RLCi Book Club –Victory Over Japan 80th Anniversary

Preface

This late summer Book Club is different from the norm. With the 80th anniversary of *Victory over Japan* commemorated on 15 August 2025, rather than regular reviews, this RLCi Book Club focuses on bringing together selected published materials offering a framework for studying World War 2 in the Far East and Pacific. In the knowledge that there are literally thousands of publications covering the war against Japan (and the wider Pacific Campaign), this framework cannot hope to be comprehensive. Many of the titles have previously been reviewed by the RLCi Book Club, with some publications now listed on MGL's Professional Reading List. Several of the publications mentioned are personal preferences, and while there are other resources that offer similar insights into the campaign, by-and-large, those listed have all stood the intellectual test of time. Where it has been deemed beneficial, brief case studies have been included in this review with parallels drawn to contemporary defence and security challenges. For ease of reference, footnotes are provided throughout together with a full bibliography. The majority of the listed titles are available from Prince Consort's Library, Aldershot, and are annotated in the bibliography with PCL.

The Distant Campaign

In many ways, for Britain at least, the war against Japan was secondary. Far away, the strange, hard-to-pronounce places seldom entered into the general public's psyche. The proximity and ferocity of the war in Europe demanded the nation's attention and energies, leaving little capacity for consideration of distant portions of Empire and a new enemy. Those who did reflect on the campaign plotted the fortunes of the belligerents on what they described as *the second map*, studying the events across two discrete zones of Allied interest; South East Asia, under the command and control of British and Commonwealth forces, and the Pacific, where the United States leadership dominated. For ease of reference, the war against Japan will be referred to throughout as either the *Asia-Pacific Campaign, Asia-Pacific War* or *Asia-Pacific theatre.*

The campaign started with Roosevelt's *Day of Infamy*; the surprise attack on Pearl Harbor in Hawaii on 7 December 1941. One thousand three hundred and fifty-one days later, representatives of the Japanese Government signed the instrument of surrender on the 2 September 1945 on the *USS Missouri* in Tokyo Bay. Like many wars, the gestation period leading to the first action was long and complex. Although Japan had been in conflict with China since 1931,[1] in 1936 it initiated a series of wargames and drills based on a surprise air attack on the US Pacific Fleet but had been conceptualizing a conflict with the US as early as 1909. Whilst there is a rich library of literature detailing the actions from 1941, the road to the Asia-Pacific War, and specifically the convoluted politics which contributed to Japan's decision to declare war on the US, are worth reflecting on, as they offer a broader understanding of the confusion which often surrounds strategic thinking in WW2. As an entry point for study, and still widely regarded as one of the best single-volume books to gain an understanding of the political machinations surrounding the decision to go to war, is **John Costello's *The Pacific War 1941-1945***.[2]

[1] For a comprehensive explanation of Japan's incursion into Manchuria and northern China, refer to Overy, R. *Blood and Ruins; The Great Imperial War 1931-1945*, Allen Lane, Penguin Random House, 2021.
[2] Costello, J. *The Pacific War 1941-1945,* London, William Collins Sons and Co. Ltd, 1981.

It is claimed that the Asia-Pacific theatre of operations in WW2 consumed more materiel than any other campaign in the history of warfare.[3] If this claim is true, and there is little evidence to doubt it, then the logistics involved in fielding, projecting and sustaining the belligerents must also be considered as unprecedented and worthy of study. Like many campaigns however, technology and logistics rarely feature as stand-alone areas of study – there are however publications that examine specific aspects of technological and theatre logistics and these are highlighted within this review.

For readers new to the study of the Asia-Pacific region in WW2, the campaign may seem daunting. Firstly, visualizing the geography, scale and complexity of the numerous, and often simultaneous, actions is challenging. The area of operation (Figure 1) stretched from the Kurile Islands in the north to Timor in the south, and the Indian/Burma border in the west to the Hawaiian Islands in the east – over 25 million miles of land and sea. Unsurprisingly, anyone wishing to understand the campaign will need a comprehensive atlas, preferably superimposed with clear campaign schematics. In an age of digitization this may sound a fairly simple task – alas, there are few single volume publications available that present the reader with a legible set of comprehensive mapping offering a clear panorama of the geography with accurate schemes of manoeuvre. Although now twenty-five years old, **Smurthwaite's *War Atlas of Asia and the Pacific 1941-1945***,[4] is probably still one of the best around. Another useful supporting publication is **Rottman's *WW2 Pacific Island Guide; A Geo-Military Study***,[5] which provides a useful geo-political synopsis of every Pacific island involved in WW2, together with an assessment of their relevance to the overall campaign. If neither of these publications are to hand, then **Daniel Marston's *The Pacific War Companion; From Pearl Harbor to Hiroshima***[6] not only offers an overview from all of the belligerent's perspectives, but it also includes a useful chronology, together with a bonus series of clear colour maps.

[3] D'Albas, A. *Death of a Navy: Japanese Sea-Power in the Second World War,* London, Robert Hale Ltd, 1957, p.10. and Ellis, J. *Brute Force,* London, André Deutsch, 1990, p.444.
[4] Smurthwaite, D. *War Atlas of Asia and the Pacific 1941-1945*, Airlife Publishing, 2000.
[5] Rottman, G, L. *WW2 Pacific Island Guide: A Geo-Military Study*, Bloomsbury Publishing, 2001.
[6] As with many publications which deal with the war against Japan, despite Marston's book title, the Burma Campaign is covered (with an excellent colour map on p.102).

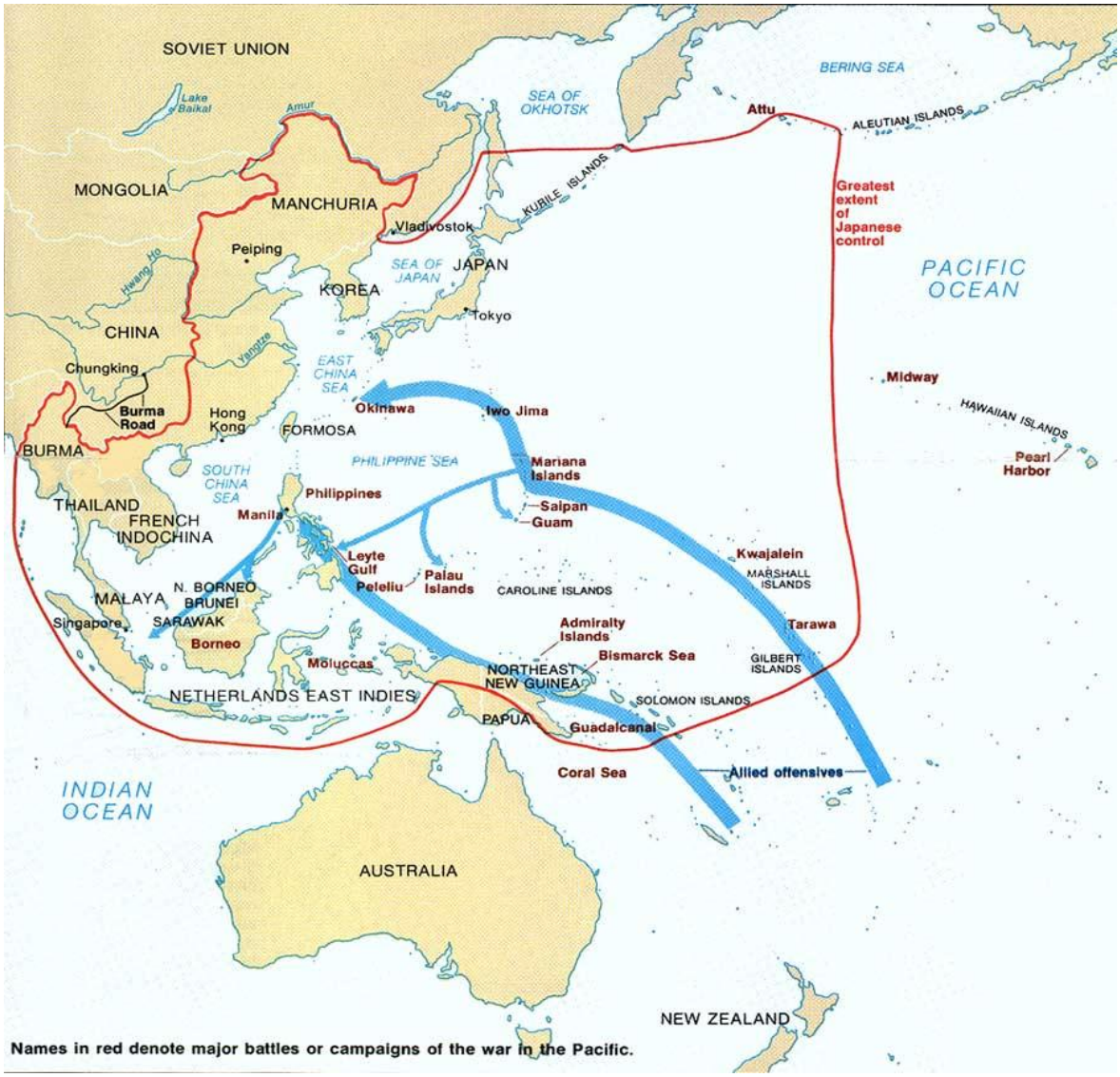

Fig 1: South East Asia and Pacific Theatre[7]

