

1: Lest We Forget: World War II

During World War II the author was a young officer involved in selecting targets for bombing in the war against Germany and in evaluating the results—a necessary form of negative economic planning which fascinated its practitioners. Here, in the first of a series of case studies of "Ideas and Action.

Aerial bombardment and international law The Hague Conventions of 1864 and 1907, which address the codes of wartime conduct on land and at sea, were adopted before the rise of air power. Despite repeated diplomatic attempts to update international humanitarian law to include aerial warfare, it was not updated before the outbreak of World War II. The absence of specific international humanitarian law did not mean aerial warfare was not covered under the laws of war, but rather that there was no general agreement of how to interpret those laws. If the first badly bombed cities—Warsaw, Rotterdam, Belgrade, and London—suffered at the hands of the Germans and not the Allies, nonetheless the ruins of German and Japanese cities were the results not of reprisal but of deliberate policy, and bore witness that aerial bombardment of cities and factories has become a recognized part of modern warfare as carried out by all nations. A Critical History of the Laws of War explains that: Roosevelt, President of the neutral United States, issued an appeal to the major belligerents Britain, France, Germany, and Poland to confine their air raids to military targets, and "under no circumstances undertake bombardment from the air of civilian populations in unfortified cities" [36] The British and French agreed to abide by the request, with the British reply undertaking to "confine bombardment to strictly military objectives upon the understanding that these same rules of warfare will be scrupulously observed by all their opponents". If the Luftwaffe confined attacks to purely military targets, the RAF should "launch an attack on the German fleet at Wilhelmshaven" and "attack warships at sea when found within range". British historian Norman Davies writes in Europe at War "Also, the centrally placed town hall was an ideal orientation point for the crews. We watched possibility of orientation after visible signs, and also the size of village, what guaranteed that bombs nevertheless fall down on Frampol. From one side it should make easier the note of probe, from second side it should confirm the efficiency of used bombs. The directives issued to the Luftwaffe for the Polish Campaign were to prevent the Polish Air Force from influencing the ground battles or attacking German territory. Preparations were made for a concentrated attack Operation Wasserkante by all bomber forces against targets in Warsaw. German author Boog claims that with the arrival of German ground forces, the situation of Warsaw changed; under the Hague Convention, the city could be legitimately attacked as it was a defended city in the front line that refused calls to surrender. The Luftwaffe air campaign resulted in the deaths of an estimated 20,000–25,000 civilians. On 22 September, Wolfram von Richthofen messaged, "Urgently request exploitation of last opportunity for large-scale experiment as devastation terror raid Every effort will be made to eradicate Warsaw completely". His request was rejected. Therefore, there is no reason for French retorsions. The town was completely destroyed. The Polish air force left Poland on 18 September due to the Soviet attack on 17 September, and imminent capture of the Polish airstrips and aircraft stationed in eastern parts of Poland. There was no exception; even Pursuit Brigade, an organic part of the defences of the Polish capital, Warsaw, was transferred to Lublin, one week into the war. As the winter set in, both sides engaged in propaganda warfare, dropping leaflets on the populations below. The British government banned attacks on land targets and German warships in port due to the risk of civilian casualties. The Germans used the threat of bombing Rotterdam to try to get the Dutch to come to terms and surrender. After a second ultimatum had been issued by the Germans, it appeared their effort had failed and on 14 May, Luftwaffe bombers were ordered to bomb Rotterdam in an effort to force the capitulation of the besieged city. There was an attempt to call off the assault, but the bombing mission had already begun. Out of Heinkel He 57s, 57 dropped their ordnance, a combined 97 tons of bombs. In the resulting fire 1,000. The strike killed between 1,000–1,500 civilians, wounded over 1,000, and made 78,000 homeless. Furthermore, the bombing was against well-defined targets, albeit in the middle of the city, and would have assisted the advancing German Army. We are all agreed that it is better to draw the enemy on to this Island by striking at his vitals, and thus to aid the common cause. As a result of the attack, 47 people were killed and were wounded. Consequently,

the bombs were usually scattered over a large area, causing an uproar in Germany. Britain was determined to keep fighting. These training flights continued through July and August, and into the first week of September. The war against England is to be restricted to destructive attacks against industry and air force targets which have weak defensive forces. The most thorough study of the target concerned, that is vital points of the target, is a pre-requisite for success. It is also stressed that every effort should be made to avoid unnecessary loss of life amongst the civilian population.

2: Waging Economic Warfare from London – Central Intelligence Agency

*Pre-Invasion Bombing Strategy: General Eisenhower's Decision of March 25, (Ideas & Action) [W. W. Rostow] on www.enganchecubano.com *FREE* shipping on qualifying offers. Book is used and has been withdrawn from service from a Library.*

Until advances in radar technology in the late s, this statement was effectively true. Attacking bombers could not be detected early enough to assemble fighters fast enough to prevent them reaching their targets. Some damage might be done to the bombers by AA guns, and by fighters as the bombers returned to base, but that was not as effective as a proper defence. Consequently, the early conception of Bomber Command was as an entity that threatened the enemy with utter destruction, and thus prevented war. Planners used estimates of up to 72 British deaths per tonne of bombs dropped, though this figure was grossly exaggerated. As well, the planners did not know that German bombing aircraft of the day not quite Junkers Ju 52 medium bombers did not have the range to reach the UK with a load of bombs and return to the mainland. British air officers did nothing to correct these perceptions because they could see the usefulness of having a strong bombing arm. The first was lack of size; Bomber Command was not large enough effectively to operate as an independent strategic force. The second was rules of engagement; at the start of the war, the targets allocated to Bomber Command were not wide enough in scope. When the war began on 1 September, Franklin D. Roosevelt, President of the neutral United States, issued an appeal to the major belligerents to confine their air raids to military targets. While acknowledging that bombing Germany would cause civilian casualties, the British government renounced deliberate bombing of civilian property outside combat zones as a military tactic. Scale comparison diagram of the trio of British twin-engined medium bombers at the outbreak of the Second World War; the Whitley pink, the Vickers Wellington blue and the Handley Page Hampden yellow The British government did not want to violate its agreement by attacking civilian targets outside combat zones and the French were even more concerned lest Bomber Command operations provoke a German bombing attack on France. The final problem was lack of adequate aircraft. Bomber Command became even smaller after the declaration of war. This action had two aims: The Phoney War mainly affected the army; to an extent, Bomber Command too saw little combat during the first few months of hostilities. Bomber Command flew many operational missions and lost aircraft but it did virtually no damage to the Germans. Most sorties either failed to find their targets, or were leaflet-dropping missions the first flights by RAF bombers over the German homeland were only to drop propaganda leaflets at night. The remainder of the Battles proved to be horrendously vulnerable to enemy fire. Many times, Battles would set out to attack and be almost wiped out in the process. Due to French paranoia about being attacked by German aircraft during the Phoney War, the Battle force had actually trained over German airspace at night. Following the Rotterdam Blitz of 14 May, RAF Bomber Command was authorized to attack German targets east of the Rhine on 15 May; the Air Ministry authorized Air Marshal Charles Portal to attack targets in the Ruhr, including oil plants and other civilian industrial targets which aided the German war effort, such as blast furnaces which were visible at night. Of these, only 24 claimed to have found their targets. From July to the end of the year, Bomber Command lost nearly aircraft and over 1, aircrew killed, missing or captured. Bomber Command was also indirectly responsible, in part at least, for the switch of Luftwaffe attention away from Fighter Command to bombing civilian targets. A German bomber on a raid got lost due to poor navigation and bombed London. Prime Minister Winston Churchill consequently ordered a retaliatory raid on the German capital of Berlin. The damage caused was minor but the raid sent Hitler into a rage. He ordered the Luftwaffe to level British cities, thus precipitating the Blitz. When the German defences inflicted costly defeats on British raids late, a switch to night bombing was forced upon the Command. The problems of enemy defences were then replaced with the problems of night navigation and target-finding. It was common in the early years of the war for bombers relying on dead reckoning navigation to miss entire cities. Surveys of bombing photographs and other sources published during August, indicated that fewer than one bomb in ten fell within 5 miles. One of the most urgent problems of the Command was thus to develop navigational aids. Organisation[edit] Bomber

