## BY AN OLD HYDROGRAPHER

## â€~As it Was'

In the summer of 1943, when planning the landing in Normandy, it was found that the best available charts showing offshore depths were based on surveys dated 1875. It was thus essential to confirm this data and a small naval survey unit of two officers with hydrographic experience was set up by the then Hydrographer of the Navy, Admiral Edgell. Lt. F.M. Berncastle was appointed leader, and I was sent as his assistant.

We were established in H.M.S. Vectis, a block of flats in West Cowes and allocated a number of Landing Craft Personnel (Large). These were actually only 30ft motorboats that had been specially fitted with echo sounders, small-size Taut wire machines, Q.H. (the naval version of the R.A.F. Gee), underwater exhausts and a wire strop right round the boat for towing purposes. QH was the code name for a naval version of an RAF radio position fixing device which had been in use in 1943. Berncastle and Glen could not use Decca's QM system as it was not activated until the day before D-Day (see Steve Ritchie's latest book â€~As it Was' page 102). The boats were also fitted with a light-tight canopy so that we could work at night without showing any lights. This was essential, as we were going to work close inshore of the French coast on moonless nights.

The first operation took place on 23rd October 1943 and was centred on the designed site for Mulberry B., the British Harbour. We sailed at noon with three boats that were taken in tow by three motor gunboats that took us halfway across the Channel. At about sunset we cast off the tow and went south under our own power, arriving off the French coast at about midnight. The spare boat was anchored as a mark and Berncastle and I proceeded to run lines of soundings from this boat to the shore in the form of a star. At the inshore end we went in as close as possible; it was high-water springs at the time and we were able to fix our position by the silhouettes of the houses ashore. At 04:00 the mark boat weighed its anchor and the other two followed as soon as possible. At about dawn we joined the motor gunboats and were towed back to England.

The soundings were plotted on return using some excellent horizontal photos obtained by the R.A.F. to identify the houses. The taut wire distances to the mark-boat enabled its position to be fixed and hence the soundings plotted. These soundings agreed very well with the French charts and so enabled the design of the Mulberry to proceed.

We carried out five more operations such as these to other parts of the coast, such as the proposed site of Mulberry A., the U.S. planned harbour, and also to some of the beaches. We were never detected - presumably due to the very dark nights and the fact that the sentries were either asleep or intoxicated, although on the last occasion on 31st January 1944 some Vereyâ€<sup>™</sup>s lights were fired but failed to illuminate us. We also knew from aerial photographs that the Germans did not start to lay beach obstructions until after January.

Of course, there were difficulties. On one occasion the echo sounders refused to operate and we had no experts to find the trouble. It was not uncommon to solve this difficulty by hitting the amplifier with oneâ€<sup>™</sup>s fist but on this occasion nothing worked and we came home with no data. The other problem was food. This was solved by the special supply of self-heating soups. These were only supplied after the Admiral at Cowes, Admiral Vian, intervened and were a great success. But they needed careful handling or they could explode! Always read the instructions!

On two occasions the weather became much worse and we were unable to be towed home by the motor gunboats and so went under our own power to Newhaven. Berncastle decided that he needed to get back to Cowes as soon as possible and we got a lift in a staff car. In the car was an officer I knew from the Royal Naval College, Dartmouth, where we had been in the same term. He said he was in charge of a small unit of motor torpedo boats based at Newhaven and had been due out on patrol the previous night but owing to the very bad weather he had remained in harbour. Now he had been summoned to report to the Commander-in-Chief at Portsmouth. As he was obviously intended to be a covering force for our operation, which we had carried out as planned, I did not think he would get a very pleasant reception at Portmouth but was quite unable to tell him what had been going on. Our operations were always clouded in the greatest secrecy, being classed TOP SECRET and BIGOT. This latter was a special grade of extremely high secrecy introduced during the planning of Overlord.

I also did one extra operation without Berncastle, as we were not sounding but landing two soldiers on the beach near Arrowmanches who were to test the load-bearing capacity of the beach and measure the height of the sea walls. I landed them at just about midnight on New Year's Eve and recovered them at about 03:00. Unfortunately, by then they were very tired and did not want to swim out further than absolutely necessary. As a result, the boat ran aground and we had some difficulty in getting it off in the dark. However, after a few minutes of considerable concern we managed to get re-floated and went north to join the motor gunboats as usual.

When it came to the actual landing we were detailed to be navigational leaders for the duplex drive tanks, as they had great difficulty in seeing ahead. These were Sherman tanks fitted with a watertight skirt around the top and were watertight below. They were also fitted with propellers and rudders, so they could move when floating but had very little freeboard. I was allocated to GOLD Beach but when we arrived the tank commanders decided that the weather was too bad for launching. So I waited until the afternoon to go ashore and report to the beach master, who was the captain of the destroyer I had served in the previous year. We had a small reunion over a bottle of gin in

## his tent, as the battle had by then moved some miles inland.

The following morning I started laying the marker buoys for the ships that were to be steamed over from England and sunk to form the start of the breakwater for the harbour. Unfortunately, I got one of the buoys for the first ship slightly out of position so that it sank at an angle to the main line of the breakwater, as can be seen on the plan. However, this proved to be an advantage as it provided a small calm area for craft when the gale came.

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