were in a state of defence and had been provided with extensive obstacles and which would require speedy clearance by our assaulting troops. The system of water lines, inundations and marshes behind the Carentan estuary was extensive and there were few available routes crossing these barriers; the seizure of these routes intact was of the utmost importance.

The hinterland behind the beaches generally favoured defensive tactics and was on the whole unsuitable for the deployment of armoured forces.

Apart from the open rolling plain to the south-east of Caen, the area was covered to a depth of up to 40 miles inland by "bocage" —pasture land divided by unusually high hedges, banks and ditches into many small fields and meadows. In such conditions, observation was extremely limited, and movement off the road defiles was very restricted: not only for wheeled transport, but often for tanks. On the other hand it was ideal infantry country; there was excellent concealment for snipers and patrols, while defensive positions dug into the banks were well protected from tanks and artillery.

The Normandy highlands ran from south-east to north-west across the assualt frontage, at a depth of up to 25 miles inland. The country was broken and irregular in parts, with steep hills and narrow valleys. The dominating feature of the northern ridge was Mont Pinçon, some 18 miles south-west of Caen.

Preliminary Operations.

In the broad strategic sense, preparations for the assault of north-west Europe began at sea and in the air many months before D Day. Winning the Battle of the Atlantic was essential to ensure the passage of the vast volume of personnel and stores from America and Canada to the battle front. The strategic air offensive against Germany had a vital effect on the war by strangling the whole economic structure of the country.

An essential preliminary to the assault was the reduction of the German Air Force to the degree required to ensure mastery in the air over our seaborne forces in the Channel, and over the beaches on the assault coast. The next army requirement was the interdiction of rail and road communications, with the object of delaying the movement of enemy troops and supplies to the battle area. It was desirous also to mislead the enemy about the sector selected for the assault, and, lastly, to pave the way for our actual landing operation by pre-D Day air attacks against coast defences and installations. Other preliminary air tasks of direct importance to the army were the flying of reconnaissance missions over a wide area, and the prevention of enemy reconnaissance over our centres of concentration and embarkation.

So admirably were these commitments carried out by the Air Forces that we were afforded immunity from enemy air reconnaissance during the vital period, a factor of first importance in the design for achieving tactical surprise in our assault operation; moreover, there were only one or two attacks by the German Air Force on the assault forces during the sea passage or at any time on the beaches during D Day.

The interdiction of rail communications was effected as a result of a detailed plan for destroying the servicing and repair facilities which were essential for the operation of railways in northern and western France, the Low Countries and western Germany. In full operation by D-60, the programme brought attacks closer to the NEPTUNE area as time grew shorter, and the result was a shortage of locomotives and stock, repair facilities, and coal over a wide area, while 74 bridges and tunnels on routes leading to the battle area were impassable on D Day. Reports on 7 June showed that all railway bridges over the Seine between Paris and the sea were impassable, and also one of those on the lower section of the Loire. Road bridges were also attacked with most successful results; the 13 bridges between Paris and the Channel, and the five main road bridges between Orléans and Nantes, were either destroyed or damaged.

Attacks prior to D Day on coast defence batteries in the NEPTUNE area were worked into an overall plan of action against the whole length of the assault coast, in order to mislead the enemy about our intentions. These operations retarded the construction of overhead cover for major batteries covering the Baie de la Seine, and at the same time served to increase the enemy's fears that it was intending to assault in the Pas de Calais: astride Cap Gris Nez. This was a matter of first importance in our plans.

Preliminary naval operations included sweeps against enemy U-boats, R-boats and E-boats, and minelaying designed to afford protection to the sea passage across the Channel.

The Assault.

My plan of assault, as approved by the Supreme Commander, provided for simultaneous landings by eight equivalent brigades—of which three were British and two were Canadian brigades, and three were American combat teams. With the assaulting brigades, two battalions of U.S. Rangers and portions of two British Commando Brigades took part. The Americans assaulted on the right flank as they would ultimately require direct entry of personnel and stores from the Atlantic.

Airborne forces were used on both flanks. On the right, 82 and 101 U.S. Airborne Divisions dropped at the base of the Cotentin Peninsula to assist in capturing the beaches and isolating Cherbourg. 6 British Airborne Division was given the task of seizing the crossings over the Caen Canal and of operating on our extreme left.

First United States Army was to assault astride the Carentan estuary with one regimental combat team between Varreville and the estuary (Utah beach), and two regimental combat teams between Vierville and Colleville (Omaha beach). The initial tasks were to capture Cherbourg as quickly as possible, and to develop operations southwards towards St. Lô in conformity with the advance of Second British Army.

Second British Army assault was to be delivered with five brigades between Asnelles and Ouistreham (Gold, Juno and Sword beaches), with the intial tasks of developing the bridgehead south of the line St. Lô—Caen and south-east of Caen, in order to secure airfield sites and to protect the eastern flank of First United States Army while the latter was capturing Cherbourg.

During the night preceding D Day, while the naval assault forces made the sea passage,