

the programme of intensive air action against the enemy defences was to begin with operations by Bomber Command, while airborne forces were to be dropped on the flanks of the assault area. At H Hour, supported by naval bombardment and air action, and by the guns, rockets and mortars of close support craft, the leading wave of troops was to disembark and force its way ashore.

The total initial lift in the assault and follow-up naval forces was of the order of 130,000 personnel and 20,000 vehicles, all of which were to be landed on the first three tides. In addition to the basic eight assaulting brigades/regimental combat teams, a variety of attached troops were required in the assault including special assault engineers, amphibious tanks, and other detachments which varied for the different beaches according to the specific "menu" (i.e., composition of the assault wave) decided upon by the subordinate formations.

Priority of air lift was given to American airborne forces owing to the vital tasks of securing the beach exits and facilitating deployment from the Utah beach. Main bodies of both 82 and 101 United States Airborne Divisions were to land in the general area of Ste. Mère Eglise on the night D-1/D, the latter to assist the seaborne assault on the Utah sector and the former to guard the landward flank and prevent the movement of enemy reserves into the Cotentin peninsula. The remaining air lift was allotted to Second British Army for 6 Airborne Division (less one brigade) which was to land before H Hour east of Caen, with the tasks of seizing the crossings over the Orne at Bénouville and Ranville and, in conjunction with Commando troops, of dominating the area to the east of Caen in order to delay the movement of enemy forces towards the town.

American Ranger units were to land in the assault on the west of Omaha beach, and had the task of attacking enemy defences on the east side of the Carentan estuary. One British brigade of two Commandos was to link the assaults on the Juno and Sword sectors. A second Commando brigade was to land behind the assaulting division on the Sword Sector and while one Commando dealt with Ouistreham, the remainder of the brigade was to cross the Orne at Bénouville and attack the enemy coast defences of the river up to Cabourg inclusive.

The Assault Technique.

Prolonged study and numerous experiments had been devoted to the development of the technique of assaulting a defended beach. As a result, various types of specialised military equipment were available by D Day, including assault engineer tanks, tank-carried bridges for crossing anti-tank ditches, mat-laying tanks for covering soft clay patches on the beaches, ramp tanks over which other vehicles could scale sea walls, flail tanks for mine clearance, and amphibious assault tanks. These devices were integrated into the specially trained assault teams which led the assault forces.

The development of under-water obstacles on the assault coast has already been mentioned, and it was necessary to include in the assault some teams of sappers and naval obstruction clearance units trained in clearance of this type of obstruction. These obstacles

also affected the decision on the tidal conditions required at the time of commencing the assault, because no extensive clearance could take place whilst they were covered by the tide.

The Joint Fire Plan.

The purpose of the Joint Fire Plan was to allocate tasks to the resources of the three Services, with the object of assisting the Army to get ashore. The chief requirements were to destroy or neutralise the enemy coast artillery batteries which might interfere with the approach of the naval convoys or bring fire to bear on the anchorages, and to neutralise the enemy strong points and defended localities that were sited for the immediate defence of our assault beaches.

It has been shown that preliminary air attacks were delivered against enemy coast defence batteries in the preliminary operations prior to D Day. The Fire Plan proper was to begin on the night preceding the assault, when the heavy bombers of Bomber Command were to attack in great strength the ten most important batteries; this operation was to be timed as late as would be consistent with the return of the aircraft to England by daylight. Following the Bomber Command operations, attacks were planned by medium bombers, using special navigational devices, on a further six coast defence targets; this phase was to begin at civil twilight, and about the same time the naval bombardment directed by spotting aircraft and culminating with close support fire from assault craft carrying various types of armament was to commence, and about half-an-hour before H Hour* the heavy bombers of the Eighth United States Air Force, and medium bombers of the Ninth United States Air Force, were to begin action against coast defence artillery and enemy beach defences and localities. Included in the naval assault forces was a variety of specially fitted craft carrying 4.7 inch guns, 4 inch mortars, barrages of 5 inch rockets, Centaur tanks fitted with 75 millimeter howitzers, 17 pounder anti-tank guns, as well as ordinary self-propelled field guns of the assaulting divisional artilleries which were to be embarked in tank landing craft and to work as regimental fire units.

The Fire Plan aimed at building up the supporting fire to a tremendous crescendo which would reach its climax at the latest possible moment before the leading troops waded ashore, in order to give the defenders the minimum time to recover before being set upon. The heavy air bombardment was timed to commence on the beach frontages to within ten minutes of H Hour, and from this time fighters and fighter-bombers were to take up the air offensive, and in particular undertake the task of neutralising the enemy field batteries located inland. Air support tentacles were to accompany the assaulting troops, and fighter-bomber squadrons were to be at hand to answer calls for close support, while the medium and heavy bombers returned to their bases to refuel and re-arm in readiness for further missions. No fewer than 171 Allied fighter squadrons were to be employed in the overall assault phase, and in the event the Allied Air Forces flew some 11,000 sorties on D Day.

* On the day ultimately selected H hour varied between 0630 for the Western Task Force to 0745 on the Eastern sectors.