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**Force Structure Analytical Framework:  
A Notional Army for SARA  
Version 1.3**

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## **Introduction**

This document presents a Notional Army that has been created to provide realistic but generalized inputs to the Stochastic Active-Reserve Analysis (SARA) Model that is being developed by the Institute for Defense Analyses for the Office of the Secretary of Defense Cost Assessment and Program Evaluation. SARA uses a historical approach to estimate the probabilities of occurrence of foreign and domestic military operations. These probabilities are used to generate stochastic distributions of several kinds of operations that produce estimates of the Army forces used in them. In order to use the stochastic results, it is necessary to measure both demand and supply in the same terms.

The U.S. Army is a large and complicated organization with over a million military personnel. It is difficult to simplify. One way is to differentiate between the Operating Force that conducts military operations and the Generating Force that provides trained units and personnel to the Operating Force. The Operating Force has two basic parts: 1) units assigned to the functional combatant commands (CCMDs) and 2) units in an Expeditionary Force that can be allocated to regional CCMDs to conduct both foreign operations and to NORTHCOM and PACOM to conduct domestic operations. SARA addresses only the Expeditionary Force.

Many studies of the Army force structure address only the Brigade Combat Teams (BCTs) and ignore the numerous supporting functions that are essential to allow BCTs to generate combat power. It is necessary, however, to consider these support functions when estimating demand. This is difficult because the Army has several thousand small units (companies, batteries, troops, platoons, detachments, and teams) that are subordinated to tactical headquarters (battalions, brigades, divisions, and corps) to conduct operations. After considerable discussion, it was recognized that it would not be possible to represent the many possible combinations of these small units in a useful manner to compare demand and supply. As a compromise between detailed realism and unreal aggregation, it was decided to create for the model a Notional Army that was aggregated at the brigade level.

The Notional Army consists of twenty types of brigades. A brigade (or group) is an organization commanded by a colonel (O-6) and has subordinate battalions, companies, and detachments. The BCTs have fixed compositions and are designed to conduct operations as combined arms formations in which all subordinate elements form an integrated team. Combat Aviation Brigades (CABs), Civil Affairs Brigades, and Military Information Support (MISO) Groups also have fixed compositions but may operate by attaching sub-elements to other brigades for the conduct of operations. The remaining sixteen brigade types have a relatively stable set of subordinate units for administration and many possible sets for operations. The notional brigades used in SARA are roughly right in their composition and for certain capabilities provide a reasonable basis for

estimating demands and corresponding supplies. The Notional Army is certainly wrong in detail but adequate for the purposes of SARA.

The Notional Army is presented in four sections. Section One shows the notional set of subordinate units for each of the twenty brigade types. Section Two applies the notional brigades to establish notional troop lists for each of seven types of foreign military operations. Section Three applies the notional brigades to establish notional troop lists for each of five types of domestic military operations. Section Four summarizes demand and supply for the Notional Army. Table 1 shows the twenty brigade types, their notional authorized personnel strength, and the number in the Army for 2014. In the following section, the composition of each of these notional brigades is shown at the detachment, company, and battalion level as appropriate. Standard Requirement Codes (SRCs) are shown for each unit in the brigades to facilitate deriving the costs of potential force structure actions. To the extent possible, the R Series SRCs for the Modular Force are entered, but in some cases earlier SRCs are shown. Although detailed, the data in the tables are notional and are not intended to reflect the actual Army force structure. This table shows the three maneuver battalion versions of Infantry Brigade Combat Teams (IBCTs) and Armored Brigade Combat Teams (ABCTs) to be established between 2014 and 2017.

**Table 1. Notional Army Brigades, 2014-2017**

<b>Organization</b>	<b>USA</b>	<b>ARNG</b>	<b>USAR</b>	<b>Total</b>
Corps Headquarters	3	-	-	3
Division Headquarters	10	8	-	18
Combat Brigades (Three Maneuver Battalions)				
Infantry Brigade Combat Team (IBCT)	14	20	-	34
Stryker Brigade Combat Team (SBCT)	8	1	-	9
Armored Brigade Combat Team (ABCT)	10	7	-	17
Combat Aviation Brigade	10	8	-	18
Modular Brigades				
Battlefield Surveillance Brigade	3	7	-	1110
Maneuver Enhancement Brigade	2	16	3	21
Fires Brigade	7	7	-	14
Sustainment Brigade	13	10	9	32
Functional Brigades				
Air Defense Brigade	5	2	-	7
Theater Aviation Brigade	-	5	1	6
Military Intelligence Brigade	5	-	-	5
Civil Affairs Brigade (GPF)	1	-	9	10
MISO Group (GPF)	-	-	2	2
Engineer Brigade	6	7	4	17

Military Police Brigade	5	3	4	12
Chemical Brigade	1	1	1	3
Signal Brigade	4	2	2	8
Medical Brigade	4	-	10	14
TOTALS	111	104	45	260

## Composition of Notional Brigades

The following 19 tables show the notional composition of the twenty brigade types. Table 2 shows both the corps and division headquarters treated as notional brigades to be consistent with the other brigade types. The division special troops battalion is a proxy for the many augmentation teams and detachments normally attached to these headquarters during operations.

