INTEGRATED LOGISTICS
DESIGNING FOR SUPPORT

INTEGRATED LOGISTICS: ACROSS ALL DOMAINS
Interview with IL Director, Jim Gardener

A PILOT’S PERSPECTIVE
Experiencing the Bell 429

KEEPING THE SOLUTION COMPELLING
Opinion Piece with Gerard Foley, GM Business Development
Raytheon Australia is dedicated to providing our customer with a total solution. This means not just delivering a trusted mission system but also offering a support system as part of a cost effective, reliable and sustainable package over the life of a system.

This edition of Momentum highlights our ability to do just this. Integrated Logistics Support (ILS) is focused on maximising capability whilst reducing the customer’s total cost of ownership and has for many years been a key discriminator for our organisation. This capability draws on our tier-one prime status, ten years of local investment and our systems engineering pedigree to deliver a unique ILS toolset architecture to support our customer at the platform level.

Raytheon Australia’s Director of Integrated Logistics, Jim Gardener, further expands on the growth, criticality and importance of early engagement with ILS in the feature article of this edition. Adding an engineering perspective to the mix, Dr Terry Stevenson our Chief Technology Officer, demonstrates the role of Engineering in delivering this capability, and the relationship between the two functions necessary to provide the best possible solution for the customer. We have also featured an opinion piece from our General Manager of Business Development, Gerard Foley, who gives his perspective on how the Raytheon approach to ILS delivers a compelling solution.

Also featured in this edition is the Retention and Motivation Initiative 2 (RMI2) Program. Notably, this solution is presented as a prime example of implementing Integrated Logistics in the selection of the most effective RMI capability at the lowest total cost of ownership for our RAN customer.

In the land domain, we look to JP 2072 as an example of pairing a highly capable, proven capability with experienced partners. Lastly, we get an update on the progress and success of our Hobart Class Air Warfare Destroyer (AWD) combat system activities six years into the program.

As this edition of Momentum goes to print we have submitted our tender for Air 9000 Phase 7. We are particularly proud that our solution details the efforts of a proven team to produce mission ready helicopter aircrew.

I hope this edition provides you with an insight into Raytheon Australia’s dedication to proven processes that enable us to develop and execute superior solutions in our customer’s interests.

Regards,

Michael Ward
Managing Director, Raytheon Australia
Raytheon Australia established the functional area of Integrated Logistics in January 2011 in a move to further enhance the company’s strategy-led growth and operational-led performance. A year on, Momentum spoke with Raytheon Australia’s Director of Integrated Logistics, Jim Gardener, on the growth of the function and how the company’s Integrated Logistics Support (ILS) capability sets Raytheon Australia apart from its competitors.
Momentum: How has the Integrated Logistics function grown and developed since it was stood-up in 2011?

Jim: We have been working hard to further build upon ILS as an enterprise wide capability by reinforcing our foundations and developing frameworks for our continued growth. With this objective, we have implemented initiatives such as a company wide process governance framework for ILS, further enhancement of our ILS systems and tools, and implementation of a professional development framework for ILS personnel, all the while continuing to leverage the company’s global resources and expertise to ensure optimisation of our ILS capability. A particular focus has been channeling awareness around our function including the benefits and key discriminators that differentiate our capabilities from others in the industry.

M: What are these key differentiators that set Raytheon Australia’s Integrated Logistics capabilities apart from that of our competitors?

J: Our development, since we were established as a function, further cements and builds upon an ILS capability that stems from growth paralleling that of the company. This in itself, I’m talking about over 10 years of local investment, really positions us at the forefront of being Australian leaders in ILS. We have built a progressive ILS approach which enables
CASE STUDY: Retention Motivation Initiative 2 (RMI2)

Raytheon Australia has undertaken extensive trade studies that incorporated whole-of-life cost considerations, and assessed that an RMI solution based on the Bell 429 offers the Royal Australian Navy many benefits.

The Bell 429 is the latest aircraft in its class, with a design that complies with the latest crashworthiness standards. This helicopter provides a significant performance advantage over other helicopters in the same class combined with higher aircraft availability and significantly reduced maintenance effort and cost. The Bell 429 is the first helicopter designed with a focus on Reliability Centred Maintenance (in particular the Maintenance Steering Group-3 Process) for enhanced maintenance efficiency and safety. It requires 35% less maintenance man hours per flying hour versus other comparable aircraft.

Bell also has existing aircrew and technician training instructors, courseware and devices for the Bell 429 to ensure that Royal Australian Navy and Raytheon Australia personnel can be provided with the best possible training on the new aircraft type. When combined with Bell’s worldwide network of support facilities and infrastructure, the Bell 429 solution clearly provides the most effective capability for RMI at the lowest Total Cost of Ownership.

This helicopter with a design that complies with the latest crashworthiness standards. This helicopter provides a significant performance advantage over other helicopters in the same class combined with higher aircraft availability and significantly reduced maintenance effort and cost. The Bell 429 is the first helicopter designed with a focus on Reliability Centred Maintenance (in particular the Maintenance Steering Group-3 Process) for enhanced maintenance efficiency and safety. It requires 35% less maintenance man hours per flying hour versus other comparable aircraft.

Bell also has existing aircrew and technician training instructors, courseware and devices for the Bell 429 to ensure that Royal Australian Navy and Raytheon Australia personnel can be provided with the best possible training on the new aircraft type. When combined with Bell’s worldwide network of support facilities and infrastructure, the Bell 429 solution clearly provides the most effective capability for RMI at the lowest Total Cost of Ownership.
to optimise the support system through life by linking the transactional level maintenance and supply support data with the engineering and life cycle costing data held in our logistic engineering and analysis tools. This feedback loop is essential to ensure informed decisions on sustainment investment are based on logistics analysis data.

M: How can IL address our customer’s strategic reform program objectives?

J: The ultimate driver of the SRP that the Australian Defence Force has implemented is to reduce costs by doing things differently and then reinvesting these savings back into the Defence Force to strengthen their capabilities.

Integrated Logistics is a core contributor to this and if used effectively and engaged early, is the vital component essential to successfully implementing and optimising smart support solutions that reduce total ownership cost across the lifecycle yet maximise availability.

As one specific example, the ILS discipline of Life Cycle Costing is a defined and structured process for capturing and modelling whole-of-life costs for a system or platform. Capturing and modelling whole-of-life costs enables system and support alternatives to be compared in an objective way, to ensure the best possible capability outcome with the lowest total ownership cost. The development of Life Cycle Cost models is a core function within Raytheon Australia, and one which is being embraced by our Defence customer.

M: Why is early engagement on ILS so beneficial to our customer?

J: The importance of early engagement of Integrated Logistics in the product life cycle cannot be overstated.

Sixty to seventy percent of Total Cost of Ownership for a platform is expended during a Platform’s Operation and Support phase and, although this figure may vary moderately depending on the level of platform complexity, it is important that any decisions taken during equipment acquisition also include life cycle costing as part of the decision process.

