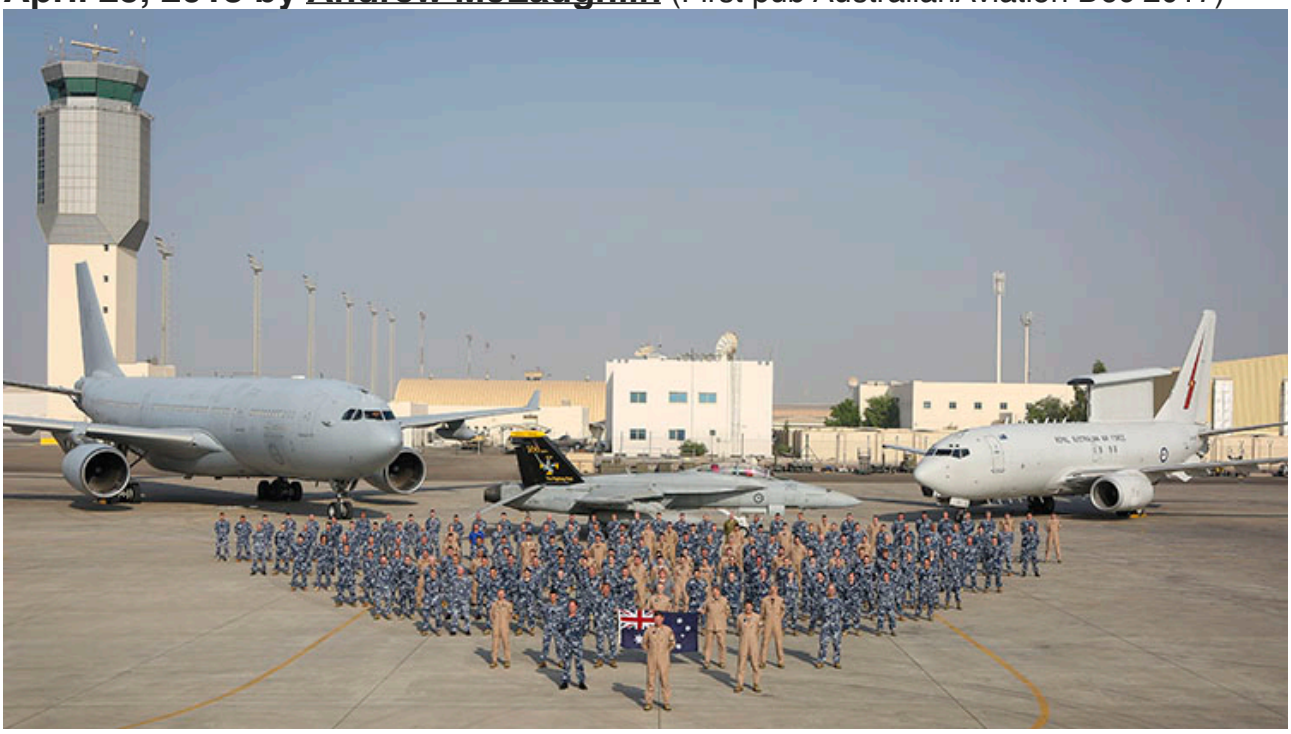
The RAAF in Operation Okra – “the highest levels of skill, courage and professionalism”

April 25, 2018 by Andrew McLaughlin (First pub AustralianAviation Dec 2017)



Members of the RAAF Air Task Group assemble for a group October 2017 photo to commemorate three years of operations. (Defence)

In this feature article which first appeared in the December 2017 issue of Australian Aviation, we look at the RAAF’s operations in the Middle East as part of Operation Okra, the ADF’s contribution to the international force to oust Islamic State – also known as Daesh, ISIS and ISIL – from Iraq and Syria.

The first rotation of the RAAF’s contribution to Operation Okra, comprising one KC-30A multi-role tanker transport (MRTT) from 33SQN, one E-7A Wedgetail airborne early warning and control (AEW&C) aircraft from 2SQN, and six F/A-18F Super Hornet fighters from 1SQN, departed Australia on September 21 2014. Led by AIRCDRE (now AVM) Steve Roberton, the Air Task Group (ATG) arrived at Al Minhad Air Base in the UAE two days later.

The ability to form and deploy the Air Task Group with two weeks’ notice was an extraordinary effort.

