



# Plan

- Continuing the process of going back to look at some of the things, which were not known at the time, which hopefully should help us understand why things happened as they did.
- I will also spend some time following some of the actors in the story, to see whence they came and where they went.
- Last time we looked at the Land Battle on the Kokoda trail, at Guadalcanal & at Milne Bay.
- This week I want to look at some decision making processes.

# 1895 Sino Japanese War

- In a contest for influence over Korea Japan sent a force to Korea. They occupied the Royal Palace, captured the king and forced him to declare Korea's independence from China and grant the Japanese a monopoly on industry and trade.
- China objected and tried to get Russia and America to intervene. When hope of negotiations faded, China decided on war.
- Japanese forces routed the Chinese army on the Liaodong Peninsula and nearly destroyed the Chinese navy in the Battle of the Yalu River, one of the first naval battles between ironclad steamships with quick firing guns and torpedoes.
- In the peace treaty China ceded the Liaodong Peninsula and the island of Taiwan to Japan and withdrew any claims over Korea.
- After the peace treaty, Russia, Germany, and France intervened and forced Japan to withdraw from the Liaodong Peninsula.
- Soon afterwards Russia occupied the Liaodong Peninsula, built the Port Arthur fortress, and based the Russian Pacific Fleet there. Germany occupied Jiaozhou Bay, built Tsingtao fortress and based the German East Asia Squadron in that port.



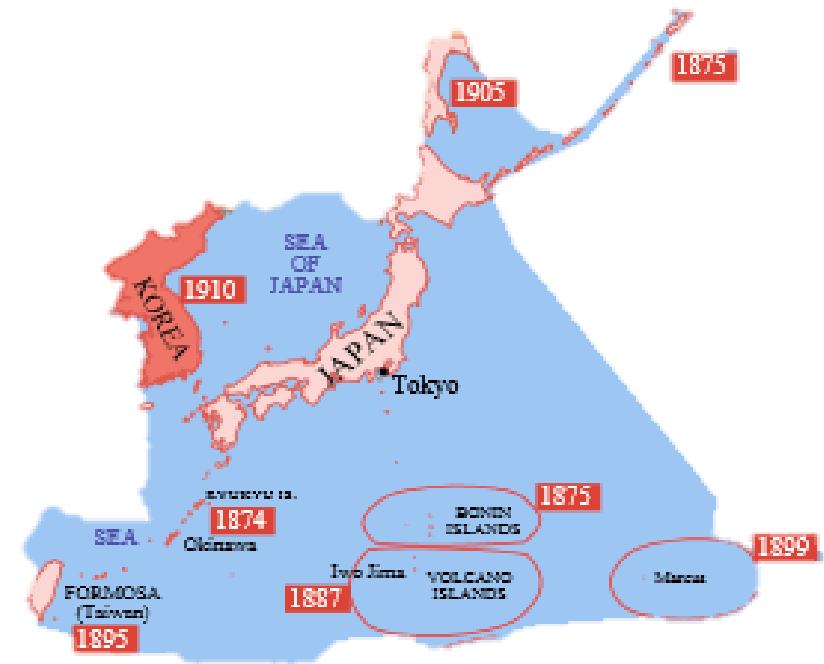
# 1905 Russo Japanese War

- Russia and Japan were competing for control of Korea and parts of Manchuria.
- Japan issued a declaration of war on 8 February 1904.
- Three hours before the declaration of war was received by the Russian government, the Japanese Navy made a surprise night torpedo attack on the Russian ships at Port Arthur. The attack heavily damaged the two biggest Russian battleships and a cruiser.
- The Japanese destroyed the Russian Pacific fleet by naval blockade and fire from land artillery by the army besieging Port Arthur.
- The Tsar then sent the Baltic fleet on a seven month expedition to the Far East that attracted world wide attention.
- The Japanese fleet intercepted the Baltic fleet in Tsushima Strait and annihilated it. Only three out of thirty eight Russian ships escaped to Vladivostok.
- Tsushima was the first battle in which radio played a significant part. Both sides had radio, the Russians were using German sets and had difficulties in their use and maintenance, while the Japanese had the advantage of using their own equipment.
- All the major ships in the Japanese fleet at Tsushima had been built overseas, but a significant percentage of the cruisers, destroyers and torpedo boats had been built in Japan.
- At the peace conference Russia agreed to evacuate Manchuria, recognise Japan's interest in Korea and cede half Sakhalin and the 25 year lease of Port Arthur to Japan.
- The Anglo-Japanese alliance meant that France was unable to come to the aid of its ally Russia as this would have meant going to war with Britain.



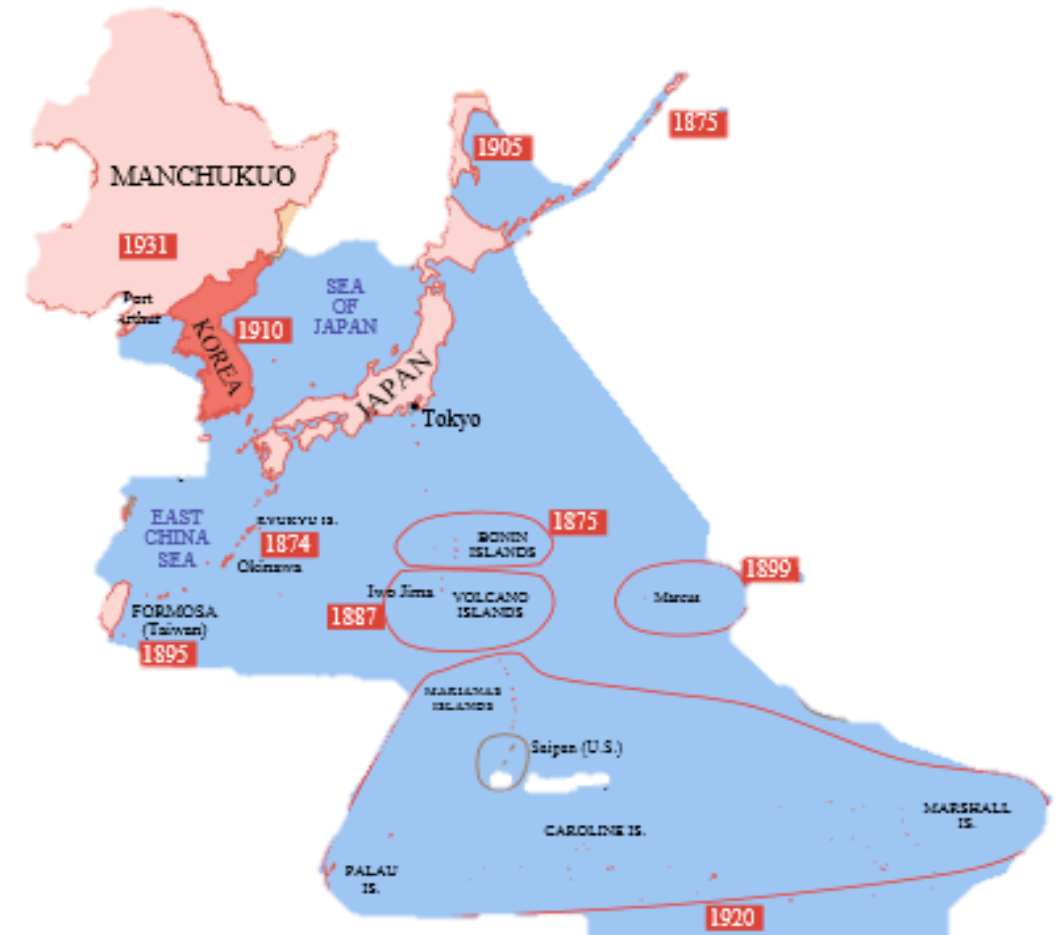
# 1910 Annexation of Korea

- Korea was occupied and declared a Japanese protectorate following the Japan–Korea Treaty of 1905, and officially annexed in 1910.
- After China and Russia had lost wars fought to preserve their interests in Korea there was no one left to object.



# 1931 – The Manchurian Incident

- Japanese influence in Manchuria had grown following construction of the South Manchurian Railway.
- In 1931 the Japanese Kwantung army, stationed there to protect the railway, detonated an explosion near the railway line (the Mukden Incident), blamed the Chinese and invaded and occupied the whole of Manchuria after five months of fighting.
- The incident had been staged despite specific orders from the Japanese government, nevertheless Japan went on to institutionalise its control over Manchuria by installing the last emperor of China, Puyi, as head of the puppet state of Manchukuo.
- Militarily too weak to challenge Japan directly, China appealed to the League of Nations for help.
- The League's investigation led to the publication of the Lytton Report, condemning Japan for its incursion into Manchuria, causing Japan to withdraw from the League of Nations in March 1933.



# Military Influence on the Government

- Ultra-nationalist groups in Japan increased in power and vehemence. In protest against the moderation of the Japanese Government, a fanatic had shot the Prime Minister, Mr Hamaguchi, in 1930.
- Japan's political system was so constructed that the Cabinet's responsibility was to the Emperor rather than to Parliament. Further, the armed forces were able in effect not only to act independently of or even without the knowledge of the Cabinet, but to force the resignation of a Cabinet with which they were at odds.
- On 15 May 1932 the Minister of Finance and the Prime Minister were assassinated by young naval officers, they had also planned to kill Charlie Chaplin, visiting Japan and due to attend a reception with the prime minister, but he had gone to watch a sumo contest with the prime minister's son.
- Another attempted coup d'état in Japan was organized by a group of young Army officers on 26 February 1936. The rebels assassinated several leading officials (including two former prime ministers) and occupied the government centre of Tokyo. They failed to assassinate Prime Minister Okada, shooting his brother in law by mistake, or to secure control of the Imperial Palace, and the coup failed.
- These affairs were very discouraging to moderate statesmen and the military increasingly controlled the government.



# 1933- 35 The beginning of Rearmament

- Japan gave notice of her intention to resign from the League in 1933
- and in December 1934 of her intention to abandon the Washington Treaty;
- Subsequently, both Japan and the United States announced increases in their shipbuilding programs.
- In January 1933 Hitler's Nazi party had been elected in Germany and then passed draconian legislation banning opposition parties. In October 1933 Germany withdrew from the Disarmament Conference and the League of Nations.
- In March 1935 the British White Paper on Defence Policy was published, announcing the decision to modernise defences; and
- the same month, March 1935, Germany announced the official constitution of an air force and the adoption of conscription to provide an army of 500,000 men. A few days later Hitler told the British Foreign Secretary in Berlin that Germany had already reached air parity with Britain.
- Under the Treaty of Versailles Germany was forbidden to raise an air force.



Yamato. The three Yamato class ships were the biggest battleships ever built.



Aircraft carrier Shokaku



# 1937 Second Sino Japanese War

- An incident at the Marco Polo Bridge near Peking in 1937, between Japanese and Chinese troops was escalated into a battle by the Japanese.
- The Chinese government decided that it was now necessary to mount full scale resistance to continuing Japanese aggressions and they attacked the Japanese settlements and garrison at Shanghai. This expanded to a major battle with the Japanese committing 200,000 men and extensive air and naval forces.
- After a three month battle the Japanese captured Shanghai and went on to capture the Chinese capital of Nanking in December 1937.
- These campaigns involved 350,000 Japanese soldiers, and even more Chinese.
- After the capture of Nanking Japanese troops tortured and murdered up to 300,000 Chinese and raped tens of thousands of women during the "Rape of Nanking" in December 1937 and January 1938.
- Affronts to British and American interests were frequent during the war in China. A Japanese battery shelled the British and American gunboats on the Yangtse River in December 1937 and the American gunboat Panay was bombed and sunk by Japanese planes with three of the crew killed and eleven seriously injured in the same month. It seems probable that these were deliberate attempts to discourage foreign individuals and governments from remaining in China.