This is where early engagement of the Integrated Logistics function by all business units and functions is particularly crucial, especially with our Business Development team. By having a BD team that
Momentum understands how we can facilitate smarter support system and sustainment solutions, Raytheon Australia can be the front runners at presenting a total solution to the customer, moving away from an approach where only a mission system solution is offered and all other considerations are only looked at after the initial acquisition. This results in a more efficient and effective capability acquisition and sustainment model for the customer.

I conducted a roadshow to our major sites in order to build this understanding around our function, the supporting organisation, our short and longer term goals and most importantly, what we can offer to both employees and the customer. It is very important that, as a company, we understand how ILS contributes to the business and growth.

It is also important for industry to truly understand the customer’s needs and aspirations for the support system. In some instances the customer focus may be on minimising total ownership cost by contracting out the entire support function. Alternatively, the customer may well require an organic capability in order to “self support” whilst deployed. In all cases the ILS methodology can be used to influence the technical solution and design the optimal support system, ensuring that the customer operational and support concepts are a key input to that process.

M: Taking the importance of early engagement on board, how does this approach then change the current acquisition and sustainment model?

J: While traditionally the equipment life cycle may have been viewed as design for support and then support the design, greater emphasis should now be placed on “designing the support system” during the acquisition phase and this is where early engagement plays its part.

Defence and industry need to work together to develop effective sustainment solutions that reduce total lifecycle costs yet ensure force preparedness and reliability. ILS is at the centre of all programs and products, and a key element for maintaining a balance amongst maintenance, supply support, operations, training support and engineering support.

The costs of operating and supporting platforms or equipment and the increasing trend towards procurement of commercial-off-the-shelf (COTS) and military-off-the-shelf (MOTS) technology will drive a need for ILS to continue to evolve to ensure reliability, sustainability and affordability.

ILS in consultation with Engineering will have a greater role in developing the overall system solution and in the identification and selection of system components. In supporting the conduct of trade studies we need to ensure selected COTS / MOTS products have been designed for support and fit into the overall Support System design.

For example, one outcome of the trade study process may be the identification of a fully COTS solution that can be made available under an
accelerated acquisition. The downside may be that the fully COTS solution would be subject to potential obsolescence issues within a limited number of years. The “sustainment model” may then require a planned technical refresh or spiral upgrade program. The earlier the engagement, the sooner the most suitable support philosophy can be selected, and the whole-of-life solution optimised.

M: What methodology does Raytheon Australia use to follow this model and thereby develop the Mission System and the Support Systems?

J: Raytheon Australia develops systems using an Integrated Product Development System (IPDS) approach which allows for concurrent development of the mission system and the support system. As Mission System development leads that of the Support System, the IPDS ensures that all support system aspects are considered and resolved during the product development cycle. In turn, the resultant system outcomes are transitioned to Support System development and subsequently the mission support phase. This approach facilitates the optimisation of the Support System solution.

Support systems and support products are developed using Raytheon Australia’s ILS methodology including tools capable of providing enhanced logistics support analysis and decisions. A company-wide tool set was established to sustain the development of support system solutions in accordance with standard procedures that also leverages from the broader Raytheon Company toolset and licensing arrangements.

CASE STUDY: Air Warfare Destroyer (AWD)

As a member of the AWD Alliance, Raytheon Australia is responsible for the design and development of both a training and a training support system. In this role, Raytheon Australia provides a complete cross-section of training services following the Defence Training Model.

The scale of this project is estimated to be in the order of 170 courses totalling 192,000 hours of training, to be analysed, designed and developed ready for delivery within a 3.5 year period. The scope of the work being conducted includes delivery of training to the crews of the first three ships, plus a 20% allowance for training of personnel over and above these three commissioning crews.

Raytheon Australia, in conjunction with AWD has developed the Defence Systems Approach to Training tool. The application of this Systems Approach to Training on the AWD program ensures traceability from requirements through to the training analysis phase to the Training Needs Analysis report, while drawing upon key logistic analysis data inputs from a common source database.

ILS support led to a reduction in labour costs during the training analysis phase enabling the AWD to achieve 30% efficiency in this phase and also the formation of dispersed teams reducing relocation/travel costs.
“Our ten years of investment in Integrated Logistics Solutions places us at the forefront of this field. We deliver solutions that last longer, require less support and achieve cost savings for the customer by driving down the cost of ownership.”

M: What would you describe as the benefits of using this methodology?

J: As I mentioned previously, the IPDS approach ensures that not only are support considerations “engineered” into the system design, but also that the support system itself is “engineered” to ensure that it will perform as required. The combination of systems engineering to ensure correct requirements definition and traceability, logistics support analysis to optimise equipment and support system design, and a systemic approach to training design is a powerful discriminator.

Raytheon Australia has a very strong and successful background in integrating complex systems, supporting a wide range of product and platforms, and providing comprehensive training services. The IPDS assists us in bringing the full scope of this expertise to satisfy any customer requirement.

M: Raytheon Australia recently attained a CMMI Maturity Level 3 accreditation (CMMI for Dev V1.3), the highest held by any Australian defence company. Can you explain exactly what this means and how CMMI for Services fits across Integrated Logistics?

J: Firstly, CMMI stands for Capability Maturity Model Integration and is essentially a model based process improvement framework to support organisational process maturation.

This model covers the areas of business management (i.e. process management in CMMI terms), project management, engineering, and support. With the successful achievement of this accreditation, we are able to demonstrate that Raytheon Australia has a suite of processes and tools that support all of our projects such as development and sustainment type projects. It is also testament to our commitment in improving and streamlining our business to ensure that the customer continues to receive the best possible engineering and support solutions. There are very few organisations in Australia at this level of maturity.

CMMI for Services is an adaptation of the original model to better reflect the needs of organisations focussed on the provision of “services” rather than delivering product. Raytheon Australia has been investigating whether this particular model will prove valuable for strengthening our ILS and sustainment practices.

Our integrated suite of processes, tools and professional development frameworks that are designed to target best practice logistics solutions are developed and are being progressively improved using the CMMI for Services model. The scope and level of ILS activities are documented through a defined process architecture which includes policy, company-wide plans, project specific documents, and a supporting array of Raytheon Australia Standard Procedures, Manuals and Templates.

M: As Director of Integrated Logistics, what are your key roles and responsibilities?

J: There are three key parts to my role and responsibilities: to build and continue to enhance the enterprise wide capability in ILS; to support
current programs, and new business opportunities. I am responsible for the governance of ILS activities across Raytheon Australia to ensure the consistent application of ILS within projects in the design, development, transition and delivery, management of support system solutions and disposal / decommissioning of systems. The consistent application of ILS is key to enhancing efficiency and effectiveness of current programs support systems and developing support system solutions on new business pursuits matched to the customer’s requirements.


Integrated Logistics Discipline Leads have been identified for each of these process areas to facilitate the sharing of expertise across Raytheon Australia and to maintain the suite of standard ILS processes, ensuring that best practices are captured, and lessons learned are incorporated into this suite of processes. These individuals are actively involved in supporting existing programs and projects, as well as the design of robust support system solutions for new business pursuits, such as JP 2072 Phase 2B and AIR 9000 Phase 7.

