15 January 2005

SUBJECT: Light Tactical Vehicles (HMMWV)

FY06 UFR: \$1,046B

APPN: OPA

AREA OF INTEREST: MODERNIZATION

DESCRIPTION: The High Mobility Multi-purpose Wheeled Vehicle (HMMWV). HMMWV is produced in several configurations to support weapons systems, command and control systems; field ambulances; and ammunition, troops and general cargo transport. The HMMWV is equipped with a high performance diesel engine; automatic transmission and four wheel drive that is air transportable and droppable for a variety of aircraft.

ISSUE JUSTIFICATION: The HMMWV serves as the Army's light tactical wheeled vehicle for command and control, light cargo and personnel transport, shelter carrier, ambulance, and weapons platform. The HMMWV is a highly reliable vehicle that can travel on all types of terrain while carrying troops, weapons, and payloads up to 5,100 lbs. The Up-Armored HMMWV provides soldiers with protection from small arms fire up to 7.62 AP and mines. Commercial Utility Cargo Vehicles (CUCV) are overage, unreliable and may not be supportable in the near future.

PROGRAM STATUS: Based on FY09 Force Structure not including Modularity partially funded through current POM. Force Structure requirements will change once TAA and Modularity is programmed for ARNG units. Not funded. Only ADRS units are funded for HMMWV's. ARNG has a FY09 requirement of 41,591 HMMWV's, 28,010 on hand, approximately 3201 showing on latest P1R programmed for receipt through FY09, that leaves a shortage of 13,581. This programmed quantity does reflect FY05 HMMWV cuts for Global Terrorism (approximately 100 HMMWV's, 8.8M). Awaiting HQDA decision on requirement and possible redirection of Uparmored HMMWV's originally programmed for ARNG units. At this time Up-Armored HMMWV UFR numbers are not included in UFR total.

IMPACT OF FUNDING THE CAPABILITY: HMMWVs are a critical component in meeting the needs of ARNG in supporting its federal and state missions. State missions include, but are not limited to floods, snowstorms, fires and homeland defense. Further, modernized HMMWVs will enable the ARNG to operate with compatibility to AC units as they transform to Interim and Objective Force units.

SUBJECT: Light Tactical Vehicles (HMMWV)

APPN: OPA APE:

MDEP: FPJB MDEP TITLE: Light Tactical Vehicles

DAMO-ZR 1-N List Priority Number:

Division Priority:

Functional POC: Debbie Wasner/ NGB-ARQ/703-607-7834 Approval Authority: COL Moore / NGB-ARQ/ 703-607-7804

HMMWV

\$K	FY06	
Validated Requirement	1,088,000,000	
Unvalidated Requirement	0	
Total Requirement	1,088,000,000	
Funded Amount	42,000,000	
Total UFR	1,046,000,000	

Data is provided as of the PF3.0 locked position

Analysis: The ARNG requires new / modernized HMMWVs to replace its aging fleet of HMMWVs and should limit the number of cascaded systems from the AC because many of those systems, once cascaded to the ARNG, will be aged and nearing the end of their "life span." HMMWVs are key systems to support ARNG operations from full MTW to homeland security/defense missions. Analysis was based on the multiple HMMWV LINs.

*Note: Changes in requirements and unit costs since Dec 04 require this information paper to be updated. Analysis and update will occur in early March 05.

15 January 2005

SUBJECT: Small Arms, M4 Carbine

FY06 UFR: \$22.3M

APPN: OPA

AREA OF INTEREST: MODERNIZATION

DESCRIPTION: The M4 Carbine is an M-16 based 5.56mm lightweight, gas operated, magazine fed, selective fire, rifle. Equipped with a shorter barrel, collapsible stock and accessory rails it provides soldiers operating in close quarters with improved handling and the capability to rapidly and accurately engage targets at extended range, day or night.

ISSUE JUSTIFICATION: One of the ARNG central readiness requirements is individual weapons modernization. The ARNG still has 34,951 obsolete M16A1's in its inventory. Obtaining ammunition for these rifles has become increasingly difficult, particularly for deployed units. The M16A2 and M16A4 are also being fielded to replace the first generation rifle and use the same heavier ammunition as the M4 Carbine. The M4 is issued to units and personnel with a requirement for an effective but compact, highly portable/slingable "hands free" weapon. It is ideally suited for use in close quarters and/or by soldiers who operate from vehicles with limited stowage space. The M4 can mount the optics and lighting components of the Modular Weapons System (MWS) giving it significant additional capabilities. It has become the weapon of choice for the Global War on Terror and homeland security. Any M4 Carbines purchased for priority units already modernized with M16A2/A4's will cascade those weapons to replace the much older A1's in other ARNG units. Though the XM-8 Modular Assault Weapon System, if procured, is expected to cost about the same as the M-4, fielding to the Active Army is unlikely to begin before FY-08.

PROGRAM STATUS: The current ARNG requirement for M4 Carbines is 60,943 rifles at a cost of \$1k each. On hand are 15,975 with ARNG fielding suspended IOT push the entire weapons production to units in or deploying to Iraq. 22,648 Carbine's are programmed (Modularity) for the ARNG, leaving a shortfall of 22,320 weapons. Excess production capacity is available after FY-05 and approximately 1000 weapons per month could be delivered on a new contract.

IMPACT OF FUNDING THE CAPABILITY: Funding this program will allow the Army National Guard to deploy and operate with maximum effectiveness on all fronts of the Global war on Terror. It contributes to the soldiers ability to defend him/herself and, with the MWS components, significantly increases the soldiers ability to rapidly engage targets in all environments. It is essential that the M16A1's be replaced as soon as possible. The M16A2 and A4 fieldings are funded, but alone will not displace all the A1's. Failure to fund the M4 fielding will increase risk to the soldiers, increase costs of pre-deployment cross-leveling and will degrade the ARNG's ability to train for and execute its federal and state missions.

SUBJECT: Small Arms, M4 Carbine

APPN: OPA

APE: MDEP:

MDEP TITLE:

DAMO-ZR 1-N List Priority Number: None

Division Priority:

Functional POC: MAJ Paul Ebhardt Div: NGB-ARQ-E Tel: 703-607-7849

Approval Authority: (pending) COL Moore / NGB-ARQ / 703-607-7804

	FY05-09	Cost (\$K)
Requirement	60,943	60,943
On-Hand	15,975	15,975
Programmed	22,648	22,648
Un-funded	22,320	22,320

Total UFR 22,320

ANALYSIS:

*Note: Changes in requirements and unit costs since Dec 04 require this information paper to be updated. Analysis and update will occur in early March 05.

15 January 2005

SUBJECT: Small Arms, M240B Machine Gun

FY06 UFR: \$16.2M

APPN: OPA

AREA OF INTEREST: MODERNIZATION

DESCRIPTION: The M240B 7.62mm Machine Gun is a very reliable, fully-automatic, gasoperated, belt-fed, crew-served weapon. The M240 family of machine guns replaces the 40 year old M-60 design. The M240B is the US Infantry version, equipped with a folding bi-pod, pintle mount, forestock and accessory rails to mount optics and target illuminators. The pintle mount allows tri-pod and vehicle mounting. The M240C coaxial version is used in all US armored vehicles. The M240D/H spade grip version is being fielded to Army utility and cargo helicopter units. The M240G is in use by the US Marines. At over 50,000 MRBF (mean rounds between failure) the M240 is widely accepted as the most reliable machine gun in the world. The M240B provides the accurate and effective sustained rate of fire required to suppress and destroy enemy soft targets.

ISSUE JUSTIFICATION: One of the ARNG critical readiness requirements is small arms and crew-served weapons modernization. The ARNG still has in it's inventory 3,753 M-60's which are no longer supportable in the combat theaters of the GWOT. The M240B is issued to units requiring the capability to deliver high rates of suppressive fire. It has become the machine gun of choice for the Global War on Terror.

PROGRAM STATUS: The RDD currently validates an ARNG requirement for 4,163 M240B's at a cost of \$9k each. On hand are 1,964 M240B's, almost all of which are deployed. Future fielding to fill the UFR of 2,199 weapons has been suspended IOT push the entire weapons production to the combat theaters and to Active Army Modularity requirements. Mobilized ARNG BCT's have received approximately 216 additional M240B machine guns prior to deployment. Funded procurement for the ARNG is limited to 400 M240B's, purchased with FY-04 NGREA, that should be delivered in 05. The remaining UFR is for 1799 M240B's and may increase as ARNG modularity is documented. The only alternative weapon system is the M-60E4/Mk43 conversion of the existing M-60, in limited use by the Marines and USAF. This cost effective (~\$3k) retrofit of the 40 year old M-60 design incorporates the key features and improvements of a contemporary M240 at 1/3 the cost, but it has not been adopted by the US Army.

IMPACT OF FUNDING THE CAPABILITY: Funding the M240B will give National Guard Soldiers the same capability as Active Army Forces to deploy and operate with maximum effectiveness on all fronts of the Global war on Terror. It greatly contributes to their ability to rapidly defend themselves with high volume, suppressive fire in adverse conditions. It is essential that the M-60's be replaced as soon as possible. Failure to fund the M240B will increase soldier risk and the costs of pre-deployment cross-leveling, which also degrades the ARNG's ability to train for and execute both its federal and state missions.

SUBJECT: Small Arms, M240B Machine Gun

LIN: R92841 APPN: OPA APE:

MDEP: MDEP TITLE:

DAMO-ZR 1-N List Priority Number: None

Division Priority:

Functional POC: MAJ Paul Ebhardt Div: NGB-ARQQ-E Tel: 703-607-7849

Approval Authority: (pending) COL Moore / NGB-ARQ / 703-607-7804

	FY05-09	Cost (\$M)
Requirement	4,163	37.5
On-Hand	1,964	17.7
Funded Program Distribution (NGREA)	400	3.6
Un-funded	1,799	16.2

Total UFR 1799 16.2

ANALYSIS:

*Note: Changes in requirements and unit costs since Dec 04 require this information paper to be updated. Analysis and update will occur in early March 05.