Command comprised a number of Groups. It began the war with Nos. Bomber Command also gained two new groups during the war: Many squadrons and personnel from Commonwealth and other European countries flew in Bomber Command. At its peak strength, 6 Group consisted of 14 operational RCAF bomber squadrons and 15 squadrons served with the group. It was a critical part of solving the navigational and aiming problems experienced. Bomber Command solved its navigational problems using two methods. One was the use of a range of increasingly sophisticated electronic aids to navigation and the other was the use of specialist Pathfinders. The technical aids to navigation took two forms. One was external radio navigation aids, as exemplified by Gee and the later highly accurate Oboe systems. The other was the centimetric navigation equipment H2S radar carried in the bombers. The Pathfinders were a group of elite, specially trained and experienced crews who flew ahead and with the main bombing forces and marked the targets with flares and special marker-bombs. Churchill noted that "this is a very serious paper and seems to require urgent attention". The directive also reversed the order of the previous year to conserve its forces – this resulted in a large campaign of area bombardment against the Ruhr area. The aerial bombing of cities such as the Operation Millennium raid on Cologne continued throughout the rest of the war, culminating in the controversial bombing of Dresden in 1945. In 1944, the main workhorse aircraft of the later part of the war came into service. The Halifax and Lancaster made up the backbone of the Command – they had a longer range, higher speed and much greater bomb load than the earlier aircraft. The Stirling and Wellington bombers were not taken out of service but used on less demanding tasks such as mine-laying. The classic aircraft of the Pathfinders, the de Havilland Mosquito, also made its appearance. By 25 July 1944, the Bomber Command headquarters was "a substantial set of red brick buildings, hidden in the middle of a forest on top of a hill in the English county of Buckinghamshire. By April 1945, Harris was forced to reduce his strategic offensive as the bomber force was directed much to his annoyance to tactical and transport communications targets in France in support of the invasion of Normandy. The transport offensive proved highly effective. By late 1944, bombing such as Operation Hurricane to demonstrate the capabilities of the combined British and US bomber forces, competed against the German defences and Bomber Command was capable of putting 1,000 aircraft over a target without extraordinary efforts. The peak of Bomber Command operations occurred in the raids of March 1945, when its squadrons dropped the greatest weight of bombs [quantify] for any month in the war. Wesel in the Rhineland, bombed on 16, 17, 18 and 19 February, was bombed again on 23 March, leaving the city "97 percent destroyed". Most of the rest of the RAF bombing raids provided tactical support. Made up of about 30 British Commonwealth heavy bomber squadrons, a reduction of the original plan of about 1,000 aircraft, to be based on Okinawa. Bomber Command groups were re-organised for Operation Downfall but the Soviet invasion of Manchuria and the Bombing of Hiroshima and Nagasaki occurred before the force had been transferred to the Pacific. Until navigational technology did not allow for any more precise targeting than at best a district of a town or city by night bombing. All large German cities contained important industrial districts and so were considered legitimate targets by the Allies. New methods were introduced to create "firestorms". The most destructive raids in terms of casualties were those on Hamburg 45, dead in and Dresden 25, – 35, dead [22] [23] in 1945. Each caused a firestorm and left tens of thousands dead. Other large raids on German cities which resulted in high civil casualties were Darmstadt 12, dead, Pforzheim 17, dead [24] and Kassel 10, dead. Regarding the legality of the campaign, in an article in the International Review of the Red Cross it was held that, In examining these events [aerial area bombardment] in the light of international humanitarian law, it should be borne in mind that during the Second World War there was no agreement, treaty, convention or any other instrument governing the protection of the civilian population or civilian property, as the conventions then in force dealt only with the protection of the wounded and the sick on the battlefield and in naval warfare, hospital ships, the laws and customs of war and the protection of prisoners of war. This covered all Bomber Command operations including tactical support for ground operations and mining of sea lanes. They were able to influence operations by identifying successful defensive tactics and equipment, though some of their more controversial advice such as removing ineffectual turrets from bombers to increase speed was ignored. Statistically there was little prospect of surviving a tour of 30 operations and by 1945, one in six expected to survive their first tour and one in forty would survive their second tour. The ostensible aim of the offensive,

