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Title: Lessons from Operation TORCH

Author: Headquarters 2nd Armored Division

Abstract: In compliance with 1st Indorsement, Headquarters Western Task Force, 18 December 1942, to Letter Allied Forces Headquarters, subject "Lessons from Operation TORCH, 16 December 1942 (from page 1). Report signed by Major General Earnest Harmon.

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HEADQUARTERS SECOND ARMORED DIVISION
APO 252

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26 December 1942

SUBJECT: Lessons from Operations TORCH.

TO : Commanding General,
Western Task Force.

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1. In compliance with 1st Indorsement, Headquarters Western Task Force, 18 December 1942 to Letter Allied Force Headquarters, subject Lessons from Operation TORCH, 16 December 1942, the following report is submitted.

2. G-1 Section -
No comment.

3. G-2 Section -

a. Future planning and execution of operations.

(1) Too many different maps were issued. Road maps were of scale one to one million and one to two million; other maps of scale of one to five hundred thousand, one to two hundred thousand, one to fifty thousand, and one to twenty-five thousand. It is believed that the map of scale one to fifty-thousand is the best all-purpose map. It is small enough to carry conveniently, each sheet covers considerable area, and the scale is large enough to show all essential detail. For motorized or armored units this should be supplemented by strategic maps, scale about one to two hundred thousand.

(2) Insufficient numbers of proper maps were issued to unit headquarters. Less variety, but greater quantity is indicated. Different maps also cause confusion in the spelling of names. If time permits, an index of place names should be prepared for each operation, containing all of the differences in spelling.

(3) Black and white enlargements of colored maps are very confusing. The maps, enlarged to scale of approximately one to twenty-five thousand, which were issued to Blackstone had erroneous marginal information of contour interval which caused great confusion. If it is considered essential to enlarge existing colored maps, the map should be photographed through a filter which would serve to eliminate some extraneous detail as well as the gray tone resulting from tinting to represent elevations or woods.

(4) Stereoscopic photos of beaches were invaluable. It is suggested that information be supplied which would fix the scale of the photo; such as altitude of the plane and focal length of the lens used. If possible, photos should be supplied of the terrain as far inland as the prospective beachhead to be established.

(5) The lithographic reproductions of aerial mosaics were worthless. There was insufficient contrast in the print so the result was a general gray tone which was difficult to read.

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(6) Prisoner of War Interrogation Teams should be organized so that all teams attached to a force are alike. They should not be organized on a language basis. Similarly organized teams will provide for relief, and enable the teams to handle larger groups simultaneously.

(7) If it is not practicable for the entire personnel of Prisoner of War Interrogation Teams to be included on the ship with the AC of S G-2, at least the senior member should be with him. In this way the team can be instructed as to what is desired, and intelligent co-operation will be assured.

(8) Closer contacts should be established, prior to landing, between G-2 and IPW units so that interrogators may be completely informed concerning the time and place of landing, method of operation and specific information desired.

4. G-3 Section -

a. Future planning and execution of operations.

(1) The key to success in landing operations is speed and surprise. In the SAFL operation, these two elements were present in a very high degree, which accounted for the maximum success of the operation and a comparatively light casualty list. From a study of the French report of the operation, it is evident throughout that the speed and surprise of the attack prevented the employment of certain well organized defensive measures which would otherwise have exacted a severe toll of lives, although it would not have prevented the eventual capture of the port.

(2) Armored elements should be landed in a port. The landing of armored elements in small boats on open beaches is impractical and unsound, although the presence of armored elements has a tremendous effect on the success of the operation. The impracticability of landing on open beaches was clearly indicated.

(3) Infantry, well supported by mortars and very light artillery, should secure the beachheads. It is interesting to note that the German method of attacking a port is to rush the harbor itself and then extend the beachhead from the harbor and adjacent town.

(4) It appears that it is far more profitable tactically to land on an unprotected beach at some distance from the objective than it is to attack a well defended beach much closer to the objective. Although the former may take a longer period of time, the flanking action eventually gained, and the saving of lives for future operations more than over balance the loss in time.

