SIGAR

Special Inspector General for Afghanistan Reconstruction

OFFICE OF SPECIAL PROJECTS

Afghan National Maintenance Strategy: Ground Vehicle Support – DOD Has Taken Action to Reduce Spare Parts Overhead Costs

OCTOBER 2019

SIGAR 20-05-SP

October 31, 2019

The Honorable Mark T. Esper
Secretary of Defense

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Commanding General, U.S. Army Contracting Command

This report is a follow-up to a previously issued SIGAR report entitled "Afghan National Army: DOD Has Taken Steps to Remedy Poor Management of Vehicle Maintenance Program (SIGAR 16-49-AR)." The audit reviewed the Afghanistan Technical Equipment Maintenance Program (A-TEMP), a program designed to maintain the Afghan National Army (ANA) vehicles and to develop organic maintenance capacity within the ANA. The report found that the Army Contracting Command and the Combined Security Transition Command – Afghanistan (CSTC-A) made inaccurate assumptions about the capacity of the Afghans to manage the supply chain and underestimated the cost of spare parts. In addition, the amount and quality of government contract oversight declined primarily due to security concerns and DOD did not hold the contractor accountable for failing to meet contract requirements. As a result, we recommended that DOD (1) perform a review of the oversight and execution of the current A-TEMP contract to determine lessons learned and best practices, and (2) ensure that the contract appropriately address those conditions that hinder contractor implementation of contract requirements. In DOD's response to our 2016 report, DOD stated that they will ensure that the U.S. Army Contracting Command – Warren (ACC-Warren) and Product Manager for Allied Tactical Vehicles and any other key stakeholders apply lessons learned from this report in the development of the national maintenance contract. The contract, which was in place from December 2010 until June 2017, was replaced with the National Maintenance Strategy – Ground Vehicle Support (NMS-GVS) contract in May 2017.

The purpose of this review was to (1) determine the extent to which the NMS-GVS contract incorporated lessons learned from SIGAR's 2016 report and (2) assess the steps DOD has taken to control the cost of ANA vehicle spare part purchases under NMS-GVS contract.

Our analysis found that DOD addressed the findings from our 2016 report on the A-TEMP contract when designing the NMS-GVS contract. To address our findings, first, DOD incorporated supply chain management into the solicitation, instead of requiring the contractor to rely on the Afghans to manage supply chain management. This allowed Army Contracting Command to compete the cost to perform the supply chain management function, which resulted in a significantly lower overhead rate for spare parts, thereby potentially reducing the overall cost to acquire and deliver spare parts to the maintenance sites. Second, DOD increased oversight of the NMS-GVS contract, by assigning the Product Manager for Allied Tactical Vehicles program oversight responsibility and hiring additional Contract Oversight Representatives (CORs) in Afghanistan. The CORs visit Afghan Equipment Maintenance Sites and PAE provides status reports on Afghan National Army and Afghan National Police maintenance operations. These updates include parts status, work orders, maintenance training, and other pertinent topics.

While DOD implemented many of the recommendations from our 2016 A-TEMP contract report, it is still uncertain whether these actions will result in overall reduced spare parts cost. A comparison of the fully burdened spare parts cost for a sample of spare parts purchased on both the A-TEMP contract and the NMS-GVS contract showed that prices for some parts increased while prices for other parts decreased. This was caused primarily by the differences in the unit prices the two contractors were paying for the various parts. Also, a comparison of the unit prices under the NMS-GVS contract to Defense Logistics Agency (DLA) prices listed in FEDLOG showed that purchasing some of the parts through DLA might reduce overall costs.

We made one recommendation in the report; we recommended that the Afghan Resource Oversight Council direct the U.S. Army Contracting Command to modify the NMS-GVS contract to allow the contractor to use the Defense Logistics Agency to purchase spare parts when the DLA prices are the least expensive source.

We provided a draft of this report to DOD on 27 September 2019. We received written comments on a draft of this report from DOD on 30 October 2019. DOD concurred with the recommendation and stated that the U.S. Army Contracting Command in coordination with the Product Manager for Allied Tactical Vehicles and the Defense Logistics Agency (DLA) are in the process of making the necessary contract modifications to authorize the contractor to use DLA for spare parts supply when it is the cheaper option.

We conducted our work in Washington, D.C. from February 2018 through September 2019, under the authority of Public Law No. 110-181, as amended, and the Inspector General Act of 1978, as amended; and in accordance with the Council of Inspectors General on Integrity and Efficiency (CIGIE) *Quality Standards for Inspection and Evaluation*. Should you or your staff have any questions about this project, please contact Mr. Benjamin Piccolo, Director of Special Projects, at (703) 545-2192 or benjamin.j.piccolo.civ@mail.mil.

Sincerely,

John F. Sopko
Special Inspector General
for Afghanistan Reconstruction

In December 2010, the Department of Defense (DOD) awarded a contract, called the ANA Afghanistan - Technical Equipment Maintenance Program (A-TEMP) to Afghanistan Integrated Support Services JV (AISS) to perform maintenance of the Afghan National Army (ANA) fleet of vehicles, while developing the ANA's organic capacity to maintain its vehicles in the future. A-TEMP was a 5-year, firm-fixed-price contract at a projected cost of nearly $182 million, not including the cost of supply chain management or spare parts.[1] The contract, which was set to expire in December 2015, was extended until June 2017 and after 68 modifications, the obligated amount was increased to $423 million.

