

The Air Warfare Centre

by

Air Commodore Stephen Meredith

An Air Power Seminar given at Canberra on 12 May 2015

Just on one year ago, the Chief of Air Force formally announced the intent to establish an Air Warfare Centre as a key initiative of Plan *Jericho*. In January of this year, the Air Warfare Centre achieved Initial Operational Capability [IOC]. The Air Warfare Centre is designed to drive innovation and transform air operations to enable a fully integrated combat force.

In this Air Power Seminar, the inaugural Commander Air Warfare Centre, AIRCDRE Stephen Meredith, will present on his organisation's establishment, role, mission and campaign plan to achieve Full Operational Capability [FOC] by 2020.

Air Commodore Stephen Meredith, AM

Air Commodore Stephen Meredith joined the Royal Australian Air Force in 1986 and graduated from the School of Air Navigation in 1987. He completed a flying tour as a navigator with No 37 Squadron on C-130E aircraft prior to re-rolling to F-111 strike aircraft in 1991 completing flying tours at Nos 1 and 6 Squadrons. Promoted to Squadron Leader in 1998, he was posted to the Defence Material Organisation working on F-111 related projects including the Interim Electronic Warfare Project. In July 1999, he was posted back to No 6 Squadron as the Executive Officer.

In 2002, he completed Australian Command and Staff College in Canberra and was then posted to Air Force Headquarters as Staff Officer to the Deputy Chief of Air Force. In 2003, he was promoted to Wing Commander and posted to Capability Development Group as the Deputy Director of Combat Enablers. In January 2006, he was posted to No 82 Wing as the Executive Officer and then in December 2006, took up command of No 6 Squadron, overseeing the retirement of the F-111G aircraft. In late 2008, he was promoted to Group Captain and was appointed Officer Commanding No 42 Wing introducing in to service the E-7A Wedgetail Airborne Early Warning and Control aircraft. From this position, he deployed to the US Air Force Central Command Combined Air and Space Operations Center as part of Operation *Slipper* in the Middle East.

On his return to Australia, he was appointed as Chief of Staff to the CDF, and was selected to attend the Defence and Strategic Studies Course at the Australian Defence College in 2013. Upon completion of the course, Air Commodore Meredith was promoted to his current rank and served as the Deputy Air Commander Australia, Headquarters Air Command. In December 2014, Air Commodore Meredith was appointed Commander Aerospace Operational Support Group where he has led the implementation of the Air Warfare Centre. In January 2016, the Air Warfare Centre achieved IOC with AIRCDRE Meredith as its inaugural commander. Air Commodore Meredith was appointed a Member of the Order of Australia in the 2016 Australia Day Honours List for exceptional service to the RAAF in capability sustainment.

Air Commodore Meredith: Thanks very much. What I'd like to do is take between 30 and 45 minutes. I'll walk you through the slides that I have and then I'll take questions for about the next 30 to 45 minutes after that. Happy to go anywhere with the questions. I have brought my Director of Support Cell, Mr Darren Manser, and if [difficult questions] come up, then Darren will make the notes.

So I do want to talk about the background, why Air Force has done what it's done; take a force element group—still a force element group—and changed its functionality completely. We'll talk about the background, the problems, the directed outcomes, basically the problem-set that I was given to start with. We'll talk about the functions, because as we walked through this journey last year, we started with: 'What is it we want a warfare centre to do?' Not a structural diagram, but what are the functions? The structural diagrams came afterwards. We'll talk about the structure that emerged, our CONOPS [concept of operations], where we sit, what we do.

We'll talk about allied air warfare centre engagement, because that's a key part of it. When you look at the UK, having had a warfare centre from the end of the Gulf War, why did they do that and why have they maintained it and why didn't we follow? And the warfare centre in the USAF is 14 000 strong and how do I plug into that organisation to make sure we're tied together?

And we'll talk about how you might task us, and we'll bring all that together at the end.

The problem that was given straight out of my directive is that we couldn't coherently bring together integrated outcomes. We sat in a room in the early parts of *Jericho*, and there's a fighter pilot on one side, there's a P-3 expert on the other side of the table. And the fighter pilot's saying to the P-3 guys, 'When you get your new P-8s, you need to be able to do this.' It was about how they do maritime strike. And the P-3 guy looks at the fighter pilot and says, 'We can already do that'. How did we find ourselves in a world where our subject matter warfighters don't know how to do business together?