15 January 2005

SUBJECT: Small Arms, MK-19 Grenade Machine Gun

FY06 UFR: \$52.3M APPN: OPA

AREA OF INTEREST: MODERNIZATION

DESCRIPTION: The MK-19 (Mod 3) Automatic Grenade Launcher/Machine Gun is a self-powered, air-cooled, belt-fed, blowback operated, crew-served weapon. The MK-19 replaces or augments selected M2 .50 caliber Machine Guns throughout the Army. It is also in use by the US Navy, Marines and Air Force. The MK-19 is mounted on HMMWV's, trucks and M88 Recovery Vehicles to deliver intense suppressive fire against enemy personnel and lightly armored vehicles or bunkers.

ISSUE JUSTIFICATION: One of the ARNG critical readiness requirements is small arms and crew-served weapons modernization. With the advent of Army Transformation to Units of Action (UA's) the ARNG has currently documented shortfall of 3,377 MK-19's. Operational requirements resulting from the GWOT have resulted in extensive unit-to-unit transfers of MK-19's to deploying units. M2 .50 calber machine guns and operational barrels are also in short supply. As the primary supressive weapon for CS and CSS any shortage of these weapons is critical.

PROGRAM STATUS: The RDD currently validates an ARNG requirement for 9,159 MK-19's at a cost of \$15.5k each. On hand are 5,782 MK-19's, the majority of which are deployed. Fielding to fill the previous ARNG requirement was completed in 2003 and the new increased requirement has not yet been programmed. The MK-19 UFR is 3,377 and may increase as ARNG modularity above UA level is documented. The only alternative weapon systems are the XM-307/312 Advanced Crew Served (Air-burst) Weapons which are still under development with no projected fielding date.

IMPACT OF FUNDING THE CAPABILITY: Funding the MK-19 will give National Guard Soldiers the same capability as Active Army Forces to deploy and operate with maximum effectiveness on all fronts of the Global war on Terror. It greatly contributes to their ability to rapidly defend themselves with high volume, suppressive fire in adverse conditions. Failure to fund the MK-19 will increase soldier risk and the costs of pre-deployment cross-leveling, which also degrades the ARNG's ability to train for and execute both its federal and state missions.

SUBJECT: Small Arms, MK-19 Machine Gun

LIN: R92362 APPN: OPA APE: MDEP:

MDEP TITLE:

DAMO-ZR 1-N List Priority Number: None

Division Priority:

Functional POC: MAJ Paul Ebhardt Div: NGB-ARQ-E Tel: 703-607-7849 Approval Authority: (pending) COL Moore / NGB-ARQ / 703-607-7804

	FY05-09	Cost (\$M)
Requirement	9,159	141.9
On-Hand	5,782	89.6
Funded Program Distribution (NGREA)	0	0
Un-funded	3,377	52.3

Total UFR 3,377 52.3

ANALYSIS:

15 January 2005

SUBJECT: Small Arms, M249 Squad Automatic Weapon/Light Machine Gun (SAW/LMG)

FY06 UFR: \$37.52M

APPN: OPA

AREA OF INTEREST: MODERNIZATION

DESCRIPTION: The 5.56MM M249 Squad Automatic Weapon and Light Machine Gun (SAW)/(LMG) is a fully-automatic, gas-operated, magazine or belt-fed, individual weapon. The SAW is an Infantry Weapon used in 2 roles, Automatic Rifle (AR) and Light Machine Gun (LMG). It can be fired from the shoulder, hand-held or from the integral bipod. It is equipped with rails to mount optics and target illuminators and has an optional short barrel for close-quarters operations. The M249 SAW provides the squad with the accurate, effective and sustained fire required to suppress and destroy enemy soft targets.

ISSUE JUSTIFICATION: One of the ARNG critical readiness requirements is individual weapons modernization. The ARNG still has an inventory of 11,000 M16A1's serving as substitutes for the M249 in the Automatic-Rifle role. Also, still in the ARNG inventory are 3,753 M60 Machine Guns substituting in the Light Machine Gun role. These weapons are obsolete and obtaining ammunition for the M16A1 rifle has become increasingly difficult. The M249 is issued to units requiring the capability to deliver high rates of suppressive fire. It has become the automatic rifle of choice for the Global War on Terror and homeland security.

PROGRAM STATUS: The RDD currently validates an ARNG requirement for 32,221 M249's at a cost of \$3k each. On hand are 19,714 M249's in both roles, most of which are deployed. Future fielding to fill the remaining UFR of 12,507 weapons has been suspended IOT push the entire weapons production to deploying units. ARNG BCT's deploying to OIF have received ~220 additional M249's for the mission. M249's are being substituted for M240B's in many deploying CS and CSS units. There is no alternative weapon to fill this requirement.

IMPACT OF FUNDING THE CAPABILITY: Funding the M249 SAW will give National Guard Soldiers the same capability as Active Army Forces to deploy and operate with maximum effectiveness on all fronts of the Global war on Terror. It contributes to their ability to rapidly and effectively defend themselves with high volume, suppressive fire in adverse conditions. It is essential that the M16A1's be replaced as soon as possible. The M16A2, A4 and M4 fieldings are partially funded, but alone will not displace all the A1's and M-60's. Failure to fund the M249 fielding will increase risk to the soldiers and costs of pre-deployment cross-leveling, which also degrades the ARNG's ability to train for and execute its federal and state missions.

SUBJECT: Small Arms, M249 SAW/LMG

LIN: R97234, M39263

APPN: OPA
APE:
MDEP:
MDEP TITLE:

DAMO-ZR 1-N List Priority Number: None

Division Priority:

Functional POC: MAJ Paul Ebhardt Div: NGB-ARQ-E Tel: 703-607-7849 Approval Authority: (pending) COL Moore / NGB-ARQ / 703-607-7804

	FY05-09	Cost (\$)
Requirement	32,221	96.7M
On-Hand	19,714	59.2M
Funded Program Distribution	0	0
Un-funded	12,507	37.52M

Total UFR 12,507 37.52M

ANALYSIS:

15 January 2005

SUBJECT: Night Vision Devices

FY06 UFR: \$1.398B

APPN: OPA

AREA OF INTEREST: MODERNIZATION

DESCRIPTION: Night Vision Devices (NVD) allow soldiers to observe the battlefield and engage targets during periods of limited visibility to include darkness, fog, smoke, sand or dust. NVD's also include thermal imagery in the light, medium and heavy variety.

ISSUE JUSTIFICATION: These devices greatly increase soldier effectiveness, survivability and over-match in adverse visibility conditions both day and night. They provide such an improved capability over the PVS-4 & 5 that they are among the 5 most requested items by Combat Commanders in Operation Iraqi Freedom.

PROGRAM STATUS: The ARNG is authorized at total of 263,610 night vision devices with 59,646 on hand leaving a delta of 203,964 for an unfunded requirement of \$1,398M.

IMPACT OF FUNDING THE CAPABILITY: The ARNG is actively engaged in OIF, OEF and GWOT with a definitive need for these systems in more than the "good enough" quantities.

SUBJECT: Night Vision Devices (PAS-13 v.1, v.2 and v.3; PVS 14, PVS 7)

LIN: V1 Z38272, V2 Z38356, V3 Z38366 N05482, M79678

APPN: OPA

APE:

MDEP: FPFE MDEP TITLE:

DAMO-ZR 1-N List Priority Number:

Division Priority:

Functional POC: MAJ Shane Elkins Div: ARq-M Tel: 703-607-7821

Approval Authority: COL Moore / NGB-ARQ / 703-607-7804

	Quantity	\$
Validated Requirement	263,610	1,807M
Un-validated Requirement	0	0
On-Hand	59,646	408.8M
Funded Amount	0	0
Total UFR	203,964	1,398M

Total for Night Vision = \$1,398M

15 January 2005

SUBJECT: SINCGARS FY06 UFR: \$414M APPN: OPA

AREA OF INTEREST: MODERNIZATION

DESCRIPTION: Provides commanders with a highly reliable, secure, easily maintained combat net radio with voice and data handling capability, in support of command and control operations.

ISSUE JUSTIFICATION: One of the top ARNG equipping priorities is to purge the ARNG of its remaining (obsolete) VRC-12 series radios and replace them with SINCGARS. The VRC-12 series radios cannot operate in the frequency-hopping mode. The VRC-12 radios cannot transfer data via the tactical Intranet. Units with VRC-12 series radios are not deployable across the spectrum of operations because all other units in the Army would have to operate with severely degraded communications to maintain C3 interoperability with these ARNG units. If not funded the ARNG will have to wait until the Joint Tactical Radio System (JTRS) fielding starts in FY 07 for the cascade of SINCGARS from the AC to begin the purge the VRC-12 series radios from the force. Fielding of these cascaded systems would likely not occur till FY 08.

PROGRAM STATUS: The Army National Guard requires an additional 37,633 SINCGARS radios to complete fielding of this system. The total ARNG requirement for SINCGARS is 90,379 radio sets. Currently, the ARNG has 34,833 SINCGARS on hand and 17,913 programmed. The increase in the numbers is because of the Army's termination of the cascade program.

IMPACT OF FUNDING THE CAPABILITY: Funding this system will allow the Army National Guard to communicate and operate within the network-centric Army Transformation. This capability will allow all our units the ability to deploy and be interoperable with Active Component Legacy and Interim Forces across the spectrum of operations.

SUBJECT: SINCGARS **APPN**: OPA **APE**:

MDEP: MDEP TITLE: DAMO-ZR 1-N List Priority Number:

Division Priority:

Functional POC: MAJ Hodson Div: ARQ-G Tel: 607-7830

Approval Authority: COL Moore / NGB-ARQ / 703-607-7804

\$M	FY05	FY06
Validated Requirement	522.8M	456.5M
Unvalidated Requirement	0	0
Total Requirement	522.8M	456.5M
Funded Amount	66.3M	42.5M
Total UFR	456.5M	414M

ANALYSIS:

SINCGARS	VRC-12
Digital Data Capability	Electromechanical
SINCGARS versions ¼ to ½ the size of the	Overheats
VRC-12.	
More than double the channels in congested	Difficulty maintaining frequency alignment
frequency spectrum	
High reliability (1250 hours)	~ 200-400 hour Mean Time Before Failure
Integrated COMSEC (ICOM)	Parts availability
Less weight	Parts obsolete
 Frequency hopping (anti-jam) 	Vulnerable to jamming
Less vulnerable to DF	Vulnerable to DF
Much less costly to maintain	Costly to sustain

To complete fielding of the ARNG Divisions (38th, 40th and 42d, minus the elements they will deploy to Bosnia), the ARNG must procure approximately 17,913 SINCGARS radios because the Army will not cascade any additional SINCGARS to the ARNG.