My role also requires ensuring we have the right people to execute our ILS capability. I take the lead on developing and maintaining a professional ILS workforce that can undertake and successfully complete the full range of ILS activities on projects, to meet the needs of our company and our customers. In support of this, ILS Development Roadmaps have been developed for each ILS discipline and are used to develop personnel in all ILS areas.

We have come a long way since our establishment as a functional area early last year, and continue to enhance our offering by ongoing development of our expertise, systems, tools and personnel. We are now at a level of maturity where we are confident to be able to say that we offer our customer best practice logistics solutions, which in turn equates to lower cost of ownership for them. This is not just an idle claim: in some of our recent bids such as AIR 9000 Ph7 during the international reviews that are conducted as standard practice our ILS brethren in the US were so impressed with the depth and level of analysis conducted by our ILS personnel that they have requested access to our methodologies for their own use in the US.

We are proud of how far we have come in the last 12 months, and will maintain our drive towards even further development and enhancements in our current and future programs, to ensure that we continue to offer the Commonwealth the optimal integrated logistics solution possible.
Terry Stevenson, Raytheon Australia’s Chief Technology Officer, is a strong advocate of the crucial relationship between Engineering and Integrated Logistics and how they support each other to facilitate the best possible solution for the customer. Terry writes for Momentum on the importance of this relationship.

The connecting piece in this relationship can be found in one of the core competencies of a Mission System Integrator — Systems Engineering.

Raytheon Australia’s Integrated Logistics capability combines systems engineering, logistics analysis and training within a single integrated process framework, leading to a more efficient and effective capability acquisition and sustainment model.

This progressive approach is a demonstration of the breadth of scope of the Mission System Integrator
(MSI) role – it is not just about engineering, MSI always applies and addresses both the Acquisition and Support Phases of a project.

Within Raytheon Australia, MSI undertakes a number of roles including specifying the Mission and Support Systems requirements and undertaking Capability Trade-offs, using techniques such as Cost as an Independent Variable (CAIV) analysis.

MSI architects the systems and defines the integration strategy. In conjunction with the customer, MSI selects the appropriate technology and through trade studies and Make/ Buy/ Reuse processes, works with the customer to select Subsystems, Products and Components. Key inputs to these processes is supportability considerations, such as reliability and maintainability (At Raytheon Australia we refer to this as being ‘designed for support’).

MSI integrates the System/ Subsystems, Products and Components, verifies System Requirements at all levels and supports validation against the user’s requirements. Maintaining and also sustaining mission and support systems, MSI provides evolutionary and technology upgrades through Life of Type before finally disposing of the system.

Further overlap between Engineering and Integrated Logistics is clear when examining other core competencies of the MSI. These include Program Management, Through-Life Support (Design of Support and Support the Design) and Contract Management.

By examining these core competencies more closely, the roles of Engineering and ILS become more evident, with Engineering noticeably taking the lead in ‘Systems Engineering’ and ILS taking the lead for ‘Through Life Support’. Some of the elements of the MSI may be eliminated in ‘Through Life Support’ but certainly not all of them.

This can be highlighted through the following scenario: Raytheon’s main objective is to find ways of solving a problem for the customer and every problem is defined by requirements. To address
requirements there will be a solution. Every solution has an architecture and every solution needs to be solved in the most cost effective way. Every solution needs to be supported through the life of the capability. Through Life Support starts on day one and goes to the end of the project and key decisions in the early part of the Acquisition Phase drive the overall Project cost. Therefore the solution must consider total cost of ownership.

The above scenario demonstrates how Engineering (requirements and architecture) in conjunction with ILS (cost effective solution, through life cost) work together to address the customer’s needs in finding a suitable solution. This relationship becomes even more apparent in response to questions of safety, reliability, maintainability, training and obsolescence. Is the system safe? Can it be repaired / maintained at a reasonable cost? Do the operators need training? Will the system become obsolete?

In order to address these questions, Engineering and ILS share ideas, tools and processes. To help facilitate this interaction even further, Engineering and ILS have created subject matter experts called discipline leads, of which Engineering has identified 12 and ILS six. A number of these discipline leads are recognised as shared resources between Engineering and ILS due to significant overlap between the functions and roles.

These discipline leads play a key role in the development of both the Mission System and the Support System. The Mission and Support Systems need to be defined as early as possible to prevent the mistaken assumption that the Mission System is Engineering and that the Support System is ILS.

Both Engineering and ILS including a number of other stakeholders (depending on the domain) are involved throughout the development of both systems, and in many cases there is joint or shared responsibility (illustrated in figure 1). In the instance of a fully off-the-shelf solution, design of the Support System may require more Engineering than design of the Mission System.

In some cases the Mission System can look like the Support System and visa versa depending on the application. For example, if the Mission is to deliver training then it is expected to see the Training Devices in the Mission System and not in the Support System (as depicted in figure 1).

The Mission System is defined first; however in defining the Mission System the Support philosophy needs to be considered and in applying this philosophy there should be iteration between the two systems. Through the design of a Mission System element, analysis could deem the support cost too expensive, which would then lead to changes in both systems. This highlights the risks of defining the Mission System without simultaneous consideration of the Support System.

The above point is of particular relevance in respect to the customer’s Strategic Reform Program, where the desired outcome is to achieve significant Whole of Capability Cost savings. In such cases it may be preferable to spend more up front on a technology that provides significant cost savings in the future and over the life of the project. This is also in keeping with Raytheon’s MSI role which, in conjunction with the customer, selects the appropriate technology.
The solution to a problem can be achieved utilising different technologies, and as a result customer engagement is required to ensure a shared understanding of the issues involved, and the best value for the customer.

The issue of technology selection is not well understood, as well as the associated implications and the resulting cost impact. In many cases the customer will specify a technology without realising the impact it comes with and vice versa. For example, the classic example of NASA’s over specification of a writing implement for use in the space environment of zero gravity, resulted in millions of dollars being spent on a pen that provided ink flow under conditions of zero gravity. A simple functional specification of ‘What’ and not ‘How’ would have resulted in a low cost graphite pencil being provided. Incidentally this is the solution the Russian Space Program developed to solve the same problem.

Additionally, the customer may want to use a specific technology for reasons we are unaware of, such as commonality with existing inventory or compatibility with other programs under development or in the pipeline.

Another contributing factor to defining both the Mission and Support Systems in advance is to ensure all bases are covered and each element of each system has an owner. This ensures solutions are developed with the right level of rigour applied and that no area is left uncovered or unsupported.

Engineering and ILS share many common threads and need to be simultaneously engaged from the beginning to ensure the best outcomes for a Project. It is essential to define both the Mission and Support Systems at the outset with opportunities for refinement along the way as the Support System can often be more complex than the Mission System.

