# Reconfigurable Virtual Collective Training System (RVCTS): A Dynamic Training System for Today's Military



Kratos, along with industry partners, has developed the Reconfigurable Virtual Collective Training System (RVCTS) for military training missions. With ease of deployment to serve the Point of Need (PoN) RVCTS satisfies the military's demand for a cost-effective reconfigurable, mixed multi-ship training system that incorporates the latest technology in an open architecture and immersive environment.

## **Collective Training**

Designed and built with the appropriate fidelity to achieve the target training need, the RVCTS is a training system suitable for multi-echelon training. "Kratos Mixed Reality Platform" represents the latest in immersive technology and delivers the highest fidelity immersive environment along with the required level of hands-on hardware components. RVCTS is scalable for future growth, ease of concurrency and technology infusion.

# Scalable, Reconfigurable Design Increases Training Value and Reduces Life Cycle Costs

The RVCTS-Air (RVCTS-A) configuration product is designed to achieve collective training capability by reconfiguring into the required rotary wing platforms. The RVCTS-A supports three rotary-wing platform configurations (UH-60M / CH-47F / AH-64D) and was designed to be reconfigured in less than 30 minutes.

The RVCTS-A can perform Aircrew training under a single aircraft platform by deploying the Cockpit Module, the Aerial Gunner's Module and/or the Hoist or Cargo Sling Module. With all modules operating in the same Synthetic Training Environment (STE) you have the flexibility to operate the RVCTS-A in a single aircrew environment or a collective multi-platform environment.

RVCTS-A can also perform collective training by deploying multiple aircraft platform configurations. Such versatility significantly lowers life-cycle costs while its technology innovation increases training value.



CH-47F Cockpit module shown



Aerial Gunner Module

Hoist Module

# Mixed Reality Technology Delivers Training to the Point of Need (PoN)

As the only reconfigurable training system incorporating the latest mixed reality technology, RVCTS-A delivers the highest immersive fidelity of any other collective training system. RVCTS-A introduces increased portability, ease of reconfiguration and can be delivered to the point of need (PoN).



Kratos partnered with industry leaders to achieve the most innovative and mission focused Reconfigurable Virtual Collective Training System in the market. The RVCTS-A Team Kratos includes Kratos, Bugeye Technologies, Applied Visual Technology (AVT Simulation) and Virtual Simulation Systems (VSS.) This innovative system is comprised of Bugeye Technologies' high fidelity cockpit components, VSS' "real cable" hoist product and AVT's Combined Aircrew Mission Task Trainer (CAMTT<sup>™</sup>) simulation baseline.

Kratos' partners' agility and leading technology focus coupled with Kratos' immersive simulation technology, years of simulation experience and vision are invested in the RVCTS-A, a truly technologically advanced, highly immersive collective training system with the right level of fidelity to achieve the target mission training.

### **Mixed Reality Technology**

For over a decade, Kratos has used Virtual Reality (VR) and Augmented Reality (AR) to model multiple aspects of military training, including air, ground and maritime systems. Mixed Reality (MR) adds a new dimension to immersive training by merging real and virtual world components to produce new environments and visualizations where physical and digital objects co-exist and interact in real time.

#### **Kratos Mixed Reality Platform**

Integrating the many technological elements required to create an MR environment is a challenging undertaking, requiring specialized software and algorithms to integrate a myriad of components into an immersive, holistic experience. Kratos utilizes cutting edge technologies to develop Synthetic Training Environments (STE) that deliver world class maintenance and operational training solutions that reduce the cost of ownership, speed development and deliver higher-fidelity training performance.



Physical view (left); HMD view (right)

RVCTS-A is the right solution for collective training needs as it delivers outcomes that enable the Warfighter to conduct representative, multi echelon training at the Point of Need (PoN).

