

Proposed Sole Source Purchase Form

For all proposed sole source requirements equal to or greater than \$20,000.00, the Requester is to complete this form to support the sole source nature of the requirement and submit to the Purchasing Department with the requisition.

Additionally, pursuant to New Mexico Procurement Law, the ENMU-Roswell Purchasing Department is required to post all proposed sole source requirements greater than the Formal Bid Limit on the ENMU-Roswell Sunshine Portal for 30 days prior to purchase of goods or services (additional pages may be attached, if necessary).

1. GENERAL INFORMATION.

Date of request: 9/16/16

Name of Requester: Chad Smith **Title:** Assistant Vice President of Technical Education

Department: Aviation

Contact Information (phone/email): (575) 624-7336/chad.smith@roswell.enmu.edu

Proposed Vendor: Redbird

Estimated Dollar Amount: \$99,089.00 (Vendor quote attached)

Description of goods/services to be acquired:

The Redbird MCX-Dual control, full motion, Advanced Aviation Training Device (AATD). The MCX includes a dual, control-loading yoke system and dual rudder pedals for simultaneous pilot and copilot control. The MCX also features wrap-around visuals, quick-change cockpit configurations, and extensive government approvals thus allowing student pilots to log some of their simulator time as flight hours.

Reason for Purchase:

ENMU-Roswell is expanding their Professional Pilot Training program. The expansion includes a Federal Aviation Administration reclassification and partnering with the Southwest Aeronautics, Mathematics, and Science (SAMS) Academy to prepare a pathway for secondary students to become professional pilots. Students begin their training at the SAMS Academy in two Redbird MCX AADT's and need to continue at the post-secondary level in the same unit.

2. BASIS FOR SOLE SOURCE PURCHASE (Choose applicable box(es) and provide additional information).

A. Proprietary item, technology, service, only available from the proposed vendor (describe propriety component).

Redbird is the sole manufacturer of an AADT with 3-axis, electric motion platform. This one-of-a-kind system provides effective motion feedback with 60 degrees of yaw, 50 degrees of pitch, and 40 degrees of roll. (Sole source letter attached)

B. Compatibility requirement with existing item, technology, service (describe proprietary component).

Students will begin their training at the SAMS Academy in a Redbird MCX as high school juniors while being simultaneously enrolled in the Professional Pilot Training program at ENMU-Roswell. The two educational institutions will be using identical curriculum and therefore need identical equipment.

C. Renewal of support/maintenance/subscription of software, technology or other intellectual property (provide description)

NA

D. Other basis for Sole Source (provide description).

NA

3. SUPPLEMENTAL DETAILS (Provide additional information as requested below)

A. Describe in detail the unique capabilities of the proposed vendor's goods/services and/or personnel performing the work and why this constitutes the only source. Focus on what is unique about the goods/services and why no other vendor could meet your needs.

The Redbird MCX the only AATD in its class that comes equipped with a 3-axis, electric motion platform. This unique system achieves these goals by balancing the entire cockpit load so that the center of gravity is close to the pitch and roll axis. The FMX motion platform does not rely on a platform suspended by linear actuator legs. Instead, the actuation mechanism is rotational via motors and belts. All of the MCX motion systems are comprised of several linked sub-systems, including:

- Position and acceleration calculations running on the flight simulation computer
- Motion system command software
- A control panel with motor drives, logic computer, testing and calibration controls
- An electrically driven, gimbale motion base with 3 electric motors and 2 hydraulic safety locks
- A full range of limit and position sensors

The Redbird MCX is also the only AATD with a 200° expansive visual display thus allowing real-world emergency scenarios. The Redbird MCX is equipped with a world-wide-terrain database allowing students to experience an infinite number of terrain features as viewed from the cockpit before they ever leave the ground.

Lastly, Redbird is the sole manufacturer and distributor of the MCX Aircraft Expansion Packs. The expansion packs enable the representation of a wide variety of training aircraft without having to buy a new simulator for each. Each configuration comes with a new instrument panel overlay with operable gauges and avionics, and if necessary, a new throttle quadrant and yoke is provided to give the student the proper controls for the aircraft chosen. Each configuration comes with a new instrument panel overlay with operable gauges and avionics, and if necessary, a new throttle quadrant and yoke is provided to give the proper controls for the aircraft chosen. The cost of each configuration is \$15,000 or more and having the Redbird MCX AATD at each training location will facilitate cost-sharing for configurations between the two institutions.

B. Describe the due diligence made to locate other possible sources including communications with other universities, communications with similar providers, web searches, yellow page searches, review of advertisements and trade publications, etc.

Following an Internet search for “Flight Training Devices,” “Flight Training Simulators,” “Advanced Aircraft Training Devices.” The search only identified four vendors and each one is well-known in the industry. An ENMU-R representative spoke with a sales associate from each vendor and they confirmed that Redbird was the only company that offered an AATD with motion.

C. List the other vendors who were contacted. Describe the specs/qualifications/criteria that the other vendors were unable to satisfy.

The four industry vendors are SimCom, Simflightronics, FRASCA, and Redbird:

SimCom (www.simulator.com) – does not sell equipment. You must go to the SimCom facility to utilize their devices. All devices lower than a “simulator,” which are FTD’s or AATD’s, are stationary.

Simflightronics (www.simflightronics.com) – All FTD’s and AATD are stationary but can use large single screen projection, large multi-screen projection, or small multi-screen displays. Simflightronics offers an upgrade including a motion platform, but that upgrade makes the device a Level D Simulator and the cost increases dramatically. They only offer a limited selection of non-digital (traditional/six-pack) instrumentation.

FRASCA (www.frasca.com) – All FTD’s and AATD are stationary with single screen projection. Upgrades to multiple large screen projection or small multi-screen displays are available but the FTD’s and AATD’s are still stationary. The selection of non-digital (traditional/six-pack) instrumentation is very limited.

Redbird (www.simulators.redbirdflight.com) – Uses stationary and motion platform for its AATD and FTD line of devices. Instrument panels can be either traditional (6-pack) or digital (glass cockpit) instrumentation.



Requester Signature

9/16/2016

Date