(5) Attack on a broad front is indicated in landing operations on a hostile shore, but the distance between attacking elements should not be so great that the separate columns cannot be converged into one great effort as a whole without each column being subjected to possible defeat in detail.

(6) A relief map of the projected landing area is of inestimable value in planning operations.

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4. Training for combined operations.

(1) Prior to an operation, the participating units of the Army, Navy and Air should rehearse and train together for a time. Navy boat crews must be thoroughly trained prior to a landing operation.

(2) While it is realized that the guarding of absolute secrecy is paramount it is believed that details of the plan of operations should have reached junior officers earlier. It would have been highly desirable to War Game the situation or at least hold a GPM, using blank maps, prior to leaving the UNITED STATES, and to permit the supervised study of blank maps and aerial photos by junior officers.

(3) Training in street fighting should be included. This must comprise methods of driving snipers from buildings detection of booby traps, mopping-up a building and consolidations of positions.

(4) Attached personnel should join their basic units at least one month prior to the operation, should live with it, mess with it, and be considered an integral part of the team. This should include all personnel.

(5) As a final test of training, a complete "dry run" should be held. In this practice, everything should be done as is planned for the final operation, including complete unloading of all ships. This unloading will serve as both a final check on the loading as well as giving an indication of the length of time which will be involved in the final stage.

(6) More training in the proper use of Bangalore torpedoes is necessary; errors such as placing caps in torpedoes when loading into lighters, misunderstanding methods of placing, and the structure and composition of the torpedo not being known were seen and reported.

5. Future planning and execution of operations.

(1) Preliminary planning and coordination between G-3 Air and the Naval Air-Support Party is most essential.

(2) G-3 Air must be included in Staff Conferences and informed of the broad picture.

(3) Naval aircraft should be in direct support of Landing Teams in order to provide flexibility and prevent loss of time in obtaining air-support.

(4) No Army air-support was available during the landing operations.

5. G-4 Section -

a. Future planning and execution of operations.

(1) It is believed that too much supply was carried in the first convoy. It should be remembered that the first convoy will generally have great difficulty in unloading due to ships being sunk in the harbor, harbor facilities partially destroyed or sabotaged and that the unloading will have to be done mainly by hand. Later convoys will have the advantage of a captured port and the benefit of repaired dock facilities. In view of this fact it is questionable whether 60 days rations.

should be carried. It appears that it might be best to reduce the amount of supply so that ships could be unloaded quickly and depart. The docks could then be cleared and the bulk of supplies brought in a few days after the initial landing. The foregoing applies particularly to rations and gasoline which were carried in a quantity on the first convoy for a period much longer than was necessary before the arrival of the next convoy could reasonably be expected.

(2) Normal unloading crews provided by beach parties, etc., will never be sufficient to unload ships rapidly in a tense tactical situation. Wherever possible, combat troops must be brought into assist in this labor.

(3) The plan of supply for a landing operation must embrace not only the supply requirements for landing but also the tactical movement overland that is required. In the attack on French Morocco it is not believed that the planning for supply had this conception. Supply plans should, if possible, consider the capture of intermediate, small sea ports as future bases to utilize sea transportation to augment the scanty land transportation available in the early stages.

(4) The equipment carried by the soldier in the past operation is believed to be substantially correct. The soldier must go over the side light and be able to live in the clothes that he wears for three or four days. A man is able to get along very well on one barracks bag for the first 10 or 15 days. The officers still carry too much equipment which materially interferes with their proper functioning. They must go light.

(5) Lack of an adequate and well organized Military Police unit seriously impeded the operation of the IPV section for the following reasons:

Prisoners were not searched for weapons. Many prisoners were found still armed with loaded weapons. Had the attitude of the prisoners been hostile, and had they been determined to escape, they could have easily done so and serious consequences might have resulted.

Prisoners were not properly segregated. Prisoners were freely allowed to talk among themselves and to the guards. Cigarettes and food were given to prisoners prior to interrogation. In several instances, French officers were overheard instructing their men to withhold certain information of military value.

Since adequate guards were not provided for prisoners, a large part of the interrogation personnel was occupied in guarding and searching for weapons, impeding greatly the rapid processing of prisoners.

