MAJOR-GENERAL SIR PERCY CLEGHORN HOBART

TROUBLEMAKER OR PIONEER?

A distinguished and elite sapper, the straightforward Major-General Percy Hobart showed considerable intellect and innovative solutions to tactical problems, writes **John Ash**. Tasked with heading up tank matters inter-war, Hobart's daunting and abrupt character caused friction despite results, but, retired near the beginning of the second war, what did the pioneering 'Hobo' achieve upon his return?

Born in India on 14 June 1885, Percy Hobart embraced the study of history from an early age. He was commissioned into the 1st Bengal Sappers and Miners in 1904 after graduating from the Royal Military Academy. During the Great War he fought at Neuve Chapelle, where he earned an MC. He saw further action at Aubers Ridge and Loos, before taking part in the attempt to lift the Ottoman Siege of Kut.

In the desert, Hobart noted the difficulties of pursuing mobile warfare in an undeveloped theatre where logistics were deficient. Disgusted by the conduct of the campaign he openly criticised senior officers, saying to one general his tactical handling of troops fell well below the brilliance demanded.

Hobo earned a good reputation during the 1917 advance on Baghdad, although he was captured in 1918 after he was downed on an unauthorised flight. Fortunately, he was rescued by a patrol of armoured cars. Hobart was returned ready for General Allenby's masterful attack at Megiddo. However, another outburst led to him being removed and he resumed service in India.

In 1923, Hobart took a gamble and joined the Royal Tank Corps. Few officers with prospects would have made such a move, especially those in an enviable post-war position in India. He had proven himself in the Raid on Wana in 1921, and by a stint at Camberley. He was soon at Staff College Quetta, wearing RTC badges, as an instructor, learning from tank advocates such as theorist J.F.C Fuller. He completed Quetta in 1927 having formulated clear concepts on tank doctrine, grounding his theories loosely on the speed and mobility of the Mongol hordes of centuries past.

In 1931, Hobart steered 2nd Battalion RTC during revolutionary exercises at Salisbury plain. The brigade-sized manoeuvres were directed solely by radio. Hobart's dynamism impressed and in 1934 was a near certainty for the command of the new 1st Tank Brigade. Under Hobart, this brigade pioneered

MAJOR- GENERAL SIR PERCY CLEGHORN HOBART

Nickname(s): Patrick, Hobo.
Born: 14 June 1885
Died: 19 February 1957 (aged 71)
Allegiance: United Kingdom
Service/branch: British Army, Local Defence Volunteers/Home Guard, Specialized Armour Development Establishment (Post-war)
Battles/wars: *North West Frontier: World War One:* Neuve Chapelle, Festubert, September Offensive, Loos, Mesopotamia, Kut, *Palestine,* Megiddo, *Waziristan: World War Two:* Op. Overlord, Scheldt, Op. Plunder
Awards: Knight Commander of the Order of the British Empire, Legion of Merit, Companion of the Order of the Bath, DSO, MC, Mentioned in Despatches (nine times)

BOTTOM LEFT (OPPOSITE): **Major-General Sir Percy Hobart.**

BELOW: A pair of AVREs easily defeating mud, rubble, and other obstacles in the winter of 1944.

RIGHT:
British troops advancing across No Man's Land through a cloud of poison gas at the Battle of Loos, 25 September 1915. This remarkable photograph was taken by a soldier of the London Rifle Brigade during the first British use of poison gas at Loos. The weather conditions blew back some of the gas towards the British trenches.
(HISTORIC MILITARY PRESS)

armoured warfare development, and he was the subject of international fame. The Germans watched intently, Heinz Guderian even paid to have Hobart's papers translated. He allegedly toasted: "I put my faith in Hobart, the new man, to Hobart"

Crucial all-arms experiments were conducted in 1934 under Hobart's watch. His attention to detail and merciless training were second to none. Armour advocates were convincing others of the merits and inevitability of mechanisation, yet, this was not popular with all, and some firmly resisted.

