



# **GLOBAL MORTAR SYSTEMS MARKET UPDATE 2015-2016**

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# MARKET SUMMARY

What are the current and future mortar mobility demands facing armed forces? How can current platforms be adapted to meet such requirements? Can an increased emphasis on comprehensive simulation in mortar focused training be an effective substitute for live fire training? Is there a realistic solution available that can reduce the cost of live fire training to allow for a reduction in associated ammunition costs? Are fire control systems a viable solution to increase accuracy and thus reduce ammunition costs?

This report is intended to provide a surface-level overview of current global mortar inventories and to highlight key active programmes either rumoured or in development.

***Please note that all information herein is subject to change. Defence IQ endeavours to ensure accuracy wherever possible, but errors are often unavoidable. We accept no responsibility for the use or application of this information. We suggest that readers contact the specific government and military programme offices if seeking to confirm the reliability of any data.***

## Overview

The most commonly operated towed or hand-held indirect fire mortar calibres are 60mm, 81mm and 120mm, but others, such as 82mm and 107mm are also in use. There are over 85,000 towed/hand-held and self-propelled (SP) mortars in use worldwide. Of these, around 4,000 are SP systems. Asia-Pacific countries hold 40% of the world's towed/hand-held mortars, while Europe has 16% and the Middle-East has 17%. Europe dominates in SP mortars, with 63% of the world total.

Although 81mm self-propelled (SP) mortar systems are still operated by some countries, including the U.K., there is now a trend towards the larger 120mm SP systems, which have a longer range and generally more effective ammunition. Traditional High Explosive (HE), Illumination and Smoke ammunition is still widely used, but new HE variants and Insensitive Munitions (IM) are being introduced.

# **KEY REQUIREMENTS**

**ACTIVE PROGRAMMES &  
EXPECTED ACQUISITIONS**

# ACTIVE PROGRAMMES & REQUIREMENTS

Selected acquisition and modernisation from around the world...

## EUROPE



### Austria

Hirtenberger developed the M12 in collaboration with the Austrian Army. The M12 has been in Austrian service since 1985.

### France

The TDA MO 120 RT 120MM Rifled Towed Mortar is in-service in many countries (including France). The TDA 120R 2M SP Mortar is also deployed by the French Army.

In French service, it is usually towed by the VTM 120, a variant of the VAB 4x4 APC.

### Germany

Germany has a requirement for 38 Wiesel 120MM SP Mortars. Production of the first batch of 8 systems has been completed.

### Italy

The Italian Army has selected the TDA 120R 2M SP Mortar for installation on its Freccia 8x8 and Dardo tracked vehicles.

### Poland

The 120MM RAK Turret Mortar System was developed by Huta Stalowa Wola (HSW) for the Polish Army. A typical deployed unit is expected to include 8 120MM Turreted Mortars mounted on tracked or wheeled vehicles, together with Command, Re-Supply and Maintenance vehicles.

The Polish Land Forces are planning to purchase 75 RAK mortars, although this number may be increased.

### Portugal

The Soltam 120mm Computerised Autonomous Recoil rapid Deployed Outrange Mortar (CARDOM) is in service with the the Portugese Army (General Dynamics Land Systems 8x8 Stryker) and other export customers.



### Russia

Russia has developed 120MM laser-guided mortar bombs.

Russia also developed the 120MM Anona 2S9 SP Gun/Mortar System, based on the BTR-D APC and is marketing the 120MM 2S31 Vena SP Gun/Mortar System. Development of the 2S31 Vena has been completed, but it has not entered Russian Army service as yet.

A prototype of a 120MM 2S34 SP Mortar integrated onto 2S1s and MT-LBs has been developed, but is yet to enter production.

The country is known to be modernising its 2S12 Sani 120MM heavy mortar for use on the next generations of the Armata MBT, Kurganet BMP and other platforms.

### Spain

Spain is procuring an 81MM variant of CARDOM, mounted on VAMTAC 4x4 vehicles. The first 6 units, under a \$8.5 million contract, were delivered in mid-2012.

4 ARTHUR Mortar-Locating Radars are on order.

### Switzerland

RUAG has developed the 120MM Bighorn Recoiling Mortar System but there have been no known sales of this system as yet.

## ASIA-PACIFIC



### China

A modified version of the NORINCO WZ551 6x6 APC is used as the basis for the 120MM SP mortar PLL-05 which entered service before 2009.

