



U.S. Department
of Transportation
**Federal Aviation
Administration**

800 Independence Ave., SW
Washington, DC 20591

DEC 19 2003

Mr. John Dixon
Elite Simulation Solutions
672 North Semoran Boulevard, Ste. #104
Orlando, Florida 32807

Dear Mr. Dixon:

This is in response to your November 26, and December 1, letters in which you request the Federal Aviation Administration's (FAA) approval of a revision to ELITE's™ PCATD Qualification Guide (Appendix A) dated October 23. You intend this revision to provide additional credit for the use of basic and advanced aviation training devices (ATD) in the specific configurations identified below.

This letter supercedes our letters of September 12, and October 23, relating to previous PCATD approvals. The basic and advanced ATD identified below contain sufficient features to permit their authorized use in accordance with Title 14 Code of Federal Regulations part 61 (14 CFR) section 61.41(c) for the listed Tasks/Maneuvers, and Procedures.

The following ELITE™ Basic ATD configurations with versions 7 or 8 software, minimum AP 3000 DR (digital readout) are approved and authorized for use as requested. In addition to the 10 hour instrument instructional use authorized in a PCATD, these devices are approved and authorized for use to satisfy regulatory requirements under the following 14 CFR sections of parts 61 and 141:

Model PI-135
Model PI-141
Model PI-142
Model AMD-CH2000

Section 61.57(c)(1) – Instrument Experience
Section 61.109(i)(1) – Private Pilot Certificate Maximum 2.5 Hours
Section 141.41(b) – As limited by part 141 appendices B and C

The following ELITE™ Advanced ATD configurations with version 7 or 8 software, minimum AP 3000 DR (digital readout) are approved and authorized for use to satisfy the Tasks/Maneuvers, and Procedures under the following sections of 14 CFR parts 61 and 141:

Model A iGATE™ XTVS (with ELITE External Visual System)
Model G-500 iGATE™ (with ELITE Software)
Model G-600 iGATE™ (with ELITE Software)

Section 61.51(b)(3) - Logged Flight Experience
Section 61.57(c)(1) - Instrument Experience
Section 61.57(d)(1)(ii) - Instrument Proficiency Check

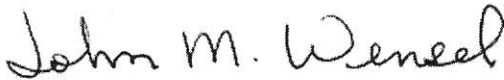
Section 61.65(e)(2) - Instrument Rating: Maximum 20 Hours
Section 61.65(a)(8) - Instrument Rating: Practical Test
Section 61.109(i)(1) - Private Pilot Certificate: Maximum 2.5 Hours
Section 61.129(i)(1)(i) - Commercial Certificate: Maximum 50 Hours
Section 61.159(a)(3)(i) - Airline Transport Pilot Certificate: Maximum 25 Hours
Section 141.41(b) - Approved For Use as Limited by Part 141 Appendices

THIS AUTHORIZATION IS CONTINGENT UPON THE FOLLOWING:

- 1) The devices, when in use, continue to maintain their performance, function, and other characteristics to ensure their ability to adequately perform the tasks/maneuvers, and procedures authorized has not deteriorated;
- 2) The jurisdictional Flight Standards District Office's receipt of annual reports regarding the status and continued use of the devices from the operator;
- 3) A copy of this authorization must be posted in a location near the devices so as to be readily visible to users when operated as authorized;
- 4) An authorized instructor must certify the above instructional use; and
- 5) This authorization is valid until modified or rescinded by AFS-800.

The revised Appendix A is stamped approved consistent with the authorized ATD use granted. Copies of this letter and approved materials are retained in our files.

Sincerely,



for Robert A. Wright
Manager, General Aviation and Commercial
Division

APPENDIX A

ELITE PC-ATD MODELS WITH CONTROL DEVICE CONFIGURATIONS

ELITE models of PC-ATD listed herein are submitted for approved as generic trainers. To achieve the required performance specific to simple, complex, light piston twin and turbine aircraft, the ELITE software used in these designated models are developed, tested and patterned after commonly used and commercially available aircraft. All aero models comply with the design criteria and specifications contained in AC 61-126 Appendix 1:

PC-ATD AERO MODELS:

- AMD CH-2000
- Beechcraft Bonanza A-36
- Beechcraft Baron 58
- Beechcraft King Air B-200
- Cessna C-172P
- Cessna C172R
- Cessna C-182S
- Cessna C182RG
- Mooney M20J
- Piper Archer III
- Piper Arrow IV
- Piper Seneca III
- Socato TB-20
- Socato TB-10

FAA APPROVED

ELITE® PC-ATD Model PI-61

Yoke and Stick Controls:

- A1. PFC Cirrus Yoke or
- A2. ELITE Yoke

Rudder Controls:

- B3. PFC Cirrus Rudder Pedals or
- B4. Flight Link Rudder Pedals

Throttle Controls:

- C2. IC ELITE Multiengine Throttle Quadrant

Avionics Controls:

- D1. IC ELITE Professional Avionics Panel or
- D2. IC ELITE AP-2000 or
- D5. IC ELITE AP-3000 or AP4000 DR (digital readout)

