



MetaVR visuals for simulator delivered to FAA by ZedaSoft

The Piper Malibu M350 flight simulator will be used by the FAA's Civil Aerospace Medical Institute for research into civil human factors and flight safety.

Brookline, MA, 10 August, 2020: MetaVR's Virtual Reality Scene Generator (VRSG) forms part of a new Piper Malibu M350 [flight simulator](#) delivered to the FAA's Civil Aerospace Medical Institute (CAMI) by ZedaSoft.

The specially-designed flight simulator is a Technically Advanced General Aviation Research Simulator (TAGARS), which will be used by CAMI for research into civil human factors and flight safety.

MetaVR is part of a team selected by systems integrator ZedaSoft to provide an industry-leading solution specially designed to meet the FAA's needs. Precision Flight Controls provided the cockpit, flight controls, and simulated Garmin G1000 hardware. With assistance from Garmin, ZedaSoft developed a G1000 software simulator and integrated it with the Precision Flight Controls G1000 hardware. Bihrlle Applied Research provided the pilot-validated flight model and aircraft systems models derived from test data. When combined with ZedaSoft's patented Container Based Architecture for Simulation (CBA), these models are what make the aircraft fly like a Piper Malibu M350.

For the 3D real time visual suite, ZedaSoft integrated MetaVR's VRSG as part of the TAGARS' [projector-dome configuration](#) to provide the visual system for both the out-the-window and sensor views. VRSG simulates the onboard sensor system by streaming real-time HD-quality H.264 video with KLV metadata. This enables operators to train using the same hardware that they use while flying actual, real-world missions. Out-the window views of MetaVR's round-earth geospecific 3D terrain of Continental US (CONUS) are projected on to the dome displays, enabling training to take place immersed in a virtual world that exactly replicates real-world terrain. The terrain can also serve as a baseline to which higher-fidelity information can be added, such as LIDAR elevation data, GPS point surveys, or 3D point features such as buildings, trees, targets, and runway models, to refine the database in a given area of interest.

ZedaSoft's patented CBA framework serves as the runtime engine in the TAGARS simulator.

"TAGARS is an example of what can be achieved by integrating best-of-breed simulation products," Fred Fleury, ZedaSoft, said. "ZedaSoft looks forward to many more collaborative

projects with Precision Flight Controls, Bihrl Applied Research, and MetaVR – and to many more satisfied customers.”

Garth Smith, President, MetaVR, added: “It is great to see that VRSG has been selected to be a part of this simulator solution integrated by ZedaSoft for the FAA’s CAMI. Our successful and rewarding working relationship with ZedaSoft stretches back more than a decade and it is always exciting to see what projects like this can deliver when technology from industry-leading players is brought together to create new and innovative solutions for the training and simulation market.”



Image: VRSG provides the simulator’s out-the-window view over MetaVR’s round-earth geospecific 3D terrain of CONUS (Image courtesy of ZedaSoft).

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About MetaVR

MetaVR, founded in 1997, develops commercial PC-based software for the military simulation and training markets, featuring high-speed 3D visualization content and rapid creation of networked virtual worlds using real-world data. MetaVR’s real-time visual systems provide the fidelity of geospecific simulation with game-quality graphics. Users can build (with real-world photographic imagery, elevation data, and feature data) high-fidelity virtual worlds with our terrain generation tools, and render in real time, at 60Hz frame rates, the resulting virtual world with our real-time 3D visualization application, Virtual Reality Scene Generator. MetaVR systems are used for applications such as UAS/RPA

trainers, manned flight simulators, mission planning and rehearsal, joint fires and JTAC simulation training, urban operations training, and emergency response management training. For more information, visit www.metavr.com

About ZedaSoft

ZedaSoft's mission is to provide high quality, flexible, repeatable, and innovative simulation solutions at a low cost. Our patented Container Based Architecture (CBA®) for simulation provides the framework for all our simulators, and is the foundation of our simulation philosophy. We believe simulators should be extensible, flexible, and scalable without extensive modification of the core system. We seek to provide high quality training tools for warfighters and civil aviators alike, as well as simulation solutions for problems yet to be discovered. Our team, armed with the power of CBA, is ready to tackle any simulation challenge. For more information, visit <http://www.zedasoft.com/>

About Bihrl Applied Research Inc.

Bihrl Applied Research Inc. (BAR) is an aeronautical research & development company specializing in the development of flight-representative software mathematical models for military & commercial fixed-wing and rotary-wing aircraft, including full-envelope modeling, malfunction modeling and upset/recovery modeling. For more information, visit www.bihrl.com

About Precision Flight Controls

Established in 1990, Precision Flight Controls has been providing quality flight simulation solutions for over 30 years. We are recognized as a global leader in providing flight training organizations with affordable high-fidelity flight simulation systems, avionics, and accessories. Our Simulators represent dozens of general aviation and commercial aircraft, as well as today's most popular technologically advanced aircraft, and G1000 trainers. Our product line at Precision Flight Controls meets the needs of both flight simulation enthusiasts as well as general aviation professionals. For more information, visit www.flypfc.com

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