

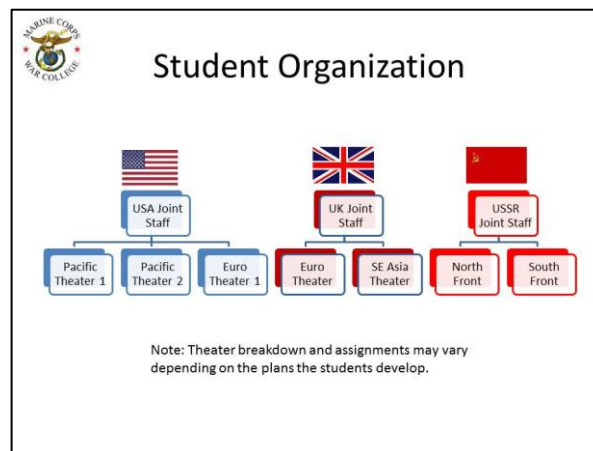


World War II Strategy Exercise After Action Report

1. **Background.** From March 31- April 2, 2014, the Marine Corps War College (MCWAR) conducted a strategy exercise on World War II. The exercise put the school’s 30 students (military officers at the lieutenant colonel and colonel rank as well as a handful of senior government civilians from the interagency) into Allied leadership positions at the joint staff and theater command levels (USA, UK, and USSR). The exercise leveraged the commercial wargame Darkest Hour to provide a gaming environment in which the students could develop strategy and make decisions.

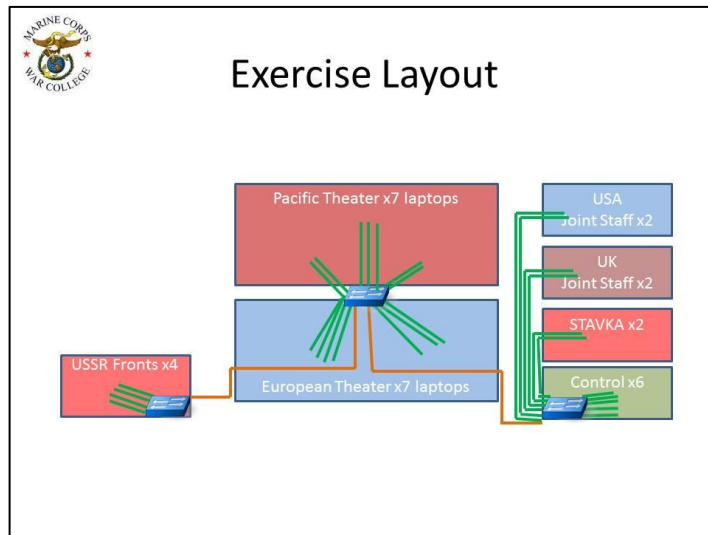
2. **Educational Objectives.** The exercise was designed to meet learning objectives for MCWAR’s War, Policy, and Strategy (WPS) Course (our “history” course). This immersion in WWII was intended to imprint on the students’ minds, through experience, the strategic issues of WWII. Of particular focus was the interaction between Allied staffs and between national and theater commands. And, as the exercise progressed, the students assessed their strategies and made strategic decisions on the direction of the war. Making those decisions as a coalition made conducting the war that much harder. The following were specific educational objectives:
 - a. Evaluate the World War II strategic setting and historical strategic decisions.
 - b. Develop and implement a “theory of victory” with corresponding objectives and strategic concepts.
 - c. Conduct national level and theater level resource prioritization decisions.
 - d. Conduct strategic negotiations and diplomacy.
 - e. Conduct coalition planning and decision making.

3. **Student Organization.** The 30 students were divided into US, UK, and USSR teams. Within each country, students formed joint and theater staffs. While the students were initially assigned to staffs as depicted in the below diagram, the students re-organized themselves to streamline their command and control—consolidating US and UK into one Europe and one Pacific theater, unlike the below diagram. They merged the Pacific Theater 1 and 2 cells with the UK SE Asia cell to form one combined Pacific Theater staff. The students did the same for the European Theater, combining the US and UK theater teams into one combined team. Each of these two theater commanders (Pacific and Europe) then performed a dual reporting function to the USA and UK joint staffs.