ELITE® PC-ATD Model PI-61A or PI-91 (model rename)

Yoke and Stick Controls:

- A1. PFC Cirrus Yoke

Rudder Controls:

- B3. PFC Cirrus Rudder Pedals or
- B4. Flight Link Rudder Pedals

Throttle Controls:

- C3. PFC Throttle Quadrant

Avionics Controls:

- D1. IC ELITE Professional Avionics Panel or
- D2. IC ELITE AP-2000 or
- D5. IC ELITE AP-3000 or AP4000 DR (digital readout)

ELITE® PC-ATD Model PI-121

Rudder Controls:

- B3. PFC Cirrus Rudder Pedals or
- B4. Flight Link Rudder Pedals

Avionics Controls:

- D1. IC ELITE Professional Avionics Panel or
- D2. IC ELITE AP-2000 or
- D5. IC ELITE AP-3000 or AP4000 DR (digital readout)

Flight Console

- E5. IC ELITE Pro Panel SE Flight Control Console

ELITE® PC-ATD Model PI-126

Rudder Controls:

- B3. PFC Cirrus Rudder Pedals or
- B4. Flight Link Rudder Pedals

Avionics Controls:

- D1. IC ELITE Professional Avionics Panel or
- D2. IC ELITE AP-2000 or
- D5. IC ELITE AP-3000 or AP4000 DR (digital readout)

Flight Console

- E3. PFC Cirrus II Flight Control Console or
- E7. PFC Digital Cirrus II Flight Control Console

iGATE® PC-ATD Model A

Rudder Controls:

- B3. PFC Cirrus Rudder Pedals or
- B4. Flight Link Rudder Pedals

Avionics Controls:

- D2. IC ELITE AP-2000 or
- D5. IC ELITE AP-3000 or AP4000 DR (digital readout)

Flight Console

- E10. ModWorks SmartPanel Model A

ELITE® PC-ATD Model AMD CH-2000

Rudder Controls:

- B3. PFC Cirrus Rudder Pedals or
- B4. Flight Link Rudder Pedals

Avionics Controls:

- D1. IC ELITE Professional Avionics Panel or
- D2. IC ELITE AP-2000 or
- D5. IC ELITE AP-3000 or AP4000 DR (digital readout)

Flight Console

- E5. IC ELITE Pro Panel Flight Control Console

ELITE APPROVED

Appendix B

ELITE Basic ATD MODELS WITH CONTROL DEVICE CONFIGURATIONS

ELITE models of Basic ATD listed herein are submitted for approved as generic trainers. To achieve the required performance specific to simple, complex, light piston twin and turbine aircraft, the ELITE software used in these designated models are developed, tested and patterned after commonly used and commercially available aircraft. All aero models comply with the design criteria and specifications contained in AC 61-126 Appendix 1:

Basic-ATD AERO MODELS:

- AMD CH-2000
- Beechcraft Bonanza A-36
- Beechcraft Baron 58
- Beechcraft King Air B-200
- Cessna C-172P
- Cessna C172R
- Cessna C-182S
- Cessna C182RG
- Mooney M20J
- Piper Archer III
- Piper Arrow IV
- Piper Seneca III
- Socato TB-20
- Socato TB-10

TVA APPROVED

ELITE® Basic ATD Model PI-135

Rudder Controls:

- B3. PFC Cirrus Rudder Pedals or
- B4. Flight Link Rudder Pedals

Avionics Controls:

- D1. IC ELITE Professional Avionics Panel or
- D2. IC ELITE AP-2000 or
- D5. IC ELITE AP-3000 or AP4000 DR (digital readout)

Flight Console

- E5. IC ELITE Pro Panel Flight Control Console

ELITE® Basic ATD Model PI-141

Rudder Controls:

- B3. PFC Professional Rudder Pedals

Avionics Controls:

- D1. IC ELITE Professional Avionics Panel or
- D2. IC ELITE AP-2000 or

- D5. IC ELITE AP-3000 or AP4000 DR (digital readout) or
- D6. PFC Digital Avionics Panel

Flight Console

- E4. PFC Professional Flight Console or
- E9. PFC Digital Professional Flight Console

ELITE® Basic ATD Model PI-142

Rudder Controls:

- B3. PFC Professional Rudder Pedals

Avionics Controls:

- D1. IC ELITE Professional Avionics Panel or
- D2. IC ELITE AP-2000 or
- D5. IC ELITE AP-3000 or AP4000 DR (digital readout) or
- D6. PFC Digital Avionics Panel

Flight Console

- E4. PFC Dual Professional Flight Console or
- E9. PFC Digital Dual Professional Flight Console

FAA APPROVED

ELITE Advanced ATD MODELS WITH CONTROL DEVICE CONFIGURATIONS

ELITE models of Advanced ATD listed herein are submitted for approved as generic trainers. To achieve the required performance specific to simple, complex, light piston twin and turbine aircraft, the ELITE software used in these designated models are developed, tested and patterned after commonly used and commercially available aircraft. All aero models comply with the design criteria and specifications contained in AC 61-126 Appendix 1:

Advanced-ATD AERO MODELS:

Beechcraft Bonanza A-36
Beechcraft Baron 58
Beechcraft King Air B-200
Cessna C172R
Cessna C182S
Mooney M20J
Piper Archer III
Piper Arrow IV
Piper Seneca III

ELITE® Advanced ATD Model iGATE G400 Series (G400 simple, G430 complex, G450 twin)

Rudder Controls:

- B3. PFC Cirrus Single Rudder Pedals or
- B4. Flight Link Single Rudder Pedals or
- B5. PFC Professional Single Rudder Pedals

Avionics Controls:

D5, ELITE AP-3000 DR (digital readout)

Flight Console

E5. ELITE – ICS iGATE® Flight Console, Piston Aircraft, Single Control

Aero Models

G400, Piper Archer III
G430, Piper Arrow IV
G450, Piper Seneca III

ELITE® Advanced ATD Model iGATE G500 Series (G501 single control, G502 dual control)

Rudder Controls:

- B3. PFC Cirrus Single Rudder Pedals or
- B4. Flight Link Single Rudder Pedals
- B5. PFC Dual Cirrus Rudder Pedals

Avionics Controls:

D5, IC ELITE AP-3000 DR (digital readout)

Flight Console

FAA APPROVED

E5. ELITE iGATE Flight Console, Piston Aircraft, Single or Dual Control

Aero Models

Beechcraft Bonanza A-36
Beechcraft Baron 58

ELITE® Advanced ATD Model iGATE G600 Series (G601 single control, G602 dual control)

Rudder Controls:

B3. PFC Cirrus Single Rudder Pedals or
B4. Flight Link Single Rudder Pedals
B5. PFC Dual Cirrus Rudder Pedals

Avionics Controls:

D5, IC ELITE AP-3000 DR (digital readout)

Flight Console

E5. ELITE iGATE Flight Console, Turbine Aircraft, Single or Dual Control

Aero Model

Beechcraft King Air B-200

FAA APPROVED

iGATE® Model G400, G500, G600 Series and iGATE® Model A (XTVS Advanced Features).

The iGATE Model G400 / G500 / G600 series and the iGATE Model A XTVS (Model A with ELITE External Visual System) exceeds the standard design criteria of typical PCATDs. These enhancements provide characteristics that better replicate the aircraft and provide accurate pilot ergonomics. Specifically, the software used in the Model G400, G500, G600 and Model A XTVS replicates actual size instrumentation and increased smoothness in animation through high resolution (1280x1024 dpi) graphics. Providing correct scan patterns and appropriate motor skill responses to aircraft systems and avionics enhances performance and function. These characteristics, coupled with an external visual system for an out-of-cockpit-view provides a cueing system to accommodate additional training and checking events.

The iGATE Model A XTVS, G400, G500 and G600:

- (1) is available with a realistic shrouded and un-shrouded cockpit design and instrument panel with generic cockpit modeling.
- (2) is comprised of cockpit knobs and switches/switch panels positioned in proper proportion and distance from the pilot's seated position and representative of the class of aircraft being flown;
- (3) consists of primary flight and navigation instruments that are approximately life sized exhibiting no stepping and arranged so as to provide a realistic scan pattenr;
- (4) includes a visual system (minimum one channel and options up to six channels) that provide acceptable cues in both day and night VFR/IFR conditions to enhance a pilot's visual orientation in the vicinity of any airport;

- (5) is available with optional cockpit seating that can be adjusted up or down and in and out to accommodate the correct spatial orientation for the pilot in relation to the cockpit, instruments and glare shield, if equipped;
- (6) includes a separate instructor's station to permit effective interaction without interrupting the flight in overseeing the pilot's horizontal and vertical flight profiles in real time and space with the ability to
 - a. oversee tracks along airways, holding entries and patterns, localizer and glide slope alignment/deviation (or other approaches with a horizontal and vertical track).
 - b. allow the instructor to function as ATC in providing vectors, etc., change weather conditions such as ceilings, visibilities, wind speed and direction, turbulence levels and icing conditions;
 - c. invoke failures in navigation and instruments, radio receivers, landing gear and flaps, engine power (partial and total), and other aircraft systems (pitot, electric, static, etc.,) by using either keyboard or mouse.

- (7) The Model G600 turbine trainer has all switches and aircraft systems specific to the King Air B-200 such as starter generators, inverters, cross feed flow and transfer overrides, auto ignition, auto feather, prop synch and master / advisory warning panels with reset switches. Instructor malfunctions are standard PCATD malfunctions of instrument, receivers and systems with the addition of hot starts, hung starts, over temp and partial engine power loss.



Figure 1- iGATE Un-shrouded



Figure 2 - iGATE Shrouded

FAA APPROVED





Figure 3 - iGATE Model A XTVS (with External Visual System)

Figure 4 – iGATE ICS Model G450 (twin)
Models G400 (simple) and G430 (complex) photo
not yet available.

FAA APPROVED