Emperor Hirohito riding Shirayuki during an Army inspection on 8 January 1938

# 1939 A war of Attrition

- The Japanese captured Wuhan in October 1938, forcing the KMT to retreat to Chungking but Chiang Kai-shek refused to negotiate and continued the resistance.
- With casualties and costs mounting, the Japanese attempted to break Chinese resistance by launching massive air raids on civilian targets. Starting in January 1939 they hit Chungking and most other major cities in unoccupied China.
- The Japanese attempted to cut off the flow of supplies to China from the outside world by naval blockade and capture of the major ports.
- By the end of October 1938, Japanese troops had landed 35 miles north-east of Hong Kong, and surrounded it, cutting off supplies through Hong Kong, and positioning themselves for a swift and probably successful assault.
- There now remained three supply routes into China;
  - The North West from Russia,
  - French Indo China through Hanoi and
  - The Burma road.
- Chiang's main objective was to drag out the war for as long as possible, to exhaust Japanese resources.



# 1940 Exploiting French Collapse

- On the **16th June** the new French Government, formed by Marshal Petain and based in Vichy, asked the Germans for an armistice.
- Japan, on **20th June** demanded that the Vichyite French government of Indo-China stop the transport of war materials through Indo-China to China. The French complied.
- On the **30th August** the French Vichy Government consented to a Japanese military occupation of northern Indo-China and the construction of three airfields there.
- This enabled the Japanese to enforce the cutting of supply routes into China and to extend their airforce's reach into China.
- The war in China continued on the ground and in the air. Air raids on Chungking, the new Chinese capital, were usually made by 90 to 100 bombers, protected by the new, fast and manoeuvrable Zero fighter.



# American Intervention against Japan

- During air raids on Chungking on **6-7 July 1939** bombs fell on an American church near the embassy and close aboard the river gunboat USS Tutuila.
- On **26 July** the United States gave notice that her commercial treaty with Japan would be abrogated, clearing the way for the imposition of economic sanctions when the treaty expired in **January 1940**, and also increased her economic aid to China.
- In **July 1940** the United States initiated economic sanctions against Japan.
  - Congress passed an Act authorising the President to prohibit export of munitions he considered necessary for defence. The President then prohibited the export, except to Britain and her allies, of aviation fuel and certain kinds of iron and steel scrap.
- On **26th September** America placed a virtual ban upon export of any grade of iron or steel scrap to Japan.

# Development of the Axis

- The first step was the treaty signed by Germany and Italy in **October 1936**.
- On **18 November 1936** Japan recognised the Italian occupation of Ethiopia, in return Italy recognised the Japanese occupation of Manchuria.
- The next step was the signing in **November 1936** of the Anti-Comintern Pact, an anti-communist treaty between Germany and Japan. Italy joined the Pact in 1937.
- The "Rome–Berlin Axis" became a military alliance in 1939 under the so-called "Pact of Steel".
- The Tripartite Pact was signed by Germany, Italy, and Japan on **27 September 1940**, in Berlin.
  - Japan, Germany, and Italy .... undertake to assist one another with all political, economic and military means if one of the Contracting Powers is attacked by a Power at present not involved in the European War or in the Japanese-Chinese conflict.
- The Soviet–Japanese Neutrality Pact was signed on **April 13, 1941**, two years after the brief Soviet–Japanese Border War (1939). The pact permitted the Soviet Union to concentrate on its Western borders and permitted Japan to strike south without too much concern about its borders with Russia.



# Naval Precedents

- On the night of **11–12 November 1940** British naval aircraft attacked the Italian battle fleet at anchor in Taranto Harbour. 24 Swordfish torpedo bombers, from the aircraft carrier HMS *Illustrious*, attacked. Half carried torpedoes. Despite the shallow water in the port the 12 torpedo armed Swordfish sank three battleships.
- In **May 1941** swordfish, from HMS Ark Royal, attacked the German battleship Bismark in the open Atlantic and scored a hit, which so damaged her that she was only able to steam in circles until the pursuing battleships came up and sank her.



A Fairey Swordfish Mk I Naval torpedo aircraft



# 1941 – More exploitation of German victories

- In **March** the Vichy French Government gave Japan the right to occupy the airport at Saigon, which enabled her to dominate the whole of Indo-China and brought her within bombing distance of Singapore.
- After the Netherlands were occupied by the Germans, Japanese economic delegations visited Batavia and pressed for access to more oil and larger immigration quotas. After many weeks of discussion they were refused, and negotiations were finally broken off on the **18th June 1941**.
- **On 22nd June** Germany invaded the Soviet Union. Initial German successes further reduced Japanese concerns about possible attacks from Russia.



# 1941 American sanctions

- The Lend-Lease Bill, which allowed the US to provide supplies to countries fighting tyranny, without requiring payment, was passed on **11th March**. This provided supplies for China, but delivery was limited by the capacity of the Burma road.
- On **23rd July** the Japanese demand for bases in French Indo-China became known and on **24th July** Japanese troops began moving into southern Indo-China. They secured the use of a naval base at Camranh Bay, 750 miles from Singapore, and airfields within 300 miles of Kota Bharu, nearest point in Malaya, and Japanese troops reached the frontier of Thailand.
- On **26th July** President Roosevelt froze all Japanese assets in the United States by executive order. The British and Netherlands Governments promptly did the same. The concurrent action of all three governments deprived Japan at a stroke of her oil imports.
- Japan depended on imports for 90% of its oil consumption. Imports reaching 37 million barrels of crude and products in 1940/41. The US, Britain and the Netherlands controlled over 80% of world production and another 10% was in the USSR so there were no alternative commercial sources for the sort of quantities of oil that Japan needed.
- The Netherlands East Indies was the nearest source with sufficient production to replace Japanese imports from America, but the Dutch government was also a party to the freeze of Japanese assets.
- The United States intercepted and decoded a message from the Japanese Foreign Minister, on **31st July 1941** to the Ambassador in Berlin, telling him to explain to Hitler why Japan was moving south instead of against Russia.

# 1941 Efforts to Reinforce Malaya

- The Chiefs of Staff in London reviewed the forces available in Malaya, and on 8th January reported that although 586 would be ideal, 336 aircraft would give a fair degree of security; and in any event no more could be provided before the end of 1941. They would try to form five fighter squadrons for the Far East during the year. (There were then no modern fighters there.) They accepted the requirement for 26 battalions and indicated that this total would be reached by June.
- On 13th January Mr Churchill minuted the Chiefs of Staff that: “the political situation in the Far East does not seem to require, and the strength of our Air Force by no means warrants, the maintenance of such large forces in the Far East at this time.”
- British, Dutch and Australian representatives met in the last week of February, and drew up an agreement, without commitment to (by?) their governments, for mutual reinforcements in the event of aggression. Australia would provide troops and an air striking force at Darwin to reinforce Ambon and Koepang if required.
- Brooke-Popham was instructed "Avoidance of war with Japan is the basis of Far Eastern policy and provocation must be rigidly avoided."
- On 2nd February the 22nd Brigade AIF boarded the 81,000-ton Queen Mary in Sydney. They landed at Singapore on 18 February. In March and April the 9<sup>th</sup> Indian division arrived in Singapore, but it consisted of only two brigades (the third having been sent at the last moment to Iraq) and had no artillery.

# 1941 Efforts to Reinforce Malaya

- The arrival of Brewster Buffalo fighters from the United States in **February 1941** had eased the problem of lack of fighter planes somewhat. Altogether 167 Buffaloes were received and by the **end of May** the formation of four squadrons armed with these aircraft had been authorised.
- The Australian War Cabinet decided on **10<sup>th</sup> June** that a United Kingdom suggestion that two additional infantry brigades be sent to Malaya could not be considered apart from a complete review of the manpower situation.
- On **10<sup>th</sup> June** the British Chiefs of Staff stated that; The majority of the 450 shore-based aircraft which the Japanese can marshal against us are of obsolete types . . . and we have no reason to believe that Japanese standards are even comparable with those of the Italians . . . .We fully realise that our air strength in the Far East is below that necessary for reasonable security in the absence of a fleet, but we do not consider that, in the present situation, we are running more serious risks there than elsewhere.
- On **15<sup>th</sup> August** the 27th Brigade AIF, with some eight months' training behind it, arrived in Singapore. Having embarked at Sydney and Melbourne in late July.
- Malaya Command planned Operation Matador to counteract a Japanese landing on the Kra Isthmus. It was to be put into action as soon as an attack was imminent. If an enemy attacked or was invited into Siam, troops under British command would rush to **Singora** and defend it against a seaborne attack.



# 1941 US Japan Negotiations

- On **August 6<sup>th</sup>** the Japanese special envoy in Washington, presented a proposal for a general settlement.
  - Japan would undertake not to advance further into South East Asia, and offered to evacuate Indo China on settlement of “the China incident”.
  - In return the United states were to renew trade relations and help Japan to obtain all the raw materials she required from the South West Pacific.
- On **17th August**, on returning from his meeting with Churchill off Newfoundland, Roosevelt warned the Japanese that if Japan took any further steps in pursuance of domination, by force or threat of force, of neighbouring countries, the Government of the United States would feel compelled to take immediately any and all steps to safeguard the rights and interests of the United States and American nationals and towards ensuring the safety and security of the United States.
- On **18 October** Prince Konoye, the Japanese prime minister, resigned and was replaced by the war minister, General Tojo, who also retained both the war and home ministries.



General Hideki Tojo Prime Minister and  
leader of the Imperial Rule Assistance  
Association

# 1941 US Japan Negotiations

- On **5<sup>th</sup> November** US codebreakers deciphered an intercepted radio message from Tokyo to its Washington embassy, sent that day; advising that it was absolutely necessary that negotiations with the Americans be successfully completed by the **25<sup>th</sup> of November**.
- On the **20<sup>th</sup> November** the Japanese envoys handed to Hull a six - point proposal for a temporary agreement or modus vivendi, but it was not significantly different from the 6<sup>th</sup> August proposals.
- The American Chiefs of Staff needed, and asked their Government for, time (convoys of troops to reinforce the Philippines were at sea in the Pacific).
- On **22<sup>nd</sup> November** US codebreakers deciphered an intercepted radio message from Tokyo to its Washington embassy, sent on the same day advising that the deadline for negotiations could be extended to the **29<sup>th</sup> November** as long as there were real hopes of a successful outcome.
- The talk in Washington of *a modus vivendi* had greatly scared China, who feared that any form of Japanese-American settlement would mean that she would lose the American support she had received in the past and any hope of armed American support if the Japanese attack on her should be intensified. A protest by Chiang Kai-shek direct to Roosevelt (reinforced by similar protest to Churchill) had the effect of causing Hull to make fresh proposals to Nomura on **26 November**, demanding complete Japanese withdrawal from both Indochina and China.
- On **27<sup>th</sup> November** a message from Japan's Foreign Minister, to the Washington embassy was intercepted which stated that the negotiations would be ruptured. "I do not wish you to give the impression that the negotiations are broken off," said Togo. "Merely say to them that you are awaiting instructions."
- On **30<sup>th</sup> November** President Roosevelt had before him an intercept from Tokyo to Berlin telling the Japanese ambassador to warn Hitler that "there is extreme danger that war may suddenly break out between the Anglo Saxon nations and Japan, this may come quicker than anyone dreams".