In 2016, SIGAR issued a report entitled "Afghan National Army: DOD Has Taken Steps to Remedy Poor Management of Vehicle Maintenance Program (SIGAR 16-49-AR)." The 2016 report found that the Army Contracting Command and the Combined Security Transition Command – Afghanistan made inaccurate assumptions about the capacity of the Afghans to manage the supply chain and conduct maintenance, and underestimated the cost of spare parts. As a result of the inaccurate assumptions about Afghan capacity and due to underestimated spare parts cost, the contract costs were significantly higher than originally estimated. In addition, the amount and quality of government contract oversight declined and DOD did not hold the contractor accountable for failing to meet contract requirements. The 2016 report recommended that DOD (1) perform a review of the oversight and execution of the current A-TEMP contract to determine lessons learned and best practices, and (2) ensure that the contract appropriately address those conditions that hinder contractor implementation of contract requirements. In DOD's response to our 2016 report, DOD stated that they will ensure that the U.S. Army Contracting Command – Warren (ACC-Warren) and Product Manager for Allied Tactical Vehicles and any other key stakeholders apply lessons learned from this report in the development of the national maintenance contract.

DOD awarded a new contract in May 2017 called the National Maintenance Strategy – Ground Vehicle Support (NMS-GVS). The NMS-GVS contract also included vehicle maintenance requirements of the Afghan National Police (ANP) as well as the ANA vehicle maintenance requirements.

SIGAR initiated this review to (1) determine the extent to which the NMS-GVS contract incorporated the lessons learned from the A-TEMP contract and (2) assess the steps DOD has taken to control the cost of ANA vehicle spare part purchases under NMS-GVS contract. To accomplish these objectives SIGAR reviewed relevant documents, including the A-TEMP and NMS-GVS contracts, and obtained other documents and emails from DOD, including the Product Manager for Allied Tactical Vehicles and Tank-automotive and Armaments Command (TACOM) from January 2018 through September 2019. Appendix I has details of our objectives, scope, and methodology.

BACKGROUND

DOD has spent over $18 billion to equip the Afghan National Defense Security Forces (ANDSF) as of June 19, 2019.[2] To maintain the vehicle portion of this investment—DOD has separate contracts to maintain aircraft-- DOD awarded the NMS-GVS contract, to PAE Government Services, Inc. on May 23, 2017. According to the Army Contracting Command, the contract is a one-year base contract, with four option years. If DOD exercises all option years, PAE Government Services Inc. will support ANA and ANP vehicle maintenance until August 2022 at an estimated cost exceeding $800 million. Army Contracting Command (ACC), Warren, Michigan awarded the contract and the Product Manager for Allied Tactical Vehicles provides oversight.[3] In addition to maintaining the fleet of vehicles, the contract also includes a training component that requires the contractor

[1] "Supply chain management" is defined as "the integration of the supplier, distributor, and customer logistics requirements into one cohesive process to include demand planning, forecasting, materials requisition, order processing, inventory allocation, order fulfillment, transportation services, receiving, invoicing, and payment. Coyle, John J.Edward J. Bardi, and C. J. Langley. The Management of Business Logistics, 7th ed. 2003.

[2] SIGAR Quarterly Report to the U.S. Congress dated 30 July 2019. This amount includes all equipment to include aircraft and some transportation costs.

[3] Product Manager Allied Tactical Vehicles is a subordinate office for the Program Executive Office Combat Support and Combat Service Support (PEO CS & CSS) under the Assistant Secretary of the Army Acquisition, Logistics and Technology (ASAALT)

to provide training and mentoring to the Afghan National Defense Security Forces (ANDSF) with the expectation that the ANDSF will have the capability to conduct their own maintenance, to include supply chain management, at the end of the contract.

The NMS-GVS contract provides vehicle maintenance support to both the ANA and ANP fleet of vehicles at 27 equipment maintenance sites throughout Afghanistan. In total, under the original contract, PAE was responsible for ensuring the maintenance of 99,376 individual vehicles throughout Afghanistan. Table 1 shows the types and quantity of vehicles maintained.

Table 1: Initial Inventory of Selected Vehicles to be Maintained under the NMS-GVS Contract

Vehicle Type	Number of Vehicles
Ford Ranger (Light Tactical Vehicle)	40,993
High Mobility Multipurpose Wheeled Vehicles (HMMWV)	21,309
Medium Tactical Vehicle (MTV)	11,757
Other Personnel Transport Vehicles	11,385
Other Miscellaneous Vehicles	8,775
Other Construction Vehicles	3,372
Ambulance	1,669
Mine Resistant Ambush Protected Vehicles (MRAP)	116
Total	99,376

Source: Analysis of Contract Documents Provided by Army Contracting Command, Warren, MI

THE NMS-GVS CONTRACT ADDRESSED FINDINGS FROM SIGAR'S 2016 REPORT ON THE A-TEMP CONTRACT

SIGAR's 2016 report found that the Army Contracting Command and the Combined Security Transition Command – Afghanistan made inaccurate assumptions about the capacity of the Afghans to manage the supply chain and conduct maintenance, and underestimated the cost of spare parts. The original A-TEMP contract required the contractor to order spare parts through the ANA supply chain. Two months after contract award, the Contracting Command modified the contract and awarded a modification to AISS JV to incorporate supply chain management into the contract. This non-competitive contract modification made the A-TEMP contractor responsible for purchasing sufficient levels of spare parts on a cost reimbursable basis and added $96 million to the cost of the contract.