15 January 2005

SUBJECT: FMTV

FY06 UFR: \$5.737 Billion

APPN: OPA

AREA OF INTEREST: MODERNIZATION

DESCRIPTION: Consists of a common medium truck chassis that is used for several vehicle configurations in two payload classes. 2.5 and 5 ton medium trucks and trailers are the backbone of Army tactical maneuvers and logistics from platoon through division level.

ISSUE JUSTIFICATION: One of the ARNG central readiness and equipping priorities is to modernize the aged fleet of medium tactical vehicles. The trucks and trailers currently on hand in the ARNG are a minimum of 20 years old, with many in excess of 30 years old. These obsolete but still in service vehicles experience frequent breakdowns, requiring costly repairs with parts that are increasingly expensive and difficult to find. Increased ARNG OPTEMPO world-wide is rapidly consuming parts stocks while programmed Class IX funds are directed at the three more modern series of vehicles, such as the FMTV which has been in service with the Active Army for 6 years. Many of the old vehicle cabs and cargo beds are rusted through to the extent that they are not mission capable or economically repairable. Anecdotal information indicates that, at the current OPTEMPO, an LMTV will pay for itself in about 4 years with reduced O & M costs compared to the vehicles it replaces. The Family of Medium Tactical Vehicles (FMTV) will replace the large number of unsustainable/non-mission capable vehicles with a proven, cost effective and more fuel-efficient family of vehicles that share 80% of their components. FMTV's perform line haul, local haul, unit mobility and re-supply and other missions in combat, combat support, and combat service support units. The FMTV is capable of operating worldwide on primary and secondary roads and trails. FMTV's come equipped with a standard heavy-duty automatic transmission, electronic data bus, antilock brakes, central tire inflation system, more fuel efficient engine and an interactive electronic technical manual. An interchangeable Low Signature Armored Cab (LSAC) is now available for all models. The various trucks currently in use were built with 1960's and 70's technology which falls far behind the FMTV's performance in all measurable areas.

PROGRAM STATUS: Force requirement analysis based on data available in OCT 04 indicates the Army National Guard requires 39,378 FMTV's, including 10,365 trailers, to modernize it's medium tactical vehicle fleet. Trailers have been under procured placing additional workload on prime movers. The ARNG currently has 4,695 FMTV's on hand, including 36 trailers and vehicles currently deployed. Of these 2,465 are ADRS, 1655 are ESP purchased, 107 are NGREA, 214 are Congressional Add and 254 were given to deploying units by DA. All 446 LMTV's delivered on the FY-04 ESP contract were redirected to deploying units. For the current year (FY-05) 940 FMTV's are scheduled for delivery with 271 ear-marked to fill critical shortages in deploying units. In FY-06 through 09 the ARNG is programmed to receive 1869 FMTV's. The resulting shortage of 31,871 vehicles in the ARNG leaves an equal number of out-dated and high cost vehicles in the field. The estimated total cost to complete this modernization is \$5.737B. Excess production capacity exists for both trucks and trailers. The current contract has reduced unit cost by approximately 15%.

IMPACT OF FUNDING THE CAPABILITY: Fully funding this system will allow the Army National Guard to deploy and operate within the digital network-centric Army. Additionally, this long awaited modernization will give ARNG units the necessary capability and compatibility as the Army transforms and deploys. The FMTV will provide more sustainable, rapid and reliable mobility with increased

hauling capability at a lower operational cost than the existing equipment. Failure to fund the FMTV program will increase risk to the soldiers operating and supported by this fleet, and will seriously degrade the ARNG's ability to perform its federal and state missions.

(Include for internal ARNG coordination/use only)

SUBJECT: FMTV

APPN: OPA APE:

MDEP: FPJB MDEP TITLE: DAMO-ZR 1-N List Priority Number:

Division Priority:

Functional POC: MAJ Ebhardt Div: ARQ-E Tel: 607-7849 Approval Authority: COL Moore/ NGB-ARQ / 703-607-7804

\$	FY05	FY06	FY07	FY08	FY09
Validated Requirement					
Un-validated Requirement	0	0	0	0	0
Total Requirement	6.05B	5.93B	5.87B	5.86B	5.75B
Funded Amount	116.9M	63.2M	8.5M	104.7M	16.8M
Total UFR	5.93B	5.87B	5.86B	5.75B	5.737B

ANALYSIS: Based on RDD & DA G-8 FD Managed LIN unit cost of \$180k each average.

FMTV	Current Vehicle
Heavy Duty Automatic Transmission	Standard Transmission
Anti-lock brakes	Standard brakes
12,000 lb Towing Capacity	6000 lb Towing capacity
Fuel- Diesel, JP4, JP8	Fuel- Diesel
Low Maintenance w/warranty	High Maintenance w/limited parts available
 Lower Fuel Consumption & EPA Compliant 	Higher Fuel Consumption & not EPA Compliant
Higher Horsepower	Lower Horsepower
One Contractor	Multiple Contractors
Deployable and sustainable	Less deployable, difficult & costly to sustain
Greatly reduced O & M costs	Higher and Increasing O & M costs

15 January 2005

Subject: Improved Target Acquisition System (ITAS)

FY06 UFR: \$75.6M: Total UFR: \$259M

APPN:

Area of Interest: Modernization

Description: ITAS provides an advanced fire control and long-range surveillance capability, day and night, for all the TOW missiles and future missile systems. This advanced capability provides significant increases in target identification and engagement ranges over the ageing TOW2 weapon system. ITAS is integrated onto the highly versatile and deployable HMMWV platform, as well as being capable of dismount operations. As ITAS replaces the obsolete TOW2 weapon systems, significant reductions in logistical and maintenance cost for ARNG units will occur.

Issue Justification: As the ARNG transforms to Modularity, the ITAS system becomes the primary and only long –range precision weapon for the new 23 Infantry Brigade Combat Teams (BCTs). With 28 ITAS per BCT, the ITAS's 2nd Generation Thermal Sight also provides the Commander a long-range reconnaissance and surveillance capability required for the modular BCT's larger area of operations. The capability to augment RSTA missions and provide increase security awareness is constantly demonstrated in OIF and OEF theaters. ITAS replaces the obsolete TOW 2 system and reduces the component count from 18 separate line replaceable units (LRUs) to 6 integrated components; significantly reducing O&M cost. Currently the ARNG is incurring an O&M penalty to maintain obsolete TOW2 systems. Annual TOW2 O&M cost are budgeted at \$70,000/system (\$45M per year / 644 systems). Compared to demonstrated ITAS CLS performance at \$19,000/system (\$12M per year / 644 systems), an annual cost savings of \$33M is recognized.

Program Status: Fielding to the Active Army component is near completion, (over 600 ITAS). Under the current ITAS contract the ARNG has only 72 ITAS assigned to units deployed in support of OIF. This leaves the balance of the ITAS ARNG requirement of 576 systems not funded until FY08 with subsequent fielding in FY10. This procurement plan does not support the ARNG modularity transformation and a significant capabilities gap between Active and ARNG BCTs will exist jeopardizing the ability to support planned deployments. In order to field to the ARNG modularity transformation plan of 6 Infantry BCTs in FY08 a UFR of \$75.6M is required in FY05. (This assumes \$35.0M available in FY05)

SUBJECT: Improved Target Acquisition System (ITAS)

APPN: APE:

MDEP: MDEP TITLE: ITAS

DAMO-ZR 1-N List Priority number:

Division Priority: Functional POC:

Approval Authority: COL Barrineau/NGB-ARF-M/703-607-7800

ITAS

	,		
\$K	FY05	FY06	FY07
Validated	\$	\$25,200,000.00	\$63,000,000.00
Requirement	12,600,000.00		
Unvalidated	\$0		
Requirement			
Total Requirement	\$12,600,000.00		
Funded Amount	\$0		
Total UFR	\$12,600,000.00		
40150W	. 1 6 .1' 1'		

 $^{\$$450\}mbox{K}$ per system is estimated for this application

ANALYSIS: Initial fielding of ITAS to the ARNG has been preempted by the shift of priorities to deploying units. ITAS is the replacement system for the TOW2 legacy system. In many cases, ARNG units have already turned in TOW2 systems in preparation for fielding the ITAS. Distribution of 68 systems to the ARNG was complicated by the need for SBE in theater (attached to up armored vehicles). Based on current TOE configurations, **every** Light Infantry BCT will need a full compliment of ITAS fielded. (644 systems)

15 January 2005

SUBJECT: JAVELIN FY06 UFR: \$168.8 Million

APPN: OPA

AREA OF INTEREST: MODERNIZATION

DESCRIPTION:

The JAVELIN is a shoulder fired, medium Anti-Tank/Bunker/Helicopter missile that replaces the 30 year old DRAGON in Infantry, Special Forces, Armor and Combat Engineer units. The missile is an all weather, day/night, fire-and-forget design with significant advances in versatility, effectiveness, survivability and range over the DRAGON. The JAVELIN weapon system is comprised of two, manportable, components the missile and a reusable Command Launch Unit (CLU). The CLU is a day/night, magnified thermal sight that sees through obscurants. Embedded training is supported by 3 components fielded with the system to each Battalion. The Missile Simulation Round, Field Tactical Trainer and PC based Basic Skills Trainer greatly reduce training costs and maintain proficiency.

ISSUE JUSTIFICATION:

Per current RDD documentation the Army National Guard requires 2,847 JAVELIN Systems. There are currently 501 on hand in SF Groups and deployed units with 1501 programmed through FY-09. This leaves an un-programmed shortfall of 844 JAVELIN's for the ARNG Modular BCT's/UA's. No other system is available to meet the JAVELIN requirement.

PROGRAM STATUS:

Under-funded, fielding suspended. The 17 ARNG eSB's and two SF Groups were scheduled to complete fielding in FY-05. Only the two ARNG Special Forces Groups received 14 JAVELIN's each as scheduled in FY-04. The nine ARNG BCT's deploying for OIF received a total of 473 systems post-mobilization. Scheduled fielding to the nine remaining ARNG Separate Brigades in FY-04/05 was suspended to support the GWOT and Active Army Modularity. Approximately 400 funded systems were diverted and have been re-programmed for fielding beginning in FY-07. The nineteen ARNG Divisional Brigades/BCT's were only partially programmed and continue to be. The ARNG unfunded shortfall for JAVELIN is 844 systems. Excess production capacity exists in FY-06 and beyond with a 24 month lead time.

