

Joint Ground Logistics in the Falklands

By RAYMOND E. BELL, JR.

June 14, 2007, marked the 25th anniversary of the recapture of the Falkland Islands by a British joint task force. The victory was a spectacular exhibition of military power by the United Kingdom's professional armed services, which had to overcome many unique and difficult challenges on the ground, at sea, and in the air. The principal land battle was fought on East Falkland Island, where most of the islands' population and settlements, major seaport and airfield, and government center and town of Stanley are located.

The British land campaign lasted for only 3 weeks, from May 21 to June 14, 1982. The fighting ended with the surrender of the Argentines after a 3-day battle for the major objective, the Argentine defenses concentrated in the hills around Stanley, the port, and the airfield.

Overshadowed by international negotiations and combat operations of the campaign, however, was the key role joint ground logistics played in this short war. An impressive sea movement over 8,000 miles placed two reinforced infantry brigades, one each from the British army and the Royal Marines, in position to fight an Argentine military contingent of some 13,000. The British troops, eventually amounting to approximately 10,500, were presented with such major logistic challenges once ashore that, at the end of campaign, it was agreed by British combatants that the victory was a "close run thing."

Limiting Physical Factors

Logistic support for the Falkland Islands campaign was framed by significant factors, including the distance from the United Kingdom, the harsh, unpredictable weather of the approaching winter, and particularly the islands' geography. The terrain of East Falkland Island consists not only of large



Royal Marine Commandos march toward Port Stanley in the Falklands

Imperial War Museum

plains filled with peat bogs and stone runs (vast stretches of various sized rocks) but also rugged mountains. The coastline of the island is a continuum of coves, small bays, larger sounds, and beaches with varying degrees of accessibility. There are no major rivers, but there are streams of varying depth and width. The peat bogs provide the islanders with their fuel in winter as there are no trees for burning. The bogs are difficult to traverse because the water table is only about a foot beneath their surface, making them spongy.

As for movement over the island terrain, large vehicles have a difficult time, and islanders motor about using small tractors and four-wheel-drive vehicles. The British, based on prior knowledge of the terrain, brought no large-wheel vehicles to provide overland logistic support. The British troops, however, found that their tracked vehicles, because of their low ground pressure, were able to move over the bogs with relative ease.

If the terrain was not challenging enough, the weather made the campaign even more arduous. June is the middle of winter in the Southern Hemisphere, and the combatants could not have been thrust into battle at a worse time. The British came to the Falklands during their own summer, which may have influenced the thinking of those responsible

for outfitting the soldiers for battle. The Royal Marine commandos, having exercised often in Norway, came better prepared than the Guardsmen, who had to use political influence to obtain funds for purchasing adequate cold weather clothing and gear.

The first suggestion of bad weather conditions the ground combat force encountered was at sea. Although that year's Falklands' winter was to prove relatively mild, the temperatures and winds still did not auger well. Ships sailing south in April encountered temperatures of -3 Celsius and 55-knot winds with a wind chill of -15 Celsius.

Once on land, the ground troops suffered in frequent cold rain squalls, bitter hail, sudden snow showers, fine drizzle, enveloping mists, and dense fog. Among these weather difficulties were the sharp winds with their adverse effects on helicopters transporting heavy sling-loaded artillery ammunition pallets. Yet some days brought brilliant sunshine and calm winds, which helped Argentine aircraft locate and attack British ships and ground troops. With autumn fast giving way to winter, the weather became altogether unpredictable.

Finally, there was the impact of the distance from the United Kingdom to the Falklands, which affected logistic operations. Timely resupply of large items of equipment was impossible because of the thousands of miles separating Great Britain from the islands. Small items and critical personnel could be flown to the theater of operations, but movement by ship took weeks.

The Commando Logistic Regiment

The British organization charged with the logistical support of the ground forces was the Commando Logistic Regiment (CLR) of the Royal Marines 3 Commando Brigade, which was supplemented by helicopters, naval landing craft, and later in the campaign elements of three British army logistical units. The regiment was the base for logistical support to the ground forces involving amphibious operations.

Brigadier General Raymond E. Bell, Jr., U.S. Army (Ret.), served in the New York Army National Guard and commanded the 5th Psychological Operations Group and 220th Military Police Brigade in the U.S. Army Reserve. He was on the staff and was a faculty member at the National Defense University from 1982 to 1985.