China has also developed 120MM laser-guided mortar bombs.

### Malaysia

The TDA 120R 2M SP Mortar is deployed in the FNSS Armoured Combat Vehicle-Stretched.

### Philippines

RDM has exported 28,642 mortar bombs to the Philippines.

### Singapore

The 120MM Super Rapid Advanced Mortar System (SRAMS), developed by Singapore Technologies Kinetics (STK) is in-service with the Singapore Armed Forces. It is fitted on the Bronco All Terrain Tracked Carrier (ATTC), also produced by STK.

### Thailand

The US has exported the M1064A3 mortar carrier to Thailand.

### Vietnam

Vietnam's principal defence industry capabilities are in the manufacturing of small arms and small arms munitions. These include mortars.



## LATIN AMERICA & THE CARIBBEAN



### Venezuela

The 2531 Vena tracked 120mm gun/mortar system has been exported by Russia to Venezuela.

## NORTH AMERICA



### USA

As part of the US Army's Field Artillery Modernisation Strategy for 2020, the HMMWV mounted AN/TPQ-50 Lightweight Counter Mortar Radar (LCMR) is expected to become one of the primary target acquisition radars within the US Army Field Artillery.

The 120MM Computerised Autonomous Recoil Rapid Deployment Outrange Mortar (CARDOM), is deployed by the U.S. Marine Corps on Stryker 8x8 LAVs.

The BAE Systems M1064 is the standard 120mm self-propelled mortar in service with US Army armoured brigade combat teams. The system consists of a 120mm smoothbore mortar mounted in the rear of a BAE Systems M113A3 APC.

BAE Systems is proposing that the mortar from M1064A3 should be mounted in a BAE Systems Bradley derivative as part of the US Army's Armoured Multipurpose Vehicle project.



## MIDDLE EAST & AFRICA



### Azerbaijan

The 2531 Vena tracked 120mm gun/mortar system has been exported by Russia to Azerbaijan. Cameroon

The CARDOM was integrated on a Mercedes-Benz 4x4 cross-country truck for an African customer, reported to be Cameroon.

### Iraq

18 AN/TPQ-48 Artillery/Mortar Locating Radars are on order.

### Israel

The 120MM Computerised Autonomous Recoil Rapid Deployment Outrange Mortar (CARDOM), known as the Keshet, is deployed by the Israeli Defence Force (IDF) on upgraded M113A3 APCs.

### Oman

The TDA 120R 2M SP Mortar is deployed in the VAB 6x6.

### Saudi Arabia

36 NEMO Turreted Mortar Systems (TMS) are on order for the Saudi Arabian National Guard (SANG) from GDLS-Canada.

The TDA 120R 2M SP Mortar is operated on upgraded M113 APCs.

The Armoured Vehicles & Heavy Equipment Factory (AVF) has overhauled and upgraded a number of Saudi Arabia's Panchard General Defense AML 60 armoured cars (armed with 60 mm mortars).

### Turkey

FNSS Savunma Sistemleri has supplied 170 AMCs fitted with turntable 81MM Mortars to the Turkish Land Forces Command.

### UAE

SRAMS is in production for the International Golden Group (IGG) of the UAE as part of the Agrab Mk.2 Mobile Mortar System, incorporated into the BAE Systems RG31 Mk.6. 72 Agrabs were ordered in 2011 for the UAE Armed Forces. The first 10 are being integrated in South Africa, with the remainder to be integrated by IGG in the UAE. DLS has exported 36 mortars to the UAE.





# **HOLDINGS**

## **WORLD MORTAR SYSTEM INVENTORIES**

COUNTRY	TOWED/HAND-HELD MORTARS	FUTURE PLANS
ALBANIA	81 82MM 12 120MM	
AUSTRIA	90 sGrW 86 120MM (+10 stored)	
BELGIUM	39 81MM 52 120MM	
BOSNIA AND HERZEGOVINA	100 M75 120MM	
BULGARIA	215 2S11 120MM SP	
CROATIA	29 LMB M96 82MM 70 M-75; 5 UBM 52 120MM	
CYPRUS	170 E-44 81MM (70+ M-1/M-9 in Store) 20 M2/M30 107MM 112 RT61 120MM	
CZECH REPUBLIC	43 M1982 120MM (42 more in Store) 8 M85 PRAM 120MM SP	
DENMARK	20 K6B1 SOLTAM 120MM	
ESTONIA	41 B455; 10 NM 95; 80 M252 81MM 14 2B11; 165 41D 120MM	
FINLAND	261 KRH 92 120MM 4 XA-361 AMOS 120MM twin SP	