The report also found that the amount and quality of government contract oversight declined and DOD did not hold the contractor accountable for failing to meet contract requirements. During the first 2 years of the A-TEMP contract, the Defense Contract Management Agency – Afghanistan (DCMA-A) provided oversight over the contractor. However, due to deteriorating security conditions, DCMA-A leadership prohibited quality assurance representatives from traveling to the maintenance sites, and in March 2015, DCMA-A announced that it no longer had the ability to perform quality assurance functions and property audits.

To address the problems SIGAR identified on the A-TEMP contract audit, the Army Contracting Command, during the award of the NMS-GVS contract, included supply chain management into the solicitation. The ability to competitively bid the supply chain management function rather than adding it in after the fact is largely responsible for the decrease in the overhead rate from approximately 98.18% under the A-TEMP contract to 49.76% for the NMS-GVS contract. [4] DOD efforts to improve the oversight of the ANA A-TEMP contract include

[4] The overhead rate is a set percentage of the unit price of a part that factors in the added expenses of supplying a part to its purchaser, outside of the simple manufacture of that part. These additional sources of expense include freight, intra-

giving contract oversight to the Product Manager for Allied Tactical Vehicles and increasing the number of CORs providing contract oversight, thereby adding the dedicated expertise needed to perform the quality assurance function and the government oversight needed to ensure the contractor meets contract requirements.

Oversight Was Improved On the NMS-GVS Contract

In our 2016 report, SIGAR noted that the amount and quality of government contract oversight declined due primarily to security concerns, limiting the information available to determine the quality of AISS JV performance on the contract.[5] During the first two years of the contract, security conditions allowed DCMA-A quality assurance representatives and CORs to conduct direct on-site inspections at maintenance sites. During this period, DCMA-A quality assurance representatives issued the contractor 113 corrective action requests (CARs) documenting its failure to fulfill contract requirements. In June 2013, however, DCMA-A leadership prohibited quality assurance representatives from traveling to the maintenance sites. After June 2013, oversight consisted of approximately 2-hour monthly inspections by CORs, if security conditions permitted, during which they used a DCMA-A checklist to collect high-level quantitative data such as the presence of required technical manuals.

To address the oversight problems that SIGAR identified on the A-TEMP contract audit, DOD assigned the Product Manager for Allied Tactical Vehicles as the quality assurance representative on the contract. The Product Manager for Allied Tactical Vehicles staff make periodic visits and added improved oversight that includes:

- Six Contracting Officer Representatives (CORs) to provide on-the-ground contract oversight to ensure that the contractor is performing in accordance with the contract requirements.
- Unannounced COR visits to the contractor sites. During site visits, CORs verify that the electronic database is accurate by comparing it to the physical inventory of parts on-hand.
- Verification by the CORs that current inventory levels for any particular part are appropriate based upon the amount of maintenance work orders previously completed and anticipated in the future.

The CORs often visit Afghan Equipment Maintenance Sites and PAE provides the Product Manager for Allied Tactical Vehicles status reports on Afghan National Army and Afghan National Police maintenance operations. Our review of these updates showed that they were extensive and include parts status, work orders, and maintenance training. The visits also provide more opportunities for mentorship and evaluation. For example, COR's analyze the contractor's online inventories and compare them against physical inventories. They also check work orders to ensure the inventory matches the work they have seen in the past and would expect to conduct in the future in order to avoid overstocking. In addition, CORs meet regularly with Train, Advise, Assist Command (TAAC) advisors and Security Force Assistance Brigade (SFAB) Logistical Advisor Teams to coordinate their efforts to improve organic Afghan Security Force maintenance operations.

Supply Chain Management Overhead Rates Were Reduced by Approximately 50% for the NMS-GVS Contract

Incorporating supply chain management into the solicitation resulted in a significantly lower spare parts overhead rate, thereby reducing the overall cost to acquire and deliver spare parts to the maintenance sites. Competing the spare parts' overhead rate forces the bidding contractors to streamline their supply chain management functions in order to reduce their overall bid price. The ability to competitively bid the contract with supply chain management included, rather than adding it non-competitively to the existing contract after it was already awarded, is largely responsible for the decrease in the overhead rate from approximately 98.18% under A-TEMP to 49.76% for the NMS-GVS contract—about a 50% reduction.

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theater transport, subcontractor fees, and other storage and logistics considerations. The cost paid by the purchasing contractor is the unit part cost combined with its overhead cost (as determined by the overhead rate), culminating in the total or "fully burdened" cost for each part.

[5] SIGAR 16-49 Audit Report, "Afghan National Army: DOD Has Taken Steps to Remedy Poor Management of Vehicle Maintenance Program.".