# Matador

- Throughout 1941 the Foreign Office had been emphatic in its insistence that no aggressive move should be made against Thailand that might provoke a militant reaction from pro Japanese elements in Thailand or from Japan itself. Churchill wished to make it clear to Roosevelt that if hostilities broke out in Southeast Asia it would not be of his making.
- Elaborate preparations had been made for a British thrust into Thailand should the necessity arise. Maps had been printed, Thai currency bought and pamphlets drafted to explain to the Thai population the reasons behind the occupation of their country.
- British officers dressed in civilian clothing and posing as tourists slipped into Thailand to carry out reconnaissance of the target areas. They encountered Japanese officers on similar missions and often stayed at the same hotel, the German run Zoo hotel at Hat Yai. Both sides studiously ignored each other while taking careful note.
- Brooke Popham had initially been forbidden to order Matador without the permission of the war cabinet.
- Churchill had been sweating on a pledge of American support in Southeast Asia but Roosevelt kept him waiting. The breakthrough came when FDR told the British ambassador in the US, Lord Halifax, at a meeting in Washington on the 1st December that Britain could rely on American backing in the event of war with Japan. Halifax reported to Churchill that if Japan attacked a British possession we could certainly count on their support, though it might take a short time, he spoke of a few days, to get things into political shape here.
- When Brooke Popham sought authority from the Chiefs of Staff, the following day, to launch Matador on his own initiative permission was granted on 5th December in a cable addressed to him and Admiral Phillips. There were strings attached. The commanders in chief were informed that America's assurance of armed support was conditional on the Japanese attacking British territory or the Netherlands East Indies or on Matador being undertaken either to forestall a Japanese landing on the Kra Isthmus or as a reply to a violation of any other part of Siamese territory.
- After reading the telegram Brooke Popham informed Percival on the 5th of December that Matador could now be put into effect without reference to London if he had information that a Japanese expedition was advancing with the apparent intention of landing on the Kra Isthmus or if the Japanese violated any other part of Thailand.
- He wrote in his dispatch "a few days earlier it had been impressed on me that carrying out Matador if the Japanese intended to make a landing in Southern Siam would almost certainly mean war with Japan and in view of this I considered it my duty to be scrupulously careful in acting on the telegram of the 5th December."

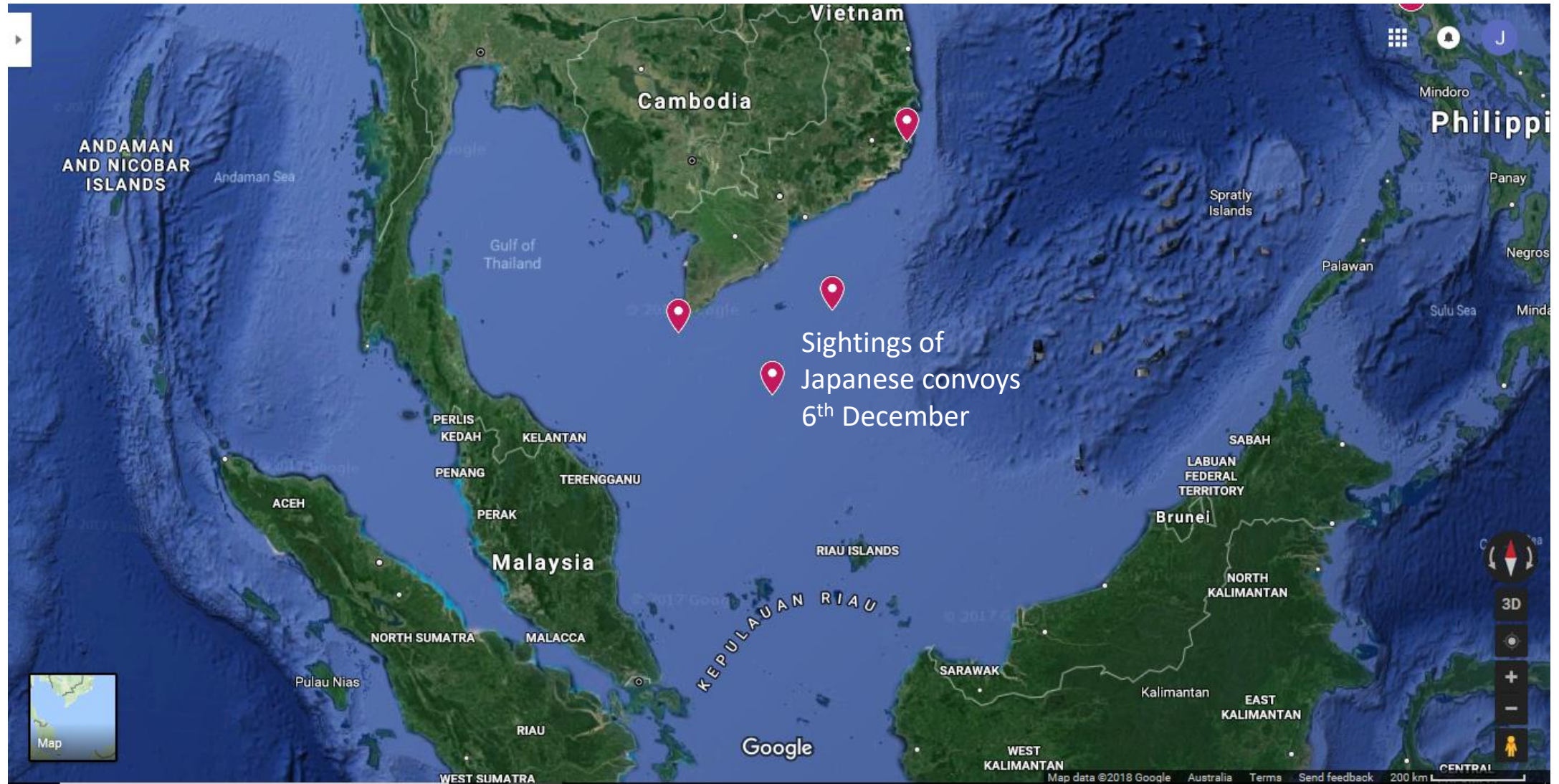
# The Gathering Storm

- **29 November 1941:** At 00.27, USS Luzon, carrying Admiral Glassford, and USS Oahu depart Shanghai.
  - 1 December 1941: Formosa Straits, Luzon and Oahu en route Shanghai to Manila encounter a large Japanese convoy headed southward. An IJN floatplane circles the Americans, followed by seven Japanese warships of various types.
- **1 December:** A Summary issued by ONI Washington, circulated to Pacific and Asiatic Fleets, stated:
  - “Deployment of naval forces to the southward has indicated clearly that extensive preparations are underway for hostilities. .. troop transports and freighters are pouring continually down from Japan and northern China coast ports headed south, apparently for French Indo-China and Formosan ports. Present movements to the south appear to be carried out by small individual units, but organisation of an extensive task force .. will probably take sharper form in the next few days. To date, this task force .. appears to be subdivided into two major groups, one .. concentrating off the South-east Asiatic coast, the other in the Mandates. Each constitutes a strong striking force of heavy and light cruisers, units of the Combined Air Force, destroyers and submarine squadrons. ... the major capital ship strength remains in home waters, as well as the greatest portion of the carriers.
  - equipment being carried south is a vast assortment including landing boats in considerable numbers. Activity in the Mandates (includes)..large reinforcements of personnel, aircraft, munitions”
- **2 December:** PBYs of patrol wing 10 at Manila reported 20 Japanese ships at Camranh bay on the coast of Indochina.
  - Next day 50 ships including cruisers and destroyers were reported at Camranh bay.
  - On the 4<sup>th</sup> there were none.
  - Further reconnaissance had to be abandoned because of violent weather.

# The Gathering Storm

- **2 December:** an unidentified aircraft was detected over Clark Field at approximately 05.30.
  - Pursuit pilots of the Far East Air Force received orders to intercept any such plane thereafter.
  - A plane was detected, on each of the next three nights but attempts at interception failed.
- **4 & 5 December:** At Kota Bharu, the monsoon deluge had turned the airfield into a morass so that for two days all aircraft of No 1 squadron RAAF were grounded. The searches by Hudsons of No. 8 Squadron and the Dutch Catalinas produced no information.
- **5 December:** The Melbourne Age reported:
  - Reports from Shanghai state that the Japanese are continuing to concentrate troops in the vicinity of Shanghai, apparently awaiting transport to the south.
- **6th December:** three Hudsons from No. 1 Squadron RAAF managed to get off the water-soaked runway at Kota Bharu to fly searches.
  - At 12.15 p.m. Flight Lieutenant Ramshaw, sighted three Japanese vessels—a motor ship, a minelayer and a minesweeper, he decided—185 miles from Kota Bharu, on a bearing of 052 degrees and a course of 340 degrees.
  - A quarter of an hour later Ramshaw recorded a second sighting; of one battleship, 5 cruisers, 7 destroyers and 22 transports, 265 miles from Kota Bharu, steering due west towards it.
  - At 12.45 p.m., Flight Lieutenant Emerton, reported sighting a comparably large force bearing 072 degrees, 360 miles from Kota Bharu and on the same course as that reported by Ramshaw.

# The Gathering Storm





# Warnings and what became of them

- Brooke-Popham consulted Layton and Phillips' Chief of Staff, Rear-Admiral Palliser on the **night of the 6th**. They concluded that probably the expedition would follow the course of the vessels first observed, and anchor at Koh Rong on the west coast of Indo-China.
- No word had been received of an actual breakdown of the Washington talks, and this Japanese move might be another step towards, yet not into, Thailand, in the war of nerves in which Japan was engaged.
- Brooke-Popham decided that he would not be justified in ordering "Matador" on this information, but orders were issued to bring all forces to the highest, degree of readiness.



Air Chief Marshall Brooke Popham  
and General Wavell

# Warnings and what became of them

- 7 December
  - A Catalina flying boat sent to take over the search in the early part of the night returned to Singapore at 8 a.m. on the 7th without having seen anything of the enemy convoys because of bad weather; another, dispatched at 2 a.m. on 7th December, failed either to report or return.
  - The Dutch Catalinas, the remaining Catalina of No. 205 Squadron and Hudsons from No. 1 and No 8 Squadrons and the photo reconnaissance Beaufort continued the reconnaissance. But the crews were defeated by the heavy monsoon weather.
  - At 3.45 p.m. a Hudson of No. 8 Squadron reported intercepting a Japanese merchant ship steaming south with "a large number of men on deck in khaki.
  - A Hudson, piloted by Flight Lieutenant Lockwood, signalled that at 5.50 p.m. it had sighted a cruiser and a motor-ship 112 miles from Kota Bharu, on a bearing of 009 degrees and a course of 270 degrees. The cruiser opened fire on the Hudson which took successful evasive action.
  - Flight Lieutenant Douglas, at 6.48 pm reported four large vessels steaming almost due south in a position about 60 miles north of Patani on the Kra Isthmus. Night had fallen and he was unable to describe the force with certainty; he thought it comprised a cruiser and three transports.



# Matador: Singora and convoy sightings



# Warnings and what became of them

- All available aircraft continued the reconnaissance **on the 7<sup>th</sup>** but the crews were defeated by the heavy monsoon weather until mid afternoon.
- From 3.45 p.m. to 6.48 pm Hudsons reported three sightings of convoys, one of which fired at the aircraft, all of which could be consistent with landings in Thailand.
- Percival said that if the Japanese were headed for Singora, it was unlikely that they could be forestalled by Operation MATADOR. He therefore held that the operation would be unsound.
- At a conference at with Brooke-Popham, Phillips, and Percival, it was decided not to order MATADOR that night, but to be ready to put it into effect at dawn.
- The troops of the 11th Indian Division had been standing by at half an hour's notice in drenching rain since the afternoon of 6th December. The division was disposed, with three battalions beside trains, two in camp with their trucks loaded, and one forward near the frontier. There they remained waiting for the morning's orders.



General Percival  
GOC Malaya

# The Wave Breaks

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- **8 December**
  - **00.35 in Malaya (03.05 Melbourne):** Kota Bharu airfield hear gunfire from the beach two miles away.
  - **07.57 at Pearl Harbour (04.27 Melbourne):** 14<sup>th</sup> Naval District broadcasts "Air raid Pearl Harbour—this is no drill."