Part of the initial development activity is the architecture; the overall or enterprise / project architecture and then the individual Mission and Support System architectures. The enterprise architecture considers the context of the overall system with the rest of the Australian Defence Force enterprise. We tend to have little visibility here and rely on the customer working with us to ensure the project is achieving the right interfacing. The Mission and Support Systems are more straightforward, but even here the Support System tends to be based on ‘soft’ requirements which make it more complex. One approach to address this is to use what is called a ‘Reference Architecture’. The Reference Architecture is based on ‘hard’ requirements from previously successful projects or a customer model. In these cases the Reference Architecture enables requirements to be allocated to ‘real’ Support System elements and also provides a check that there are no holes in the customers’ requirements base.

Overall, Raytheon Australia has a mature approach to the development of the Mission and Support Systems on complex projects. However, this can only be achieved when all stakeholders are engaged and particularly when both engineering and the ILS teams are working as one group; each taking the lead when appropriate. 

---

**Figure 1: Support System Architecture**

**Personnel (Trained)**  
**Support Organisation(s)**

**Processes**

**Information Systems**

**Techniques Data & Publications**

**Equipment (Tools, S&TE, MHE)**

**Software Development & Maintenance Test Bed**

**Integration & Verification Test Bed**

**Test Bed**

**Support System**

**Facilities & Plant**

**Training Devices (Simulators, Part Tasks)**

**Spares (Rotable, B/O)**

**Technical Data & Publications**

**Part of the Initial Development Activity**

**Overall Enterprise / Project Architecture**  
**Mission and Support System Architectures**
The symbiotic relationship between Integrated Logistics Support (ILS), Engineering and Business Development requires these disciplines to work in a co-operative environment. Each discipline benefits from the others inputs and thereby evolves an understanding of the need to both design for support and to support the design. The desires of each discipline must not only be moderated by each of the others, but work collaboratively to balance all stakeholder wishes in the final products taken to market.

General Manager of Business Development, Gerard Foley writes for Momentum giving his perspective on how the company’s approach to ILS delivers compelling solutions for customers.
As we aim to design the mission and support systems concurrently we are cognisant of a number of conflicting pressures, many of which have been referred to by the other articles in this issue of Momentum. However, a couple of key outcomes of this process significantly contribute to the attractiveness of the offer to our customer. By anecdotal evidence this article focuses on those design and support aspects which make our offerings compelling to the customer from the value for money, total cost of ownership and risk management perspectives.

Too often the cost of all disciplines in the design and support value chain in achieving the various aims of maximising safety, reliability, availability, maintainability, fitness for purpose, robustness and adaptability whilst minimising training, obsolescence and support costs, is pressure on ‘affordability’. In designing the mission and support systems, all disciplines share their knowledge to maintain the balance of capability versus affordability — so as to ensure the solution remains compelling.

This then poses the complex question of how to design a system and its commensurate support system in a manner which satisfies the customer, is within their budget and will keep our reputation and brand intact over the 30 year service life?

For our customer to make effective acquisition decisions there is a complex trade-off of cost and
risk versus capability. They desire to attain an operational capability with minimum expenditure and with maximum risk transference. By way of example, the affluent British Ministry of Defence of the last decade championed Private Finance Initiatives (PFI) where hundreds of UK Defence projects were established under PFI to transfer system performance risk to the contractor.

In a conventional PFI, a prime contractor borrows money from a third party financier to purchase and subsequently supply the entire system to the user. Total System Performance Responsibility is owned by the contractor and thereby the contractor accepts all risk in the provision of the support system through life of type. Under such an approach the user might pay an annual fee for service or an hourly rate depending on the system provided.

After 15 formative years in the UK and an overabundance of failed and massively expensive programs, the contractor had become very adept at making the PFI work for the benefit of its shareholders far more than for the benefit of the customer. Not surprisingly, a UK Parliamentary Treasury Select Committee recently found that higher borrowing costs since the GFC mean that PFI was now an ‘extremely inefficient’ method of financing projects. Australia is unlikely to use the PFI process for other than infrastructure projects into the foreseeable future. Risk can be transferred to the contractor outside the construct of a PFI, however it is clear that the path to success through-life-support comes through customer-contractor collaboration.

A recent example of where the Australian customer has demonstrated contractor risk transference can be found through an analysis of the Royal Australian Navy’s Retention and Motivation Initiative #2 (RMI2) contract award to Raytheon Australia in 2011. In 2006 we worked closely with the RAN to shape an innovative opportunity which allowed for the redirection of operating costs to the lease of a capability which provided the customer with a much needed service — the provision of 1,500 twin engine helicopter hours to retain and motivate Navy pilots whilst they await postings to operational billets. Through open competitions we were awarded both RMI and subsequently RM12, which allowed Raytheon to update the original solution with new Bell 429 aircraft which are safer, have longer endurance and better meet the tasking requirements of the ADF. In RM12 Raytheon owns the aircraft and we lease the customer these assets for the duration of the contract. The Total System Performance Responsibility sits with Raytheon — and the customer still has the outcome they desire through the provision of aircraft as a service. Through the measurement of KPI’s, the customer manages contractor performance to guarantee delivery of the contracted services.

So why did RMI2 come about and why did we win? Firstly, risk transfer to the contractor through asset ownership and performance measurement allows the customer to attain operational equipment and de-risk their projects using sustainment funds. Secondly, Raytheon provided a solution to RMI2 which offered a safe, compliant and capable solution which was compelling, supportable and affordable.

One of the key elements in RMI2 can be extracted from the benefits of a system which was designed for support and which supports the design. Bell Helicopter designed the Bell 429 mission system based on a 70 year history of rotorcraft development with the knowledge that the market desired a light, fast, twin engine helicopter which met the latest arduous safety standards. Whilst designing the mission system (the helicopter) Bell concurrently invested in the design of the support system, covering maintenance, simulation, spares provisioning, upgrades and ancillaries. Both mission and support system design teams collaborated with business development who provided the consumer market requirements to create a system which met
the needs of the user, the manufacturer and the regulators. The Bell 429, first certified in 2009, represents the output of constructive co-operation between Integrated Logistics Support, Engineering and Business Development.

Our experience with a previous aircraft in the original RMI clearly demonstrated that a mission system designed 30 years ago was not necessarily designed for support. Increasing cost pressures within a fixed price contract regime and commensurate pressures on aircraft availability led us to a comprehensive trade study to find a more affordable and less risky solution. It was Bell’s ability to supply and sustain their platforms which set them apart from the other contender aircraft and was a significant influence in the decision to team with Bell Helicopter for the much bigger Air 9000 Phase 7 — Helicopter Aircrew Training System (HATS). When signing a contract for 10 to 25 years to supply and support a complex system like a modern twin engine helicopter fleet, you need to know that you have the Integrated Logistics and Engineering elements of your solution correct. Failure to do so can be catastrophic on your brand, your reputation and your growth ambitions.

Having established that the requirements of the customer must be an integral part of the mission and support system’s designs — how do we design mission and support systems within the customer budget?