As for choosing a method for study, readers may instinctively adopt a chronological approach, focusing on the major engagements, starting with Roosevelt's (FDR's) *'Day of Infamy*; the Imperial Japanese Navy's (IJN) surprise attack on Pearl Harbor (7 December 1941) and/or the fall of Singapore (15 February 1942) together with the capture of the Dutch East Indies (9 March 1942). An alternative and far more rewarding research option, however, is an examination of the *dramatis personae,* linking their careers, character traits, span of command, motivations and decision making. Many of the Asia-Pacific characters could be cast in a block-buster film; Churchill, Roosevelt, Slim, Stilwell, MacArthur, Nimitz, LeMay, Hirohito and Yamamoto, to name a few. By analysing the performance of the main characters in their order of appearance, readers may be surprised to learn that the seeds of the war in the Asia-Pacific theatre were sown well before the turn of the 19th Century. As mentioned, the selection of Pearl Harbor as the opening gambit to a war with the US was identified by Japanese planners as early as 1909, but the decision to go to war in 1941 was the result of what Japan considered necessary, opportune and based on historic precedence.

[7] University of Texas, Public Domain from the Perry-Castañeda Library
Map Collection, World War II Maps https://maps.lib.utexas.edu/maps/national_parks/pacific_theater_1941_45.jpg [Accessed 20 September 2025].

In 1905 the IJN inflicted a decisive defeat on the Imperial Russian Navy at Tsushima. This clash of major fleets, dominated by battleships, aligned with Mahan's theory;[8] a supposition broadly adopted by all of the major naval powers, but found to be largely obsolete by WW2. While there were visionaries on both sides of the Pacific that questioned Mahan and theorized over the potential of air-power (specifically naval air-power), it remained all theory and therefore open to opinion and high risk.[9] Despite the assured wisdom born of the major fleet engagement at Tsushima, Admiral Yamamoto, the CinC of the Japanese Combined Fleet, rather than accepting the continued primacy of the battleship, studied the British aerial naval raid on the Italian Navy at Taranto (11-12 November 1940).[10] From this first ship-to-ship surprise naval air attack, Yamamoto foresaw that air power, and specifically air power projected from the sea, would revolutionise future sea warfare.[11] The debates between the advocates of maintaining the battleship as the primary naval weapon system, colloquially known as 'the Gun Club,' and the opposing air power disciples, is discussed later in this review. It was this belief in the emerging supremacy of naval airpower however, that led Yamamoto to insisting on a concurrent surprise attack on the US Pacific Fleet while the Imperial Japanese Army captured strategic locations on a southern campaign. Before studying the specifics of Japan's campaign planning and execution however, it is worth gaining an understanding of the broader political and economic circumstances which led to Japan's entry into WW2.

South East Asia-Pacific Politics and Economics

In the 1930s, Japan was facing significant domestic pressures. Topping 70 million people, it was the most densely populated country in the world. Its survival was reliant on imports of raw materials to sustain its economy and political ambitions. Such were its insatiable demands, a serious deficit ratio in national debt to income developed. This economic dilemma quickly spiraled into a diplomatic impasse in July 1940 when Japan refused to withdraw its forces from China.[12] The refusal provoked FDR's administration to place severe restrictions on the export of strategic commodities (specifically oil and scrap steel)[13] and reinforce the Pacific Fleet based at Pearl Harbor. As the economic stranglehold was almost immediate, and despite parallel efforts of diplomacy, Japan quickly determined to launch a southern offensive to secure the raw materials it desperately needed. Tokyo was forced to authorise the consumption of its 2-year strategic stockpile of oil,[14] effectively starting the countdown on the nation's logistic clock. International relations were further strained in July 1941 when the Japanese deployed 40,000 troops (swelling to 185,000) into southern Indo-China after the Vichy French Government had been coerced into agreeing the establishment of a 'joint protectorate'. This political illusion was quickly perceived as a poorly

[8] Refer to Mahan, A, T. *The Influence of Sea Power Upon History 1660-1783,* originally published 1890. Mahan advocated that control of sea lines of communication for trade were a cornerstone of a nation's security. Naval strength was, by default, key to sustaining these lines which, in turn, would generate significant global/regional geopolitical influence.
[9] For this assessment see Overy, R. and Wheatcroft, A. *The Road to War,* London, Macmillan London Ltd, 1989, p.255.
[10] Yamamoto would have been appraised of the Taranto attack (Operation JUDGEMENT) by the Fleet Air Arm by his own naval air staff who visited the location in May 1941 and were given a detailed account of the action.
[11] Readers wishing to analyse the Taranto Raid and its influence on the development of naval aviation should refer to Lowry, T, P. and Wellman, W, G. *The Attack on Taranto: Blueprint for Pearl Harbor,* Stackpole Books, 1995.
[12] After Japan left the League of Nations in March 1933 it was free to pursue an aggressive foreign policy and launched an offensive beyond Manchuria (invaded on 18 September 1931) into China (7 July 1937).
[13] See Overy and Wheatcroft, pp.248-249, 80% of Japan's imported oil came from US-controlled sources and 78% of its imported scrap steel came from the US.
[14] While estimates vary, it is generally accepted that Japan's strategic oil stockpile (42.7 metric tons) would last circa 1-year at wartime rates, emphasising the acute need to either capitulate on its gains in China or seize oil assets in South East Asia (Dutch East Indies) as a matter of priority.

disguised military occupation, from which further exploitation into British Burma and Malaya, Dutch Indonesia and the US Philippines could be orchestrated.

The regional situation was made worse by the fact that Japan's occupation of Indo-China cut the US overland supply route to China.[15] As a riposte, on 26 July Washington froze all Japanese assets held in the US, further increased the restrictions on oil exports (prompting Britain, Canada, the Philippines, New Zealand and the Netherlands to follow suite)[16] and closed the Panama Canal to Japanese shipping. The logistic clock dictated that if Japan was to ensure its economic survival, it only had a relatively small decision window in which to launch a war through a first strike. With oil reserves dwindling daily[17] and naval operations deemed to be too high risk beyond the end of December (due to the typhoon season in the Pacific), any decision to execute a concurrent southern assault narrowed the timeframe for commencement of hostilities to early December 1941. A further persuasive consideration was the Nazi conquest of the Low Countries in 1940. The stunning blitzkrieg exposed the global weakness of the European colonial powers and further undermined their increasingly tenuous hold on their colonies in South East Asia. With what the Japanese High Command judged as a coalescing of international opportunities and insurmountable domestic economic pressures, the last semblance of moderate Japanese governance lost office and effectively a military junta, under General Tojo, took power on 17 October 1941. After much deliberating and soul searching, Tojo exercised his executive power by choosing a path to national expansion through a policy based on aggression.

The Greater East Asia Co-Prosperity Sphere

The Allied trade embargo helped confirm and reinforce Japan's hawkish long-term economic and military policies, with their key strategic objective centered on the establishment of a huge sphere of influence in southern Asia and the western/central Pacific region. Contained within this sphere, sometimes referred to as the Southern Resource Area, were all the natural resources Japan needed to build and sustain an expanded empire, including its possessions in China. This empire, controlled as a command economy from Tokyo, was styled from within an imagined defended perimeter, stretching in a 6,000-mile arc. At its furthest point from Tokyo to New Guinea in June 1942, the distance was circa 3,000 miles. Within this theoretically defended area, Imperial Japan visualised an economic maritime lake that offered the opportunity for the two-way distribution of raw materials to the home base and the export of military resources for the forces picketing the perimeter. Superimposed across this expanded empire was the publicised emergence of a *Greater East Asia Co-Prosperity Sphere,*[18] from which Tokyo decreed that western exploitation would be eradicated, in-line with promises of independence for the people of Asia. The vision was as ambitious as it was unconvincing. Once the defensive perimeter had been established, Japan believed that it would have time to consolidate its new possessions and resign the US administration to adopt a policy of appeasement in the western and central Pacific regions.

[15] The Ledo Road was the main overland supply route from India to Kunming, effectively the lifeline for Chinese forces fighting the Japanese.
[16] The Allied decision to embargo the export of oil to Japan immediately cut off the oilfields of Sumatra, Borneo and Burma. In fact, no oil or petroleum products (including low-grade oil) were sold to Japan after the 25 July 1941 – a situation Roosevelt was not aware of until September 1941.
[17] Overy and Wheatcroft state that 12,000 tons of oil per day were being consumed, p.252, although how this relates to the strategic stockpile of 42.7 metric tons is unclear.
[18] Term first used 1st August 1940 by the Japanese Foreign Minister Hachiro Arita – see Francis Pike, Hirohito's War: The Pacific War, 1941-1945, London: Bloomsbury, 2016, p.43).

