

CACI's Common Bench-top Automatic Test System

CBATS

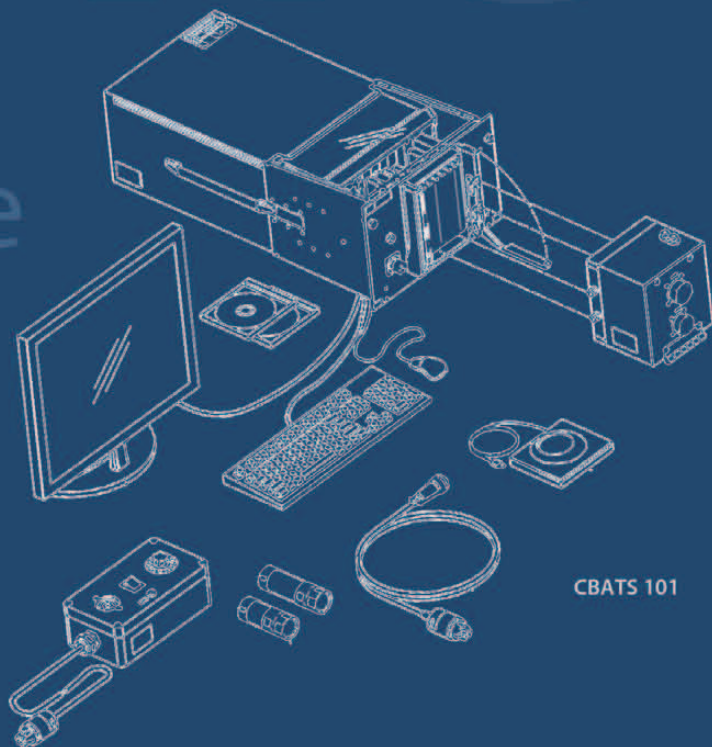


The Proven Test System for Superior Value, Performance, and Reliability

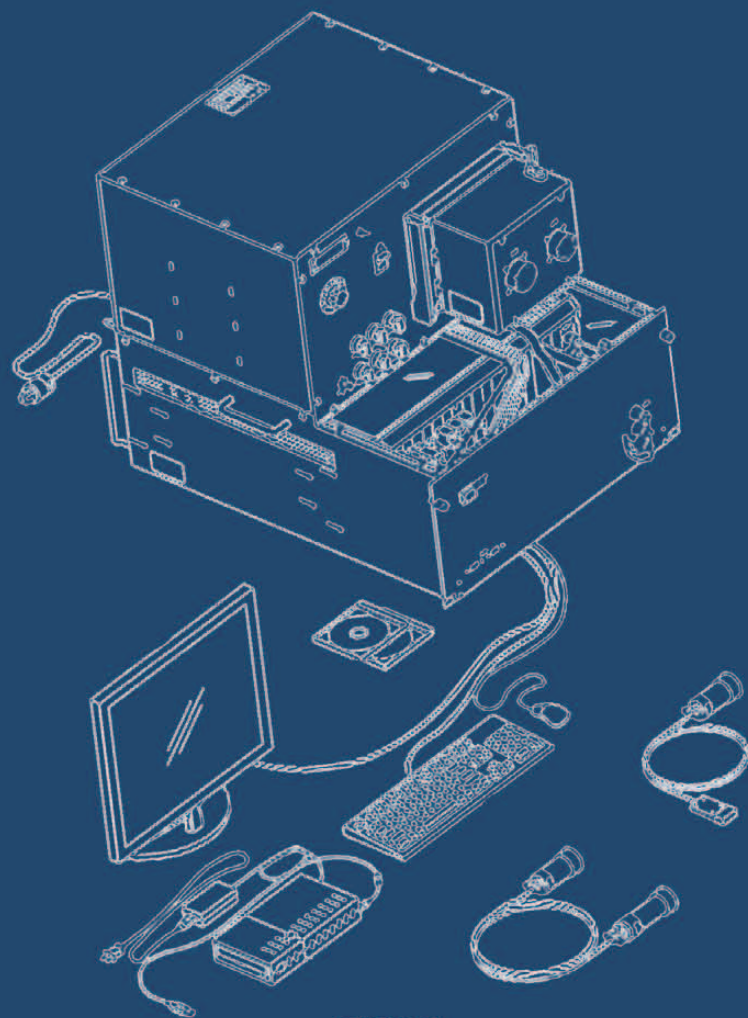
CACI
EVER VIGILANT®

CBATS

flexible
versatile
cost-effective



CBATS 101



CBATS 201

Capability	Model 101	Model 201
PXI slot-0 Chassis Controller	✓	✓
Switching Capability (Signal and Power)	✓	✓
High-Speed Digital Multi-meter	✓	✓
Data Acquisition (16 Channels)	✓	✓
Programmable Voltage Outputs	✓	✓
Counter/Timer Functions	✓	✓
Programmable DC Outputs (8 channels)	✓	✓
Programmable DC Outputs (3 channels)	✓	✓
Adjustable 400 HZ AC Power (Single Phase)	✓	✓
Synchro Outputs (115 VAC Ref)	✓	✓
Synchro Outputs (26 VAC Ref)	✓	✓
Field Programmable Gate Array (FPGA) I/O Module	✓	✓
Two-Channel Differential Input Amplifier/Attenuator Modules	✓	✓
High-Speed Digitizer (Oscilloscope)	✓	✓
Fixed +28 VDC Power	✓	✓
Multiple External USB expansion ports	✓	✓
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Automated Self-test software and hardware adapters	✓	✓
Calibration software	✓	✓

The **Single Testing Solution** for Critical Avionics



From B-52s that offered deterrence during the Cold War, to the F-15s that patrolled Persian Gulf battlefields, to the next generation of aircraft now taking to the skies ... CACI's Common Bench-top Automatic Test Systems (CBATS) are the proven testing solution to help keep aircraft ready to fly on schedule, on budget, and on mission.

Bomber.
Fighter.
Transport.
Tanker.
Reconnaissance.
Surveillance.

CBATS Model 101 and 201 testers are capable of supporting diagnostic and acceptance test requirements for a wide assortment of avionics instrumentation, flight computers, and other electronic assemblies with application for both military and civilian land, sea, and air platforms. The tester's capabilities are completely automated and require little or no operator input. In addition, CBATS has the flexibility and adaptability to support the testing needs of a broad array of shop replaceable units, line replaceable units, and other electronic equipment.

All CBATS components are commercial off-the-shelf (COTS), and critical parts are documented through vendor item drawings to aid in selecting secondary sources, if desired.

While this universal stand-alone tester has a small footprint, CBATS is a full-featured state-of-the-art system that supports a full-range of avionics for multiple platforms. It is housed in a single box, and it is available at a price that significantly beats any comparable piece of test equipment. Plus, CBATS provides a proven, extremely cost-effective replacement solution for legacy test equipment that is still in use throughout the military, but is no longer supportable by manufacturers.