In 1935, Hobart detailed Churchill on the ways of armoured warfare, tank design and development, and of concerns on the rapidly approaching obsolescence of types. Hobart favoured the development of what would become cruiser tanks, in-line with Guderian, who saw the tank as a weapon to exploit weakness, to boldly use speed and surprise. Churchill was not necessarily convinced, but Germany soon proved the value of Hobart's ideas.

Hobart began the war in Egypt, removed from the core of development. However the desert presented opportunities for experimentation and, at the head what would be 7th Armoured Division, he honed the most legendary of armoured formations. This is despite his Hussar regiments' reluctance to convert, and only having a handful of light tanks and vintage armoured cars. Hobart fought the cavalrymen, who he thought backward and quick to blame machinery for failure. Conversely, they considered Hobart impetuous and peculiar.

Hobart still made the 7th perhaps the finest armoured formation ever seen. He focused on dispersion, flexibility, and mobility. He also hammered home principles in good desert navigation and maintenance. The brilliance of Hobart's tactics would be further proved, astonishingly so, by others in theatre, such as Richard O'Connor, who benefited from tutelage and led British forces to desert victory. O'Connor reflected: "[The 7th] is the best trained division I have ever seen."

Not convinced by Hobart's philosophy, Henry Maitland Wilson and Archibald Wavell ejected him from the 7th. Hobart was seen as a risk, his continuing focus on armour might come at the exclusion of other arms. Armoured units, it was thought, lacked flexibility, and the pioneering exploits of a maverick officer who might not always follow orders may well have made for an interesting commander, but not a reliable one. On the day France fell to an army using tactics propounded by Hobart, but which others were convinced could not work, Hobart was forced into retirement for pursuing the self-same methods and joined the forerunner of the Home Guard.

Churchill was now convinced 'German' methods would win through, and was searching for a man to implement them, a man who would steer doctrine, training and design and who would innovate. Hobart was nominated, but he was unable to negotiate with then Chief of the Imperial General Staff (CIGS), John Dill, to get the position he felt needed to front developments he felt necessary. His ideas were considered unworkable, but Dill knew few had the credentials.

Fellow sapper Giffard le Quesne Martel ended up in the role sought by Dill - Commander Royal Armoured Corps (CRAC). Another tank theorist, he had experience of tanks at the Somme, and was behind the 1.5 miles of training trenches at Elveden. He also had a role in the planning for Cambrai in 1917. In 1940 Martel directed the tank attack on Arras, which pushed Rommel's 7th Panzers back eight miles. However, he clashed with Hobart, who had accepted command of 11th Armoured Division and a seat on the Tank Parliament. Martel's position as CRAC was abolished in 1942, and he was sent to assist the Soviets.

BELOW:
The ruins of the main street of Neuve Chapelle after its capture by 25th Brigade, 8th Division, in March 1915.
(HISTORIC MILITARY PRESS)

Even though most recognised the sheer quality of the divisions he trained, Hobart remained divisive. A reoccurring issue was he often saw professional differences as personal, which led to tension and suspicion. Hobart's appointment was not directed by the bulk of his peers, but by Churchill, who wrote to Dill: "We are now at war, fighting for our lives, and we cannot afford to confine Army appointments to persons who have excited no hostile comment in their career." Continuing with: "The catalogue of General Hobart's qualities and defects might almost exactly have been attributed to most of the great commanders of British history… Marlborough… Cromwell, Wolfe, Clive, Gordon, and in a different sphere, Lawrence, all had very close resemblance to the characteristics set down as defects. They had other qualities as well, and so I am led to believe has General Hobart." He surmised: "This is a time to try men of force and vison and not to be exclusively confined to those who are judged thoroughly safe". Churchill's secretary, John Colville, reflected: "… it isn't only the good boys who help to win wars".

Attempts to remove Hobart succeeded by 1942, though then concerns were genuine. At 57, Hobart was considered too old for field command, plus he had been ill. Churchill preferred leaving Hobo with his division, arguing that had Hobart been allowed to take a more active role, early disasters may not have occurred. One tactical development which largely whistled by was Hobart's notion to use armour to force a counterattack, directed into a 'box' watched by anti-tank guns - used to deadly effect by Rommel in Africa.