4. Exercise Setup

- a. Darkest Hour. The commercial wargame Darkest Hour (<http://www.paradoxplaza.com/games/darkest-hour>) was chosen for the exercise. The game enabled the student joint staffs to make strategic force planning decisions (what type units to build, how many to build, what theater to send them to, and technology investment decisions). For the theater staffs, the game forced the students to develop basic campaign plans designed to meet strategic objectives.
- b. Architecture. The Marine Corps Warfighting Lab's Wargaming Division supported the exercise with computers and technical support. The exercise used 30 ASUS K52JT laptops networked using 3 CISCO 2960 Catalyst switches. The laptops have a 1.73 GHz Intel Core i7 Processor, 4 GB Memory, 500 GB SATA Drive, and ran Windows 7 Professional SP1 x64. Throughout the exercise, one to three computers usually dropped out of the game (almost always the same computers in the joint staff cells). On average, though, about 28 computers consistently remained stable and in the game.



- c. Scenario. The "Enemy at the Gates" (Nov 1942) scenario was used for the exercise. This allowed the students to implement their strategy chosen during a separate Casablanca Conference strategic planning exercise conducted in January. Over the three day exercise, the students played approximately one year of game time, ending in late October 1943, just after the Allied cross-channel assault on the western coast of France. On the second day of the exercise (May 43 in game time), the students paused for strategic planning and to make final decisions before committing to their summer campaign plans.
- d. Controllers. Given the complexity of Darkest Hour and the lack of student proficiency on the game, expert non-student controllers were essential. Two volunteer Darkest Hour experts played Germany and Japan in the Control Cell. Another expert advised the USA team and yet another the UK team. Two additional controllers were embedded in the USSR Front cell to help run the Soviet side of the Eastern Front. We also had two flex controllers who could augment Germany and Japan, as needed, or serve as observers for after action purposes. These Darkest Hour experts made the exercise a success. Of note, in advance, they made some key

modifications to the scenario file (like reducing USA's starting order of battle) and created a mod for the Control Cell that enabled a god-view of the game (great for after action purposes) and to "gift" oil and money and other resources to any country through Decision Events. This "gifting" option was applied judiciously and only in circumstances which made sense (such as reinforcing Lend Lease with the Soviet Union).

5. Exercise Schedule. In advance of the exercise, the students conducted a Casablanca Conference to discuss strategy. There were also two rehearsals conducted with Darkest Hour to help the students gain familiarity with the game. The following is the schedule for the exercise as it actually played out (with the game scenario times in parenthesis).

Monday, 31 March

0800-1000	Planning and Prep (input tech and production, issue initial orders)
1000-1200	Simulation Play (Nov 42-Dec 42)
1200-1300	Lunch / Planning Pause
1300-1430	Simulation Play (Jan-Mar 43)
1430-1500	Planning Pause
1500-1600	Simulation Play (Apr-May 43)

Tuesday, 1 April

0800-1100	Strategic Planning Conference
1100-1200	Simulation Play (May 43)
1200-1300	Lunch
1300-1600	Simulation Play (Jun-Sep 43)