Fundamentally, that's what the problem statement is about—integrated outcomes, how do we get out of our traditional stovepipes? Because we're institutionalised, we're arranged in force element groups, we have stovepiped ourselves. How do we make sure that we can fight together as an air force?

Now, the other part of it is how do we build our relationships with our counterpart organisations who have had warfare centres [for years]? We have patch wearers in the US; we've all seen them. How do we make sure that we're integrated and then when we step into exercise like Red Flag, when we go to operational theatres, we plug in seamlessly? As an air force, we are on that right path, but how do we make sure we can execute the high-end piece?

They are the two problem statements that we started with. Why an air warfare centre? What we want to be able to do is bring us all together. We want to be integrated. We want to be able to fight together. And so that's just a slide of the recent *Jericho Dawn* exercise, which we conducted as the Air Warfare Centre.

How do we take an airborne gateway, bring things together and make disparate pieces of kit communicate, and we reduce the targeting cycle and we make things work better? We need to integrate that joint force. We want to test it. We want to train it. We want to educate it

and we want to write it down. As an air force, we're bad at writing things down. We don't do doctrine well. .

So the directive came and it gave me a long list of things that I needed to achieve. It talked about a focal point for bottom-up innovation. How many times have we seen good ideas, 'Yep, no'? And so how do I turn that into a 'Yes'? But how do I say to the best and brightest, the youngest, the most inexperienced, but the cleverest, 'Solve me that problem'?

Last year, as we built the capability and we started to build our plans, we actually ran some trials. I gave a flying officer, straight out of ADFA, a bag of gold and a problem. 'Solve me that. You have a month. Come back and tell me how you're going to do it'. He came back and he'd done a really good job. So how do I encourage that? How do we make that innovation, because ultimately innovation sits inside all of you? It doesn't sit inside an innovation centre. It sits inside you. So innovation is a key part.

Integrated tactics. How do I solve the problem of the conversation that we had before between the fighter pilot and the P-3 ACO? How do I make sure that with all our platforms, we can do the best, and we have an integrated set of tactics that are written down? When you look across all the platforms, our tactics are in different forms. We don't have integrated tactics written down. So how do we resolve that?

How do we use live, virtual and constructive [LVC]? How do we get the maximum out of our exercise opportunities to ensure that we are going to end up with a set of integrated tactics that the Air Commander, that the Chief, that CJOPS [Chief of Joint Operations] can take to the bank? That's what we need to do.

Coordinated integrating functions. I still have a day job, so I still execute tests, I still do intelligence functions across the Air Force. I still have to deliver those integrated outcomes across Air Force. And with coordination of S&T [science and technology], how do I have a better conversation with DSTG [Defence Science and Technology Group] about work that they might be doing that we can bring in to get better integrated outcomes for Air Force? How do I take that algorithm and put it into that system, test it in an exercise and put it back out and say, 'Do that to it and then we'll bring it back in'? That's what we want to do.

We also want to test current CONOPS. When was the last time we had a look to see whether we could deliver what we said we're going to deliver, as an integrated force; so those sorts of things.

And the collation of lessons learned. If I'm blunt, we do Lessons Identified; but don't necessarily do Lesson Learnt, and we're working with Air Command to resolve those and put those things in place. We want to be able to take those lessons and we want to make them: 'Here's our tactic; here's our education; here's our doctrine; here's what you should do,' and that's where we need to be.

And we want to be able to exchange ideas across the ADF and across the joint spectrum. We want to be able to have a conversation with COMWAR [Commodore Warfare]; we want to be able to have a conversation with DG Training in Army about how we do integrated tactics. 'This is how a Tiger can talk to the JTAC; this is how a Tiger can talk to the Link; this is how we can do better.' So we want to be able to have those conversations as well. We want to be able to have those conversations with our coalition partners. When you look across the

spectrum, our coalition partners have the same problems we do: shrinking defence budgets, are we sharing, are we doing the right things?