At first glance, it would appear that the CLR was as large as what the U.S. Army formerly considered a division support command capable of providing logistical support for up to 11 maneuver battalions, plus artillery, engineer, signal, aviation battalions, and other units. But in the British force structure, such an organization as the CLR is only of U.S. battalion size.¹ Under normal operating procedures, the regiment would have only supported three Royal Marine commandos (also battalion size) and the Royal artillery's commando regiment plus an assortment of other small organic units composed of commando-qualified personnel.²

What was significant about the CLR force structure was that it was a true joint organization. The commander of the regiment in the Falkland Islands was a commando-qualified British army lieutenant colonel of the then-Royal Corps of Transport. The medical squadron of the regiment, commanded by a Royal Navy surgeon commander, had among his subordinate elements an army parachute clearing troop and Royal Navy surgical support teams. The three other CLR combat service support elements were a reduced transport squadron of the Royal Corps of Transport,³ a workshop squadron (equivalent to a U.S. ordnance company) of the Royal Electrical and Mechanical Engineers, and an ordnance squadron (equivalent to a U.S. quartermaster company) of the Royal Army Ordnance Corps. The squadrons were manned by a combination of Royal Marine commandos and commando-trained British army personnel.

The CLR was the key to enabling eight infantry battalions, two artillery battalions, a reinforced engineer battalion, numerous aviation units, and a number of smaller units to defeat a division-size Argentine land force.

Helicopter and Naval Landing Craft Support

The 3 Commando Brigade had no organic medium or heavy lift helicopter elements. The brigade's air squadron consisted of nine Gazelle and six Scout light helicopters that were employed principally for command, control, reconnaissance, liaison, and evacuation of wounded. These helicopters, although called upon to deliver small amounts of ammunition in the battle for Goose Green, were inadequate for moving large loads of ammunition, heavy equipment, supplies, and troops.

The aerial logistic burden fell on the Royal Air Force and Royal Navy Chinook, Sea King, and Wessex helicopters that were deployed to the region. Unfortunately, the loss of three of the four Chinook heavy lift helicopters and six Wessex helicopters placed a huge strain on the remaining helicopter lift assets. The limited number of heavier lift helicopters, for example, often led to "hijacking" or improper diverting of helicopters from their assigned missions to other, possibly less critical missions. This seriously complicated mission planning and allocation of assets where they were most needed.

The mix of helicopters showed a joint image. The one Chinook that carried a tremendous burden in the logistic effort belonged to the Number 18 Squadron of the Royal Air Force. Demonstrating its air worthiness, the helicopter was constantly

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in use and lifted loads that often exceeded design limits. It was particularly valuable in moving the artillery pieces and heavy artillery ammunition pallets. The Wessex helicopters belonged to the Royal Navy's 845, 847, and 848 Naval Air Squadrons (NAS). The helicopters were capable of transporting troops and lesser loads of supplies and equipment. The larger Sea King helicopters also belonged to the Royal Navy. Three squadrons of Sea Kings (824, 825, and 846 NAS) proved to be the standard work horse in the logistic effort.

For naval watercraft ship-to-shore and shore-to-shore operations, the Royal Navy had three types available: eight landing craft vehicle and personnel, eight landing craft mechanized (LCM),⁴ and six manned landing ships logistic (LSL). These latter ocean-going vessels transported large amounts of equipment and supplies along with significant groups of personnel. But the Royal Navy was not the only armed service to furnish watercraft. The Royal Marines moved limited supplies and troops on small fiberglass Rigid Raiders and rubber Geminis. The British army's Royal Engineers brought their high-speed combat support boats that operated as

general harbor support craft. The Royal Corps of Transport's 51 Port Squadron of 17 Port Regiment operated a float raft system called the Mexejlote, a type of pontoon or barge used to move heavy equipment from ship to shore.

British Strategy and Tactical Operations

The British strategy called for isolating the battlefield by establishing a "total exclusion zone" (TEZ) to shipping around the islands, creating a standoff anchorage area for unarmed and combatant ships, conducting diversionary operations on West Falkland Island, and landing on the west coast of East Falkland Island. Initially, the tactical plan was to establish a presence on the island for negotiation purposes. But when negotiations broke down, the plan was changed to an overland advance on Stanley and the defeat of the Argentine force there.