Wednesday, 2 April

0800-0900	Planning Pause
0900-1030	Simulation Play (Sep-Oct 43)
1100-1230	AAR

6. Observations

- a. US/UK European Strategy. The US/UK strategy sought to defeat Germany first. The plan was to win in North Africa, open a near term second front in Italy, and then focus the main effort on a cross channel assault into France, driving to Germany. The battle of the North Atlantic was seen as a critical step in this strategy, and the Allies executed a masterful ASW plan which sank over 80 German submarines by early 1943 and 191 by October 1943. The Allies quickly overcame Axis forces in North Africa, then conducted an amphibious assault to seize Sardinia with D-Day on May 21, 1943. With Sardinia captured, the US/UK then assaulted Anzio in early July, followed by another assault at Salerno. These attacks on Italy were intended to force Italy to capitulate and to draw German forces from the Eastern Front. In that effort, they succeeded in knocking Italy out of the war, and the Germans shifted 20 divisions to the west and south as soon as the Sardinia operation began. Meanwhile, the US/UK built combat power in England for the cross-channel assault. The Allies decided to conduct an amphibious feint in the vicinity of Rotterdam with the main landing in Bordeaux on the western coast of France. D-Day was set for September 21, 1943. While their force buildup was ahistorical in its speed, the game enabled them to build sufficient forces for an early Fall 43 cross channel attack. The feint and shaping efforts succeeded in pinning German forces in northern France, and the landing in Bordeaux established a strong lodgment. The exercise ended before the Allies could attempt a breakout.

- b. US/UK Pacific Strategy. The Allied focus in the Pacific was on defeating the Japanese main fleet. Killing the Japanese Fleet was seen as the way to end Japanese offensives and isolate Japan. The Pacific Theater was an economy of force mission until Germany's defeat. An aggressive Japanese strategy targeted India with an amphibious envelopment that forced the UK team to scramble forces from throughout the Commonwealth. The Japanese offensive nearly bagged the entire Burma/India Army in eastern India. Only a constriction of oil supply slowed down the Japanese offensive, giving time for the UK to assemble a new defensive line and extricate some forces. The Japanese offensive captured Calcutta, Dhaka, and even Bhutan but was halted about half way across the Indian sub-continent. In the meantime, the US team was challenged by the vast distances of the Pacific and meager resourcing from the joint staff. Due to the Japanese shift in forces and focus towards India, there was little to no Japanese activity in the Pacific. The Pacific command seized Peleliu in spring 43 and the Philippines in August and September 43. The next objective would have been Formosa, but the exercise ended before this assault could be launched. Meanwhile, for most of the game, the Japanese main fleet eluded the American fleet. Finally, in August a decisive action between the two main fleets occurred off the coast of Vietnam in the Gulf of Tonkin. The US came out badly from the engagement suffering the loss of three carriers and twelve battleships. Land based naval aviation helped the Japanese effort and harassed the US fleet until they escaped to the east. However, the US/UK maritime interdiction campaign was highly successful in choking Japan's oil supplies. By fall 43, the Japanese were down to their last oil reserves and the tide was clearly turning.
- c. Soviet Strategy. The Soviet team was on the strategic defensive from the start. Their initial focus was to defend Leningrad and Moscow and defeat the German 6th Army at Stalingrad. The Germans in Stalingrad successfully broke out from the pocket and the front reformed around Rostov on Don. Massive battles then ensued with the Soviets attempting to encircle Rostov. This slug match with massive forces continued throughout the spring. Another maelstrom occurred around Leningrad with the city eventually falling to the Germans in late spring 43. The Germans also captured Murmansk. But, on the main frontlines, the Soviets held and protected Moscow. As soon as the spring mud dried around Rostov, the Germans launched a major offensive targeting the Baku oilfields. This broke through the Soviet lines and sprinted towards the Caspian. While this was occurring, the Soviets prepared to launch an offensive on the northern and central fronts which had been denuded of German armor and air. Hitler gave a "halt and hold" order to the German offensive as it reached the shores of the Caspian, just short of Baku. The Wehrmacht high command, knowing its armored formations were extended with threatened flanks, ignored the "hold" part of the order and began to retract their panzers from the Caucasus at about the same time the Soviets began their offensive further north near Moscow. A series of swirling battles ensued, primarily on the central front. The German panzers extracted from the Caucasus were re-employed a few weeks later to cut off one of the Soviet spearheads comprised of 43 divisions around Smolensk. The remainder of the summer and fall was spent by the Soviets attempting to extract these divisions. Meanwhile, in the Far East, Stalin had decided to shift every division to fight against the Germans. This left a vacuum in the Far East too tempting for the Japanese to resist. The Japanese seized Vladivostok. With two of the three Lend Lease ports now in Axis hands, the Soviet strategic position was locked in a dangerous vice. In about 11 months of war, the Soviets had suffered 5.6 million killed, wounded, and taken prisoner. The Germans, on all fronts of the war, suffered 1.2 million killed, wounded, and prisoner (this includes the surrender of the Afrika Korps (DAK) in the early spring in Libya).
- d. Combined Command & Control. As the student US and UK teams wrestled with the issue of command and control, particularly in the European Theater of Operations (ETO), they decided