Assumptions and limitations. A good project always starts with those. Air Force—led to support joint outcomes. The Chief will not let me let go of those joint outcomes. Joint, joint, joint—we've got to fight together. We can't do it without one another and we have to make sure we do better. Those integrated conversations with our joint brethren mean that they know that we bring all of our domains.

We need to be able to generate outcomes at the operational and tactical level. So I needed to put some boundaries around where we are. Will you see the Warfare Centre doing DGCP's [Director General Capability Planning] job and working out the world of 2035? Probably not, but you know, in those seams of transitions, as they're starting to come, will you see me in the OT&E [operational test and evaluation] for Growler? Yes. Will you see me in the OT&E of Triton? Yes. Will you see me helping inform things like *Jericho Dawn* for pieces of kit that are being looked at, or for integration exercises? Yes, you will. So those [are] the seams that we need to explore.

I will help inform the strategic. We've had tactical level things occur in operational theatres and as a Warfare Centre, we've provided advice that says, 'The strategic level needs to be thinking about how quickly this piece of kits rolls in across the fleet'. We must be able to work at an escalated security environment, [that's] fundamental. And we have to start thinking there and we have to make our organisation [work] at that level, off the bat.

We went and spoke to our UK counterparts who were very open with us. I have to admit that all our counterparts were open with us in terms of their lessons as they were stood up warfare centres. We spoke to the Canadians, spoke to the UK and I spoke to the US. It's a hard conversation to have with the US. Their Warfare Centre is 14 000 [people]. It's an air force. And how do I plug that? Where do I put the right people to have those conversations and make sure that we are plugged in?

But we worked out what our functions were and our best of breed. We want the integrated tactics, techniques and procedures development. We want an organisation that delivers that back. We want simulation, so we want an LVC environment. We want a warfare centre that can create the test and training environments that we need to execute high-end [warfighting]. We want to have an operational analysis capability. In fact, our Army brethren do operations analysis really well—they plug it in to how they plan and they plug it in to how they do business. And so we see that as something that we have to build.

Advanced air warfare training. How do I create the subject matter experts, the EW [electronic warfare] experts? When we cast around, we found that 92 Wing is doing EW training, 82 Wing is doing EW training, JEWOSU's [Joint Electronic Warfare Operational Support Unit] doing EW training; everybody's doing EW training. Why? Why can't we do that better?

And then what else do we need to do? Do I need to create weapons officers? Do I need to create systems specialists? Do I need to create network specialists? What's the post-initial employment training that we need to add to make us better?

Operations and planning is more about us. It's how do we do our business as usual plus be a warfare centre? How we consolidate our operations and planning.

We want to do integrated T&E [test and evaluation]. We executed Plan *Lift* effectively and we've created test and evaluation flights out in the regions. And an interesting conversation, a hard conversation.

How do you have the test community closer to the warfighters and how do you enable them to say, 'Well yes, that tactic will work but if you did this, you'll get this little bit more out of it'? That's where we want to be. And I also want to unlock Developmental to Acceptance to Operational testing. How do I squash that? How do I make that faster? And so they're the pieces of work we're doing.

An Integrated Mission Support [IMS] Element is how I manage the tasking that comes into the Warfare Centre. How do I coherently push information back out into the field? How do I task my own organisation and know what's going on? And importantly, the IMS is what links us to the UK and what will link us to the US Warfare Centres and how we pass information [to them].

Industry engagement. If I have a problem that comes in the door, how do I pull industry in early? How do I pull Science and Technology Group in early? How do I have those conversations? And we'll talk about what we've established.

Doctrine generation. As I said, Air Force is not good at the operational level. We're spasmodic and we need to do better. We need to make sure that it's written down. Why? So our brethren in other services understand how we fight and how to task us and how to talk to us and how our systems work.

Finally EXCON [exercise control]. It's one of the things we skimp on. Skimp on EXCON and we skimp on Red Force. Therefore, we don't get the best out of our exercises. How do I get that to be better and our S&T and R&D coordination?

So that's a long function list and after two hours at CAFAC [Chief of Air Force Advisory Committee], that's what we've ended up with.

