## = Air Combat Group RAAF =

The Royal Australian Air Force 's Air Combat Group ( ACG ) is the group which administers the RAAF 's fighter and bomber aircraft . ACG was formed on 7 February 2002 by merging the RAAF 's Tactical Fighter Group and Strike Reconnaissance Group in an attempt to improve the speed with which the RAAF can deploy its combat aircraft . The current commander of ACG is Air Commodore Anthony Grady .

Since the Group 's formation , ACG aircraft have deployed to Diego Garcia during Operation Slipper and formed part of the Australian contribution to the 2003 invasion of Iraq . ACG also worked on Operation Guardian II , which was the protection of the Commonwealth Heads of Government Meeting 2002 , and on Operation Falconer , which was providing a larger ground crew and strike force in Iraq . Other tasks have included support for Operation Acolyte ( Melbourne Commonwealth Games 2006 ) and participation in exercises such as Exercise Pitch Black in Australia and Exercise Red Flag in the United States . Aircraft from the Group have also performed domestic security tasks and participated in overseas exercises .

It comprises No. 78, No. 81 and No. 82 Wings. No. 78 Wing RAAF is headquartered at RAAF Williamtown. It commands No. 76 Squadron, based at RAAF Williamtown, No. 79 Squadron, based at RAAF Pearce, No. 2 Operational Conversion Unit, based at RAAF Williamtown, and No. 278 Squadron, which provides technical training specific to flight training. No. 81 Wing RAAF is headquartered at RAAF Williamtown. It commands No. 3 Squadron, based at RAAF Williamtown, No. 75 Squadron, based at RAAF Tindal, and No. 77 Squadron, based at RAAF Williamtown. No. 82 Wing RAAF is headquartered at RAAF Amberley. It commands No. 1 Squadron, based at RAAF Amberley, No. 6 Squadron, based at RAAF Amberley, and the Forward Air Control Development Unit (FACDU), based at RAAF Williamtown.

It is accountable for all of the Air Force 's F / A @-@ 18 Hornet , Super Hornet and Hawk squadrons , as well as the PC @-@ 9A Forward Air Control aircraft . The ACG is equipped with McDonnell Douglas / Boeing F / A @-@ 18 Hornet / Super Hornet fighter and attack aircraft , BAE Hawk trainers and Pilatus P / C @-@ 9 ( A ) forward air control training aircraft .

## = = Establishment and purpose = =

The Air Combat Group ( ACG ) was created on 1 January 2002 with the merging of two Force Element Groups ( FEGs ) , Strike Reconnaissance Group ( F @-@ 111 ) and Tactical Fighter Group ( F / A @-@ 18 Hornet , Hawk and PC @-@ 9A ) . The ACG was tasked to deliver the core capabilities of Control of the Air and Precision Air Strike with the hope that it would allow the RAAF to more quickly deploy its combat aircraft . Although the fighter and strike elements will continue to operate as discrete units for some time , ACG will provide the opportunity for the RAAF to test the organisation required to deliver a range of combat capabilities .

## = = Responsibilities and bases = =

Air Combat Group is one of the Force Element Groups (FEGs) in the Air Force . It has 145 aircraft , 163 aircrew and 2000 support personnel based across Australia . It is accountable for all of the Air Force 's F / A @-@ 18 Hornet , Super Hornet and Hawk squadrons , as well as the PC @-@ 9A Forward Air Control aircraft .

The Wings under the Air Combat Group are located at RAAF Base Amberley, near Brisbane, Queensland, RAAF Base Williamtown, near Newcastle, New South Wales, RAAF Base Pearce, near Perth, Western Australia, and RAAF Base Tindal, near Katherine, Northern Territory. The Headquarters is located at RAAF Williamtown, NSW 2314.

## = = Training and operational history = =

Air Combat Group maintains a busy training schedule for the air and ground crew on the F / A @-@

18 Hornet, Super Hornet and Hawk. The Group 's tasks have included support for Operation Acolyte (Melbourne Commonwealth Games 2006) and participation in exercises such as Exercise Pitch Black in Australia and Exercise Red Flag in the United States.

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= = = Operation Slipper = = =
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A detachment of four Australian F / A @-@ 18 Hornet fighter aircraft provided air defence for the US military base on the island of Diego Garcia during the campaign against the Taliban , which was called Operation Slipper . The initial detachment was provided by No. 77 Squadron RAAF between December 2001 and 10 February 2002 . This detachment was replaced by a detachment from No. 3 Squadron RAAF which was deployed between 10 February 2002 and 20 May 2002 . No further Australian units have been deployed to Diego Garcia . The United States Air Force commented favourably on the RAAF contingent 's professionalism during this deployment .

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= = = Operation Guardian II = = =
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During Operation Guardian II a squadron was deployed to protect the March 2002 Commonwealth Heads of Government Meeting ( CHOGM ) in south @-@ east Queensland . During this , the Australian Defence Force pilots were given permission to destroy any hostile aircraft . This has not happened at any time during Australian peace time , but was deemed necessary because of the 11 September 2001 attacks six months earlier .