COUNTRY	TOWED/HAND-HELD MORTARS	FUTURE PLANS
FRANCE	LRR 81MM 140 RTF1 120MM 157+ 60MM/81MM (Gendarmerie)	
GERMANY	104 120MM SP	Requirement for 38 Wiesel 120MM SP Mortars
GREECE	1,629 81MM 620 M-30 107MM (Inc. 231 SP)	
MACEDONIA	39 120MM 76 82MM 43 120MM	
MONTENEGRO	76 82MM 43 120MM	
NETHERLANDS	27 L16/M1 81MM 16 BRANDT 120MM 12 L16/M1 81MM (Marines)	
NORWAY	24 M106A1; 12 M125A2 81MM SP 150 L-16 81MM	
POLAND	89 M-98 98MM 95 M120 120MM	
PORTUGAL	182 81MM (inc. 21 SP); 52 M30 107MM (inc. 20 SP) 49 120MM TAMPELLA	
ROMANIA	266 M-1982 120MM	
SERBIA	106 M-69 82MM 57 M-74/M-75 120MM	

COUNTRY	TOWED/HAND-HELD MORTARS	FUTURE PLANS
SLOVENIA	45 MN-9 120MM	
SPAIN	989 81MM 461 120MM	4 ARTHUR Mortar-Locating Radars on order
SWEDEN	191 120MM 12 81MM (Marines)	
SWITZERLAND	250 M113 81MM SP	
TURKEY	3,792 81MM 578 120MM 1,264 M-30 107MM SP 179 120MM SP	
UK	360 81MM SP (on FV432) 32 81MM (Marines)	

COUNTRY	TOWED/HAND-HELD MORTARS	FUTURE PLANS
ANGOLA	250 82MM 500 120MM	
BENIN	81MM	
BOTSWANA	22 81MM 6 M-43 120MM	
BURKINA FASO	15 82MM 12 120MM	
BURUNDI	15 M-43 82MM 75 (Est.) 120MM	
CAMEROON	81MM (Some SP) 16 BRANDT 120MM	
CAPE VERDE	12 82MM 6 M-1943 120MM	
CENTRAL AFRICAN REPUBLIC	81MM 12 M1943 120MM	
CHAD	81MM AM-50 120MM	
CONGO	82MM 28 M-43 120MM	
DRC	100 81MM 400 82MM M-30 107MM 28 120MM	

<b>COUNTRY</b>	<b>TOWED/HAND-HELD MORTARS</b>	<b>FUTURE PLANS</b>
<b>COTE D'IVOIRE</b>	10 M-37 82MM 16 AM-50 120MM	
<b>DJIBOUTI</b>	25 81MM 20 BRANDT 120MM	
<b>ERITREA</b>	100+ 120MM/160MM	
<b>ETHIOPIA</b>	M1/M29 81MM M-1937 82MM M-1944 120MM	
<b>GABON</b>	35 81MM 4 BRANDT 120MM	
<b>GHANA</b>	50 81MM 28 120MM TAMPELLA	
<b>GUINEA</b>	M-43 82MM 20 M-1943/M-38 120MM	
<b>GUINEA BISSAU</b>	M-43 82MM 8 M-1943 120MM	
<b>KENYA</b>	50 81MM 12 120MM	
<b>LESOTHO</b>	10 81MM	
<b>MADAGASCAR</b>	16 M37 82MM 8 M-43 120MM	

<b>COUNTRY</b>	<b>TOWED/HAND-HELD MORTARS</b>	<b>FUTURE PLANS</b>
<b>MALAWI</b>	8 L-16 81MM	
<b>MAURITANIA</b>	24 60MM 60 81MM 30 BRANDT 120MM	
<b>MAURITIUS</b>	2 81MM	
<b>MOZAMBIQUE</b>	40 M-43 82MM 12 M-43 120MM	
<b>NAMIBIA</b>	40 81MM/82MM	
<b>NIGER</b>	19 BRANDT 81MM 17 82MM 4 BRANDT 120MM	
<b>NIGERIA</b>	200 81MM 100 82MM 30+ 120MM	
<b>RWANDA</b>	115 81MM/82MM/120MM	
<b>SENEGAL</b>	8 BRANDT 81MM 8 BRANDT 120MM	
<b>SEYCHELLES</b>	6 M43 82MM	
<b>SIERRA LEONE</b>	27 (EST.) 81MM 2 82MM 2 120MM	