On May 21, 1982, 3 Commando Brigade, reinforced by the 2^d and 3^d Battalions of the Parachute Regiment, made an unopposed landing on the west coast of East Falkland Island in the large sound called San Carlos Water. The brigade proceeded to establish a beachhead and started a buildup of supplies with the CLR setting up a beach support area (BSA) to administer the logistic effort.

The Ministry of Defence (MOD) in London was anxious to conclude the campaign quickly, preferably before the full force of winter arrived or renewed negotiations frustrated the effort to defeat the Argentine occupiers. As a result, the MOD brought great pressure on the commando brigade commander, Julian Thompson, to initiate combat operations even before adequate supplies for the contemplated operations could be accumulated. On May 28, with the change in mission from a "presence" on the island to advancing and attacking the Argentineans around Stanley, Thompson sent the 2^d Battalion of the Parachute Regiment against the reinforced Argentine garrison at Goose Green and nearby Darwin (small settlements on the southwest coast of East Falkland Island). At the same time, he dispatched the 3^d Battalion and 45 Commando, Royal Marines, on an "extreme" foot march some 40 miles eastward into position for a final assault along a northern axis on Argentine positions around Stanley.⁵

On June 1, 5 Infantry Brigade—consisting of the Scots Guard's 2^d Battalion, the 1st Battalion Welsh Guards, and the 1st Battalion 7th Duke of Edinburgh's Own Gurkha

Rifles—began landing on East Falkland Island. Once ashore, the brigade moved by helicopter and LSL east on a southern axis to be in position for the planned assault on Stanley. The move was marred by a successful aerial attack on the LSL *Sir Galahad* and *Sir Tristram* by Argentine aircraft that resulted in the death or wounding of approximately half of the Welsh Guards Battalion along with the sinking of the *Sir Galahad* and crippling of the *Sir Tristram*.

With the arrival of 5 Infantry Brigade under Brigadier Anthony Wilson, the command of the land campaign passed to Major General Jeremy Moore of the Royal Marines. He planned for a three-phase attack on Stanley commencing the night of June 11. Three Commando Brigade would advance on Stanley from the north while 5 Infantry Brigade would attack from the south. The night attacks of June 11–12 were successful, but the small amount of available ammunition for the five supporting artillery batteries made it necessary to delay phases two and three until June 13. After a hard fight, the Argentine force surrendered on June 14, ending its occupation of the Falkland Islands.

Logistical Plans and Initial Operations

Initially, the logistic plan called for operating the support of the ground troops from the landing ships logistic. On April 10, well before even the location of the landings

enemy resistance, which would have greatly influenced how logistic support was to be provided ashore.

During the landing phase after the troops went ashore, it was first necessary to make the beach support area secure. The logistic effort was then to be controlled from the assault ship *HMS Fearless*. Because the British never gained complete air superiority, the Argentine aerial threat made it necessary to move the control and operation of the logistic effort ashore to the BSA. At the same time, while limited ship-to-shore movement could initially be made during daylight hours, frequent Argentine air attacks soon made it necessary to bring supply ships into the combat operations area and unload at night. The nighttime restrictions applied particularly to the civilian merchant ships, which had little means of protecting themselves against aerial attack.

The first resupply requirements were for such items as ammunition and rations. These necessities were met by employing helicopters to ferry the supplies ashore. The rotary wing aircraft, however, also had to contend with possible attacks by Argentine aircraft. Luckily, the Argentine air force and naval aircraft concentrated on attacking British combat naval vessels, essentially leaving the troop transports and supply ships alone.

Once the beachhead was firmly established and sufficiently expanded, the BSA,

Unfortunately, none of these teams were available to the regiment during the campaign, and the tasks were accomplished by organic regimental staff personnel.

The BMA for the amphibious landing force was an abandoned refrigeration plant with limited hardstand and no overhead concealment at Ajax Bay on San Carlos Water. Located in a very constricted area around the plant were a prisoner-of-war camp, supply dumps, a helipad for sling loading helicopters, and a helicopter landing zone for medical evacuation. In the main plant building were a mess hall and the medical squadron's main dressing station (MDS). In small buildings close by were the CLR headquarters and the ordnance squadron's warehouse. The entire complex was exposed to enemy air attack, and the hardstand was surrounded by ground that quickly turned to mud.