# Warnings and what became of them

- The US Ambassador in Tokyo cabled Hull on **27th January 1941** that there was talk in Tokyo that a surprise mass attack on Pearl Harbour was planned by the Japanese military forces in case of "trouble" between Japan and the United States. This was passed on to the War and Navy Departments.
- On **7<sup>th</sup> February** General Marshall, Chief of Staff US Army, wrote to General Short, Commanding General Hawaiian Department, "My impression of the Hawaiian problem is that if no serious harm is done us during the first six hours of known hostilities, thereafter the existing defences would discourage an enemy against the hazard of an attack."
  - **The risk of sabotage, and the risk involved in a surprise raid by air and submarine, constitute the real perils of the situation."**
- On **5<sup>th</sup> March** General Marshall wrote to General Short, "I would appreciate
  - **your early review of the situation in the Hawaiian Department with regard to defence from air attack. The establishment of a satisfactory system of coordinating all means available to this end is a matter of first priority."**

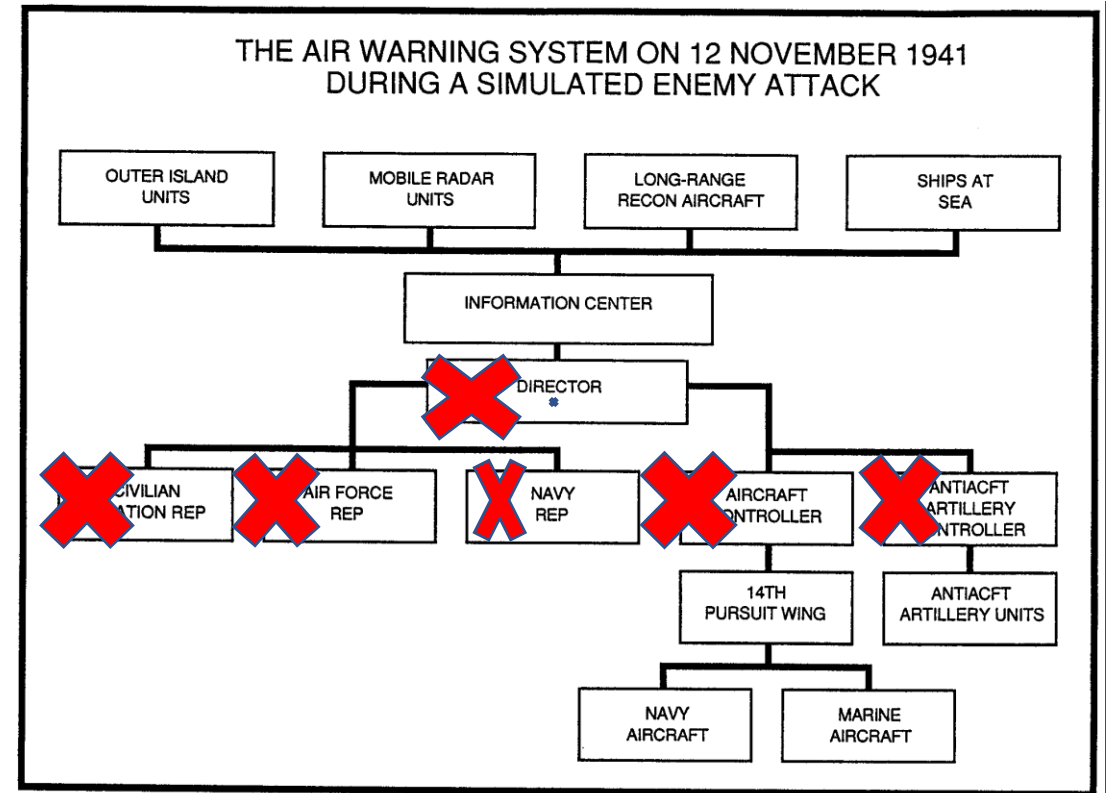
# 1941 American Reinforcement of Pacific

- In **July 1941** SCR – 270-B mobile radar sets began arriving on Oahu. The Signal Corp started assembling them and learning how to operate them. It was planned to install six sets around Oahu, capable of detecting planes at a distance of 130 miles. Henry Stimson, the Secretary of War, had taken a personnel interest in expediting the delivery of this equipment to Hawaii and required reports on its installation and testing.
- President Roosevelt asked the U.S. Congress to extend the term of duty for the draftees, scheduled to expire in October, beyond twelve months to a total of eighteen months, plus any additional time that he could deem necessary for national security. On **August 12**, the United States House of Representatives approved the extension by a single vote.
- On **7 November 1941** President Roosevelt orders all American river gunboats and the 1,200 men of the 4th Marines to leave China for the Philippines. The order says war between Japan and the United States is very close.
- General Arnold signalled the commander of the Hawaiian Air Force on **1st December**, saying, "We must get every B-17 available to the Philippines as soon as possible."
- USS Enterprise delivered Marine fighter squadron 221 to Wake Island early on **4<sup>th</sup> December**. Enterprise and her task force, commanded by Vice Admiral Halsey, then set course back to Pearl Harbor.
- On **4 December**, General Brereton directed that immediate steps be taken to move two squadrons with their sixteen B-17s, plus a limited number of B-18s for use as air transport, to **Del Monte** under a plan to have the bombers stage through Clark Field for operations in the event of hostilities.
- Native labor and local commercial companies assisted in rushing completion of minimum facilities (at Del Monte), but no more than the bare minimum had been provided when the first B-17 moved down from Clark on 5 December. Only one radio capable of communication between Mindanao and Luzon had been set up, and maintenance facilities were practically non-existent.
- On **6 December** General Arnold arrived at Hamilton Field in San Francisco for a personal inspection of preparations for the departure of the 38th and 88th Reconnaissance Squadrons to Hawaii on the first leg of a flight to the Philippines. That evening, thirteen B-17s of the two squadrons took off from Hamilton and headed for Oahu, with instructions to push through to the Philippines as quickly as possible.



# Warnings and what became of them

- The Hawaiian air warning system (AWS), consisted of radar units, an air warning center, and the 14th Pursuit Wing at Wheeler. The air warning center contained an information center, fighter director, and an aircraft/ antiaircraft weapon control system.
- In an exercise on 12 November 1941, the Navy launched a simulated strike from a carrier 80 miles out to sea. The radar stations easily picked up the attackers, the centre quickly identified them as enemy aircraft, and within six minutes interceptor aircraft were airborne and met the attacking force 30 miles from the island.
- Under the alert in force on 7<sup>th</sup> December, against sabotage with no external threat, the AWS was only manned to train radar operators and the plotters in the information centre.



Boxes crossed out were not required to be manned under the alert in effect on 7<sup>th</sup> December

# Warnings and what became of them

- On **27 November 1941** the War Department sent the following message to Army commanders in the Philippines, Hawaii and Western Defence Command:
  - “Negotiations with Japan appear to be terminated to all practical purposes with only the barest possibilities that the Japanese government might come back and offer to continue. Japanese future action unpredictable but hostile action possible at any moment. If hostilities cannot, repeat cannot, be avoided the United States desires that Japan commit the first overt act. This policy should not, repeat not, be construed as restricting you to a course of action that might jeopardize your defence. Prior to hostile Japanese action you are directed to undertake such reconnaissance and other measures as you deem necessary but these measures should be carried out so as not, repeat not, to alarm civil population or disclose intent. Report measures taken. Should hostilities occur you will carry out the tasks assigned in RAINBOW 5 so far as they pertain to Japan. Limit dissemination of this highly secret information to minimum essential officers.”
- The standard operating procedure of the army Hawaiian Department outlined three alerts:
  - the first required defense against acts of sabotage and uprising within the islands;
  - the second called for security against attacks from hostile subsurface, surface, and air forces, in addition to defense against acts of sabotage; and
  - the third provided for occupation of all field positions by all units, in preparation for the maximum defense of Hawaii.
- Within half an hour of receipt of the warning from the War Department, and after consulting only with his chief of staff, General Short, commander of the army Hawaiian Department, ordered Alert No. 1 into operation and notified the War Department of his action.
  - Aircraft were concentrated in hangars or in open spaces nearby, and extra guards were placed about the aircraft and military installations.
  - Aircraft were defueled with an allowance of four hours’ notice to make them ready for flight.
  - Ammunition not needed for immediate training was boxed and stored in central locations difficult for an enemy to reach and destroy.
- Earthen bunkers had been built all around Wheeler field where 125 fighters could be dispersed and protected against air attack. Colonel Flood the base commander asked if he could keep the fighters dispersed but General Short disapproved the request.
- The air warning system was not manned under alert No 1. The radar units operated for training purposes from 04.00 to 07.00 every day, under the control of the Signal Corps. The aircraft plotters manned the Information Center during that time to record reports from the radars but no director or aircraft controller was on duty.

# Warnings and what became of them

- During the week preceding 6<sup>th</sup> December, the entire Hawaiian army command had engaged in a full scale exercise for seven consecutive days. Army units deployed, antiaircraft units drew ammunition and set up stations all over the island, and the Hawaiian Air Force armed aircraft and dispersed them to protective revetments. The air warning centre was fully operational and launched aircraft against simulated attacking targets.
- General Short considered this exercise a great success. After it finished on 6<sup>th</sup> December, personnel returned to barracks, cleaned and repaired the guns and equipment, removed the ammunition and repacked it in storage containers and returned the aircraft to their main bases to be reparked close together because Alert One was still in effect.
- At Wheeler field, the main fighter base in Hawaii, ammunition was not only removed from planes, it was also removed from the belts so it could be boxed and stored in a central location.
- After this the troops were given the rest of the day off and told to report to work Monday.



General Short

# Trans Pacific Air Route

- In **February 1941** the US War Department had no plans for the movement of long-range aircraft to the Far East, and declared that it could see no need for them, and that it regarded as inadvisable the establishment of air bases in the Pacific islands which might possibly fall into the hands of the enemy.
- A presidential letter of **3 October** authorized the Secretary of War to “deliver aircraft to any territory subject to the jurisdiction of the United States, to any territory within the Western Hemisphere, to the Netherlands East Indies and Australia” and to construct the facilities needed for effecting such delivery.
- The Army immediately set about constructing the airfields required. The commanding general of the Hawaiian Department was given responsibility for implementing the project.
- Investigations showed that at least one 5,000-foot runway in the direction of the prevailing wind could be prepared by 15 January 1942 at four sites: **Christmas, Canton, Suva in the Fiji Islands, and Townsville.**
- **In New Caledonia,** representatives of the Hawaiian Department negotiated for improvement of airfields which could be used on the South Pacific route.
- From Hawaii on **6 December** General Short sent a message of re- assurance to General Arnold regarding preparations along the South Pacific air route, declaring that “we are striving very hard to make good our promise of having one runway at all fields so that we can use the route by 15 January.”

# Warnings and what became of them

- On **19<sup>th</sup> October** US codebreakers deciphered an intercepted radio message from Tokyo to its Honolulu Consulate, sent on 24<sup>th</sup> September, requesting regular detailed information about the location, within Pearl Harbor, of individual major ships.
- On **27<sup>th</sup> November** Admiral Stark signalled the commanders of the Pacific and Asiatic fleets:
  - “This dispatch is to be considered a war warning. Negotiations with Japan looking towards stabilization of conditions in the Pacific have ceased. An aggressive move by Japan is expected within the next few days. The number and equipment of Japanese troops and the organisation of naval task forces indicates an amphibious expedition against either the Philippines, Thai or Kra Peninsular or possibly Borneo. Execute appropriate defensive deployment preparatory to carrying out the tasks assigned in WPL 46.”
- the Navy (which had over 60 long-range PBY Flying Boats) accepted the responsibility for long -range reconnaissance in the Hawaii area. Admiral Kimmel had decided that he needed the flying boats to provide long-range coverage in the areas where he planned to operate the fleet during war. If used to patrol the Hawaiian area, he reasoned, they would deteriorate and not be available when the actual war began. Admiral Kimmel then took a calculated risk, based on the belief that the nearest Japanese possessions capable of supporting a full scale attack on Hawaii were located south of the islands, and began using a minimum number of flying boats for anti –submarine patrol only in that direction.
- Arrangements between the Navy and Army called for the Navy to go to the Air Force for assistance if the Navy was unable to provide the reconnaissance coverage necessary. The Navy never exercised this option, since it believed that an attack on Hawaii could not occur without some warning.
- In Conference with Commander Layton, Pacific Fleet Intelligence Officer, **on December 2nd Admiral Kimmel asked:**
  - “What? You don’t know where Carrier Divisions 1 and 2 are!”
  - Layton: “No sir, I do not. I think they are in Japanese home waters, but I do not know where they are. The rest of these units, I feel pretty confident of their location.”
  - Kimmel: “Do you mean to say that they could be rounding Diamond Head and you wouldn’t know it”
  - Layton: “I hope they would be sighted before now.”
- Robert Shivers, agent-in-charge FBI, Hawaii, intercepted a phone call from the Japanese Consulate in Honolulu on **3<sup>rd</sup> December**, in which the cook at the Consulate stated that the Consul was burning all his important papers. Shivers immediately forwarded this information to intelligence officers of the Army Hawaiian Department and the 14<sup>th</sup> Naval District. The Navy passed the information on to Washington, who advised that the Japanese embassies in London and Washington were also burning papers.