breaking the morale of the German working class, must be considered a failure. The scale and intensity of the offensive was an appalling trial to the German people and the Hamburg attacks, particularly, profoundly shook the Nazi leadership. However, on balance, the indiscriminate nature of the bombing and the heavy civilian casualties and damage stiffened German resistance to fight to the end. In any case as Sir Arthur Harris put it, the Germans living under a savage tyranny were "not allowed the luxury of morale". Sir Arthur Harris himself believed that there was a relationship between tonnage dropped, city areas destroyed, and lost production. However it should be pointed out that the RAF also made a great contribution to the oil offensive as its abilities to attack precision targets had greatly improved since the arrival of new navigation and target-finding instruments; by mid it was also mounting huge bombing raids in daylight. Defence against air attacks required the production of thousands of anti-aircraft guns, the stockpiling of tremendous quantities of ammunition all over the country, and holding in readiness hundreds of thousands of soldiers, who in addition had to stay in position by their guns, often totally inactive, for months at a time. No one has yet seen that this was the greatest lost battle on the German side. Relying on US gathered statistics, the British survey found that actual arms production decreases were a mere 3 percent for , and 1 percent for . However they did find decreases of . These losses resulted from the devastating series of raids the Command launched on the Ruhr Valley. A contrasting view was offered by Adam Tooze that by referring to contemporary sources rather than post-war accounts there can be no doubt that the Battle of the Ruhr marked a turning point in the history of the German war economy. German aircraft output did not increase between July and March. The German industrial economy was so strong, its industrial bases so widely spread, that it was a hopeless task to try and crush it by area bombing. Further, up until it is undoubtedly the case that Germany was not fully mobilised for war, Speer remarked that single shift factory working was commonplace, and so there was plenty of slack in the system. It has been argued that the RAF campaign placed a limit on German arms production. This may be true but it is also the case that the German forces did not run out of arms and ammunition and that it was manpower that was a key limiting factor, as well as the destruction of transport facilities and the fuel to move. Some positive points should be made. The greatest contribution to winning the war made by Bomber Command was in the huge diversion of German resources into defending the homeland; this was very considerable indeed. Though the 88mm gun was an effective AA weapon, it was also a deadly destroyer of tanks, and lethal against advancing infantry. These weapons would have done much to augment German anti-tank defences on the Russian front. To man these weapons the flak regiments in Germany required some 90, fit personnel, and a further 1 million were deployed in clearing up and repairing the vast bomb-damage caused by the RAF attacks. This diversion to defensive purposes of German arms and manpower was an enormous contribution made by RAF Bomber Command to winning the war. From the British perspective it should be noted that the RAF offensive made a great contribution in sustaining morale during the dark days of the war, especially during the bleak winter of 1944. It was the only means that Britain possessed of taking the war directly to the enemy at that time. The first jet bomber, the English Electric Canberra light bomber, became operational in

3: RAF Bomber Command - Wikipedia

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No Comments Part 3: Right or wrong, that is what I did, and it is on that basis that I wish to be judged. But it is sometimes forgotten just how deep and pervasive political considerations in war are. As is well known, operational experts and commanders split over the most effective use of air power. Some favored the employment of tactical air power to sever the rail and road lines leading to the area of the proposed beachhead, while others proposed a systematic attack on the French rail network, leading to its ultimate collapse. This seemingly technical military issue had, however, political ramifications, because any attack particularly one targeted against French marshaling yards promised to yield French civilian casualties. Churchill intervened in the bombing dispute to secure a promise that French civilian casualties would be held to a bare minimum. In the world of affairs, as any close observer of government or business knows, conception or vision make up at best a small percentage of what a leader does—the implementation of that vision requires unremitting effort. The Churchillian model of civil-military relations is one of what one might call an uneven dialogue—an unsparing if often affectionate interaction with military subordinates about their activities. It flies in the face of the contemporary conventional wisdom, particularly in the United States, about how politicians should deal with their military advisers. All four of these statesmen, Clausewitzians by instinct if not by education, recognized the indissolubility of political and military affairs, and refused to recognize any bounds to their authority in military activities. In the end, all four provided exceptional leadership in war not because their judgment was always superior to that of their military subordinates, but because they wove the many threads of operations and politics into a whole. And none of these leaders regarded any sphere of military policy as beyond the scope of his legitimate inspection. The penalties for a failure to understand strategy as an all-encompassing task in war can be severe. The wretched history of the Vietnam War, in which civilian leaders never came to grips with the core of their strategic dilemma, illustrates as much. President Johnson, in particular, left strategy for the South Vietnamese part of the war in the hands of General William Westmoreland, an upright and limited general utterly unsuited for the kind of conflict in which he found himself. He did not find himself called to account for his operational choices, nor did his strategy of attrition receive any serious review for almost three years of bloody fighting. At the same time, the President and his civilian advisers ran an air war in isolation from their military advisers, on the basis of a weekly luncheon meeting from which men in uniform were excluded until halfway through the war. A Churchillian leader fighting the Vietnam War would have had little patience, one suspects, with the smooth but ineffectual chairman of the Joint Chiefs of Staff, General Earle Wheeler. He would, no doubt, have convened all of his military advisers and not just one, to badger them constantly about the progress of the war, and about the intelligence with which the theater commander was pursuing it. The arguments might have been unpleasant, but at least they would have taken place. Perhaps no strategy would have made the war a winnable one, but surely some strategic judgment would have been better than none. Nor can strategy simply be left to the generals, as they so often wish. Here, perhaps, contemporary observers of foreign policy and civil-military relations have indeed forgotten the lessons of the First World War: The Gulf War offers evidence as well of the frequent diversity of military views—for example, the split before the war between Army and Air Force generals over the efficacy of a strategy heavily reliant on air attack. If politicians air only authoritative strategic estimates, the chances are that other views have been suppressed, not that they do not exist. The Churchillian way of high command rests on an uneven dialogue between civilian leader and military chiefs not, let it be noted, a single generalissimo. It is neither comfortable for the military, who suffer the torments of perpetual interrogation; nor easy for the civilians, who must absorb vast quantities of technical, tactical and operational information and make sense of it. But in the end, it is difficult to quarrel with the results. He is the author of the prize-winning book *Supreme Command*: Thornton Butterworth, Rostow, *Pre-Invasion*

Bombing Strategy: University of Texas Press,

4: Walt Whitman Rostow | www.enganchecubano.com

Gordon Wright, "Pre-Invasion Bombing Strategy: General Eisenhower's Decision of March 25, W. W. Rostow The Division of Europe After World War II: W. W. Rostow Europe After Stalin: Eisenhower's Three Decisions of March 11,

