

Amendment 0001  
Solicitation Number ONR BAA Announcement N00014-16-R-BA02  
Advanced Topcoat Systems (ATS) for Air and Ground Vehicles  
Date: 15 December 2015

The purpose of Amendment 0001 is to respond to questions submitted prior to 15 December 2015 and to update tables (shown below) within the BAA announcement.

Questions received after the release of Amendment 0001 and before the deadline for submissions of questions will be addressed in a subsequent amendment.

1. Questions and Answers are provided as follows:

**Question 1:** I have a technical question regarding Table 3 of this BAA. Under the GV Primer, it states that the product must be 1 component. Is this correct? All current 53022 and 53030 products are two components.

**Answer 1:** The Threshold values for the number of components listed in Table (3) and in Table (4) have been changed to read "2" in lieu of "1".

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**Question 2:** Does the Presolicitation under solicitation number N0001416RBA02 contain requirements similar to a current contract? If possible, please provide the current contract number. Or, is this a new requirement for the government?

**Answer 2:** This is a new requirement for the government.

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**Question 3:** We would just like to inquire if the effort, "Advanced Topcoat Systems (ATS) for Air and Ground Vehicles", is a new requirement or not. If not, we'd like to request for the incumbent information, such as the contract number and task order if there is any.

**Answer 3:** See the response to question 2 above.

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**Question 4:** Are we limited to proposing polysiloxane chemistry?

**Answer 4:** You are not limited to polysiloxane resins for the topcoat or epoxy resins for the primer. The government is interested in alternative resin chemistries as long as they can meet requirements per the primer and topcoat tables stated in the BAA.

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**Question 5:** When responding to the BAA White paper, do we need to select either Air Vehicle or Ground Vehicle? Our technology addresses both applications.

**Answer 5:** Submission of White Papers can address either Air or Ground Vehicles, or both.

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2. Table (3) entitled “Advanced Topcoat System – Minimum Requirements and Goals for GV Primer” stated on page 7 of the BAA is revised to change the number of components cell to read “2” in lieu of “1”.

Ground Vehicle Primer:

The GV primer shall at a minimum meet or exceed all performance requirements of a MIL-DTL-53022, Type IV coating, while also having all components isocyanate free. The GV primer shall also be compatible with MIL-DTL-53030, MIL-DTL-53022, MIL-DTL-53039, and MIL-DTL-64159. Additionally, several criteria have been selected with performance improvement goals that should exceed the minimum requirement stated. These are provided in Table (3) below.

Table (3)  
Advanced Topcoat System - Minimum Requirements and Goals  
for GV Primer

Requirement	Threshold Requirement	Objective Requirement
Corrosion	Salt spray exposure time of 1000 hours (MIL-DTL-53030, Section 4.5.17.1) and cyclic corrosion testing for 120 cycles (MIL-DTL-53030, Section 4.5.17.2) while still meeting requirements of 3.7.5.1 and 3.7.5.2	Increase salt spray exposure time to 1500 hours (MIL-DTL-53030, Section 4.5.17.1) and increase cyclic corrosion testing to 180 cycles (MIL-DTL-53030, Section 4.5.17.2) while still meeting requirements of 3.7.5.1 and 3.7.5.2
Recoatability	Allow primer to dry to 2 hours, 24 hours, and 240 hours in MIL-DTL-53030, Section 4.5.19 while still meeting requirements of 3.7.7	Allow primer to dry to 2 hours, 24 hours, and 240 hours in MIL-DTL-53030, Section 4.5.19 while still meeting requirements of 3.7.7
Dry and Cure Times	As specified in requirements of MIL-DTL-53022 and MIL-DTL-53030. Dry times can be between requirements of MIL-DTL-53030 and MIL-DTL-53022, but no longer than MIL-DTL-53030	50% reduction in full cure time of MIL-DTL-53030 and dry times in MIL-DTL-53022
Number of Components	2	1

3. Table (4) entitled “Advanced Topcoat System - Minimum Requirements and Goals for GV Topcoat” stated on pages 8-9 is revised to change the components cell to read “2” in lieu of “1”.

