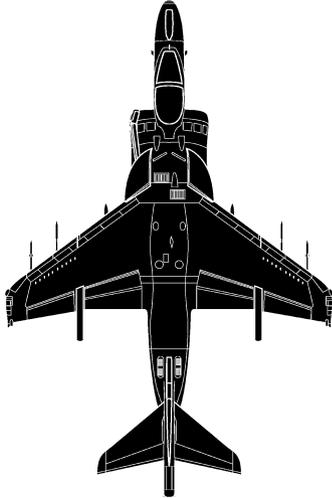


Harrier



The Harrier fighter has been revolutionary: the first winged military aircraft that could carry out vertical/short takeoff and landing operations. Over its long service life, the jet has appeared in two generations, operating from land bases and ships at sea, in close support, air superiority, strike, and reconnaissance roles.

Hawker Siddeley began a long development in 1957 with the P.1127. An offshoot—Kestrel—emerged in 1964, leading to Harrier GR.1 in 1966. The GR.1 was ordered by the RAF and US Marine Corps (its designation was AV-8A); then, Royal Navy demand led to a naval Sea Harrier. The second generation comprised the AV-8B Harrier II (a Boeing redevelopment) and GR.7/GR.9 Harrier II (a British Aerospace effort). These new aircraft, like the older ones, equipped the RAF, Royal Navy, and USMC. The Pegasus turbofan engine,

with four vectorable nozzles, has continually grown in power. Conventional surfaces are used in normal forward flight, but reaction jets in the nose, wingtips, and tail provide control in vertical flight. Landing gear—wing outriggers, nose gear, and main wheels—has been positioned to avoid interference with jet exhaust.

Britain's first generation Harriers proved highly effective in the 1982 Falklands War with Argentina. Sea Harriers were launched from HMS *Hermes* and HMS *Invincible*. RAF GR.3s also launched from HMS *Hermes* but moved to simple land bases. Harriers flew 1,850 sorties and destroyed more than 20 Argentine aircraft. Second generation types—both US and British—performed well in the later Gulf War, Balkan War, Iraq War, and Afghan War. It is still in front-line US service.

—Walter J. Boyne

This aircraft: Sea Harrier FRS Mk1—XZ457—as it looked in May 1982, deployed aboard HMS *Hermes* during the Falkland Islands War.



A Sea Harrier uses a ski-jump bump while taking off from HMS *Invincible*.

In Brief

Designed by Hawker Siddeley, McDonnell Douglas, BAe ★ built by Hawker Siddeley, Boeing, BAe ★ first flight Aug. 31, 1966 ★ crew of one or two (trainer) ★ number built 824 **Specific to GR.1/GR.3:** one Rolls Royce Bristol Pegasus 103 turbofan engine ★ max speed 735 mph ★ cruise speed 505 mph ★ max range 1,200 mi ★ armament two 30 mm cannons, four AIM-9 missiles ★ load 5,300 lb of rockets, bombs, ASMs ★ weight (max) 25,350 lb ★ span 25 ft 2 in ★ length 46 ft 10 in ★ height 11 ft 11 in.

Famous Fliers

Combat: Nick Richardson, P. T. Squire, Ian Watson. **Other Notables:** Joe Anderson, Bud Baker, Lee Bullard, Bill Chapman, John Farley, Duncan Simpson. **Test Pilots:** Bill Bedford, Hugh Merewether, Thomas Miller, J. J. Tyson.

Interesting Facts

Referred to colloquially as a “jump jet” ★ featured in 1994 film “True Lies” ★ operated by RAF, Royal Navy, USMC, navies of India, Italy, Spain, Thailand ★ used ski-jump bump at end of runway or carrier deck to assist liftoff ★ suffered high accident rate ★ nicknamed “Shar” (for Sea Harrier) ★ saw action in five wars—the Falklands, Persian Gulf, Balkans, Iraq, Afghanistan ★ began as a “high speed helicopter” concept ★ given the name “Matador” for export purposes.