

## The Logistics of the British Recovery of the Falkland Islands

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There is a saying – now a military cliché – attributed to several senior army and navy commanders of the mid-20th century, that amateurs or juniors discuss tactics, while their seniors and other professionals discuss logistics; a saying that has been qualified in recent decades by the view that the most senior and professional decisions of all are concerned with force generation, the creation of the formations needed for a possible future war.<sup>1</sup> Logistics, together with force generation, was very obviously of critical importance to the British recovery of the Falkland Islands in April-June 1982. Port Stanley, the Falklands' capital and only town, is considerably further from London than Tokyo is. The British won chiefly because of their ability, in an improvised military campaign for which they had no prior planning, to project and sustain a Task Force consisting of a Carrier Task Group and an Amphibious Task Group across a distance of over 12,000 kilometres. A vital role was played by the small British territory of Ascension Island, in the South Atlantic, just over half way to the Falklands. A lesser but still important role was played by the British recovery early in the campaign of the island of South Georgia, which in 1982 was part of the Falkland Islands Dependencies, and is about 1,500 kilometres east of East Falkland. However, the lack of a secure harbour or port facility of any size on either Ascension Island or South Georgia imposed a severe time limit on how long the British warships could remain in the South Atlantic before they would need to leave the area for essential maintenance.<sup>2</sup>

The most basic logistic requirements for the Falklands War, as for most wars of this period, were ammunition, fuel, food, medical support, maintenance and transport. From a logistical viewpoint, the British success depended on their ability to transport to the Falkland Islands sufficient numbers of bombs, shells, explosives and other ammunition to overcome the Argentinean defences, together with the personnel to deliver them. The single most difficult logistical issue identified by the British after the war was the supply of fuel for all purposes (usually abbreviated to POL for 'petrol, oil and lubricants'), from ship and aircraft engines, to the generators ashore for anti-aircraft missile batteries and the medical field dressing station.<sup>3</sup> British warships at their normal state of readiness were largely self-sufficient in everything but fuel. The 26 ships (later rising to 44) of the Royal Navy that took an active part in the campaign were supported by 22 ships of the Royal Fleet Auxiliary (RFA), including six specialist Landing Ships Logistic (LSLs), by two ships of the Royal Maritime Auxiliary Service (RMAS), and by 45 requisitioned civilian 'ships taken up from

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<sup>1</sup> See H. R. McMaster, *Dereliction of Duty: Lyndon Johnson, Robert McNamara, The Joint Chiefs of Staff and the Lies that Led to Vietnam* (New York: HarperCollins, 1997); Thomas E. Ricks, *Fiasco: The American Military Adventure in Iraq* (New York: Allen Lane, 2006) for recent American examples.

<sup>2</sup> For an overview of the geography of the war see Gordon Smith, *Battle Atlas of the Falklands War 1982: By Land, Sea and Air* (Penarth: Naval-History.Net, 2006).

<sup>3</sup> Julian Thompson, *The Lifeblood of War: Logistics in Armed Conflict* (London: Brassey's, 1991), pp. 256-7 and 275-6; Colonel I. J. Hellberg, 'An Experience with the Commando Logistic Regiment Royal Marines' in Stephen Badsey, Rob Havers and Mark Grove (eds), *The Falklands Conflict Twenty Years On: Lessons for the Future* (London: Frank Cass, 2005) pp. 117-18.

trade', known as STUFT vessels. Of these, 10 Royal Fleet Auxiliary and 15 STUFT ships were fuel tankers, or 25 fuel tankers out of 113 ships in total.<sup>4</sup>

The Ministry of Defence's report to Parliament in December 1982 on the lessons of the war identified four main logistics lessons, all of them very much in keeping with other wars of the period.<sup>5</sup> The first of these lessons was that the level of expenditure of ammunition, particularly missiles, was much higher than had been predicted. The senior British land force logistician in the campaign afterwards calculated that in the land battle, ammunition expenditure was four times the planned rate on average; and five times the planned rate for 105mm high explosive shells and 81mm mortar rounds.<sup>6</sup> The second and consequent lesson was a need to improve logistical support for British operations outside the NATO area. The third lesson was the importance of air-to-air refuelling. The Operation Black Buck air raids by single RAF Vulcan bombers on Port Stanley airfield, mounted from Ascension Island, were each dependent on the extremely long-range in-flight refuelling support provided by a relay of 11 RAF Victor tanker aircraft, plus two more on the return flight. The British also established an air-bridge of long-range aircraft staging through Ascension Island, including the air-dropping of small essential components, and sometimes of personnel, to ships of the Task Force within 48 hours of any request. A final lesson was the importance of the use of civilian resources, in addition to military personnel and equipment, for the logistics of the campaign. Many of the civilian STUFT ships used had to be fitted with extra equipment, including helicopter landing decks, specialist communications apparatus, and water treatment plants for the long voyage. In addition, the North Sea oilrig offshore support vessel MV *Stena Seaspread* was converted to act as a forward repair ship, and the cruise liner SS *Uganda* to act as a hospital ship.