In addition to the actual price of each part, other costs to include purchasing the part, inventory management, freight, intra-theater transport, subcontractor fees, and other expenses need to be factored into the price of each part. This overhead rate is added to the unit price and becomes each part's "fully burdened cost." The Product Manager for Allied Tactical Vehicles estimated the overhead rate for the A-TEMP contract to be 98.18% of the unit price of each part; for the NMS-GVS contract, the overhead rate is 49.76%.[6]

Using the example of a $100 generic part, Table 2 shows how the overhead rate affects the fully burdened cost that the government pays for spare parts. In this example, the fully burdened cost of the $100 generic part under the A-TEMP contract would be $198.18, or almost double its original cost. Using the same $100 generic part, the total cost under the NMS-GVS contract would be $149.76.

Table 2: Depiction of a Fully Burdened Cost Determination

EXAMPLE: HOW A FULLY-BURDENED COST IS DETERMINED					
Contract	Part	Part Unit Cost	Overhead Cost Determination	Overhead Cost of Part	Fully Burdened Cost of Part (Part Cost + Overhead Cost)
A-TEMP	Generic Part	$100.00	98.18 of the Part's Unit Cost	$98.18	$198.18
NMS-GVS	Generic Part	100.00	49.76 of the Part's Unit Cost	49.76	149.76

Source: SIGAR Analysis of Product Manager for Allied Tactical Vehicles-Provided Data

Thus, the reduction of the overhead rate will have a significant impact on the cost to the government and should reduce the overall cost of each spare part if the unit price the contractor is paying for the repair parts are the same or similar to the amount paid under the A-TEMP contract. For example, from November 2017 to June 2019, DOD spent approximately $45 million (including overhead) on spare parts for the NMS-GVS contract for all vehicle types. The lower overhead rate reduced those costs by approximately $14.5 million.

DUE TO DIFFERENCE IN PRICES THE CONTRACTOR PAID FOR SPARE PARTS, THE EXTENT THAT OVERALL SPARE PARTS COSTS WILL DECREASE IS QUESTIONABLE

A number of factors affect the overall cost of spare parts to include the number of vehicles being maintained, the amount of preventive maintenance performed, the operating tempo of the ANA and ANP as well as fluctuating prices paid for the parts. Our review focused strictly on whether the fully burdened price DOD is paying to purchase and deliver the parts to the maintenance sites decreased under the NMS-GVS contract. To assess the cost of spare parts, we compared[7]:

- Fully burdened costs of all common parts over $50 that were purchased on both the A-TEMP contract and the NMS-GVS contract for High Mobility Multipurpose Wheeled Vehicles (HMMWV) and the Ford Ranger—the two primary transport vehicles used by the ANA and ANP;
- Unit prices that the contractor charged for HMMWV spare parts under the NMS-GVS contract to the unit prices the Defense Logistics Agency is charging for the same parts.

The methodology we used to develop this information can be found in Appendix I.

[6] Details of how the overhead rates were determined is considered proprietary information so are not included here.

[7] To mitigate the effect of inflation on unit prices, the data for each vehicle was taken from the final year of the base A-TEMP (2014) and were adjusted for inflation to the year 2018 or 2019 depending on the year the specific corresponding part was ordered under NMS-GVS contract.

Our review found that unit prices of spare parts varied between the A-TEMP contract and the NMS-GVS contract with some parts decreasing in price while others increased. Product Manager for Allied Tactical Vehicles personnel explained that the unit prices for spare parts fluctuate for various reasons, including demand, quantity ordered, and urgency of need in theater amongst others. The reduction in the overhead rate made many of the parts cheaper, however, for some of the spare parts the lower overhead rate was not sufficient to account for the difference in the unit prices paid on the NMS-GVS contact.

Comparison of the Fully Burdened Spare Parts Costs for the A-TEMP and NMS-GVS Contracts

Table 3 shows the comparison of the fully burdened cost of Ford Ranger spare parts under the A-TEMP and NMS-GVS contracts. Of the 24 parts analyzed, 13 showed cost savings under the NMS-GVS contract, ranging from 7% to 76%. Eleven parts showed an increase in cost ranging from 2% to 87%.