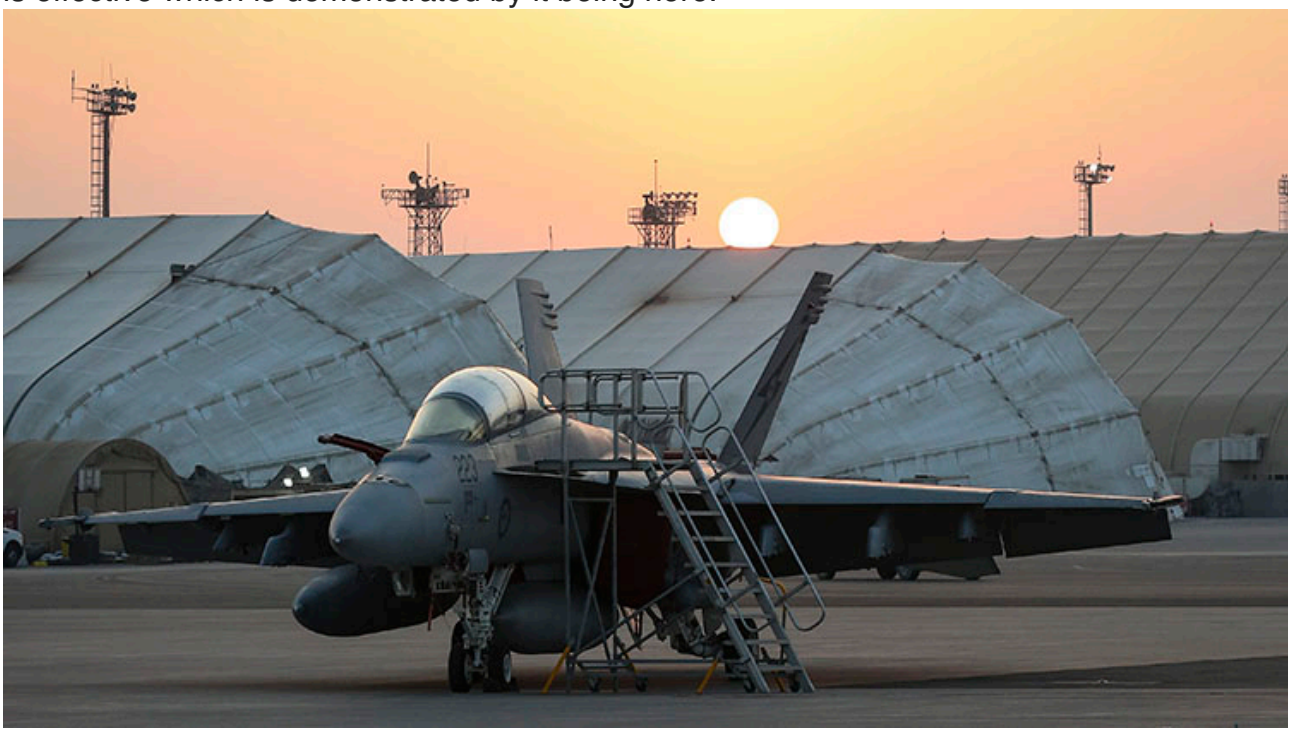
“The large amount of preparation conducted to deploy such a potent and capable force in a relatively short time is testament to the professionalism and skill of our Air Force,” then Chief of Air Force, AIRMSHL Geoff Brown said at the time.

Initially, about 310 personnel were assigned to support the ATG in theatre out of a total of nearly 800 assigned to the operation in total. Other elements of the Okra deployment include a Special Operations Task Group (SOTG) which conducts A3E (accompany, advise, assist and enable) tasks with Iraq’s security forces, and Task Group Taji which is a combined Australian and New Zealand military training force based at the Taji Military Complex north-west of Baghdad.