(6) Lack of organic transportation for the IPV unit caused much loss of time in setting up a prisoner of war enclosure as well as in moving prisoners, contacting adjacent units and in supplying and obtaining information for these units.

(7) Military Police should arrive on shore early to adequately guard and care for prisoners pending the arrival of IPV units.

(8) An officer should be designated as Provost Marshall who can devote his entire time to this duty.

(9) Sufficient Military Police personnel should be provided (to include interpreters) to handle traffic and to furnish guard. A detail of two officers and one hundred men is considered satisfactory for a landing force of 5000 men.

(10) Trained clerical personnel should be provided Provost Marshal.

(11) Ropes should be provided for lowering each article of equipment into the landing boat. This rope must be long enough to reach into the bottom of the boat, even during a heavy swell, and should be in the possession of the man charged with carrying that particular item of equipment, so that there is no fumbling in the dark to find a rope which is either missing or already in use.

(12) A Shore Party of at least one battalion of engineers is desirable for the landing operation involving 5000 men.

(13) Maintenance personnel, should be provided in each tank company sufficient to insure that let cohesion maintenance is performed on all armored vehicles.

(14) Maintenance should be given a high priority in debarkation and supply supplied with electric accessories.

(15) If possible transports must be ~~const~~ loaded to insure success on landing. Placing vehicles of one ~~const~~ element on one ship with its personnel on an other must be avoided.

(16) Supply and control vehicles for artillery and infantry battalion headquarters should be included in landing teams. Although artillery batteries and infantry companies are initially detached from parent battalions they are soon regrouped under battalion control.

(17) Preparation of vehicles for ~~const~~ landing should be centralized and assembly line methods used. Much preliminary work done at Fort Bragg was a definite hindrance at the Port of Embarkation. Shrouds placed over engine compartments prevents proper treatment and water proofing of engine. Some tanks were sealed before rations and ammunition could be stowed. Much grease placed on vehicles at Fort Bragg had to be entirely removed at Port of Embarkation to permit sealing. Shrouds on medium tanks damaged many oil bath air-cleaners when shrouds were dropped on landing.

(18) Too much responsibility was placed on the Transport Quartermaster. This officer should be an experienced Quartermaster Officer and be a permanent Army member of the ship's staff, being familiar with the vessel and its capacity, and should know his way around the Port.

(19) Trucks to move supplies were not landed until after supplies were being put ashore. Consequently everything piled up at landing points. Trucks to move supplies must be given as high priority as the tactical situation will permit.

(20) No relief was given to Transport and Shore Parties which resulted in a great loss of efficiency between midnight and day break. Work parties must work in shifts.

(21) The Navy cargo officers should lead the ships instead of the Transport Quartermasters. Transport Quartermasters should work "with" Navy cargo officer instead of taking over his job.

(22) Unit and division supply personnel should attend the Transport Quartermaster school rather than representatives of other sections.

(23) Too much work had to be done on vehicles after arriving at Port of Embarkation.

(24) Advance parties must be instructed as to the work they are to perform upon arrival at the Port of Embarkation.

(25) Shipment of ammunition to Port of Embarkation was not properly supervised consequently the delivery of required ammunition to specific ships was not accomplished.

(26) 105mm ammunition was packed in crates of six rounds each which made it too heavy for two men to handle.

b. Individual and organizational equipment.

(1) Equipment of all types is generally satisfactory. The following changes are recommended:

One trailer (1 ton) for each Medical half-track.

One 250 Gal. water trailer for each kitchen.

One tank trailer per battalion section of Regimental Maintenance. (For use in salvaging tanks with tracks blown off.)

(2) Very small parts kits with fuses, bulbs and tire caps should be provided in a box and kept in every vehicle at all times. This, in theory again, is done but there has never been sufficient replacements available to permit of this supply.

(3) Small kits with complete units, such as carburetors, pumps, generators, spark plugs, distributors and lines, should be provided with a carrying case or box for each company maintenance section.

(4) Salvage must be learned and practiced by everyone. The last piece of broken frame or stripped bolt will some day provide stock for a machining operation. Salvage can be enforced only if all spare parts are issued on a strict exchange basis.

(5) Each tank or vehicle commander should be equipped with a set of binoculars.