<b>COUNTRY</b>	<b>TOWED/HAND-HELD MORTARS</b>	<b>FUTURE PLANS</b>
<b>SOMALIA</b>	45 81MM/120MM	
<b>SOUTH AFRICA</b>	1,190 81MM (Some SP) 36 120MM	
<b>SOUTH SUDAN</b>	82MM/120MM	
<b>SUDAN</b>	81MM 82MM 120MM	
<b>TANZANIA</b>	100 M43 82MM 50 M43 120MM	
<b>TOGO</b>	20 M43 82MM	
<b>UGANDA</b>	L-16 81MM M-43 82MM 78 SOLTAM 120MM	
<b>ZAMBIA</b>	55 81MM 24 82MM 12 120MM	
<b>ZIMBABWE</b>	140 (Est.) L-16 81MM/82MM 6 M-43 120MM	



COUNTRY	TOWED/HAND-HELD MORTARS	FUTURE PLANS
ARGENTINA	492 81MM 353 BRANDT 120MM 25 M106A2SP 13 TAM-VCTM 70 81MM (Marines) 12 120MM (Marines)	
BELIZE	6 81MM	
BOLIVIA	250 M29 81MM; W87 81MM M30 107MM M120 120MM	
BRAZIL	453 L-16 81MM 715 M1936 AGR 77 M2 120MM 18 M29 81MM (Marines)	
CHILE	303 ECIA L65/81; 175 FAMAE; 266 SOLTAM 81MM 16 FAMAE; 93 SOLTAM M-65; 173 ECIA L65/120 120MM 36 FAMAE (ON PIRANHA 6x6); 36 SOLTAM (ON M113A2) 120MM SP 16 81MM (Marines)	
COLOMBIA	1,374 81MM 108 120MM 74 81MM (Marines) 8 120MM (Marines)	
CUBA	1,000 M-41/43 82MM/M-38/43 120MM	

## LATIN AMERICA & THE CARIBBEAN

COUNTRY	TOWED/HAND-HELD MORTARS	FUTURE PLANS
DOMINICAN REPUBLIC	60 M1 81MM 4 M-30 107MM 24 EXPAL L 120MM	
ECUADOR	400 M29 81MM M30 107MM 12 SOLTAM M-66 160MM 32+ 60MM/81MM/120MM (Marines)	
EL SALVADOR	151 M29 81MM 12 UBM 52 120MM 12+ M-74 120MM (In Store)	
GUATEMALA	55 M1 81MM 12 M30 107MM (In Store) 18 ECIA 120MM	
GUYANA	12 L16A1 81MM 18 M-43 82MM 18 M-43 120MM	
HONDURAS	81MM 60 FMK-2 120MM 30 M-66 160MM	
JAMAICA	12 L16A1 81MM	

## LATIN AMERICA & THE CARIBBEAN

COUNTRY	TOWED/HAND-HELD MORTARS	FUTURE PLANS
MEXICO	400 M1; 400 BRANDT; 300 SB 81MM 75 BRANDT; 60 M-65; 32 RT61 120MM 100 60MM/81MM (Marines)	
NICARAGUA	579 82MM 24 M-43 120MM 4 M-160 160MM (In Store)	
PARAGUAY	80 81MM	
PERU	350 81MM/107MM 300+ BRANDT/EXPAL L 120MM 24 M106A1 107MM SP 18+ 81MM/18 (EST.) 120MM (Marines)	
SURINAM	6 81MM	
TRINIDAD & TOBAGO	6 L16A1 81MM	
URUGUAY	35 M1/56 LN 81MM 44 SL 120MM	
VENEZUELA	165 81MM 60 BRANDT; 48 2S12 120MM 21 DRAGOON 300PM; AMX-VTT 81MM SP 12 BRANDT 120MM (Marines)	