It is also the last battle of the Pacific War. Three months of desperate combat leave Okinawa a "vast field of mud, lead, decay, and maggots. Navy guns and 3, sorties by carrier planes from Task Force 58 at the proposed landing sites at Hagushi and Chatan beaches. Preliminary bombardment of Okinawa begins months prior to landings Then on the morning of April 1st, navy ships rained a prelanding bombardment of 44, shells, 33, rockets and 22, mortar shells plus napalm attacks by carrier planes on the invasion beaches. This was the incendiary prelude to the Battle of Okinawa which Masahide Ota was to aptly and vividly describe in his book as "the typhoon of steel and bombs! Takejiro Higa of the th Language Detachment of the U. Conflicting emotions churned within him: But why must I invade the home of my ancestors? The American attacking force consisted of , troops of the U. Okinawa was defended by 77, troops of the Japanese 32nd Army commanded by Gen. Mitsuru Ushijima, assisted by Lt. Gen Isamu Cho and Col. Hiromichi Yahara, and augmented by conscripted 20, "Boeitai" Okinawa Home Guard as labor and service troops and middle school boys organized into the "Tekketsu Kinnotai" Blood and Iron Corps. For "Operation Iceberg," Pacific Commander Admiral Nimitz had assembled and launched the greatest amphibious invasion force of the Pacific War, as the horizon of the offshore sea was almost obliterated with hundreds and hundreds of ships moving toward the invasion beaches. As the pre-H Hour bombardment lifted, an 8-mile long line of amphibious assault and landing craft moved shoreward onto the Hagushi and Chatan beachheads landing 60, assault troops, surprisingly without any enemy fire or resistance. Allied forces land on Okinawa 20 kilometers to the south from the top of Shuri Castle, General Ushijima and his staff calmly peered through binoculars, witnessing the devastating bombardment followed by thousands of American troops landing on the beaches unmolested, laughing and bemused that the enemy had wasted all that valuable ammunition on undefended ground. But this was all in accordance with the Japanese strategy to conserve its troop strength concentrated in the southern end of Okinawa, by allowing an initial enemy landing but to strenuously defend against the invading Americans at the strongly fortified Naha-Shuri-Yonabaru defense line. Battleships provide protective fire for Marine landings Col. Yahara summarized the overall Japanese military strategy and philosophy of the Japanese defenders on Okinawa as the jikyusen, war of attrition, thusly: From the beginning I had insisted that our proper strategy was to hold the enemy as long as possible, drain off his troops and supplies, and thus contribute our utmost to the final decisive battle for Japan proper. Yahara, Deputy Chief of Staff, for General Ushijima, which not only predicted the exact date of the April 1 invasion but the American objectives of Kadena and Yontan Yomitan air bases, the expected American battle routes, and the Japanese defense positions, strategy and tactics. Early in the battle, U. The American assault units landing on the beachheads moved inland and quickly captured the Kadena and Yomitan airfields. Pierson of the 38th Japanese Order of Battle Team recalls going ashore on the second assault wave, landing with Takejiro Higa and advancing inland together through the rural Okinawan countryside. Upon making the unopposed landing on D-Day April 1st, American Army and Marine forces quickly advanced inland cutting through Koza, Shimabuku and Momobaru to reach Nakagusuku Bay on the Pacific Ocean side in two days and effectively cutting the island and its Japanese defenders in half. Three thousand Japanese of the 44th Infantry led by Col. Udo were entrenched in a defensive stronghold atop Yae-Dake, the highest point of the Motobu Peninsula. Finally on April 18, Yae-Dake was captured after the Japanese defenders suffered 2, killed and 46 captured, and at a cost of Americans killed and 1, wounded. Capture of Ie Shima The island of Ie Shima or "Ie Jima" lying 4 miles west of Motobu peninsula held one of the largest airfields in the Asia-Pacific region and was vitally needed to provide air support to the assault on Okinawa. Navy airplane fires rockets over Ie Shima On April 16, aerial and naval artillery, rocket and mortar bombardment saturated Ie Shima to soften up the beachhead landing of the U. Ie Shima was defended by an estimated 7, soldiers of the 44th Independent Mixed Brigade commanded by Major Tadashi Ikawa the "Ikawa Unit" entrenched in heavily and intricately fortified pillboxes, gun

emplacements, tunnels and caves centered around Ie town, Bloody Ridge and Iegusugu hill "The Pinnacle". The advance and encirclement of the Ie defenses by the 1st, 2nd and 3rd Regiments was stubbornly resisted by the Japanese defenders for six days. On April 17, the renowned war correspondent Ernie Pyle was killed by a hidden machine gun on the outskirts of Ie town. Ernie Pyle, famed war correspondent, shares a smoke with a Marine patrol On April 21 Ie Shima was declared secure after 4, Japanese were killed and captured with 1, Okinawan civilians dead while at a cost of Americans killed, wounded and 46 missing. Gen Andrew Bruce declared "the last three days of fighting were the bitterest I have ever witnessed. They were met by U. Navy taskforce carrier planes and withering anti-aircraft fire, resulting in the loss of over Japanese planes. Japanese Kamikaze attack the American fleet That night remnants of the Japanese fleet including the mighty battleship "Yamato" steamed out of Kyushu to meet the American flotilla off Okinawa, but on April 7th planes from Task Force 58 intercepted the Japanese armada in the East China Sea, directing bombing and torpedo attacks against the enemy fleet, sinking the pride of the Japanese Navy the "Yamato," cruiser "Yahagi" and three destroyers and destroying the last remnants of the Japanese Navy for good. Southern Okinawa Campaign After U. The Japanese had long prepared "the Shuri Line" as its main line of defense and were ready: Caves, emplacements, blockhouses, and pillboxes were built into the hills and escarpments, connected by elaborate underground tunnels and skillfully camouflaged; many of the burial tombs were fortified. The Japanese took full advantage of the terrain to organize defensive areas and strong points that were mutually supporting, and they fortified the reverse as well as the forward slopes of hills. Artillery and mortars were emplaced in the caves and thoroughly integrated into the general scheme of defensive fires. The Last Battle, p. Antitank gunners of the 96th Division fire at Japanese positions in Mashiki On April 9 the 96th Division opened the first of several attacks against the Kakazu line, all of which were repulsed by savage Japanese defenses during the next four days, particularly from artillery and mortar fire from well concealed firing positions. It was the worst fighting of the Pacific war, its sustained intensity surpassing even the brutal combat of Tarawa, Peleliu, and Iwo Jima. There, Nisei MIS linguists of the 1st and 2nd HQ Intelligence Detachments led by Dan Nakatsu and George Takabayashi translated the map to reveal the positions, ranges and bearings of all Japanese artillery and mortar emplacements on Okinawa, a tremendous and priceless find! The Japanese map was overlaid on to U. The theretofore hidden Japanese gun emplacements were no longer a mystery, and were subsequently neutralized and destroyed by pinpointed American artillery, mortar and napalm fire. Japanese Counteroffensive Then on April 12 Gen. Ushijima ordered an all-out counterattack to recover the Yomitan and Kadena airfields, at the urgings of diehard elements of the 32nd Army staff led by Lt. Cho but violently opposed by Operations Officer Col. Preceded by intense artillery bombardment, Japanese troops infiltrated the American defenses along the Machinato-Kakazu-Ouki line on the night of April 12 and advanced northward as far as Ginowan. The Japanese launched attacks on April 13 and 14, each to be beaten down with almost total Japanese losses and resulting in total failure. But after bitter fighting the U. The drive toward Shuri was stopped. Crossing of Machinato Inlet On April 20, the 1st Infantry of the 27th Division threw itself against the Gusukuma defenses but was repulsed by well dug-in enemy defense and fire around the strong point of "Item Pocket," holding off the American attackers for 7 days. The 27th Division went on to overcome the twin Pinnacle defenses near Nakama by April 23 after suffering heavy casualties. The Outer Shuri Line stretching from Ouki, Tanabaru, Nishibaru, Kakazu and Urasoe-Mura Escarpment was savagely defended by the enemy entrenched in caves, tunnels and tombs prepared with criss-crossed fields of artillery, mortar and automatic fire over all approaches. But after Americans had won bitterly earned break-throughs at key points along the First Shuri Line, Japanese defenders then withdrew from the Outer Shuri Line during the night of April 24 under cover of fog and heavy artillery fire to take up the defense of Shuri and Naha. On April 26, Gen. Buckner ordered the 1st and 6th Marine Divisions and 77th Infantry Division to join the attacking American forces against the Shuri Line and there followed over 4 weeks of the severest fighting of the Pacific War until Shuri was finally taken. The May 4 Counter-offensive During the last days of April, American infantrymen led by flame-throwing tanks met with fierce resistance from the well entrenched Japanese defenders along the Asa River, Maeda Escarpment and Kochi ridges and were initially repulsed suffering heavy casualties. Then from May 4 - 6, again at Gen. Ushijima ordered the Japanese 24th Division to lead a land-sea-kamikaze air