Duel Operations in the South and Pacific

To achieve its strategic goal, Japan concluded that it not only had to capture major concentrations of natural resources, but it also needed to simultaneously neutralize the threat from the US Pacific Fleet. **John Ellis** clearly explains the background to this conundrum in ***Brute Force; Allied Strategy and Tactics in the Second World War***.[19] The irony and risk involved in Japan's decision to go to war in 1941 was not lost on the IJN's High Command. Under the nominal spiritual umbrella of Emperor Hirohito, Japan's governance from the late 1920s was contested by a weak civilian government and an increasingly influential military lobby group. To add to the chaotic nature of Japanese governance, the military contingent was not a homogeneous forum, being split between an increasingly hawkish Army faction (the *Kodo Party*) and a forceful navy faction (known as the Naval Party). Emerging policies were contested between the civilian government and between/within the military factions, where rivalries were increasingly polarized and aggressive.[20] Whilst holding on to its hard-won gains in China, the Army's main effort expanded to the capture of the Dutch East Indies, Borneo, Celebes, Halmahera, Malaya and Indo-China. Even with the establishment of a defensive perimeter, the IJN estimated that they could only retain an operational advantage for 12 to 18 months.

The fractured Japanese political and military situation was further complicated as the IJN's chief planners disagreed over the best approach to achieving a temporary advantage over the US Pacific Fleet. The Naval High Command, dominated by the gun club stalwarts, held to the view that a decisive sea engagement, spearheaded by its capital ships, must be sought. Admiral Yamamoto however envisaged that only a surprise attack on Pearl Harbor with a carrier-strike force could hope to temporarily cripple the US in the Pacific and allow Japan to consolidate its gains on land and sea. This complex domestic situation, and the alternate campaign schemes of the Japanese military, are explored in **John Costello's *Pacific War 1941-1945***, and **Alan Schom's *The Eagle and the Rising Sun***.[21] For a concise overview of the political, domestic and military considerations, **Ellie Cawthorne's** interview with **Christopher Harding**[22] is also worth consulting. In summary however, a wicked combination of over population, a desire to elevate its global status through the expansion of its economy, the weakness of the colonial powers in South East Asia and the perceived risk from increased US dominance in Asia, left Japan believing that it was vulnerable to being besieged. With the benefit of hindsight, the Japanese High Command's decision to expand its four-year war in 1941 is often regarded as an act of desperation. To Tokyo in 1940 however, it was considered as the lessor of two evils.

[19] Ellis, J. *Brute Force; Allied Strategy and Tactics in the Second World War,* London, André Deutsch Ltd, 1990.
[20] For Japanese political and inter-service rivalries see Joe Maiolo's excellent *Cry Havoc: The Arms Race and the Second World War 1931-1941*, London, John Murray Publishers, 2010, pp.376-379.
[21] Schom, A. *The Eagle and the Rising Sun; The Japanese American War 1941-1943,* London and New York, W. W. Norton and Co, 2004.
[22] Cawthorne, E. and Harding, C. *The Path to Pearl Harbor,* BBC History Magazine*,* Christmas 2021, pp.42-48.

Whilst cognisant of the limited options for national expansion, the IJN did not initially support the Army's decision to pursue a war of conquest in South East Asia. Such an action, by default, meant a direct confrontation with the US, specifically the Pacific Fleet based out of Pearl Harbor. As explained by **Ronald Spector** in ***Eagle Against the Sun,***[23] in the spring of 1940, a large scale IJN map exercise had concluded that there was little chance of Japan winning a protracted war against the US. These conclusions were not widely reported outside of the naval staff involved in the exercise, allowing the continued perpetuation of the pursuit of an expanded empire by force. Since August 1941, Admiral Yamamoto's Combined Fleet planning staff had continued to study the feasibility of a surprise attack on the Pacific Fleet while anchored at Pearl Harbor. The course of action focused specifically on destroying the aircraft carriers to deny the US any aerial strike force that could prosecute retaliatory operations in the Western/Central Pacific regions. Although the results of the study concluded that the IJN would likely sustain heavy losses, the island of Oahu (where Pearl Harbor was located) could not be occupied after an initial strike as the Japanese Army could not spare the troops, due to their enduring commitments in China and the impending southern attack. Even so, the planners deduced that the destruction of the US carriers might be enough to limit any early reprisals that Washington may wish to launch within the newly established southern resource area. The Japanese Government hoped that such a delay would create the conditions for talks, the conclusion of which would leave Japan in a favourable long-term economic position. It is clear that whilst Yamamoto understood the complexities and risks to the expansionist strategy, he reluctantly concluded that if 'We had to choose between civil war and foreign war – the latter is a thousand times preferable.'[24] The executive decision to launch the duel attacks was made on 29 November 1941 at an Imperial Conference where Emperor Hirohito gave his tacit consent. The assaulting formations were given the order on the 2 December 1941 for the attack on Pearl Harbor to begin on Sunday the 7 December.

While throughout the 1930s the situation in Japan seemed increasingly desperate, the US was also facing some significant domestic issues of its own and as a consequence, FDR's room for manoeuvre in geo-politics was severely restricted. An influential and increasingly persuasive isolationist movement was determined to keep the US out of any foreign war, whilst Churchill was equally determined that the US would be persuaded to engage in what he believed was a fight for the survival of democracy. In 1940 however, the US armed forces were not in a position to be committed to a global conflict. Due in large part to a series of naval arms agreements going back to the 1920s, the USN in particular was not structured to contest a two-ocean war. For a succinct overview of the range of domestic issues that FDR was dealing with in 1940 see **Alan Schom, *The Eagle and the Rising Sun***[25] and for a more detailed examination of Washington pre-war politics, **James Lacy's** excellent ***The Washington War***, explains the precarious path that FDR was forced to take before Japan had attacked Pearl Harbor.[26] As for an understanding of the USN's challenges in preparing for and fighting concurrently in the Atlantic and Pacific, **Eliot Morison's *The Two-Ocean War***[27] remains indispensable.

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[23] Spector, R, H. *Eagle Against the Sun,* New York, The Free Press, 1985.
[24] Cited in D'Albas p.18.
[25] Schom, A. *The Eagle and the Rising Sun;* Chapter 6.
[26] Readers may be surprised by Lacey's explanation of the personal/political/industrial structures that were established by FDR; a Byzantine network of chairmen, agencies and industries which often overlapped in their responsibilities and outputs. Rather than a streamlined, self-disciplined national industrial complex that reflected in the aura of *the arsenal of democracy*, the US exhibited considerable self-harm in its approach to organising its economy for total war.
[27] Morison, S, E. *The Two-Ocean War: A Short History of the United States Navy in the Second World War,* Boston and Toronto, Little, Brown and Co. 1963.

For readers wishing to gain a broad and balanced overview of the strategic aspects of the Asia-Pacific War, **Richard Overy's** already mentioned ***Blood and Ruins***[28] is unsurpassed. Those wishing to then delve further into specific aspects of the Pacific campaign should consult **Ian Toll's** trilogy - ***Pacific Crucible; War at Sea in the Pacific, 1941-1942***, ***The Conquering Tide; War in the Pacific Islands 1942-1944 and Twilight of the Gods; War in the Western Pacific 1944-1945***.[29] Toll's story telling is masterly and his level of detail will likely satisfy any military history buff.

The Surprise Attacks

The surprise attack on Pearl Harbor has been covered in literally thousands of books and articles. Those new to the initial phase of the Pacific campaign are encouraged to consult **Hedley Willmott's *Pearl Harbor***,[30] followed by **Gordan Prange's** outstanding ***At Dawn we Slept***[31] and/or **Roberta Wohlstetter's *Pearl Harbor; Warning and Decision***.[32] Ultimately, the attritional metric of the air attack added up to the loss of 29 Japanese for 2,404 US military/civilian personnel killed and 16 capital ships damaged, of which 8 were sunk.

After the initial shock of Pearl Harbor, the strength of the US can be measured in two distinct ways; despite the vitriol of the US public and media, and the pressure on FDR to find a way to immediately hit back at Japan, Washington adhered to its *Germany first* grand strategic aim, whilst pledging to make-good in the Pacific and attriting the temporal Japanese advantage.[33] Concurrent with the IJN attack on Pearl Harbor, the Imperial Japanese Army attacked the British at Kowloon, Hong Kong and Malaya. Emphasizing the potency of air power against capital ships, two days after the southern attack was initiated, the Royal Navy's battleship *HMS Prince of Wales* and the elderly battlecruiser *Repulse* were sunk by IJN aircraft.[34] The *coup de grâce* came on the 15 February 1942 when Singapore fell. While the concurrent surprise attacks were generally deemed successful by Tokyo, it is interesting to look outside of the operations and examine the technological and industrial contrasts between Japan and the US to understand the course of the war and the end state.