**Table 2. Notional Corps and Division Headquarters**

Organization	SRC	Strength	Status
Corps Headquarters Battalion	52400R00	780	Organic
Division Special Troops Battalion	87005G00	361	Attached
Total Corps Headquarters Brigade		1141	
Division Headquarters Battalion	87000R00	738	Organic
Division Special Troops Battalion	87005G00	361	Attached
Total Division Headquarters Brigade		1099	

The next three tables show the three types of BCTs in the Army. Infantry and armor BCTs are shown with three maneuver battalions each to conform to the Army's program. A medical company is attached to demonstrate that BCTs can have some non-organic units when task organized.

**Table 3. Notional Infantry Brigade Combat Team (Three Maneuver Battalions)**

<b>Organization</b>	<b>SRC</b>	<b>Strength</b>	<b>Status</b>
HHC, Infantry Brigade <b>Combat Team</b>	77302R10	169	Organic
HHC, Brigade Engineer Battalion	77305R10	69	Organic
Brigade Signal Company	11307R00	45	Organic
Brigade Military Intelligence Company	34310R00	96	Organic
Engineer Sapper Company	05439R00	95	Organic
Engineer Mobility Support Company	05438R00	88	Organic
Reconnaissance Squadron	17215R00	406	Organic
Infantry Battalion (3x3)	07215R10	702	Organic
Infantry Battalion (3x3)	07215R10	702	Organic
Infantry Battalion (3x3)	07215R10	702	Organic
Brigade Fires Battalion 105mm Towed	06125R00	411	Organic
HHC, Brigade Support Battalion	63335R00	83	Organic
Distribution Company	63328RX0	106	Organic
Field Maintenance Company	43327R00	91	Organic
Recon Sqdn Forward Support Company	63337R10	92	Organic
Infantry Bn Forward Support Company	63337R20	115	Organic
Infantry Bn Forward Support Company	63337R20	115	Organic
Infantry Bn Forward Support Company	63337R20	115	Organic
BEB Forward Support Company	63357R00	94	Organic
Fires Bn Forward Support Company	63337R40	87	Organic
Medical Company	08339R00	79	Attached
	<b>Total Strength</b>	<b>4431</b>	

**Table 4. Notional Stryker Brigade Combat Team**

<b>Organization</b>	<b>SRC</b>	<b>Strength</b>	<b>Status</b>
HHC, Stryker Brigade Combat Team	87302R10	174	Organic
HHC, Brigade Engineer Battalion	77305R00	89	Organic
Brigade Signal Company	11307R00	45	Organic
Brigade Military Intelligence Company	34310R30	96	Organic
Engineer Sapper Company	05439R00	95	Organic
Engineer Mobility Support Company	05438R00	88	Organic
Anti Armor Company	07093R30	53	Organic
Reconnaissance Squadron	17295R60	405	Organic
Stryker Battalion (3x3)	07095R60	698	Organic
Stryker Battalion (3x3)	07095R60	698	Organic
Stryker Battalion (3x3)	07095R60	698	Organic
Brigade Fires Battalion 155mm Towed	06325R00	398	Organic



Organization	SRC	Strength	Status
HHC, Brigade Support Battalion	63105R00	167	Organic
Distribution Company	63328R00	206	Organic
Field Maintenance Company	43107R00	380	Organic
Medical Company	08108R00	87	Attached
Total Strength		4377	