counter-offensive to recapture all ground lost to the Americans. Japanese troops on landing barges attempted to encircle and land behind American lines but were soon annihilated. Japanese air and sea attack on Bishi River, Okinawa On May 5 the 24th Division pierced American lines at Kochi and penetrated as far north as Tanabaru, but after 3 days of frantic and bitter fighting the Japanese invaders were annihilated by withering artillery, mortar and machine gun fire on all fronts, suffering devastating losses of over 5, lives and crippling the Japanese 32nd Army. Afterward, a chastened Gen. Ushijima called in Col. Yahara, as you predicted, this offensive has been a total failure. Your judgment was correct. You must have been frustrated from the start of this battle because I did not use your talents and skill wisely. Now I am determined to stop this offensive. Meaningless suicide is not what I want we will fight to the southernmost hill, to the last square inch of land, and to the last man. I am ready to fight, but from now on I leave everything up to you. Ushijima ordered the 24th Division to revert to defensive attrition back to the Shuri defense lines. On May 6 the U. The 1st and 6th Marine, 7th, 77th and 96th Divisions attacked with tanks and infantry, cave-by-cave, hill-by-hill meeting fierce resistance at every sector. Artillery, mortar and flame-throwers were directed at pillboxes and caves, sending the defenders into retreat and hiding, then advancing troops up to the mouth of caves and pillboxes, destroying them with demolition or napalm-gasoline fire and entombing the Japanese defenders within. Ushijima concentrated all his defensive strength in the middle Shuri sector, against which Gen. Buckner ordered an all-out assault on May For the next 18 days advances against the Shuri line was slow, bitterly fought and costly. During this time the Japanese air force launched its greatest aerial offensive sending raids of suicide kamikaze planes crashing into American ships inflicting serious damage and bombing the Ie, Yontan and Kadena airfields, but losing almost 4, planes to American anti-aircraft fire. The Fall of Shuri By May 29, American 10th Army units had captured Naha on the west and Yonabaru on the east and beyond, setting the stage for the encirclement of Shuri in the center. The high command of Gen. Ushijima met and decided to withdraw from Shuri to the south to further prolong the battle and inflict continuing losses on American forces, rather than to make the final stand and battle at Shuri. Casualties at the Fall of Shuri, Okinawa The order to withdraw issued May 24th and by May 29 Japanese Army Headquarters had abandoned Shuri, leaving small units to fight rear-guard actions. Ushijima succeeded in secretly withdrawing his defending army from Shuri before their retreat could be pinched off by advancing American forces. Overcoming suicidal enemy rear-guard action, the 77th and 96th Divisions completed the occupation of Shuri by May Shuri was levelled and left in complete ruin, after being pounded by , rounds of naval and artillery gunfire and aerial bombing. As of the retreat from Shuri by end of May, the Japanese army had been decimated by over 70, killed-in-action, and yielding only 9 prisoners who were badly wounded or unconscious. Very few Japanese prisoners were captured because: There was only one kind of Japanese casualtythe dead. Those that were wounded either died of their wounds or returned to the front lines to be killed. The Japanese soldier gave his all. On June 4 the 6th Marines landed on Oroku Peninsula, capturing Naha airfield, wiping out a pocket of Navy troops led by Admiral Minoru Ota who then committed hara-kiri, and advancing south toward Itoman. The 7th and 96th Division assault on Hill 95 Escarpment Hanagusuku on June 6 was met with deadly fire from the entrenched defenders whom Ushijima had ordered "to defend to the last man" and this defensive stronghold was finally taken on June 11 only after the Japanese were burned out of their caves with streams of flaming napalm. On June 10 tanks and infantry of the 7th and 96th Divisions attacked the defensive center of Yuza and Yaeju-Dake while Gen. Ushijima, faced with dwindling supplies and equipment and mounting casualties, ordered his troops to defend and hold the line "to the death.

5: Strategic Studies

Pre-Invasion Bombing Strategy: General Eisenhower's Decision of March 25, By W. W. Rostow. (Austin: University of Texas Press, xiii + pp. Tables.

Walt Whitman Rostow Walt Whitman Rostow born was an educator, economist, and government official. He attended Yale University , receiving a B. Following graduation, Rostow continued his studies, first as a Rhodes scholar at Bailliol College, Oxford University , , and then as a graduate student at Yale University , After receiving a Ph. Stationed in London, one of his primary responsibilities was to recommend enemy targets to the U. For his additional work with the British Air Ministry in he was awarded the Legion of Merit and was made an honorary member of the Order of the British Empire. After a two year stint in Geneva as assistant to the executive secretary of the Economic Commission for Europe, an organ of the United Nations , he took another academic position in England serving as Pitt Professor of American History and Institutions at Cambridge University , His first book, *The American Diplomatic Revolution* based on his inaugural lecture at Oxford University in November , was published in The next year saw the publication of another book, *Essays on the British Economy of the Nineteenth Century*. In Rostow was appointed professor of economic history at the Massachusetts Institute of Technology. The following year he was also named a staff member of the Center for International Studies at that university. Rostow continued in both posts until During those years Rostow wrote an impressive number of books, articles, and reviews on a wide range of topics. Among those works are: *The Process of Economic Growth* , 2nd ed. Hatch, ; *A Proposal: Key to an Effective Foreign Policy* with M. Millikan, ; *The Stages of Economic Growth: In The Stages of Economic Growth*, perhaps his most influential work, Rostow advanced a theory that sought "to generalize the pattern of modern economic history in the form of a series of stages of economic growth": After serving as an aide to John F. Kennedy during the presidential campaign, Rostow was appointed deputy special assistant for national security affairs by the president-elect in Later that year he moved to the Department of State, where he remained until as chairman of the Policy Planning Council. From to he also served as a U. In President Lyndon B. Johnson named Rostow to replace McGeorge Bundy as special assistant to the president for national security affairs. Beginning with a special mission that he undertook for President Kennedy in late , Rostow had paid close attention to the deepening American involvement in Southeast Asia. His optimistic projections about the U. Even in later writings he continued to defend the American war effort as well as his own policy positions. In Rostow returned to teaching, accepting an appointment at the University of Texas at Austin. In the s he was Rex G. He received the Association of American Publishers Award for outstanding book on social sciences in The idea of the project was to start with the expansion of public and private programs that are aimed at prenatal care and aiding disadvantaged children. *A Non-Communist Manifesto* Further Reading There is no full-length biography of Rostow, but references to his work can be found in numerous studies of economic development theory.