In spite of the BMA's complete exposure, however, Argentine aerial attacks continued to be directed at British naval combatants, allowing for a buildup of supplies and equipment. To bring fuel ashore for the land-based helicopters, emergency fuel handling equipment moved petroleum from ships to bladders to customers. Air portable flexible containers holding 450 gallons of fuel, capable of being moved about by helicopter, were also put into operation, as were the ubiquitous 5-gallon jerrycans, some 9,000 of which eventually made their way to the Falklands.



Ministry of Defence, Navy

MV Leicesterbrook offloads cargo at a mobile port at the Falkland Islands



Ministry of Defence, Royal Air Force

RAF Hercules preparing for takeoff from Wideawake Airfield on Ascension Island



Ministry of Defence, Navy

HMS Sir Percivale heads to the Falkland Islands loaded with helicopters and other heavy equipments for British troops

was determined, the commando logistic staff offered Brigadier Thompson a two-option plan. One called for supporting an amphibious landing with all the reinforced brigade's subordinate elements landing in close proximity to each other. The second called for two landing operations in noncontiguous areas. Neither of the options contemplated an amphibious assault of East Falkland Island. The British joint task force did not have the capability of making a forced landing against

which evolved into the brigade maintenance area (BMA), became the CLR's primary ground logistic node and served as the link between the supply vessels and advancing troops. The locations for the various activities and supply dumps were determined by the regiment's amphibious beach unit. Helicopter landing zones, under standard operating procedures, would also have been set up for control, maintenance, and organization of the aircraft by mobile air operations teams.

Because there were few land battle casualties until the attack on Goose Green on May 28, the MDS at first saw limited activity, but it was ready, as it proved the day before the 2^d Battalion of the Parachute Regiment went into action. Its first surgical operations took place on May 27, when the BMA was bombed by Argentine aircraft. The refrigeration plant was hit by several bombs that set fire to the mess hall, killing or wounding several and destroying quantities of supplies and

ammunition located nearby. Luckily, the MDS escaped damage, but two unexploded bombs lodged in the ceiling and remained there for the campaign's duration while the surgeons cautiously went about their work.

Logistic Operations Continue

The battle for Goose Green and Darwin that began the day after the air attack on the BMA revealed glaring logistical deficiencies. The drawdown on ammunition for the fight was especially significant. On May 29, the day the battle ended, only 83 rounds of 105mm artillery ammunition were on hand along with only 30 Milan antiarmor missiles. This shortage could have caused difficulties had the Argentines contested the advance across the island to Stanley. As it was, the loss at the BMA of ammunition in the bombing had already contributed to the deteriorating situation.

Another deficiency was revealed when the need for better cross-country mobility became apparent. The British initially underestimated the utility of tracked vehicles. Bringing ammunition forward to the Goose Green battleground had to be accomplished by manhandling and helicopter, both of which proved barely adequate. Because of the proximity of Goose Green and Darwin to the BMA, battle casualties could be quickly brought to the MDS by helicopter. Timely evacuation of the wounded, both British and Argentine, saved several men who were promptly treated at the dressing station.

In addition to the casualties sustained at Goose Green, which impacted on the present-for-duty strength of the parachute battalion, there was a serious shortage of available supplies in the BMA besides ammunition. There were no individual ration packs on site. There were no hexamine tablets to furnish heat to boil ground water, the primary source of drinking liquid for the marines and paratroopers. There was no spare clothing and only 3 days' worth of medical stocks.

The march on Stanley beginning on May 28 presented its own logistic challenges. The weather continued to worsen. For the individual marine commando or paratrooper who had waded ashore a week earlier, the salt particles in the water had crystallized in his boots, and it was almost impossible for the footgear to dry out. This was to lead to serious medical problems. At the same time, the heli-

copters were having to move supplies greater distances, requiring additional fuel and longer flight times.

As the 3^d Battalion of the Parachute Regiment and the 45 Commando Royal Marines reached their intermediate objectives some 40 miles east of the BMA, the Royal Navy's landing craft and LSL assumed an increased logistical role. Once the units arrived at Teal Inlet, where an advance Royal Marine BMA was established, the LCM and LSL began making resupply runs

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that continued throughout the remainder of the campaign.