IMPACT OF FUNDING THE CAPABILITY:

Funding the JAVELIN will give Army National Guard soldiers the same capability as the Active Army to detect then attack or defend against armored vehicles, bunkers and Rotorcraft in adverse conditions. The JAVELIN greatly increases soldier survivability and effectiveness by increasing stand-off range from 800 meters (Dragon) to 2500 meters. At present the ARNG depends upon 30 year old, less capable and reliable technology to provide anti-hard target capability.

SUBJECT: JAVELIN

APPN: OPA APE: MDEP: FPLB MDEP TITLE: DAMO-ZR 1-N List Priority Number:

Division Priority:

Functional POC: MAJ Ebhardt Div: NGB-ARQ-M Tel: 703-607-7849

Approval Authority: COL Moore / NGB-ARQ / 703-607-7804

\$	FY05	FY06-11
Validated Requirement	264.8M	240.8M
Un-validated Requirement	0	0
Total Requirement	264.8M	240.8M
Funded Amount	24.0M	72.0M
Total UFR	240.8M	168.8M

(Based on \$200k per unit TPF cost with reduced basic-load procured for storage)

^{*}Note: Changes in requirements and unit costs due to the on-going design of the Modular Force require this information paper be updated periodically. Next analysis and update will occur in early March 05.

15 January 2005

SUBJECT: Warlock Force Protection System

FY06 UFR: \$ 472M APPN: OPA

AREA OF INTEREST: MODERNIZATION

DESCRIPTION: The Warlock Force Protection system is a lifesaving countermeasure. Originally designed to defeat proximity fused indirect fire munitions, Warlock has a dual capability to deny the use of enemy modern communication devices. WARLOCK can be used individually or in-groups to provide wide area coverage without mutual interference. The systems have three configurations—man-pack, vehicle mounted, and stand-alone.

ISSUE JUSTIFICATION: WARLOCK has become a lifesaving system that provides techniques to deny unfriendly use of modern communication devices used in booby traps. Three missions are addressed by the current system: Convoy Protection (for assured mobility), Explosive Ordnance Disposal (EOD) and Gate Keeping. The threat posed to U.S. troops is increasing in number and complexity at an alarming rate. The range or band of frequencies is programmable depending upon the threat. To expand the coverage area, multiple Warlocks may be employed together providing overlapping coverage.

PROGRAM STATUS: This is a mature technology program. In September 2002 92 systems were fielded to support Operation Iraqi Freedom, and Operation Enduring Freedom. Another 166 will be deployed in theater by Jan 2004. There is still a shortage of 400 systems, not including the requirements in Afghanistan, Balkans and other remote locations where ARNG troops are deployed.

IMPACT OF FUNDING THE CAPABILITY: The ARNG is currently at a high deployment rate and anticipates a continued high OPTEMPO. ARNG soldiers are deployed in theaters of operation where the enemy uses proximity fuses and booby traps. Not funding this program will put National Guard troops at a higher risk when the capability exist to increase the level of force protection that is afforded to the Active Component soldiers.

ANALYSIS: The requirement for Warlock is 2,144 with 258 on hand leaving a delta of 1,886 for a total unfunded requirement of \$472 million.

SUBJECT: WARLOCK

APPN: OPA

APE: MDEP:

MDEP TITLE: WARLOCK

DAMO-ZR 1-N List Priority Number:

Division Priority:

Functional POC: MAJ Elkins Div: ARQ-M Tel: 703-607-7821

Approval Authority: COL Moore / NGB-ARQ / 703-607-7804

	FY04	FY05
Validated Requirement		\$472M
Unvalidated Requirement		0
Total Requirement		\$472M
Funded Amount		0
Total UFR		\$472M

Data is provided as of the FY04-05 Pres Budget position

ANALYSIS: The WARLOCK system protects vehicles and convoys against many IED threats. This equates to a requirement of \$472 million dollars.

15 January 2005

SUBJECT: M22 ACADA FY06 UFR: \$172M APPN: OPA

AREA OF INTEREST: MODERNIZATION

DESCRIPTION: An advanced point-sampling, chemical-agent Alarm system. Capable of detecting, warning and identifying standard blister and nerve agent simultaneously. Man-portable, perates independently after system start-up. Replaces the M8A1 Alarm as an automatic point detector and augments the Improved Chemical Agent Monitor as a survey instrument.

ISSUE JUSTIFICATION: One of the top 25 ARNG equipping priorities is to field units with a capable, up-to-date chemical alarm. The ACADA is capable of detecting more than one chemical agent simultaneously, and is an excellent detector for Homeland Security missions. Currently the Army plans to field 8% of the total ARNG requirement. If not funded the ARNG will have to wait until the outdated M8 chemical Alarm, which is no longer in production, are cascaded from the AC. The M22 ACADA will affect the majority of ARNG combat, Combat Support, and Combat Service Support Units. The ACADA provides early warning against multiple threats over a broad spectrum in both combat and homeland defense missions.

PROGRAM STATUS: The Army National Guard has a total requirement of 19,046 M22 ACADA's. The ARNG currently has 1,892 M22 ACADAs on hand leaving a shortage of 17,154 at approximately \$10,000 each for an unfunded requirement of \$171,540,000.

IMPACT OF FUNDING THE CAPABILITY: Funding this system will allow the Army National Guard a better defense against a potential Chemical attack. The ACADA would give an early warning of a chemical attack and most likely save of lives. At present the ARNG depends upon the cascading of the outdated M8 alarm for a system to provide early warning of chemical attacks. The capability of chemical attack early warning will allow ARNG units the ability to deploy and inter-operate with the Active Components, as well as conduct Homeland Security missions.

SUBJECT: ACADA

APPN: OPA APE: MDEP:

MDEP TITLE: ACADA

DAMO-ZR 1-N List Priority Number:

Division Priority:

Functional POC: MAJ Elkins Div: ARF-M Tel: 703-607-7821

Approval Authority: COL Barrineau / NGB-ARF / 703-607-7800

	FY04	FY05
Validated Requirement	\$200M	\$172M
Unvalidated Requirement	0	0
Total Requirement	\$200M	\$172M
Funded Amount	0	0
Total UFR	\$200M	\$172M

Data is provided as of the FY04-05 Pres Budget position

ANALYSIS: The M22 ACADA is key for early warning against a chemical attack in both combat and homeland defense missions. This equates to a requirement of \$172 million dollars.

15 January 2005

SUBJECT: HEMTT (Heavy Expanded Mobility Tactical Truck)

FY06 UFR: \$323.M AREA OF INTEREST:

DESCRIPTION: MODERNIZATION

The HEMTT family consists of three configurations; Fuel Truck, Cargo truck, and Wrecker. It is designed for on-and-off road movement.

The HEMTT M978 is an 8 x 8 Fuel Truck with 2500 gal capacity.

The HEMTT M977 is a Cargo truck, 10-ton, tactical 8 x 8, heavy expanded mobility truck with light on-board material handling crane, with or without winch.

The HEMTT M984 is a Wrecker, 8 x 8, heavy expanded mobility tactical truck wrecker, with heavy duty crane and winch. It provides heavy wheeled recovery and crane support (recover/tow/maintenance lift assistance) to 10-ton and lighter tactical wheeled vehicles.

ISSUE JUSTIFICATION: Without the HEMTT Fuel Truck to provide refueling capability for combat and tactical vehicles, the maneuver elements of the armored and mechanized elements of divisions could be placed in a compromising position. Because the HEMTT Cargo is primarily used in an ammunition resupply roles in armored/mech infantry and artillery units, their ability to receive and redistribute supplies in a timely manner is placed in jeopardy. Without the HEMTT Wrecker to accomplish tactical vehicle recovery missions, and maintenance lift of all power packs for tracked vehicles, some risk may have to be assumed in Armor, Artillery, Engineer, Transportation, Ordnance (maintenance/missile/munitions), Infantry (mech), Air Defense, and Aviation (ATK helicopter) units.

PROGRAM STATUS: At this time no change from FY05 Information Paper, based on FY09 Force Structure not including Modularity partially funded through current POM. Force Structure requirements will change once TAA and Modularity is programmed for ARNG units. HEMTT Program Underfunded. Based on FY09 Force Structure the ARNG has a requirement of 1,783 M978 Fuel Trucks. With 454 programmed for receipt through FY07, (11 are FY03 Congressional add and 37 NGREA) and 1,120 on hand, that leaves a shortage of 209 vehicles. Of the 964 required M984s Wreckers, 519 are on hand, 99 are programmed for receipt through FY07, (11 are FY03 Congressional add and 24 NGREA), leaving a shortage of 346. ARNG Light and Medium Cargo requirements combined for a total of 2,263. With 111 (55 NGREA) programmed for receipt through FY07, and 1,767 on hand, that leaves a shortage of 385. At this time LHS is not included in the UFR calculation.

IMPACT OF FUNDING THE CAPABILITY:

Providing this equipment would allow ARNG units the ability to adequately sustain army forces with fueling, supply and resupply, and recovery operations. It would also contribute greatly to the ability of providing assistance during homeland security missions and disaster relief duties.

SUBJECT: HEMTT (Heavy Expanded Mobility Tactical Truck)

APPN: OPA APE:

MDEP: FPJA MDEP TITLE: HEMTT

DAMO-ZR 1-N List Priority Number:

Division Priority:

Functional POC: Debbie Wasner / NGB-ARQ/ 703-607-7834 Approval Authority: COL Moore/ NGB-ARQ/ 703-607-7804

Fuelers

\$K	FY05	
Validated Requirement	182,000M	
Unvalidated Requirement	0	
Total Requirement	182,000M	
Funded Amount	13.9M	
Total UFR	168,025M	

Wreckers

\$K	FY05	
Validated Requirement	127,475M	
Unvalidated Requirement	0	
Total Requirement	127,475M	
Funded Amount	7,475	
Total UFR	120,000M	

Cargo (Light and Medium Requirements Combined)

\$K	FY05	FY06
Validated Requirement	70,000M	
Unvalidated Requirement	0	
Total Requirement	70,000M	
Funded Amount	35,000M	
Total UFR	35,000M	

ANALYSIS: Total of family UFR is \$323.025M

15 January 2005

SUBJECT: Movement Tracking System

FY06 UFR: Control Station and Mobile Units \$306M

APPN:

AREA OF INTEREST: MODERNIZATION

DESCRIPTION: The Movement Tracking System (MTS) Mobile unit uses commercial-off-the-shelf (COTS) items. MTS will incorporate a global positioning system (GPS), automatic identification technology, non-line of site communications and mapping technologies into one package that provides vehicle/watercraft and cargo visibility throughout the world.

