



**Missouri Department of Transportation**  
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August 10, 2011

Addendum to Bid Request 3-110817WB – MARFFT  
Addendum 3-110817WB-03

The questions and/or statements below (in black) were presented to us by prospective bidders, and MoDOT's responses are in blue:

1. Paragraph A.6.D, A.6.F, B.3, B.10, & B.12.B \_\_ These paragraphs list the types of fires to be provided with the aircraft mockup. There are several discrepancies between the paragraphs. Is our understanding correct, that the mockup is to be provided with the following fires (excluding the fuel spill fires) :

- a) Flight Deck (Cockpit) (1 fire)
- b) Galley ( 1 fire)
- c) Right Side Cabin (1 fire)
- d) Left Side Cabin (1 fire)
- e) Cabin Flashover (1 effect)
- f) Cargo ( 1 fire)
- g) Overhead Compartment (1 fire)
- h) Right Wing Engine (1 fire)
- i) Left Wing Engine (1 fire)
- j) Tail Engine ( 1 fire)
- k) Right Side Wheel Assy ( 1 Fire)
- l) Left Side Wheel Assy ( 1 Fire)
- m) APU ( 1 fire)
- n) Right Side Fuselage Fire ( 1 fire)
- o) Left Side Fuselage Fire ( 1 fire)

Reply 1: Yes, the mobile aircraft mockup will have fire places as noted above in a-o.



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2. Paragraph A.6.H \_\_\_\_ Is the HVAC a requirement for a control room on the extended frame of the MARFFT tractor?

Reply 2: Paragraph A.6.H states, "Complete remote control." meaning a stand-alone system. I believe the bidder question is for A.6.G. HVAC is mis-titled and was intended to mean the smoke removal system for the aircraft mockup which will have a constant airflow in subfloor and an emergency smoke/heat removal system. In accordance to the AC 150/5220-17B, 3.5.b.(6) "For mobile trainers, a climate-controlled control center is not allowed." There is not a control room in this request and a control room is not allowed. Page 21, 2<sup>nd</sup> paragraph from top.

3. Paragraph B.4 \_\_\_\_ Is the propeller addressed in this paragraph to be free-wheeling or motor driven?

Reply 3: Neither. This is a propeller that is easily put on or removed to give the students a visual of a propeller. It is stationary when in use. It is removed when transporting the aircraft mockup or if the airport is utilizing turboprop aircraft. Two or three bolts to install or remove.

4. Paragraph B.10 \_\_\_\_ a) Will the liquid propane for the spill fires be provided by a drop tank or bobtail truck or is it expected that the twin 250 gallon or 500 gallon tank provided on the MARFFT tractor also provide the liquid supply?  
b) Will the spill fires be located away from the mockup and wings to prevent direct flame impingement?

Reply 4:

(a) It is expected that the twin 250 gallon or 500 gallon tank provided on the MARFFT tractor also provide the liquid supply and vapor for the spill fires. MU FRTI can show and demonstrate this capability if bidder needs more clarification.

(b) -Yes.

5. Paragraph B.13.E \_\_\_\_ What is the electrical loading basis for the 24 KW electrical generator? This may unnecessarily add cost to the unit if the bidders, based on their existing COTS MARFFT units and design, can meet the electrical loading requirements including utility outlets with a lower power demand.

Reply 5: Variations may be accepted if they can meet system requirements.



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6. Paragraph B.21 \_\_\_\_ The USDOT limits the overall length of a tractor semi-trailer combination to 60' on the state highways of Missouri. The overall combination length of the tractor and mockup for the MARFFT will be over 70'. Will there be a waiver to this requirement?

Reply 6: The current unit is over 70 feet long when the tractor is connected to the trailer. The current unit doesn't require special permits. There are weight restrictions per axle. Please check with the Motor Carrier division of MoDOT for specifics.  
<http://www.modot.mo.gov/mcs/>

7. Paragraph B.27 \_\_\_\_ Is it desired to have a bulkhead to define and separate the passenger and cargo spaces in the mockup interior? To provide some flexibility in laying out the interior, is the requirement to provide for 10 rows of seats critical?

Reply 7: A bulkhead to define and separate is preferred but not required. The 10 rows of seats are critical for the commercial airports and their training. The back seats, as designed by the bidders, need to be removable to allow for the cargo fire. When passenger seating is required then the cargo box comes out and seats go in.

8. Paragraph B.29 \_\_\_\_ This paragraph limits and confines the bidder to one specific approach for folding the wings into a transport mode. Is an alternate approach acceptable if it has already been proven successful by the vendors existing COTS MARFFT product line and meets the requirement for compactly transporting the unit and quickly and safely deploying the wings for operation. Given the cantilevered weight of the fixed engines and the turret nozzle stream force an alternate approach may be more suitable for this particular application.

Reply 8: Alternative designs for wings to be folded for transport mode may be submitted for consideration, and will be reviewed. The final decision of an acceptable alternative design will be made by MHTC.

9. Paragraph B.36 \_\_\_\_ This paragraph requires a minimum stainless steel skin thickness of 3/16". Paragraph A.6.K requires a life span of 10 years. We do not understand the basis for the minimum 3/16" skin thickness. Can it be left to the bidders, based on their existing COTS history with MARFFT units, to determine the best combination of structural supports and skin thickness to meet or exceed the



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performance and life span requirements?

Reply 9: Requirements are based on the current unit's thickness which has held up to 11 years of fires. Alternative designs will be reviewed with the final decision of an acceptable alternative design will be made by MHTC.

10. Section B. Page 37, General Performance \_\_\_\_ This paragraph requires the MARFFT to be constructed of Stainless Steel. We understand this to include all structural members, interior components, exterior skin, trailer if used as part of the design, etc. However, is our understanding correct that this does not include the axles.

Reply 10: Stainless steel is required where the water, fire and heat affect the MARFFT unit. The skeleton of the trailer is not required to be stainless and the axles are not required to be stainless.

11. General \_\_\_\_ Please clarify the reference point of left and right side; is it as viewed from the cockpit looking forward or from the outside looking at the mockup front.

Reply 11: The reference point is from a Pilot's perspective; looking forward out of the cockpit. This translates to left as port, right is starboard, and rear is towards the back side of the fuselage.

-12. General \_\_\_\_ Will consideration be given towards extending the bid submittal deadline/opening date from 16 August 2011 to 31 August 2011 given the need to review and incorporate responses to clarification question submittals?

Reply 12: Yes. We have changed the bid opening date and time. Bids will now be opened on August 23, 2011 at 10:00 a.m. CDT.

13. Bidder Qualifications\_ Should the list of three previous customers in the past five years consist of Mobile Aircraft Rescue Firefighting Trainers of equal or greater complexity to the one specified?

Reply 13: Yes



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14. Bid Guarantee\_\_\_\_\_On page 7 of the RFB, under the heading Evaluation of Bids, the RFB mentions a 'bid guarantee'. Can you please clarify if a bid guarantee is required?

Reply 14: A bid guarantee is not required. This verbiage will be removed from the bid document.

If you have any questions, please feel free to contact me by email or phone at (573) 526-2529.

Sincerely,

Warren Blanchard  
Senior General Services Specialist  
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