On June 1, 5 Infantry Brigade landed in San Carlos Water and began moving east. Although helicopters carried supplies forward and the Chinook transported elements of the 2^d Battalion of the Parachute Regiment to the vicinity of Bluff Cove, other troops sailed in LSL to the assembly areas for the final attack on Stanley. It was during this time that the exposed ships with the 151 Battalion, Welsh Guardsmen, on board were attacked by Argentine Skyhawk aircraft in broad daylight.

In the meantime, Sea King helicopters were bringing the 30 105mm light field pieces of 29 Commando Regiment Royal Artillery and 4 Field Regiment Royal Artillery forward into position to support the attack on Stanley. The helicopters then lifted 16,000 rounds of artillery ammunition to the guns' positions. Yet it was a shortage of artillery rounds at the field pieces after phase I of the attack on Stanley that caused the next phase to be postponed from June 12 to the next day. It was calculated that it would take an additional day to restock the ammunition supply. Sea Kings, flying through darkness and snow showers, led by 3 Commando Brigade Air Squadron pilots equipped with night vision devices in their light helicopters, nevertheless continued to bring ammunition forward. Nearly 530 rounds per artillery piece were expended during the final attack. When the Argentines surrendered, some of the weapons were down to six rounds each.

While the heavier lift helicopters were bringing ammunition, rations, and supplies

forward, the lighter aircraft were evacuating casualties to the two forward field dressing stations and the MDS. In an impressive performance, one Scout light helicopter evacuated 16 Scots Guards casualties off Tumbledown Mountain in high winds and falling snow. The casualty evacuation helicopters' efforts kept the medical facilities working at a high pitch. The MDS alone received 50 admissions and performed 32 operations after the final assault.

Royal Air Force, Navy, and Marine helicopters were indeed major contributors to the success of the logistic effort. The aircraft crews and mechanics worked without rest under the worst of operating conditions. Even as the weather became increasingly bitter, the pilots flew regardless of flight conditions. The mechanics kept the aircraft flying with the minimum amount of downtime for maintenance. Operating restrictions went by the board as the helicopters flew men, supplies, fuel containers, field artillery pieces, and pallets of ammunition about the battlefield, always under the threat of an attack from Argentine Mirage and Skyhawk aircraft.

Manmade Complications

In 1982, the British Army of the Rhine was where the bulk of British armed services were to be found. Troops remaining in the British Isles could look forward to rotating to Germany for extended periods. The focus was on the Warsaw Pact nations and the large Soviet presence in East Germany. Although British forces were still to be found in places such as Belize, Cyprus, and Hong Kong, the Falkland Islands merited little more than a detachment of Royal Marines. It is small wonder that when the Argentines invaded the islands, the British government was unprepared to immediately eject them. It was to take time to get to the Falklands, and therein lay a major reason why logistics suffered from the beginning.

Confusion reigned in preparing the joint task force for deployment. There was no plan for a land logistical effort some 8,000 miles from the United Kingdom. The CLR, however, was well attuned to the demands of supporting the brigade's three commandos, its artillery battalion, and assorted other elements. It constantly practiced not only deploying to northern regions but also moving a great amount of heavy equipment, particularly BV

206 tracked vehicles. But there was no such storage of equipment in the Falklands. Everything that was to be employed there had to be transported in ships, and the haste in loading at the ports in the United Kingdom led later to great supply deficiencies.

Because there was no previous planning but great urgency, supplies and equipment of all kinds were dispatched to the embarkation ports without any regard to priority. As ships taken up from trade were assembled, they were loaded with whatever happened to be at dock. There was no combat loading or accountability for what items went on which ships. The Commando Logistic Regiment played its practiced role in outloading, but it had to adapt to the expanded requirements and the available shipping. These requirements had to take into consideration that the regiment was being tasked to support logistically not only its own organic formations but also two additional infantry battalions, plus a plethora of smaller attached army units such as the two troops of the Blues and Royals Medium Mechanized Reconnaissance Regiment. The CLR, reinforced with additional manpower from small army logistic units when 5 Infantry Brigade arrived in the Falklands, was then expected to provide combat service support to an entire division-size force.