INITIAL OPERATIONS

The RAAF ATG commenced operations on October 1 2014 when the Wedgetail and the KC-30A conducted support missions over central Iraq. The fighter force’s first flight over

Iraq with weapons occurred on October 5, and the first weapons employed by the RAAF were against “an ISIL facility” on October 8.
By early November, ATG aircraft had flown 144 sorties since commencing operations just five weeks earlier. Targets for the Super Hornets during that time included command-and-control facilities, military equipment, vehicles, and logistics and training compounds.
During this time the KC-30A’s reliability and large air-to-air refuelling capability was beginning to add real value to the coalition, with the single deployed aircraft having offloaded more than 2.5 million pounds of fuel to RAAF Super Hornets and coalition aircraft such as US Marine Corps AV-8B Harriers and French Dassault Rafales in the first seven weeks to November 16, 2014.
The former head of the Project AIR 5402 team (from 2007-2011) which brought the initially troubled KC-30A MRTT into RAAF service, AIRCDRE Noel Derwort, got to see the fruits of his team’s labours first hand as the deputy commander of JTF633.
“It was amazing to experience and see the product of everything we have done over all these years,” he said in a November 2014 interview.
“Watching how the crew operated and just seeing their professionalism working with other aircraft was remarkable. The guys have done an exceptional job to make sure the aircraft is effective which is demonstrated by it being here.”



Flightline maintenance at Al Minhad AB was mainly performed at night to avoid the worst of the extreme conditions. (Defence)
In the deployment’s first three months to December 31, the Super Hornets flew 221 missions totalling 1,723 hours for an average mission length of seven hours and 48 minutes, and employed 135 precision munitions including 61 in December alone.
In the same timeframe the Wedgetail flew 53 missions totaling 624 hours for an average mission length of 11 hours and 48 minutes. The KC-30 had completed 105 missions totaling 811 hours for an average of seven hours and 42 minutes, and had offloaded an amazing 8,363,046 pounds of fuel for an average offload of 79,648 pounds per mission.
As 2015 opened, the first ATG contingent prepared to rotate out.
“You are handing over the air component in good shape for continued air strike, command-and-control and air-to-air refuelling operations into 2015,” Chief of Defence Force ACM Mark Binskin said during a January 6 visit to Al Minhad.

“I believe our ATG is the best-equipped, best-trained and most-prepared air contingent Australia has ever sent on operations, and the tireless efforts and professionalism of our people is reflected in the results.”
The Super Hornets returned to Australia in late March 2015 and, after a transition and familiarisation period, were replaced by six classic Hornets and personnel from 75SQN.
“During the transition, having two outstanding fighter squadrons fly together in combat is a historic milestone for the RAAF,” remarked the incoming ATG commander, AIRCDRE Glen Braz at the time.
The final tally of the Super Hornet’s first six-month deployment stood at 418 sorties flown totalling 3,361 hours, and 278 weapons were employed.
AIRMSHL Geoff Brown remarked at the time that the plan was to rotate each of the RAAF’s classic Hornet squadrons through the ATG at roughly six month intervals before the Super Hornets deployed again.
“In each of those six months they’ll rotate aircrew through once so we don’t lose a lot of the high-end skills,” he said in an interview in the March 2015 issue of *Australian Aviation*.
“So we’ll… rotate the classic Hornet squadrons through and then we’ll go back to the Super Hornet. It’s also to even out the hours on the jets too, because we are flying the jets about four times the peacetime rate.
“Strike operations are only one element of what strike fighters do,” he added.
“So, while they’re getting very good at strike operations and collateral damage estimations, what atrophies over time is the pure fighter skills. So, if you leave them in theatre for three to four months, that’s almost like one of our normal training programs, and then you can bring them back so you haven’t lost any of that capability.”
Nearly three years on, the current ATG commander, AIRCDRE Terry van Haren, says the RAAF is still very conscious of efforts to avoid any potential ‘negative training’ aspects.

A closeup of some faded mission markings and a 75th anniversary marking on a 77SQN classic Hornet. (Defence)
“This is very much a CAS and interdiction mission in a very permissive air environment,” he said.
“While our doctrine is to do those types of missions in a permissive air environment, how we battle any…negative training is to keep rotating our aircrew back into the training cycles back home. In (the Middle East region) they’re not up against threats so they don’t

have to train to those threats while they're here, but they do that at home. Behind the scenes, Air Force is continuing to do its force generation activities so we remain prepared for the long term."

WHO'S WHO IN THE ZOO

A major milestone for the E-7 Wedgetail, which like the KC-30 had also suffered from a prolonged and difficult development and service entry, was the achievement of final operational capability (FOC) in March 2015, a milestone no doubt expedited by the aircraft's performance in Operation Okra.

"The E-7 has great coverage, and an ability to add to that is its air control system which is really helping the coalition navigate through the complexities of what is a congested airspace," said AIRCDRE van Haren. "The battlespace is quite complex, and that's not only because of our own efforts in the coalition airspace, but also because of what the Russians and the Syrians are doing in eastern Syria especially.