to utilize contemporary C2 doctrine to form combined functional commands. Using the ETO configuration as an example, one student played the role of the Supreme Allied Commander (and was not on a computer), two students took control of all ground forces (like a CFLCC), two took all air forces (a CFACC), and two the naval forces (CFMCC). This fully integrated construct worked well and prevented any tension between the US and UK theater teams. This construct, combined with a physical layout that enabled free dialogue between these players, enabled the ETO staff to function near seamlessly. In the PTO, this construct did not work as well primarily because of the disparate nature of the theater (such as the distances between the Indian and the Philippine campaigns).

Image 1. The European Theater staff in action, preparing for the cross channel assault.



- e. Operational Opportunities. An interesting dynamic occurred during the course of the exercise, particularly on the Eastern Front, with respect to operational opportunities. While the joint staffs gave strategic guidance, they were not specific (in most cases) about how exactly the theater commanders were supposed to fulfill that guidance. Events on the frontline both frustrated strategic plans and created opportunities. The Theater/Front Commanders shifted forces (within their theaters) and directed operations as they saw fit (based on higher guidance and the current situation). What presented itself in practice on the Eastern Front, for example, were localized Front Offensives under the overarching Strategic Defense of Moscow. At other times, inaction sometimes gave the impression to the Joint Staffs that the Theater/Front commanders were not implementing their strategies aggressively enough. Since the Joint Staffs had a perfect Common Operating Picture (COP) using Darkest Hour, they had to exercise patience when Theater/Front commanders were not employing forces that seemed idle. Additionally, opportunities that presented themselves in the course of fighting sometimes unfolded with strategic implications, shifting the entire Front from the strategic defensive to the strategic offensive. This required a measure of trust on the part of the Joint Staffs in the competency of the Theater Commander to implement strategic guidance. On the other hand, tension built between the student Roosevelt and the student Eisenhower when it was thought that Ike's focus on an Italian campaign was detracting from the Cross Channel effort. This led to sometimes heated discussions over where the priority of effort ought to be. Roosevelt and Marshall thought that the larger strategic picture was not being given due consideration in the decision making at the Theater level. This highlights how the exercise replicated the

personality dynamics that are such an inherent part of strategic decision making—and how theater and national level commanders often see things from entirely different perspectives.