Our initial capabilities. What can we do? We have the ability to rapidly deliver tactical and operational solutions in response to a quick question. We're already doing that in the operational space. A question will come in the door and inside a week, inside two days, we can push advice back to the operational commander that says, 'We recommend you do this; we recommend that happens; we recommend this occurs in the organisation; we recommend that strategic agencies think about this'. And that's already occurred. The interesting response was the first time we did it, it was quiet and then tasks started appearing in the door, so it was clear the advice was appreciated.

[We have] multi-discipline teams that we can push at particular problems. When I look at us not as a warfare centre of 900; I look at us as a warfare centre of 10 500 across [all of] Air Command. But I look beyond that. I look at you, no matter where you sit, and if I have a warfighting problem, I can ask you, 'Would you like to be part of helping me solve that?' And if you have capacity and wish to do so, I'll pull you into a team and I'll make you part of the solution. So I don't have boundaries there.

And we've established the agreements to work with the UK and the US. I have a Commander's Initiative with the UK. It's already been successful when we realised, 'Mmm,

we're doing the same work. Why don't we do this, you do that and we'll share and drive ourselves faster?' We have the appropriate agreements to do that.

We're working on the development of an Air Warfare Instructor's Course—the US equivalent of patch wearers—beyond the FCI [fighter combat instructor] community, across all the domain experts, over time. In 2017, we'll run our first course and we'll push that across the spectrum. Air Mobility [Group] will be part of that. It just depends a little bit with all the transitions that are coming through from Air Force. We need to think carefully about how we bring others in. And so we'll get there over time but it will be a case of taking that goodness and spreading it across the all the warfighting domains, so that those subject matter experts will sit out there in their communities and be able to talk integrated outcomes, not just their own specific, integrated outcomes. I'm going to create, through that eight-week course, integrated warfighters.

FOC is 2020, so it's as if on 11 January when the start gun fired, we were starting a marathon. Those that know me know I will want to bring things forward, which is what I'm doing, and we are looking at live, virtual and constructive [LVC] environment. I have a *Jericho* task on LVC that we have to deliver back to the Chief of Air Force Advisory Committee [CAFAC] in September. The advanced air warfare education piece will probably happen early in the New Year and we'll start our courses. We can already start to see, when we look across that advanced warfare education, a throughput of about 1000 students a year. When you start looking at EW, when you start looking at weapons, when you start looking at the things we want as warfighters, you go, 'That's actually a big chunk of work'. So we're looking at doing that early.

Implementation. CAFAC endorsed it in October of last year and it feels like we've been running ever since. I think that's probably right. We signed the Implementation Plan in December. Changing an organisation to a new organisation requires an AFOD [Air Force Organisational Directive], which is a long period of work, so a directive just covers the things that I needed to do. IOC was in January; we've achieved all the things we set out for ourselves. The AFOD's with the Chief now and we are hoping CAF will approve the AFOD shortly.

We're building up the new directorate, we'll get to the structure shortly. Tactics and Training Directorate, Air Force Ranges Directorate and a couple of new units are working towards FOC in 2020. Overall, it's an enormously exciting project to be a part of and it is great fun to be a part of something [like this].

There's three things, three core roles or core tenets that I tell all of my folk. First one is integration—integration, integration, integration. Don't think in your stovepipe. So if we see something coming up, an exercise, who else can I bring in? Who else should I talk to? Who else could help me? I'm also encouraging the fact that when we have a problem, the problem won't sit at a particular rank. The problem might sit with someone with technical knowledge, someone young, someone smart. How do we pull those together? With integration, how do I drive that collaboration? How do I make sure we don't think in our stovepipes anymore? How do I drive a culture of integration across the Warfare Centre? And as an Air Force, we have to be thinking about that as well: A culture of integration.

Innovation. How do I get the best, how to identify those opportunities, how do I pull those good ideas, how do I encourage that flying officer, with his bag of gold, to drive a problem closed, to drive a problem on? And how do I bring in my joint service brethren? How do I

bring in my coalition partners to help us do that? How do we make sure that we take the best out of the human beings and do that? We'll talk about how we've done that.