However, the Army could not let Hobart command a division about to sail to Tunisia, after all, he failed to convince a medical board. Hobart was disappointed, but, though no one knew it, this move is among the most important of the British war. It freed Hobart for another posting, once again he was tasked with raising and training a new division.

August 1942 had seen the Dieppe Raid, which despite elements of success the action met with disaster. The 5,000 Canadian troops involved sustained a casualty rate of 68% killed, wounded and captured, and a force of 1,000 British commandos lost a quarter of its strength. Tanks were deployed to support the troops, and much was expected of them in the near-total absence of a preliminary bombardment. This strategy was employed to avoid civilian casualties, to see if facilities needed to support invasion could be captured intact (before being destroyed as per the objective) and because the navy was reluctant to risk capital ships.

The Calgary Regiment, with Churchill tanks, was selected for the raid. Some tanks had howitzers and three were fitted with flamethrowers, all the vehicles were fitted with deep-wading gear but were reliant on landing craft. Only 29 tanks scrambled ashore, of these, two sank, twelve bogged down in the loose shingle. Fifteen made it off the beach, but after climbing the sea wall they were

ABOVE: **A Sherman DD launches, a dangerous moment – particularly in the heavy seas encountered on D-Day. Waves could easily cause a floatation screen to be torn on a protruding part of the landing craft, or for a tank to be smashed against the ramp. In either case, the consequences could have been fatal.** (WITH THE KIND PERMISSION OF THE TANK MUSEUM)

LEFT: **Hobart directing exercises in 1934.**

RIGHT:
A Sherman Crab wades ashore on Gold Beach from an LCT on D-Day. (THE TANK MUSEUM)

unable to breach defences protecting Dieppe. They retreated to the beach where they acted as pillboxes, every tank was lost. Prepared positions, obstacles, sea walls, water, and soft beaches were all identified challenges.

Hobart's new posting, the 79th, was set for disbandment when he arrived in March 1943. However, with his appointment came reprieve, CIGS Alan Brooke demanded specialised vehicles to overcome the Dieppe challenges, which all suspected would become more difficult as the construction of the Atlantic Wall continued. Both Churchill and the Canadian Prime Minister, Mackenzie King, were eager to avoid a grander disaster. Hobart accepted the appointment on the basis the 79th would be an operational unit.

Given responsibility for developing the force, under Hobart's command engineers developed vehicles to better facilitate invasion. His men, with the exception of tank drivers, were typically drafted from the Royal Engineers, meaning men of expertise were with each vehicle. The resultant 'Funnies', among the oddest appearing machines of war, may well have looked like they belonged in a circus. However, they were no clowns, rather a family of innovative and effective vehicles developed specifically to avoid another frothing red tide on another blood-stained beach.

THE ZOO

Although other vehicles were used, Hobart selected two main types as a base for his specialist tanks in his menagerie of a division - often nicknamed 'The Zoo'. The first being the mechanically sound Sherman. The second being the indigenous Churchill, well-armoured and spacious. Several iconic vehicles were developed by Hobart's 79th, and according to a Major Birt were described by the men as belonging to the "fantasies of the dreamers of war with Mars".

One of these was the 'Crab'. The vehicle used a rotating drum, onto which 43 weighted chains were attached. The spinning chains beat the ground, clearing mines. Said to be the brainchild of South African Captain Abraham du Toit, it was another South African who developed coincidently a flail for the Matilda tank - the Scorpion. This was pursued by a British officer who was familiar with du Toit's work but unaware the project he chased was that of another. Scorpions deployed for the Second El Alamein, and were useful, however, it relied on an underpowered external engine which was vulnerable to enemy fire and sand.

Development continued, eventually resulting in the effective Crab. The vehicle retained a main gun, was controlled from inside the vehicle and powered by its own engine. Wire cutters were added to the chains and bins filled with chalk that trickled out to mark the cleared path were fitted. Paths could be further marked by smoke markers dropped from a hopper and illuminated poles fired into the ground.