6: Strategic bombing during World War II - Wikipedia

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But its door was barred to all but the American Ambassador and a few designated Air Force officers. Of the 15 professionals who served in EOU at one time or another over its 32 months of active life, all were from OSS, except two who came from the Board of Economic Warfare. Louis, where he became an American citizen in the early s. Dick Hughes was one of those selfless men of high intelligence, integrity, and dedication who play important roles in great enterprises but, operating at a middle level of authority, leave little trace in the formal records. Chief planner for the American Air Forces in Europe, his unpressed uniform bedecked with distinguished British decorations, he became a major figure in the Allied effort. In , Hughes found himself in London, wholly dependent on British sources of intelligence, without an independent staff capable of evaluating the flow of material on which planning had to be based. He thought this was wrong. He induced Ambassador Winant and General Eisenhower to request that appropriately trained civilians be sent to London to work for him, but formally within the embassy. The members of EOU were, mainly, trained as economists, reflecting the assumption that the broad objective of the strategic bombing offensive was to weaken the German war economy. Our task was to develop and apply criteria for the selection of one target system versus another, one target within a system versus another, and, if the target was large enough and bombing precise enough, one aiming point versus another. When EOU arrived in London, the intellectual level of development of these criteria was quite primitive. To put no fine point upon it, the US had committed itself to a massive daylight precision-bombing program without developing the doctrine and techniques of target selection or the intelligence required to underpin the exercise or without perceiving initially what it would require to conduct precision-bombing operations against the opposition of the German single-engined fighter force. A Doctrine Emerges Hughes took a little time to size up the small but overactive young crew he had evoked from Washington at long distance – a bit like a colonel in the field trying to figure out a batch of lieutenants sent from headquarters. He initially put EOU to work on a narrowly focussed and painstaking task: These were analyses of particular German industrial plants or installations designed to establish the most vulnerable point of attack. The aiming-point reports were an invaluable education, requiring, among other things, visits to the nearest equivalent plants in Britain. They also required exploitation of virtually all the intelligence London could provide about the plant itself, the economic sector of which it was a part, and the role of that sector in the German war effort. Near the end of , after producing some aiming-point reports, Hughes unleashed EOU on the principles and practice of target selection. In the doctrine we evolved, we sought target systems where the destruction of the minimum number of targets would have the greatest, most prompt, and most long-lasting direct military effect on the battlefield. Each of the modifiers carried weight. One had to ask, in assessing the results of an attack, how large its effect would be within its own sector of the economy or military system; how quickly would the effect be felt in front line strength; how long the effect would last; and what its direct military, as opposed to economic, consequences would be. The application of these criteria was serious, rigorous intellectual business. In part, it required taking fully into account the extent to which the military effect of an attack could be cushioned by the Germans by diverting civilian output or services to military purposes or buying time for repair by drawing down stocks of finished products in the pipeline. In all this, our knowledge as economists of the structure of production, buttressed by what we had learned from the aiming-point reports, converged with the classic military principles Hughes and his best senior colleagues brought to the task. The EOU view was, then, a doctrine of warfare, not of economics or politics. Aside from its umbilical ties to the 8th and 15th Air Forces, EOU probably had its greatest operational impact through Operation Octopus. Its mode of operation violated every text-book rule of administration. It made good sense at the time, however, and it worked quite well. Three Bureaucratic Battles The doctrine which emerged from the interplay of EOU, Hughes, and the top US Air Corps command was not unchallenged; war is not exactly a theoretical debate in a learned journal. There were three critical intervals of head-on, high-level policy conflict

involving, as always in public life, clashes of personality, vested interest, and unforeseen events, as well as doctrine. EOU played a role in all three bureaucratic battles, which, quite literally, determined the shape of the air war in Europe. The first came in the second half of 1942. With great courage, General Frederick L. Anderson, chief of Bomber Command of the 8th Air Force, took the bold initiative of attacking aircraft production, then concentrated in central Germany, before long-range fighters were available to protect the bombers. The unexpected attacks began in July. Under forced draft, German single-engined fighter production at well-known plants "expanding before our eyes in reconnaissance photos" had risen from in January to 1, in July; and first-line fighter strength rose in proportion. The American attacks forced the Germans to disperse their production, and by December production was only 10% of the original. But US bomber losses in the summer and autumn were heavy and generated much criticism in Washington and London. British supporters of area bombings of cities thought the time was thus ripe for a full-court press. They argued that a decisive Wagnerian crisis in German morale could be brought about if the US bombers would abandon daylight bombing and join the RAF in night attacks. Those holding this view often argued that it was the break in German morale that caused capitulation in November 1944. With a large flow of long-range fighters in sight, the American military establishment was not about to abandon its deeply rooted commitment to daylight precision operations. EOU played its part in the defense of American doctrine by asserting that the German acceptance of defeat in 1945 was based on the situation in the field. In a widely circulated memorandum I sent from the British Air Ministry on 14 November to an influential advocate of area bombing, I argued that collapse will come this time also from the top, and as a result of the military and military supply situation literally defined. I see no evidence or reason to believe that area bombing, whatever its great virtues as a generalized drain on the structure of Germany and its military potential, is capable of precipitating a decisive crisis. The issue was settled, as often in public policy, by an event, not an argument. In the week of 20 February 1945, the entire US bomber force, conforming to a long-laid plan, was dispatched to attack German aircraft production from one end of Europe to the other. It was estimated that about 100 US bombers and crews would be lost the number lost was only 10. The weather miraculously held clear until the 25th. General Anderson, pursuing basic military doctrine, and despite the exhaustion of the crews and protests from the bomb division commanders, exploited the breakthrough relentlessly until the winter weather closed in. The German single-engined fighter force never recovered from its unlikely defeat by the American long-range bombers. This was the week that, in effect, a mature US Air Force emerged. But not atypically, success led directly to more trouble: Both related to the appropriate use of airpower before D-Day and in the wake of the Allied landings. There are Americans and some British who to the end of their days regarded or will regard the last year of the struggle in Europe as a war against Solly Zuckerman rather than Adolf Hitler. Stated with reasonable objectivity, the first controversy was about bombing policy before D-Day. Even before the big week in February had ended, Hughes and EOU were at work on a plan to exploit air supremacy over Germany. A plan to bomb German oil production was drawn up, approved by Spaatz as early as 5 March, and went forward to Eisenhower and Tedder. The judgment underlying the plan was that the use of strategic bombing to reduce oil supplies radically was the optimum way to lower the fighting capability of the German ground and air forces. Meanwhile, Zuckerman, basing his judgment on his highly debatable view of lessons of the air war in the Mediterranean, persuaded Tedder to support concentrated attacks on marshalling yards, postponing the whole question of oil until after D-Day. Spaatz took the view that attacks on marshalling yards would have diffuse, generalized effects but would not interdict military supplies because the minimum essential lines could be repaired overnight and because the Germans would not engage their beleaguered fighter force to defend marshalling yards. Thus, his primary and overriding responsibility of Allied air supremacy on D-Day would be at risk. The battle was promptly joined between Spaatz and Tedder and between their passionate intellectual spear carriers. The crisis and what proved to be interim resolution came at an historic meeting on 25 March 1945, chaired by Air Chief Marshal Portal, representing the combined Chiefs of Staff. He decided in favor of Tedder and marshalling yards on the grounds that the latter would provide some immediate help in the landings and their aftermath, whereas the military effects of the oil attacks might be delayed. But that was not the end of the matter. To block oil attacks in the Mediterranean theater as well as Western Europe, SHAEF confined the Mediterranean