Technological and Industrial Contrasts

Study of the attack on Pearl Harbor highlights the key role that rapid technological development would play in the campaign and exposes the long-term pattern of the stark contrasts in Japanese and US industrial output. After the preliminary staff studies, Yamamoto directed further analysis of the proposed surprise attack to be conducted in September 1941 on a specially created large scale mock-up of the harbor. This staff assessment revealed that the attack would only be successful if the torpedoes could be re-engineered for shallow running in the anchorage area. The technical solution was found in early November with

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[28] Overy, R. *Blood and Ruins; The Great Imperial War 1931-1945*, Allen Lane, Penguin Random House, 2021.
[29] Toll, I, W. *Pacific Crucible: War at Sea in the Pacific, 1941-1942,* 2012, and *The Conquering Tide: War in the Pacific Islands, 1942-1944*, 2015 and *Twilight of the Gods: War in the Western Pacific, 1944-1945*, 2020, all New York and London, W.W. Norton and Co.
[30] Willmott, H, P. *Pearl Harbor*, London, Cassell & Co, 2001.
[31] Prange, G, W. At Dawn We Slept: The Untold Story of Pearl Harbor, Middlesex, Penguin Books Ltd, 1983.
[32] Wohlstetter, R. *Pearl Harbor; Warning and Decision*, Stanford University Press, 1962.
[33] The *Germany first,* or more accurately, a *Europe first* policy, was encapsulated in a twenty-six page document written by Admiral Harold Stark, Chief of Naval Operations, which became known as Plan Dog (the fourth paragraph, hence 'Dog' in US naval parlance, described the Europe first option). Written in 18 hours at his home, Stark laid the foundation for US strategy (including industrial priorities) in WW2. For Plan Dog and the confusing agencies and organisations that FDR established to mobilise US industry see Susan Dunn's *A Blueprint for War: FDR and the Hundred Days That Mobilized America*, New Haven and London, Yale University Press, 2018, pp. 31-49.
[34] The lack of aircover for the capital ships is attributed to the unfortunate accident of the carrier *HMS Indomitable* which ran aground on a training exercise in the Caribbean.

aircrew training completed by the middle of the same month.[35] In contrast, the US, with all of its latent manufacturing capacity, continued to experience a serious lag in redesigning its suboptimal torpedoes. Another significant area of technological contrast was in aircraft design and manufacture. In 1941, the Japanese Zero fighter was generally acknowledged as the best fighter in the Pacific, if not the world. However, whilst its performance was superb in the opening phases of the war, its design had quickly reached a technical apogee and Japan struggled to improve on the design.[36]

Not only was there a stark contrast in the technical solutions pursued by the belligerents, but, increasingly, the disparity in industrial capacity played a decisive role. Between 1940-43 Japan increased its war production fourfold. In the same three years, the US increased its production twenty-five times. In practical ramp-up terms, Toll explains the production contrasts where, in 1939, the US manufactured 5,856 aircraft - five years later, it was turning out 96,000 units.[37] As mentioned, while there were some surprising, and even embarrassing, areas of US industrial technological development and productivity which failed to meet the end-user's requirements, one seminal case study that explains the American psyche, level of technological ambition, acceptance of risk taking and industrial/political commitment is the B-29 Superfortress programme.

The B-29 Superfortress: US Technological/Industrial/Logistical Capabilities

From concept to production, a ground-breaking heavy bomber was available for combat operations in two years. Even before the war, planners had foreseen that a strategic bomber would be required that could deliver significant payloads onto the Japanese mainland[38] – underlining the decision why the B-29 was assigned solely to strategic missions and restricted to the Pacific theatre. Boeing was chosen as the lead design company and manufacturer and the first prototype[39] flew on 21 September 1942 and by 5 June 1944 production B-29s flew their first combat mission against Bangkok. Ten days later, missions were being flown against the Japanese mainland from China. The unprecedented timeline for the aircraft's delivery was achieved by harnessing US production capability while embracing a myriad of programme risks. Even during the concept and prototype stages, a significant level of technological gambling was involved.[40] The chosen engine, a Wright R-3350 Duplex-Cyclone, only existed in June 1941 as a single, largely untested unit. It normally took five years to develop an aircraft engine and when the first B-29 production models were being assembled, the R-3350 was still not fully developed; even by 1942 there were no more than 30 engines available. The programme tempo however was unrelenting and unsurprisingly resulted in many challenges with the power units. The resultant, almost inevitable faults were not however allowed to delay the programme. Adding to the level of programme risk and complexity were the myriad of other rapidly developed novel technologies that were designed into the airframe, including pressurized crew spaces, ground-mapping radar, remote-controlled anti-aircraft guns and electric motors (125 per aircraft) to power all the electronics. Without a single test-flight, the ambitious build schedule was put under further pressure when

[35] D'Albas pp.19-20.
[36] It is interesting to note that Japanese air power was developed by the IJN and Army in almost isolation. For an understanding of the rivalry between the IJN and Army refer to Gerhard Krebs' *The Japanese Air Forces,* in The Conduct of the Air War in the Second World War; An International Comparison, New York/Oxford, St Martin's Press, 1988, pp.228-243. Online at archive.org/details/TheConductOfTheAirWarInTheSecondWorldWar [Accessed 31 July 2025].
[37] Toll, p.489.
[38] The US War Dept invited proposals for what was described as a 'hemisphere defence weapon' and termed the solution the Long Range Bomber (LRB) on 2 December 1939.
[39] Designated by Boeing as the Model XB-29 Bombardment Airplane.
[40] The production contract was approved before Boeing had constructed a wooden mock-up.

an initial order for 250 aircraft on 6 September 1941 (before Pearl Harbor) was increased to 500 units immediately after the attack. In the end, 3,970 aircraft[41] came off the production lines.

From the outset, the B-29 was fabricated with mass production in mind. Sub-assemblies were fabricated at distributed sites and transported to four central assembly plants running eleven lines, using 40,000 parts from 1,400 sub-contractors. To maintain speed of modifications were carried out at designated centres rather than the production plants and although the aircraft was continually upgraded throughout its life, between spring 1940 and late 1942 alone there were 9,000 modifications undertaken.

The aircraft was revolutionary on so many levels and such was its capability (real and imagined), that it generated complex political and strategic considerations. Today, the Oval Office is recognised as the room where many executive decisions are made that have global implications. In WW2 however, the room above, known as the Oval Study was where FDR did most of his thinking, debating, rehearsing and reflection. It was cluttered, papers and books were strewn across worn furniture, desk spaces and even the floor. The President took most of his meals here on trays whilst sitting in his wheelchair. It was in this room that the future employment of the B-29 was formulated. Apart from retaining executive power, there is little evidence that FDR was an obsessive, but, from December 1941, there is one aspect that he seems to have been obsessed about; bombing Japan. Perhaps a romantic at heart, he was enough of a realist to accept that bombing Japan in itself would be unlikely to win the war in the Pacific – although it might just stop it.[42] Whilst there was debate over the options for delivering a post-war solution, in FDR's mind, getting to that point demanded bombing and for that he needed a long-range bomber.

With an operating radius of 1,600 miles,[43] whilst carrying a payload of 10,000 tons, the B-29 offered unprecedented reach and potency.[44] Its capability led to a debate over the approach to bombing and the priority of targets. The contemporary narrative concerning air power uses the terms 'precision bombing,' this is not a new term. In WW2, there were numerous descriptions of the approach to bombing, including 'precision'. Morale bombing, carpet bombing, saturation bombing, mass bombing and area bombing were all loosely defined terms which advocated a particular approach to attacking Japan. The US bombing policy in the Pacific, like the British at the start of the war in Europe, evolved from attacking military/industrial targets to deliberate urban bombing of civilians.[45] For an explanation of this graduated change in bombing policy, **Richard Overy's *The Bombers and the Bombed*[46]** provides a fascinating description of the conflicted mindset of the British High Command. Bombing approach aside however, the US had to get within range of effecting Japan's ability to wage war.

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[41] 3,987 aircraft if prototypes are included.
[42] FDR and his administration recognised that Japan's pre-war economic problems would persist after the war and that the US would likely be the only nation that could change the regional economic environment to prevent further conflict across the Pacific Rim.
[43] At 3,200 miles, the B-29 had the longest range of any bomber in the US inventory.
[44] A single B-29 could carry two to four times the bomb load of other bombers in the US arsenal. The B-29 could carry 20,000lbs but its operational load was, amongst other considerations, a compromise of fuel to bomb weight, often resulting in a bomb payload of 10,000lbs.
[45] While the RAF's bombing policy under Chamberlain prevaricate over bombing urban areas, Churchill showed little reluctance in pursuing unrestricted air warfare from the onset of the war.
[46] Overy, R. *The Bombers and the Bombed: Allied Air War Over Europe, 1940-1945,* New York, Viking Penguin, Penguin Group, 2014, pp.35-53.

