>No Evidence</td>
</tr>
<tr>
<td>Innovativeness</td>
<td>Low</td>
<td>Medium – the innovative concepts had been written but not yet implemented</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Resilience</td>
<td>Low</td>
<td>Medium</td>
<td>High</td>
<td>High</td>
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### IMPERIAL JAPANESE ARMY EVIDENCE TABLE

<table>
<thead>
<tr>
<th>Concept/Component</th>
<th>Malaya and Singapore 1941-42</th>
<th>Burma 43</th>
<th>Burma 44-45</th>
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<tbody>
<tr>
<td><strong>C2 Maneuver Agility</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Endeavour Space Complexity</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Appropriate (required) C2 Approach</td>
<td>Collaborative</td>
<td>Collaborative</td>
<td>Collaborative</td>
</tr>
<tr>
<td>Actual C2 Approach</td>
<td>Collaborative</td>
<td>Coordinated</td>
<td>Conflicted</td>
</tr>
<tr>
<td>Self-Monitoring</td>
<td>High</td>
<td>Low</td>
<td>low</td>
</tr>
<tr>
<td><strong>C2 Approach Space</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Allocation of Decision Rights</td>
<td>Very Broad</td>
<td>Broad</td>
<td>Low</td>
</tr>
<tr>
<td>- Distribution of Information</td>
<td>Broad</td>
<td>Moderate</td>
<td>Low</td>
</tr>
<tr>
<td>- Patterns of Interaction</td>
<td>Unconstrained</td>
<td>Unconstrained</td>
<td>Constrained</td>
</tr>
<tr>
<td><strong>C2 Approach Agility</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flexibility</td>
<td>High</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Adaptiveness</td>
<td>High</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>High</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Versatility</td>
<td>No Evidence</td>
<td>No Evidence</td>
<td>No Evidence</td>
</tr>
<tr>
<td>Innovativeness</td>
<td>High</td>
<td>Moderate</td>
<td>Low</td>
</tr>
<tr>
<td>Resilience</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
</tbody>
</table>

A note about the Japanese Army 1943-45: The quality of the Japanese troops deteriorated considerably in 1943 and 1944. There are several reasons for this. First is the fact that the troops have been on operations since 1941 and sometimes longer than that if they had been to China. They were tired and exhausted. The reinforcements and replacements from Japan were not to the same standard as the first troops. Especially the leaders were of a poorer quality. The material support was also lacking due to allied bombing and allied victory at sea. Field Marshal Slim credits Major-General Sato of the Japanese 31st Division as the most unenterprising commander in the field86. Most of the Japanese operations in 1944-45 appear rather unimaginative in their planning and tactics. However, the Japanese soldier still showed an extreme disregard for death in both attack and defense87.

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86 Field Marshal Slim “Defeat into Victory” p. 311
A NOTE ON THE LITERATURE
An analyst collected the data from historical publications on the relevant operations during WWII. Publications describing the operational and tactical aspect of the battle for Malaya and Singapore were selected. Particular works which included both quotes from firsthand accounts and descriptions of the battle plan and a general narrative of the events. Publications which deal primarily with the strategical perspective or the civilian perspective were not used. Especially the official history of the British war against Japan has proved valuable as it contains maps and operational analysis of the British operations during WWII.

Publications that focused on the training, planning and doctrine developments were used extensively for the British Empire transformation.

Two wartime memoirs have been most useful. They deal with the tactical and operational experiences, operational planning, and tactical conduct of the battles. They are both from a Japanese and a British perspective respectively.

As the analyst read through the material he would mark out where the agility concepts became evident in the historical data. The analyst would mark the event, the source reference and a note on the importance of that particular event in relation to the outcome of the entire operation. Once this was done, the analyst would judge how well the evidence conformed to the agility concepts.
CHRONOLOGY OF THE WAR IN THE FAR EAST 1941 – 45

1941
8  December Japanese forces lands in Siam and Malaya
10 December HMS Prince of Wales and HMS Repulse are sunk off the eastern coast of Malaya
11 December Japanese and British Empire forces are engaged at the battle of Jitra
14 December Japanese forces reach the Gurun line and engage British Empire forces.

1942
7  New Year's Day The battle of the Kampar line
10 January The breakthrough at Slim River
20 January Burma is invaded
30 January Johore is lost to the Japanese

8  February Japanese forces lands at Singapore island
15 February General Percival and British Empire forces surrenders in Singapore

21-23 Battle of Sittang Bridge in Burma
8  March British retreat from Rangoon
10 March General Slim is appointed commander of BURCORPS in Burma
1-15 May British retreat from Mandalay and across the Indian frontier

21 September BURCORPS launches a major counter offensive in the Arakan, southern Burma

1943
14 February The First Chindit operation begins
17 March After fighting a skillful defensive battle the Japanese launches a coordinated counter attack
12 May The First Arakan ends in a disastrous result for the British Empire force
1944

9 January The Second Arakan campaign begins
5 February The Second Chindit operation begins
6-27 February The battle of the Admin Box in Arakan. The first use of the “Box” concept against the Japanese
15 March The Japanese launches a major offensive in the Imphal plain
29 March The siege of Imphal begins. The box concept is put to use again
4 April The Japanese attack the garrison force in Kohima. Again the box concept is put to use
20 April The siege of Kohima is broken
3 June The battle of Kohima ends in a British Empire victory
22 June In a major British Empire offensive the Kohima-Imphal road is cleared
28 September General Slim launches a major offensive in the third battle of Arakan, the result is a victory for General Slim and the 14th Army

1945

12 February 14th Army begins river crossing operations to across the Irrawaddy
20 March The 14th Army takes Meiktila and Mandalay
3 May Rangoon is retaken by the 14th Army

End of May The Japanese forces in Burma are almost annihilated
6 August The first atomic bomb is dropped on Japan
9 August The second atomic bomb is dropped on Japan
14 August Japan agrees to surrender

12 September In Singapore, Lord Mountbatten accepts the surrender of the Japanese forces in South East Asia. The war in the Far East is over.
MAPS
The Jitra Position

(88)  http://www.queensroyalsurreys.org.uk/ww2/ww2.shtml
The Gurun Position

GURUN POSITIONS
14 and 15 Dec 41

Surrey Coys

Japanese Attacks

2/16 Punjab
(1 Coy)

2/9 Gurkhas

 Withdrawal

1/8 Punjab
Bn HQ

2, Surrays

Pbn HQ

Jungle

Kedah Peak

HQ 28 Inf Bde

HQ 6 Inf Bde

GURUN

HQ 15 Inf Bde

(89)  http://www.queensroyalsurreys.org.uk/ww2/ww2.shtml
Example of a Box Defense Formation\(^9\)

This is an example of a box defensive position by the 1st Battalion of the Queens Own West Surrey Regiment, part of the 33rd Indian Brigade (brigaded with 4/15th Punjab and 4/1st Gurkha Rifles) part of the 7th Indian Division during the 2nd Arakan campaign. Notice how the battalion is capable of an all-around 360 degree defense. They are supplied by air and can dispatch patrols and counter attacks.

\(^9\) Queens Royal Surreys \(\text{http://www.queensroyalsurreys.org.uk/ww2/ww2.shtml}\) 17-03-2016
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