



The Complete Solution for Your Sophisticated Flight Test Needs

Marinvent brings three formidable assets to your flight test program: decades of experience, major industry alliances, and a unique research aircraft.

Among Marinvent's staff is a team of certification and human factors experts, including a government authorized Flight Test Designated Airworthiness Representative (DAR). We can participate at any level of your program to streamline your planning, testing, and certification activities. Our experience includes: participation in the NASA's AGATE-SST 1-B general aviation program...designing human factors experiments for NASA's space station astronauts...a complete certification program for a new military refueling tanker...a flight qualities evaluation for an aircraft simulator manufacturer...and supporting precision GPS approach trials for a major government research agency.

We supplement our own expertise through alliances with key aerospace leaders. For example, through our strategic alliance



with Jeppesen Sanderson, we have gained a unique familiarity with all aspects of electronic aeronautical data. Similarly, our cooperation with world-renowned Embry-Riddle Aeronautical University in Daytona Beach, Florida, gives us unparalleled access to specialized human factors laboratories and flight simulation facilities.

Rounding out our flight test capability is our transformed Piper Cheyenne, which has been extensively modified for the flight testing of avionics systems and the conduct of airborne human factors research.

The aircraft has a two-tube Electronic Flight Instrument System (EFIS) display on the

continued...

Marinvent Corporation:

where remarkable people and superior technologies combine to solve your most difficult problems. Marinvent excels at systems engineering, software design, and systems flight-testing. Our staff have helped design two space stations, controlled nineteen space shuttle missions, and managed several major capital programs.

We employ experts, not workers. We develop technologies, not products. We offer solutions, not services.

At Marinvent, the Sky is
Not Our Limit.

**For more information,
contact:**

marinvent
CORPORATION

50, chemin de la Rabastalière est
Suite 23
St-Bruno (Québec) J3V 2A5 Canada
(450) 441-6464
fax (450) 441-2411
www.marinvent.com

pilot's side and conventional mechanical instrumentation on the co-pilot's side to allow testing with both configurations. Test avionics are housed in a full-height centrally located Dzus rack, which is provided with power, data, and GPS feeds for a true "plug-

in" installation. These systems are provided with four levels of electrical protection to address the safety issues associated with avionics testing.

Another unique aspect of the aircraft is the Computer Aided Debriefing System (CADS) developed by Eagle Research Labs of Daytona Beach, Florida. CADS records time-synchronized GPS information, air data, and wide-angle cockpit video for post-flight playback and analysis on a PC workstation. This powerful tool yields an unparalleled amount of human factors and system data from each test flight.

The Cheyenne is also designed for real-time data analysis during flight. Five cabin stations are supplied with full GPS and air data from an on-board server over Ethernet and serial networks. These stations are also supplied with filtered 12 volt DC power, using

standard cigarette-lighter jacks and 115 volt "household" AC from a dedicated inverter. In other words, up to five flight test engineers can collect, process, and display complete flight test data using off-the-shelf laptop computers.

There is not another aircraft, anywhere, with this unique mix of capabilities. The Cheyenne has been the subject of magazine articles and several industry presentations, but there's also a more personal side to this high-technology aircraft. When we're not doing active research, we fly the Cheyenne for the Mission Air Transportation Network, transporting patients to specialized treatment facilities that would otherwise be out of their reach.

Marinvent. We exceed your expectations... in the air or on the ground. ■