The hastily conceived plan by the MOD to correct the abject loading was to have the task force stop at Ascension Island, some 4,000 miles from both the United Kingdom and the Falkland Islands, and there rearrange the supplies and equipment, placing them on the correct ships and properly accounting for what was afloat. What was a good idea in theory, however, turned out to be less than effective in practice.

When the ships got to the Falklands, they operated from a station at sea called the transport area (TA). The dispatch of supply vessels from the TA was soon complicated by the lack of information about cargo on

frequent Argentine air attacks made it necessary to bring supply ships into the combat operations area and unload at night

the various ships. The 4-day redistribution of supplies and equipment off Ascension

Island before the task force sailed further south only partially rectified the loading mistakes made in Great Britain. The CLR control cell could never be sure whether its request for a particular ship to transport certain needed supplies to the BMA was actually carried out. Too often these ships, which had to come into San Carlos Water at night because of the Argentine air threat, had to be turned around and sent back to the TA without unloading. Unfortunately, while there was a shortage of ammunition on East Falkland to support the final assault, a cargo ship loaded with additional ammunition was available on demand in the TA but never brought forward.

Once British troops landed, the Ministry of Defence and the commander of the naval task force became upset about what they perceived as the inactivity of 3 Commando Brigade in preparing to move on Stanley. They exhibited little appreciation for the requirement of a supply buildup that was adequate to sustain a campaign conducted in unfavorable weather and over poor terrain conditions against a foe that was determined to hold on to its newly won islands.

One significant factor that affected the ground logistic effort, but one that the Commando Logistic Regiment could not influence, was the May 25 loss of the three Chinook and six Wessex helicopters. The Royal Navy could perhaps be criticized for not dispersing the critical heavy lift helicopters to more than one ship before they were to be transferred from sea to shore. Had the aircraft been brought to flying status while the Atlantic Conveyor was still in the TA or outside the TEZ (when it was decided to deploy the helicopters), the shortage of required airlift to move troops into position for the final assault would probably have been avoided. The immediate result of the loss, however, was the need for commandos and paratroopers to make the famous “yomp”—the extreme foot march to the required lines of departure for the final attack on Stanley.

The successful logistic effort by the CLR on East Falkland Island leads to some thoughts pertinent to supporting future small-scale expeditionary operations:

- recognize that proper logistic planning drives maneuver planning and subsequent operations
- consider the desired objective in planning

- prepare to accept the fact that outside political pressure or influence may require a flexible logistic response
- change plans to adapt to local conditions as they relate to logistics
- attend to the level of logistic support required for combat operations, such as distance, weather, and terrain
- scrutinize the expenditure of assets, such as ammunition, fuel, and rations, especially when unanticipated exigencies are possible.

The Commando Logistic Regiment and its rotary wing assets deserved a major share of the credit for the success of the campaign. But undoubtedly it was the individual serviceman who deserved the most. Whether it was the solitary guide on the ground in freezing wet weather and under fire directing where a helicopter pilot was to drop his load, or the tired and cold soldier or commando manning a fuel pump alone and filling 5-gallon cans for the Rapier anti-aircraft missile units, all were key contributors to the victory.

The short campaign was fought under abominable weather conditions over indescribable terrain by brave British servicemen, who took numerous risks to accomplish their mission. But for the dedicated and effective, if not necessarily efficient, logistic operations, the soldiers, sailors, airmen, and marines who put their boots on the ground would have had to face the possibility that the campaign could have ended in a quagmire and not a signal victory. As it was, it was a “close run thing.” **JFQ**

NOTES

¹ British infantry units are termed battalions, with regiments being administrative headquarters. Other battalion-size organizations, however, are termed regiments.

² The three Royal Marine Commandos were 40, 42, and 45 Commandos. The artillery battalion was 29 Commando Regiment Royal Artillery, made up of commando-qualified soldiers.

³ Because it was thought that overland motor movement would be sharply limited, the squadron brought only 28 vehicles to the Falklands.

⁴ Some literature calls this landing craft a landing craft utility.

⁵ This extreme foot march became known as the famous *yomp*. Royal Marines and paratroopers made the march laden with heavy packs called *bergens*.