In an intriguing paradox we are rarely told what the Defence customer budget is. In the case of RMI2 we were advised of a not-to-exceed (NTE) number which drove many of our competitors to no bid. This was not because of the raw ‘cost’ of their platforms — but because when they were asked to provide the through life support estimates under a fixed price arrangement, they realised the performance risk issues and were unable to, or unwilling to, get within the NTE cap. Raytheon’s ability to provide a fixed price offer in RMI2 was informed by the knowledge that our team had designed the mission and support systems accurately and that our risk profile was acceptable. In a project like HATS, the customer budget is stipulated as a range — eg. “$500M to $1.5B, towards the middle of the band”.

So what makes a solution compelling when the budget is not specified?

When the customer signs a contract they have negotiated in good faith and they trust that the contractor also signs the contract with the full expectation of delivery of the specified mission and support system on time and within budget. It is Raytheon’s processes, people, tools, relationships, solutions and performance which set us apart in offer evaluations. When the customer has the confidence that the contractor can and will deliver — the overwhelming metric to be the lowest cost bid is diluted, and more significant value for money considerations come into play.

In our design of a mission system we design for support. In our design of the support system we support the design. We ask the customer what system performance outcomes are critical to mission success and we inject customer feedback into the design of all systems. With customer feedback and multi-disciplinary collaboration we are able to design a system the customer wants to buy and can afford.

When you are the Trusted Partner of your customer they will move risk allocations around in an appropriate fashion to ensure they are in contract with a partner who will give them what they need. Only by performing on existing contracts, listening to what the customer says and assisting the customer to balance the capability versus affordability equation, can we keep Raytheon solutions compelling.
Raytheon Australia has delivered three brand new Bell 429 helicopters for the continuation of the RAN Retention and Motivation Initiative. Momentum sat down with Luke Herden, program Lead Pilot, to discuss his impressions of the new helicopter.
The Rentention and Motivation Initiative

For more than a decade, Raytheon Australia has established and strengthened its pedigree in supporting rotary wing training for the Royal Australian Navy (RAN). Now under the Retention and Motivation Initiative (RMI2) Raytheon Australia is contracted to provide three Bell 429 helicopters to the Navy for an initial four year period commencing in April 2012. Since June 2007, the original RMI program has delivered over 6,000 flight hours and qualified over 60 aircrew. The upcoming delivery of these helicopters under the new RMI 2 contract represents the next exciting milestone for the program, demonstrating the company’s pedigree in providing the RAN with fully supported, safe, reliable and flexible helicopter platforms that provide appropriate flying capability relevant to the customer’s requirements.

The Bell 429 is the most modern and cost effective light twin helicopter on the market today offering a substantial capability enhancement for rotary wing flying training and light utility support. Built to the latest crashworthiness standards, and with outstanding performance, the Bell 429 provides the safest possible environment for Naval aviators to operate and develop their aircrew skills.
Raytheon Australia’s dedicated Nowra team of more than 70 are all committed to the success of this program and the through life support cycle of these three aircraft. The company delivers a platform that is ‘Mission Ready’ to support the needs of our customer in achieving their required flying outcomes.

View from the pilot’s seat

**Momentum:** As Raytheon Australia’s Lead Pilot on the Retention and Motivation Initiative, it seems you’ve been busy. What is the latest with the Bell 429s?

**Luke Herden:** The transition team, which I am a part of, has been very busy of late. We have returned from Piney Flats, Tennessee after completing a comprehensive series of flight and ground inspections on the three Bell 429s. As we expected, in all cases the aircraft was responsive and extremely predictable. The 429 does everything in a very measured and predictable way whereas, ‘other’ helicopters require a lot of dexterity just to make them behave. This machine just does what it’s told and it feels really safe doing it.

Having passed all tests with flying colours, the aircraft are now being delivered to Australia by airfreight. The lead aircraft, which was recently reassembled at Bankstown, commenced the customer acceptance test program on 15 March at our Nowra facility.

**M:** Tell us a bit about your initial response when seeing our Bell 429 for the first time?

**L:** Anyone who gets to see this helicopter notes that it is a big aircraft. Fully kitted up, they have a big external hoist, a cargo hook, and floats fitted. Our very own David Cunningham, Raytheon Australia’s RMI Program Director, picked the paint for the 429s -semi-gloss grey. It’s a stunning looking aircraft on the ramp.

**M:** What is it like strapping in to this new aircraft?

**L:** From the moment you open the door and climb in, the experience is already quite different to that of most other helicopters. You can actually hop in without having to contort yourself into position as the seat has a three way adjustment, is sizable and comfortable. Most noticeably, this is the first helicopter I’ve ever flown without ‘stuff’ overhead.

Starting the engines, following the standard checks of a few switches and buttons is quite simple, turn on the battery, open up a fuel valve and hit the starter, and it starts. I should mention that when you turn the battery on, the clever avionics conduct an Initial Built-In Test (IBIT). This means that the aircraft spends a few seconds internally checking all the systems for you — 10 to 15 seconds instead of 15 minutes. Once the first engine is started, generator on, let it charge the battery for a couple of seconds and start the other. Generator two on, two more checks and roll both throttles up, nearly
ready to go fly, one toggle switch to check the rotor. Then you are ready to get airborne.

The efficiency of the start means that in two to three minutes the aircraft can be airborne, without using mission fuel or wasting too much time sitting on the ground.

M: We have heard this aircraft coined ‘a pilot’s aircraft’ is there any truth to that?

L: It’s been built by Bell in consultation with helicopter operators, and it shows. After about 10 hours in training with the Bell Training Academy in Texas I was almost convinced. Our friends at Bell Helicopter Piney Flats had done a superb job of finishing our aircraft, and were rightly proud of the result, but it was time to see if their quiet confidence was justified when it came to flight tests.

We check out the aircraft’s performance against flight manual data, test some handling including; steep turns, wingovers and autorotation, and conduct some confined area approaches and slope landings. With the aircraft at full noise, it sits there, solid and confidence inspiring, everything operates as advertised.

On top of this, the helicopter can also fly itself. Now, I have always been of the opinion that helicopter autopilots may be a great idea in theory; however it’s a very difficult job altogether to make an inherently unstable machine stable. The Bell 429 Autopilot places this helicopter in another league of machines in this class. Quite simply, once clear off the ground the aircraft can be flown basically ‘hands off.’ With one push of a button and then without needing to touch a thing, the aircraft flew us down to the runway centreline at 50 feet.

The Bell 429 is very clever in a lot of subtle ways. It truly is a pilot’s aircraft, but also great for the customer’s aircrew to be confident, efficient and most importantly safe. M
On 20 February 2012, Raytheon Australia submitted a bid to prime Joint Project (JP) 2072 Phase 2B, teaming with Raytheon Network Centric Systems and General Dynamics C4 Systems.

As part of the JP 2072 Phase 2B program, the Australian Army will transition from the existing Parakeet trunk communications to a new Battlespace Communications System including enhanced trunking and switching infrastructure.

The great advantage of the Raytheon offering is not simply that it is compliant with the Commonwealth’s requirements but that it offers the lowest possible risk as it mature and based on products that are fielded at scale with the United States.