# Warnings and what became of them

- **02.30 Washington (11.30 Sunday)**
- Marshall returns to the office, reads the final part of the note and drafts warning message.
- **03.00 Washington (12.00 Sunday)**
- Stark sees no need to issue further warnings but Marshall sends following warning for transmission to Pacific commands.
  - “The Japanese are presenting at 1 p.m. Eastern Standard time today what amounts to an ultimatum. Also they are under orders to destroy their code machine immediately. Just what significance the hour set may have we do not know, but be on the alert accordingly.”
- Marshall twice requests and finally receives assurances that all addressees will receive the message before 1pm EST.
- War department radio had been unable to reach Pearl Harbor that morning. So the message centre sent this warning by commercial cable.
  - By Western Union to San Francisco, then
  - By RCA commercial radio to Honolulu.
- It reached San Francisco at 12.17 pm EST.
- Was received in Honolulu at 1.03 pm EST (7.33 am local).
- But the teletype link from RCA to Fort Shafter was not operating.
- So the message was carried by a boy on a bicycle. He took shelter from the air raid and did not arrive until 11.45 am local.

# Outcome

- **07.57 at Pearl Harbour (04.27 Melbourne):** 14<sup>th</sup> Naval District broadcasts "Air raid Pearl Harbour—this is no drill."
- In England, Churchill heard about the Pearl Harbour attack on the BBC news, apparently news of the attack on Malaya had not reached him at that time.
- He phoned Roosevelt to confirm that the Americans had been attacked.
- Then went to bed and slept the sleep of the saved and thankful.



USS Arizona

# 17<sup>th</sup> December

- **Command**
- The disaster at Pearl Harbor aroused the President to the dangers of divided command. Determined that there should be no repetition of the confusion of responsibility in Hawaii, the Navy was given command effective 17 December.
- President Roosevelt, on the advice of Secretary Knox, relieved Admiral Kimmel from active service in the Navy on the 17th December 1941.
- Admiral Chester Nimitz, appointed Commander in Chief Pacific Fleet in his stead was in Washington.
- Vice-Admiral Pye, Commander, Battle Force, who had lost his flagship, California, at Pearl Harbour, was appointed C-in-C, Pacific Fleet, pending the arrival of Nimitz at Hawaii.
- the Navy on the 17<sup>th</sup> also relieved General Short, and Maj. Gen. Frederick Martin, the air commander.



Admiral Chester Nimitz

# Kimmel and Short

- The Roberts Commission, appointed by President Roosevelt to investigate the attack, determined that Kimmel and Short, were guilty of errors of judgment and dereliction of duty in the events leading up to the attack.
- Kimmel defended his decisions at several hearings, testifying that important information had not been made available to him.
- In 1946 Short testified on his own behalf before Congress about the 1941 attack.
- Kimmel retired in early 1942, and lived in Groton, Connecticut, where he died on May 14, 1968.
- Short retired from the Army on February 28 1942 and died in 1949 in Dallas of a chronic heart ailment.
- In 1994 Kimmel's family, including his grandson, South Carolina broadcaster Manning Kimmel IV, attempted for the third time to have Kimmel's four-star rank reinstated. President Bill Clinton denied the request, as had Presidents Richard Nixon and Ronald Reagan. A 1995 Pentagon study concluded other high-ranking officers were also responsible for the failure at Pearl Harbor but did not exonerate Kimmel.
- On May 25, 1999, the United States Senate, by a vote of 52–47, passed a non-binding resolution to exonerate Kimmel and Short and requested that the President of the United States posthumously restore both men to full rank.

# Brooke-Popham

- Air Chief Marshal Sir Henry Robert Moore Brooke-Popham was a senior commander in the Royal Air Force.
- During the First World War he served in the Royal Flying Corps as a wing commander and senior staff officer.
- Remaining in the new Royal Air Force (RAF) after the war, Brooke-Popham held commands in:
  - Iraq (1928)
  - Imperial Defence College (1931)
  - Air Defence of Great Britain (1933)
  - Middle East (1935)
- On retirement in 1937 he was appointed Governor of Kenya.
- At the outbreak of war he rejoined the RAF and after a series of training posts was appointed Commander-in-Chief of the British Far East Command.
- It had been agreed in London that Brooke-Popham should be replaced as commander-in-chief on 1 November 1941 but the change was not made because of the critical situation.
- With the war with Japan now unfolding the cabinet envoy Duff Cooper urged Brooke-Popham's replacement and London agreed.
- On 27 December, at the height of the battle for Malaya, Brooke-Popham handed over command to Lieutenant-General Sir Henry Pownall.
- In May 1942, Brooke-Popham retired from active service in the RAF for the second time. His reputation severely damaged by the events in the Far East, he nevertheless continued to serve where he could. At some stage in 1942, Brooke-Popham became Inspector-General of the Air Training Corps, a position he held until 1945.
- Brooke-Popham died in the hospital at RAF Halton in Buckinghamshire on 20 October 1953.





# Outbreak of War – What we Now Know

- On **6 September 1941** the following resolutions presented by the army were adopted at a meeting of the Imperial conference presided over by the emperor:
- 1. Determined not to be deterred by the possibility of war with America and England and Holland and in order to secure our national existence we will proceed with war preparations so that they will be completed approximately towards the end of October
- 2. At the same time we will endeavour by every possible diplomatic means to have our demands agreed to by America and England.
- 3. If by the early part of October there is no reasonable hope of having our demands agreed to we will immediately make up our minds to get ready for war against America and England and Holland.
- A list of Japan's minimum demands and maximum concessions were also adopted. Summarised:
- 1. United States and Great Britain must let Japan settle China incident, must close Burma road and give no more assistance to Chiang Kai-shek
- 2. There must be no increase of British or American military forces in the Far East even in their own possessions
- 3. No interference with Japanese French relations as to Indochina
- 4. American cooperation for obtaining needed raw materials by restoration of free trade and assisting Japan to establish close economic relations with Thai and the Netherlands East Indies
- 5. Japan will not use Indochina as a base for operations against any country except China and will evacuate Indochina as soon as a just peace is established in the Far East
- 6. Japan will guarantee the neutrality of the Philippines.



The Emperor as head of the Imperial General Headquarters

# Outbreak of War – What we Now Know

- On **10 November** General Terauchi (photo right), commanding the southern army, and Admiral Yamamoto concluded a central agreement which outlined a detailed scheme of conquest, in substance as follows:
  1. Simultaneous landings of amphibious forces in Luzon, Guam the Malay Peninsula, Hong Kong and Miri, British North Borneo. All except the last to be preceded by air attacks.
  2. Carrier air attack on the United States Pacific fleet at Pearl Harbour.
  3. Rapid exploitation of initial successes by the seizure of Manila, Mindanao, Wake island, the Bismarcks, Bangkok and Singapore.
  4. Occupation of the Dutch East Indies and continuation of the war with China.



# Outbreak of War – WwNK

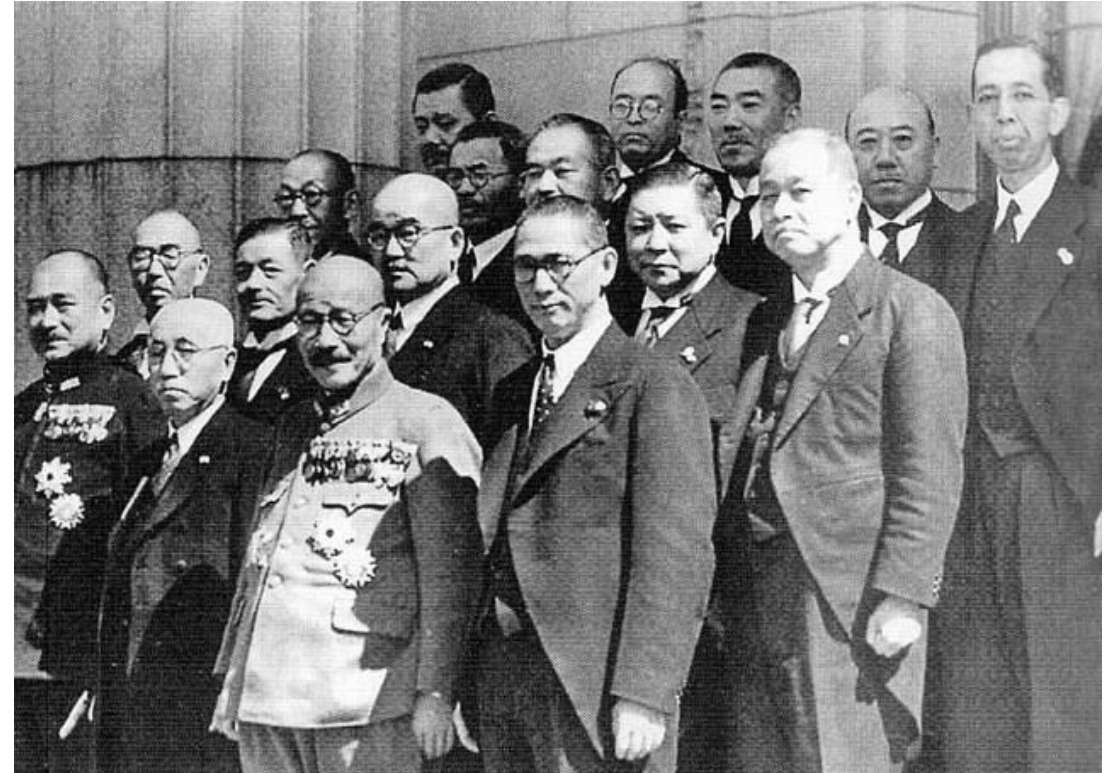
- On **25 November** Admiral Yamamoto issued his order to the striking force to sortie next day, to “advance into Hawaiian waters and upon the very opening of hostilities attack the main force of the United States fleet in Hawaii.” “The first air raid is planned for the dawn of X day, exact date to be given by a later order.”
- “Should the negotiations with the United States prove successful the task force shall hold itself in readiness forthwith to return or reassemble.”
- The carrier fleet, which had rendezvoused on the 22<sup>nd</sup> November at Takan Bay in the Kuriles, set off for Hawaii at **6:00 AM November 26<sup>th</sup>**.





# Outbreak of War – What we Now Know

- The final war decision was made at a senior statesman's conference with the Emperor on **30 November**.
- Konoye pleaded to proceed as we were with broken economic relations but without war.
- Tojo refused even to consider this alternative. “If we were to proceed with broken economic relations” he said “the final consequence would be gradual impoverishment.”
- On **1 December** the cabinet council met in the Imperial presence and ratified Tojo's decision to make war on America, Great Britain and the Netherlands.
- Operation plans for the three pronged attack were activated the same day and on the second the Pearl Harbour striking force was notified that the planned X day, eight December, was confirmed.
- The Pearl Harbour striking force was subject to recall.
- It was arranged that Nomura and Kurusu would present the Japanese reply to the 26 November proposals half an hour before the attack began.



