



Show 6

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JOHN PATTERSON: Welcome to the final addition of this special Paris Airshow Dual Band podcast series. I'm John Patterson.

ANNE MARIE SQUEO: And I'm Anne Marie Squeo. On today's show we will talk space with Jon Jones, cyber security with Steve Hawkins, and we will get the latest on the company's Smart Display technology.

ANNE MARIE SQUEO: We are joined now by Jon Jones, President of Raytheon Space and Airborne Systems. Welcome Jon.

Jon Jones interview begins at 00:48

JOHN JONES: Thank you.

ANNE MARIE SQUEO: One of the things that we wanted to talk to you today about is ISR and specifically all of the conversations that have been going on with Secretary Gates in terms of the importance of this. How is SAS positioned to take advantage of that?

JON JONES: Very well I think. Secretary Gates' announcement of increased emphasis on intelligent, surveillance and reconnaissance fits very well with our global ISR solutions. We offer systems that fulfil a variety of traditional military mission requirements as well as growing needs for port and border security, environmental zone surveillance, and national resource protection. With many new aircraft platforms potentially being cancelled or put on hold Raytheon offers scalable radar technology that can be retrofitted into existing strike platforms like F16 and FNA18. We think we are well positioned to pursue this market and will be aggressively doing so.

ANNE MARIE SQUEO: At last year's Farnborough Airshow your business talked a lot about RACR, where it was introduced. Where are you now with that technology?

JON JONES: RACR is doing great. We just reached a significant production rating with this milestone and have completed system integration in the laboratory. RACR equips today's domestic and international air forces with the latest

technology upgrading sensor capabilities without an expensive aircraft platform update.

JOHN PATTERSON: Jon, you've mentioned scalability a few times. How important is that?

JON JONES: Scalability is extremely important; it's what allows us to use the same basic technology, the same basic components on virtually any aircraft. By doing that we get the benefits of common production lines, common test equipment, common software, common support systems, and it allows us to really get very high performance radars into existing aircrafts in a way that makes it very affordable to the customer, both in initial purchase and in lifecycle support.

ANNE MARIE SQUEO: Moving onto a different subject, space is obviously something that is getting discussed a lot lately. How do you see the future of global space programs and what do you see as the operational drivers there?

JON JONES: One of the big things we are seeing today and something that Raytheon is responding to is the military's need to deploy space assets much more rapidly and meet urgent tactical needs. We've built several payloads that will set into this responsive space framework including our Mini-SAR and ARTEMIS payloads which were both built in less than 18 months. In fact those payloads have become a template for a modular space payload design we recently introduced on as a responder. Raytheon offers two lines of responder payloads, electro-optical based on ARTEMIS and RF based on the mini-SAR system. I don't think we will ever fully replace the need for large complex satellites, but I do think that the responder type of mission-ready, rapidly deployable space payloads can play a key role in future space operations by augmenting existing space capabilities and using new space technologies into the current space architecture.

JOHN PATTERSON: Jon, in terms of sensing it would seem our ability to see things from the sky has improved exponentially, in your view how far have we come and what does the future look like?

JON JONES: Well I think you're right John, we have come a long way and there is a very interesting future. There are new things like our active EO sensors system that we call SALTY that brings new capability in airborne sensors, brings a 3D capability and the ability for pilots and other information users to see critical things through trees, and camouflage, and other types of deception. Capabilities such as that will allow our forces to bring a new level of targeting certainty and safety to some of the important missions they have to do.

JOHN PATTERSON: We have been talking with Jon Jones, president of Raytheon Space and Airborne Systems. Thank you Jon.

Tom Hawkins interview begins at 05:14

JOHN PATTERSON: We're back on this special Paris Airshow edition of Dual Band and I'm joined by Tom Hawkins, Director of Systems Integration and Engineering for Raytheon's Technical Services Company. Tom, welcome to the program. We are

talking about Raytheon's Smart Display technology. Can you tell us how Raytheon is modernizing combat aircraft instrumentation?

TOM HAWKINS: Well thank you for having me. Basically what we are doing is we pull out old technology and replace it what we are calling a Smart Display and this is essentially a piece of glass that has behind it processing smarts that allow us to replicate the current capabilities within the old display. We removed and then add new capabilities that provide enhanced situational awareness for the pilots.

JOHN PATTERSON: Could you amplify that a little bit Tom and tell us what these upgrades enable pilots to do?

TOM HAWKINS: Well basically it provides a moving map and indicators where the pilot is, where friendly forces are, and basically let's them better understand the operational picture that surrounds them.

JOHN PATTERSON: Is this affordable, I mean do you have to completely modify the aircraft?

TOM HAWKINS: No, the approach that we've taken is specifically to not have to modify the aircraft. There is very little intrusion into the aircraft itself because the Smart Display is essentially from a processing standpoint self contained. So it can interface to other aspects of the aircraft and take advantage of those, but it is essentially nonintrusive and can be upgraded quite easily.

JOHN PATTERSON: How about the pilots themselves, what are they saying about this?

TOM HAWKINS: We are getting very good reaction from the pilots that have used this to date. Indications are greatly enhancing their ability to see what's going on around them in the battlefield.

JOHN PATTERSON: It's hard to predict the future of course, but as you survey the marketplace how does it look? Do you think there is a lot of call for this?

TOM HAWKINS: Well I think that since what we are finding is that many, many aircraft are continuing their life well beyond what was originally intended and particularly with the economic situation a lot of new major program starts for aircraft are being delayed or cancelled we are finding that more and more aircraft need this kind of upgrade, so I think the market is very positive.

JOHN PATTERSON: Tom Hawkins, Director of Systems Integration and Engineering for RTSC, thanks so much for joining us today on Dual Band.