Table 3: Comparison of Ford Ranger Fully Burdened Costs

RANGER- FULLY BURDENED COST DETERMINATIONS								
	SPARE PART	COST FACTORS: A-TEMP			Cost Factors: NMS-GVS			ANALYSIS
Part Count	Part Description	Average Cost Per Part: A-TEMP	Total Overhead Costs: A-TEMP	Fully Burdened Cost- A-TEMP	Average Cost Per Part: NMS-GVS	Total Overhead Costs: NMS-GVS	Fully Burdened Cost- NMS-GVS	Percent Difference in Fully Burdened Cost
1	Lamp Assy, Interior (Ranger 2006-2008)	$91.40	$77.31	$168.71	$27.68	$12.78	$40.46	(76%)
2	Wheel, Disc Steel Rim, 16 Inch Ranger	124.56	105.35	229.90	48.40	22.34	70.74	(69)
3	Tail Gate	304.56	257.60	562.16	155.40	71.75	227.15	(60)
4	Gear, Speedometer Drive (Steel Wheels)	86.27	72.97	159.24	65.01	30.01	95.02	(40)
5	Support, Center Bearing, Shaft Assembly	76.07	64.34	140.41	60.83	28.09	88.92	(37)
6	Panel, Instrument, Sports Grey	151.50	128.14	279.64	121.55	56.12	177.67	(36)
7	Cap, Fuel Tank	60.43	51.11	111.54	51.11	23.60	74.71	(33)
8	Hose, Preformed, Intercooler, Top	57.42	48.57	105.99	49.08	22.66	71.74	(32)
9	Meter Set	439.01	371.31	810.32	382.06	176.40	558.46	(31)
10	Knuckle, Front Wheel, RH	132.41	111.99	244.40	125.50	57.94	183.44	(25)
11	Block, Main Fuse	85.08	71.96	157.04	90.11	41.60	131.71	(16)
12	Joint Set (R), Outer, Drive Shaft	359.04	303.68	662.72	414.22	191.25	605.47	(9)
13	Fender Assy, Front, RH	89.18	75.43	164.61	104.71	48.35	153.06	(7)
14	Oil Cooler Assy	165.69	140.14	305.83	212.54	98.13	310.67	2
15	Bulkhead Assembly, Front End	130.73	110.57	241.30	178.36	82.35	260.71	8
16	Hood Assembly	171.53	145.08	316.61	240.41	111.00	351.40	11
17	Tail Gate	71.59	60.55	132.14	101.92	47.06	148.98	13
18	Manifold Assy, Exhaust	72.50	61.32	133.82	109.67	50.63	160.30	20
19	Fly Wheel Assy	160.62	135.85	296.47	246.30	113.72	360.02	21
20	Front Axle, Shaft, RH	213.82	180.85	394.67	343.59	158.63	502.22	27
21	Front Axle, Shaft, LH	213.82	180.85	394.67	344.77	159.18	503.94	28
22	Idler Arm	78.56	66.45	145.01	157.32	72.63	229.95	59
23	Hood Assembly	74.63	63.12	137.75	168.25	77.68	245.93	79
24	Instruments, Combined, Dash	131.52	111.24	242.76	309.99	143.12	453.11	87
***Values adjusted for inflation where appropriate								

Source: SIGAR Analysis of Product Manager for Allied Tactical Vehicles-Provided Data

Table 4 shows the comparison of the fully burdened cost of the most expensive HMMWV spare parts under the A-TEMP and NMS-GVS contracts. Of the 22 parts analyzed, 18 showed cost savings under the NMS-GVS contract ranging from 15% to 69% and 4 showed an increase cost ranging from 2% to 114%.

Table 4: Comparison of HMMWV Fully Burdened Costs

HMMWVS- FULLY BURDENED COST DETERMINATIONS								
	SPARE PART	COST FACTORS: A-TEMP			Cost Factors: NMS-GVS			ANALYSIS
Part Count	Part Description	Average Cost Per Part: A-TEMP	Total Overhead Costs: A-TEMP	Fully Burdened Cost- A-TEMP	Average Cost Per Part: NMS-GVS	Total Overhead Costs: NMS-GVS	Fully Burdened Cost- NMS-GVS	Percent Difference in Fully Burdened Cost
1	Band, Retaining, Bottom, Front, Fuel Tank Assembly	$60.10	$50.83	$110.93	$23.50	$10.85	$34.35	(69%)
2	Control Assembly, Transmission	673.22	569.41	1,242.63	371.11	171.34	542.46	(56)
3	Hose Assembly, Nonmetallic, Hydro Boost To Power Steering Gear	71.53	60.50	132.03	47.05	21.73	68.78	(48)
4	Tube, Metallic, Geared Fan Drive	116.40	98.45	214.85	78.05	36.03	114.08	(47)
5	Parts Kit, Mechanical Transmission	128.65	108.81	237.46	94.36	43.57	137.93	(42)
6	Switch Assembly, Master Light	114.59	96.92	211.51	86.92	40.13	127.05	(40)
7	Pump Assembly, Power Steering (Serial Number 196901 To 246889)	560.32	473.92	1,034.24	432.42	199.65	632.06	(39)
8	Pump Assembly, Power Steering (Serial Number 196900 and Below)	271.26	229.43	500.69	223.67	103.27	326.95	(35)
9	Retainer, Support, Radiator, RH	87.46	73.97	161.43	76.00	35.09	111.09	(31)
10	Starter, Engine, Electrical 24 Volt	704.98	596.27	1,301.25	613.18	283.11	896.29	(31)
11	Retainer, Radiator, LH	89.06	75.33	164.39	81.78	37.76	119.53	(27)
12	Cable Assembly, Special Purpose, Electrical	1,526.80	1,291.37	2,818.17	1,439.89	664.80	2,104.69	(25)
13	Bearing, Ball, Track Roller	72.30	61.15	133.45	70.11	32.37	102.49	(23)
14	Bearing, Ball, Track Roller	72.07	60.96	133.03	70.11	32.37	102.49	(23)
15	Headlight Assy	70.76	59.85	130.61	71.05	32.80	103.85	(20)
16	Heater, Vehicular, Compartment	467.47	395.39	862.86	486.56	224.64	711.20	(18)
17	Tie Rod, Steering, LH / RH (Serial Number 246889 and Below)	129.56	109.58	239.14	138.88	64.12	203.00	(15)
18	Grille, Radiator, Vehicular	83.40	70.54	153.94	90.00	41.55	131.55	(15)
19	Battery, Storage, 12 Volt, 120 Amp	126.96	107.38	234.34	164.00	75.72	239.72	2
20	Arm, Steering Gear (Serial Number 246889 and Below)	53.67	45.39	99.06	116.55	53.81	170.35	72
21	Transmission, Hydraulic, Vehicular (Compatible with 6.5 Turbo)	2,615.67	2,212.33	4,828.00	6,042.25	2,789.70	8,831.95	83
22	Mirror Assembly, Rear View, RH	59.01	49.91	108.92	159.60	73.69	233.29	114
***Values adjusted for inflation where appropriate								