COERCE SURRENDER

At Dieppe three 'Oke' flamethrower Churchill's were landed, but were quickly lost. However, the Churchill remained the perfect tank for the

RIGHT:
Medics attend to wounded in the shelter of a Churchill AVRE from 5th Assault Regiment, Royal Engineers on Sword Beach, 6 June 1944. (HISTORIC MILITARY PRESS)

desired role, its thick armour making close-range work like flaming more survivable. Work progressed to develop kits, which allowed any Mk VII Churchill to be fitted with the weapon. The Crocodile kit consisted of the armoured fuel trailer, an armoured pipe which ran under the vehicle, and the projector. Enough fuel was carried for 100 seconds of flame, and the Crocodile boasted a range which exceeded most flamethrowers – around 120 yards.

The weapon was a potent psychological tool and brutally effective at clearing stubbornly held positions. They were so secret that many Allied troops had no knowledge of them, but Crocodiles soon proved popular and boosted morale. Conversely, the prospect of incineration was enough for most defenders. The sight of an advancing Crocodile, 'warming-up' with a few test shots, was often enough to coerce surrender before flame engulfed the target.

The flamethrower used fuel at four gallons a second, burned on water, and stuck to trees and other surfaces. The tank could also fire bursts of unlit fuel, which splashed into trenches and was lit by a flaming burst. In addition to British use, Crocodiles supported American troops in the Bocage and during the battle for Brest, as well as the Anglo-American Operation Clipper at Geilenkirchen. The tank was also used in Italy by the 25th Armoured Assault Brigade, and in Korea in 1950, by 7RTR.

FLYING DUSTBINS

After Dieppe, it was clear that demolition and clearing assets had to be protected (infantry teams had been killed or pinned on the beach). A go-anywhere tank, with famed hill-climbing attributes and able to cross most ground, the Churchill was a good candidate. During fighting near Cleve in late-1944, German troops flooded the area and only vehicles such as DUKWs could operate. Nevertheless, 6th Guards Tank Brigade used Churchills to continue the advance. Despite the Sherman, Cromwell, and Comet all being faster vehicles, it was a Churchill unit (4th Grenadier Guards) who achieved the fastest advance of any armoured unit in the European theatre (and with lower casualties than all 21st Army Group armoured units).

A new weapon capable of clearing obstacles was needed, this was found in a 290mm Spigot/Petard mortar which lobbed a 40lb HE bomb known as the 'Flying Dustbin'. The break-barrel weapon was loaded outside the vehicle, but modifications to the roof space above the co-driver allowed loading to be completed while only exposing the co-driver's arms.

The type was very effective. On Gold Beach, the fortress at La Hamel was withstanding the assault and posed a threat to the flank of the landing. Naval bombardment destroyed three of the four 75mm guns housed there at 06.20, but the fourth gun continued firing. A lone AVRE was able to blast the defences open, knocking out the last gun at 16:00. The threat removed, the position could be bypassed, trapping the garrison which surrendered the next day.

Specialised equipment was fitted to several AVREs, like the Double Onion or Goat. These explosive frames were designed to clear obstacles and would be advanced into position, released, and detonated from inside the tank. Hobart's solution to soft ground came with the Bobbin, a reinforced matting attached to a drum, mounted on a frame above an AVRE. The tanks forward movement deployed the matting, which allowed other vehicles to cross. A similar development utilised logs. Again, the Bobbin was indispensable at Gold Beach, where four safe lanes were laid within an hour of landing.

AVREs were also used as fascine carriers, a reinvented Roman concept and another credit to Hobart's 'forget-the-box' style of thinking. They released large bundles of brushwood to fill gaps and ditches. Another development was the ARK, a turretless Churchill with folding ramps. This would be driven into a gap and the ramps opened, forming a roadway. Equally useful was the Small Box Girder, an AVRE carrying a bridge capable of spanning a 30ft gap or climbing a 15ft obstacle.