Cabinet ministers of the first Tojo Cabinet, October 1941

# 16 May - Sea

- **South China Sea**
- On 16 May Lt Cdr “Red” Coe in Skipjack saw the wake of one of his torpedoes pass directly under a fat transport off Camranh Bay. It was the second time it had happened on that patrol.
- **Australian Coast**
- At 8.34 p.m. on the 16<sup>th</sup> (May) an intercepted radio message reported the Russian steamer Wellen (5,135 tons) being attacked by gunfire approximately 30 miles east of Newcastle.
- Merchant sailings from Sydney and Newcastle were suspended for 24 hours.
- An anti-submarine search with all available A/S craft; and air searches were carried out without finding the enemy.
- Wellen reached Newcastle at 2.30 a.m. on the 17th, having suffered slight damage. Her captain, one officer, and one rating were injured.
- The submarine had fired seven rounds at 100 yards range, and Wellen replied with low angle and machine-gun fire, whereupon the enemy submerged, the flooding of tanks being heard in Wellen.



“Red” Coe, CO, Skipjack



# 29 May - Sea

- Skipjack returned to Fremantle having sunk three ships but these had not obliterated the memory of the unexplained torpedo failures. Coe wrote in his report:
  - “To make round trips of 8,500 miles into enemy waters to gain attack positions undetected within 800 yards of enemy ships only to find that torpedoes run deep and over half the time will fail to function, seems to me an undesirable manner of gaining information which might be determined any morning within a few miles of a torpedo station in the presence of comparatively few hazards”
- As far back as December Lt Cdr Jacobs, CO of Sargo, had experimented with shallow depth settings and had inactivated the magnetic exploder, hoping to account for the failure of 13 torpedoes to explode.
- Later he requested test firing to check depth control.
- Complaints to the Bureau of Ordnance brought the reply in February that the torpedoes ran four feet deeper than the setting only during the first half mile of their run.



James Wiggin (Red) Coe, CO USS Skipjack

# 20 June

- **Sea**
- On 20 – 21 June Captain Fife, of the South West Pacific Command in Freemantle, took matters into his own hands and caused torpedoes to be fired, under his personal supervision, against a fisherman's net target. The results proved that the torpedoes ran about ten feet deeper than set.
- **Land**
- On 20th June General Blamey ordered Morris to take steps to prepare to oppose the enemy on possible lines of advance from the north coast and to secure the Kokoda area



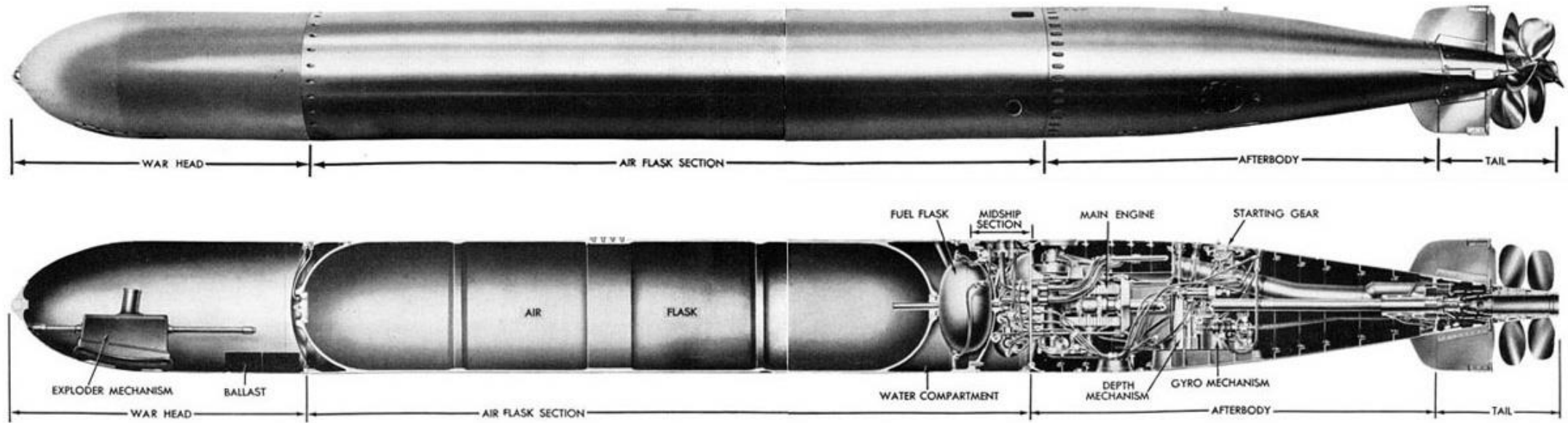
Captain James Fife

# The Mark 14 Torpedo

- Admiral King, "lit a blowtorch under the Bureau of Ordnance". The fact that destroyers' Mark 15 torpedoes were suffering the same failures may have had something to do with it.
- On 1 August 1942, BuOrd finally conceded the Mark 14 ran 10 feet deeper than set.
- and six weeks later, in mid September, "that its depth-control mechanism had been 'improperly designed and tested.'"



# The Mark 14 Torpedo



- The design of the Mark 14 started in January 1931, it was to serve in the new "fleet" submarines and replace the Mark 10 which had been in service since World War I and was standard in the older R- and S-boats.
- Although the same diameter, the Mark 14 was longer, at 20 ft 6 in (6.25 m), and therefore incompatible with older submarines' 15 ft 3 in (4.65 m) torpedo tubes.

# The Mark 14 Torpedo

- During World War I, the Navy had almost 300 destroyers each with 12 torpedo tubes. The Bliss Company was to produce about 1,000 torpedoes for the Navy, but production was delayed by demands for artillery shells and only 20 torpedoes were close to being shipped before WWI started for the U.S. When war was declared another 2,000 torpedoes were ordered. In order to increase production, the government loaned \$2 million to Bliss Company to build a new factory. Although the government had ordered 5,901 torpedoes, only 401 had been delivered by July 1918.
- The supply problems prompted the Navy to build the U.S. Naval Torpedo Station, Alexandria, VA, but WWI ended before the plant was built. The plant produced torpedoes for five years, but was shut down in 1923.
- In 1923, Congress made Newport Torpedo Station (NTS) the sole designer, developer, builder and tester of torpedoes in the United States. No independent or competing group was assigned to verify the results of their tests.
- When the Vinson Shipbuilding Program recognized the need for torpedoes to fill the torpedo tubes on its newly constructed ships, Newport received new production equipment and an increased budget. NTS produced only 1½ torpedoes a day in 1937, despite having three shifts of three thousand workers working around the clock. Production facilities were at capacity and there was no room for expansion.



# The Mark 14 Torpedo

- "Although torpedo production was still low – 3 a day – when the national emergency was proclaimed in September 1939, an investment of almost \$7,000,000 assured early improvement." By the fall of 1941, Alexandria had been reopened. The required production rate for torpedoes was raised to 50 per day. Both Newport and Alexandria went to 3 shifts operating 7 days per week, but their combined torpedo production was 23 torpedoes per day. The Navy contracted with the American Can Company to produce torpedoes.
- The short supply of Mark 14 torpedoes was compounded by a 10 December 1941 Japanese air raid on Cavite Navy Yard. The attack destroyed 233 Mark 14 torpedoes.
- After the U.S. entered the war, the contract with American Can was expanded and Pontiac Motor Company, International Harvester, E. W. Bliss Company, and Precision Manufacturing Co. were brought in as contractors.
- Until the spring of 1945, supply was a problem for the Mark 14 torpedo. The torpedo shortage at the start of the war also meant that commanders did not want to waste torpedoes on testing.

# The Mark 14 Torpedo

- Torpedoes consist of several subsystems, and those subsystems evolved over time. Improvements in the propulsion engine power output allowed the Mark 14 to have a top speed of 46 knots compared to the Mark 10's 30 knots.
- Steering is controlled by a gyroscope; the gyro on the Mark 10 was spun up in the torpedo tube and was not powered after launch; the gyro on the Mark 14 was continuously powered by its air flask.
- The depth control on the Mark 10 was slow — the depth would not stabilize quickly; the Mark 14 was designed for quicker depth stabilization.
- The design for the Mark 6 exploder had started at the Naval Torpedo Station (NTS) in 1922. Ship's armor was improving with innovations such as torpedo belts and torpedo blisters (bulges). To circumvent these measures, torpedoes needed larger warheads or new technology. One option would use a fairly small warhead but was intended to explode beneath the keel where there was no armor. This technology required the sophisticated new Mark 6 magnetic influence exploder.
- The Mark 6 exploder, designated Project G53, was developed "behind the tightest veil of secrecy the Navy had ever created."

# The Mark 14 Torpedo

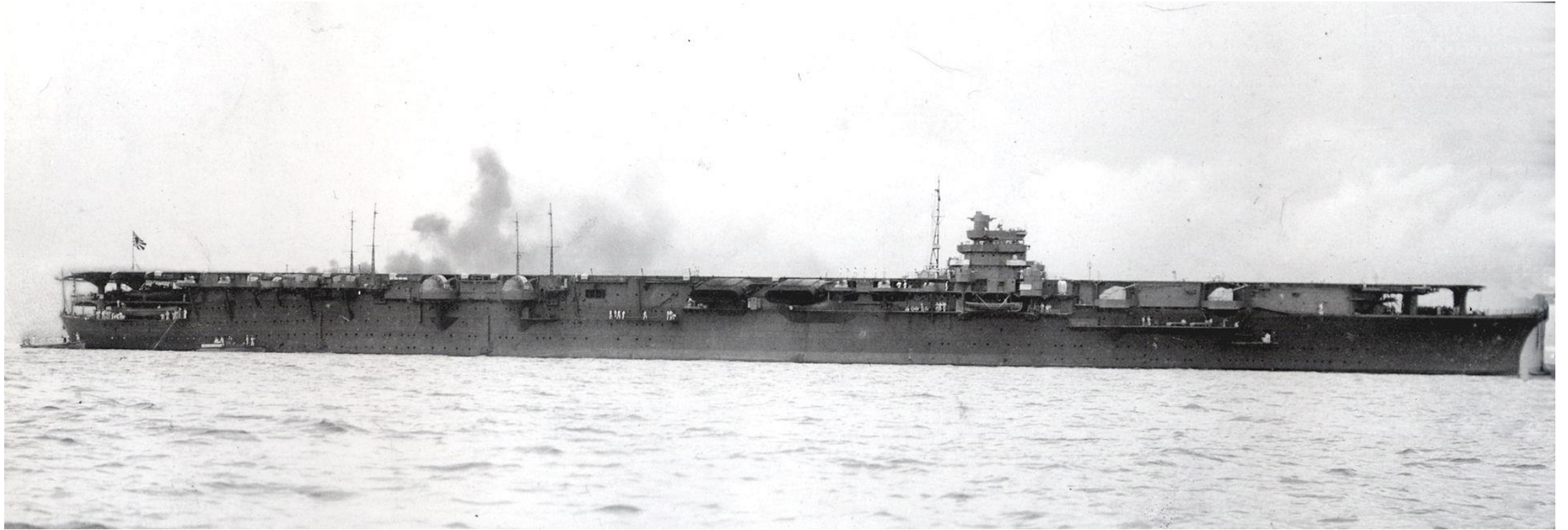
- Torpedo depth is a control problem. Depth, measured by a hydrostat, is used to control the elevators until the desired depth is achieved.
- When the Mark 14 was designed, the pressure sensing port for the depth mechanism was moved from its position on the cylindrical body on the mark 11 to the cone-shaped tail section.
- The designers did not realize that move would affect the pressure readings. This repositioning meant that when the torpedo was moving, a hydrodynamic flow effect created a substantially lower pressure at the port than hydrostatic depth pressure. The torpedo's depth control engine therefore thought the torpedo was too shallow depth and responded by trimming the torpedo to run deeper.
- A laboratory test (such as immersing a non-moving torpedo in a pool of water) would not be subject to the flow-induced pressure change and would show the torpedo trimmed at the desired depth. Dynamic tests using exercise heads with depth and roll recorders would have shown the depth problem, but the depth measuring port suffered from the same placement problem and gave consistent (though incorrect) measurements. The problem was also exacerbated by higher speeds. The depth problem was finally addressed in the last half of 1943 by relocating the sensor point to the midbody of the torpedo where hydrodynamic effects were minimized.