"The coalition is getting a lot of value out of their mission over here because you see things you don't see in training. You don't see Flankers, you don't see Su-22s and all these different types of aircraft all converging and operating in what is a reasonably small battlespace. So the E-7 is not only adding a lot of value in navigating that complexity, but also the crews are getting some great exposure in looking at very complex air problems."

In the three years to the end of September 2017 the Wedgetail had flown 386 missions. (Defence)

With often 60 or more aircraft in the air in theatre at any one time, AIRCDRE van Haren said the Wedgetail is probably the most advanced of all AEW&C aircraft in theatre, and arguably anywhere in the world.

"The picture from the E-7 is a higher quality picture than other AWACS such as the USAF, RAF and French E-3s, and it can navigate through the picture better in terms of working out who's who in the zoo, so to speak," he said.

"We're using all the systems aboard the E-7, every crew station is fully manned, and they're all very busy using those systems to work out the picture as much as we can – who is in that picture and where they come from, and then controlling our fighters and our tankers and other coalition aircraft in what is a congested very close proximity to other forces. It's something you could never replicate in training I would think, and we're getting a lot of value out of it!"

EXTENSION INTO SYRIA

Almost a year after the ATG's operations commenced, the federal government extended the mission by authorising RAAF aircraft to hit targets in Syria on September 9 2015.

At the same time the government also authorised an increase of the RAAF fighter force to eight F/A-18s to allow for sufficient redundancy for the longer missions into Syria, but this was not deemed tactically necessary.

"We are approved for up to eight aircraft at the moment," ACM Binskin said at the time. "We do not envisage that I will increase that number from six to eight, although I have the flexibility to do that depending on the tasking, and I can increase that at any time if I need to. For all intents and purposes they just take a 10-degree left turn when they go on task and end up over Syria, so there is no major change to be able to do these operations over eastern Syria."

The first RAAF mission over Syria was conducted on September 15 by two classic Hornets which were supported by the Wedgetail and the KC-30, but no weapons were released on that mission.

"Daesh controls a large amount of territory in eastern Syria that serves as a source of recruitment and oil revenues, and as a base from which it continues to launch attacks into Iraq", then ATG Commander AIRCDRE Stu Bellingham said.

"The Hornets were prepared for any short notice high priority tasking which could include surveillance and weapons release."

The first RAAF strike in Syria was conducted the next day, when two Hornets identified an armoured personnel carrier that was hidden in a Daesh compound, and reported back to the CAOC via the supporting Wedgetail.

"Upon receiving authorisation to proceed, one of the Hornets employed a precision guided weapon to destroy the target," then Defence Minister Kevin Andrews said in a September 16 update to parliament.

By the end of the first year of RAAF operations in the MER, the small ATG had recorded some impressive statistics.

A tally of the F/A-18F and F/A-18A fighter force sorties to the end of September 2015 showed they had flown a combined total of 868 combat missions totalling 6,681 hours for an average mission length of 7.7 hours, and had employed 536 weapons against Daesh targets.

In the same period, the E-7A Wedgetail had completed 143 missions including 10 missions over Syria for a total of 1,738 hours at an average mission length of 12.15 hours.

A KC-30 air refuelling operator focuses on an E-7 Wedgetail as it eases into the receiver position to take on fuel. (Defence)

Perhaps most impressive are the figures recorded by the KC-30A. In 369 days the single deployed aircraft flew 416 missions totalling 3,287 hours for an average mission length of 7.9 hours, offloading 33,700,211 pounds of fuel to receiver aircraft, at an average of more than 81,000 pounds per mission – the rough equivalent of nearly 2,000 complete classic Hornet refuels.

“The KC-30 is refuelling a whole bunch of different types of coalition aircraft nearly every day, whereas back home in our exercises they’re typically just refuelling Hornets,” said AIRCDRE van Haren.

“The KC-30 is getting a lot of variety in terms of the receiver types and getting a lot of value out of that. While there are a lot of other Hornets here with the (US) Marine Corps and carrier air groups, there are also RAF (Tornado) GR.4s, French Rafale fighters, Marine Corps EA-6Bs (Prowlers) and AV-8Bs, and quite a few boom receiver aircraft as well (including Wedgetail). Overall, there’s a lot more demand for the hose and drogue because the Americans already have a lot of boom refuellers.”