The other part of it is information; how do I share it with you, because I want you to know. It makes the intelligence part of my organisation quite uncomfortable, but I want to share. There is no point me doing the best request for advice and leave it sitting somewhere in somebody's computer. That doesn't help. How do I share? We are actively working out how we standardise that and then push the message out. We push stuff out the command chain when we do that.

What did that end up looking like? Every good presentation must have a wiring diagram. The headquarters is where my Integrated Mission Support piece is located. That will become important later when we talk about that. Four major directorates: Test and Evaluation Directorate—predominantly, not much has changed in that space in terms of being pushed out into the field. Information Warfare Directorate—again, looks a lot like IW [Information Warfare] Wing but different functionalities and different alignments. Air Force Ranges Directorate, I don't like the name, per se, because I want them to create a test and training environment for the Air Force ranges. We haven't capability-managed our ranges particularly well. So how do we do better with that? The directorate is built upon the Woomera Test Range folk and we're building that capability over time. That one will be a marathon as we work through all of that. Tactics and Training Directorate—the FEGs [force element groups] very generously gave me 13 of their best and they are beginning the work to get us to an Air Warfare Instructor's Course [AWIC] in January of next year. This is on top of me asking them questions, as well as working on *Jericho* tasks and a range of other things I've got for them. They are busy.

The IMS cell is where our day-to-day tasks, come in and go out. This is how, on a day-to-day basis, it will be. How does the team get to Edwards [Air Force Base] to get a C-17 under a tanker, get all the right data, spit that to the US and get a C-17 clearance? Tasks range from that to one like this 'We have this problem and we'd like you to form an IPT to solve it'. We've used the IPT construct, Integrated Project Teams, which we'll form and get rid of when required. Some will have a life of months and some will have a life of days. They'll generate advice that we can then pass out through the chain of command that says, 'Okay, for this particular problem, leave the box on, do this and look for that'. That's already starting to generate and we're starting to push those out. Those IPTs are managed by the IMS, which is why I brought Darren.

So what does the headquarters look like? Pretty much the IMS with coordination of that tasking. It's where we'll start to build our operations analysis capability. We are working hand-in-glove with DSTG to take the experience that they have and start to build it up. Then we can push it across all of the directorates that we have inside the Warfare Centre. We can push it also into the Integrated Project Teams we have as they stand up.

We've got 12 IPTs running at the moment. Some led by us, some led by other parts of the organisation, some led by folk that I don't own, but we form a scrum and support. They are working quite well at the moment. And again, the four pillars with the headquarters over the top.

We wanted to start with a conceptual workflow as well in terms of when we get a problem, how do we think about that? This came as part of that functional analysis. We started with the functions, then what were we going to do? I'll take the OODA loop and I'll work out

how I can make that work and how I can make it work faster. It might be a risk; it could be a deficiency; just could be a question; could be a new capability; could be a problem. How do I take that? Orient, work out what we can do with that and then we'll drive it on.

The most important bit [of the OODA], in my mind, is the one at the end—the act. And the act piece is, it's in our education. We've now got a tactic written down. We fixed the box, or the SPO is fixing the box, the FEG's are fixing the box. We know where we're going with that. Or the system is now changed or a process has changed. And that becomes driven. Now there'll always be residual gaps, lessons, opportunities that come back and we will always then keep going through that loop. So that's the loop, the mindset that goes through the IMS as we're starting to think about how we pull an IPT together; how do we make things better?

The headquarters. I have a Chief of Staff and I have a Director of IMS who sit in my headquarters and we drive those things. The Integrated Mission Support aligns and prioritises the tasking. That's where that culture of integration comes in ... 'Mmm, we've got this task. Perhaps if we did this, added that, add that, had that conversation with this organisation and pulled that in, and we talked to DGAIR [Director General Air at HQJOC] about what he was looking to do in terms of training'. Then all of a sudden, instead of a single activity occurring, you might have multiple activities lined up over a training window. That's starting to happen and that's better for us—we get better outcomes.

Centralised tasking and product delivery—I hate the word 'centralised' but it works better if it's being pushed with an appropriate quality and across the spectrum. Then I know it's going out. Then I know you're all seeing it. The IPTs that will form, as I said, up, down, and however we need them.