The Raytheon Australia team’s solution is framed around the Warfighter Information Network — Tactical (WIN-T) system, a viable Military Off-The-Shelf (MOTS) capability that is currently fielded and in service with the US Army. The highly mature system has the form and size requirements sought by the Australian Army and has a publicly declared growth path. This ensures future stability as the US Government has committed to a continued investment in WIN-T.

A proven solution is vital for this phase of the project, as the Commonwealth’s acquisition will not only help move Army from an analogue to a digital force but will also be pivotal for key Army programs in the years ahead.

“The greatest challenge that the Army faces will be the transition from an analogue, point to-point, static, circuit-based, packet-switched communication system at the tactical level,” said Raytheon Australia Director for C4ISR, Paul Straughair.

“Army’s move to a digital, multi-point, on-the-move, meshed IP network will potentially enable increased amounts of information to be accessible to lower levels of command. This will have significant impacts within the Army, including on the way it organises units. It will also affect the way Army trains, prepares for and conducts operations.”

The Raytheon Australia team’s low-risk, interoperable solution is bolstered by the company’s local workforce and proven performance in delivering mission systems integration and mission support for complex programs in Australia. As a trusted, in country prime with a
large domestic capability, Raytheon Australia has the highest calibre of experienced engineers to devote to the project coupled with capable ILS experts and the valuable resource which has been built up in the Raytheon Support Facility in Queensland.

The company’s pedigree in this domain is demonstrated by the recent milestone to complete contracted delivery of the Enhanced Position Locating Reporting System (EPLRS) tactical data radios to the Commonwealth JP 2072 Phase 1 Project Office.

In addition to Raytheon Australia’s local strengths, Raytheon Network Centric Systems (NCS) provides expertise in military communications to the US Department of Defense. Headquartered in the US, NCS develops and produces mission solutions for networking, command and control and battlespace awareness.

The team is further strengthened by partner General Dynamics C4 Systems, which has vital experience as the prime contractor for the WIN-T system currently fielded with the US.

By pairing a highly capable, proven capability with experienced partners, the Raytheon Australia team is well positioned to deliver a seamless, low-risk solution for JP 2072 Phase 2B.
PROGRESS ON THE AWD COMBAT SYSTEM

The Air Warfare Destroyer (AWD) project to deliver three world-class warships and their support system to the Royal Australian Navy is now six years into a 15 year program with achievements against all major combat system milestones to date.

The Hobart Class Combat System being developed will make the AWDs the most capable warships ever operated by the Royal Australian Navy. The first two ship-sets of Aegis equipment have successfully completed factory acceptance testing by the US Navy and the first elements of Aegis equipment have already arrived in Adelaide. Integration of the sub-systems with the core Aegis weapon system is progressing well.

During 2011 there were substantive Combat System equipment deliveries to the AWD Systems Centre in Adelaide and the Raytheon facility in Sydney, including the Vertical Launch System modules for HMAS Hobart and three shipsets each of Mk 25 Typhoon guns and Mk 45 gun mounts.

System Architecture

According to AWD Alliance Combat Systems Director Dave Hanley, work on the AWD combat system architecture was started particularly early in the life of the program because of the far-reaching effect on the overall execution of a warship project.

“The first and most critical step was the development of the combat system architecture — or the organisation of the system, its components, their relationships to each other and the environment, and, most importantly, the principles governing its design and evolution,” Mr Hanley said.

This resulted in the early selection of Aegis Weapon System as the backbone of the AWD Combat System to meet the operational requirements, with the Australian Tactical Interface (ATI) being a strategically important component.

Australian Tactical Interface

“The key decision was made early in the program to employ an Australian Tactical Interface within the Combat System design to provide the interface between the AWD Aegis Weapon System and the AWD’s non-Aegis sensors and effectors, that is those sensors and weapons not previously integrated into the US Navy’s Aegis Weapon System,” Mr Hanley said.

“Ultimately it allows the Royal Australian Navy to operate the Hobart Class Combat System as a coherent and unified system utilising the full complement of available sensors and effectors — delivering a true multi-mission capable combatant.”

The function of the Australian Tactical Interface is to interface Australian selected equipment to the core Aegis combat management system. The relevant Australian selected equipment includes navigation radar; under-sea warfare systems; electronic warfare systems; very short-range surface defence, electro-optical surveillance, and infrared search and track system.

The ATI Subsystem is primarily a software based system with the primary hardware components...
comprising six multi-function Consoles, Typhoon Gun Consoles and two electronic cabinets.

The Norwegian company, Kongsberg Defence and Aerospace (Kongsberg) is supporting Raytheon Australia in the delivery of this key component of the combat system. The US Navy and Lockheed Martin are also closely involved, noting the ATI’s key interface to Aegis.

Raytheon Australia is developing the electronic warfare interface which is the remaining component of the ATI system, comprising approximately 35,000 lines of code, of the near one million lines of code of the broader system.

The ATI provides considerable benefits to the Royal Australian Navy, the AWD project and the Defence Materiel Organisation, including increased mission flexibility for the combat system by allowing configuration in the ship’s command centre to be changed to suit the roles/mission of the ship; and support for future growth options for Australian technologies such as the Australian Electronic Warfare technology roadmap.

In addition, the ATI software design has allowed all human interfaces to have the same look and feel across all weapons and sensors.

This is a great national capability which gives the Navy the ability to change and modify the sub-systems in Australia if required without having to go back to the original equipment manufacturers overseas.

The ATI development work is well progressed and due for completion this year. Final integration of the complete ATI will occur later in 2012 at the Raytheon Australia Land Based Integration Facility in Sydney Australia. Already the full suite of Ship 1 ATI consoles and equipment have been assembled and set to work in Sydney.
Raytheon Australia Avionics Business Unit wins international Management Achievement Award for Defence and Aerospace

Raytheon Australia was recently awarded the Management Achievement Award for Defence and Aerospace in the Asia Pacific region by the Asia Pacific Federation of Project Management (APFPM).

As the winner of the Australian Institute of Project Management (AIPM) Queensland and National Defence and Aerospace Awards, AvBU was automatically nominated to the APFPM awards in Hong Kong on March 2012.

APFPM is a network of independent national project management associations across the Asia Pacific region. It acts as a facilitator bringing together disparate associations to help promote and develop Project Management locally and regionally. AvBU out-classed many other international projects to win this prestigious award.

From 2003 until withdrawal of the F-111 aircraft from service Raytheon Australia was responsible for providing the maintenance, engineering and logistical support for all of the aircraft’s avionics instruments, including radars and digital flight computers. The outstanding success of the project can be measured in improvements made to F-111 avionics availability, platform sustainability, and innovation in project management that generated savings for Raytheon Australia’s Defence customer of approximately $20 million.

Raytheon at the Pacific 2012 International Maritime Exposition

Raytheon successfully showcased its proven naval systems at the Pacific 2012 International Maritime Exposition in Sydney’s Darling Harbour from 31 January to 3 February.