The British understood the established practices of good logistics, but were forced repeatedly to violate them during the campaign for equally good reasons of international politics. Between the Argentinean seizure of the Falkland Islands and South Georgia on 2 April and the first British combat actions, starting on 21-26 April with the recovery of South Georgia, it was essential to their strategy to maintain a highly visible sense of continuity, through diplomatic, economic and military pressure, to avoid a situation in which the Argentinean action might obtain international acceptance. The rapid dispatch from southern British ports of part of the Task Force, starting on 5-8 April, was only possible through the use of military reservists and civilian land transport, who in the first week moved to the embarkation ports approximately 39,000 tonnes of freight by road, using about 100 chartered large flatbed trucks, followed in the second week by 44 specially hired British Rail trains.<sup>7</sup> Thereafter, it was an essential part of British strategy that there should not be a visible halt to their actions, and that continuity of action must be preserved. When one of their two aircraft carriers with the Task Force, HMS *Invincible*, developed engine trouble shortly after departure, a 5-tonne propeller bearing was airlifted out to join the ship in considerable secrecy, rather than have the *Invincible* return to port.

In the rush to sail, the ships of the Task Force were not 'tactically loaded' or 'combat loaded' (to use the technical military terms) with troops and stores in the order in which these would be deployed and needed in battle. The first brigade despatched, 3rd Commando

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<sup>4</sup> Cmnd. 8758 'The Falklands Campaign: The Lessons,' London: HMSO, December 1982, pp. 37-40.

<sup>5</sup> Ibid, pp. 25-28.

<sup>6</sup> Hellberg, 'An Experience with the Commando Logistic Regiment Royal Marines,' p.119.

<sup>7</sup> Marion Harding, 'Unsung Heroes,' in Linda Washington (ed.) *Ten Years On: The British Army in the Falklands War* (London: National Army Museum, 1992) p. 66.

Brigade, was structured and intended to be tactically and logistically self-sufficient, sailing with a logistical reserve of 30 days of combat supplies and 60 days of other supplies totalling about 9,000 tonnes, with one battalion's reserves held on the dedicated stores support ship RFA *Stromness* and the rest distributed on several ships.<sup>8</sup> Most ships of the Task Force also used a short halt at Ascension Island to redistribute personnel, stores and equipment before continuing to the Falklands. But there were many reported cases of staff or equipment being assigned to more than one ship, either at the start of the voyage or at Ascension, and then either losing contact with their parent unit or being unable to secure other transport. Several units were without important personnel or equipment until late in the campaign, or even until its end.

There were further logistical consequences to the British need for a fast resolution to the campaign. Much of 3rd Commando Brigade's ammunition, about 2,000 tonnes of high explosives, was loaded onto a single P&O cross-Channel ferry, the MV *Elk*, which was a point of vulnerability for much of the campaign. 3rd Commando Brigade, which ordinarily had three light infantry Commando battalions and a light artillery battalion, was reinforced for the campaign with two further light infantry battalions from the Parachute Regiment, and some medium armoured fighting vehicles. Its eventual total strength was between six and eight major units and 16 subunits, or about 5,500 troops, adding to its logistical burden. A further point of vulnerability was the use of the cargo ship SS *Atlantic Conveyor* as an aircraft transporter. The loss of this ship with most of the British heavy lift helicopter fleet onboard on 25 May, four days after the start of the land campaign, forced major changes in British operations. Political as well as military considerations limited the use of two large ocean liners as troop transporters, SS *Canberra* for 3rd Commando Brigade and later the more famous RMS *Queen Elizabeth 2* for 5th Infantry Brigade, neither of which could be risked as a target for any length of time.

