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Request for proposal

Build Two Aerial Wildfire Training Simulators

July 16, 2021

# 1. Definitions

**CIFFC** means the Canadian Interagency Forest Fire Centre Inc.

**Agencies** refers to the federal, provincial, and territorial ministries or departments mandated with wildland fire response within their respective jurisdictions.

**RFP** means Request for Proposal.

**Participant** means anyone submitting a response to this RFP.

# 2. Request for Proposal

CIFFC is extending an invitation to interested partied to provide proposals to supply the labour to assemble, test and build two aerial firefighting training simulators.

**SEE: APPENDIX A for Project Background / Information**

**Note:** CIFFC shall not be responsible for any costs incurred by any Participant in preparing, submitting, and presenting proposals. All responses and accompanying documentation received under the RFP shall become the property of CIFFC and shall not be returned to the Participant. This RFP may not result in any contract awards, and contains no contractual offer of any kind. Any RFP and quote received will be treated as an offer by the Participant and not as an acceptance of an offer made by CIFFC. Responses received unsigned or after the RFP closing date and time will not be considered. If responses are ambiguous, unclear or unreadable, they may not be considered.

## RFP Submission

CIFFC is interested in the Participant’s current abilities to design, assemble, test and trouble shoot aviation / aerial training simulators.

Participants must clearly highlight the merits of their submissions and particularly note that the following, though not necessarily exhaustive, are critical to CIFFC in its assessment of the submissions.

1. Proven and recent (last two years) experience building a variety of aviation / aerial simulators (minimum 10)
2. Access to a simulation workshop / facility in Canada, that is able to receive visitors (for assessment and progress review onsite)
3. Existing simulator testing and calibration software (including staff knowledge and ability to use)
4. Existing labour force with expertise and experience in:
   1. Software Engineering
   2. Simulation Architecture / software integration
   3. Simulator Design
   4. Simulator Build
5. Existing understanding of Canadian aerial wildfire operations training needs

RFP submissions must include:

1. A statement indicating the Participant’s understanding of the project and proposed methodology to produce a report based on deliverables in Section 4.
2. A summary of products to be provided.
3. A complete resume indicating the Participant’s experience as it relates to the requirements outlined above.
4. Contact names from three (3) clients for similar projects to be used as reference checks
5. An indication of the earliest date that the Participant could begin the project.
6. A fixed cost quote for the total cost of the project.

Submissions must be received by 12:00 **CT,** July 30, 2021. Submissions must be signed by a representative with the designated authority to bind the Participant to the terms, conditions, articles, and obligations of the proposal. Submissions shall be delivered by email to admin@ciffc.ca.

All submissions and any amendments thereto received after the closing date and time will not be accepted.

Participants may be required to make a virtual presentation to CIFFC representatives to further explain their proposal. Presentations are limited to no more than 45 minutes, with a 15 minute question period.

Participants are requested to submit any questions regarding this RFP, in writing, no later than July 23, 2021 to the following individual. Enquiries and responses will be recorded and may be distributed to all Participants.

Dave Bokovay  
dave.bokovay@ciffc.ca  
204-784-2030

# 3. RFP Schedule of Events

RFP Issue Date: July 16, 2021

Deadline for Participant Enquiries: July 23, 2021

RFP Submission Closing: July 30, 2021

If, after analysis of the Submissions, CIFFC wishes to proceed with one of the proposals, the Participant will be required to enter into a contractual arrangement with CIFFC (CIFFC Consulting or General Services Contract). The tentative timelines for completion of the project are as follows.

Project Start Date: August 16, 2021

Initial Build Completed by: December 15, 2021

Preliminary Report Due: January 10, 2022

Second Build Competed by: February 15, 2022

Final Report Due: February 28, 2022

# 4. Project Scope and Deliverables

Deliverable(s) for this project include:

1. Coordinate procurement of the attached hardware and software (as required)
2. Using the attached list of hardware and software (Appendix B) : assemble, build and test a fully functional, networked simulator by **December 15, 2021**
   1. Disassemble, transport and reassemble the simulator in Hinton AB by **January 31, 2022**
3. Using the attached list of hardware, software (Appendix B) and lessons learned from initial build: assemble, build and test a second fully functional and networked simulator by **February 15, 2022**
   1. Disassemble, transport and reassemble the simulator in northern Ontario (Thunder Bay, Sault Ste. Marie or Sudbury as likely destinations) by **May 30, 2022**
4. Provide a draft report outlining the steps associated with assembling the hardware and software, including a summary of issues encountered for review by CIFFC (2 week review) by **January 10, 2022**
5. Provide a final report outlining the steps associated with assembling the hardware and software (steps must be complete to be repeatable) by **February 28, 2022**

Please note this RFP does not extend to the implementation of any recommendations for change.