Table (4)  
Advanced Topcoat System - Minimum Requirements and Goals  
for GV Topcoat

Requirement	Threshold Requirement	Objective Requirement
Non-Isocyanate	All components of coating system must be isocyanate free	All components of coating system must be isocyanate free
Chemical Agent Resistance*	Meet the requirement of desorption of agent GD and HD when tested in accordance with MIL-DTL-64159 Section 4.4.25	Meet the requirement of desorption of agent GD and HD when tested in accordance with MIL-DTL-64159 Section 4.4.25
Gloss Requirement	5% reduction in gloss values specified in MIL-DTL-64159	10% reduction in gloss values specified in MIL-DTL-64159
Weathering	Color shall not exceed 2 NBS unit when tested in accordance with MIL-DTL-64159 Section 3.6.15	Color shall not exceed 1 NBS unit when tested in accordance with MIL-DTL-64159 Section 3.6.15
Impact/Mar Resistance	50% increase in impact/mar resistance as compared to MIL-DTL-64159 system for ASTM D2794 and ASTM D5178	100% increase in impact/mar resistance as compared to MIL-DTL-64159 system for ASTM D2794 and ASTM D5178
Low Solar Absorption	10% reduction in solar absorption from current CARC topcoats when tested in accordance with ASTM C1549. Dry film thickness of 2±0.2 mils shall be used for testing.	15% reduction in solar absorption from current CARC topcoats when tested in accordance with ASTM C1549. Dry film thickness of 2±0.2 mils shall be used for testing.
Dry and Cure Times	As specified in requirements of MIL-DTL-64159 and MIL-DTL-53039. Dry times can be between requirements of MIL-DTL-64159 and MIL-DTL-53039, but no longer than MIL-DTL-64159	50% reduction in dry times in MIL-DTL-53039

<b>Requirement</b>	<b>Threshold Requirement</b>	<b>Objective Requirement</b>
Recoatability	Apply second coat of paint after 2 hours and 48 hours in MIL-DTL-64159, Section 4.4.18 while still complying with 3.6.7	Apply second coat of paint after 2 hours and 48 hours in MIL-DTL-64159, Section 4.4.18 while still complying with 3.6.7
Number of Components	2	1
Cleanability	After testing in accordance with ASTM D4828 the coating shall result in a rating of '10 – All soil and stain removed' and also have color change less than 2.5 NBS units when compared to an unexposed sample for the same batch using tristimulus color coordinates	After testing in accordance with ASTM D4828 the coating shall result in a rating of '10 – All soil and stain removed' and also have color change less than 2.5 NBS units when compared to an unexposed sample for the same batch using tristimulus color coordinates
Hydrophobicity	Contacting angle greater than 90 degrees when measured in accordance with ASTM D7334 and using distilled water as test liquid	Contacting angle greater than 90 degrees when measured in accordance with ASTM D7334 and using distilled water as test liquid

4. On page 15, the available funding table stated under paragraph A. (Funding Amount and Period of Performance) of Section II. (Award Information) is revised to read as follows:

**II. AWARD INFORMATION**

**A. Funding Amount and Period of Performance-** Estimated Total Amount of Funding Available (\$K):

	<i><b>FY2017</b></i>	<i><b>FY2018</b></i>	<i><b>FY2019</b></i>	<i><b>FY2020</b></i>	<i><b>Total</b></i>
<i><b>Ground Vehicles (GV)</b></i>	<b>\$795</b>	<b>\$1,100</b>	<b>\$795</b>	<b>\$720</b>	<b>\$3,410</b>
<i><b>Air Vehicles (AV)</b></i>	<b>\$565</b>	<b>\$500</b>	<b>\$500</b>	<b>\$400</b>	<b>\$1,965</b>
<i><b>Total Funding</b></i>	<b>\$1,360</b>	<b>\$1,600</b>	<b>\$1,295</b>	<b>\$1,120</b>	<b>\$5,375</b>

Except as modified herein, all other information stated under BAA N00014-16-R-BA02 remain unchanged.