(6) Ammunition should be distributed on the following basis: HE, 65%, A P 25%, Smoke 10%.

(7) Cargo transportation must be adequate to effect the land movement to the objective.

(8) All units should be equipped with GP, RSO, Gas, Hq, etc, signs on landing to assist in traffic control and in the location of units by personnel not familiar with the area.

(9) Facilities for cooking are needed. At least sufficient to heat water for coffee. The small gasoline stove issued on the basis of one per vehicle is very satisfactory. It is recommended that the basis of issued be changed to one stove per each four men.

(10) The "K" ration should include more coffee. Few men were seen who used the soup component issued with the supper ration. A small can of soluble coffee as is issued with the "B" ration should be included in each "K" ration.

g. Special training of individuals.

(1) The individual soldier must be taught the proper method of searching prisoners for documents and weapons. Prisoners were discovered carrying guns and knives strapped to their legs or inside boots as long as forty-eight hours after capture. Also, some important documents were removed from officers - hours after their capture.

6. Signal -

a. Future planning and execution.

(1) Communications should be established prior to sailing. All nets should participate in frequent Command Post exercises. The operators should be acquainted with each other and with their equipment. New methods of procedure or new items or equipment which are untried should not be used. The operation of landing on a hostile shore is difficult at best and as much familiar equipment and methods should be employed as is possible. The inclusion of new and untried methods or materiel can only serve to confuse.

(2) There must be direct communication between the unit that is landing and the Navy and air-support.

(3) During the preliminary planning phase, the Signal Officer received very little information except by rumor. His work in the main consisted of modifying signal commitments or plans prepared and submitted by other sources without consultation or knowledge on his part. He was required to make technical decisions off hand on points which should have required considerable research.

(4) Movement to the Port of embarkation should be by unit with normal echelons of communications where practicable.

(5) There was too much decentralization and lack of coordination in signal matters between AFAF, Task Force "A" HQ, HQ Armored Force and subordinate headquarters. The large number of sources of signal operation instructions, signal personnel, signal equipment, and general instructions built up a card house of tension and uncertainty which could have collapsed under any kind of nervous or high-strung reception. Instructions must come down through command echelons. The system of having a clerk blindly copy and then reissue instructions under a new heading for redistribution to subordinate units when the time element is critical should be carefully avoided.

(6) Successful operation depend upon centralization of communications responsibility in joint operations.

(7) From a communications standpoint, an outstanding weakness was the composition of signal troops. Many small unrelated detachments were set up for the Blackstone force. These forces were strange to each other, strange to their jobs and partly strange to their equipment. Most important, they were strangers to their director, the Blackstone Signal Officer. These forces were set up without reference to this officer who was going to use them. In future operations, communication teams familiar with

one another and with their commander and using regularly assigned and familiar equipment should be the rule as far as possible. In the past landing operations, the Signal Company of the 2nd Armored Division with few exceptions, could and should have handled the communications for the Blackstone force.

(8) Operations must be based on standard procedures which are well proven in themselves and well known to using troops. Despite protest by troops during planning period, authenticators were prescribed which experience had proven were impossible. They had to be abandoned in mid-operation. A new radio procedure was set up just prior to departure based on an untried version of an untried system. This also had to be abandoned. The radio supply plan was based on an arbitrary percentage table such as used in problems at the Command and General Staff School. Recommendations based on unit experience with actual equipment were disregarded, result that critical items were definitely short and continue to be so.

(9) Signal operation instructions should be limited to absolute essentials. They should not be mixed with SOP or training literature. They should come down through one channel only. In the past operations, SOP were issued late, in several cases after sailing. They were bulky and verbose; material from training regulations and field manuals were included. Subordinate units repeated instructions of superior units, sometimes verbatim, sometimes with variations. The general effect was of passing the buck rather than of instructing and assisting subordinate units.

b. Individual and organizational equipment.