The Movement Tracking System (MTS), Control Station will incorporate the global positioning system (GPS) automatic identification technologies, non line-of-site communications and mapping technologies into a package that provides vehicles and cargo visibility throughout the world. MTS control station will be positioned at Headquarters/ Movement Control locations and track the position of Tactical wheeled vehicles/watercraft equipped with MTS mobile units. MTS will operate 24 hours a day.

ISSUE JUSTIFICATION: Through the use of positioning and communication satellites, commanders have the capability to provide assured positive control of their assets anywhere in the world. The MTS provides the capability to identify position, tracks progress and communicate with the operators of the Tactical Wheeled Vehicle (TWV)/Watercraft. The ARNG is currently short approximately 1,552 Control systems and 14,554 MTS Mobile units. ARNG currently has no equipment on hand, proposed FY01 fielding has been delayed.

PROGRAM STATUS: At this time no change from FY05 Information Paper, based on FY09 Force Structure not including Modularity partially funded through current POM. Not funded. Given the MTS Program projecting funding (through FY09), only 24% (9,791) of the stated Army Acqusition Objective (AAO) (41,157) is funded. Based on FY09 Force Structure not including Modularity MTS not funded through current POM. Force Structure requirements will change once TAA and Modularity is programmed for ARNG units. All MTS equipment is located in Iraq.

IMPACT OF FUNDING THE CAPABILITY: The Army needs a capabilities provided by "Total Asset Visibility" to track the location of vehicles, communicate with vehicle operators, and redirect movements based on the battlefield requirments. Without MTS, ARNG logistics and Transportation elements that are deployed will not be properly integrated within a key network that provides Total Asset Visibility.

SUBJECT: Movement Tracking System

APPN: APE:

MDEP: FPJB MDEP TITLE: Movement Tracking System

DAMO-ZR 1-N List Priority Number:

Division Priority:

Functional POC: Debbie Wasner/ NGB-ARQ/703-607-7834 **Approval Authority:** COL Moore/ NGB-ARQ/ 703-607-7804

MTS Control Systems

\$K	FY06	
Validated Requirement	40,000M	
Unvalidated Requirement	0	
Total Requirement	40,000M	
Funded Amount	0	
Total UFR	40,000M	

MTS Mobile Units

\$K	FY05	
Validated Requirement	266,000M	
Unvalidated Requirement	0	
Total Requirement	266,000M	
Funded Amount	0	
Total UFR	266,000M	

Data is provided as of the POM FY04-09 position.

ANALYSIS: Total of MTS sub-systems is \$306M

15 January 2005

SUBJECT: Enhanced Position Location Reporting System (EPLRS)

FY06-11 UFR: \$269 M

APPN: OPA

AREA OF INTEREST: MODERNIZATION

DESCRIPTION: EPLRS is the Army's Data Networking System for the digitized battlefield that provides the warfighter with the integrated network that supports warfighting systems and assures command control cycle superiority. It provides a mobile wireless data communications backbone for the Army's Tactical Internet. The mobile networks are used by Army Battle Command System(s) (ABCS) and Force XXI Battle Command Brigade and Below (FBCB2) host computers for situational awareness/position navigation and Command & Control. It is a common system and is used by the joint warfiighting forces - Army, Air Force, Navy, and Marine Corps.

ISSUE JUSTIFICATION: To ensure the relevancy of enhanced separate brigades, divisions and non-divisional units during the Army transformation. EPLRS is the required communication link from brigade and below. Without EPLRS, situational awareness is degraded to both the user and higher headquarters. The ARNG ADA battalion's operating with FAAD C2 requires EPLRS to provide interoperability within the forward air defense grid.

PROGRAM STATUS: Partially funded throughout the POM. A total requirement of 6,246 EPLRS (significant change from FY03-04 requirement, due to Army's ABCS modernization policy) systems exist for ARNG. 1008 sets are currently programmed for delivery through FY09. If the schedule is followed, ARNG will still have a shortage of 5,380. ARNG has received 74 systems of the 216 and will receive 792 more systems in FY06, for SBCT6 (PA). The only ARNG units that are on the modernization path (receiving Force XXI Battle Command Brigade and Below (FBCB2) or Avenger Slew to Cue (STC) will meet the HQDA SI validated requirement for EPLRS.

IMPACT OF FUNDING THE CAPABILITY: The inability of ARNG units to send large amounts of data impact its ability to effectively communicate with their active duty counterparts. The digital C2 is significantly less effective over the SINCGARS radio. EPLRS has the functionality to provide the ARNG the ability to provide the situational awareness required for interoperability with the Army's Legacy and Interim Force.

SUBJECT: Enhanced Position Location Reporting System (EPLRS)

LIN: P49587 **APPN:** OPA

APE:

MDEP: FPMM

MDEP TITLE: Enhanced Position Location Reporting System (EPLRS)

DAMO-ZR 1-N List Priority Number:

Division Priority:

Functional POC: MAJ McCormack Div: ARQ-M Tel: 703-607-7891

Approval Authority: COL Moore / NGB-ARQ / 703-607-7804

	FY06-11	
Validated Requirement*	312.30 M	
Unvalidated Requirement		
Total Requirement	312.30 M	
Funded Amount	43.3 M	
Total UFR	269 M	

ANALYSIS: The Army National Guard is funded for only units that support III Corps and the SBCT. Part of the EPLRS that ARNG fields are only due to a congressional add from last year. CECOM lists a cost per unit of \$50,000.

^{*} Validated requirement includes 792 systems for 56th SBCT + 216 systems for ARNG units in Digitized / Counterattack Corps Troops (POM 04-09 requirement).

15 January 2005

SUBJECT: Shadow 200 Tactical Unmanned Aerial Vehicle (TUAV)

FY06 UFR: \$375M APPN: OPA

AREA OF INTEREST: MODERNIZATION

DESCRIPTION: The Shadow 200 is a small, lightweight Tactical Unmanned Aerial Vehicle (TUAV) designed as a ground maneuver commander's primary day or night reconnaissance, surveillance, target acquisition, and battle damage assessment system.

ISSUE JUSTIFICATION: This system has been proven in actual combat operations in locating, identifying and defeating both traditional troop formations as well as small, highly mobile enemy groups. The Shadow 200 employment is flexible and tailorable in order to support operations down to company/squad level. The TUAV also greatly enhances Force Protection with its on-station loitering ability and high-resolution sensors.

PROGRAM STATUS: Between FY05-09 ARNG units are scheduled to receive two Shadow 200 TUAV systems. The base of issue plan applied to projected ARNG MI modularized force structure yields a total requirement of 34 systems. Currently, 30 systems are unfunded.

IMPACT OF FUNDING THE CAPABILITY: The Shadow 200 TUAV will greatly increase ARNG unit's effectiveness in OEF, OIF and Homeland Security as well as enhancing Force Protection.

SUBJECT: Shadow 200 Tactical Unmanned Aerial Vehicle (TUAV)

APPN: OPA **LIN:** Z16242

APE:

MDEP: FPMF MDEP TITLE:

DAMO-ZR 1-N List Priority Number:

Division Priority:

Functional POC: MAJ Bartlett Div: NGB-ARF-S Tel: 703-607-7852

Approval Authority: COL Barrineau / NGB-ARF / 703-607-7800

\$K	FY06	FY07	
Validated Requirement	\$375M	\$375M	
Unvalidated Requirement			
Total Requirement	\$375M	\$375M	
Funded Amount			
Total UFR	\$375M	\$375M	

ANALYSIS:

15 January 2005

SUBJECT: Defense Advanced Global Positioning System Receiver (DAGR)

FY06-11 UFR: \$108 Million

APPN: OPA

AREA OF INTEREST: MODERNIZATION

DESCRIPTION: The DAGR is a small, lightweight (1 lb.), handheld, Global Positioning System (GPS) receiver featuring selective availability/antispoofing module (SAASM) and anti-jam capability. It provides precise positioning and timing solutions based upon signals received from the GPS satellite constellation. It is a five channel receiver, capable of Precision Code (P Code) and Y Code (encrypted P Code) reception. Positioning solutions can be displayed in latitude, longitude, military grid reference system, Universal Transverse Macerator, British National Grid and Irish Transverse Mercator Grid coordinates. It contains 49 map datums, and can be programmed to support navigation. The DAGR has a built-in-test feature, and is NVG compatible. DAGR is located in the mounted and dismounted maneuver (divisional, separate, heavy and light) cavalry/reconnaissance, and armored cavalry, mechanized infantry, infantry and aviation units.

ISSUE JUSTIFICATION: The impact of not fielding DAGR to the ARNG, will result in the ARNG increasingly being unable to operate as quickly on the same battlefield as AC forces. The accelerated tempo of modern combined arms warfare demands full exploitation of rapid movement during operations. Land force dominance at tactical and operational levels requires improved battlefield awareness and presence to move faster and more effectively around the battlefield for effective force protection. The ARNG requires modern forces with an interoperable capability to execute the National Military Strategy (NMS). Currently, the ARNG maintains 15 eSBs to augment AC maneuver divisions during times of war in accordance with the National Military Strategy (NMS). The National Defense Authorization Act for FY98 prohibits the procurement or modification of any aircraft, ship, armored vehicle, or indirect-fire weapon system that is not equipped with a GPS receiver after September 30, 2005, thus making it a necessity to have the GPS fielded to all ARNG units.

PROGRAM STATUS: Partially funded throughout the POM. The ARNG has 0% of its authorized DAGRs. The requirement is 56,378 DAGRs with only 19,756 (PLGRs) on hand. The National Defense Authorization Act had select ARNG units receiving an additional 2641 PLGRs in FY03. However, this congressionally mandated fielding was delayed until FY 05, due to war requirements, possibly causing these asstes to be redistributed. The current plan has (OIF4) three ARNG BCTs receiving DAGRs starting in 2Q FY05. The breakdown is 413 DAGRs per Bde.

