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Optional King Air
panel configuration



FOR SALE \$200,000 AST factory demo Re-configured King Air 1900 Cockpit Specific

Flight Training Device Powered by
Microsoft Lockheed Martin's Prepar3D® FAA Certifiable to AATD
fully digital, upgradeable, software- driven flight training device.
Comes with new Sim to Sim interactive technology

Re-configured Scope of Work:

1. Re-configured the un-finished AST 1900 FTD.
2. Completely dis-assemble the FTD, and re-furbish it to new condition with our own added hardware and software. (Lockheed Martin Microsoft 3 PD software)
3. Test Fly and obtain FAA AATD Certification under our company name.
4. Meet the specification and description according to the attached documents.
5. Offer the client an Extended Parts and Labor Limited Warranty, if desired.

Pricing:

FAA Approved, 1900 Configuration, AATD, AST Re-Configured
Professional Installation and Setup Included Professional Packaging Included
Operator and maintenance training Included
1 Year Parts and Labor Limited Warranty Included

Total Price (excluding crating, shipping, taxes, duties, tariffs) \$200,000



Standard King Air fiberglass enclosure



Optional King Air nose section



FEATURE HIGHLIGHTS

Pilot/Copilot Instruments can be reconfigured from instructor's console
Realistic B1900 fiberglass / metal cockpit enclosure, mounted on a heavy-duty metal frame platform,
Fully Adjustable, 1900 replica pilot seats.
Artificial Horizon (Interchangeable with ADI / EADI)
HSI (Interchangeable with EHSI)
Avidyne EXP-5000 PFD on Pilot side or Copilot side (optional)
Garmin GN S530 GPS
Collins Pro Line II Radios Comm. 2
Collins VHF transceiver • Collins Nav 2
Collins VOR/LOC/GLS/MKR Receiver
Collins ADF Receiver
Collins Transponder
Bendix/King Autopilot
Bendix/King Altitude / Vertical Speed Mode Control Panel
Simulated Audio Panel
Artificial Horizon (Interchangeable with ADI / EADI)
Altimeter (Interchangeable with "drum" altimeter with digital readout)
HSI (Interchangeable with EHSI)
Engine instruments markings interchangeable between 90, 100, 200, 300, 350, 1900
All items on a King 1900 checklist can be accomplished
Accurate NAVDATA based navigation database with available updates.
Dedicated, Graphical Instructor's Console and Station" (GICAS™), with 19" LCD monitors.
Multi-segment, 200 degrees, ultra-high resolution Visuals, with monitors or curved screen, with overhead projection,
Accurate representation of terrain, airport and runway environments.
Dedicated image generators, main server computers,
Complete set of Operating Manuals, Training Manuals,
and other technical documentation maintenance drawings and parts list.
One Year Parts and Labor, Limited
Warranty, with available on-site service.

AERODYNAMICS COEFFICIENT & DERIVATIVES TO INCLUDE:

Basic Aerodynamic Model includes all stability, control, lift and drag coefficients through the aircraft flight envelope with all the pilot-operating handbook specified geometry variation. Includes the effects for ground proximity on the aerodynamic design coefficients and takeoff and landing performances.

Lift, drag, side force, pitching moment, rolling moment, yawing moment, CG and moments of inertia, basic lift coefficient, ground effect on lift, basic drag coefficient, ground effect on drag, basic pitching moment and downwash increment due to flap deflection are provided on **AATD/FTD**.

SYSTEMS DESCRIPTION

CIRCUIT BREAKERS:

All circuit breakers are placed as in a Beach 1900. Systems governed by circuit breakers and will not be popped but will function when the appropriate breakers are pulled by the pilot or faulted by the instructor console.

CONTROLS:

The **SimServices Series King Air 200 AATD/FTD** will have **Dual Flight Controls** that will provide an accurate, dynamic, or optional electromechanical digital control loading system. A primary flight control model contains the static and dynamic characteristics gearing ratios, friction, cable stretch and inertia. Includes aerodynamic hinge moments of all three axis control systems, elevator, rudder and ailerons and secondary flight controls model including wing flap, trim system and rudder. Both pilot stations have functional rudder pedals until breaks. In addition, flight control surface failures can be simulated to include "frozen" and "floating" conditions

ELECTRICAL:

The electrical system will replicate that of the Beach 1900 aircraft in its entirety including all failures.

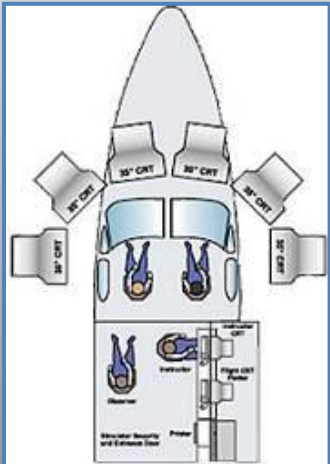
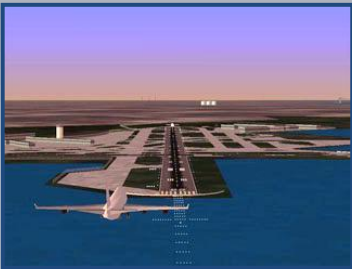
THE COCKPIT:

The cockpit includes all switches, controls and instruments to provide full training fidelity. The actual location and feel of the switches, controls and instruments in the AATD/FTD are retained from the aircraft. Some of the switches and controls are only mechanically active. Operation of these items will provide the proper feel but will have no impact on AATD/FTD operation. Certain controls and indicators are neither mechanically nor electrically active.