Pacific 2012 provided an opportunity for Raytheon to further strengthen its reputation as a trusted partner to its defence customers and to demonstrate globally proven solutions particularly within Mission Systems Integration, Logistics Support and Weapons Systems & Sensors.

Raytheon Australia’s Managing Director, Michael Ward and Phantom Media’s ADBR publisher, Gerard Frawley marked the occasion with the launch of the inaugural Australian Defence Business Review (ADBR) iPad. The ADBR app is a first in defence media publishing and Raytheon took the opportunity to showcase its capabilities in the maritime environment with a number of features within the iPad edition, including an interactive 3D model of the Royal Australian Navy’s Bell 429 Retention and Motivation Initiative helicopter.

Royal Australian Navy visit to Through Life Support (TLSF) Facility at Macquarie Park

Royal Australian Navy groups recently visited the AWD combat system through life support facility (TLSF) at Macquarie Park, Sydney. In February a group of naval engineers and technicians were provided with an update on the project status and considerations involved in the combat system and topside design by CMDR Danny Dunward and LEUT Pete Shirley. The group was also given the opportunity to see the facility complete with Australian Tactical Interface consoles.

Following on from this visit, the Head of Navy Engineering, Rear Admiral Uzzell, accompanied by senior Royal Australian Navy officers, toured the Macquarie Park TLSF in late March. They were briefed by Wayne Smith, Director Sydney AWD Alliance, Jake Jacobsen, TLSF and Australian Tactical Interface (ATI) Project Manager, and Alastair Bailey, TLSF & ATI Engineering Manager on the current AWD work scope underway in Sydney, the Combat System Architecture and TLSF execution. The group also got a firsthand demonstration of the TLSF systems with a focus on the ATI system.

RTSC leaders experience Raytheon Australia’s aerospace capabilities

John Harris, President of Raytheon Technical Services Company (RTSC), and other members of the RTSC leadership team, toured multiple Raytheon Australia sites during a recent visit to Australia. Highlights included a stop in Amberley for briefings on the current and future capabilities of the Raytheon Support Facility (RSF) and Raytheon Australia’s Australian Super Hornet Training Support Services (ASHTSS) program. Tours were conducted of the RSF avionics workshop and the Raytheon ASHTSS F/A-18F maintenance trainers/classrooms. In addition the group experienced firsthand the impressive Super Hornet flight Simulator. The guests then visited Nowra, in order to gain a better understanding of Australian aerospace operations conducted in support of the Australian Defence Force at the facility. During their visit, the RTSC team witnessed the considerable capabilities of the Bell 429.

Image: (L-R) Paul Hales, Alastair Bailey, Jake Jacobsen, LCDR Smith, CAPT Nash, RADM Uzzell, CDRE Tiffen, CMDR Jose, CAPT Casboult, Wayne Smith, CPO Young, and CAPT Masters.

RTSC leaders experience Raytheon Australia’s aerospace capabilities

John Harris, President of Raytheon Technical Services Company (RTSC), and other members of the RTSC leadership team, toured multiple Raytheon Australia sites during a recent visit to Australia. Highlights included a stop in Amberley for briefings on the current and future capabilities of the Raytheon Support Facility (RSF) and Raytheon Australia’s Australian Super Hornet Training Support Services (ASHTSS) program. Tours were conducted of the RSF avionics workshop and the Raytheon ASHTSS F/A-18F maintenance trainers/classrooms. In addition the group experienced firsthand the impressive Super Hornet flight Simulator. The guests then visited Nowra, in order to gain a better understanding of Australian aerospace operations conducted in support of the Australian Defence Force at the facility. During their visit, the RTSC team witnessed the considerable capabilities of the Bell 429.

Image: (L-R) Paul Hales, Alastair Bailey, Jake Jacobsen, LCDR Smith, CAPT Nash, RADM Uzzell, CDRE Tiffen, CMDR Jose, CAPT Casboult, Wayne Smith, CPO Young, and CAPT Masters.
Aerospace team receives ASHTSS contract extension

The first extension for the Australian Super Hornet Training Support Services (ASHTSS) contract was recently awarded after the inaugural Annual Performance Review. The ASHTSS contract comprises an initial three year period with annual rolling wave contract extensions applicable up to a maximum of ten years. The first Rolling Wave extension to the ASHTSS Contract now extends the contract period to 1 August 2014.

Hornet Aircrew Training System takes pole position at Australian F1GP

During the 2012 Australian Formula One Grand Prix held in Albert Park Melbourne, spectators were treated to an exciting flight handling display by a RAAF F/A-18 Hornet from No. 3SQN, based at RAAF Williamtown. The sequence of complex low level manoeuvres was performed with the added challenge of the Melbourne CBD skyline just 3 kilometres to the north of the circuit. Prior to the flight demo, the display pilot had the opportunity to practice the handling display at the Hornet Aircrew Training System (HACTS), maintained by Raytheon Australia at RAAF Williamtown. The HACTS team developed a customised visual database for the F/A-18 Simulator and with aerial imagery, photo enhancement and 3D modelling software, were able to create a representative cityscape with accurate detail local to Albert Park. The visual database provided realistic immersion in the virtual space to rehearse timings and adjust the handling display to maintain a safe clearance from the nearby multi-story apartments and office blocks.

Work to start on third Air Warfare Destroyer

The Air Warfare Destroyer (AWD) Alliance confirmed their decision to reallocate block construction work on the third Air Warfare Destroyer. With labour soon to commence on all three ships for the Royal Australian Navy (RAN), the AWD project is well underway at four shipyards with all Australian sites fully operational and at their peak in the current block fabrication phase.

Testing of the Hobart Class combat systems for the three ships is progressing well and procurement for each element of the combat system is proceeding ahead of the project schedule. Consolidation of the first ship, HMAS Hobart, will be underway later this year and will be marked by the first keel-laying ceremony in Adelaide. Work will continue throughout the year on Ship 2, HMAS Brisbane, and block construction for Ship 3, HMAS Sydney will also commence.

The AWDs will provide the Navy with a significant increase in defence capabilities, from area air-defence and escort duties, right through to peacetime national tasking and diplomatic missions.

Integrated Solutions: Joint Project 2072 Ph 1 Team Completes Early Delivery of Radios

In a ceremony in Brisbane on 8 March, representatives from the Defence Materiel Organisation (DMO) and Raytheon Australia marked the January 2012 delivery completion of Enhanced Position Locating Reporting System tactical data radios to the JP 2072 Project Office.

The DMO’s newly appointed Communications System Program Office Director Andrew Schmidt, along with Raytheon Australia’s Project Director, Land and C3 Programs, Scott McRae recognised this significant milestone under Phase 1 of the joint project, which was completed three months ahead of the contract schedule. The delivery included over 1,700 full size and wearable radios and over 7,000 ancillary items. Although the milestone marked the completion of the contracted delivery, Raytheon Australia will continue to work with the JP 2072 Project Office throughout the life of the program.