air forces to marshalling-yard targets, although the connection with the Normandy landings of the marshalling yards of Southern Europe was a bit obscure. But SHAEF failed to omit Ploesti, which was on the standard marshalling-yard list because there were small marshalling yards outside each refinery. The error was noted and exploited. The attack "in effect, on the refineries" was successful, and significant immediate effects on the German oil supply could be detected. On 12 May, the American bombers in Britain attacked a substantial group of oil targets in central Germany, including the most important at Leuna. Eisenhower had given Spaatz two pre-D-Day good-weather days on oil when the latter threatened to resign. The Germans were not defending the marshalling yards and their fighter force was expanding again. Spaatz felt he might not be able to fulfill his overriding D-Day responsibility of assuring air supremacy. The evidence was sufficient to convince Tedder that the oil attacks should be immediately pursued. What Tedder actually said in response to the Ultra reports was: When German aircraft production began to rise in dispersed factories later in , however, there was insufficient aircraft fuel to train the pilots and fly the planes. From a peak of ,metric tons production in March , before the insubordinate attack on Ploesti, aircraft-fuel production was down to an incredible 10, tons by September. Overall, oil supplies were reduced from , to , tons. Tedder and Zuckerman argued that, again, marshalling yards would suffice. LOU argued for isolating the Normandy battlefield by taking out three rings of bridges, above all the Seine-Loire complex. The technical argument hinged on how many tons of bombs were required to render a bridge unusable for, say, three weeks. Zuckerman said 1, tons per bridge to 1, sorties. On the basis of Mediterranean experience, EOU thought less than one-third that tonnage would suffice. Again, the issue was settled by a somewhat adventitious event. On a predicted bad-weather day in Germany with good weather predicted in France, the Americans proposed a test with some 3, aircraft broken into flights of With that force, we could have attacked virtually every bridge on our three-tier list. On getting word of the proposed enterprise, the marshalling-yard advocates went ballistic, as current jargon has it, and the massive test was called off. By way of compromise, and after some extraordinary shenanigans involving 10 Downing Street, where Churchill and Lord Cherwell maintained a strong dislike of the marshalling-yard strategy , experimental attacks were permitted on 7 May on six Seine bridges by a total of less than 50 P fighter-bombers each carrying two 1,pound bombs. There was nothing in prior experience to indicate they would do the bridges any harm. As it was, three bridges were badly damaged and a fourth at Vernon was dropped into the Seine by six Ps with accuracy not to be seen again until the Persian Gulf War. The extraordinary success of the experiment was a matter of luck, except that the fighter-bomber group chosen for the experiment had been practicing low-level attacks on bridges in Texas, a fact not widely circulated before the event. Tedder capitulated in the face of hard but not quite statistically reputable evidence, and the Seine-Loire bridge attacks were approved. After being ferried across the Seine, German forces were fed into the battle piecemeal and brutally harassed by virtually unimpeded Allied fighters and fighter-bombers. EOU in Perspective Even on this authentically nostalgic occasion, I would underline with all the emphasis I can muster that the role of EOU should not be overemphasized. We contributed a useful piece to an enormous mosaic of Allied effort. Looking back, I can see again the faces of Hughes, Anderson, and Spaatz, as well as the key figures in British intelligence, on whom the American effort was based "as able, imaginative, and dedicated a group of men and women as was ever assembled. They backed the precision-bombing effort not only as good allies but also because the intelligence requirements were more exacting and challenging than those for the area bombing of cities or marshalling yards, where all that was really required was an automobile road map. That validation and the air supremacy it provided was essential to the Normandy landings, to the consolidation of the bridgehead, and to the attacks on oil which virtually grounded the German Air Force and radically reduced the mobility of German ground forces on the Western and Eastern Fronts in the last year of the war.

7: Military Commanders Part 3: Politics and Strategy - The Churchill Project - Hillsdale College

Subjects: Deployment (Strategy).Eisenhower, Dwight D. (Dwight David), Operation www.enganchecubano.com War, Aerial www.enganchecubano.com War, Destruction and pillage www.enganchecubano.com War, Economic aspects Germany.

Go there for further information. Sign up for a time slot, either in person, or by calling Ms. My office telephone number is The approach is empirical and historical: The seminar will meet during both the fall and the spring, when students will present preliminary reports to the group. By the end of the second semester students will have written a paper of publishable length and quality on a topic of their choice, cleared with the instructor. The research seminar is a year long course for which credit is given in the spring semester, following the submission of the paper. The class will meet ten times in the fall, and six times possibly fewer in the spring. Three optional sessions on social science methodology will be set up for Ph. A note on electronic sources There is a protected page, which may be accessed using a username and password that will be distributed in class. The page has back to top Requirements 1. Students will write a paper of publishable length and quality on a subject cleared by the instructor. To help prepare for the course, students will prepare a concept memo and a formal prospectus, using the Strategic Studies prospectus format. Books required for purchase are: Jacques Barzun and Henry F. Graff, *The Modern Researcher*. Harcourt Brace Jovanovich, Oxford University Press, White, *The Elements of Style*. Center for Strategic Education, Kate L. University of Chicago Press, or any other standard style guide. Books recommended for purchase: *Mysteries* that you may enjoy reading, and that speak to the subject of research: Macmillan, Naguib Mahfouz, Akhenaten:

8: Project MUSE - American Airpower Strategy in World War II

Rostow, W. W. , Pre-invasion bombing strategy: General Eisenhower's decision of March 25, / W. W. Rostow University of Texas Press Austin Wikipedia Citation Please see Wikipedia's template documentation for further citation fields that may be required.