RAISE, TRAIN, SUSTAIN

Apart from the potential of negative training resulting from flying in such a permissive air environment, the RAAF is also very conscious of how such an extended deployment affects its regular ‘raise, train sustain’ cycle.

And it’s not just the eight airframes deployed, but being so far from home in a relatively harsh environment and operating such long missions requires a large number of experienced personnel, all of whom are drawn from operational units back home, some of which are in the process of relinquishing their Hornets and Super Hornets in favour of new types such as the EA-18G Growler and the F-35 Lightning II.

“Up to this point we’ve been able to navigate it because ACG (Air Combat Group) is at the start of these transitions, not amongst the middle of them,” explained AIRCDRE van Haren.

“If you look at the squadrons, over the years we’ve had four fighter squadrons all rotate through here, and a couple of the classic squadrons a couple of times. That obviously has been manageable with four squadrons, but will become more difficult I would think as we start to transition on to F-35s.

“In total there have been about 1,700 people come through the ATG in the three years, and that’s a big chunk of Air Force,” he added. “In fact you could probably say, especially in the KC-30 and E-7 crews and maintainers, some of those people are here now for their third tour – there’s a lot of ‘repeat offenders’ so to speak.”

AIRCDRE van Haren added that, for the normal operational tempo of exercises and other activities, all units have good support mechanisms in place for RAAF personnel and their families. But for extended operations such as Okra, Air Force is being a lot more proactive in the way it manages the health of deployed personnel.

“Especially for those involved in the kill chain, we have a very proactive way of managing that here,” he explained. “There are psychologists and chaplains in the task group regularly visiting the CAOC and the strike aircrew to establish a relationship and to ensure that any strains and stresses of combat are being discussed in real-time. The ADF also has processes to do screening of people going back home and then to do follow-ups with anyone who may be developing an issue.

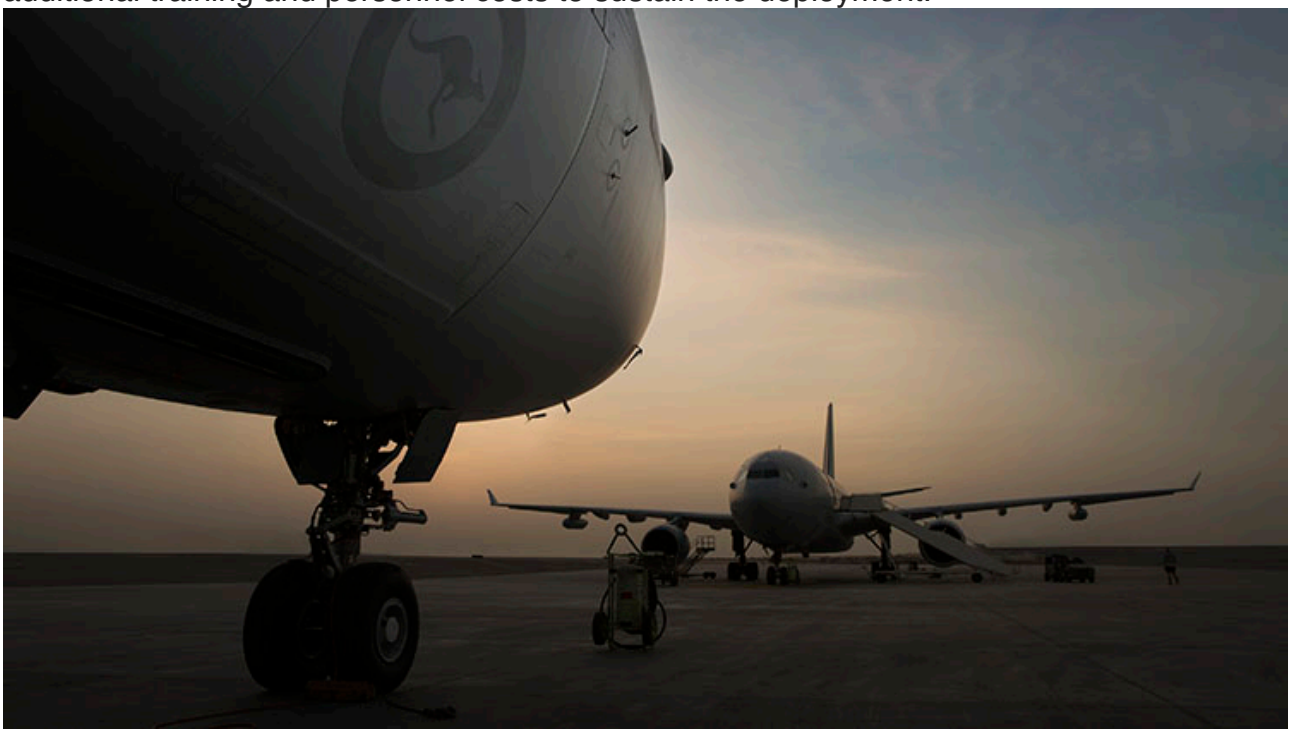
“Obviously for the fighter force this is all fairly new for most, but the transport force and the P-3s have been doing these types of deployments to the Middle East since 2001, so it’s not completely new for Air Force,” he continued.