(1) The radio equipment provided for boat control, beach-battalion, Army beach and other short range nets was generally unsatisfactory. The excellent communication results obtained during landing operations of Sub Force X-ray were largely through an unauthorized FM net. A selected crew of well trained operators equipped with SCR 509 radio sets stood by. Their sets had been thoroughly proven in previous troop use and were regularly tested during the stand-by period. These sets immediately filled in where regular circuits failed and in addition provided the several channels to reconnaissance observation and salvage parties which had not been fore-seen in the original plan. FM radio equipment should be experimented with for use on boat control, beach-master, and other short initial circuits of the landing.

7. Surgeon -

a. Collecting and clearing facilities and dental care for a mobile operation were non-existent. Evacuation of battle casualties would have been virtually impossible and only a limited number could have been given adequate treatment.

b. The medical personnel were not apprised of the details of the necessary medical records sufficiently in advance of the expedition, resulting in complications which were completely avoidable.

c. Some medical officers of this command should have been given special training in diseases peculiar to the theater of operations.

S E C R E T

8. Chemical Warfare -

a. In a situation where gas is not expected, it is wasteful to distribute a large quantity of impregnated clothing and also the carrying of gas masks adds an unnecessary burden and will only result in the loss of the mask being thrown away during battle. In the landing at French Morocco there was no reason for carrying gas masks or impregnated clothing. Gas had not been used in the war to date, and there was no reason to expect the French to employ gas or the Germans, should they be present. Half of the available space of the mens' barracks bags was filled by impregnated clothing.

9. Adjutant General -

On the subject of administration, it is believed that the troops of the Western Task Force took the minimum staffs and administration personnel necessary to accomplish the mission. In the early stages, combat is the essential item and as long as voluminous peace time reports are not required, staffs can be reduced and thereby expedite action. However, it was noticed that upon the arrival of a large number of administrative officers, they began to harass the troops with unnecessary reports which would give them some reason for existence themselves. These officers overlooked the fact that the troops were still operating with skeleton staffs with no personnel sections and with very limited means of typing. The administrative wolves must be kept off the backs of the troops until the rear echelon of the combat elements arrive in order that they then may exercise each other to the fullest extent thereafter.

S E C R E T

10. Navy -a. Training for combined operations.

(1) The method of calling landing boats to the nets is inefficient and time-consuming. One boat should be loading while the next boat is standing-by. An improvement might be effected by assigning boats in order to particular nets or stations. A definite "batting order" would permit calling for one boat to be at the net while the succeeding boat is "on deck".

(2) Boat stations aboard ship should be marked with luminous painted numbers so they can be found readily at night. Even after a week of nightly practices in moving to boat stations it was observed that men were constantly becoming lost.

(3) Equipment should not be loaded into boats from one side of the ship and the boat then sent to the opposite side to pick up personnel. If possible, loading should be done from both sides simultaneously.

(4) Coxswains of landing boats must be trained in handling their craft. They should all be expert in maneuvering alongside a ship and in holding the boat properly headed at the beach to prevent swamping. They must receive their training over an extended period of time, in all kinds of weather, and conditions of sea and surf. The stake is too great to entrust to inexperienced or unskillful small boat crews.

(5) Commanders of units must be with their troops, or in direct contact. In assault battalions the battalion commander should be in either the first or second boat wave. The Commander of the force should be where he has constant radio communication with the elements of his command. It has been learned that messages were never received by Headquarters Western Task Force aboard the USS AUGUSTA because the cruiser was engaged with French warships. During the fight, all communication was neglected. As a result of this, the Commanding General lost touch with the situation. If it is deemed essential that the commander be on a warship because of the need of communication, these communications should not be entrusted to the personnel of the Navy which may have certain other duties to perform during action, but should be directly under the Army. Only in this way can absolute control be exercised.

(6) Each landing operation should have more large lighters of tank type and less of smaller types.

(7) The principle of unified command should have been more generally accepted by the Navy. Instances occurred when Navy insistence on receipt of orders through Naval Command channels had serious effect. (Reference made to delay in preparations for unloading TITANIA).

(8) It is believed that the Navy depends too much on brief telegraphic orders. Every advantage must be taken to thoroughly instruct all concerned, down to the lowest ratings, in all details. Team play is thus assured.

