

GULF CONFLICT PAUL LEWIS / WASHINGTON DC & STEWART PENNEY / ABU DHABI

US, UK open new warfare chapter

Surgical attacks against political leadership highlight shift in tactics from those of the Desert Storm campaign of 1991

The second Gulf War opened without the promised loud bang of "shock and awe" air strikes, but rather the subdued thud of a US surgical strike using cruise missiles and stealth aircraft against Iraq's political leadership in the suburbs of Baghdad. This has provided observers with a taste for what many are predicting will be a very different air campaign from that of Operation Desert Storm in 1991.

The first shots of the war were confined to 39 Raytheon BQM-109 Tomahawk cruise missiles launched from four US Navy warships and two submarines in the Gulf and Red Sea, and two Lockheed F-117s, believed to have dropped four laser-guided 950kg (2,000lb) GBU-27 "bunker buster" bombs. The 20 March strike was aimed at a "senior Iraqi leadership compound", says US defence secretary Donald Rumsfeld.

"This air war will be far different," says retired USAF General Chuck Horner, joint forces air component commander in the 1991 war.

"Getting control of the air is not going to be difficult, the Iraqi forces are smaller, their pilots have not been flying or aircraft maintained and we already control the southern and northern 'no fly zones'. There will be far fewer fixed targets as we will not want to destroy infrastructure," he told *Flight International* on the eve of the war.

Within hours of the initial strike, US and UK forces began pouring across the border with Kuwait, a marked contrast to 1991 when a 38-day air campaign preceded the ground offensive. A second air strike against political targets in Baghdad on 20-21 March included the launch of another 60 Tomahawk land attack missiles, some of which were launched by two Royal Navy submarines.

Eight US Air Force Boeing B-52 bomber aircraft took off from RAF Fairford in the UK on 21 March as *Flight International* closed for press.

Iraqi retaliation at the end of last week had been muted, with around five Al Samoud surface-to-surface missiles (SSM) fired at

Kuwait, at least two of which were intercepted by Patriot surface-to-air missiles. The initial coalition losses were eight UK and four US personnel on a US Marine Corps Boeing CH-46E that crashed south of the Kuwait-Iraq border.

Arrayed against Iraq are 1,100 coalition aircraft of all types, including 100 RAF aircraft, operating from Diego Garcia, Kuwait, Saudi Arabia, Turkey and the Gulf states, together with five US Navy aircraft carriers in the Gulf and eastern Mediterranean. Most early fleet operations were defensive counter air, reconnaissance and close air support missions.

The US Army and USMC have amassed a large helicopter fleet, including 150 Boeing AH-64 Apache attack machines. Some of this rotary lift capability is expected to transport elements of the 101st Air Assault Division into northern Iraq to open a second front.

Although numerically smaller than the air armada mobilised against Iraq in 1991, precision-guided munitions (PGM) make up 70% of the ordnance available to coalition air forces, compared with only 9% during Desert Storm. These include the new 225kg (500lb) Boeing JDAM GPS-satellite guided bomb, the Lockheed Martin Wind Corrected Munitions Dispenser and the improved Tomahawk Block III equipped with GPS guidance and a new warhead. Improved targeting accuracy and the need to preserve critical infrastructure for occupying coalition ground forces is expected to result in a more judicious use of air power.

"We don't have to attack everything, nor do you have to destroy everything," said Col Gary Crowder, USAF Air Combat Command, chief of strategy, concept and doctrine, at an eve of war briefing. "If we understood what the effect we desired on the battlefield was, we could then figure out ways of creating that effect more efficiently, more effectively, striking less targets, using less weapons and, quite frankly, mitigating or easing potential concerns for collateral damage

and civilian casualties," he added.

The concept of "effects-based operations" is focused around the use of selective types of PGM weapons against very specific targets, such as political or military leadership, or an individual power station or line to neutralise an entire electrical grid system. This Iraq war is expected to see the operational debut of new arms, such as kinetic weapons to limit collateral damage and high-power microwave, or "e-bombs", against electronic targets such as command and control centres.

High-flying and long-endurance unmanned air vehicles (UAV), such as the Northrop Grumman RQ-4A Global Hawk, are powerful tools at work over Iraq gathering intelligence and targeting data. There are more than eight UAV systems operating with the US military, from the missile-firing General Atomics RQ-1B Predator and AAI RQ-7 Shadow down to the marines' new hand-launched, 1.8kg AeroVironment Dragon Eye.

The first Tomahawk missile of the war is fired from USS Bunker Hill

Northrop Grumman E-8C JSTARS air-to-ground surveillance platforms maintaining watch over the battlefield form an integral part of an intelligence, surveillance and reconnaissance network feeding targeting data into a much more closely coupled find, fix, track, target, engage and kill assess chain, which will be critical in trying to pre-empt Iraqi Scud missile launches. "Iraq is a totalitarian state heavily dependent upon being told what to do and they simply will not be able to keep up with us," says Horner.



US DEPARTMENT OF DEFENSE/RICHARD MOORE