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= = = Operation Falconer = = =
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No. 75 Squadron deployed to Al Udeid Air Base in Qatar in February 2003 as part of the Australian contribution to the invasion of Iraq ( Operation Falconer ) . The squadron was equipped only with recently serviced F / A @-@ 18s , and its 14 aircraft were drawn from No. 81 Wing 's three frontline squadrons . The other squadrons also provided pilots to bolster aircrew numbers in No. 75 Squadron to 25 . The squadron saw action during the Iraq War and provided air defence for high @-@ value assets such as Airborne Early Warning and Control Aircraft , close air support for ground troops and attacked other Iraqi targets . No. 75 Squadron flew 350 combat missions during the war and dropped 122 laser @-@ guided bombs . The squadron was prohibited from operating near Baghdad as the Hornets ' electronic warfare suite was judged to not be sufficient for such heavily defended air space . The squadron 's rules of engagement also banned it from conducting close air support in urban areas . No. 75 Squadron conducted its final combat mission on 27 April and all 14 aircraft returned to RAAF Base Tindal on 14 May 2003 .

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= = Structure = =
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Headquarters Air Combat Group is located at RAAF Williamtown , with elements based at Amberley ( Queensland ) , Tindal ( Northern Territory ) , Pearce ( Western Australia ) and Williamtown ( New South Wales ) . One hundred forty @-@ five aircraft , 163 aircrew , and around 2000 personnel make up the ACG .

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= = = Commander = = =
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The current commander of Air Combat Group is Air Commodore Anthony Grady , who had previously commanded No. 82 Wing , one of the three wings now under the control of Air Combat Group . He took up the position of Commander of Air Combat Group in January 2012 .

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= = = Air Combat Group components = = =
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= = = = 78 \text{ Wing} = = = = =
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No. 78 Wing RAAF is headquartered at RAAF Williamtown . It commands No. 76 Squadron , based at RAAF Williamtown , flying Hawk Mk127 aircraft , No. 79 Squadron , based at RAAF Pearce , flying Hawk Mk127 aircraft , and No. 278 Squadron , which provides technical training specific to flight training . 78 Wing conducts operational training , both ground and air , on the F / A @-@ 18B Hornet and Hawk at Nos. 76 and 79 Squadrons and No. 2 Operational Conversion Unit . It currently has an increasing role providing simulator training to aircrews and maintenance personnel at Air Force bases across Australia .

$$= = = = 81 \text{ Wing} = = = = =$$

No. 81 Wing RAAF is headquartered at RAAF Williamtown . It commands No. 2 Operational Conversion Unit , based at RAAF Williamtown , flying F / A @-@ 18A and F / A @-@ 18B aircraft , No. 3 Squadron , based at RAAF Williamtown , flying F / A @-@ 18 aircraft , No. 75 Squadron , based at RAAF Base Tindal , flying F / A @-@ 18 aircraft , and No. 77 Squadron , based at RAAF Williamtown , flying F / A @-@ 18 aircraft . 81 Wing is responsible for the provision of combat air power to Australian and coalition forces through Offensive Counter Air ( OCA ) and Defensive Counter Air ( DCA ) operations using three squadrons of F / A @-@ 18 Hornets , Nos. 3 , 75 and 77 Squadrons .

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= = = = 82 Wing = = =
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No. 82 Wing RAAF is headquartered at RAAF Amberley . It commands No. 1 Squadron and No. 6 Squadron , based at RAAF Base Amberley , flying F / A @-@ 18F Super Hornet aircraft , and the Forward Air Control Development Unit ( FACDU ) , based at RAAF Williamtown , flying P / C @-@ 9 aircraft . No. 6 Squadron is an aircraft conversion unit , rather than a combat unit . 82 Wing strikes designated targets and conducts reconnaissance with Nos. 1 and 6 Squadrons . Forward Air Control Development Unit is being used as a training unit .

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= = Aircraft = =
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The ACG is equipped with F / A @-@ 18A / B Hornet and F / A @-@ 18F Super Hornet fighter and attack aircraft , BAE Hawk trainers and Pilatus P / C @-@ 9 ( A ) forward air control training aircraft . Each of these aircraft has a different role .

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= = = Fighter aircraft = = =
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The F / A @-@ 18 Hornets are modern all @-@ weather strike fighter jets , designed to attack both ground and aerial targets . Australia 's F / A @-@ 18s were built during the 1980s and early 1990s and are currently being upgraded to improve their capabilities and extend their service lives . ACG operates a total of 71 F / A @-@ 18A and F / A @-@ 18B Hornets . The F / A @-@ 18A is a single @-@ seat fighter and the F / A @-@ 18B is a two @-@ seat variant which is mainly used for pilot training . The Australian Government is planning to replace the F / A @-@ 18A and Bs with the F @-@ 35A Lightning II from 2013 onwards . The F / A @-@ 18F Super Hornet is a dedicated strike aircraft in RAAF service and are considered superior to the F @-@ 22 Raptor in their ability to acquire and track moving ground targets , and will continue to be upgraded until the F @-@ 35s are delivered .

