When the campaigns of the American Civil War are recalled the names that come to mind are Petersburg, Gettysburg, Manassas, Fredericksburg and Bull Run. All of these were land battles, yet the soldiers’ war contributed very little to the tactics or weaponry of modern warfare. On the other hand the unpublicised naval engagements of the era were punctuated with innovations that have remained part of today’s Navy.

With the secession in December 1860 of South Carolina from the Union the Southern States of the United States of America openly voiced their disapproval of Republican President Abraham Lincoln. Mississippi, Florida, Alabama, Georgia, Louisiana and Texas severed their ties with Washington the following year and demanded that all Federal installations in these states be abandoned. Lincoln refused and was on the verge of dispatching a force to resupply the strategic post in Charleston harbour, Fort Sumter, when the first shots of what is still America’s bloodiest war rang out. After a bloodless battle of 34 hours Fort Sumter was surrendered to the South. Lincoln called up an army of 75000 to crush ‘the rebellion’: what had been secession was now open war and in the next four years over 618 000 Americans were to perish, more than 430 a day, more dead than in World War I and II combined.

At the start of the war on 12 April 1861, the Union or Federal forces had the United States Navy at their disposal; some 42 serviceable ships together with the Naval facilities at Washington and Brooklyn Navy Yards. In Gideon Welles, Lincoln had a most energetic Secretary of the Navy. Ably aided by a brilliant assistant, Gustavus Fox, Welles commenced an expansion programme which saw a Union Navy of 671 ships by 1864. A vast ship building industry was launched and a number of vessels either purchased or commandeered. With the very existence of the South dependant on trade with Europe Lincoln wasted no time in instituting a naval blockade of Southern harbours. Without a real navy it was daring and ingenuity that gave rise to the repu-

The exploits of the H.L. Hunley were not yet over. She was refloated, refitted and under command of Lieutenant George E. Dixon carried out the first genuine submarine attack, on 17 February 1864. Dixon navigated his submerged craft in among the Union blockade fleet at night and his selected target, the USS Housatonic, became the first submarine casualty, sinking almost immediately. Regrettably the Hunley succumbed to the explosion as well and no trace of her has ever been found. In this attack a spar was fitted to the bow of the submarine to which a large explosive charge or torpedo was attached.

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The torpedo boat was also an innovation of the diminutive Confederate Navy. A cigar-shaped steam-propelled torpedo boat, the David, was used against the fleet blockading Charleston and did extensive damage to the USS New Ironsides. The torpedo used in these attacks was also attached to a spar protruding ahead of the vessel, which steamed almost submerged into the attack.

Not all the new ideas had their birth in the South; the ship-building programme instituted by Secretaries Welles and Fox gave rise to the first of the all-iron warships, the Monitor. The famous encounter between the Monitor and the Virginia tolled the death knell for the wooden men-of-war. The Virginia was a captured Union ship, the Merrimack, which was converted into an 'ironclad' by the Confederates. Mounting 10 guns and fitted with an enormous battering-ram bow she ruled supreme in the waters of Hampton Roads until this encounter. The Federal Navy's answer was the ironclad warship Monitor. Although lacking the fire power of the Virginia she had a very low profile, was far more manoeuvrable and had her only gun mounted in a revolving turret.

On 9 March 1862 these two ships met in the entrance to Chesapeake Bay. A three hour engagement ensued and at the end both ships were still very much afloat. This seemingly inconclusive engagement had three major consequences: the duel marked the birth of steel navies; had the Virginia won, the North would have lost control of Chesapeake Bay and its many waterways; nevertheless the neutralisation of the Virginia, if not her destruction, enabled the Union offensive to proceed as General McClellan could now transport 121 500 men, nearly 15 000 animals, 1 200 wagons and 44 pieces of artillery to the Virginia Peninsula by sea. From this vantage point between the James and York Rivers, he prepared to engage the South on their home front and to threaten the capital Richmond.

The major role of the Navy in the Civil War was formulated early on with the blockade of Southern ports. At the start the Union Navy had but few vessels to isolate some three-and-a-half thousand miles of Confederate coast line. Both sides realised how absolutely dependant the Southern states were on European sources of supply; for the South salvation lay in keeping her supply lines intact, for the North an effective blockade would eventually secure victory. With the growth of the Federal Fleet the blockade grew more effective but Lincoln and Welles did not regard this in itself as sufficient to sever the South's commercial links with foreign suppliers. By capturing and holding key points along the coast the blockade could be strengthened, the ports still open be placed in jeopardy and the Federal Navy be in the position to refuel closer to the scene of action.

The Federal Forces began these tactics in August 1861 with successful amphibious assaults on Fort...
Hatteras and Fort Clark in North Carolina. Two months later Port Royal in South Carolina was captured together with the nearby town of Beaufort. By March the following year the coastal towns of New Berne, Elizabeth City and Edenton had fallen into Federal hands and the interior of North Carolina was wide open to attack. With the capture of Fort Pulaski in April the Savannah River was almost untenable to Southern shipping and the capture of Norfolk a little later closed the Virginian coast to the South.

By 1864 only four of the major Confederate ports were still open: Charleston, Mobile, Wilmington and Galveston. These became the Federal Fleet's targets for the remainder of the war. New Orleans had fallen in 1862 and the role of major port had passed to Mobile, Alabama. The harbour defences were duly strengthened and vast contact and controlled minefields laid. Mines were then known as torpedoes and took the form of a spar driven into the seabed at the top of which was placed a large explosive charge. The charges were either detonated by contact or electrically from an observation post in the vicinity. However after careful planning the conqueror of New Orleans, Admiral David G. Farragut, launched a skilful and daring attack on Mobile. Lashed to the rigging of the Flagship USS Hartford he is reputed to have said 'Damn the Torpedoes! Full speed ahead'. Confederate shore batteries inflicted heavy damage upon the Union ships which nevertheless succeeded in the attack and Farragut is credited with two of the greatest naval successes of the war, New Orleans and Mobile. It would appear that Farragut had luck on his side, for on negotiating the shallow approaches his fleet passed through a large controlled minefield which had been rendered ineffective by the passage of a nightcart along the beach at low water. The iron wheels had severed the electric leads leading to the observation post on a nearby hill.