IMPACT OF FUNDING THE CAPABILITY: DAGR enhances total force effectiveness by providing automated tools to facilitate battle awareness. It enhances the ability to operate in an unpredictable and changing environment throughout the battle space from stability and support operations through war. DAGR will make the ARNG a more relevant force.

SUBJECT: ARNG Defense Advanced Global Positioning System Receiver (DAGR)

APPN: OPA APE:

MDEP: FPMA MDEP TITLE: DAGR

DAMO-ZR 1-N List Priority Number:

Division Priority:

Functional POC: MAJ McCormack Div: ARQ-M Tel: (703) 607-7891

Approval Authority: COL Lance A. Moore /ARQ/ (703) 607-7804

\$K	FY05-11	
Validated Requirement	135.31M	
Unvalidated Requirement	0	
Total Requirement	135.31M	
Funded Amount	27.31M	
Total UFR	108 M	

ANALYSIS: DAGR is a key component of the Army at all levels of command. Only 1239 DAGRs are to be fielded in FY 05 to the ARNG. This equates to a requirement of 108 million dollars.

15 January 2005

SUBJECT: M915A3 Tractor

FY06 UFR: \$105M APPN: OPA

AREA OF INTEREST: MODERNIZATION

DESCRIPTION: The M915A3 is a highway tractor used primarily for the long distance transport of containers. Although capable of towing other semi trailers, it is intended for use with the 34 ton M872 series semi trailers, 7,500 gallon tanker trailer M1062, and M967/M969 5,000 gallon tanker trailer. The M915A3 is a rebuy of the M915.

ISSUE JUSTIFICATION: The ARNG requirement of M915 fleet of vehicles is 2,355 and is based mostly on ADRS unit changes. Currently, the ARNG has 1,364 tractors in the inventory: Programmed fielding to the ARNG is 280 M915A3s out to FY 07, which will leave a shortage of 811 systems.

PROGRAM STATUS: Current Army Re-Set and Modularity Initiatives may prevent or minimize the availability of M915A3 Tractor fielding to ARNG units.

IMPACT OF FUNDING THE CAPABILITY: Funding this requirement will "pure-fleet" the ARNG with M915A3 models and reduce O & S costs by approximately 60% or more, increase operational readiness, and improve the ARNG's ability to perform both state and federal missions.

SUBJECT: M915A3

APPN: APE:

MDEP: MDEP TITLE: DAMO-ZR 1-N List Priority Number:

Divison Priority:

Functional POC: Mr Rickey F. Yates Div: ARF-L Tel: 703-607-7857

Approval Authority: COL Barrineau / NGB-ARF/ 703-607-7800

\$K	FY06
Validated Requirement	\$ 130,068,750
Unvalidated Requirement	
Total Requirement	\$ 130,068,750
Funded Amount	\$24,750,000
Total UFR	\$ 105,318,750

15 January 2005

SUBJECT: Tactical Electric Power (Medium Sets 5-60kw)

FY06 UFR: Medium Sets 200.M

APPN: OPA3

AREA OF INTEREST: MODERNIZATION

DESCRIPTION: The medium set effort includes the following Tactical Quiet Generator (TQG) sets: 5kw (60Hz & 400Hz), 10kw (60Hz & 400Hz), 15kw (60Hz & 400Hz), 30kw (60Hz & 400Hz) and 60kw (60Hz & 400Hz).

The small set effort includes the following Tactical Quiet Generator (TQG) sets: 3kw 60Hz, AC, Skid-mounted; 3kw, 400Hz, AC, skid-mounted; power plant, AN/MJQ-42, two 3kw 60Hz, AC, M116A3 Trailer Mounted with rack assembly, stowage, and ancillary equipment; and power plant, AN/MJQ-43, two 3kw, 60Hz, AC, M116A3 Trailer-Mounted with ancillary equipment.

ISSUE JUSTIFICATION: These sets will replace corresponding MIL-STD units which are overaged (over 18 years old), gasoline and diesel engine driven with modernized assets. The new sets increase safety and survivability by reducing operating noise levels, reducing weight, providing high altitude electromagnetic pulse protection and increasing infrared signature suppression. These new modernized sets will support Missile/Air Defense Systems (PATRIOT Missile System, Avenger and Multiple Launch Rocket Systems), Tactical Operations Centers, numerous communication and combat systems.

PROGRAM STATUS: At this time no change from FY05 Information Paper, based on FY09 Force Structure not including Modularity partially funded through current POM. Force Structure requirements will change once TAA and Modularity is programmed for ARNG units. Information listed below is based on Current programmed ARNG FY09 requirements 11,030 5-60kw generators currently 1,237 on hand, proposed fielding numbers for FY04 912, FY05 1172, FY06 1256, after FY06 proposed Re-Set and APS (Army Preposition Stock) new requirements could affect ARNG units, leaving a requirement of 6,453 5-60kw generators. Per HQDA G8 June 2004 latest information is only SBCT and Modularity units will new receive generators. At this time UFR only reflects shortages for 5-60kw Medium sets.

IMPACT OF FUNDING THE CAPABILITY: Fielding the sets would allow the ARNG to supply electrical power as needed to fulfill federal and state mission requirements. It would also provide one of the most considered necessary commodities during a natural disaster or state emergency.

SUBJECT: Tactical Electric Power (5-60kw Medium Set Generators)

APPN: OPA3 APE:

MDEP: RJC9 MDEP TITLE: Tactical Electric Power

DAMO-ZR 1-N List Priority Number:

Division Priority:

Functional POC: Debbie Wasner/NGB-ARQ/ 703-607-7834 Approval Authority: COL Moore /NGB-ARQ/ 703-607-7804

Medium Sets 5-60kw Generators

\$K	FY06		
Validated Requirement	\$	204,263,000	\$
Unvalidated Requirement	\$	0	
Total Requirement	\$	204,263,000	\$
Funded Amount	\$	4,263,000	\$
Total UFR	\$	200,000,000	\$

Data is provided as of the PF 3.0 locked position

ANALYSIS: Fieldings of TQGs to AC forces in Europe have resulted in the cascade of insufficient numbers of the older diesel generators to meet existing critical shortfalls. The ARNG needs to upgrade and improve its aging, anemic inventory of generators and accelerate the fielding of TQG to more units within the ARNG.

15 January 2005

SUBJECT: M871 Semi-trailer

FY06 UFR: \$82.5M APPN: OPA

AREA OF INTEREST: MODERNIZATION

DESCRIPTION: This system is a commercially designed 22.5-ton semi-trailer that is used to transport cargo. It consists of a cargo bed and frame with side racks and stakes and a securement system for containers. It is used primarily in forward areas where a limited degree of off-road mobility is required. It provides the capability to transport containers of various sizes, up to 20 feet in length. The prime mover is the 5-ton tractor.

ISSUE JUSTIFICATION: Current numbers show the ARNG with a requirement of 5,162, 2417 systems on hand, and critically short 2,745 systems. We have active units on the ground without M871 Trailers to train and conduct missions. Maintaining the status quo continues to limit the unit's ability to deploy in support of Operation Iraqi Freendom and Operation Enduring Freedom.

PROGRAM STATUS: The current M871A3 distribution plans deliveries 501 systems to the ARNG out to FY 09.

IMPACT OF FUNDING THE CAPABILITY: By further funding the acquisition of the M871A3 trailer, units will increase their current readiness level and their ability to support both state and federal missions.

SUBJECT: M871 Semi-trailer **APPN: APE:**

MDEP: MDEP TITLE: DAMO-ZR 1-N List Priority Number:

Division Priority:

Functional POC: Mr Rickey F. Yates Div: ARF-L Tel: 703-607-7857

Approval Authority: COL Barrineau / NGB-ARF/ 703-607-7800

\$K	FY06
Validated Requirement	\$100,878,750
Unvalidated Requirement	
Total Requirement	\$100,878,750
Funded Amount	\$ 18,411,750
Total UFR	\$ 82,467, 000

^{*}Note: Changes in requirements and unit costs due to the on-going design of the Modular Force require this information paper be updated periodically. Next analysis and update will occur in early March 05.

15 January 2005

SUBJECT: M872A4 Semi-trailer

FY06 UFR: \$87.4M APPN: OPA

AREA OF INTEREST: MODERNIZATION

DESCRIPTION: This system is a commercially designed 34-ton semi-trailer that is used to transport cargo. It consists of a cargo bed and frame with side racks and stakes and a securement system for containers. Used primarily in local and line haul missions from the port area to the division rear areas, where it travels mostly on improved roads. It provides the capability to transport two 20' or one 40' container. The prime mover is the M915A3 truck tractor.

ISSUE JUSTIFICATION: The ARNG requirement of M872's is 4,320 and only 1437 on-hand leaves a shortage of 2,883. Several active units do not have M872s to train or conduct missions. Maintaining the status quo will hurt unit readiness, moral, and retention.

PROGRAM STATUS: The current M872A4 distribution schedule shows a total of 480 M872 systems scheduled for fielding to the ARNG out to FY 06. Current trailer testing setbacks and funding decrements may delay scheduled fielding to ARNG units.

IMPACT OF FUNDING THE CAPABILITY: Funding the acquisition of the M872A4 trailer units will increase their current readiness level and the ability to support both state and federal missions.

SUBJECT: M872A4 Semi-trailer

APPN: OPA APE: MDEP: MDEP TITLE: DAMO-ZR 1-N List Priority Number:

Division Priority:

Functional POC: Mr. Rickey F. Yates Div: ARF-L Tel: 703-607-7857

Approval Authority: COL James A Barrineau Jr./ARF/(703) 607-7800

\$K	FY06
Validated Requirement	\$104,778,401
Unvalidated Requirement	
Total Requirement	\$ 104,778,401
Funded Amount	\$ 17, 446, 560
Total UFR	\$ 87, 341, 841

*Note: Changes in requirements and unit costs due to the on-going design of the Modular Force require this information paper be updated periodically. Next analysis and update will occur in early March 05.

NOTE: Total UFR Tactical Trailers \$170M

15 January 2005

SUBJECT: M917A1/A2 Heavy Dump Truck

FY06 UFR: \$85M

APPN: OPA

AREA OF INTEREST: MODERNIZATION

DESCRIPTION: The primary haul capability in engineer units for earth, rock, aggregate, and construction materials. Dump truck is equipped with tandem axles, duel wheels, and rear dump body. The 20-ton dumps are commercial vehicles with minor modifications to meet military use.