One school of thought was to base the bombers in Australia and target the petroleum facilities in the East Indies to starve the supply of oil to mainland Japan.[47] As logical as this sounded however, the desire to bomb the mainland overrode any southern targeting options and FDR insisted that targets in China and Japan offered greater potential for decisive effect. FDR's ambition went further; however, he wanted to bring asymmetric warfare to the Emperor's homeland, not just Tokyo but all the major cities of Japan. The heavy bombing that eventually ensued under the direction of General Curtis LeMay was aimed at undermining the Japanese people's will, rather than directly attacking military/economic targets that often proved challenging to find and destroy.[48] For practical reasons, consciences were put aside to obliquely attack Japan's capacity to continue the war.

The sortie distances in the Pacific meant that to get within range of Japan, the first missions had to be flown from India and then China (refer to 'the hump' later in this review).[49] The logistics involved in establishing the airfields and sustaining the air operations were extraordinary, even by WW2 standards. The initial logistical plans: SETTING SUN and then TWILIGHT, calculated the amount of resources that the Allies needed to commit to the B-29 bombing plan, eventually designated as Operation MATTERHORN, an all-American affair. To appreciate the scale of ambition, to get the B-29s to their airfields in India was a 11,530 mile (five day) journey, and subsequent enablement of a single bombing mission against Japan from India required nine equivalent B-29 sorties to sustain the operation.[50] The resources had to be forward deployed to China to allow the bombing sorties to refuel on the way to their targets in Japan and allow the returning aircraft to refuel for the journey to their home airfields in India. So determined was the US to take the offensive and bomb the Japanese mainland that B-29s were used as supplementary transports to ferry inventory for the initial raids.[51] In India, near Kolkata (formerly Calcutta) and China (Chengdu),[52] 27,000 and 300,000 labourers respectively worked around the clock, using hand tools and pack animals and mixing cement with their feet to make all-weather 200ft wide and 8,500ft long airfields.[53] Even with these extraordinary measures, the sorties from Chengdu could only reach Kyushu in southwestern Japan; Kyushu had one industrial target, an iron and steelworks. **James Cate** provides a detailed explanation (with maps) of the development and logistics of MATTERHORN in **The Army Air Forces in WW2**.[54]

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[47] See Falk, S, L. General Kenney: the Indirect Approach and the B-29s, *Aerospace Historian,* September 1981, Vol. 28, No.3, pp.146-155. Available from PCL on request. In August 1944 a B-29 sortie staged through Ceylon (Sri Lanka) targeted the refineries of Palembang in Sumatra. Due primarily to the long distances, the raid was regarded as unsuccessful and was not repeated.

[48] For an insightful account of the decision to switch to the bombing of Japanese urban areas, see Malcolm Gladwell, *The Bomber Mafia*, London, Penguin Books Ltd, 2022.

[49] The challenges of providing logistics to the B-29 are as legendary as the aircraft itself. Readers wishing to understand the complexities of projecting land-based air power in the Asia-Pacific campaign should consult Carl Berger's *B-29 the Superfortress,* London, Macdonald and Co, (Publishers) Ltd, 1971, part of the Purnell's History of the Second World War series (No.17) and/or Marl Lardas' *Japan 1944-45; LeMay's B-29 strategic bombing campaign,* Oxford, Osprey Publishing Ltd, Air Campaign Series, 2019. For a description of the personal experiences of flying the B-29 on combat missions and the logistics involved in sustaining the aircraft, see Gordon Roberstson's *Bringing the Thunder; The Missions of a WW2 B-29 Pilot in the Pacific,* Mechanicsburg, Stackpole Books, 2006. See also *From Concept to War; Boeing B-29 Superfortress,* Flypast Magazine, August 2025, pp.50-63.

[50] Lardas, p.17.

[51] Although the bulk of the air transport came from converted B-24 bombers (designated C-87s), other transport variants included the Consolidated 87 Liberator Express, the Douglas C-47 Skytrain, C-54 Skymaster, Curtiss-Wright-Higgins C-46 and Consolidated C-47 Commando were also used on hump operations. By May 1945, 4,000 C-87s had been converted.

[52] Chengdu is 400 miles from the hump terminal Kunming and 200 miles NW of Chungking.

[53] Five airfields were built in India (around Kolkata at Kharagpur, Chakulia, Piardoba, Dudhkundi and Kalaikunda (as a transport aircraft base)) for the B-29s by 6,000 US troops and 27,000 local labourers. In China (Chengdu in the province of Szechuan) five airfields were built for the B-29. Other airfields were also built for supporting fighter aircraft.

[54] Of special note are Cate's chapters on *The VLR Project* pp. 3-32 and *MATTERHORN Logistics* pp.58-91 in Craven, W, F. and Cate, J. L. (Eds),The Army Air Forces in WW2; Vol V, *The Pacific-Matterhorn to Nagasaki (June 1944 to August 1945),* Chicago and London, University of Chicago Press, 1966.

Fig 2: Chinese laborers pull a roller to smooth a runway for a B-29 airstrip. US Army[55]

Once the Marianas Islands (Saipan, Tinian and Guam) had been captured (June-November 1944), new airfields were constructed specifically for the B-29s. Six runways were completed in under five months on Tinian alone, the first operational in February 1945.[56] The B-29 represents a technology that drove strategy. Individual Pacific islands were selected for capture based on their capacity to accommodate runways specifically for the B-29s. From the airfields in the Marianas, Japan's industrial belt on Honshu, Kyushu and Shikoku could be reached.

The capability offered by the B-29 is now etched in air history and illustrates how transient a nation's moral stance can be in war when a technological solution offers an advantage. Prior to the war with Japan, the US were scathing in their diplomatic communiques and economic sanctions against the Japanese Army's bombing campaign against Chinese cities. By the 9-10 March 1945 however, the US were dropping 1,753 tons of M-69 incendiary bombs[57] on the civilian districts of Tokyo,[58] destroying circa 15 square miles of the city – four times the area destroyed by the atomic bomb on Hiroshima five months later. The firebombing of Tokyo provides some reflection on the contemporary employment of airpower. In WW2, the morality dial did not move gradually. Once General Curtis LeMay assumed his post in the Marianas, the urban bombing gloves came off and targeting of civilian areas became part of the B-29 modus operandi. This capability, especially when allied to the growing potency of the US submarine campaign,[59] raises questions over whether the dropping of the atomic bombs was necessary.

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[55] United States Army - [https://www.ibiblio.org/hyperwar/USA/USA-PR-Japan/img/USA-PR-Japan-433.2.jpgUnited States Army in World War IIPictorial RecordThe War Against Japan p. 433], Public Domain, https://commons.wikimedia.org/w/index.php?curid=150116420, downloaded 20 September 2025.

[56] Airfields were completed on Saipan in Oct 1944 and Guam in November 1944. For a description of airfield construction, useful chronology supported with good maps, refer to Mark Lardas, *Japan 1944-45: LeMay's B-29 strategic bombing campaign,* Oxford and New York, Osprey Publishing, 2019.

[57] Designed in 1944 by the US Army Chemical Warfare Service, the 61lb incendiary device contained a slow burning gelatinous fluid called napalm.

[58] Designated as Operation MEETINGHOUSE.

[59] Coupled to the fact that the B-29 was the most expensive weapons programme in WW2, the programme cost in the region of $3Bn ($55Bn today), as opposed to the Manhatton Project (the building of the atomic bombs) which has an estimated cost of

US industrial capacity stands in stark contrast to that of Imperial Japan. While the US expanded its military capabilities exponentially, Japan could not make good on its losses, let alone build its arsenal and Japanese weaknesses began to appear as early as the Battle of the Coral Sea (5-8 May 1942).[60] For all of the belligerents, incrementally, but convincingly, the capability pendulum swung from the international advocates of the battleship, towards the aircraft carrier and air power fraternities.

Gun Club Versus Naval Air: Battles at Sea

Although some had foreseen the potency of naval air on both sides of the Pacific, with hindsight, the Battle of Midway (4-7 June 1942)[61] marked a step-change in naval technology amongst the belligerents. The gun club increasingly found their leviathans relegated from the production priority lists and maritime frontline in the key Central Pacific Sea battles, to homebase defensive duties, or as mobile bombardment platforms for island-hopping operations. **Kennedy** in ***Victory at Sea*** summed up the battleship predicament where the war in the Pacific was not a theatre where the big ships could excel.[62] The writing had been on the evolutionary capability wall for some time. In 1921, US Brigadier General Billy Mitchell had shown the blatant power of air over the battleship in a demonstration where eight of his biplane bombers sank the former German dreadnaught *Ostfriesland,* much to the chagrin of the gun club members.[63] Whilst the US, even with naval treaty restrictions, generally chose to ignore the inconvenient capability development truth, the Japanese, who had sent a representative to Mitchell's demonstration, took note of the potential. In Japan, from the 1930s, despite a similar dispute between air and gun club fraternities, Admiral Yamamoto became a strong advocate of developing naval aviation and fast carriers.