AWD Radios Subcontract: Critical Design Review

The Air Warfare Destroyer (AWD) Communications and Information Systems (CIS) Integrated Project Team (IPT) completed a critical design review with Rohde & Schwarz in Sydney, over a two day period in late February. Rohde & Schwarz are supplying the radio product group to the AWD, comprising of HF, VHF and UHF radio communication systems. Two reviews were completed, the first on the Mission System and the second on the Radios Integration set, which will be delivered in the third quarter of 2012 for use in the CIS integration facility at Techport.
Industry Development Unit completes fifth major customer Program Management Review

On 14 March, the Raytheon Industry Development Unit (RTN IDU) successfully completed the program’s fifth major customer Program Management Review. Since September 2009, with the support of the IDU, Raytheon’s US based business units have placed 34 contracts with Australian companies, to a value exceeding $A190 million for goods and services. Australian companies are now well integrated into Raytheon’s Supply Chain for programs as complex and diverse as Patriot Air and Missile Defence System, Radar Warning Receivers for the FA-18, emergency services communications and biometrics products.

Companies registering with the IDU have now grown to 242, of which there are 76 companies actively involved in marketing, bidding or contracts with US programs.

Raytheon Australia conducts Collins Combat System Familiarisation Workshop

During the week of the 6-9 March, six engineers from the Collins Submarine Program attended a Combat System Familiarisation Workshop conducted by Raytheon Australia Collins Support staff at HMAS Stirling in WA. Three days of intensive theoretical instruction in Combat System Architecture, Navigation, SONAR and Tactical/TMA theory was mixed with practical applications and demonstrations of integration techniques. The final day culminated in an operational scenario using ship-fit equipment in the Combat System Support Facility (CSSF) involving defending four oil rigs from attacking warships. This provided a fantastic opportunity for the students to assimilate their knowledge with a Command Team structure utilising visual fixing, SONAR, Track Management, localisation and engagement procedures.

Raytheon Australia becomes first Australian Defence Company to achieve CMMI Maturity level 3 — CMMI for Dev V1.3

Highlighting the robust processes which underpin the company’s capabilities, Raytheon Australia has become the first company in the Australian defence industry to be recognised for its achievement of Capability Maturity Model Integration (CMMI) maturity level 3 across the breadth of its organisation. CMMI is a process improvement framework developed by the Software Engineering Institute of the Carnegie Mellon University. The evaluation confirmed that Raytheon Australia has sufficiently robust and repeatable processes to demonstrate a world-class capability in systems engineering, program management and integrated logistics as well as contract and subcontract management.

Raytheon Australia recognised as an AIPM Project Managed Organisation

Raytheon Australia was recently accredited as a Project Managed Organisation (PMO) by the Australian Institute of Project Management (AIPM). AIPM operates the assessment-based accreditation program to recognise organisations which have embarked on a process to continually improve their project management capabilities on an organisational-wide basis.

Michael Ward was presented a plaque from senior AIPM members and the company was commended for adhering to the highest standards of professionalism in project management.

BD600 Series: Raytheon Australia Invests in People & Growth

As part of Raytheon Australia’s continued investment in people and business growth, the company conducted BD600 capture management training for employees who are actively involved in business capture and growth. The training focused on developing capabilities in competitive intelligence, win strategies, capture management and structuring deals to win. Twenty-three Raytheon Australia employees completed the training this year, which included engagement in active case studies to put theory into practice.
Momentum talks with Raytheon Australia’s newly appointed Strategy Executive, Michael Strickland. With a diverse financial background, Michael talks about the unique path that lead to his current role.

Momentum: You’ve taken over the role of Strategy Executive (SE), previously filled by John Fry whom Momentum interviewed at the beginning of last year. In your opinion, where does this role fit in the organisation?

Michael Strickland: While still quite new to the position, I see one of my key responsibilities in the role is to work closely with Michael Ward and other members of our Leadership Team (LT) in shaping and developing Raytheon Australia’s business strategy for 2012 and beyond. This strategy forms the basis of a presentation at the Company’s Strategic Dialogues to the Chairman and CEO of Raytheon Company, Bill Swanson, and ultimately drives the application of Raytheon Australia resources to current and new business pursuits.

Other responsibilities of the role that I perform as part of our core business include: preparation of Corporate reports, including monthly Operations Reports for US Business Units, acting as the Site Executive for our Brindabella Business Park site, coordinating and attending LT Meetings, and assisting to prepare the company’s quarterly Balanced Score Card.

However, in my opinion, one of the greatest benefits of being the SE is the opportunity to work closely with Raytheon Australia’s LT, giving me access to a diverse range of experience and personalities. Also, the visibility one gets into the workings of the company from being an associate member of the Raytheon Australia LT is obviously something not generally available.

M: Tell us about your previous work before you started the Strategy Executive rotation.

MS: I have a bit of a diverse background; starting my working career in a Chartered Accounting (CA) firm, I spent five years in a business services role which gave me a great grounding in general accounting knowledge and the CA qualification. I then spent the next five to six years working in the hotel accommodation industry as a Financial Controller. In mid 2003 my wife and I decided to move to Canberra to start a family. That move necessitated a switch of industries for me and I ended up joining what was formerly known as the Federal Department of Finance & Administration, as a Manager in the Department’s CFO Group. That role gave me great insight into the workings of a large federal department and my first introduction to the Public Service here in Canberra.

In December 2004, I joined Raytheon Australia as the Corporate Controller where I spent three years responsible for Raytheon Australia’s corporate finance and shared services teams. My next role moved me down to Adelaide in January 2008 as the Financial Controller on the Air Warfare Destroyer program. While this role kept me aligned to the Finance function it gave me greater exposure to Operations and provided me with the opportunity to work on the company’s largest project. In addition, during my time on AWD I completed an Executive MBA through the Australian Graduate School of Management.

M: Prior to this role, you were in a BD related position, what did you do there and are you still involved in any of the projects now?

MS: After completing my three year stint on AWD I returned to Canberra at the start of 2011 to take on a newly created finance role as Finance Manager, Business Growth & Development. This role gave me my first real opportunity to work with the Business Development and Capture organisation within Raytheon Australia. This role gave me excellent insight into Raytheon’s processes from Gate 0 to Gate 4 and a much better appreciation for the level of effort and time commitment that is involved in the capture process. In that role I was able to see first hand Raytheon’s commitment to Customer relationships and how they help to shape future opportunities for the company.

M: What do you see are Raytheon’s key strengths in 2012 and beyond?

MS: The future looks solid for 2012 and beyond on the back of Raytheon Australia’s key strengths which in my opinion include: good program execution as evidenced by our program scorecards, an excellent reputation that we have built with our Customer over the last 10+ years, a clear strategy, strong leadership, and most importantly the skills of our people which I appreciate more every year that I spend with Raytheon Australia.
Raytheon Australia has a proven team of trusted partners to enable the ADF’s future aviators. Together, we offer a safe, certified and off-the-shelf solution to match training requirements and produce mission ready helicopter aircrew.