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= = = Training aircraft = = =
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The BAE Systems Hawk , is a British advanced jet trainer which first flew in 1974 as the Hawker Siddeley Hawk . ACG operations 33 Hawks as trainers , and these aircraft have a limited air @-@ to

@-@ air and land strike capability . FACDU is equipped with four Pilatus P / C @-@ 9 ( A ) aircraft , which are a variant of the single @-@ engine , low @-@ wing tandem @-@ seat turboprop training aircraft modified to perform forward air control tasks .

= = = Hornet Upgrade = = =

The Hornet Upgrade program ( HUG ) commenced in 1999 . The project sought and continues to seek to modernise the ability of the current ACG fleet of F / A @-@ 18A and F / A @-@ 18B aircraft and associated support systems . The upgrade project has been set up to elongate the time the Hornet 's can run until 2018 . The project is being conducted in three phases . This project was established to upgrade the F / A @-@ 18 fleet to combine enrichments that will allow the aircraft to more effectively perform its air defence tasks . The project is being conducted in three main phases , phase one has already concluded and phases two and three are currently in production .

= = = Phase 1 = = =

Phase one is the incorporation of upgraded radios , mission computers , Global Positioning System ( GPS ) navigation systems , upgraded Identification Friend or Foe ( IFF ) , and several structural warranty modifications . Commensurate upgrades were added to the following weapon system support systems , Operational Flight Trainer ( OFT ) , Integrated Avionics Software Support Facility ( IASSF ) , Support Equipment ( SE ) , Computer Based Training System ( CBTS ) , Mission planning system ( MPS ) .

= = = Phase 2 = = =

Phase two was broken into four separate sections , phase 2 @.@ 1 is for a radar upgrade , phase 2 @.@ 2 incorporated a link 16 secure data link , Multi @-@ function Information Distribution System (MIDS), Cockpit full colour displays (MDGU), Counter Measures Dispenser System (CMDS), Joint Helmet Mounted Cuing System (JHMCS), Tactical Air Moving Map Capability (TAMMAC), and the 19C Operational Flight Program . Phase 2 @.@ 3 added the Electronic Warfare suite upgrade (Radar Warning Receiver, Radio Frequency Jammer) and phase 2 @.@ 4 upgraded with the Target Designation System (HTDS). The following support systems will also be either upgraded or replaced, the Operational Flight Trainer (OFT) to be replaced by the Hornet Aircrew Training System (HACTS), the Integrated Avionics Software Support Facility (IASSF), the Mission Planning System (MPS), Miscellaneous Support Equipment (SE), Computer Based Training System (CBTS), Simulated Aircraft Maintenance Training System (SAMTS) to be replaced by the Integrated Maintenance Training System (IMTS).

= = = Phase 3 = = =

Phase three is broken into two separate parts , phase 3 @.@ 1 of the HUG project will see the fleet undergo a structural refurbishment program with a number of aircraft undergoing the replacement of centre barrels and adjacent structural components . In addition , phase 3 @.@ 2 started with an Aging Aircraft Audit ( AAA ) , ongoing R3 Deeper Maintenance ( DM ) and minor projects such as Night Vision Capability ( NVC ) will also be undertaken to ensure that the fleet can continue to perform its air defence tasks through to the Planned Withdrawal Date .

= = = = Timeline = = =

The Hardware Acquisition Contract was signed on 25 September 1998, and the Prime Contract was signed on 21 June 1999. The Aircraft modification started mid 2000 at RAAF Williamtown, and was completed with the last modified aircraft delivered on 19 June 2002.

The purchase of new AN / APG @-@ 73 radars was announced on 17 August 1998 . The

Commonwealth accepted a United States Foreign Military Sales case in October 1999 , and then the prototype modification commenced on 21 August 2001 . The first production modified aircraft was completed in August 2002 and the last aircraft was completed on 27 August 2003 . Phase 2 @.@ 2 , the Multi @-@ purpose Display Group Upgrade ( MDGU ) and the remaining equipment will be installed in the 2006 / 2007 time frame . Phase 2 @.@ 3 , various systems , from BAE Systems , SAAB , and Elta has not been announced . Phase 2 @.@ 4 , commercial contract with Northrop Grumman for the Litening AT targeting pod , will receive the targeting pods during 2007 / 2008 .

In Phase 3 @.@ 1, the prototype activities, were completed in January 2004. The production installation commenced April 2004 with completion expected in 2009. In Phase 3 @.@ 2, the Delta Modification Prototype activities were completed in May 2005. The Delta Modification Production installation is set to commence January 2006 with completion expected in 2009 (conducted in conjunction with HUG Phase 3 @.@ 1 installations). CBR Prototype activities will commence February 2006 with completion expected January 2008. CBR Production installation is to begin July 2007 with completion expected in 2011, but will be dependent on the number of CBRs undertaken.