Source: SIGAR Analysis of Product Manager for Allied Tactical Vehicles-Provided Data

The nearly 50% reduction in the overhead rate resulted in potential cost savings for many of the spare parts we examined. However, there were a few notable exceptions: the HMMWV "arm, steering gear," "transmission," and "mirror assembly"; and the Ranger "idler arm," "hood assembly," and "instruments, combined, dash." Each of these parts, even with a substantially reduced overhead rate, increased in cost ranging from 59% to 114%. In each case, this was due to the increase in the unit cost of each part from the A-TEMP to the NMS-GVS contract.

The extent of overall cost savings—if any—is dependent on the demand of these different spare parts. We could not determine if the reduction in the overhead rate combined with the price fluctuations will actually reduce the overall cost of spare parts. The overall costs of spare parts is impacted by a number of factors, to include changes in the number of the vehicles in each category of vehicle being maintained, the operating tempo of the ANDSF, and the age of the fleet just to name a few.

Comparison of Spare Part Unit Prices Paid under the NMS-GVS Contract to DLA Prices

The Federal Acquisition Regulation (FAR) requires contractors that implement cost reimbursable contracts to purchase spare parts with the goal of providing the best value to the government.[8] The Defense Logistics Agency is a DOD component that serves as a procurement and delivery intermediary between part producers and end users of military equipment. DLA negotiates prices, procures, manages, and supplies 86% of the military's spare parts, as well as providing parts to authorized DOD contractors.[9]

To determine if DOD could reduce spare parts cost by using DLA, we compared unit prices for the same 22 most-expensive HMMWV parts purchased under the NMS-GVS contract to the DLA prices listed in FEDLOG (see Table 5).[10] Of the 22 spare parts, 13 were less expensive ranging from 4% to 126%, one part cost practically the same when purchased through NMS-GVS and DLA, and eight were more expensive ranging from 6% to 46%.

[8] FAR 15.408.II.A(1)

[9] Contractors must be specifically authorized in their contracts to utilize DLA's services, and their e-commerce platform FedMall, to procure spare parts. For more information on DLA and their platforms see Appendix I.

[10] Orders for Ford Ranger parts were recorded using the manufacturer's part number for each part, rather than government-issued national stock numbers (NSNs). As a result, SIGAR was unable to identify the DLA-listed price for Ford Ranger parts because the FED LOG database can only provide data for parts with known NSNs.

Table 5: Comparison of HMMWV Spare Part Unit Cost with DLA Spare Part Unit Cost

HMMWV PART (OVER $50) NMS-GVS AND DLA PRICING COMPARISONS			
PARTS DETAILS	**NMS-GVS**	**DEFENSE LOGISTICS AGENCY**	**PRICE COMPARISON**
Product Description	**Unit Price**	**DLA Pricing**	**Percent Difference Between NMS-GVS Pricing and DLA Pricing**
Band, Retaining, Bottom, Front, Fuel Tank Assembly	$23.50	$43.84	(46%)
Control Assembly, Transmission	371.11	527.06	(30)
Retainer, Support, Radiator, RH	76.00	95.54	(20)
Hose Assembly, Nonmetallic, Hydro Boost To Power Steering Gear	47.05	55.63	(15)
Tube, Metallic, Geared Fan Drive	78.05	88.62	(12)
Pump Assembly, Power Steering (Serial Number 196900 and Below)	223.67	249.57	(10)
Tie Rod, Steering, LH / RH (Serial Number 246889 and Below)	138.88	151.67	(8)
Battery, Storage, 12 Volt, 120 Amp	164.00	175.13	(6)
Cable Assembly, Special Purpose, Electrical	1,439.89	1,435.82	0
Parts Kit, Mechanical Transmission	94.36	90.96	4
Grille, Radiator, Vehicular	90.00	83.89	7
Heater, Vehicular, Compartment	486.56	434.75	12
Switch Assembly, Master Light	86.92	77.24	13
Pump Assembly, Power Steering (Serial Number 196901 To 246889)	432.42	383.06	13
Starter, Engine, Electrical 24 Volt	613.18	533.50	15
Arm, Steering Gear (Serial Number 246889 and Below)	116.55	92.21	26
Headlight Assy	71.05	55.91	27
Retainer, Radiator, LH	81.78	64.28	27
Bearing, Ball, Track Roller	70.11	55.01	27
Bearing, Ball, Track Roller	70.11	51.02	37
Transmission, Hydraulic, Vehicular (Compatible with 6.5 Turbo)	6,042.25	3,430.00	76
Mirror Assembly, Rear View, RH	159.60	70.74	126

Key: NMS-GVS Pricing vs. DLA Pricing
Highlighted Green = NMS-GVS Price is less than the DLA Price
Highlighted [illegible] = Indicates no unit price difference greater than 1 between NMS-GVS and DLA pricing
Highlighted Red = NMS-GVS Price is greater than DLA Price

Source: SIGAR Analysis of Product Manager for Allied Tactical Vehicles and DLA Data

In order for a contractor to purchase spare parts from DLA, the contract has to specifically authorize direct purchase authority from DLA. As the contract is currently written, PAE Government Services, Inc. cannot purchase spare parts through the Defense Logistics Agency's "FedMall" system. While DLA spare part prices may not always be cheaper than purchasing them through other qualified vendors, giving the contractor the ability to include DLA as a parts supplier could provide a cheaper alternative for some spare parts.