Test and Evaluation Directorate still has the mission of timely, integrated testing. As I said, we've gone down a test-and-evaluation flight where those testers are now out in the region, closer to the warfighter, and looking at those integrated outcomes. Instead of, 'Wedgetail's going to do this', Lead-in Fighter [Hawk] needs to do that at the same time, classic Hornet needs to do that. Let's line those up and execute one.' And while we're doing that development test evaluation, we're going to tick these OT&E boxes, because we're not going to keep going back. We need to be better.

As well, we still have the Institution of Aviation Medicine, a really important capability, and one that we will continue to work on, as well as the Aeronautical Information Service, in terms of providing the approaches and aeronautical product that our aviators need.

Information Warfare Directorate. We've done some work to align what we do as the Warfare Centre with the AOC [Air and Space Operations Centre] to make sure that product is aligned. It's working out really, really well. Effectively, the Information Warfare Directorate [IWD] is proving to be the engine room. Why? Because these folk know where the threats are. We're a threat-based organisation; we're a risk-based organisation. So IWD's my engine room. They understand what's going on in the world. 'Okay, this has emerged, this has changed, this has been impacted, that doesn't work anymore. Here's what these guys are doing.' As a warfare centre, having IW is a really important part. The integrated nature of the Warfare Centre now means that those boundaries are porous across the directorates.

Air Force Ranges is new. Again, we're starting to work down this process. It's a bit early. We're still executing trials up in Woomera and that will build over time to take on, and

capability manage, all the Air Force ranges. It's how we do better in that ranges space and we're starting to work on that. It's a work-in-progress. How do we bring LVC into that equation? What LVC capabilities do we want? It's not a case of just join up the simulators. Sometimes, it's a disadvantage to my staff because I have a six and half year old son. He asks, 'Why?' a lot. So do I. 'You want to go join the sims up. Why? Why? You want to go ... why? Explain to me why?' Those conversations are starting to become 'Well we want to join that and that and that because ...' 'Why?' 'Because then it's linked to AWIC and there will be this and we can do ...' One of the things I would put to you is, as a Warfare Centre, we're also asking ourselves, 'What's the so-what?' 'What's the now-what?' So it's not just information.

The Tactics and Training piece, as I said, is quite small; thirteen folks at the present point in time, working out high-end, integrated tactics. They're starting with the basics: How do we get a common set of integrated tactics? How do we start that? And they're working that and they're working through how they pull the training together, with a particular focus on an AWIC in January of '17.

CONOPS. How do we make this thing work? We're focussed on capability gaps out to three years. We'll have a slide in a minute. There's seams in that, so it's not like a square box that we work in. We have to look at transitions as they come. But it's that force-in-being, working out how we do that. We are driven by Plan *Jericho*, so there are a number of *Jericho* tasks, which sit inside the Warfare Centre and the Air Force CONOPS. The Air Force CONOPS is the thing that we're focussed on. We're aiming the Air Warfare Centre at that CONOPS.

The Air Command Campaign Plan. I generate a campaign plan every year for the Warfare Centre and it gets endorsed by the Air Command Board. The FEGs know what I'm up to so the FEGs know what I'm going to ask them for. Therefore that campaign plan is the one that we drive forward each year. So it might be, 'We've tested the environment ...' that's why IW becomes important, '... and this has emerged, this has happened, we need to refocus a few things and here's what we're going to do for the next year'. Those things will help give us the strategic direction we need.

We are responsive to requests for advice, so it's not information we provide, we provide advice. If you have questions, we ask for an O6 [officer at group captain level] to release them into the IMS. It's important that no question goes unanswered; even if I don't own the answer, I'll point you to the right place. We've had a couple of those where, 'Here is the phone number of the person that will actually help you solve your problem,' and that's how we'll close the task. The task does not get closed till we have customer satisfaction.

One of the things that we've talked about at the Warfare Centre is how our customer perceives us as a warfare centre—that will be our measure of success. If the warfighter doesn't want us, we've failed. If the warfighter wants us to provide those functions, we succeed. That's been an important point for us.