Both CBATS models can be procured from CACI's GSA Schedule 66 (Category 602 40 – Avionics Test Equipment), which was awarded by GSA's Greater Southwest Acquisition Center. This allows CACI's government customers to purchase the CBATS at pre-negotiated prices, saving valuable time and assuring purchasers that they are achieving the best possible pricing. In addition, as a part of CACI's offering under this schedule, the government can take advantage of additional quantity discounts.





Test System Features



CBATS: Leading the Way in Proven Performance and Unmatched Value

CBATS is designed to allow customers the flexibility to conduct end item testing with unique Test Program Set (TPS) products for a wide range of instruments. The CBATS tester system serves as a versatile base component that has the capability to work with the unique interface requirements, interface cables, and specialized test procedure software for virtually any end-item TPS. Test software and the unique interface cables currently exist for many aircraft instruments. Other unique physical interfaces and test software may be addressed as a part of the TPS, as required. These may be provided by the customer, developed by CACI, or developed by other vendors based on the CBATS interface documentation.

There are two models of the CBATS testers (Model 101 and 201) offering varying output, digitizer, and power capabilities. These are currently fielded in various depot and back-shop environments. Model selection is based on the specific test requirements for the unit under test (UUT).

CBATS: Benefits

- Small footprint (PXI - Based)
- Flexible hardware configurations available
- Spare slots for expansion
- Adapts to test a variety of UUTs
- Lower initial investment
- COTS hardware solution
- Integrates seamlessly with RegenerATE™ output
- Supports both functional and diagnostic testing
- Thorough self-test reduces system MTTR
- Software-driven system calibration
- Fielded, proven solution

CBATS Performance Specifications Overview

- Extensive Switching for both signal and power lines
- Digital Multimeter
- High-speed Digitizer
- Data Acquisition
- Counter/Timer functions
- Accessible USB ports to extend capabilities
- Programmable DC Power Sources
- 28VDC Power Supply
- 400HZ Power Control
- Synchro/Resolver Controller
- Virginia Panel Corporation Series-90 Receiver

▪ Microsoft® XP Standard

▪ PerpetuATE™ Software Architecture

- Standardized Instrument Libraries Available
- Reduces Impact of Instrument Obsolescence
- Reduces Test Software Development Time

After using CBATS, the average time a repaired Attitude Director Indicator (ADI) unit spent in the field prior to being returned for service increased by 711 hours.