COUNTRY	TOWED/HAND-HELD MORTARS	FUTURE PLANS
AFGHANISTAN	105 M-69 82MM	
ALGERIA	150 M-37 82MM 120 M-1943 120MM 60 M-1943 160MM	
BAHRAIN	12 L16 81MM 12 M113A2 120MM SP	
EGYPT	50 M125A2 81MM 500 82MM 1,800 M-1943; 48 BRANDT 120MM 30 M160 160MM 65 M106A1; 35 M106A2 107MM SP 36 M1064A3 120MM SP	
IRAN	5,000 60MM/81MM/82MM/M-30 107MM/M-65 120MM	
IRAQ	500 (EST.) M252 81MM 450 (EST.) M120 120MM M-240 240MM	18 AN/TPQ-48 Artillery/Mortar locating Radars on order
ISRAEL	250 81MM 1,100 81MM/650 120MM/18 SOLTAM M-66 160MM (All in Store)	
JORDAN	359 81MM 50 M-30 107MM 300 BRANDT 120MM 50 81MM SP	

COUNTRY	TOWED/HAND-HELD MORTARS	FUTURE PLANS
<b>KUWAIT</b>	60 81MM 6 M-30 107MM 12 (Est.) RT-F1 120MM	
<b>LEBANON</b>	134 81MM 112 82MM 29 BRANDT 120MM	
<b>LIBYA</b>	82MM? M-43 120MM? M-160 160MM?	
<b>MOROCCO</b>	1,100 EXPAL LN 81MM 550 BRANDT 120MM 32-36 M106A2 106MM SP 20 VAB APC 120MM SP	
<b>OMAN</b>	69 81MM 20 M-30 107MM 12 BRANDT 120MM TDA 120R 2M 120MM SP (VAB 6x6)	
<b>QATAR</b>	26 L16 81MM 15 BRANDT 120MM 4 VAB VCAC HOT 81MM SP	
<b>SAUDI ARABIA</b>	70 81MM/107MM 110 BRANDT; 37 M12-1535 120MM 70 81MM SP 150 M30 107MM SP (Stored) 81MM (National Guard) 119 LAV-M 120MM (National Guard)	36 NEMO Turreted Mortar Systems (TMS) are on order for the Saudi Arabian National Guard (SANG)

COUNTRY	TOWED/HAND-HELD MORTARS	FUTURE PLANS
SYRIA	82MM 400 M-1943 120MM M-160 160MM Up to 10 M-240 240MM	
TUNISIA	95 81MM 48 107MM (Some SP) 18 BRANDT 120MM	
UAE	114 L16; 20 BRANDT 81MM 21 BRANDT 120MM 58 AGRAB Mk.2 SP	
YEMEN	250 81MM 144 M-43 82MM 12 107MM 136 120MM 100 (Est.) 160MM	



COUNTRY	TOWED/HAND-HELD MORTARS	FUTURE PLANS
AUSTRALIA	188 F2 81MM	
BANGLADESH	11 M29A1 81MM 366 Type-53/87/M31 82MM 95 MO-120-AM-50 M67/UBM-52 120MM	Further 300 Type 87 Mortars being delivered
BRUNEI	24 81MM	
CAMBODIA	M-37 82MM M-43 120MM M-160 160MM	
CHINA	2,586 including; Type 53/67/82 82MM (Some Marines) Type 89 100MM	
FIJI	12 81MM	
INDIA	5,000+ 81MM 1,500 (Est.) 120MM 20 M-58 TAMPELLA 160MM 120MM SP 942+ 81MM (Border Security)	
INDONESIA	800 81MM 75 BRANDT; 80 UBM 52 120MM 81MM (Marines)	

COUNTRY	TOWED/HAND-HELD MORTARS	FUTURE PLANS
JAPAN	646 L16 81MM 426 120MM 24 Type 96 120MM SP	
KOREA (NORTH)	7,500 including; M-37 82MM M-43 120MM M-43 160MM	
KOREA (SOUTH)	6,000 including; KM-29 81MM M-30 107MM	
LAOS	81MM/82MM/M-1938;M-2A1 107MM/M-43 120MM	
MALAYSIA	232 81MM 4 K281A1; 10 ACV-300-S 81MM SP 8 ACV-S 120MM SP	
MONGOLIA	140 82MM/120MM/160MM	
MYANMAR	Type 53 82MM 80 SOLTAM; Type 53 120MM	
NEPAL	81MM 70 M-43 120MM (12 Est. Operational)	
NEW ZEALAND	50 81MM	