**Table 5. Notional Armored Brigade Combat Team (Three Maneuver Battalions)**

Organization	SRC	Strength	Status
HHC, Armored Brigade Combat Team	87302R10	177	Organic
HHC, Brigade Engineer Battalion	87305R10	90	Organic
Brigade Signal Company	11307R00	45	Organic
Brigade Military Intelligence Company	34310R00	96	Organic
Engineer Sapper Company	05339R00	97	Organic
Engineer Mobility Support Company	05438R00	112	Organic
Reconnaissance Squadron	17205R10	429	Organic
Combined Arms Battalion (3x4)	07205R10	635	Organic
Combined Arms Battalion (3x4)	07205R10	635	Organic
Combined Arms Battalion (3x4)	07205R10	635	Organic
Brigade Fires Battalion 155mm SP	06385R00	398	Organic
HHC, Brigade Support Battalion	63326R00	86	Organic
Distribution Company	63328R00	144	Organic
Field Maintenance Company	43327R00	102	Organic
Recon Sqdn Forward Support Company	63327R10	131	Organic
CAB Forward Support Company	63327R20	188	Organic
CAB Forward Support Company	63327R20	188	Organic
CAB Forward Support Company	63327R20	188	Organic
BEB Forward Support Company	63327R30	200	Organic
Fires Bn Forward Support Company	63327R40	123	Organic
Medical Company	08329R00	83	Attached
Total Strength		4605	

Table 6 shows a medium CAB. The composition of the heavy CAB is almost identical, differing mostly in aircraft models. They are combined for use in SLIM.

**Table 6. Notional Combat Aviation Brigade**

<b>Organization</b>	<b>SRC</b>	<b>Strength</b>	<b>Status</b>
HHC, CAB Medium	01202R00	148	Organic
Attack/Recon Battalion (AH-64D)	01285R00	410	Organic
Attack/Recon Battalion (AH-64D)	01285R00	410	Organic
Assault Battalion (UH-60M)	01205R00	459	Organic
General Support Aviation Battalion	01225R00	604	Organic
Aviation Support Battalion	63315R00	654	Organic
Total Strength		2685	

The Notional Battlefield Surveillance Brigade (BfSB) in Table 7 has both organic elements and additional attached units. This demonstrates the flexibility of task organization.

**Table 7. Notional Battlefield Surveillance Brigade**

<b>Organization</b>	<b>SRC</b>	<b>Strength</b>	<b>Status</b>
HHC, Surveillance Brigade	49102R00	183	Organic
Brigade Signal Company, BfSB	11307R50	40	Organic
Military Intelligence Battalion, BfSB	34105R10	281	Organic
Recon/Surveillance Battalion, BfSB	17225R00	227	Organic
Forward Support Company, BfSB	63367R00	180	Organic
Unmanned Aerial Vehicle Company	01708R00	56	Attached
General Support Aviation Company	01265R00	365	Attached
Armored Cavalry Squadron (Separate)	17285L00	407	Attached
Total Strength		1739	

The notional Maneuver Enhancement Brigade (MEB) shown in Table 8 shows the attachment of three different kinds of battalions, each of which is designed to facilitate the maneuver of the friendly forces. The military police (MP) battalion controls battlefield circulation and provides security. The chemical battalion provides warning of CBRN attacks and provides obscurants. The engineer battalion facilitates friendly tactical mobility by building bridges and clearing roads and obstacles, and also hinders enemy tactical mobility by destroying brigades, placing minefields, and building obstacles. The kinds of engineer companies attached to this engineer battalion differ from those in the Engineer Brigade. More than one of these kinds of battalions can be attached, and other kinds of battalions can also be attached, to include an infantry battalion or a sustainment battalion.

**Table 8. Notional Maneuver Enhancement Brigade**

<b>Organization</b>	<b>SRC</b>	<b>Strength</b>	<b>Status</b>
HHC, MEB	37342R00	146	Organic
Brigade Signal Company, MEB	11307R60	44	Organic
EOD Company	09447L00	22	Attached
Civil Affairs Company	41750G00	32	Attached
Brigade Support Battalion, MEB	63355R00	231	Organic
HHD, Chemical Battalion	03496R00	59	Attached
Chemical Company, Combat Support	03410R00	115	Attached
Chemical Company, Combat Support	03410R00	115	Attached
Chemical Company, BIDS	03470R00	156	Attached
HHD, Military Police Battalion	19476R00	66	Attached
MP Combat Support Company	19477R00	169	Attached
MP Combat Support Company	19477R00	169	Attached
MP Combat Support Company	19477R00	169	Attached
MP Detachment, Law and Order	19717R00	45	Attached
MP Working Dog Detachment	19537A00	26	Attached
HHC, Engineer Battalion	05436R00	77	Attached
Forward Support Company	63657R00	160	Attached
Multi-Role Bridge Company	05473R00	180	Attached
Mobility Augmentation Company	05438R00	119	Attached
Engineer Support Company	05418R00	121	Attached
Clearance Company	05473R00	146	Attached
Equipment Support Platoon	05520R00	39	Attached
Total Strength		2406	

The notional Fires Brigade in Table 9 has an organic missile battalion and substantial support capability to support other kinds of fires battalions that are attached. In this notional fires brigade, one of each kind of fires battalion is included, but the actual mix would depend on the situation.

