

Performance Work Statement

FOR

747 Flight Simulator Visual System Upgrade Installation

21 March 2012

Introduction:

NASA Dryden Flight Research Center has a requirement to upgrade the IOS on the 747-200 #2 FFS FAA identification # 29.

Definitions:

IOS	Instructor Operating System
FFS	Full Flight Simulator
FAA	Federal Aviation Administration
UAL	United Airlines
CRT	Cathode Ray Tube
LCD	Liquid Crystal Display
RFT	Ready for Training

Scope:

1.1 General

This Statement of Work details the extent of work to be performed by UAL:

- Remove and dispose the existing IOS CRT Display hardware from 747-200 #2
- Install LCD flat panel displays to include modification to the host software code for NASA 747-200 #2 FFS FAA identification #29 located at the UAL Flight Training Center in Denver, Colorado

1.2 Project Deliverables

UAL shall perform the following modifications to the NASA's simulator:

- Removal and dispose of current IOS CRT display hardware and associated equipment
- Remove the (3) current discrete hard button panels

- Hardware installation of (3) SELLAR provided as government furnished equipment LCD rack mount flat panel displays
- Hardware installation of (3) SELLAR provided as government furnished equipment LCD Chassis Mount Flat Panel displays
- Hardware installation of (6) SELLAR provided as government furnished equipment display drive pcs.
- Software installation of SELLAR provided as government furnished equipment host code to drive new panel displays
- Refurbishment of 2 remaining discrete hard button panels
- Provide maintenance documentation for the upgraded system to include drawings, manuals, schematics, and procedures that are needed to maintain the system
- Provide 1 each spare 19” rack mount LCD display
- Provide 1 each spare 10.4” chassis mount display
- Provide 1 each spare thin client display drive PC
- Final update to simulator documentation to reflect changes from this update
- Clear discrepancies limited specifically to those associated with the IOS upgrade project
- Instructor Operator System software changes required for the upgrade of the IOS system

1.3 Simulator Availability/Schedule

UAL shall provide a preliminary schedule as a deliverable with the quote to the government. The simulator shall be available over the period(s) agreed to in the schedule. For training purposes, the IOS system shall be inoperative during the update period prior to the RFT date. The actual work start date shall be mutually agreed upon prior to contract award. Upon mutual agreement, a Master Schedule shall be developed with the actual start date specified and will be provided at time of award.

1.4 Simulator Performance

1.4.1 General

During updates, UAL shall ensure that no update modifications made to existing simulator components or software adversely impact the overall performance of the simulation. Following the completion of the update, the simulator shall be able to meet the same qualification standards that were in force on the device prior to the update (see paragraph 1.4.2).

1.4.2 Qualification

UAL shall apply to the relevant authority for any approvals deemed necessary to re-qualify the simulator, and UAL shall also provide the necessary manpower to conduct the associated simulator testing and, if required, any aircraft data or material required to

support the simulator's re-qualification. It is UAL's responsibility in providing the test measuring equipment required to support the simulator's re-qualification.

1.5 Acceptance

The Government will perform baseline checks and acceptance tests as described below.

1.5.1 Baseline Checkout

The Government may perform a baseline checkout of the simulator prior to the start of the project. UAL shall perform a software backup prior to any project work.

Any deficiencies identified during the baseline checkout shall be flagged for reference and shall be presented to the Government.

1.5.2 Acceptance

Upon completion of the update, UAL shall make available the simulator to the Government for acceptance. The Government will test the updated Instructor Operating System. Upon completion of the acceptance tests, the Government will confirm the acceptance or identify any issues to UAL. UAL shall support for the acceptance period. The same Government personnel used for the baseline check shall make available for the acceptance testing. Acceptance will be based on reviewing the work that was accomplished as it pertains to this Performance Work Statement.

Project Prerequisites:

Design and Qualification Standards:

These systems will be designed and qualified to meet the FAA AC120-40B level C standard.

Design Objectives:

Any warranty agreement will be covered between the original equipment manufacturer and buyer.

Payment:

UAL shall proposed a firmed fixed price milestone schedule