# THE F16: CAPABILITIES AND COSTS

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The F16 was originally conceived as a lightweight air-to-air fighter. The F16 has since evolved into the world's most commonly used multi-role combat aircraft. The F16 is used internationally to provide close air support for ground forces; maritime striAke; battlefield interdiction; air defence suppression; and as an air-to-air fighter. It is the world's most widely employed combat aircraft and is being used effectively in peacemaking operations, such as Kosovo and enforcement of the Iraq no-fly zones.

### *NZDF Better Off As A Whole*

The capabilities of the New Zealand F16s are world class. The F16s would be accepted into any United Nations, coalition, or bilateral military arrangement. The F16 is a force multiplier. Upgrading the RNZAF air combat capability will significantly improve the RNZN and NZ Army ability to work alongside friends and allies.

### *New Zealand's F16s*

The 28 F16s New Zealand has agreed to lease were originally built for Pakistan. Pakistan has paid for the aircraft. Their export to Pakistan is blocked by the US Congress in accordance with the Pressler Amendment to the Foreign Assistance Act, which forbids the United States giving military aid to Pakistan while it has nuclear weapons. Pakistan has accepted partial payments of NZ$470million for the aircraft from the United States.

The 28 F16s New Zealand has agreed to lease are among the most modern F16 A/Bs built. They are built to the Block 15 standard with the Operational Capability Upgrade (OCU) included. The New Zealand F16s will be equipped to a world class standard for their designated roles.

The RNZAF plan to operate 22 F16s. They will be used to support the NZDF, Australian, Singaporean and Malaysian defence forces as well as other friends and allies in peacemaking and coalition operations. The remaining six airframes will be stored as attrition spares.

*New Zealand plans to operate its F16s in close air support, battlefield inter-diction and maritime strike roles. The New Zealand F16s will support ground forces and maritime forces. The F16s will have a self-defence air-to-air combat capability.*

The lease agreement and support package will create an air combat force with an avionics and technical configuration of the same standard as the European F16s that flew over Kosovo. The F16s will be able to use Electronic Counter-Measure (ECM) and targeting pods from a variety of sources at short notice.

### *F16s Or New Army Equipment*

The defence capital plan provides for both the F16s and NZ$400 million of new army equipment. This includes new: armoured vehicles; land-rover replacements; radios; machine guns; grenade launchers and fire-and-forget anti-tank missiles.

### *Air Combat And Peacemaking/ Modern Military Operations*

Air combat plays an integral role in both peace support and modern military operations. Air/land and air/sea co-operation will increase synergies in both environments.

Combat aircraft (and warships) provided the protection for INTERFET in East Timor.

*Without airpower (and sea power) ground forces could not have gone ashore at low risk in East Timor.*

The international benchmark for peacemaking and military operations is Jointness, where elements from two or more Services (Navy, Army and Air Force) work together. Combat air attack is an integral element of sea forces. Air combat power contributes to the safe environment that land and sea forces work in. Sea and ground forces unversed in working with air power are of limited utility. The Gulf War, post Gulf War operations over Iraq, Bosnia and Kosovo, demonstrate the ability of air power

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to deliver high quality precision strike against defended targets with low casualties.

### *F16s Or Attack Helicopters*

One strand of popular New Zealand wisdom holds that attack helicopters are more flexible and relevant than combat aircraft. Attack helicopters are unrivalled in their capacity to destroy tanks, vehicles and point targets. This is all they can do. Attack helicopters cannot perform the range of roles that can be undertaken by combat aircraft. Attack helicopters have little utility in maritime operations, cannot undertake deep interdiction roles and can only operate in conditions of air superiority.

Fast jets deliver a wider range of precision strike weapons with more accuracy than attack helicopters. Fast jets can also deliver unguided weapons with reasonable accuracy in weather conditions in which attack helicopters would be grounded. Flying just metres above the ground attack helicopters are vulnerable to small arms fire (from rifles and machine guns), rocket propelled grenades, and sophisticated anti-aircraft missile systems. In contrast, combat aircraft deliver weapons beyond the range of these threats (typically from 5 Kms above the battlefield).

Attack helicopters are highly sophisticated and need more logistic support and protection than commonly used combat aircraft. For instance, a United States Army Aviation Battalion of 16 Apache and 12 Cobra attack helicopters is supported by 19 Kiowa reconnaissance helicopters and 21 Black hawk transport helicopters. Its logistic support requirements for maintenance, fuel, and ammunition are enormous. A unit of this size would be defended by two-three infantry companies supported by armour. Because of their size and sophistication attack helicopter units are expensive to operate, slow to move in theatre (they cannot self deploy because of their short-range) and difficult to deploy overseas. Attack helicopters are expensive. An attack helicopter unit of this type would cost NZ$2 billion. It would take 10-15 years to develop from scratch this capability to a standard where it could be used on active service.

The limits of attack helicopters were illustrated in Kosovo. While combat air capabilities were used extensively, Apache attack helicopters deployed at huge expense were not used, partly out of concern over aircraft (and crew) loss.

The F16 is a much lower cost option, is more versatile, effective in a wider range of roles, easier to deploy, less risk to operate and will be useable from the time the aircraft arrive in New Zealand.

## *Cost*

New Zealand has agreed to pay NZ$127 million for two five-year leases (at an average cost of NZ$12.7 million a year), plus a one off NZ$233 million reactivation package to bring the aircraft up to full operational capability. New Zealand can exercise the option to buy the F16s outright after ten years at an estimated cost of NZ$287 million. The maximum capital and lease costs over ten years would be NZ$647 million. However, if the F16s were not purchased after ten years, the capital and lease costs would be NZ$360 million. The costs will be offset by the sale of the Skyhawks, which are expected to sell for more than NZ$100 million. In addition, New Zealand will incur costs from withdrawing from the lease.

## *Net Present Value Of F16 Lease*

The "Net Present Value" (the industry standard way of calculating investments' through life costs), of buying F16s as planned, is calculated at NZ$640 million compared with NZ$982 million for retaining the Skyhawks until 2007 and replacing them with new F16s. The lease to buy arrangement offers cost savings of NZ$342 million over the deferred purchase of F16s in 2007.

This is capital that can be used for other equipment purchases.

The operating costs of the F16s are similar to those of operating the Skyhawks.

### *F16s Or C130J Hercules*

New C130Js are not a priority. The modernisation of Hercules is catered for in existing defence capital plans. Replacement or modernisation is not scheduled until 2007 and there is no operational need to bring forward the refurbishment of the Hercules fleet. The modernisation of the existing fleet of Hercules in 2007 would be sufficient (and cost NZ$160 million). Buying new C130Js would cost between NZ$700-800 million and provide little significant upgrade in capability. Even the US Air Force is upgrading Hercules rather than replacing its full fleet with new C130Js.


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