# 5. Proposal Quote

Please provide the Fixed Fee Quotation in the following format.

|  |  |  |  |
| --- | --- | --- | --- |
| **Item** | **Fixed Fee** | **Tax** | **Total (incl. tax)** |
| Labour – Simulator One Build  **(all items in Appendix B will be purchased for the successful vendor – do not quote on hardware of software parts)** |  |  |  |
| Labour – Simulator One transport/ reassemble  **(travel costs to be reimbursed / paid separately as per CIFFC Travel Rates. Shipping costs to be paid separately – outside the scope of this RFP)** |  |  |  |
| Labour – Simulator Two Build  **(all items in Appendix B will be purchased for the successful vendor – do not quote on hardware of software parts)** |  |  |  |
| Labour – Simulator Two transport / reassemble **(travel costs to be reimbursed / paid separately as per CIFFC Travel Rates. Shipping costs to be paid separately – outside the scope of this RFP)** |  |  |  |
| Labour – Report Development |  |  |  |
| **TOTAL** |  |  |  |

**APPENDIX A: Project Background / Information**

During escalated wildfire events coordinated aerial suppression operations that ensure safe and strategic use of aerial suppression equipment (e.g., land based airtankers/water bombers) is essential. Aerial firefighting is complex, high-risk, of high-consequence and cost. The need for standardized, highly trained interagency aerial wildfire personnel resources has never been more apparent.

Training on aerial fire suppression techniques, strategies and tactics is currently not standardized across Canada. The varying procedures, knowledge and experience of aerial suppression resources limits the ability to exchange and fully utilize this specialized wildfire personnel resource.

A larger project with the Government of Canada, Government of Alberta, Conair and CIFFC is underway to develop and build a standardized training simulator and associated scenarios for all Canadian Wildfire Management Agencies. Networked Aerial Firefighting Simulators will be designed, built, distributed and used for interagency joint-training. Standardized training will ensure Air Attack Officers (AAOs) from any Canadian jurisdiction have the training needed to deploy to resource-critical wildfire incidents.

This broader project involves

1. Complete the proof-of-concept prototype in Alberta to form the foundation of the national aerial firefighting simulation system**. - COMPLETE**
2. Research and evaluate all hardware/software required to meet Canadian training needs. **- COMPLETE**
3. Design and build a national aerial firefighting simulation system that includes networked, multi-user, national participation capabilities. This system can be replicated and deployed in multiple locations for use in a multiple agency environment. **– CURRENT PHASE**
4. Establish simulation exercise standards and protocols, to ensure national consistency in the development and training of personnel engaged in aerial firefighting activities.
5. Deliver national training using operational, networked and compatible Aerial Firefighting Simulators

Specifically, this contract will assist with objective three above; and is tied to producing the following deliverables:

Source all components identified to build two simulators for deployment (includes all hardware and software). Technicians will install onsite (Hinton and location TBD), calibrate and test each simulation system to ensure functionality. Tasks required to complete this milestone:

* Final report with specifications and pictures of the following:

- All required hardware/software/network components sourced and assembled to build the first simulator, and,

- Installation steps to assemble product, including bug-fixes (if any required) to create repeatable procedure.

* Final report detailing the following:

**-** Standardized software packages loaded, calibrated and tested into additional simulation, and

– Identification any issues associated with set-up, installation and/or testing.

**APPENDIX B: Hardware / Software Listing**

The following will be purchased and provided to the successful bidder and form the content of the aerial simulator. No additions will be considered (i.e., additional accessories, other software solutions)

|  |  |
| --- | --- |
|  | **Quantity** |
| **Hardware for 1x Bird Dog, 4x Roll Player and 1x IOS** |  |
| Cockpit Shell (Sim Samuraie) | 1 |
| Pixelwix 12 Foot Projection System | 1 |
| 25' Power bar for Projectors | 1 |
| Custom Instrument Panel | 1 |
| Computer Rack | 1 |
| Rack Mount Power bar | 2 |
| Rack Mount Hardware Kit (10 fittings) | 5 |
| Rack Mount Sliding Rails | 5 |
| IG Computer | 1 |
| Host Computer | 1 |
| Auxiliary Cockpit Computer | 1 |
| IOS Computer | 1 |
| Role Player Computer | 4 |
| 50' HDMI 2.0 Display Cable for Cockpit and Display System | 6 |
| 6' HDMI 2.0 Display System Cabling for IOS/RP | 10 |
| 28 Port Managed Gigabit Network Switch | 1 |
| Wireless router | 1 |
| 6 ' Cat6 Network Cables | 17 |
| 50 ' Cat6 Network Cables for IOS\RP | 10 |
| David Clark Headsets | 2 |
| Cockpit Seats | 2 |
| Redbird Yoke | 1 |
| Redbird Throttle Quadrant | 1 |
| Redbird Rudder Pedals | 1 |
| Cockpit Touch Screens | 2 |
| 27" Monitors for IOS and Role Player | 10 |
| GPS (GNS530) | 1 |
| Ambient Audio System | 1 |
| Logitech G432 Gammig Headsets | 5 |
| Logitech Extreme 3D Pro Joystick | 6 |
| Mouse and Keyboard set for IOS and Role Players | 5 |
| Power bar for IOS/Cockpit/PR | 8 |
| USB Extender Hubs for Cockpit | 2 |
| 25' USB extender cable | 2 |
| Back Up 2TB Hard Drives | 0 |
| USB Back Up System | 0 |
| IOS, Role Palyer Desk | 0 |
| Dell R340 Backup Server -12TB | 1 |
| Miscellaneous Parts | 1 |
|  |  |
|  | **Quantity** |
| **Software for Bird Dog Sim and IOS** |  |
| Prepar3D Professional Plus V5.1 | 1 |
| Prepar3D Professional V5.1 | 4 |
| Lorby Wildfire Response | 1 |
| Prepar3D Terrain Add On | 10 |
| Avionics System Air Manager Software | 1 |
| Instrument Development Package | 1 |
| Team Viewer | 1 |
| Additional Image Warp Software | 0 |