CONCLUSION

DOD has taken action to implement our recommendations from our 2016 report on the A-TEMP contract with positive results. For example, DOD improved supply chain management under the NMS-GVS contract by incorporating supply chain management into the solicitation. This resulted in significantly lower overhead rates, thereby reducing the cost to acquire and deliver spare parts to the maintenance sites. DOD also increased oversight over the NMS-GVS contract by using the technical expertise of the Product Manager for Allied Tactical

Vehicles to provide contract oversight and hiring additional Contracting Officer Representatives (CORs) to oversee operations in Afghanistan.

The significant reduction in the overhead rate between the A-TEMP and the NMS-GVS contracts reduced the cost of spare parts; however, the increase in the unit price of some of the high-value parts could offset much of those savings. We found six high-value spare parts that increased in price by 59% or more from the A-TEMP to the NMS-GVS contract. The large increases in the unit prices of certain spare parts could reduce much of the potential savings from the lower overhead rates negotiated in the NMS-GVS contract.

A number of other factors influence the quantity of spare parts needed that will ultimately determine the overall cost of spare parts for the NMS-GVS contract, such as the number of vehicles to be maintained, increased operational tempo and improved Afghan maintenance operations. For example, as Afghan organic maintenance operations improve and more vehicles are repaired faster, as is hoped, the total number of spare parts consumed can be expected to increase.

DLA is the major spare parts supplier for the Army. Unless DOD takes steps to allow the NMS-GVS contractor to purchase spare parts from DLA, it may be missing an opportunity to purchase spare parts at the cheapest possible price.

RECOMMENDATION

To lower spare parts costs for the NMS-GVS contract, we recommend that the Afghanistan Resource Oversight Council:

Direct U.S. Army Contracting Command, in coordination with the Product Manager for Allied Tactical Vehicles, to modify the NMS-GVS contract to authorize the contractor to use the Defense Logistics Agency as a source of supply and allow them to use DLA when it is the cheaper option.

APPENDIX I - SCOPE AND METHODOLOGY

Scope

SIGAR initiated this review to (1) determine the extent to which the NMS-GVS contract incorporated the lessons learned from the A-TEMP contract and (2) assess the steps DOD has taken to control the cost of ANA vehicle spare part purchases under the NMS-GVS contract.

Methodology

To accomplish these objectives, we interviewed personnel, reviewed relevant documents, including the A-TEMP and NMS-GVS contracts. We obtained documents and emails from DOD, including the Product Manager for Allied Tactical Vehicles and Army Contracting Command, Warren, Michigan. To assess DOD and PAE's efforts to control costs under the NMS-GVS contract, SIGAR interviewed Product Manager for Allied Tactical Vehicles and Army Contracting Command officials and reviewed previous audits, pre-award discussion documents, contracts and performance work statements, and other documents provided by the Tank-automotive and Armaments Command, the Product Manager for Allied Tactical Vehicles, and DLA.

To compare the costs paid for vehicle spare parts we used available data provided by A-TEMP and NMS-GVS oversight officials. For the analysis, SIGAR chose two of the primary personnel transport vehicles maintained under the contracts. The selected vehicle models were the Ford Ranger and the HMMWV (often referred to as a Humvee). We chose the parts based on their cost and commonality between the two contracts. SIGAR's sample included a wide variety of part categories and purposes. To mitigate the effect of inflation on unit prices, we took the data for each vehicle from the final year of the base A-TEMP (2014)[11] and were adjusted for inflation to the year 2018 or 2019 depending on the year the specific corresponding part was ordered under NMS-GVS contract. We inflated the A-TEMP unit prices using the Bureau of Labor Statistics CPI Inflation Calculator.

When developing the samples of parts to be analyzed, each selected part had to meet the following criteria:

- The exact part must have been ordered under both contracts. Part numbers and National Stock Numbers (NSNs) were used to verify corresponding parts ordered under each contract;
- Under the A-TEMP contract, the unit price of the spare part must have exceeded $50.

When analyzing the costs of spare parts, if the unit cost paid under the NMS-GVS contract differed between multiple orders of the spare part, we averaged the part's cost or if the quantity ordered disproportionately skewed towards one unit price, we used the more common unit price.

The fully burdened cost of each part was determined by conducting interviews with Product Manager for Allied Tactical Vehicles officials responsible for overseeing the maintenance contracts, and by analyzing the documents they provided. The Product Manager also provided answers to SIGAR questions on how they calculated the cost of spare parts with both the A-TEMP and the NMS-GVS contracts. The given fully burdened rates for each contract, as provided by the Product Manager, were then calculated as the percentage of the part's cost, resulting in what SIGAR termed the part's "overhead cost." Then the overhead cost of each part was added to the unit cost to determine each spare part's fully burdened cost.

