

**ANNEX P**

**MOVING FUEL EFFICIENCY TEST**

**TO**

**PURCHASE DESCRIPTION**

**FOR**

**JOINT LIGHT TACTICAL VEHICLE**

**VERSION 3.0**

**20<sup>TH</sup> JANUARY 2012**

## Revision History

<b>Revision</b>	<b>Date</b>	<b>Description</b>
1.0	12 <sup>th</sup> September 2011	Annex for Moving Fuel Efficiency Test.
3.0	9 <sup>th</sup> January 2012	No requirement change. Version number changed to match rest of the PD.
3.0	20 <sup>th</sup> January 2012	Final RFP Release. No requirement change. Date changed to match rest of the PD.

# 1 SCOPE

Annex P defines the JLTV Moving Fuel Efficiency Test.

# 2 APPLICABLE DOCUMENTS

There are no Applicable Documents specific to Annex P.

# 3 JLTV REQUIREMENTS

The On the Move fuel efficiency shall be tested by running three (3) Aberdeen Test Center (ATC) Courses:

- Hartford Loop, representing primary roads
- Perryman A, representing secondary roads
- Churchville B, representing cross country and trails

Movement Terrain	ATC Course	Average Speed	Weighting
Primary Road	Hartford Loop	45 mph (72 kph)	20%
Secondary Road	Perryman A	25 mph (40 kph)	40%
Cross Country and Trails	Churchville B	15 mph (24 kph)	40%

Table 1 –Fuel Efficiency Test Course

An average mile per gallon (mpg) shall be measured for each course using a fuel flow meter (IAW TOP 2-2-603). This measured value will then be used in *equation 1*, below, to determine the Overall mpg.

$$Overall\ MPG = \frac{1}{\frac{.2}{MPG_{Hartford}} + \frac{.4}{MPG_{Perryman\ A}} + \frac{.4}{MPG_{Churchville}}} \quad (equation\ 1)$$

The payload-ton mpg will then be calculated using *equations 2*, below. The payloads are defined as the payloads achieved at GVW.

$$payload - ton\ MPG = \left( \frac{Payload}{2000} \right) * Overall\ MPG \quad (equation\ 2)$$

Idle fuel consumption rate in gallons per hour shall be calculated with a total electrical draw of 10kW at 28 volts DC. The 10kW shall include the vehicle electrical hotel loads. Standard mechanical parasitic loads that are normal to the vehicle operation at idle shall be considered in addition to the 10kW.