ISSUE JUSTIFICATION: The Army 20 Ton Dump Truck fleet is over-aged and in critical need of replacement and modernization, with the majority of the older equipment in the Army National Guard (ARNG). In an effort to modernize this fleet and satisfy worldwide mission needs, new M917 Dump Trucks are needed. The enhanced capabilities provided by the M917 Dump Trucks would enable ARNG Engineer units to better support Army across the full spectrum of operations and support the many state missions that require this type of engineer support.

PROGRAM STATUS: The ARNG total requirement is 613 with 187 on hand leaving a delta of 426 for a total unfunded requirement of \$85,000,000 There is no programmed fielding after FY05.

IMPACT OF FUNDING THE CAPABILITY: The ARNG has 19 Engineer Combat Heavy Battalions, 6 Engineer Support Companies, 4 Engineer Combat Heavy Companies, 17 Combat Support Companies, and 4 Dump Truck companies that require the M917 dump truck. Without these M917 20-ton dump trucks these Army National Guard units continue operating with obsolete 20-ton dump trucks incapable of fully supporting unit missions. They are very difficult and costly to sustain and repair parts are challenging to acquire.

SUBJECT: M917A2 Dump Truck

APPN: OPA

APE:

MDEP: RF03

MDEP TITLE: Construction Equipment **DAMO-ZR 1-N List Priority Number:**

Division Priority:

Functional POC: MAJ Elkins Div: NGB-ARQ-M Tel: 703-607-7821

Approval Authority: COL Moore / NGB-ARQ / 703-607-7804

\$K	FY04	FY05 - 09
Validated Requirement	105,800 K	\$85M
Unvalidated Requirement	0	0
Total Requirement	105,800 K	\$85M
Funded Amount	20,600 K	0
Total UFR	85,200 K	\$85M

ANALYSIS: The ARNG has not received any indication that they will be programmed after FY05.

15 January 2005

SUBJECT: Joint Network Transport Capability –Spiral (JNTC-S)

FY06 UFR: \$88M Total UFR for JNN: \$371M

APPN: OPA

AREA OF INTEREST: MODERNIZATION

DESCRIPTION: The Mobile Subscriber Equipment (MSE) network cannot keep up on the modern battlefield, nor is it designed to provide the increased level of bandwidth and services the Combantant Commander requires. These services include SIPR, NIPR, and VTC, and enables both circuit switching and Internet Protocol (IP) based networking. The Joint Network Node (JNN) package is designed to provide these services to the Commander at the UEX, BCT and as far down as the UA Battalion Command post, providing the him with unprecedented communications services. It also provides the UEx, UA and BN CP headquarters the ability to operate independently into the Global Information Grid (GIG) or a joint headquarters as required. For the purposes of this UFR, the JNN package consists of:

- a. JNN terminal and vehicle
- b. Commercial Ku SATCOM with trailer
- c. Local Area Network Commercial-off-the-shelf (COTS) equipment.
- d. Network Management, ISYSCON(V)4 one per BN / 2 per BCT / 3 per UEx

Not included is the High Capacity Line of Sight (HCLOS) radio upgrade to the AN/TRC-190(V)3 communications system. (See HCLOS FY05 UFR for details).

A Maneuver Unit of Action / BCT package includes 2 each JNNs, 5 Battalion CP Nodes and associated LAN Transit cases. Total cost of the BCT JNN package is approximately \$9.75 million. A UEx Headquarters requires 3 each JNNs and associated LAN Transit cases. The UEx Headquarters is divided into a Main, TAC 1 and TAC 2. Total cost for a UEx JNN package (minus the unit Hub terminals) is approximately \$14.25 million.

ISSUE JUSTIFICATION: The ARNG converts one UEX and three BCTs in FY05. There is no JNTC-S funding programmed for these units. Without the equipment, these units will convert to the Modular Force Structure (URS v 6.1), but not have the required communications equipment in order to properly train. This will quickly degrade Signal soldier skills, as well as degrade the overall unit (BCT) training, since the network and the communications services it provides the BCT commander is vital in providing connectivity for the ABCS (Army Battle Command System).

PROGRAM STATUS: Currently, only \$52 million is in the FY06-11 POM for ARNG units. This money is programmed for FY08. This delays the fielding of the equipment, reduces readiness levels, and delays the sustainment training of the entire BCT for three years. Additionally, by end of FY07, the ARNG will have converted a total of five UExs and fifteen BCTs, all requiring the JNTC-S suite of communications equipment.

IMPACT OF FUNDING THE CAPABILITY: Dramatic. Funding the JNTC-S program in FY05-FY07 allows the ARNG to reach a higher readiness state in a shorter period of time. Funding this capability also provides the ARNG the opportunity to increase retention, since it is difficult to recruit and retain a soldier who will not be provided the proper equipment upon which to train.

SUBJECT: Joint Network Transport Capability –Sprial (JNTC-S)

APPN: OPA APE:

MDEP: BB1600 MDEP TITLE: ACUS Modernization

LIN:

DAMO-ZR 1-N List Priority Number:

Division Priority:

Functional POC: MAJ Camoroda Div: NGB-ARF-S Tel: 703-607-7826

Approval Authority: COL Barrineau / NGB-ARF / 703-607-7800

\$M	FY05	FY06	FY07	Total thru FY07
Validated Requirement	\$44.0	\$151.0	\$151.0	\$220.0
Unvalidated Requirement	0	0	0	0
Total Requirement	1 UEx and 3 BCTs	2 UEx and 6 BCTs	2 UEx and 6 BCTs	5 Uex and 15 BCTs
Funded Amount	0	0	0	0
Total UFR	\$44.0	\$151.0	\$151.0	\$220.0

^{*}Note: Changes in requirements and unit costs due to the on-going design of the Modular Force require this information paper be updated periodically. Next analysis and update will occur in early March 05.

ANALYSIS:

- Cost of JNN package is approximately \$3.2M each. Includes truck, Ku trailer, etc)
- Cost per Maneuver Unit of Action is approximately \$9.75M. Includes 2 JNNs, 5 BN CP Ku Nodes and associated Local Area Network (LAN) transit cases.
- Not included is the Network Management Tool, the ISYSCON(V)4. Cost is \$8K per suite for hardware and software only. Each JNN requires an ISYSCON.
- Not included is the 2 Hub terminals that are in the UEx. These systems are not included based upon a pending Army decision as to the final number of these Hub terminals that will be in the Army inventory. Current forecast is the Army will purchase 8 Hub Terminals to be stationed at fixed locations around the world and be operated by the unit that roates in on the stationary equipment.
- Combantant Commanders increased use and reliance on NIPR, SIPR, VTC and other services that provide the capability to efficiently and effectively communicate with his commanders using the latest technology (ABCS and BFT for example), reinforce the requirement for the increased capability that the JNTC-S network provides
- For the Homeland Security mission of the Army National Guard forces, this suite of communications equipment can also be used to provide the Governor and other state and local agencies with voice and data communications connectivity during a manmade or natural emergency.

ARMY NATIONAL GUARD SYSTEM REQUIREMENTS ARE BASED ON THE ASSUMPTION

ALL ARMY COMPONENTS WILL EXECUTE REORGANIZATION INTO BCT (UA) MODULAR FORCE ACCORDING TO THE HQDA APPROVED TIMELINE .

15 January 2005

SUBJECT: M119A2 Howitzer

FY06 UFR: \$237M APPN: OPA

AREA OF INTEREST: MODERNIZATION

Description: The M119A2 105mm towed howitzer is a lightweight towed weapon that provides direct support fires to light, airborne and air assault forces. It provides significantly greater range and lethality than the M101A1 and M102 howitzers and can be towed by the HMMWV.

Requirement is for the Lightweight 155 Howitzer, but the M119A2 will act as the interim until fielding begins in FY09. ARNG requirement is for 391 with 153 programmed to be fielded to the ARNG leaving a shortfall of 238 or a total UFR \$237M

15 January 2005

SUBJECT: UH-60M Blackhawk **FY06 UFR:** \$1,019M for 91 airframes.

APPN: ACFT

AREA OF INTEREST: EQUIPPING

DESCRIPTION: The UH-60 Blackhawk is the only modernized utility/MEDEVAC helicopter in the Army fleet. The UH-60 Blackhawk, assigned to an ARNG unit, is a valuable tool for the battlefield commander as well as an integral part of the Total Army Warfight. It is equally important during peacetime to perform disaster relief operations and other critical state missions. Blackhawks in the Army National Guard are either older UH-60A/UH-60Q's or the currently built UH/HH-60Ls. The Army is developing a program to recapitalize a select number of UH-60As to the newest Blackhawk configuration, the UH-60M. It is critical that the entire ARNG fleet of UH-60As/UH-60Ls be modernized to the UH/HH-60M "like new" configuration.

ISSUE JUSTIFICATION: As of 1 Oct 04 ARNG had 596 of its 710 required UH-60 aircraft. Additional UH-60L/M Blackhawks are needed to replace Vietnam era UH-1 aircraft that will be retired by 2004. The Army Army Aviation Modernization Plan (AAMP), Army procurement goal of 710 still leaves nearly 60% of the ARNG fleet of UH-60s consists of UH-60A models that are approaching an average age of 20 years. The Army Plan through 2015 projects the ARNG will only have 71 UH-60Ms, 273 UH-60Ls and 366 UH-60As. In addition only 193 of the 366 UH-60As will have undergone recapitalization (depot rebuild). The older aircraft are more costly to maintain and units with these aircraft consistently report mission capable rates 20% lower than ARNG units with newer (UH-60L) aircraft.

PROGRAM STATUS: The 04-11 POM programs a total of 119 UH-60Ls to be purchased and the Department of the Army procurement cap is 710, however the ARNG is not resourced for the recapitalization program, do to the numerous deployments bestowed on the force, it is imperative that all of these units be fully resourced. Current shortfall based on on-hand quantities and the requirement the ARNG is short 91 airframes at a cost of \$11.2M per copy that are unfunded. **Total unfunded requirement is \$1,019M for the shortfall.**

IMPACT OF FUNDING THE CAPABILITY: If the additional UH-60s are funded, the ARNG would be able to field at least 1 fully resourced utility company or MEDEVAC detachment in every state/territory (except Guam which has no ARNG Aviation assets). In wartime, full resourcing would allow all ARNG utility units to be deployable to a theatre of war as an integral part of the "One Army" concept. Funding the UH-60 recapitalization program will allow the Army National Guard to provide units to be deployable and interoperable througout Army Transformation because they will be compatible with legacy and interim forces that deploy for full spectrum operations as they are organized and equipped.

