

Whisky which had been on station since July. The Royal Marines and Royal Artillery provided Javelin surface-to-air missile detachments in all the escorts, together with additional teams for port security duties and protection of the RFAs. During the campaign, for contingency purposes, we also assigned HMS OTUS and OPOSSUM, both conventionally powered diesel submarines. The Army had some 300 men deployed providing communications, medical and postal support throughout the theatre.

On 14 September, Her Majesty's Government gave a further clear indication that the United Kingdom was prepared to resist force by announcing that the 7 Armoured Brigade would deploy from BAOR to the Gulf. The Brigade, including War Maintenance Reserves, would comprise 9,500 men, 145 Challenger tanks, 110 Warrior infantry fighting vehicles and 28 M109 guns. Its support would include the provision of 2 engineer regiments, 2 transport regiments, 2 ordnance battalions, 2 armoured workshops and a host of other specialist units including an armoured field ambulance. A detailed reconnaissance was rapidly conducted, which laid the foundations for the start of a huge logistic operation soon afterwards; the Brigade was complete in theatre by 3 November and quickly started live firing and other work-up exercises. Fifteen Royal Air Force Puma helicopters were earmarked to support the ground forces and were flown direct to the Gulf in C5 aircraft of the United States Air Force.

On the same day that the deployment of 7 Armoured Brigade was announced, the Secretary of State also made public that a further 18 Tornados were to move to the Gulf: six fighter and 12 attack aircraft. The reinforcements arrived by mid-October—the fighters to increase the Dhahran force to 18 Tornado F3s, while the ground-attack aircraft deployed to a newly-activated airfield at Tabuk in north-western Saudi Arabia, quite close to the Iraqi border. The Tornado and Jaguar aircraft were supported in their training missions by VC10K tanker aircraft of 101 Squadron, operating from Muharrag and Seeb airfields; these aircraft subsequently moving to King Khalid International Airport near Riyadh.

The Royal Air Force Regiment was deployed in strength for 'Survival to Operate' (STO) duties, and two Rapier surface-to-air missile squadrons were detached to the air bases at Tabuk and Muharrag. STO tasks involved the defence, and if necessary recovery, of airfields from enemy air, ground and Nuclear, Biological and Chemical (NBC) attack. The Regiment provided STO command and control, as well as training elements, at Tabuk, Muharrag and Dhahran. These were established Host Nation Bases, but the prospect of air attack required the Royal Air Force Regiment and Royal Engineer units to enhance the facilities for collective protection. I also deployed two of the Regiment's Light Armoured Squadrons for ground defence and counter-terrorist operations at the airfields. Other teams guarded a US Patriot Battery, provided close protection for the Commander BFME, operated specialist chemical and biological defence vehicles, and secured our air-to-air refuelling aircraft at King Khalid International Airfield.

On 15 November, 7 Armoured Brigade was declared operationally ready south of the Kuwaiti/Saudi border and I transferred tactical control to the Commander of the United States 1st Marine Expeditionary Force. A week later, the Secretary of State decided to deploy the 4th Brigade and additional troops and so increase the United Kingdom ground forces to divisional strength. The plan was to have this division—I (British) Armoured Division—operational in theatre by 31 January. When complete the division would comprise, including War Maintenance Reserve, 28,000 men, 221 Challenger tanks, 327 Warrior infantry fighting vehicles and 79 M109 and M110 guns, 16 Multiple Launch Rocket Systems (MLRS) plus armoured reconnaissance and anti-tank helicopter regiments, 3 engineer regiments, a Rapier air defence regiment and 2 Javelin air defence batteries. Providing support would be 5 transport regiments, 2 ordnance battalions, 3 armoured workshops and other specialist sub units. Furthermore, the Army would provide 4 field hospitals, 1,600 beds in all, as the bulk of the medical support for our forces in the Gulf, and a further 5,000 soldiers would be deployed in all. Helicopter support for the Division was provided by the Royal Air Force with 12 Chinooks and 19 Pumas, and by the Royal Navy with 12 Sea Kings.