A logistical pause of perhaps only one or two weeks more in the Task Force's advance southwards would have allowed the British to strengthen their air defences with more Harrier combat aircraft, to fit their major warships with the Vulcan Phalanx anti-missile system as a defence against the Argentinean use of Exocet sea-skimming missiles, and to equip their helicopter pilots with night vision goggles. These and other significant additions to British tactical capabilities were only starting to arrive as their land campaign drew to its successful conclusion on 14 June. This is best illustrated by the contrast between the two battles fought by 2nd Battalion The Parachute Regiment during the Falklands War, first the almost unsupported light infantry attack at Goose Green on 28 May, then the all-arms battle with armour, artillery and air support at Wireless Ridge on 13 June.<sup>9</sup>

There were two international political agreements at the highest level without which the British campaign would have been logistically impossible. The first of these agreements was the lack of objection from other NATO countries to the British drawing on their own reserves of equipment and munitions stocks that were designated for use within the NATO area. Many countries also provided the British with logistical support of an informal nature. This included providing specialist military equipment, and denying Argentina replacements,

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<sup>8</sup> Thompson, *The Lifeblood of War*, p. 252. In fact, in 1982 the British armed forces made their calculations in Imperial ('long') tons; the logistic support load for 3rd Commando Brigade was calculated as 9,000 tons, which is approximately 9,144 metric ('short') tonnes.

<sup>9</sup> There are several accounts of these battles; compare the accounts of Goose Green and Wireless Ridge in Nicholas van der Bijl, *Nine Battles to Stanley* (Barnsley: Leo Cooper, 1999) pp. 115-141 and 205-9 with those in Hugh Bicheno, *Razor's Edge: The Unofficial History of the Falklands War* (London: Weidenfeld and Nicolson, 2006) pp. 157-189 and pp. 299-312.

components or technical support for some of its weapons systems. A very important case, which is still politically sensitive, was the Argentinean difficulty in obtaining replacements and maintenance support for its French-built Aérospaciale Exocet missiles.<sup>10</sup>

The other major political agreement that was crucial for British logistics was the United States' decision at the start of the campaign not to obstruct British access to its facilities at Wideawake US Air Force Auxiliary airbase on Ascension Island, and to provide considerable informal co-operation, even before the United States' public announcement of support for the British on 30 April, following the failure of its mediation attempts. The exact use that the British could make of Wideawake airbase could have been severely limited by the United States' government. The airfield had originally been built by the Americans during the Second World War, and under an agreement of 1956 (amended in 1962) the British could use the 10,000 foot runway at 24 hours' notice for just one military aircraft, and 72 hours' notice for more than one aircraft. But this agreement had not been renewed since 1962, and might have been considered by either side to have lapsed. In fact, the United States' level of co-operation went far beyond allowing the British use of the runway at Wideawake, including by granting them almost complete access to the airfield's 1,200,000 US gallons of aviation fuel stocks, and later by agreeing to the British storing their own fuel stocks in the facilities at Wideawake.<sup>11</sup>

On 2 April 1982, the United States' military staff of Wideawake airbase consisted of just one man, the base commander, who was a lieutenant colonel. Various British, American, and other civilian organisations were also represented on Ascension Island, including the BBC, Cable & Wireless, Pan American Airways, and NASA. The civilian population was about 1,000 including 200 children, chiefly from the nearby British island of St. Helena. Normally, aircraft movements on Wideawake's only runway averaged fewer than 20 flights a month. There was no British military presence, and the British logistic effort at Ascension was entirely improvised, building up from nothing to 1,400 personnel during the campaign without a formal organisational structure ever being established. Even housing and feeding such an increase of people was a significant problem. For the duration of the campaign, the average number of aircraft movements at Wideawake rose to just under 100 flights a day, with rotor movements outnumbering fixed wing by 5 to 1. It has been claimed that on one day, 16 April, Wideawake logged over 300 aircraft movements, making it the busiest airfield in the world. Aircraft from civil air carriers transported more than 350 tonnes of freight to Ascension Island, including helicopters being air-transported.<sup>12</sup>

The second most difficult logistical issue for the British was transport for the land campaign, once the decision was confirmed on 17 April to land at San Carlos Bay, just over 80 kilometres from Port Stanley. On sailing from Britain, 3rd Commando Brigade had chosen to take its 76 Volvo BV202 tracked oversnow vehicles, but no wheeled vehicles other than nine Eager Beaver rough-terrain fork-lifts and ten 4-tonner trucks with fuel pods, in the belief

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<sup>10</sup> See Lawrence Freedman, *The Official History of the Falklands Campaign: Volume II: War and Diplomacy* (London: Routledge, 2005), pp. 386-7; and Nigel West, *The Secret War for the Falklands* (London: Little, Brown, 1997).

<sup>11</sup> Freedman, *The Official History of the Falklands Campaign: Volume II*, pp. 62-3; John Lehman, 'The Falklands War: Reflections on the "Special Relationship",' *RUSI Journal* December 2012, Volume 157 Number 6, pp. 80-85; Lehman was US Secretary of the Navy during the Falklands War.