Due largely to carrier actions, by the end of the Battle of Midway, Japan was compelled to go over to the defensive. Toll identified that whilst Midway was not decisive in itself in the Pacific, it did make a prolonged war of attrition a reality, something that Yamamoto had warned against.[64] The carrier versus battleship debate was partially answered at Pearl Harbor, reinforced in the Coral Sea and confirmed at Midway but it was not the only significant area of capability development in the Asian-Pacific theatre.

Midway also proved the growing value of intelligence and specifically the blending of cryptology and sigint, a complex capability area that started to reveal its potency during the Battle of the Coral Sea. Due to increased forecasting accuracy, the codebreakers and intelligence staff were eventually accepted into the planning cycle, becoming an integral part of the executive decision-making process. Ian Toll's trilogy vindicates the increasing confidence that commanders had in the intelligence staff and explains the effect that the discipline had on the outcome of the Pacific Campaign. As an addendum to USN actions in the Pacific, the part played by the British Pacific and East Indies Fleets (sometimes referred to as *the forgotten fleets*), is worth studying. The role the Commonwealth navies played in the Indian Ocean has been relatively poorly recounted, but comprehension provides some

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$1.9Bn. If the Norden Bombsight (Mk 14 or Norden M), a 55lb analogue computer, is included as a vital sub-component of the B-29, then the delta between the cost of the programme verses the Manhattan Project increases by circa $1Bn. On its own, the Norden Bombsight was WW2's third most expensive project. Refer to Gladwell, pp.13-29.

[60] See Spector pp.158-163.

[61] See Spector pp.151-153 and 167-177.

[62] Kennedy, P. *Victory at Sea; Naval Power and the Transformation of the Global Order in WW2,* New Haven and London, Yale University Press, 2022, p.466.

[63] The debate continued up to and into the war. General LeMay recounted an exercise off the West coast when his bombers attacked the USS Utah with water bombs to prove that bombers could hit a battleship at sea. Refer to Gladwell, pp.90-94.

[64] Toll, *Pacific Crucible,* pp.478-79.

broader understanding of the challenges of the actions undertaken from December 1944 to May 1945. Worth consulting is **David Brown's *The British Pacific and East Indies Fleets; 'The Forgotten Fleets'***.[65] Another niche area that had a significant impact on the course of the campaign was the development and employment of submarines.

Submarine Warfare - The War Within a War

Although, the US realised early in the war the impact that its submarine strategy could have against Japan, it had significant technological and leadership challenges to overcome before the capability could be fully brought to bear. For an understanding of the frustrations and triumphs of the submarine war in the Asia-Pacific region, **Clay Blair's *Silent Victory*[66]** deals comprehensively with all aspects of what has been referred to as *a war within a war*. Albeit nearly two years into the war, increasingly, the US submarine service ramped up its efforts against Japanese merchant shipping, conducting a tonnage war reflective of the Kriegsmarine in the Atlantic, where submarines were the weapon of choice. From a baseline of 89,000 tons of merchant shipping and tankers sunk in 1942 (regarded by Blair as a meaningless figure),[67] the eventual toll on the Japanese merchant fleet, and its effect on its extended garrisons, by the end of the war raised the profile of submarine capability to an extent that some believed US submarines alone could have defeated Japan – a viewpoint which grew in efficacy after the dropping of the bombs. What readers may find interesting in the US submarine campaign is how quickly the attitude changed when it came to attacking merchant shipping.

The Allies generally were appalled by the Kreigsmarine's adoption of 'unrestricted' merchant warfare, but the nomenclature and discretionary actions quickly changed hours after the attack on Pearl Harbor, with Washington instructing commanders in the Pacific to 'Execute Unrestricted Air and Submarine Warfare against Japan.'[68] Such was the pressure on Washington immediately after Pearl Harbor, Japan's strategic imports dependency was a weakness that the USN simply could not ignore. As the Japanese developed their maritime supply routes, so distribution patterns quickly emerged and the US submarine service was a logical arm for delivering an immediate effect. Unfortunately, whilst a parallel tonnage war strategy was easy to envisage, for a variety of complex reasons, US submarines were not initially capable of making a significant contribution to the attrition of Japan's merchant fleet.

In outline, the challenges the US submarine service faced at the beginning of the war ranged from weaknesses in leadership, ill-conceived tactics[69] and sub-optimal technologies. Issues of leadership, generally referred to as *the skipper problem*, are deftly covered in Blair[70]

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[65] Brown, D, (Ed). *The British Pacific and East Indies Fleets: 'The Forgotten Fleets,'* '50th Anniversary, Liverpool, Brodie Publishing Ltd, 1995.

[66] Blair, C Jr. *Silent Victory; The US Submarine War against Japan*, Annapolis, Naval Institute Press, 2001. Readers are spoilt for choice with regards appreciating submarine warfare during WW2. Clay Blair, Paul Kennedy, Peter Padfield and Craig Symonds are all superb, but they are the tip of the submarine warfare iceberg. Readers interested in submarine warfare during the Battle of the Atlantic are advised to consult Blair's two seminal volumes; *Hitler's U-Boat War; The Hunters 1939-1942*, London, Weidenfeld and Nicolson, 1997 and *Hitler's U-Boat War; The Hunted 1942-1945*, London, Weidenfeld and Nicolson, 1999.

[67] Ibid, p.360.

[68] Bemis, S, F. *Submarine Warfare in the Strategy of American Defense Diplomacy 1915-1945,* unpublished Ms, Naval Historical Center cited in Spector, p.478. Spector explains that not only was this directive in contradiction of the 1930 London Disarmament Agreement (which the US signed), but it also went against longstanding USN attitudes to the conduct of war at sea. A paradox however can be found in the US Rainbow Wargames from the spring of 1941 where unrestricted submarine and aerial warfare against the enemy forces' (Japan) merchant shipping was introduced and gamed, see Spector pp.479-480.

[69] For a description of the tactics (and a useful description of submarine logistics) adopted by US submarine commanders and the transition from February 1943, see Morison, *Breaking the Bismark Barrier 22 July 1942- 1 May 1944*, History of United States Naval Operations in World War II, Boston, Vol 6, Chapter 6, *Southwest Pacific Submarines 8 February 1943 – 1 May 1944*, Boston, Little, Brown and Co, 1957.

[70] Blair, pp.199-201 and p.818.

but can be summed up with many high-ranking naval officers believing that during the early stage of the war the crews and their submarines were too valuable to risk, explaining why many skippers did not show an overly amount of aggression in their war patrols. Spector rationalises the broader, nuanced phenomena where men who had performed perfectly well in peacetime, lacked the attributes needed to be a wartime submarine skipper.[71] Related to the general lack of aggressive offensive action are the inapt tactics initially implemented across the service. **Ian Ballantyne's *The Deadly Trade***,[72] provides a clear description of the suboptimal tactics and techniques that skippers were required to adopt. Finally, the issues over submarine technology, specifically the defective US Mk14 torpedo, the submariner's primary weapon, were infamous amongst the submarine service and amongst others, Spector[73] explains the technical problems and their effect on morale and combat effectiveness in what has been colloquially termed *the great torpedo scandal*. Whilst the Japanese deployed the reliable Type 93 Long Lance Torpedo, American submariners, after risking their lives to achieve a credible firing position, were furious when their torpedoes consistently malfunctioned. The interesting aspect of this largely bureaucratic debacle is how long it took the US to rectify what was a widespread and generally well reported technical problem[74] – two years into the war and the issue was still being rectified. Again, Blair and Ballantyne provide a succinct explanation of the technical and bureaucratic problems but also refer to Potter[75] and Mawdsley[76] for some figures. Paul Kennedy succinctly described the US torpedo problem as 'a miserable one…compounded by a failure in the leadership of the US submarine Service.'[77] As a study in leadership, the torpedo scandal stands out as an example in microcosm of the challenge of combat commanders speaking truth to power in the middle of a war. For two years, US submarine skippers were not only fighting the Japanese but also the technical experts who managed the torpedo inventory allocated to US submarines. These and other US leadership and technical weaknesses bolstered the effect of Japanese triumphs.

Such was the scale and extent of initial Japanese successes however, that akin to the Nazis in NW Europe post-1940, the Imperial High Command committed to increasingly unrealistic operations under a newly assumed invincibility described as *shoribyo* (or victory disease). The sea lines of communication were the keystones of the belligerent's strategies but the defensive perimeter envisaged by Japan was, in reality, a mirage. Not only were the vital sea lanes linking the Japanese mainland to their acquired raw materials vulnerable to interdiction, but Japan was unable to attack the sea lines of communication of the US or Britain. After Midway, the war at sea became increasingly one-sided, but it took longer to wrestle the initiative from Japan on land.