Optional instructor's station

Visuals displays can be projection or monitors



INSTRUCTOR STATION:

The instructor station is the primary training control station. The AATD/FTD is turned on from a single switch at the instructor station. The instructional scenarios and flight environments are selected from the instructor station.

The instructor station consists of keyboard, mouse, monitor and printer. Also at the instructor station is an instructor control panel (or box) which includes the main power, electromechanical control loaders (ECLS) control, audio controls with headset connection and the emergency stop.

COMPUTATIONAL SYSTEM

The computational system is housed in one nineteen-inch rack located at the front of the cockpit. The system includes both the host and ECLS computers and the image generator (visual) system. The computer provides all the interfaces between the cockpit, instructor station and visual system.

PROPULSION MODEL:

This AATD/FTD will include propulsion model of the Beach 200 Pratt & Whitney PT 6 relating throttle position with the relevant engine parameters and resulting thrust. Accounts for applicable installation effects, ambient temperature and pressure variations, plus the effects associated with dynamic events such as throttle movements. The effects of power extraction due to the operation of most aircraft systems are included.

ENGINE CONTROLS:

The control levers are grouped along the upper portion of the pedestal. Pushing forward on a control lever increases its appropriate function, pulling back decreases it. The knobs on the levers are shaped to standard government configuration so they can be identified by touch. The controls are centrally located for ease of operation from either the pilot or the copilot seat.

FLIGHT CONTROLS:

This AATD/FTD is equipped with dual control columns for the pilot and copilot. Both the pilot and copilot station have functional rudder

Flaps:

Flap operations are normal with the capability of failure. Failures include "frozen and asymmetric conditions," at instructor's request.

Ground Handling:

Flight test validated ground-handling capabilities, spring constant, damping factor and braking forces

GRAPIC INTERFACE INSTRUCTOR STATION:

The instructor station is computer driven, CRT based, menu driven with sub menus to control all pertinent flight data and environmental condition to control the AATD/FTD.

TRIM CONTROLS AND SYSTEM:

If the optional Electric elevator trim is installed it will include trim switch mounted on the pilot wheel. Failures include both "frozen" and "run away" trim conditions.

FLIGHT INSTRUMENTS:

The flight instruments are located on a panel directly in front of the pilot's seat. Standard flight instrumentation includes Combination Artificial Horizon / HSI (Interchangeable Artificial Horizon/HIS, ADI /HIS, EADI/EHSI can be reconfigured from instructor's console) controlled by NAV1 Garmin 530 or NAV 2 Garmin 430. Attitude and directional gyros, airspeed, altimeter, vertical speed, turn coordinator, and gyro pressure. A magnetic compass is mounted above the instrument panel and a quartz digital readout clock is mounted in the correct location, or can be in the center of the control yoke. **Failures will be fully functional as initiated by the instructor.** The appropriate instruments will also fail with an instructor-induced vacuum failure. Static system failure with correct systems can be induced from the instructor station, "such as pitot ice."

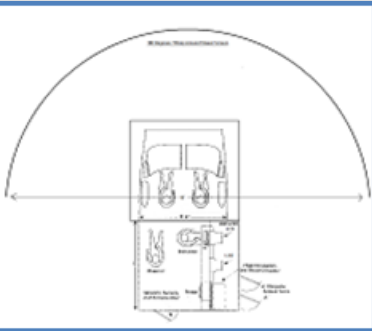
FUEL SYSTEM:

Normal Beach 1900 fuel system operates with failures to include asymmetric fuel load, fuel leak, and fuel capacity in tanks.

GROUND CONTROL:

Ground handling capabilities include spring constant, damping factor and braking forces.



**LANDING GEAR:**

The landing gear is controlled by a two-position switch, which must be pulled out of the safety detent before it can be moved to the opposite position. The landing gear handle and gear lighting system will be as in the King Air 1900 and function correctly. Instructor requested failures of Up, Down, and in Transition malfunctions are included.

NAVIGATION:

The **SimServices Series AATD/FTD** utilizes Navigational database of the entire lower 48 states, with up-date capabilities. Instructor may fail any navigation station in real time.

Network Capabilities:

The **SimServices Series AATD/FTD** is able to connect with an Air Traffic Control Simulator. (The capability to see other aircraft with the new digital color visual system and to communicate with other **SimServices Series AATD/FTD** is an available option.) Flight playback is included along with the ability to have printed results.

SOUND SYSTEM:

The **SimServices Series AATD/FTD** sound system includes not only engine sounds, and touchdown "squeak", it also will include gear up and down operation sounds along with all warning horns.

VACUUM SYSTEM:

Vacuum system with failures to include one or both vacuum systems.

VISUAL SYSTEM:

The visual system receives information from the image generators of the visual system and provides a 30°, 60°, 90°, 180 or 220 degrees out of window view. Actual out of window view may vary depending on the visual configuration.



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