<sup>12</sup> This paragraph is based chiefly on Captain Peter Hore, 'The "Logistics Miracle" of Ascension Island,' in Stephen Badsey, Rob Havers and Mark Grove (eds), *The Falklands Conflict Twenty Years On: Lessons for the Future* (London: Frank Cass, 2005), pp. 213-225.

that wheeled vehicles could not cope with the rugged and boggy East Falklands terrain.<sup>13</sup> In fact light four-wheel drive vehicles and tractors used by local farmers could be used, and some were pressed into service. But following the loss of the *Atlantic Conveyor*, the British possessed only one heavy-lift RAF Chinook helicopter for their whole ground campaign, augmented by several medium-sized and smaller helicopters. Sea transport along the coast was also limited by the numbers of landing craft, together with powered rafts known as Mexeflotes, and other smaller craft, and by British reluctance to risk larger vessels close inshore. One obvious consequence of this lack of transport was that much of the British advance towards Port Stanley had to be made on foot. A further consequence was that at Goose Green on 28 May light artillery support was very limited, and the guns eventually ran out of high explosive shells. For the final battles for the hills above Port Stanley, the British light artillery had only 500 rounds per gun, half their optimum requirement, although repeated statements that more than one battery was critically short of shells at the battles' end have been contested by some participants.<sup>14</sup>

One logistical advantage for the British was that 3rd Commando Brigade had its own dedicated logistics battalion, known as the Commando Logistic Regiment Royal Marines (RM). This consisted of a headquarters, a medical squadron, a transport squadron, a workshop squadron and an ordnance squadron; during the campaign its strength rose from 256 to 673 personnel. The most notable absence from this battalion in the war was the specialist petroleum platoon of its ordnance squadron, who since they were civilian volunteer reservists were not included in the deployment. Consequently, following the San Carlos landings, the 3rd Commando Brigade petrol point was operated by inexperienced troops, including one key element operated by a single private who had received ten minutes' instruction.<sup>15</sup>

The logistics landing plan for 3rd Commando Brigade, approved on 10 April before a decision had been taken on the actual landing site or sites, was for a small base to be established ashore but for most of the brigade supplies to be kept afloat off the beachhead, including two LSLs carrying the equivalent of two days' resupply for the brigade, and SS *Canberra* for immediate medical support. Once the decision to land at San Carlos was made, Ajax Bay was chosen for the logistics base ashore, as the largest of the very limited beach landing areas, and with the only buildings, a disused mutton refrigeration plant. As the British advanced across East Falkland, a forward logistics base for the brigade was created at Teal Inlet in Port Salvador bay, to support the final battles for Port Stanley. But following the first landings at San Carlos on 21 May, it was obvious that the plan to hold most supplies offshore and afloat was impractical in the face of Argentinean air attacks. Instead, the main supply

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<sup>13</sup> Thompson, *The Lifeblood of War*, pp. 252-3.

<sup>14</sup> Compare the statement in the British official history, Freedman, *The Official History of the Falklands Campaign: Volume II*, p. 612, with Jonathan Bailey and David Benest, 'Joint Doctrine Development Since the Falklands,' in Stephen Badsey, Rob Havers and Mark Grove (eds), *The Falklands Conflict Twenty Years On: Lessons for the Future* (London: Frank Cass, 2005) p. 292. Both Bailey and Benest served in the land battles of the Falklands War, Bailey as an artillery officer.

<sup>15</sup> Anthony Welch, 'The Royal Army Ordnance Corps' in Washington (ed.) *Ten Years On: The British Army in the Falklands War*, pp. 76-7; Raymond E. Bell, 'Joint Ground Logistics in the Falklands,' *Joint Forces Quarterly*, Number 46 (2007), pp. 131-5; Hellberg, 'An Experience with the Commando Logistic Regiment Royal Marines,' pp. 109-130. In 1982, the ordnance squadron was composed of troops of the Royal Army Ordnance Corps (RAOC), including the petrol platoon, who were part of the Territorial Auxiliary and Volunteer Reserve (TAVR), commonly known as the Territorial Army.

dump had to be established at Ajax Bay, despite its unsuitability, including its lack of sufficient space to disperse stocks safely and create a circuit. The fleet auxiliary and STUFT ships had to be brought in under cover of darkness to unload, mostly sailing away before each morning's air attacks. Most of the STUFT ships did not have the capability to unload by helicopter at night, and unloading using landing craft and Mexeflote rafts was a long and difficult process.<sup>16</sup>