We obtained the Defense Logistics Agency (DLA) prices for HMMWV parts from the DLA administered database, Federal Logistics (commonly referred to as FED LOG). The corresponding National Stock Number (NSN) for each part was located in the FED LOG database, and the price paid for the most recent order from

[11] A-TEMP data was not available for the entire 2014 year. Regardless, the months for which information was available provided sufficient data to provide the needed sample size. For the NMS-GVS sample, a longer period of analysis was required since the contract was just starting phase-in in 2018. Therefore, the NMS-GVS contract had not reached the same operational tempo as A-TEMP had by the end of the base period for the contract.

DLA for each part was displayed in Table 5 and used in our analysis. These parts, by virtue of being listed in FED LOG, were also approved and available for purchase (inventory permitting); via DLA's ecommerce site "FedMall." DLA describes FED LOG as providing the following data points to its users:

> Federal Logistics (FED LOG) data provides users the ability to access Federal Logistics Information System (FLIS) data during instances when internet connectivity is non-available. FED LOG provides essential information about items of supply to include the National Stock Number (NSN), the Approved Item Name, Manufacturers and Distributors information (to include Part Numbers), Freight Data, Hazardous Materiel Indicators, Interchangeable and Substitutable data, Acquisition Advice Code (AAC) and Unit Price, Physical and Performance Characteristics along with service specific management data.

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INDO-PACIFIC
SECURITY AFFAIRS

OCT 3 0 2019

The Honorable John Sopko
Special Inspector General for Afghanistan Reconstruction
1550 Crystal Drive, 9th Floor
Arlington, VA 22202

Dear Mr. Sopko:

Thank you for the opportunity to review and comment on the draft special project, "Afghan National Maintenance Strategy: Ground Vehicle Support – DOD Has Taken Action to Reduce Spare Parts Overhead Costs." I am responding on behalf of the Afghanistan Resources Oversight Council (AROC) tri-chairs, which consists of representatives from the Office of the Under Secretary of Defense (OUSD) for Policy, the OUSD for Comptroller, and the OUSD for Acquisition and Sustainment. The Department of Defense (DoD) response is enclosed.

DoD concurs with the report's recommendation that the AROC direct the U.S. Army Contracting Command (ACC), in coordination with the Product Manager for Allied Tactical Vehicles, to modify the National Maintenance Strategy-Ground Vehicle Support (NMS-GVS) contract to authorize the contractor to use the Defense Logistics Agency (DLA) as a source of supply and allow them to use DLA when it is a cheaper option. ACC is already in the process of making these contract modifications.

The AROC tri-chairs exercise statutory authority over the resourcing policies of programs designed to train, equip and sustain the Afghanistan National Defense and Security Forces. The AROC tri-chairs approved the base year of the NMS-GVS contract in April 2017 and continue to provide oversight of the contract for each option year.

DoD appreciates the work performed by the Special Inspector General for Afghanistan Reconstruction (SIGAR) related to efforts to maintain Afghan National Army (ANA) vehicles and to develop organic maintenance capacity within the ANA, and welcomes the opportunity to remain engaged with you in support of our mission in Afghanistan.

Sincerely,

Steve Riccardi
Acting Deputy Assistant Secretary of Defense
for Afghanistan, Pakistan and Central Asia

Enclosure:
As stated

ENCLOSURE

"Afghan National Maintenance Strategy: Ground Vehicle Support – DoD Has Taken Action to Reduce Spare Parts Overhead Costs"
SIGAR 20-05-SP

The Department of Defense (DoD) submits this response to the following recommendation made to the Afghanistan Resources Oversight Council (AROC):

Recommendation: *Direct U.S. Army Contracting Command, in coordination with the Product Manager for Allied Tactical Vehicles, to modify the NMS-GVS contract to authorize the contractor to use the Defense Logistics Agency as a source of supply and allow them to use DLA when it is the cheaper option.*

DoD Response: Concur. The U.S. Army Contracting Command, in coordination with the Product Manager for Allied Tactical Vehicles and the Defense Logistics Agency (DLA), is in the process of making the necessary contract modifications to authorize the contractor to use the DLA supply chain. This modification would also allow the contractor to use DLA for spare parts supply when it is the cheaper option.

This project was conducted
under project code SP-176

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SIGAR's Mission

The mission of the Special Inspector General for Afghanistan Reconstruction (SIGAR) is to enhance oversight of programs for the reconstruction of Afghanistan by conducting independent and objective audits, inspections, and investigations on the use of taxpayer dollars and related funds. SIGAR works to provide accurate and balanced information, evaluations, analysis, and recommendations to help the U.S. Congress, U.S. agencies, and other decision-makers to make informed oversight, policy, and funding decisions to:

- improve effectiveness of the overall reconstruction strategy and its component programs;
- improve management and accountability over funds administered by U.S. and Afghan agencies and their contractors;
- improve contracting and contract management processes;
- prevent fraud, waste, and abuse; and
- advance U.S. interests in reconstructing Afghanistan.

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