Our offensive air capability in theatre was also increased. The squadron of Jaguars moved forward from Thumrait to Muharrag which enabled them to carry out attack sorties into the Kuwaiti Theatre of Operations (KTO) without total dependence on air-to-air refuelling. Locating them closer to the KTO increased their daily sortie rate and, therefore, their overall warfighting capability and contribution to the Coalition's air effort. Following further reinforcement, there were, by mid-January, 45 RAF Tornado GR1s in theatre, six of which were the GRIA reconnaissance variant, with a further six being equipped to fire ALARM (Air-Launched Anti-Radiation Missiles). This weapon had been in the development stage but the manufacturer, British Aerospace, accelerated the clearance

procedures to provide this vital defence suppression missile. The six Tornado GRIAs at Dhahran represented the one type of allied aircraft which, flying at low level, would be able to provide day and night tactical reconnaissance of enemy positions. To support the defensive and offensive aircraft, I positioned 15 tanker aircraft at Muharrag and King Khalid International airfields, a mixed fleet of VC10Ks of 101 Squadron, Victors of 55 Squadron and a Tristar of 216 Squadron.

LOGISTICS

The distance from the United Kingdom to the Gulf is 3,000 miles by air or 6,300 miles by sea: the scale of moving such a large component of our fighting forces over such a distance was colossal. To give an indication of the size of the task, consider the deployment of 1 (BR) Armoured Division alone: 28,000 people, and up to 400,000 tonnes of freight, including ammunition, stores and 15,000 vehicles, were transported to theatre, and the Division was then sustained and committed to battle in inhospitable terrain some 200 miles from the port of entry at Al Jubayl.

The logistic outload required the use of an extensive sea tail, RAF air transport assets and chartered civilian air cargo aircraft. The first ship sailed on deployment for Operation GRANBY on 28 September and the last ship arrived on 15 February; at the height of the preparation phase, in late December, there were some 50 vessels loading or en route to the Gulf. A total of 114 different ships from 20 nations took part in the deployment; some made more than one return journey in accumulating the total number of 146 round trips. Unlike Operation CORPORATE, there was no need to requisition British flagged ships. Commercial merchant ships were chartered through representatives on the Baltic Exchange. There was competition for Roll On-Roll Off ferries, which were in heavy demand, but otherwise there was little difficulty in meeting our requirements. Most ships had armed military escorts aboard but the enemy did not seek to disrupt our extended sea lines of communication and every ship arrived safely; only a very small number were delayed by bad weather or mechanical problems. I count the sea tail, which was responsible for the delivery of the vast majority of all the necessary ammunition, equipment and stores to support our forces, as a most successful part of the Operation.

For the air outload, we relied heavily on the RAF Air Transport Force of Hercules, VC10 and Tristar aircraft and supplemented the fleet by chartering civilian cargo aircraft. Up to 500 tonnes of urgent freight was carried daily. The Force was mobilised to a high level of activity as soon as Operation GRANBY started and it operated over the whole eight months at between two and three times its normal peacetime rates, which themselves are demanding. On 30 October, an Air Transport Detachment was set up at King Khalid Air Base with 3 Hercules and supporting elements. As the demand for in-theatre airlift personnel increased, a further two Hercules were deployed in January 1991. I was very pleased when the New Zealand Government offered two Hercules to operate alongside those of the Royal Air Force. The New Zealanders made a significant contribution to our airlift and with my aircraft flew over 2300 sorties in support of our forces operating from both normal and desert strips. Back in the United Kingdom, I had to deploy engineers from throughout the Royal Air Force to the transport bases to meet the increased routine maintenance and rectification tasks of the fleet. I also relied on the specialist movements teams to ensure maximum aircraft utilisation and that every load was safe. RAF Akrotiri in Cyprus, strategically located almost exactly half way between the United Kingdom and the Gulf, was a most important facility. This airfield was used as a staging base and its traffic increased tremendously. There were almost 14,000 Operation GRANBY movements at Akrotiri, and of these nearly 8000 were dedicated freight moves by air transport aircraft. To place these figures in perspective, the number of Operation GRANBY movements corresponds to the total expected in almost 10 years at the normal peacetime rate. In addition, the Victor, VC10K and Tristar tanker aircraft were used extensively to deploy non-stop attack and air defence aircraft, including some from other Coalition air forces, to and from the theatre.

As for maritime and air forces, many new equipments were brought into service for the land forces. In some cases, such as MLRS and the rifle launched grenade, these were early purchases of equipment due to enter service in the future. However, there were new buys for which financial provision had not previously been available. Existing equipment was modified in view of the desert conditions and the Iraqi weapon systems. Night vision aids, computers and satellite communications equipment were made available on a much larger scale than had previously been envisaged. Both Challenger tanks and Warrior infantry fighting vehicles were uparmoured. These enhancements provided 1 (BR) Armoured Division with major improvements in its operational capability.