DONALD DUCK

Another innovation of genius was the Duplex Drive, or DD – 'Donald Duck'. Designed to give first wave troops support, while simultaneously removing total reliance on landing craft. The tank was the concept of émigré Hungarian-born engineer Nicholas Straussler. Made from

ABOVE:
A Sherman DD of the 13/18th Royal Hussars moving forward in support of assault troops. On Sword Beach the DD tanks generally worked well as the sea there was reasonably calm. However, five tanks could not be launched as one LCT's leading tank tore its screen. Unable to launch, this tank prevented the others from exiting. (WITH THE KIND PERMISSION OF THE TANK MUSEUM)

LEFT:
A Sherman DD from the 13/18th Hussars in the Route de Lion, Ouistreham. By this stage, the tank crews were beginning to push inland in an attempt to reach their beachhead targets for 6 June. This tank is only a few miles from the airborne forces holding Pegasus Bridge. (HISTORIC MILITARY PRESS)

ABOVE: **Hobart and other tank officers evaluate the changes made to simplify the ubiquitous BESA machine gun, heavily used by the Royal Armoured Corps.** (THE TANK MUSEUM)

canvas, a collapsible screen allowed a tank to float when raised. It was propelled by the DD system, two propellers linked to the tanks drive. Once ashore, the screen was lowered and the tank fought as normal.

On Sword Beach the tanks were successful – though one sank after a collision. DD casualties were heavier on Gold Beach, where the seas were rougher, and eight sank. At Juno only half the DD tanks were floated due to sea conditions, but 21 of the 29 launched reached the shore. The eastern end of the landing beach was stormed without DD support – but casualties were remarkably heavier.

The Americans had less success. Of 28 tanks launched at Utah, 27 made it ashore, albeit late, blinded by smokescreens, and on the wrong beach. At Omaha, 29 of 64 DD tanks were floated, but only two made it ashore. The rest were landed on the beach and most the sunken crews were rescued. The heavy loss of DD tanks on Omaha is partly attributed to having to swim side-on in order to keep their marker, a steeple, within line of sight.

Considering the tanks operated in swells twice as high as they had been tested in, the deployments at Normandy can be considered successful. They were used during Operation Dragoon in August 1944 when 32 DD tanks were floated and 30 reached the shore. Perhaps the most impressive deployment of DD Shermans was the Scheldt, where 18 DD tanks of the Staffordshire Yeomanry completed a seven mile swim without loss on 26 October 1944. In Italy 7th Queen's Own Hussars DDs crossed the Po River and the River Adige and the last combat swim for the tanks was the crossing of the Elbe at Artlenburg on 29 April 1945 - another success for the Staffs.

PROTECTED MOBILITY

The 79th also received two vehicles to assist in protected movement. After the bridges over the Rhine and Elbe had been damaged or destroyed, the 79th made use of the 'Buffalo', a modified, often upgunned, American LVT akin to those used extensively in the Pacific. They were also used at the Scheldt. Montgomery considered using LVTs as troop carriers but they were noisy and excessive track wear would be a strain on maintenance.

However, the search for an armoured troop carrier would be completed in Normandy. The tactical problem of moving infantry quickly was a critical problem. During operations like Goodwood, progress was slowed by a shortage of infantry. It needn't be necessary, or desirable, to allocate more infantry to operations, but infantry already involved could be more mobile. The idea was mooted by Richard O'Connor, as well as Canadian generals, and it was the Canadians who developed the first 'Kangeroos', converting self-propelled guns. The idea was successful, and soon they were being manufactured from a variety of tank hulls.

RIGHT: **The fighting in and around Riva Bella, Ouistreham, over. British troops and local residents gather with men of the 13/18th Hussars. Two Sherman DDs form a backdrop.** (HISTORIC MILITARY PRESS)

MYTHICAL ARMOURED DRAGONS

Hobart was not necessarily the architect of the vehicles, but he was of the force he created. As with each of his commands, the 79th inherited a unique flair. It was not a typical fighting unit, and did not engage in combat in a manner akin to any other division, but it still relied on the philosophies of its pioneering master: dispersion, flexibility, mobility. Nearly always on the frontlines, completing the most dangerous tasks on the field, the 79th suffered heavy losses. However, their bravery and their achievements undoubtedly quickened operations and preserved life.