- f. Role of Intelligence. At the beginning of the exercise, the Allies were blind to Axis intentions and force dispositions behind the front lines. The students had to rely on Darkest Hour for intelligence on the enemy. The limited intelligence they received made them cautious and uncertain in their decision making. However, over the course of the exercise, the Control cell increasingly fed intelligence to the Allied teams to better replicate the historical Allied advantage in intelligence and code breaking. This intelligence feed played a key role in aiding the Theater Commanders in making decisions. While it did not necessarily change strategy, it enabled them to execute their plans with greater confidence. When they were blind to enemy intentions, they were cautious in their execution. Once they knew where critical assets were located (like the main Japanese fleet in port in Saigon or Taipei, or German panzer corps locations on the Eastern Front), they were able to make decisions with informed risk and confidence. Future exercises need to put more deliberate effort into crafting the intelligence portion of the exercise. Darkest Hour was successful in feeding some intelligence information, particularly with respect to economies. For example, through Darkest Hour, the students were informed that Japan had only 2 to 4 weeks of oil reserves remaining.
- g. Game Proficiency & Nuance. There were many times in the course of the exercise where student lack of proficiency in Darkest Hour, and limited understanding of the nuances of the game, served as a handicap to implementing strategy. For example, executing a major amphibious landing such as Husky or Overlord or any of the island campaigns in the Pacific requires a mastery of game mechanics. As a consequence, critical Allied operations have the potential to end in disaster in the game. This occurred during the Anzio operation with an outcome that was far from realistic. The Allies lost 24 divisions at the beachhead—most of which were at zero organization from being offloaded into the province. This disaster required a reset of the scenario and resurrecting most of those divisions (two divisions were lost as the adjudication for the German counterattack against the beachhead and 16 of the remaining divisions reset back in North Africa with 6 left holding the Anzio lodgment). This disaster at Anzio was enabled by the Theater staff not executing appropriate shaping actions that normally occur in conjunction with major amphibious assaults. However, a planning effort that took weeks and months in real life was compressed into less than 30 minutes by 7 officers—a function of exercise design (focused on strategy, not tactics). Additionally, the students did not fully realize the extent to which the game replicates combined arms shaping actions, critical to achieving success in an Anzio like situation. In the event, the Anzio debacle served as an excellent teaching point which helped ensure the success of the cross channel assault. This event highlighted the need for students to have a better grasp of game mechanics if they are expected to control tactical actions—and the need for planning time for major operations. However, the time required to master Darkest Hour is significant given the game’s complexity. This challenges how Darkest Hour is utilized to support education. Schools cannot afford to devote the time required to fully educate students on Darkest Hour game mechanics. While student proficiency increased dramatically over the course of the exercise, their lack of proficiency undoubtedly had an impact on their operations during the early portion of the game. Overcoming these challenges will require greater controller involvement in executing tactical actions during a Darkest Hour supported exercise.
- h. Student Learning. In the end, the learning objectives for the exercise were met. The students emerged with a superb grasp of the major strategic issues driving WWII grand strategy. They learned the nuances of geography in the European and Pacific theaters, the importance of economics and logistics, and the dynamics of relationships between theater and national level

commands and between coalition partners. Interestingly, the Soviet team became emotionally invested in the Allies opening a Second Front. There was great consternation by the Soviet players at the delay in an Allied landing in Italy or France. They were desperate to draw German forces away from the Eastern Front. The Soviet players even grew suspicious of US/UK intentions, setting the seeds for a potential Cold War.

7. Recommendations

- a. Intelligence. Dedicate one person in Control to the Darkest Hour “god-view” computer to generate intelligence reports. This intel controller could take screen captures of select areas and print them as a quick INTSUM for the students (even inserting comments via powerpoint). Such intelligence injects would add a lot to student strategic planning.
- b. AAR Generation. Working on the AAR is a full time task. Dedicate another person in Control to another god-view computer to build the AAR. This person needs to get inputs from observers so that the situations depicted on the map are put in their strategic context.
- c. Controllers. The expert Darkest Hour players were essential to exercise success. Without them, this exercise could not happen—particularly given the lack of student proficiency in the game. MCWAR needs to continue to build this relationship.

Image 2. Exercise Control: Exercise Director and AAR generation (Dr. Lacey, left), Japan (Matt Rowley, center) and Germany (Rand Waldron, right). Note the Darkest Hour terrain maps on the wall, designed by Guillaume Valtat, who also advised the UK team on game mechanics.



- d. Exercise Organization. We need to examine the exercise construct to take students out of the role of managing tactical actions. This could be a solution where joint staffs directly interface with Darkest Hour while theater staffs rely on expert controller support to maneuver forces. This minimizes the amount of time invested in educating students on game mechanics.
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