

WHY ECONOMIC DIPLOMACY NEEDS MILITARY POWER

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DEFENCE ■ DIPLOMACY ■ SECURITY



MAKE IN INDIA?

The Defence Budget is a huge dampner for India developing a quality military-industrial base



THE AVIONICS EXPERTS

COLIN R MAHONEY, Senior Vice President, International and Service Solutions Rockwell Collins and **HJ KAMATH**, Senior Vice President – Aviation, Zen Technologies talked to **JUSTIN C MURIK** about the unique features of this alliance which jointly developed the simulator in a record time of four months



COLIN R MAHONEY

HEMANT RAWAT

On Rockwell's India strategy

Colin R Mahoney: We have a broader Indian strategy, but we have found the right partner for simulators in India in Zen Technologies. We have an established location in Hyderabad with 630 employees there now. While embracing 'Make in India', our approach to market is to seek the best of the best in the country to collaborate. It's a question of expertise, we can do visuals and databases, but in this relationship we got a better option.

On the Zen-Rockwell Collins alliance

Colin R Mahoney: We see this as a strategic alliance with Zen Technologies, where we bring our expertise and Zen bring their expertise and we marry those things together and we get this one plus one equals three. Some collaborations

ZEN-ROCKWELL COLLINS TIE UP FOR SIMULATOR

Zen Technologies and Rockwell Collins unveiled a next generation rotary wing simulator at Aero India 2015. This came just four months after the signing of a Memorandum of Understanding (MoU) between the two companies to combine their strengths in simulation and training to offer advanced and high fidelity aviation solutions. The partners claim a cost reduction of 20 to 30 per cent as a result of their collaboration, making them more competitive in the Indian market. The collaboration will also result in them offering crucial in-country maintenance and support to the product.

As part of the alliance Zen will be face to the market and will be the prime for the flight simulation market. Rockwell

will be the technical partners at the backend and will not be bidding directly for any programmes. Zen has a very strong ground portfolio and Rockwell Collins plans to take some of this and enhance its own ground portfolio as well. As part of objectives of this alliance, Rockwell Collins is looking at shifting some of its product manufacturing globally to Zen.

The companies aim to produce top shelf solutions while ensuring cost benefits for customers across the region since the alliance's capabilities are indigenised, including in software, electronics and visuals. With the rotary wing platform launch, both companies aim to emerge, in the near future, as key partners to the Indian armed forces.



(From left) A Kishore Dutt, President of Zen Technologies; Ashok Atluri, Managing Director and CEO of Zen; Bob Wuestner, Senior Director of Simulation and Training Solutions (STS) Air Combat and Surface at Rockwell Collins; JP Kamath, Vice President of Flight Simulation at Zen; Colin Mahoney, senior Vice President of International and Service Solutions (I&SS) at Rockwell Collins; Jim Walker, Vice President and Managing Director of I&SS in the Asia-Pacific region at Rockwell Collins; Ram Prasad, Managing Director, India at Rockwell Collins; and Nick Gibbs, Senior Director of STS Products for Rockwell Collins



HJ KAMATH

don't really go anywhere, but we have developed a product in four months, which speaks to the commitment of both companies. Rockwell Collins has significant commitment to this collaboration with Zen. We are bringing in our projector capabilities and image generators and we are co-developing the software side of it and the databases and we are producing something here, which is going to be cost effective and also differentiated in the market in terms of the quality of the visual experience. A simulator is all about reality, if you don't get it so seem like the real world, in all kinds of conditions using all kinds of sensors, then you are going to be sub-optimised.

Next Generation Rotary Wing Simulator: The next generation Rotary Wing Simulator housed in an ergonomically designed cockpit is configurable and fully addresses both the flight and mission aspects of rotary wing aircraft. The simulator supports anytime, anywhere training and is a cost-effective, efficient alternative for pilot training in handling routine flights, emergencies and practice missions. Unparalleled realism in training is provided using geo-specific cultured terrains, operations flight profiles, and avionics that can be used to train both new and experienced pilots before any mission.

The chopper simulator is capable of reproducing different kinds of scenarios. The display system of the helicopter projector is 180 degrees by 65 degrees. It is a very large vertical because the helicopter pilots need the height and the speed cues when they are flying. So, when they come in to land they are able to see down below.

The graphics system is the EP

On the success of the Alliance

Colin R Mahoney: I think we are going to be very successful and there has been a lot of interest in the product. We want to make this a very successful product line in India. Its not just an India-thing, how can we take this to other parts of the world where they have the same dynamics as India so we can go make this a global approach. If conditions are applicable in another emerging market we might export the fruits of this venture there as well.

Kamath: There are several reasons why Rockwell and Zen teamed up. One is to exploit the huge potential of the Indian market. We feel with the Governments 'Make in India' initiative, the potentials can be converted to opportunities quickly. In order to capture these opportunities, you need to be very cost competitive also. What's happened is that all across the world, simulation technology, new and innovative ways of using technology to bring down the costs are coming in as budgets are also shrinking across the board. This is not just true for the US but across the world. They want more 'bang for the buck'. The only way to do this is to find an opportunity to make something which is more cost competitive. With Zen's experience of over 20 years supporting the Indian market. We are very hopeful of things happening in the Indian

8000, which has 4 gigabytes of texture memory so it has large very high-resolution databases. The simulator also has very good environmental effects like storms, different kinds of weather and atmospheric. The FAA can assign a Level D certification to the EP 8000 based simulator so that pilots can then go on to fly the real aircraft.

The core software along with the structure station and the aero model has been designed so that the pilots use lessons to mimic all kinds of mal-functions like blowing engines out with the instructor station. Rockwell Collins has provided Zen with tools that can be tailored to individual programmes and there are a lot of common open reusable elements. The EP 8000 has a whole earth model so different cities and their terrain can be accurately reproduced for pilots to train. The simulator will enhance combat readiness for crew members through a comprehensive training continuum that is customisable for all types of military platforms.

market. We are also trying to help Rockwell recapture some of the market share where they are currently out-priced with Zen's manufacturing and development capability. Rockwell will be the backend technology provider for the simulator and the alliance with Zen is going to make a competitive bid with a significant difference in cost. This alliance is helping us in the context of 'Make in India' in order to maximize the content from India in order to help them in India in addition to the global scenario. So, this is a two way street.

On short span of time taken to develop new simulator

Collin Mahoney: Usually these alliances are hard to get traction. From the start we felt that this was a win-win for both the parties involved. So, what was remarkable about the partnership was that we tied up and made something quickly. There are many other examples of partnership where they are two years into it and they have nothing to show for it. So, this is great example of working well.

Kamath: We took just four months to develop the product because of the maturity of the processes Zen has developed over the past 20 years and off course because of the leadership stature of Rockwell's processes. We made sure that people in both companies at each level worked well together on the joint project to ensure a successful partnership.

On the RFI's the alliance has been eyeing

Kamath: There have been a number of RFI's by the Air Force and the Navy, the Army has not yet released an RFI for simulators. Maybe, if the Air Force agrees to the pitch we have jointly responded in the past four months, it's a large RFI. There are a number of RFI's out and we are developing products with a vision in mind.

On the 'Make in India' initiative

Kamath: If the government gives the right incentives, and the manufacturing ecosystems are developed, we cannot get very far. Take for instance, the simulator projector, it is just a combination of cards. If I don't make any PCBs in the country, I would still be importing it and it would not make sense. It makes sense to have something in the country and then to augment the technology. A simulator company basically integrates components that are needed for the best training by getting the best in class constituents and incorporates them. This ensures that it has the best product for the customer at a competitive price.