

NORMANDY LANDINGS

D-DAY 6TH JUNE 1944

SMART INNOVATIONS USED ON D-DAY

1 TIDE PREDICTION MACHINE: In 1942, British mathematician Arthur Thomas Doodson had begun working on existing models of tide-prediction machines. In 1944, using his specially modified machine, Doodson identified the exact time the landings should take place (H-Hour) and that D-Day should fall between 5 and 7 June.



2 LANDING CRAFT (HIGGINS BOATS)

Thousands of landing craft were used to transport men and equipment on D-Day. Many different types of craft were used. These ranged from tiny Landing Craft Assault (LCA) to huge Landing Ships. Other landing craft were fitted with guns or rockets. There was even a 'Landing Barge Kitchen' to prepare food for the troops. Based on a design by Irish American, Andrew Higgins, they were based on boats made for operating in swamps and marshes. By design, they were flat bottomed with a square front end for close inshore work and beach landings. They were, however, more difficult to handle and more susceptible to the motion of the sea and wind than conventional craft, even in calm water.

3 HORSA GLIDERS

Horsa gliders were first produced in 1942. On D-Day, these gliders were used on an unprecedented scale to transport troops and supplies to Normandy. They were towed by transport or bomber aircraft before gliding into the landing zone, where supplies could be retrieved. Gliders transported heavier equipment that could not be delivered via parachute drops or when using larger transport aircraft was not possible.



4 MULBERRY HARBOURS

One of the greatest engineering feats, two artificial harbours were towed across the English Channel and put together off the coast of Normandy. They were capable of moving 7,000 tons of vehicles and goods each day. Each of the artificial harbours was made up of about 6 miles of flexible steel roadways that floated on steel or concrete pontoons. The roadways were codenamed "Whales" and the pontoons "Beetles". The 'Whales' ended at giant pier heads that had 'legs' that rested on the seabed. The whole structure was protected from the force of the sea by scuttled ships, sunken caissons and a line of floating breakwaters.



5 'HOBART'S FUNNIES'

Some unusual vehicles played an important role on D-Day and throughout the Battle of Normandy. Armoured vehicles were designed to perform specialist tasks and reinforce ground troops on D-Day. These vehicles were nicknamed 'Hobart's Funnies' after their inventor, Major-General Sir Percy Hobart. They include the Duplex Drive (DD) 'swimming' tank, like the one in the photo above; the 'Crocodile' flamethrower tank and the 'Crab' mine-clearing flail tank.

6 PLUTO

short for 'pipeline under the ocean' - supplied petrol from Britain to Europe via an underwater network of flexible pipes. It gave the Allied forces access to enough petrol to fuel aircraft and vehicles and to sustain the momentum of their advance. Two PLUTO pipelines ran from the Isle of Wight to Port-en-Bessin which was the linkup point between Omaha and Gold beaches.