We are driving cross-discipline and cross-platform integration. Wherever we see it, we'll pull things together. We're certainly starting to achieve that. We're working with our Army and Navy and allied equivalents, so we're having conversations with 6 Brigade, with DGAIR on our aviation front, with COMWAR in Navy space, talking to the Maritime Warfare Centre, bringing those things together. How do we bring our campaign plan together with

Navy's campaign plan? How do we smash those together? It's early days, and hard when those plans have been written in isolation, and there's work to be done.

As I said, the allied equivalents, literally in three weeks' time, the UK will come out and we'll have a conversation with how we're going together. It's already proven successful because we've been able to work together as teams; we turn up at exercises together as joint teams and we've actually been able to stop doing the same thing and wasting money and resources on stuff that we don't need to.

We're already trying to incorporate industry and S&T into our solutions. How do we go and touch that small, medium company that's got this one thing that we need to bring in? How do I get what's sitting in DSTG and bring it forward, go and have a look at it, give it back to them and say, 'Just tweak that'? That's what we're working on.

We are encouraging innovative and responsive solutions. Right now we have two IPTs, one led by a flight lieutenant that touches multiple organisations; another one is led by a sergeant. I don't care about rank because I want the smartest person in the room to lead that and to drive those answers and we should be comfortable with that. It's working a treat.

Our problem space. We see us sitting in that tactical and operational space out to three years. There's boundaries you see us in the JSF space, you see us in the Growler space, but are we driving the transition teams? No, we're not, but we're working together in collaboration.

If I look at *Jericho Dawn 16-3*, which was an airborne gateway [demonstration], it probably sits further out here in Air Force Headquarters business but the Air Warfare Centre executed that activity. Why? Because the expertise and integration lived with us, and so that's okay. But on a daily basis, as I said before, you will not see me defining the Air Force of 2050. That's DGSP's [Director General Strategy and Planning] job.

So how do you engage us? All the RFAs [requests for assistance] come through the IMS, through the Integrated Mission Support element. Please give them a call. We've got an enquiries email, DRN and DSN, so we can work at any level. There is a webpage. Points of contact are up there and like we said, if we can't answer the question, we'll find you who can. We'll point you to the right piece of the organisation or the right individual or the right area of Defence to help you answer your questions. And that's our job. No question goes unanswered. And we do ask that the RFAs come with O6 sponsorship, just so that you understand where we're at.

Okay, there's the webpage. It talks you through everything that you need, where we're up to, where we're going.

We are working, as we said, with enhancing our relationships. Communication with the UK, as I said, is focussed on the IW and EW and it's really informing the development of our relationship. Our frank and fearless conversations with our Canadian, our UK and our US brethren, have informed where we're at. And in the same vein, the boss of the Canadian Warfare Centre recently came out and we've shared where we're going. So that's that mutual conversation.

I'm off to Nellis [Air Force Base] in August to talk to the Commander of the USAF Warfare Center about how we do business together and how I put an LO [liaison officer] into his organisation and we start to do things together. We want to make sure we're focussed on

value adding. We have unique capabilities; we have unique skill sets. How do we plug those in? How do we work on mutually beneficial programs?

In conclusion, we are open for business. A word of caution—we are building it as we fly it and that's both fun but brings danger in terms of lots of RFAs, 12 IPTs already and a finite workforce, particularly in that Tactics and Training Directorate. The initial focus is on answering those RFAs, getting that Air Warfare Instructor's Course across the board to as many domains as we can in 2017 and the integrated tactics development and of course, delivering the LVC task for *Jericho*.

We are driving innovation through *Jericho Dawn* and in 2017, the *Jericho Dawn* series of exercises comes to the Warfare Centre. We will start to execute those on a regular basis and we'll start to systemically think about those and how they align with our CONOPS going forward.

We are working collaboratively with the UK and we'll expand that to the US. We maintain communications with our Canadian brethren as well and have regular visits already. But again, that word of caution that we're delivering while we're still building and so we just need to be careful.

There is an opportunity for us to leverage resources across Air Force. As I said, I don't consider us a Warfare Centre of 900 people. We're a force element group; that's okay. I consider us a Warfare Centre of 10 500 across Air Command, but if need be, I'll be a Warfare Centre of 70 000 and I'll come and ask the right people. If you want to play and help us solve problems, then that's where we'll be.

Note: Words in square brackets [] have been added to the transcript during the editing process for clarity.