Among the most powerful descriptions of the effectiveness of the 'Funnies' is that of David Render, who reflected on an assault in The Netherlands on 18 November 1944, watching as his unit waited for the 79th to open a route for them: "It was still dark when the order came to advance, but the brilliant beams of a battery of searchlights reflecting of the clouds illuminated the area ['Monty's Moonlight], the searchlights turned the world around us into a blue-black monochrome, in which we could make out the dark outline of the specialist armour…"

He continued: "It was led by Sherman flail tanks that would beat a path through…. These were followed by Churchill engineer tanks, which were equipped to create gaps in the obstacle belts and blast out bunkers… We were also supported by Crocodile tanks, which towed tanks of fuel behind them and belched liquid jets of flame from their hulls. Moving like some form of mythical armoured dragon, they made for a terrible sight as they hosed down the embrasure of a concrete bunker and covered its occupants in blazing petroleum. Ultimately they forced the defenders to flee from the fiery

confines of their bunkers, often ablaze and in agony. The supporting tanks or the infantry would then shoot them down. But first we had to get there…"

He also highlighted the need for the 'Funnies' in this assault: "While the Shermans were impervious to the German machine gun fire…their 75mm and 17Pdr guns could not punch through the four or five feet of concrete which protected each pillbox."

ONGOING LEGACY

As barbaric as Hobart's vehicles may have appeared, he was confident the contraptions would save lives. This was a necessity, as Britain and Canada were in the midst of a crisis of manpower. Today most modern armies, so heavily criticised for the lightest of losses, use vehicles which would not have looked out of place in Hobart's 79th. Many of Hobart's vehicles were retained after the war and further developments of Churchill AVRE, based on the Mk VII and armed with a 165mm demolition gun served until replaced by Centurion AVREs in 1963, which served until the First Gulf War. The last AVRE was modelled on the Chieftain, and although successor vehicles no longer use the AVRE acronym, they are as potent, formidable, flexible, and useful as the family of vehicles which inspired them.

The story of Percy Hobart is unique, and involves unconventional genius. So few appreciated his vison until it was absolutely needed. Few lasted long under his command, so tough was his regime. Yet, this unique approach, rapid problem solving and tuned drill made a difference. Where the 79th operated, they met terrific success, including at Boulogne which Hobart personally directed. No better proof than Omaha Beach can be found for this reasoning. Normandy veteran David Render wrote: "Once married up with the infantry, the DD tanks and Funnies made a critical difference; marked by the fact that the highest Allied losses on D-Day were on Omaha… where DD tanks foundered on their way to shore and where specialist armour was not used." Eisenhower wrote: "The comparatively light casualties which we sustained on all beaches, except Omaha, were in large measure due to the success of the novel mechanical contrivances which we employed… It is doubtful if the assault forces could have firmly established themselves without the assistance of these weapons."

Basil Liddell Hart suggested that Hobart "was one of the few soldiers I have known who could be rightly termed a military genius" and although not a traditional general, the inexhaustible Hobart was the ideal candidate to oversee, develop, and steer the tactical deployment of his 7,000 niche vehicles over an entire front. He rooted out problems, future-proofed concepts, and battled the War Office to meet his demands. His stormy past was the key to his reappointment and future success, and his 79th was a game-changer. His expertise and position meant he was one of Churchill's 'Iron Triangle'; Brooke, Monty and Hobart. On 26 March 1945, Hobart personally took Churchill, Brooke, Montgomery and Dempsey across the Rhine in one of his Buffalo, an amazing high in a troubled career which ended with retirement in 1946. Often attending meetings with top British, American, and Canadian commanders, his advice was respected – although, as with US General Bradley and in continuing controversy, not always followed. Perhaps the last word should be left to the commander of US 9th Army, General William 'Big Bill' Simpson, who said of Hobart: "[He was] the most outstanding high British officer I met during the war."

BELOW: **Not forgotten: Crab and Churchill Bridge layer 'Funnies' take part in London's victory parade.**