

SimLabs Simulation Participants

Statement of Work

PERIOD OF PERFORMANCE: One year, with 4 one-year options.

BACKGROUND: NASA Ames Research Center conducts research in its Simulation Laboratories (SimLabs) in the areas of flight and air traffic control management. SimLabs consists of the following individual simulators:

Flight simulators:

- The Vertical Motion Simulator (VMS)
- The Crew Vehicle Systems Research Facility (CVSRF) B747-400
- The Crew Vehicle Systems Research Facility (CVSRF) Advanced Cab

Air traffic control simulators:

- The Crew Vehicle Systems Research Facility (CVSRF) ATC Lab
- FutureFlight Central (FFC)
- Center/TRACON Automation System (CTAS) Lab

Simulation experiments are conducted intermittently based on customer demand. Customers can be NASA, other government civil or military researchers, or private companies. Due to intermittent demand for simulation participants, the contractor must have access to individuals who have schedule flexibility.

WORK TO BE PERFORMED

1. Contractor shall provide simulation pilots and air traffic controllers (ATCs), Airline dispatchers and Subject-Matter-Experts (SME) on a temporary as-needed basis to support experiments on-site in SimLabs facilities.
2. Contractor shall recruit, hire, schedule and complete visitor badging authorization for all Simulation Participants.
3. Contractor shall provide participants at predetermined fixed labor rates.
4. Over-night lodging cost are not authorized under this contract.
5. The contractor may only charge for time spent on site or at other such locations as may be approved in writing by the Contracting Officer in accordance with Paragraph 47.”

6. Contractor shall provide evidence of ability to recruit 25-30 participants for a single simulation project.
7. An understanding of the general requirements for typical research conducted within SimLabs is highly desirable.
8. NASA retains the right to reject a participant if, in the opinion of the government, his/her participation would be detrimental to the successful completion of the project.
9. All participants must speak English fluently with minimal accent, and must be United States citizens.
10. Simulation participants must be reliable and appear promptly for training for experiments except due to extreme and unavoidable reasons.
11. Specific simulation participants requirements:
 - a. Air Carrier Pilots – Current or recently retired commercial pilots with substantial airline experience or military equivalence. These pilots will have experience in large turbine powered, glass cockpit aircraft commiserate with research requirements. Air carrier Pilots are used in actual simulation activity.
 - b. Staff Pilot – A pilot that meets specific, project defined requirements to assist researchers in performing development and evaluation activities. Staff pilots may participate in actual simulation activities as a confederate participant or in non-simulation activities as required.
 - c. Air Traffic Controller – Current or recently retired air traffic controllers. This category includes Tower, TRACON or En Route controllers. The air traffic controllers will have experience in high-density terminal or en route operations. Air Traffic controllers are used in actual simulation activity.
 - d. Traffic Management Controller (TMC) – Current or recently retired air traffic controllers with experience working in a terminal or en route Traffic Management Unit. The TMC's will have experience in high-density terminal or en route operations. TMC's are used in actual simulation activity.
 - e. Pseudo Pilot – Pseudo Pilots are responsible for providing simulation support by acting as a pilot in an air traffic control simulation. Pseudo pilots will be general aviation pilots (IFR rated), commercial pilots, or air traffic controllers.
 - f. Airline Dispatchers – Current or recently retired licensed airline dispatchers air traffic controllers with substantial airline experience. Airline Dispatchers are used in actual simulation activity.

- g. Subject Matter Expert (SME) – Subject Matter experts may be pilots, air traffic controllers, or airline dispatchers used by researchers for the development or evaluation of simulation activities.
- h. Maintenance/Engineer Consultant – Consultants that may be required to perform a short term, unique maintenance or engineering task that SimLabs permanent staff are not available to perform.

12. Known project needs at this time include:

CVSRF: 3 Dimensional Path Arrival Management (3DPAM)

10 simulation pilots (estimated)
Approximately 2 weeks throughout August 2010
4-6 air traffic controllers (estimated)
Approximately 2 weeks throughout August 2010

CVSRF: Generic Sectors

5 simulation pilots (estimated)
Approximately 2 weeks throughout June 2010
5 Center ATC controllers
Approximately 2 weeks throughout June 2010

CVSRF: Air-Ground Coordination for Automated Separation Assurance (ACASA)

3 TRACON Controllers (estimate)
Approximately 3 weeks throughout July 2010
4 simulation pilots (estimate)
Approximately 3 weeks throughout July 2010

CTAS: Terminal Area Precision Scheduling Simulation (TAPSS)

12 TRACON ATC Controllers (estimate)
Approximately 3 weeks throughout August 2010
15 simulation Pilots (estimate)
Approximately 3 weeks throughout August 2010