



aircraft IT

MRO

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**DIGITAL AIRCRAFT
AND ENGINE
LEASE RETURNS**
MANAGING DOCUMENTS AND
DATA FOR BETTER OUTCOMES

**A NEW MRO IT SYSTEM:
AN OPPORTUNITY
FOR ENGINEERING**

Sriwijaya Air implemented a new
system in a dynamic environment

MORE TIME IN THE AIR

Better maintenance scheduling for greater flight availability

White Papers: Dr. Nima Safaei, AVITAS and Ramco Systems **Case Study:** Sriwijaya Air
PLUS... How I see IT, News, Upcoming and On-demand Webinars, MRO Software Directory

How does Ramco Systems stay at the forefront?

Virender Aggarwal explains to Aircraft IT the philosophies behind the success



AIRCRAFT IT: Your name, your job title and the name of the business?

VIRENDER AGGARWAL: Virender Aggarwal, CEO, Ramco Systems

AIRCRAFT IT: How did Ramco Systems get started?

VA: Ramco Systems (part of the USD 1 Billion Ramco Group) is the first company in the Asia Pacific region to have built enterprise-class software products on the cloud to cater to diverse industries. Vice Chairman and Managing Director, P.R. Venketrama Raja (PRV) established Ramco Systems in 1999 with a mission to create a world-class information technology company focused on enterprise applications and emerging technologies.

GENESIS OF RAMCO AVIATION

In late nineties, Aviation market was fragmented, but was a growing industry segment and consolidation was in the air amongst Airline Operators. The industry was serviced by multiple point solutions or standard ERP solutions built for use in other industry verticals, neither of which was able to cater to the needs of an MRO or an operator.

Ramco's initial entry into Aviation was with its Enterprise Asset Management (EAM) offering. It was during this time that Ramco worked closely with several of top MROs and operators such as Columbia Helicopters (USA), Petroleum Helicopters (USA), Air India etc. The insights resulted in an IT solution that was built ground up to address the maintenance & engineering needs and pain points of the Aviation industry, at a very early stage.

AIRCRAFT IT: What is the attraction of aircraft related IT?

VA: Ramco's Aircraft related IT solution (Ramco Aviation Series 5) provides mission-critical maintenance and engineering software built from the ground up for the aviation industry; catering to needs of Airlines, Heli-Operators, MROs and Charter operators. Our Unique proposition that every customer of Ramco enjoys is our constant future ready focus on next-gen tech innovations. To name a few:

ANYWHERE APPS. Time to get unchained from your desk.

We unveiled next-gen mobility for maintenance operations through an app ecosystem where MRO supervisors, mechanics, pilots, storekeepers and customers can seamlessly execute critical operations on the go anywhere, anytime.

Mail IT. Everyone has a smartphone these days. Without logging into a workstation, mechanics, amongst others, can interact with the Maintenance IT system by writing a simple email to complete several critical transactions such as checking stock availability across locations or receiving maintenance due lists in their inbox, etc.

Our unique offering of a 'comprehensive' aviation suite that is next-gen focused beats every 'best of breed' solution available in the market. Why? Ranked as Technology Innovation Champions by Frost & Sullivan, Ramco Aviation Suite addresses the entire business of aircraft maintenance; covering engineering support, inventory and procurement, maintenance, sales & MRO contract management, compliance, quality and operations. Ramco Aviation suite is modular and specific modules such as Reliability Management, Business Analytics, Planning and Optimization Solutions etc. can also be deployed as a standalone best of breed solutions to support and augment an existing IT system's functionality.

AIRCRAFT IT: What is the guiding business principle that drives Ramco Systems?

VA: Ramco believes innovation is the truest differentiator for any organization in this fast changing world where business models are getting disrupted every day. We believe that technology should simplify businesses, not complicate them; it should free you, not tie you down. It is this philosophy that has been the driving force behind all our innovations and product developments. Built around the pillars of Thumb It, HUB IT, Mail IT, and Prompt IT, Ramco's product philosophy is being well received and appreciated by the market.

"It is key to note that Ramco is the only Aviation software vendor with its roots in ERP. There is no MRO software vendor giving ERP and no notable ERP vendor providing proper MRO."

AIRCRAFT IT: What has been Ramco Systems' greatest IT achievement to date, and why?

VA: I would consider our greatest IT achievement to date as our investment in building a technology platform which can auto generate codes. This has helped us reduce the time, effort and people needed to build software. We are able to develop applications quicker and stay abreast with changing technologies. The platform being model-based and multi-tenanted by design has given us a head start in bringing Cloud and Mobile ready applications to the market sooner than might otherwise have been the case. It is key to note that Ramco is the only Aviation software vendor with its roots in ERP. There is no MRO software vendor giving ERP and no notable ERP vendor providing proper MRO. This gives us a unique edge as we offer a comprehensive suite which can address the end-to-end IT needs of the Aviation sector.

AIRCRAFT IT: What has been Ramco Systems' greatest business achievement to date, and why?