Additional Information In lieu of an abstract, here is a brief excerpt of the content: Spaatz, Library of Congress LC. Clausewitz, On War, Bidinian, Combined Allied Bombing Offensive, Weigley, American Way of War, " Craven and Cate, Army Air Forces, 1: These include Greenfield, American Strategy. Sallagar, Road to Total War, Hastings, Bomber Command, Sherry, Rise of American Air Power, Futrell, Ideas, Concepts, Doctrine, 1: On results and technology of the Libya raid, see William R. Craven and Cate, Army Air Forces, 3: Sallagar, Road to Total War, " Rostow, Pre-invasion Bombing Strategy, 40" Operational-level commanders are those who manage campaigns in a theater of war; tactical commanders fight battles and engagements. The Conferences at Washington and Quebec, Schaffer, Wings of Judgment, does analyze isolated individual operations in some detail, but I believe his focus, especially on European operations, is too narrow. He does not completely examine operational and tactical aspects of operations or the rest of the air war around them. Middlebrook, Battle of Hamburg, Coffey, Iron Eagle, , Holley, Ideas and Weapons, Maurer, US Air Service, 2: Greer, Development of Air Doctrine, Fredette, Sky on Fire, 30, The Germans also planned devastating incendiary raids on Paris and London in late summer , but the attacks were canceled out of fear they would harm peace negotiations. Maurer, US Air Service, 4: Hansell, Strategic Air War against Japan, 1. Smuts may have been influenced by his South African perspective on the ravages of the Boer War. Hurley, Billy Mitchell, 75" Kennett, History of Strategic Bombing, 50" You are not currently authenticated. View freely available titles:

9: Battle of Okinawa

American Airpower Strategy in World War II Crane, Conrad C. Published by University Press of Kansas Crane, C.. Rostow, Pre-invasion Bombing Strategy,

It was designed, through sudden increases in diplomatic contact, to indicate that Sweden was giving a great deal of thought to joining the Allied cause. The flurry of diplomatic activity between the Allies and Sweden did just that - convinced the Germans that Sweden had knowledge of an impending Allied excursion into Scandinavia, and was being coerced into joining the Allies. First, to deceive the Germans into thinking that the invasion would be coming at a later date than it actually was. Similarly, to subsequently convince the Germans that the real invasion, at Normandy, was actually a diversionary assault, a precursor to the assault on Calais. By accomplishing this, the Allies would ensure that troop dispositions in Normandy would remain more favorable, since more forces would be sent to reinforce the Calais coast. Moreover, once the invasion came, forces that would otherwise be rushed to crush the invasion would remain out of the fight, waiting for the invasion at Calais, an invasion that would never come. Simulated radio traffic and dummy vehicles bore the brunt of the deception operation. Once again, however, the illusion of the army would be worthless unless the Germans thought that it was slated for action against the continent. In order to give this impression, a high profile general, this time Lieutenant General George Patton, was appointed to "command" the army group. The Germans felt that because of his skill, Patton had to have a role in the invasion. The Calais area was saturated with bombs, to support the idea that Calais was the prime target. Accordingly, roughly twenty-five percent of the bombs dropped on the French coast fell on Normandy, and roughly fifty percent fell on Calais. German "agents" in England returned report after report verifying the existence of Army Group Patton, and confirmation of Calais as the target of the invasion. In addition, information from the double agents streamed in that indicated that the army group would not be prepared to undertake the invasion until mid-July. The claim that the army group would not be ready to launch the invasion until mid-July served two purposes. First, and most obviously, it would deceive the Germans as to the true time of the invasion, hopefully meaning that the invasion would catch them off guard, easing the task of the invaders. Secondly, the late date of the supposed Calais invasion would keep the Germans, for some time, anyhow, from committing forces defending Calais to the Battle of Normandy. The Germans knew that the forces were there, and it was a simple matter to convince them that they would be part of the initial invasion; the Germans had no reason to believe otherwise. Just as had happened in Sweden, Nazi sympathizers passed information back to Berlin stating that the Allies were becoming increasingly friendly with the Spanish. This information, combined with the physical evidence, was almost too much for the Germans to ignore. Playing the part of general Bernard Montgomery, Lieutenant M. Clifton James paid a visit to Spain. During his visit, he dropped numerous hints regarding an Allied invasion of Southern France, which, in the usual manner, were all reported back to Berlin by German agents. Because of the proximity to North Africa and Italy, Hitler and the Germans took the possibility of an Allied invasion of the Balkans seriously. Churchill himself had wanted to strike at what he called "the soft underbelly of Europe," until he was talked out of it, for the simple fact that there was nothing at all soft about the mountainous terrain of the Balkans. The threat that the Germans perceived was an impending bogus assault from Tobruk against Crete, and also from the threat of Allied-Soviet cooperation to recapture the Balkans. The Turks were the most receptive to Allied diplomacy, and were very cooperative. In addition to the numerous operations run by the Allies before and after D-Day, the Allies used three deceptive operations on D-Day itself. These operations were designed to sow confusion in the German ranks as to what exactly was happening, and also where it was happening. To achieve this, the Allies turned to technology, and used the advanced German radar protecting the coast of France as an asset instead of a handicap. First, the Allies located the German radar stations. Once located by triangulation, radar installations, except for select installations which would figure into deceptive operations, were pounded with thousands of pounds of bombs until they were damaged or destroyed which often took a great while, for they were amazingly strong. Since the Allies could not then sail actual ships in the decoy operations, scientists were called in to figure out how to

fool the German radar system. They "conceived an intricate electronic scheme to make it appear on German radar that two large Allied fleets, each deployed over an area of miles was approaching. Behind the radar jammers came boats towing two "Moonshine" devices, which simulated a number of large ships. Circling above the ships were planes dropping chaff strips of aluminum foil that literally filled German radar screens with hits. Combined, the jammers, "moonshines," and chaff planes created a remarkably accurate simulation of a large invasion fleet. The jamming however, was not sufficient to overcome the powerful German radar, which detected and reported the fleet. By this point, however, the Germans were in a state of such disarray and confusion that it did not matter - they could not tell what, if anything was happening. Some officers recognized the invasion for what it was, while others refused to even accept the reports coming in as accurate. To do this, the Allies dropped dummy paratroopers. The dummies were made in the shape of a man, but only about half size, because the dummy only had to be identified as a paratrooper in the air - and the shape of a man, at night, under combat conditions, falling from the sky, would always be seen by a nervous soldier as an actual paratrooper. Once on the ground, however, the dummies flexed their true deceptive muscle. When the dummies touched down, several things happened. First of all, the dummies emitted an odor similar to that of explosives and gunpowder. Secondly, they played sound recordings of the sounds of war - gunfire, screams, and explosions. These dummies, with very few exceptions, fooled the Germans into believing that paratroopers were landing in much larger numbers, and over a much wider area, and engaging their forces in large scale firefights. In some cases, twenty or so dummies caused local commanders to report "large paratroop forces" landing in their areas. The Germans were caught off guard, shocked into disorganization, and never recovered. Oxford University Press, , p. Praeger Publishers, , p. Oxford University Press, , can not locate page lost bookmark - sorry! Intelligence and Deception, New York: Design and Reality, Westport, CT: Greenwood Press, Rostov, W. University of Texas Press,

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