COUNTRY	TOWED/HAND-HELD MORTARS	FUTURE PLANS
PAKISTAN	2,350+ including; 81MM AM-50 120MM	
PAPUA NEW GUINEA	81MM 3 120MM	
PHILIPPINES	M29 81MM 40 M-30 107MM	
SINGAPORE	500 81MM 36 120MM 12 M-58 TAMPELLA 160MM 81MM SP 90 120MM SP (40 on BRONCO; 50 on M113)	
SRI LANKA	520 81MM 209 82MM 55 M-43 120MM	
TAIWAN	160 M-29; T75 81MM M30 107MM K5; XT-86 120MM 72+ M-29; 72 M125 81MM SP 90 M106A2 107MM SP	
THAILAND	1,900 including; 81MM M106A1 107MM 12 M1064 120MM 21 M125A3 81MM SP M106A3 107MM SP 12 M1064A3 120MM SP	

COUNTRY	TOWED/HAND-HELD MORTARS	FUTURE PLANS
VIETNAM	82MM M-43 120MM M-43 160MM	



COUNTRY	TOWED/HAND-HELD MORTARS	FUTURE PLANS
ARMENIA	19 M120 120MM	
AZERBAIJAN	5 CARDOM; 107 PM-38 120MM	
BELARUS	61 2S12 120MM	
GEORGIA	14 2S12; 33 M-75; 18 M-120 120MM	
KAZAKHSTAN	45 2B11/M120 120MM 18 CARDOM 120MM SP	
KYRGYZSTAN	6 2S12; 48 M-120 120MM	
MOLDOVA	52 82MM 7 M-120 120MM	
RUSSIA	4,196 including; 800 2B14 82MM 700 2S12 120MM 430 2S4 240MM SP (IN STORE) (1,000 2S12; 900 PM-38 120MM; 300 M-160 160MM IN STORE) 24 2B16 NONA-K 120MM (Marines) 12 2S23 NONA-SVK; 30 2S9 NONA-S 120MM SP (Marines)	
TAJIKISTAN	10 120MM	
TURKMENISTAN	31 82MM 66 PM-38 120MM	

<b>COUNTRY</b>	<b>TOWED/HAND-HELD MORTARS</b>	<b>FUTURE PLANS</b>
<b>UKRAINE</b>	190 2S12; 30 PM-38 120MM	
<b>UZBEKISTAN</b>	5 2B11; 19 2S12; 18 PM-120 120MM	



COUNTRY	TOWED/HAND-HELD MORTARS	FUTURE PLANS
CANADA	100 81MM 24 BISON 81MM SP	
USA	990 M252 81MM 1,517 120MM 441 M1129 STRYKER SP 535 M252 81MM (Marines) 49 EFSS (Marines) 50 LAV-M SP (Marines)	

**Sources for Mortar Holdings:**

MILTEC World Defence Almanac /IISS Military Balance, Defence Industry Bulletin, Defence IQ, S. Philpott

## HOLDINGS: WORLD INVENTORY BREAKDOWN

COUNTRY	TOWED/HAND-HELD MORTARS	FUTURE PLANS
EUROPE	12, 836 (16%)	2,504 (63%)
SUB-SAHARAN AFRICA	4, 419 (5%)	"A few"
LATIN AMERICA	10, 128 (13%)	142 (4%)
MIDDLE EAST & NORTH AFRICA	13, 5082 (17%)	382 (9%)
ASIA-PACIFIC	32, 642 (40%)	403 (10%)
RUSSIA & CIS	4, 238 (5%)	60 (1%)
NORTH AMERICA	3, 191 (4%)	515 (13%)
<b>TOTALS</b>	<b>80, 962</b>	<b>4, 006</b>



**FUTURE  
MORTAR  
SYSTEMS**



**27 - 29 October, 2015**

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## Key themes previously addressed at the Future Mortar Systems Conference include:

- Can increased emphasis on comprehensive simulation in mortar focused training be an effective substitute for live fire training? Is there a realistic solution available that can reduce the cost of live fire training to allow for a reduction in associated ammunition costs?
- The identification of a balance between the desire for precision guided mortar technology and the need for lower expenditures in a time of austerity. Are fire control systems a viable solution to increase accuracy and thus reduce ammunition costs?
- The increased emphasis on mortar mobility as a means to improve 'shoot and scoot' capability. What are the current and future mortar mobility demands facing armed forces? How can current platforms be adapted to meet such requirements? The emphasis on the digital battle space for increased communication, integration and proficiency

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