“There’s actually a very long history of looking after the air mobility and SRG forces, but it’s a bit newer for the fighter guys. There’s a concerted effort in Air Force to try to get the balance right so we’ll keep our rotations relatively short, so 12 rotations in three years equals about three or four months at a time. While it’s still a long time compared to our non-combat deployments, it still gives us eight or nine months a year back at the squadrons to continue their force generation and to keep the balance right.”

UPPING THE TEMPO

By late 2015 Daesh’s spread across Syria and northern Iraq was slowing as the coalition’s strike tempo intensified. December 21 2015 saw the largest coalition airstrike to date, when 21 fighters including four RAAF F/A-18As destroyed 137 targets in eastern Syria despite being hampered by poor weather and reduced visibility. The RAAF jets alone released 16 weapons, one of which destroyed a building containing a large weapons cache.

“The targets were gas and oil separation plants in central Syria used by Daesh to facilitate their operations and movements,” AIRCDRE Bellingham said in a statement on January 4 2016.
“Destruction of these facilities is expected to cause a long-term military disadvantage to Daesh by limiting their movement.”
A few days later the ATG struck three bridges on Daesh’s main and auxiliary supply routes south of Sinjar in Iraq.
“These routes were frequently used by Daesh to replenish their fighting capability from Syria to Mosul,” AIRCDRE Bellingham added.
“Losing access to these routes severely disrupted and degraded Daesh’s resupply to areas that they have held on to strongly.”
The ATG’s high rate of effort was shown to have had an adverse effect on RAAF budgeted flying hours in the May 2016 Defence Portfolio Budget Statements (PBS) for 2016-17, placing additional maintenance and sustainment cost onto the aircraft fleets, as well as the additional training and personnel costs to sustain the deployment.



Two RAAF KC-30s face off in the desert evening light during a ‘tail swap’. (Defence)
The small five-aircraft KC-30A tanker force, which was yet to achieve full operational capability at the time, was most affected, having flown roughly twice as many as the 3,100 hours budgeted for 2015-16.
And instead of beginning to draw down as they entered their 30th year of operational service, the classic Hornets instead flew 15,700 hours in 2015-16, nearly 4,000 hours more than their budgeted allocation of 12,000 hours. And the much newer but numerically fewer Super Hornets flew 800 more hours than their budgeted 4,000-hour allocation.
By the end of the second year of operations, the ATG continued to log impressive sortie rates.
From October 1 2014 to the end of September 2016, the classic and Super Hornet fighter force had flown 1,801 missions totaling 13,746.6 hours for an average sortie length of 7.6 hours, and had employed 1,387 weapons.
The E-7A Wedgetail had flown 269 missions including 108 in Syrian airspace totaling 3,302.7 hours for an average mission length of 12.3 hours.
Again the KC-30A impressed, having logged 792 missions totaling 6,305.9 hours for an average mission length of just under eight hours. During the first two years the KC-30

offloaded 63,440,075 pounds or 35,526,442 litres of fuel, an average of 80,101 pounds or nearly 45,000 litres per mission.

SUPPORTING THE EFFORT

There are notable differences in the way each of the aircraft in the ATG's order of battle are supported while deployed.

Due to their commercial aircraft lineage, the KC-30 and Wedgetail have enjoyed airliner-like levels of reliability in the MER, a fact demonstrated by the KC-30's excellent rate of effort averaging a mission per day over the first two years of the deployment.

But for these large aircraft it is difficult to conduct anything but minor flightline servicing on them while in theatre, so they are regularly rotated back to their home bases of Amberley or Williamtown to undergo more comprehensive maintenance and regular servicings.