(9) The Navy puts too much stress on time schedule. Throughout the operation, it was necessary to work against a Navy desire to move out on a set, pre-arranged time schedule regardless of whether or not the ships had been loaded, unloaded or

the expedition was properly arranged. For example: In the loading phase at NORFOLK, the hour of 1400 was set as the time ships were to leave the dock. At that time due to unforeseen delays, there were many vehicles and a certain amount of ammunition absolutely vital to the success of the mission that had not been loaded. It was necessary to appeal to the Navy head in order to prevent the Captains of the ships pulling out and leave this important material on the shore whereas the time factor in leaving the dock was relatively unimportant as all ships were to stay in CHESAPEAKE BAY for practice exercises for a period of several days. The vehicles and ammunition were far more important to the success of the expedition than the few hours to be lost in practice.

(10) The desire of the Navy to adhere to a time schedule was again noted in the forming of the waves for the attack. The attack waves were scheduled to leave the ships' side at 0330 and the Navy insisted that they leave at this time regardless of the fact that, due to unforeseen delays and accidents in loading, the waves were not ready to go. Had the waves moved on the scheduled time the result would have been a ragged and uncoordinated landing with important sections of the forces, such as artillery and tanks, being left to follow in the darkness, with a great possibility of losing their way and perhaps never reach the beach. It was imperative that these elements be landed regardless of the time schedule. The attack must be formed even though a half hour or more is lost in the time of arrival at the beach.

(11) Navy information as to the capacity of ships was unsatisfactory. The rated capacity for men was given to the Army and plans were based on placing this number of men aboard. Upon arrival at the Port of Embarkation it was found that the Navy had added an appreciable number, in some cases as much as 200 additional men per ship, without knowledge of the Army, also, the maximum number of men provided in the Navy estimate included the provision for men to sleep on the hatches which were required for the storage of vehicles of the combat loaded teams. This resulted in the ships' being very overcrowded; some cases not more than 60 or 70 per cent of bunks were available for the men. This resulted in a great hardship for the men on a long trip.

(12) In another case, the Navy directed the loading of 1500 tons of concrete into a ship to provide ballast and to fill empty space, whereas it was impossible for the army to ship some 1000 tons of necessary ammunition due to lack of space. This error was partially remedied by having ammunition shipped from New York to Norfolk, to take the place of part of the concrete, but all the desired ammunition could have been shipped overseas on the convoy as a whole had the Navy furnished correct figures as to the storage capacities, etc.

(13) It is believed the most simple method of directing waves to shore is to precede them by a destroyer which has the necessary navigation instruments to set a true course. The destroyer also has the gun power necessary for close artillery support. Many of the trick methods of lights and submarines, ideas that volumes were written about, were useless. While theoretically sound, they were impractical for execution due to darkness, heavy seas, etc.

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(14) For a successful landing, the closest support between the air and the attacking forces is essential. This air support was effected in a high degree by the Navy in the operation at SAFI. On immediate call, planes put down accurate bombing on targets which were preventing the advance of troops and docking of ships and which could not otherwise be reached by any gun power then available. Reconnaissance by air is absolutely vital as, in the early stages, no reconnaissance is available for anything beyond a few miles of the beach. Unless air reconnaissance and bombing support can be given in addition to the umbrella protection of the convoy, the attack has little chance of success.

(15) Too much cannot be said for the necessity of training in landing operations. However, there has been a greater emphasis placed on the training for the Army than for the Navy; whereas the reverse should be the case. The Army can learn to clamber up and down the sides of a ship, to disperse on the beach, and learn the attack formations, but this is of no use if the Navy is unable to smoothly bring the small boats up to the sides of the ship, assemble them in waves, proceed to shore, and hit the correct beach with the waves properly dispersed and correctly timed. All of this can be accomplished but it requires detailed planning. The lowest rating must be thoroughly advised of the entire operation so that he can take his place intelligently. For example, the first practice landing exercise held by the HARRIS in CHESAPEAKE BAY, made one shudder as to the possibility of success of the actual operation. However, by means of intensive instructions on board ship, augmented by the use of drawings and paintings on the deck, the sailors, coxswains, boat wave commanders, and group commanders became welded into an intelligent, understanding team and, when the actual operation took place made a very creditable performance which in previous practice exercises did not seem possible.

E. N. HARMON,
Major General USA,
Commanding.

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