# The Mark 14 Torpedo

- By August 1942, the faulty running depth situation was resolved, and submarines were getting more hits with the Mark 14. However, curing the deep-running problem caused more prematures and duds even as more hits were being achieved. The number of sinkings did not rise.
- The deep running torpedoes would explain many warshot misses: a torpedo running too deeply under the target would not allow the magnetic influence exploder to detect the target. Getting the torpedoes to run at the correct depth would presumably fix the problem of the torpedoes failing to explode.
- The skippers, however, continued to report problems with the Mark 14. Suspicion about the magnetic influence exploder grew.
- On 9 April 1943, USS Tunny (photo) attacked an aircraft carrier formation. ULTRA intercepts disclosed that all three torpedoes fired at the second carrier were premature explosions. The commanding officer stated, "The shallow [depth] setting thus caused the torpedo to reach the activating flux density of the exploder some fifty meters from the target."



# The Mark 14 Torpedo



- On 10 April, USS Pompano attacked Japanese aircraft carrier Shōkaku (photo) by firing six torpedoes. There were at least three premature explosions, and the aircraft carrier was not damaged.
- On 10 April 1943, Bureau of Ordnance Chief Admiral Blandy wrote Lockwood that the Mark 14 was likely to explode prematurely at shallow depths. Blandy recommended that the magnetic influence feature be disabled if torpedoes were fired for contact hits.



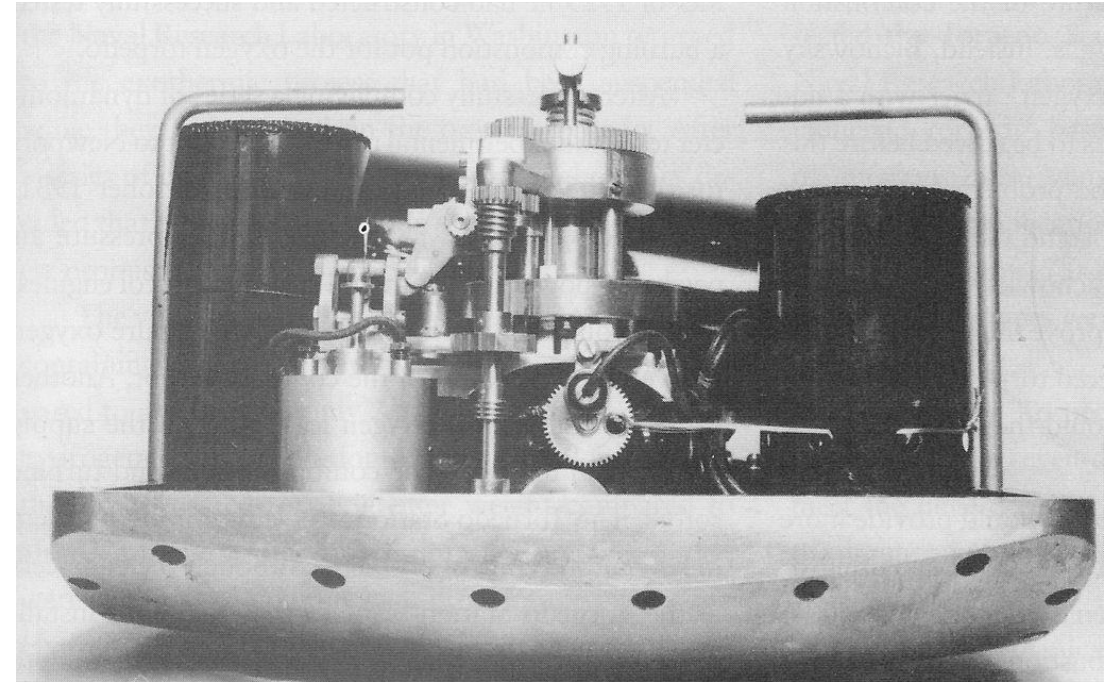
# The Mark 14 Torpedo

- On May 8, 1943, Lockwood (photo) made a list of torpedo failures gleaned from ULTRA intercepts.
- On 10 June 1943, USS Trigger fired six torpedoes from 1,200 yards at the aircraft carrier Hiyō. Two torpedoes missed, one exploded prematurely, one was a dud, and two hit. The carrier was damaged but made it home.
- Many submarine commanders in the first two years of the war reported explosions of the warhead with little to no damage of the enemy. The magnetic exploders were triggering prematurely, before getting close enough to the vessel to destroy it.
- Earth's magnetic field near NTS, where the trials (limited as they were) were conducted, differed from the areas where the fighting was taking place.
- BuOrd concluded the Mark 6 magnetic influence feature was less effective below 30°N latitude and did not recommend its use below 30°S latitude.
- BuOrd also concluded that the Mark 14's arming distance of 450 yards was too short; an arming distance of 700 yards would be needed for most torpedoes to stabilize their course and depth.



# The Mark 14 Torpedo

- There were two common types of premature explosions.
  1. The warhead exploded just as it armed. These were easily discerned by the submarine because the torpedo exploded before it had a chance to reach its target.
  2. The warhead exploded just before reaching the target ship but far enough away that it did no damage. The skipper, looking through the periscope, could see the torpedo run right to the ship and see the explosion. Everything would look OK except that the target would get away with little or no damage.
- Both premature explosion types could result from the magnetic influence exploder. If a torpedo was still turning to get on course or had not stabilized its depth when the warhead armed, the exploder could see a magnetic field change and detonate. As the warhead approached the target, it could sense a change due to the ship's effect on the earth's magnetic field. That's a desired effect if the torpedo is set to run under the ship, but not a desirable effect when the torpedo is set to hit the side of the ship.
- The second type of premature explosion masked contact exploder failures. Skippers firing the torpedo for a contact exploder hit on the side of the target would see an explosion and believe the contact exploder worked, but the explosions were triggered not by the contact feature, but rather by the magnetic influence feature at a distance far enough from the hull to cause little or no damage.



Mark 6 Mod 1 exploder used early in the war. Later on it was replaced with the Mark 6 Mod 5.

# The Mark 14 Torpedo

- Inactivation of the magnetic influence feature stopped all the premature explosions.
- Early reports of torpedo action had included some dud hits, heard as a dull clang. The contact pistol appeared to be malfunctioning, though the conclusion was anything but clear until running depth and magnetic exploder problems were solved.
- Daspit in USS Tinosa carefully documented his efforts to sink 19,000-ton whale factory ship Tonan Maru III on 24 July 1943. He fired four torpedoes from 4,000 yd; two hit, stopping the target dead in the water. Daspit immediately fired another two; these hit as well. With no enemy anti-submarine combatants in sight, Daspit then took time to carefully maneuver into a textbook firing position, 875 yd square off the target's beam, where he fired nine more Mark 14s and observed all with his periscope (despite the Japanese firing at it). All were duds. Daspit, suspicious by now he was working with a faulty production run of Mark 14s, saved his last remaining torpedo to be analyzed by experts back at base. Nothing out of the ordinary was found.
- It was now clear to all at Pearl Harbor the contact pistol was also defective. Once the magnetic influence exploder was deactivated, problems with the contact exploder became more apparent. Torpedoes would hit their target without detonating.
- Daspit's cruise raised enough of an issue that tests were carried out by COMSUBPAC's gunnery and torpedo officer, Art Taylor. Taylor, "Swede" Momsen, and others fired warshots into the cliffs of Kahoolawe, beginning 31 August. Additional trials, supervised by Taylor, used a crane to drop warheads filled with sand instead of high explosive from a height of 90 feet (the height was chosen so the velocity at impact would match the torpedo's running speed of 46 knots).
- In these drop tests, 70% of the exploders failed to detonate when they hit the target at 90 degrees. A quick fix was to encourage "glancing" shots (which cut the number of duds in half), until a permanent solution could be found.

# The Mark 14 Torpedo

- The Mark 6's contact exploder mechanism descended from the Mark 3 contact exploder. Both exploders had the unusual feature that the firing pin's travel was perpendicular to the torpedo's travel, so the firing pin would be subject to side loading when the torpedo struck its target. The Mark 3 exploder was designed when torpedo speeds were much slower (the Mark 10 torpedo's speed was 30 knots), but even then the Mark 3 prototypes had problems with the firing pin binding during the high deceleration when the torpedo collided with the target. The solution was to use a stronger firing spring to overcome the binding. The Mark 14 torpedo had a much higher speed of 46 knots, so it would see significantly higher deceleration, but BuOrd apparently just assumed the contact exploder would work at the higher speed. There were no live-fire tests of the Mark 14 torpedo, so there were no live fire tests of its contact exploder. If BuOrd had tried some live-fire tests of the contact exploder during peacetime, it probably would have experienced some duds and rediscovered the binding problem.
- Pearl Harbor made working exploders by using lighter weight aluminum parts. Reducing the mass reduces the binding friction. BuOrd suggested using a stiffer spring, the fix that had worked decades before.[89] In the end, BuOrd adopted a ball switch and electric detonator rather than using a firing pin mechanism.

# The Mark 14 Torpedo

- A 1915 graduate of the United States Naval Academy, Ralph Christie was trained in torpedo design and implementation and became one of the first members of the Submarine School at New London.
- In 1923 Christie graduated from the Massachusetts Institute of Technology with a Master's degree in Mechanical Engineering, specializing in torpedoes.
- During the 1920s, he was involved with project G-53, the highly secret program to develop the Mark 6 (magnetic Influence) exploder and the Mark 14 torpedo.
- After Pearl Harbor, Christie was posted to Brisbane and commanded submarine operations during the Solomon Islands campaign. His command were mainly old S boats armed with old Mark 10 torpedoes.
- He then returned to the U.S. as Inspector of Ordnance at the Newport Torpedo Station.
- In January 1943 Admiral English, Commander, Submarines, U.S. Pacific Fleet, was killed in a plane crash. Admiral Lockwood, commander of submarine operations in Fremantle was appointed to replace him and Christie was appointed to Lockwood's old command.



Captain Christie congratulates Lt Cmdr Moore, CO of USS S-44, on his return to Brisbane after sinking the Japanese heavy cruiser Kako in August 1942.



# The Mark 14 Torpedo

- Christie (photo) lobbied Vice Admiral Arthur 'Chips' Carpenter, Douglas MacArthur's Commander Allied Naval Forces, to allow him to replace Fife as commander of the larger submarine force at Brisbane. Carpenter refused, and Christie went on to Fremantle. Nevertheless, Christie continued to try for some time to take the Brisbane force under his control.
- By the middle of 1943, Lockwood had received enough reports from submarine officers to convince him the Mark 6 was significantly flawed. On 24 June 1943, he formally ordered all submarines operating out of Pearl Harbor to deactivate the magnetic influence feature. However, Christie was still committed to the exploder, and ordered Fremantle boats to continue using the influence feature. Submarines operating between the two commands were required to either enable or disable it, depending on which command area they were in. This difference of opinion strained relations between the two admirals.
- In November 1943, Carpenter was replaced by Admiral Kinkaid, who ordered the final deactivation of the Mark 6 in all combat commands. Christie abided by the order, commencing on 20 January 1944, but was still convinced the Mark 6 had potential.
- In November 1944, Christie was relieved of command of submarine operations at Fremantle by Admiral Kinkaid and returned to the United States, where he commanded the Puget Sound Navy Yard.