Similarly, the classic Hornets are rotated back to Australia more frequently than the Super Hornets due to their older systems.

"The Supers are doing the longer servicings here in theatre which is something we can't do with the classics," said AIRCDRE van Haren. "It takes less time with the newer high tech aircraft so we don't have to rotate the Supers out for major servicings, and they can stay for the entire detachment.

"We have physical challenges mainly due to the environment. The whole team has challenges working in hot desert conditions during the summer months. We work around that by trying to do most of the maintenance at night, and they've navigated that pretty well. We have the right balance of maintenance teams here in theatre to not only do the normal day-to-day maintenance but also the (Super Hornet) scheduled servicings.

"We have a sufficient spares holding in theatre to deal with day-to-day issues," he continued. "We have had a couple of issues where we haven't had parts for the aeroplanes, but there's a constant flow of support coming from Australia not only for ourselves but for all of the Australian task groups in theatre.

"There's an aircraft that comes over every week to bring any of our spare parts we don't hold in theatre, and we're usually able to rectify any issues within a week without any major disruptions. We also have enough aircraft here so if one does go offline, we don't have any disruptions to our rate of effort."

END GAME?

With Daesh now in retreat and its sphere of influence rapidly decreasing, the end may soon be in sight for the RAAF ATG's deployment.
The Battle for Mosul was a major victory against the caliphate's territorial aspirations, and the RAAF Hornets played a significant role in that campaign.
"During the last three weeks of the battle of Mosul in late June and early July, every day our Super Hornets were expending all their ordnance," AIRCDRE van Haren said.
"In those three weeks we employed 158 weapons in 23 days, the Super Hornets were carrying up to five 500 pound precision-guided munitions each, and in one of those days they cleared all their weapons off in about an hour.
"In fact, we nearly ran out of bombs a couple of times there," he added.
"During the battle of Mosul we got very low on numbers, but we replenished our stocks from Australia and other sources, and what we're holding here now is sufficient. In total we used more than 278 weapons in eight weeks, which is the highest rate of fire we've had for a RAAF fighter maybe since Korea."

RAAF 'gunnies' load an AIM-9X onto a Super Hornet in the cool of the desert evening in preparation for a mission the next day. (Defence)
Despite the permissive air environment over Iraq and Syria, there is no doubt many lessons have been learned during the campaign.
"There's always a point of validation of your training, tactics, and procedures whenever you go into an operation, especially in a coalition context," said AIRCDRE van Haren in closing.
"We know that, for example, our E-7A is completely interoperable in the bigger system and completely complements that system, so that was an important point of validation. We know that our fighters are able to conduct interdiction and CAS as good or better than western standards, and of course our KC-30s are now capable of operating with all of our coalition partners.
"So while, after three years of ATG work our work is not complete, maybe the campaign end is in sight. Eighty per cent of the territory Daesh used to control at the start of the campaign is now back in the hands of Iraqis and Syrians, and we've been a real constant with our efforts whereas others have come and gone.

“So in three years it’s been a big effort for all those units involved and the people involved. Being here even for three or four months a year puts a big drain on families, so I think it’s nice to see the campaign advancing towards a future where it ends.

“I’m not sure what that will look like just yet, but the change in intensity of operations is not too far in the future.”

POSTCRIPT

Two 1 Squadron F/A-18F Super Hornets would complete the Australian Air Task Group’s final operational mission as part of Operation Okra in mid-January 2018.

The RAAF’s continuous deployment of six Hornet/Super Hornet fighters flew more than 2,700 sorties accumulating over 21,000 flying hours since their first operational mission.

“Over more than three years, hundreds of ADF personnel have deployed to the Middle East as part of the ATG strike element. With each deployment, they have demonstrated the highest levels of skill, courage and professionalism,” Chief of Defence Force Air Chief Marshal Mark Binskin said.

“Our aircrew and their support crews have consistently delivered in extremely difficult and challenging conditions.”

The last rotation of six Super Hornets had been deployed to Al Minhad since June 2017.

“The Air Strike Group and their families can be proud of their achievements and their important contribution to help the Iraqi Security Forces liberate their country from Daesh,” CDF said.

While the six Super Hornets and their crews and support staff subsequently returned to Australia, ATG operations in support of the Coalition air campaign over Iraq and Syria continues with the Wedgetail and KC-30 aircraft.

This feature article first appeared in the December 2017 issue of Australian Aviation.