The average amount of time required to repair an ADI decreased by 40%. The number of returned units that could not be repaired by the shop decreased by 28%. All units were functional upon receipt and delivered in a timely manner, enabling their return to mission-ready capability.



Proven Testing Capability across Multiple Aircraft Variants and Generations

Numerous CBATS testers are currently supporting USAF instrumentation repair shops at Air Force bases in the U.S. and overseas, performing a wide range of critical functions for transport and combat aircraft. CBATS also has the flexibility to support the testing needs of shipboard and land-based equipment in all branches of the U.S. Armed Forces and meet civilian requirements, as well.

CBATS Aircraft Instruments Current and Near Term Test Capability

- Alpha/Mach/AOA Indicator (C-5)
- Alpha/Mach Computer (B-52, A-10)
- Angle of Attack Transmitter (F-15, KC-135)
- Anti-Skid Control Units (E-3A, KC-135, C-130, B-52, C-5A, F-15)
- Attitude Director Indicator (A-10, C-5, C-130, F-15, F-16, T-38, E3-B, E3-C)
- Bearing Distance Heading Indicator (C-141, E3-B/C)
- Compass System Amplifier (B-52)
- Compass System Amplifier (C-130)
- Compass Indicator (EC-130, KC-130)
- Exhaust Gas Temperature Indicator (C-5, C-130)
- Flight Computers (C-130, B-52)
- Fuel Quantity Indicators (EC-130, KC-130)
- Horizontal Situation Indicator (C-130, C-5, C-141, T-38, F-16)
- HUD Control Panel (F-16)
- Liquid Oxygen Quantity Indicators (C-5, C-130, A-10, F-16)
- Master Indicator (B-52)
- Steering Computers (KC-135, E3-B, E3-C)
- Warning Monitor (KC-135)
- Wheel Speed Indicator Transducer (C-130, F-15, B1-B, B-2)



A-10 Alpha Mach Computer



C-141 Bearing Distance Heading Indicator



B-52 True Air-Speed/Mach Computer



C-5 Air-Speed/Mach/Angle of Attack Indicator



F-16 HUD Control Panel



The CACI Advantage

As the useful life of weapon systems is extended, many times these systems outlast the equipment that supports them. CACI can help because we are a key partner in modernizing and sustaining the Department of Defense's aging aircraft fleet through the rehosting and replacement of legacy test systems.

CACI's strength lies in upgrading, replacing, and enhancing the DoD's automatic test systems (ATS) that have become obsolete and unsupported. The ability to migrate test requirements from older, unsupported systems to new COTS or custom-integrated test systems is a key advantage we provide to our customers in the aerospace community.

At CACI, we have broken new ground in designing and developing test systems from COTS components. Our engineering staff possesses extensive experience developing software in traditional test languages such as Assembly, ANSI C, FORTRAN, and Visual Basic, as well as ATE programming languages such as ATLAS, LabVIEW™, LabWindows™, and TestStand™.

CACI Has the Experience and Resources to Provide Multi-Faceted ATS Support

Please contact us for more information on the support CACI can provide. We offer the following:

- Test system development
- Re-host legacy test software to new test systems (RegenerATE™)
- Automate legacy manual test procedures
- Software development for new test requirements
- Interface test adapter design/manufacture and production

CACI International Inc

Celebrating our 50th year in business, CACI sustains an exceptional record of success by providing professional services and IT solutions needed to prevail in the areas of defense, intelligence, homeland security, and IT modernization and government transformation. We deliver enterprise IT and network services; data, information, and knowledge management services; business system solutions; logistics and material readiness; C4ISR solutions; cyber solutions; integrated security and intelligence solutions; and program management and SETA support services. CACI solutions help federal clients provide for national security, improve communications and collaboration, secure information systems and networks, enhance data collection and analysis, and increase efficiency and mission effectiveness. A member of the Fortune 1000 Largest Companies and the Russell 2000 index, CACI provides dynamic careers for approximately 13,900 employees working in over 120 offices in the U.S. and Europe.

For more information, contact:

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www.caci.com/business/ats

CBATS: Proven Performance. Unmatched Value.

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