# Red Coe

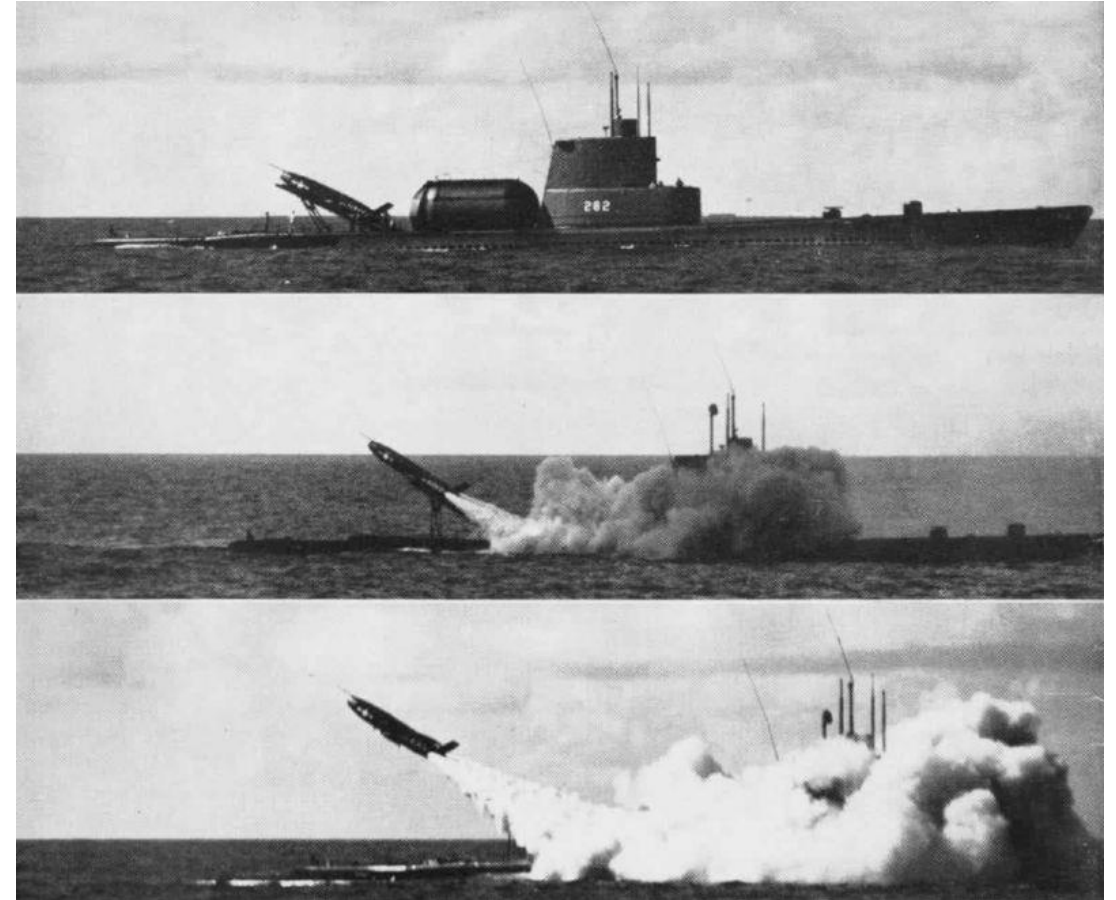
- In September 1943, the first torpedoes with new contact pistols were sent to war. "After twenty-one months of war, the three major defects of the Mark 14 torpedo had at last been isolated. Each defect had been discovered and fixed in the field—always over the stubborn opposition of the Bureau of Ordnance.
- It was 3 months after Red Coe sought to bring attention to the problems in May 1942.
- It was no help to Red.
- He was lost when his new command Cisco failed to return from its first war patrol in September 1943.



James Wiggan (Red) Coe, CO USS Skipjack

# USS Tunny

- Tunny survived the war and was decommissioned on 13 December 1945.
- On 6 March 1953, she was placed in commission again. Converted to carry guided missiles, she was armed with the Regulus I nuclear cruise missile. In this role, Tunny was equipped with a hangar housing two missiles and a launcher on the after deck. The firing submarine had to surface, the missile then being rolled out onto the launcher and fired.
- In 1957, she shifted her base to Pearl Harbor, and conducted the first submarine deterrent patrols.
- In 1966, when the Regulus missile system was superseded by Polaris, Tunny was converted to a troop-carrying submarine, being re-equipped with a deck shelter for small amphibious vehicles and other equipment.
- In February 1967, Tunny began missions in unconventional warfare, operating off the coast of Vietnam. She conducted reconnaissance in preparation for amphibious assault operations and gathered navigational and oceanographic information. She participated in Operation Deckhouse VI.
- Tunny was decommissioned on 28 June 1969.



Tunny fires a Regulus I missile

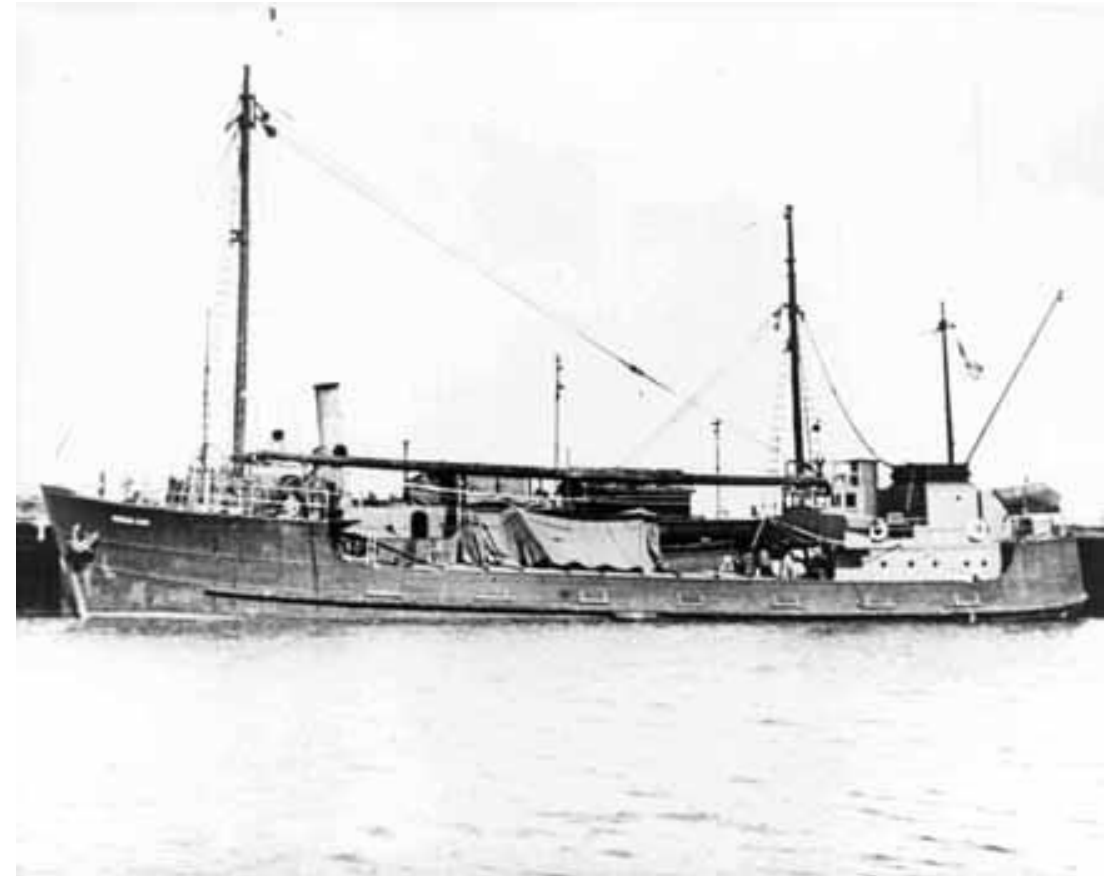
# Admiral Charles Lockwood

- Following promotion to rear admiral in May 1942, Lockwood arrived in Perth, Western Australia as Commander, Submarines, Southwest Pacific (COMSUBSOWESPAC). He also acted as Commander Allied Naval Forces, Western Australia, until July 1942, overseeing the major bases at Fremantle and Exmouth.
- In February 1943, following the death of the COMSUBPAC, Admiral English, in a plane crash, Lockwood was transferred to Pearl Harbor to become Commander, Submarines, Pacific Fleet (COMSUBPAC), in which capacity he served the rest of the war.
- As a result of Lockwood's initiatives, particularly the resolution of the torpedo issues, the "silent service" suddenly began racking up many kills.
- After the war in retirement at Los Gatos, California, he authored and contributed to several best-selling books on naval history and submarine operations, including Tragedy at Honda, Sink-Em All, Through Hell and Deep Water, Hell at 50 Fathoms, Zoomies, Subs and Zeros, Hellcats of the Sea, Battles of the Philippine Sea, and Down to The Sea in Subs: My Life in the U.S. Navy.
- He served as the technical advisor for the 1951 film Operation Pacific starring John Wayne. This film is considered a classic depicting submarine warfare. He was technical advisor for the 1957 film Hellcats of the Navy (a fictionalized version of his book Hellcats of the Sea), which starred Ronald Reagan and Nancy Davis. He also served as technical advisor to the 1959 films On the Beach and Up Periscope.
- Lockwood died on June 6, 1967. He is buried at Golden Gate National Cemetery in San Bruno, California, alongside Admirals Chester Nimitz, Raymond Spruance, and Richmond Kelly Turner, an arrangement made by all of them while living.



# 22 January - Sea

- On 22nd January Patricia Cam, a motor vessel of 301 tons, based on Darwin as a general purpose vessel, used mainly for carrying stores to outlying stations on the north and west coasts of Australia sailed from Elcho Island Mission for Jensen's coastwatching station on Marchinbar Island.
- Her complement was two officers and 17 ratings, and she had as passengers five natives, and the Reverend L. N. Kentish, chairman of the Methodist Northern Australian Mission District.
- At 1.30 p.m. on 22nd January, when the ship was just to the west of the Wessel Islands, a Japanese float-plane dived from out the sun with engines cut off, passed over the ship from stern to stem at a height of about 150 feet, and dropped a bomb which landed amidships in the centre of the cargo hatch and blew a hole in the bottom planking.
- Patricia Cam sank in about a minute.





# 22 January - Sea

- One of the crew, Ordinary Seaman Penglase, went down with the ship.
- The survivors got away on the only remaining raft, and on wreckage.
- The aircraft then returned and dropped a second bomb which killed Able Seaman Nobes and two natives, and fatally injured Stoker Cameron and a third native.
- The aircraft circled the area for half an hour, machine-gunned survivors (ineffectually) and then alighted on the water near to Mr Kentish, who was ordered by the pilot to swim across.
- He was questioned, and taken on board the aircraft, which took off and was not seen again.



# Rev Leonard Kentish

- Poor Mrs. Violet Kentish remained entirely in the dark as to the fate of her husband. “I know that Len is not beyond God’s love and care wherever he may be,” she vainly pleaded to the Minister of the Navy. “But you will understand because we are only weak humans, the heartache and longing for one we loved so much.”
- After World War II, she desperately resorted to firing letters to newspaper editors, until an intelligence officer chanced to read one published in the Argus and made the necessary inquiries via Gen. MacArthur’s staff in Tokyo. In the clipped official findings:
  - 1. The Rev KENTISH was taken on board a Jap float plane on Jan 22 43 after it had sunk the patrol vessel HMAS “PATRICIA CAM” off WESSEL IS.
  - 2. Unfortunately no info can be obtained of the whereabouts of the Rev KENTISH until 13 Apr 43, when he arrived at DOBO.
  - 3. The Rev KENTISH was held at DOBO as a prisoner till the 4 May 43. Throughout this period he was subjected to ill treatment by severe lashings, the most common being punches in the nose and eyes to such an extent that his nose was broken, and he had great difficulty in seeing. His diet, as such, was just sufficient to keep him alive.
  - 4. On the morning of 4 May he was taken in to the scrub, (a distance of under 200 yds from the township of DOBO) where a grave had been prepared, and executed.
  - 5. The execution was carried out by the order of 1st Lieut SAKIDJIMA.
  - 6. The remains of the Rev KENTISH have been recovered, and handed over to Capt STOCKWELL, of the War Graves Unit. They will be transported to AMBON, and buried in the Internees cemetery there.
  - 7. This case is now considered closed. All dates must be treated as approx.
- The inquiry resulted in a 1948 war crimes case against Lt. Sagejima Maugan, who was hanged in Hong Kong on August 23, 1948 for conducting Rev. Kentish’s execution.

- Thanks for Your Attention.
- Next week is the last of this year.
- I would enjoy a cold drink afterwards if any one is interested.