This had two major logistical consequences for the British. First, since the Commando Logistic Regiment had no helicopters or landing craft under its own command, it was in direct and often unsuccessful competition with tactical and operational commanders. Ship movements in and out of the beachhead were controlled from the Task Force, and were highly dependent on the estimated and actual air threat, so that requests even for essential supplies and equipment could not necessarily be met. Secondly, almost all the British helicopters and landing craft were tied up in unloading at San Carlos including Ajax Bay for about a week, leaving none for forward movements out of the beachhead. At the political level, the British were increasingly sensitive to the possibility of international support for their actions declining, and the failure in London to understand the logistical situation in the Falklands led to increasing frustration, and to the orders to advance being given that led to the controversial Battle of Goose Green.

In the British advance across East Falkland, food and water, and non-combat medicine, were only relatively minor issues. But exposure to the cold weather was a problem for all troops, and in the boggy and rugged terrain of the Falklands also caused cases of trench foot, and endemic mild diarrhoea from drinking the water. Battle casualty treatment and evacuation functioned well, resulting in a very high survival rate for casualties treated. Of over 1,000 casualties evacuated back to the designated hospital ship, the SS *Uganda*, including over 300 Argentines, all but three men survived. But the only suitable location for the field dressing station at Ajax Bay, known as 'The Red and Green Life Machine' (from the red beret worn by the Parachute Regiment and the green beret worn by the Royal Marines), was the disused refrigeration plant, next to a large ammunition dump. In consequence the British decided not to mark the dressing station with a Red Cross for protection under the Geneva Convention since it was so close to the ammunition dump, and at one point it functioned with two unexploded bombs lodged in its roof.<sup>17</sup>

With the arrival of 5th Infantry Brigade on 2 June, the British opened a second axis of advance eastward south of the advance of 3rd Commando Brigade, with a forward logistics base being established at Bluff Cove and intended to support this advance. There is a controversy over the decision to use the three battalions of the fresh brigade as part of the British advance, rather than to protect the beachhead or reinforce 3rd Commando Brigade further. Again, a large part of this decision came from the political need to end the war as quickly as possible, and also from the belief that the Argentinean troops were of poor quality. Unlike 3rd Commando Brigade with its integral logistics battalion, 5th Infantry Brigade deployed with only two ordnance companies, since its intended logistics unit were reservists and were not sent out to the Falklands; the brigade also had almost no suitable cross-country

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<sup>16</sup> Thompson, *The Lifeblood of War*, pp. 266-72; Hellberg, 'An Experience with the Commando Logistic Regiment Royal Marines,' pp. 113-19.

<sup>17</sup> Cmnd. 8758 'The Falklands Campaign: The Lessons,' London: HMSO, December 1982, pp. 27-8; Rick Jolly, *The Red and Green Life Machine: Diary of the Falklands Field Hospital* (London: Century, 1983). In 1998 the field hospital commander, Surgeon-Commander Richard 'Rick' Jolly, was awarded a medal by Argentina for his work saving lives in the Falklands War, making him the only man decorated by both sides in the war.

transport. For the final battles for Port Stanley, the Commando Logistic Regiment (which absorbed these ordnance companies) had to support the equivalent of a small division, with eight infantry battalions. Also, in order to move the troops and equipment of 5th Infantry Brigade forward, the British had to risk unprotected ships and landing craft close inshore. This led to the loss on 8 June of the LSL *Sir Galahad*, and the damage and temporary abandonment of the LSL *Sir Tristram*, from air attack at Fitzroy Creek near Bluff Cove.

The British plan of campaign was aimed initially at interdicting Argentinean logistics on the Falkland Islands, starting with their Maritime Exclusion Zone on 12 April, which was extended to a Total Exclusion Zone on 30 April, and was intended to prevent reinforcement or resupply of the islands. Repeated attacks on Port Stanley airfield and smaller grass airstrips were intended to reduce the threat from Argentinean aircraft, but also to reduce Argentinean helicopter mobility. The British believed correctly that they could do little to affect ammunition and other supplies reaching the Argentinean troops on the hills guarding Port Stanley. They discovered after the Argentinean surrender that food and protective tentage had not reached many of these troops, but this appears to have been due to poor Argentinean organisation rather than to any British efforts.

In logistics as in all other aspects of their campaign, the British depended very heavily on high-quality personnel improvising to overcome the difficulties that they faced. Although logistical factors inevitably played a critical role in the campaign, there was no occasion on which adverse logistical issues became insuperable. From that perspective, and certainly when compared to their adversaries, British logistics in the Falklands War must count as a considerable success.