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[71] Spector, p.130.
[72] Ballantyne, I. *The Deadly Trade; The Complete History of Submarine warfare from Archimedes to the Present,* Weidenfeld and Nicolson, London, 2018, pp.423-426.
[73] Spector, p.130.
[74] The torpedo issue persisted from Dec 1941 to Sep 1943, 21 months of warfighting.
[75] Potter, pp.408-409 for US torpedo problems.
[76] Mawdsley, E. *The War for the Seas; A Maritime History of WW2,* New Haven and London, Yale University Press, 2019, p.354, P.358 and p.360. In the last quarter of 1941 US submarines were sinking 32,000tons of |Japanese shipping by the 3rd and 4th quarters of 1944 they were achieving 1.248 million tons.
[77] Kennedy, p.290.

The Burma- China Front and the Forgotten Army

As for the war in Asia and specifically Burma, there is no better place to start than **Bill Slim's *Defeat into Victory***.[78] A self-deprecating account of the war in the jungle, Slim explains how an almost defeated, largely forgotten 14th Army, after marching a 1,000 miles in retreat from Rangoon to the Indian border (the longest retreat in the history of the British Army), was rehabilitated spiritually, intellectually and materially. The narrative describes the enduring leadership traits that Slim instilled across all-ranks, and the challenges of bringing unity to the most multi-racial force in the history of warfare. Arguably, *the* best general that Britain has ever produced, *Defeat into Victory* is more than a book on campaigning, it is still regarded by many leadership institutions as a form of codex for future leaders. As for the campaign itself, **Julian Thompson's *War in Burma 1942-45*[79]** puts flesh on the leadership principals discussed by Slim. Using archival material from the Imperial War Museum, Thompson gives a clear idea of how difficult it was to survive and fight in the jungle from within the overall campaign plans of the belligerents. To understand the campaign from a small-unit perspective, **Kenneth Cooper's *The Little Men: A Platoon's Epic Fight in the Burma Campaign*[80]** remains unsurpassed – if you only have time to read one book about the Asia-Pacific War, make it *The Little Men*. Written from notes kept by the author during the war, amongst other details, Cooper describes close combat in the jungle over a year and half in the field; patrolling, night fighting and the crossing of the Irrawaddy – the lot of a soldier in a rifle platoon. Fighting a formidable enemy under the most appalling of conditions, Cooper describes the depravity, fear, comradeship, unsung heroics and relief of surviving the war in Burma. At Sandhurst, cadets are encouraged to read Sydney Jary's *18 Platoon*, having read both, *The Little Men* should be directed reading for all soldiers of every capbadge.

Logistics and 'the hump'

Studies of the logistics involved in Burma are relatively scant. Very little is available on Japanese sustainment (refer to postscript) and no single volume covers Allied logistics. Suffice to say, the unforgiving environment placed significant stress on all aspects of logistics. The Japanese had a taste of the challenges of sustaining their formations in the field when they engaged Chinese forces in 1937 in northern China. Once the Japanese had exploited from the Peking-Hankow railway line, they were subjected to a scorched earth policy by Chinese nationalist forces and, as in previous operations in Manchuria, they found it increasingly difficult for their 27 divisions[81] to live off the land. Unsurprisingly, operations became bogged down and the initial staff estimate of a one-to-three-month campaign dragged on for years. Not trivializing the difficulties of supporting the British led Long Range Penetration Force (Chindit) operations in Burma over non-established lines of communication using air transport and equine herds, but a case study which exemplifies the logistic challenges of the theatre are the sustainment operations conducted over 'the hump'[82] to China.

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[78] Slim, W. *Defeat into Victory*, London, Cassell and Co, 1956.

[79] Thompson, J. *The Imperial War Museum Book of the War in Burma 1942-45,* London, Pan Macmillan Ltd, 2002. Contains some five clear maps of Burma (black and white) together with an interesting appendices including a personal account of joining the Indian Army, the organisation of a jungle column and the typical marching loads of the Chindits (the Long Range Penetration Force).

[80] Cooper, K, W. *The Little Men: A Platoon's Epic Fight in the Burma Campaign*, London, Robert Hale Ltd, 1973.

[81] Japan had 27 divisions committed to China in 1941.

[82] 'The hump' was a 500 mile air route across the eastern Himalayas to supply Chinese forces. The route was perilous for aircrew who were required to fly above 18,000 feet in extreme weather conditions. Established in November 1941, 'the hump' became essential to the Allies as Japanese forces cut the Ledo Road in May 1942.

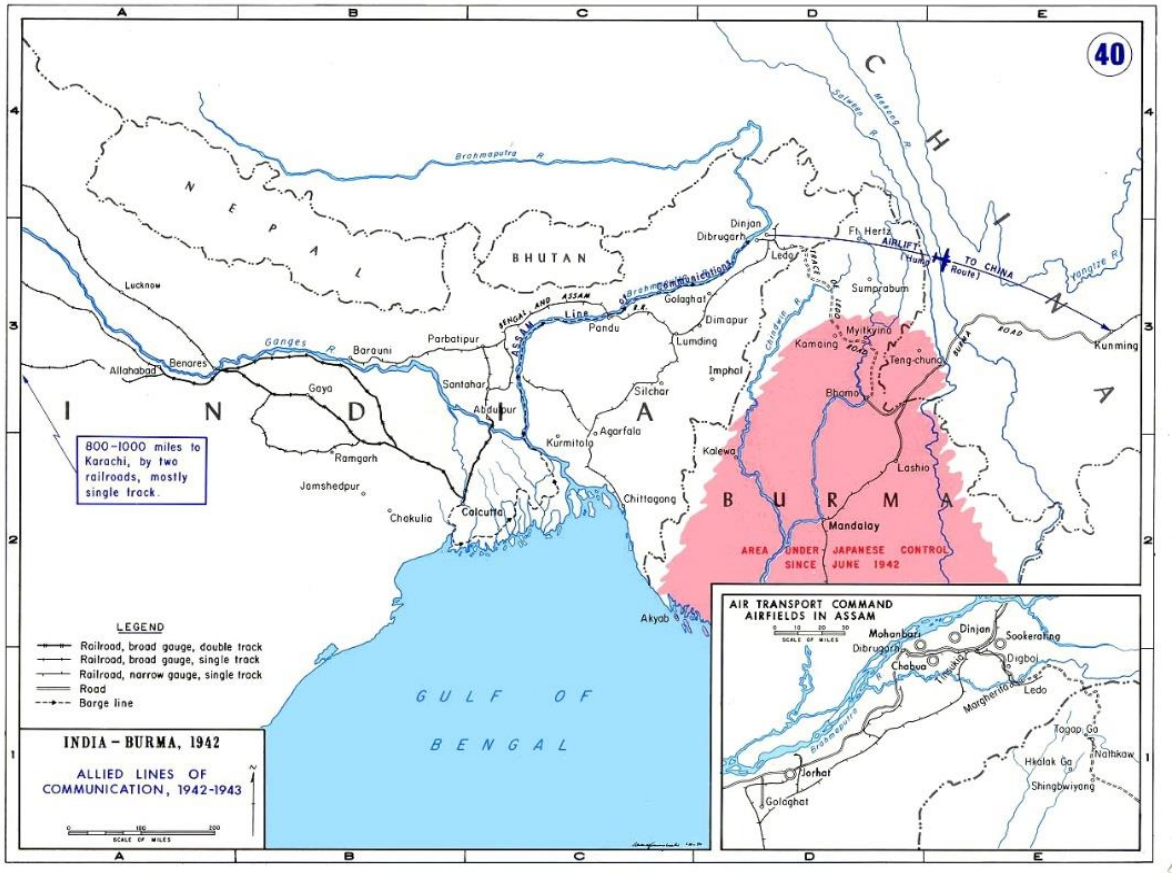

Fig 3: Allied Lines of Communication India-Burma 1942[83]

FDR concluded that keeping China in the war was essential to the Allies. Without the ability to manufacture its own war-like inventory and compelled to withdraw to the remote south-west provinces of Szechwan and Yünnan, the nationalists found it difficult to sustain their operations. Up until April 1942 three major lines of communication were used to supply Chinese nationalist forces. Between July 1937 and November 1938 the British organised supplies to be moved forward from Hong Kong. Supplies also arrived through the port of Hanoi in French Indo-China and moved by road and rail to Kunming in Yünnan – the Burma Road. The third route was established by Russia via Turkmenistan and the port of Odessa. The nationalists built some resilience into their support operations between 1937-38 when 100,000 labourers hand-built an all-weather road from Kunming to Lashio in northern Burma. All of these routes however were denied to the controversial leader of the Chinese nationalist army, Chiang Kai-shek. In April 1941 the Soviets signed a non-aggression pact with Japan and Russian supplies were curtailed. When Japanese troops moved into Indo-China in July 1941 the Hanoi route was cut and when the British were pushed towards the Indian border in April 1942 the Burma Road was severed.