VA: Every single milestone we have crossed in the last 15+ years has brought us this far. Our thrust on Innovation has helped us stay focused and deliver on promises. It is this differentiation that led to Air France KLM E&M flying 11,000kms to Singapore to set up a dedicated Co-Innovation Lab for the aviation industry with Ramco. The lab will work on areas such as IOT, Big Data, Wearables and in memory advanced



Virender Aggarwal

Virender has a flair for predicting technology trends that will drive the future, his latest passions being simplification and user experience. Prior to Ramco, VA was President & APAC Region Head for HCL Technologies, Singapore. There he played a pivotal role in building the IT Services and Consulting business for Emerging Markets. Virender Aggarwal holds a Master Degree in Business Management from the Birla Institute of Technology and Science. He is a founder member of Singapore's India Club and received the prestigious International Management Action Award in 2004.

optimization. Today, the market values us like a silicon valley start up. This is a significant achievement as it stands testimony to the potential the market sees in us.

AIRCRAFT IT: What have been Ramco Systems' disappointments and what have you learned from them?

VA: It has taken us time to build a brand that is known in the global market. While Innovation was in our DNA, we lacked the 'marketing' nuances to proliferate this message far and wide. Today, we have cracked that to a great extent and that shows in our results, too. Gaining 76% revenues from markets outside our home ground has been possible because we have taken an effort to reach the buyer where he is. From being part of global events to ensuring digitally we are active, focus is on ensuring marketing gets its due importance.

AIRCRAFT IT: In a couple of sentences, how would you summarize what Ramco Systems does for aviation customers?

VA: Ramco Aviation Solution is a web centric M&E/MRO solution built ground up for the aviation industry and it caters extremely well for the typical needs of Airlines, Heli-Operators, MROs and Charter operations. Ramco's solution has been built on an architecture that is responsive to dynamic business changes, enhances decision-making, and creates opportunities to achieve a competitive edge for its customers.

AIRCRAFT IT: What is new on Ramco Systems' development horizon?

VA: With increasing focus on mobility functions and process automation, it is imperative that IT solutions also follow the trend. ERP systems that were earlier characterized by data intensive screens have now been replaced by innovative interfaces that significantly reduce data entry and automate repetitive processes to the extent that it moves towards a ZERO UI. The Mobility offerings from Ramco include — Mechanic Anywhere, Warehouse Anywhere, Approve Anywhere, Fly Anywhere, Customer

Anywhere and Route Anywhere.

Also in today's Aviation IT market merely achieving the best plans and schedules for the maintenance events is not enough as the real need is to ensure that the events are scheduled in an optimum way to maximize the availability of the maintained asset. In order to address such industry needs, Ramco has developed a set of in-Memory planning and optimization solutions that work seamlessly to ensure that each and every complex aspect of the business are managed effectively. Various solutions that are available from Ramco today are — Resource Management & Optimization Solution (RMOS); Component Maintenance Optimization Solution (CMOS); Tail Assignment Optimization (TAO); Maintenance Optimization & Shift Planning (MOSP) etc.

AIRCRAFT IT: What was the thinking behind setting up the new R&D facility in the MRO Lab in Singapore?

VA: With 25% market share contributed by over 100 Aerospace companies, Singapore has had the highest market share in Asia in terms of MRO. The Singapore Government incentivizes such investment initiatives by innovative organizations and encourages MRO companies to leverage these initiatives. Singapore's Aviation workforce is around 20,000 and increasing every year with a strong focus on the Singapore Aviation education system. IP based Service Differentiation, a Cross trained labor pool and Technology based operational efficiency (Softer Elements) are key for Singapore to maintain its leadership with the Aviation Industry which is currently challenged by strong OEM competition, Labour shortage and thin margins. The MRO lab will act as the lever for bringing in the softer elements to the Singapore Aviation Industry.

(Statistics source: EDB, Aerospace Engineering)

AIRCRAFT IT: Why did Ramco and Air France KLM choose each other as partners for the Lab?

VA: The purpose of the collaboration is to explore trending technologies,

to solve business pain points in the aviation engineering and maintenance domain. This was achievable by leveraging AFI KLM E&M's Innovation program and Ramco's wider collaboration ecosystem with disruptive solutions. Ramco was chosen due to its innovative culture, global aviation domain expertise and proven technology innovations.

AIRCRAFT IT: What MRO systems developments and/or innovations do you expect to be generated from the MRO Lab?

VA: The Lab will be focusing on developing solutions that would leverage state-of-the-art technologies like the Internet of Things, Machine Learning, Predictive Analytics, Robotics and Process Optimization Algorithms. The MRO systems to be developed by this lab are designed to aid technicians with optimized MRO, reduced Turn Around Time and Rich Customer Experience leveraging IOT; plus other disruptive technologies to create an upsurge in efficiency.

AIRCRAFT IT: What will be the next big thing in Aviation IT?

VA: The future looks promising, especially with expectations from the companies for IT solutions that are not only able to predict trends, but are also able to solve issues, once detected. An example would be the exciting new offerings coming up from Ramco like the use of augmented reality, Smart search, gesture computing, and smart watch for time reporting that are currently being developed.

AIRCRAFT IT: What do you want your customers to say about Ramco Systems?

VA: A truly next-gen solution provider that solves present day maintenance IT challenges yet is also totally future proof.

AIRCRAFTIT: Virender Aggarwal, thank you for your time and for bringing us up to speed on developments at Ramco Systems.