SUBJECT: UH-60M PROCUREMENT APPN: ACFT APE: A05002000

MDEP: FPEG MDEP TITLE: BLACKHAWK

DAMO-ZR 1-N List Priority Number:

Division Priority:

Functional POC: MAJ LEWIS Div: NGB-ARF Tel: 703-607-7836

Approval Authority: Division Chief / Office Symbol / Comm Phone

\$K	FY05	FY06
Validated Requirement	7,831,800,000	1,083,000,000
Unvalidated Requirement	1,094,400,000	1,094,400,000
Total Requirement	8,926,200,000	2,177,400,000
Funded Amount	6,748,800,000	•
Total UFR	2,177,400,000	2,177,400,000

Data is provided as of the PF locked position

ANALYSIS:

This system analysis is based upon future completion of ADRS phase 4. Numbers used for computation reflect ARNG conversion of 2 combat divisions to CSS.

15 January 2005

SUBJECT: Meteorological Measuring Set – Profiler AN/TMQ-52

FY06 UFR: \$22.8M

APPN: OPA

AREA OF INTEREST: MODERNIZATION

Description: Profiler is a suite of meteorological sensors and associated software/models that will provide the Field Artillery with current or expected weather conditions, along the trajectory and at a point or area where the munitions are expected to engage targets.

A FY05 Congressional plus-up of \$2.6M has been allocated to procure one Profiler each to the Arkansas National Guard and the North Dakota National Guard. The ARNG has a total requirement for 40 Profiler systems. Two (2) systems have been programmed and are scheduled for Arkansas and North Dakota. This leaves the ARNG with a shortfall of 38 unfunded systems at a per unit cost of \$599K or a total unfunded requirement of \$22.8M.

15 January 2005

LLDR. No changes to LLDR funding in Pres Bud 05 (05-11). Two ARNG UFRs were submitted in POM 06-11 for LLDR: 1) Non-Modularity UFR, total \$103.8M (06-11) supports acceleration of production and completion of fielding to ARNG units, 2) Modularity UFR, total \$256M (06-11) supports modularity increases and acceleration of production/fielding of units.

Profiler. A FY05 Congressional plus-up of \$2.6M has been allocated to procure one Profiler each to the Arkansas National Guard and the North Dakota National Guard.

LLDR - Provides the warfighter with a lightweight (35lbs) capability to acquire and designate targets for laser capable munitions. Additional funding accelerates fielding and replaces the unsupportable GVLLD (100lbs) laser designation system, as well as supports the fielding to ARNG guard units deploying to OIF/OEF in support of GWOT.

Profiler - Provides the warfighter with current/expected weather conditions along the projectile path and in the target area. Additional funding supports the increased requirement for Profiler due to modularity.

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Program: M707 Knight w/FS3 (Fire Support Sensor System)

<u>Program Description</u>: The M707 Knight fire support vehicle is a HMMWV based system that provides for efficient fire support planning, direction, controlling, target designation, and night observation for both heavy and light forces. The system currently uses the outdated and unsupportable GVLLD as its sensor to locate and designate targets. MDEP: FL6Y, APE: B78500000, B78503000

<u>Capability Description</u>: The M707 Knight w/FS3 provides sensor parity (2d Gen FLIR optics) between maneuver platforms and fire support platforms. The Knight w/FS3 exceeds the 5km night designation range ORD requirement, which is twice the capability of the AN/TAS-4 on the obsolete GVLLD. Knight w/FS3 helps bridge the sensor capability gap by providing fire supporters with a 2d Gen FLIR optic (LRAS 3) and a Laser Designation Module (LDM), which greatly enhances their capability to locate and designate targets. The sensor capability

will be greatly enhanced by the modification of the FS3 on the M707 Knight. The Knight w/FS3 has 5x the range capability of the Knight w/GVLLD. The Knight w/FS3 also exceeds the 5km night designation ORD requirement, in which the Knight w/GVLLD achieves a <2km night designation range.

<u>Program Unit Cost:</u> New build Knight w/FS3 - \$1.246M; Knight w/FS3 retrofit - \$660K

Total UFR for LLDR/FS3 is \$297M

15 January 2005

SUBJECT: Bradley (A2-A2ODS)

FY06 UFR: \$837 **APPN**: OPA

AREA OF INTEREST: MODERNIZATION

DESCRIPTION: Provide commanders with a highly reliable, survivable, lethal and secure combat vehicle supporting maneuver elements in offensive and defensive postures to allow command and control of operations.

ISSUE JUSTIFICATION: One of the top ARNG equipping priorities is to upgrade the remaining Bradley fleet from M2A2/M3A2 BFV/CFV and FIST-V to M2A2ODS/M3A2ODS BFV/CFV and BFIST. The ODS upgrades incorporate improvements identified during Operation Desert Storm (ODS) such as eyesafe laser rangefinder, global positioning system with digital compass, missile countermeasure, restowage and mounting provisions for battlefield combat identification system. The ODS BFV is the base version of this vehicle required for modularity and transformation. These vehicles enhance combat lethality, survivability and allow ARNG forces with a combat multiplier to defeat enemy forces on the modern battlefield. The ARNG has received ODS vehicles through Congressional Marks obtained by the individual states.

	M2A2ODS/M3A2ODS On Hand	UA Req	DELTA
M2 Series	270	640	(-) 370
M2 EFV (+180)	0	180	(-) 180
M2BFIST (+110)	0	110	(-) 110
M3 Series	52	300	(-) 248
			Total short (-) 908

PROGRAM STATUS: The 155th BCT is programmed to receive 45 M2 ODS BFV's and 13 M3 ODS CFV's in 2005 from an 2003 Congressional add. This leaves the ARNG short 850 bradley platforms required for supporting the 10 ARNG armored Brigades programmed for modularity. The cost per vehicle is \$1.1 million dollars. (850 x 1.1 = \$935 mil) Funding is essential to ensure ARNG soldiers are adequately protected and are able to communicate via secure voice and transfer-data with their active Army counterpart. Currently, the active component is also critically short vehicles and does not plan to cascade any vehicles to the ARNG until 2010

IMPACT OF FUNDING THE CAPABILITY: Funding this system will allow the Army National Guard to deploy with modern equipment and protect it's soldiers while simultaneously communicating and operating within the network-centric Army.

SUBJECT: Bradley (A2-A2ODS)

LIN: F40375 APPN: APE: MDEP: AR1R

MDEP TITLE: DAMO-ZR 1-N List Priority Number:

Division Priority:

Functional POC: MAJ Wm. Dillon **Div:** ARF-C **Tel:** 7-8056 **Approval Authority:** COL Barrineau / NGB-ARF / 703-607-7800

\$K	FY05	FY06
Validated Requirement	\$935 M	\$837
Unvalidated Requirement		
Total Requirement	\$935 M	\$837
Funded Amount	\$98	
		·
Total UFR	\$837	\$837

Data is provided as of the PF ____ locked position

ANALYSIS:

Bradley A2	Bradley A2ODS	
No Digital Capability	Digitize	
Basic TOW Subsystem	TOW II subsystem /Missile countermeasure	
Needs costly recapitalization	Near zero miles and hours	
Reliability decreasing as fleet ages	Highly reliable	
Integrated sight	Eyesafe laser rangefinder	
No restowage	Restowage of ammunition	
Costly to sustain	Driver's viewer enhanced-uncooled	
	Global positioning system/digital compass	
	Armor tile provisions	

15 January 2005

SUBJECT: Tactical Water Purification System (TWPS) 1500 GPH

FY06 UFR: \$\$60.6M

APPN: 2

AREA OF INTEREST: MODERNIZATION

DESCRIPTION: The TWPS is capable of supplying 1500 gallons per hour (GPH) of potable drinking water for Unit of Employment (UE) and Unit of Action (UA) ground units in remote areas. Extremely mobile, the TWPS is flat rack mounted allowing it greater tactical agility in support of ground, amphibious, air assault, and airborne forces. The system can purify water in all climates and in nuclear, biological, and chemical (NBC) conditions and is easily transported on a HEMTT LHS, PLS. CH-47F, C-130.

ISSUE JUSTIFICATION: The Army National Guard requires 127 TWPS. The requirement covers the Infantry UA's, Aviation UA's Fires UA's, SBCT, and the water companies. The first modular water company begins conversion in FY06 and the last is programmed for FY09. There is currently no funding for TWPS programmed for these units.

PROGRAM STATUS: Programmed dollars fund water purification systems for fielding to 6 UEx, 3 SUAs, and 3 SBCTs. Programmed OPA and RDTE support the Transformation Campaign Plan and the system has an approved ORD. POM 06-11 TWPS funding was at minimum production rate which equates to a critical requirement of 1 TWPS per month (enough to keep the production line open). The program is funded at 100% of critical requirements (Qty = 12, POM = 5.7M). There is a supplemental request by the active component that totals \$8.6M to buy 20 additional TWPS to support modularity.

IMPACT OF FUNDING THE CAPABILITY: The TWPS provides purified and potable water for the individual soldier and unit sustainment. Tactical water purifiers provide quality water support to sustain the war fighters, civilian agencies, or host-nations for disaster relief, humanitarian efforts, and peace keeping missions. The TWPS reduces the logistical footprint by replacing existing systems and has significant manpower reductions. Additionally, it reduces the transportation requirement for bottled water and reduces traffic on main supply routes. At present, the Army National Guard depends on 20 year old, less capable and reliable technology to provide clean drinking water to our soldiers. The system supports the Army's demand for water resources in the Joint Operating Area (JOA).

SUBJECT: Tactical Water Purification System (TWPS) 1500 GPH

APPN: 2 **APE: R05200**

LIN: Z97761

MDEP: RJL7 MDEP TITLE: liquid log

DAMO-ZR 1-N List Priority Number:

Division Priority:

Functional POC: MAJ Rice Div: NGB-ARF-L Tel: 703-607-7829 Approval Authority: COL Barrineau / NGB-ARF / 703-607-7800

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(Based on \$477k per unit X 127 units = shortfall of \$61M)

^{*}Note: Changes in requirements and unit costs due to the on-going design of the Modular Force require this information paper be updated periodically. Next analysis and update will occur in early March 05.