TOM HAWKINS: Thank you for having me.

Steve Hawkins interview begins at 08:11

ANNE MARIE SQUEO: I'm joined now by Steve Hawkins, Vice President of Information Security Solutions at Raytheon's IIS Business. Steve, do you think the cyber threat has worsened or do you think folks are just more aware today?

STEVE HAWKINS: Well I think both perspectives are accurate. You know reported

cyber crime instances are doubling each year now and some of that is coming from the recognition and the awareness by the public, but there is a sophisticated crime to crime type of organized crime business going on that is trying to get personal information and credit card information. So it is a serious issue. You know the public officials, and the private companies, and the press I think are to be commended for raising the awareness of the threat. You know you look at the different, just the simple techniques you can use to address it in our everyday life, but our county has a call to action on how to handle this escalating threat and I think we are addressing it quickly.

ANNE MARIE SQUEO: Raytheon has made a handful of acquisitions in the cyber security area, what is the company's strategy?

STEVE HAWKINS: Well Raytheon has been in the business of defending our countries information systems for over 30 years and our strategy, as always, is to be the technology leader in providing end to end systems that protect against any type of emerging threat around the world. Cyber security is no different, we added three acquisitions over the last 20 months as you mentioned and we have numerous industry and academic partnerships that we've put in place and all of these are for the purpose of offering our customers the most robust end to end cyber security solutions, opening networks and their specialty is they are the premier provider of insider monitoring solutions. One of the key cyber threats that has been identified is mainly 40 percent of the cyber threat is started from some form of insider action around the world. The second was SI Government Solutions and they are the eminent company in determining vulnerabilities in software based systems so that you can make them secure and then the third was Telemus and the unique things that Telemus brings is a thorough understanding of the interaction between physical and cyber security. So all of these fill important niche roles along with our organic capabilities we've had in providing just an overall end to end holistic solution that we can bring to our customers.

ANNE MARIE SQUEO: I've heard you use the term dynamic defense, what exactly does that mean and is it about offense or defense?

STEVE HAWKINS: Well dynamic defense is a move away from a static defense that detects that your networks have been infected or exploited. Its purpose is to get out ahead of the threat, detect it as it enters your system, and contain it before it can cause harm, but essentially dynamic defense is a proactive and rapid defense to get the attack, to stop them before they can cause damage to your system. Now Raytheon's knowledge and unique position here in having an understanding on both the offense and the defensive side puts us in a position to think like the best trackers in the world and then develop defenses against them.

ANNE MARIE SQUEO: We've been talking with Steve Hawkins. Up next Mike Olson tells us what it's like to build a conference center in the middle of an airfield.

Mike Olson interview begins at 11:45

JOHN PATTERSON: We have saved the best for last, talking now with the man who

puts all of this together for us, Mike Olson, who is Raytheon's Corporate Senior Manager of Tradeshows and Events. Mike, it's good to have you with us.

MIKE OLSON: Thanks John, it's great to be with you.

JOHN PATTERSON: Mike, walking around the chalet and pavilion here at Paris, it's really like a home away from home. Tell us about that.

MIKE OLSON: Well it's funny, this building, it is like building a house John. It's funny, but it really is a temporary structure because this is an operational facility at Le Bourget where it's an airfield and none of these structures exist on a regular basis. You know we build basically a fully functional building here, an operational kitchen, we've got restaurant dining, we've got more casual dining in a brasserie area, hospitality and meeting rooms, we even have eleven conference rooms throughout this two deck facility.

JOHN PATTERSON: Mike, what's a typical day for you at the Paris Airshow, when do you get up and when do you go to bed?

MIKE OLSON: Well its long days, it's like running a marathon. We usually start; personally I start at about usually 5:00 in the morning, most of the time I'm not getting to bed until about midnight or 1:00 in the morning.

JOHN PATTERSON: You've planned and executed lots of shows in your time; can you tell us maybe the most unusual thing that you've ever had to deal with at a show?

MIKE OLSON: Well John, I think the one thing that comes to mind is back in 2006 we were dealing with, at the Farnborough Show in London, in the July timeframe dealing with record heat well over 100 degrees, we had power outages, we had a lot of the transformers on site go down, and Raytheon was blessed with the fact that we had about 5 minutes without electricity and then for some reason we were one of the few chalets that stayed fully operational and that was an incredible challenge, as you can imagine if something goes down at this magnitude with the electricity is shuts everybody down completely, registration, food preparation, basically half the site was black.

JOHN PATTERSON: Incredible. Mike, you seem to raise the bar higher and higher every year. Is it difficult to top yourself?

MIKE OLSON: As far as I'm concerned we never achieve an A, it's an A- or a B+, so you always strive to surprise someone with something new, we are always trying to reach a different customer that maybe we didn't, we always try to highlight a different technology that possibly we didn't bring to bear the last time we were out.

JOHN PATTERSON: Mike Olson, great to talk with you today my friend. Go home; get some sleep, job well done.

MIKE OLSON: Thanks John, I appreciate it.

ANNE MARIE SQUEO: Well, that's it for us at Dual Band.

JOHN PATTERSON: Before we go we need to say thank you to our excellent production team: Editor Melissa Desimone, Audio Engineer Don Godbout, Associate Producers Kate Liscinsky and Katlyn Griffin, and a special shout out to our Executive Producer Corinne Kovalsky.

ANNE MARIE SQUEO: But most of all we want to thank you for listening. Please remember that if you want more information on anything that we've discussed today or this week you can visit us online at www.raytheon.com, keyword: Paris09. We would also love to hear your feedback so email us at dualband@raytheon.com. **Au revoir John.**

JOHN PATTERSON: **Anne Marie, we will always have Paris!**

[END OF SHOW 6 Fri June 19th.MP3]