FDR looked to supplying China and the small US force under General Stilwell[84] by air. Lacking any air transport contingency plans, with no trained transport crews or allocated aircraft, and no airfields, the task seemed a fantasy. The hump aerial route, was treacherous and its capacity was restricted by extremes of weather and the amount of air assets afforded

[83] The Department of History, United States Military Academy - [1], Public Domain, https://commons.wikimedia.org/w/index.php?curid=1113348 [Accessed 15 September 2025].
[84] General 'Vinegar' Joe Stilwell arrived in theatre in February 1942 and served until October 1944.

to the operation. For three years it was the longest supply line in the war, with aircraft operating from as far away as Karachi over the Himalayas to Kunming. During this period, the hump claimed circa 700 aircraft, resulting in the route becoming known to the pilots as 'the aluminum trail.'[85]

Fig 4: Curtiss C-46 Commando of the USAF flying 'the hump'[86]

Ultimately, hump operations proved costly but successful. The Allies kept China in the fight and compelled the Japanese to commit forces that would otherwise have been redeployed elsewhere in Asia and/or the Pacific. Worth seeking out are **Nathan Prefer's *Vinegar Joe's War; Stilwell's Campaigns for Burma*[87]** and **Steven Hantzis' *Rails of War: Supplying the Americans and their Allies in China-Burma-India***.[88] Both books paint a vivid picture of fighting, surviving and operating in the mountains, plains and jungles of China and Burma.

What these studies evidence is that if there was ever a war where logistics was *the* prominent planning factor, it was in the Asian-Pacific theatre. The stark reality of the theatre is that the Japanese were defeated not only in a clash of arms but in the consistent delivery of resilient logistics. Taking logistics to its lowest common denominator, **Overy** encapsulates the comparative fate of the belligerents in ***Why the Allies Won***, where every American soldier in the Pacific attracted four tons of supplies, for their opposing Japanese enemy, the allocation was a mere two pounds.[89]

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[85] Gladwell, p.133.
[86] United States Army Air Corps - National Museum of the United States Air Force, Public Domain File:231227-F-IO108-005 A C-46 flies over the Hump.jpg, downloaded 20 September 2025.
[87] Prefer, N, N, *Vinegar Joe's War: Stilwell's Campaigns for Burma*, Novato, Presidio Press, Inc, 2000. A very useful chronology of the China-Burma-India theatre of operations is contained at Appendix 5.
[88] Hantzis, S, J. *Rails of War: Supplying the Americans and their Allies in China-Burma-India*, University of Nebraska Press, Potomac Books, 2017.
[89] Overy, R. *Why the Allies Won,* London, Pimlico, 2006, p.257.

The Bomb

No examination of the Asia-Pacific Campaign would be complete without reference to the development and use of the atomic bombs. In many ways, the culmination of the war was as surprising as the *Day of Infamy*. Outside of a small circle, the dropping of the two atomic bombs on Hiroshima and Nagasaki was as bewildering as it was frightening. The decision to drop the bombs remains a complex and contested decision that has migrated from regional operational arguments to global historic and contemporary moral debates. The weak state of the Japanese nation in 1945, and the effectiveness of US mass incendiary bombing, are often evidenced to argue against the use of the atomic weapons.[90] The debate over the decision to drop the bombs is succinctly discussed by Costello.[91] LeMay did not believe that the atomic bombs had been the decisive weapon for bringing about an unconditional Japanese surrender, he held to the belief that firebombing made Japan end the war. His opinion is supported when the casualty figures are scrutinized. The combined atomic casualty total from Nagasaki and Hiroshima are estimated between 150,000 to 246,000 people killed, whereas two nights of conventional heavy bombing of Tokyo killed circa 100,000. Whilst the casualties are somewhat comparable, the paucity of ever more powerful atomic weapons, combined with the now-known reality of an atomic arms race, can be traced back to the legacies of the closing stages of the Asia-Pacific Campaign. When it comes to discussions over the development and use of atomic weapons, looking back at the Asia-Pacific campaign, perhaps the only thing that all parties can agree on is that technology can quickly lead down paths to unknown destinations. The successors of WW2 game-changing technologies are still with us today, unfortunately, their use is seldom used for good and more often they only expose the darker side of human nature.

Summary

It is ironic that within particular groups of both the IJN and USN there were significant misgivings over engaging in a conflict at sea across the Asia-Pacific region. Yamamoto's Imperial Combined Fleet calculated that an initial surprise attack on the US Pacific Fleet at anchor would be a high-risk operation resulting in only a temporal military advantage. The decision to go to war with the US in 1941 remains an exemplar in strategic miscalculations. The Japanese plan was based on the *best-case* scenario, rather than the *worst-case* or even *most likely* – a staff appreciation that today would broadly be dismissed as nothing more than a high-stakes gamble. Meanwhile, in Washington, US strategic planners foresaw that as a result of previous naval treaties, their unprotected naval bases in the Philippines would be unsuitable to sustain any sizable fleet in the Pacific. With sea lines of communication stretching to Hawaii, and then the West Coast, the Pacific Fleet was forced to initially rely on a support flotilla which needed significant enhancement to sustain credible concurrent task force operations. Eventually, after a colossal industrial build programme and a comprehensive military training syllabus, the US from the end of 1942 overhauled Japan in nearly every facet of total war.

Finally, not mentioned in the main text, but worth recognising, as a direct consequence of WW2, the establishment of the US Defence-Industrial Complex, which provisioned the Allies on an unprecedented scale, changed geo-politics and elevated the US to the superpower status that it retains today. The study of the Asia-Pacific War has many parallels with the

[90] For a thought-provoking and broad examination of the effectiveness of mass bombing see Gladwell.
[91] Costello, pp.579-582.

contemporary operating environment, not least the emergence of capital and command led economies that have the ability to develop and sustain vast defence inventories. When politicians confidently declare that we are living in 'unprecedented times,' some reflection on the build-up to, and the conduct of the Asia-Pacific campaign, might temper their untrammeled global foresight. Perhaps an appropriate way to finish this anniversary Book Club is leaving the last word to someone who was in Japan at the war's end. **Michael Moynihan** was a war correspondent in Normandy and the Ardennes, finishing the war with the British pacific Fleet in Japan. His personal view of the destruction of Japanese cities evidence that as a species, we may not have evolved that much. One of his final reports could be describing any number of the contemporary conflicts playing out in the media where *'The barren wastes of the semi-obliterated cities we had seen – Tokyo, Yokohama, Osaka, Nagoya, Kobe – man-made wildernesses of rusted tin, pulverized masonry, charred wood, provided the violent contrast between the old and the new Japan.'* Despite the dystopian, and all too familiar, landscape he witnessed, perhaps Moynihan goes on to capture the core of the human spirit; to always hope for a future where *'Out of the ruins and the twisted minds there is still the chance of a return to sanity.'*[92] Perhaps only by reflecting on desperate campaigns, such as that in the Asia-Pacific theatre, is there a real chance of permanently transitioning away from contemporary man-made disasters towards some semblance of sanity. Happy reading.

***Postscript*; Official Histories**.

Any study of the Asia-Pacific Campaign (or any WW2 campaign) will benefit in range and depth from consulting the various 'official histories' series, published over a long period by the protagonists. Whilst PCL holds many of these histories, most are available in digital form for free. One health warning for readers not familiar with any of the histories; they are large files and will take significant storage on digital platforms. In summary:

- The UK Official Histories were published in various series from 1957-1969. Five volumes deal with the War Against Japan with single volumes on *'The Campaign in Burma,' 'British Administration in the Far East 1943-1946'* and *'SOE in the Far East'* being the most relevant.
- The US published numerous volumes by the separate services. The Army series (known as the Green Books), has 10 volumes in the Pacific series with one volume each on the Pacific, China-India-Burma theatre and eight volumes on Asia. The US Navy published a semi-official history of the war, written by Samuel Eliot Morison (referenced in this Book Club). There are 14 volumes in this series with volume 15 offered as an index. The US Army Air Force published numerous volumes with nine specific to the war with Japan. The US Marine Corps published five volumes, all focused on the Pacific with numerous supporting monographs, commemorative publications and reference pamphlets.
- Australia published 22 volumes in total, six specific to the Asia-Pacific Theater.
- New Zealand published 50 volumes, eight on Asia and one on the Pacific.
- India published 24 volumes, six deal specifically with Asia.
- Japan published 102 volumes (known as Senshi Sosho), covering every facet of the War. Unfortunately, only one volume (Vol 3; *Occupation of the Dutch East Indies*) has been translated into English with excerpts also provided from two other volumes.

[92] The quotes are provided from Moynihan, M. *War Correspondent,* London, Leo Cooper, 1994, p.179, with kind permission of Pen and Sword Books Ltd [20 September 2025].

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