After the fall of Mobile, Wilmington remained the last Atlantic port open to the South. Situated several miles up the Cape Fear River, Wilmington itself was protected by Fort Fisher at the river mouth. A combined land and sea operation by the Union staff saw the fleet of Admiral David Porter and 8 000 Federal soldiers under General Alfred Terry fight for over a month to silence the guns of Fort Fisher. With the fall of Wilmington the blockade running by the South came to an end.

Of less importance because of its locality with regard to the action, Galveston was able to hold out until the end. In fact this city only capitulated officially some two months after the war had come to an end.

Although the blockade contributed largely to the downfall of the South the war at sea was not the Navy's only role. Possibly of equal importance were the riverine operations carried out in conjunction with the Union armies. McClellan's invasion of the Virginian peninsula has been mentioned but it too has a sequel. McClellan was opposed in his advance to Richmond by General Johnston, the leader of the Confederate armies. During action Johnston was severely wounded and the new legendary Rober E. Lee succeeded to command. With the aid of the army of Stonewall Jackson, Lee turned retreat into advance and with the James River at his back McClellan was rescued in what is now referred to as the Civil War's 'Dunkirk' by the very fleet that had landed him in Virginia. Heavy gunfire from the riverine craft kept Lee at bay while McClellan made his escape.

In many of the major campaigns Federal armies followed waterways depending on the riverine Navy for gunfire support, logistics and as in the case of McClellan a method of safe retreat when necessary. This not only applied in the East, for much of the war in the West was fought by combined naval and land forces. General Ulysses Grant realised the flexibility of combining forces and made use of the navy when and wherever possible. Ships played a part in many of his major campaigns. His first, Belmont in Missouri, was an amphibious operation. His successful attacks on Forts Henry and Donelson were the result of rapid transportation of troops by ship and Naval gunfire support that neutralised the shore batteries. During his drive through Tennessee, Grant protected his flank by the use of gunboats. Without the Naval firepower available to the North it is doubtful whether the final investment of Vicksburg and the control of the Mississippi, lifeline of the South, would have been possible. While Grant was hammering futilely at the defences of Richmond he was able to utilise his Navy to move him to Petersburg and conduct the nine month siege that led to overall victory. During this time, by having control of the Eastern Waterways, his enormous army was kept supplied by the Navy. Grant is said only once to have exhibited fear and this on learning that his supply line was being threatened by Con-
feredate ironclads. Such was this General’s respect for sea power. Very few American leaders have not been disciples of George Washington; Grant definitely was and took heed of the First President’s words during the American Revolution: ‘In any operation, and under all circumstances, a decisive naval superiority is to be considered as a fundamental principle and the basis upon which every hope of success must ultimately depend’.

As stated earlier the Confederacy had no Navy to speak of at the outbreak of war and never acquired the facilities to build one. Insufficient funds were available for the purchase of vessels overseas. Diplomatic barriers laid by the Union prevented foreign aid; as a result Confederate Naval efforts were restricted to harassment of Union commercial shipping, privateering, blockade running and to the revolutionary countermeasures already mentioned; mines, torpedoes and submarines.

The fame achieved by the Confederate forces at sea lay not so much in their new inventions as in the daring and successful exploits of their privateers and Blockade runners. The privateers were lone cruisers that preyed on Union naval and mercantile vessels alike and seriously damaged the Union’s commercial enterprises while at the same time drawing forces away from the blockade.

Probably the best known of all the cruisers was the *Alabama* commanded by Rear Admiral Raphael Semmes. Semmes, a 25 year naval veteran at the outbreak of war first commanded a 500 ton steamer, the *Sumter*. In six months in this vessel he captured eighteen Federal ships in the Atlantic and Carribean. In August 1862 Semmes took command of the South’s premier cruiser, the *Alabama*, and in a 23 month period destroyed more than ten million dollars worth of Federal shipping. In exploits that took him from Singapore to Newfoundland he earned a reputation that literally drove the Federal merchant marine into hiding. In June 1864 the *Alabama* was cornered off the coast of France and, after an hour-long duel with *USS Kearsage*, was sunk. Other cruisers that conducted the South’s privateering operation with great success were: *CSS Florida*, thirty-seven prizes, the *Tallahassee*, thirty-nine prizes, and the *Shenandoah*, forty-eight prizes. Only too well do we remember the reign of terror caused by the German surface
Although the Confederate Navy was blessed with ingenious and daring officers and men, it lacked the material resources to warrant being considered a serious challenge to the might of the Federal Fleet. The many forts and land batteries of the Confederacy were no match for the mobility and devastating firepower of the Union Navy. The accomplishments of the Confederates when viewed against their almost complete lack of a navy and resources at the outset are little short of miraculous. The net result was however an overwhelming victory at sea for the Union. They had exploited their talents to the full and it is perhaps largely due to the following words of wisdom spoken by their President, Abraham Lincoln, early in the war: 'Nor must Uncle Sam's web feet be forgotten. At all of the watery margins they have been present. Not only on the deep sea, the broad bay but also up the narrow muddy bayou, and wherever the ground was a little damp, they have been and made their mark'.

In these words and in those of George Washington quoted earlier there is perhaps a message for today. What nation today, outside of the United States and the Soviet Union can exist without the oceanic supply lines of the world. Let us not forget our web feet lest we starve to death.