**Table 9. Notional Fires Brigade**

<b>Organization</b>	<b>SRC</b>	<b>Strength</b>	<b>Status</b>
HHB, Fires Brigade	06402R00	161	Organic
Target Acquisition Battery, FIB	06410R00	65	Organic
Brigade Signal Company, FIB	11307R50	40	Organic
Brigade Support Battalion, FIB	63345R00	238	Organic
MLRS Battalion, FIB	06465R00	234	Organic
Forward Support Company, MLRS	63347R00	137	Organic
Fires Battalion, 155mm Howitzer (SP)	06425R00	324	Attached
Fires Battalion, 155mm Howitzer, (T)	06455R00	300	Attached
HIMARS Battalion	06475R00	242	Attached
Total Strength		1741	

The notional Sustainment Brigade shown in Table 10 is the major element in the theater sustainment system and is tailored to fit a particular need, such as port opening and operations, direct support of a major organization, or a long-haul capability from port to BCTs. The usual subordinate battalion is the multi-functional combat sustainment battalion that is also tailored to fit a situation. In this case, the medical battalion is attached to demonstrate how that could be done.

**Table 10. Notional Sustainment Brigade**

<b>Organization</b>	<b>SRC</b>	<b>Strength</b>	<b>Comment</b>
HHC, Sustainment Brigade	63862R00	211	Organic
Signal Company, Sustainment Bde	11307R60	45	Organic
Movement Control Team	55506G00	21	Attached
Personnel Services Detachment	12427L00	47	Attached
Special Troops Battalion	63302R00	207	Organic
HHD, Combat Sustainment Spt Bn	63426R00	71	Attached
Field Service Company	10414R00	112	Attached
Light/Medium Truck Company	55719R00	165	Attached
Maintenance Company	43470F00	256	Attached
Petroleum Supply Company	10420R00	217	Attached
Medium Truck Company, POL	55728R00	169	Attached
<b>HHD, Combat Sustainment Spt Bn</b>	63426R00	71	Attached
DS Water Supply Company	10400R00	135	Attached
Light/Medium Truck Company	55719R00	165	Attached
Medium Truck Company, Cargo	55727R00	169	Attached
General Supply Company	42430R00	139	Attached
Maintenance Company	43470F00	256	Attached
<b>HHD, Combat Sustainment Spt Bn</b>	63426R00	71	Attached
Light/Medium Truck Company	55719R00	165	Attached
Ammunition Supply Company	09400R00	178	Attached
Water Purification Detachment	10469L00	48	Attached
Maintenance Company	43470F00	256	Attached
Armament Repair Platoon	43583F00	23	Attached
Heavy Equipment Transporter Co	55739R00	286	Attached
<b>HHD, Medium Truck Battalion</b>	55716R00	58	Attached
Medium Truck Company, Cargo	55727R00	169	Attached
Medium Truck Company, Cargo	55727R00	169	Attached
Medium Truck Company, Cargo	55727R00	169	Attached
Medium Truck Company, POL	55728R00	169	Attached
Trailer Transfer Detachment	55540F00	23	Attached
<b>HHD, Area Support Medical Bn</b>	08485R00	78	Attached
Area Support Medical Company	08457R00	71	Attached
Ground Ambulance Company	08453R00	75	Attached
Air Ambulance Company	98443R00	148	Attached
Veterinary Service Detachment	08300R00	55	Attached
Combat Stress Detachment	08463L00	42	Attached
Total Strength		4614	

The notional Air Defense Brigade shown in Table 11 has both a point defense and area defense capability using either the missiles in the Patriot/MEADS battalions or the guns in the Avenger Battalion. This brigade does not appear to include a capability for support and maintenance. It would have to be secured and supported by other kinds of brigades.

**Table 11. Notional Air Defense Brigade**

<b>Organization</b>	<b>SRC</b>	<b>Strength</b>	<b>Status</b>
HHB, Air Defense Brigade	44602R00	108	Organic
THADS Battery	44393R00	97	Attached
HHB, Patriot/MEADS Battalion	44646R00	196	Attached
Patriot/MEADS Battery	44637R00	73	Attached
Patriot/MEADS Battery	44637R00	73	Attached
Patriot/MEADS Battery	44637R00	73	Attached
Patriot/MEADS Battery	44637R00	73	Attached
HHB, Avenger Battalion	44616R00	115	Attached
Avenger Battery	44617R00	62	Attached
Avenger Battery	44617R00	62	Attached
Avenger Battery	44617R00	62	Attached
Avenger Battery	44617R00	62	Attached
HHB, Composite Patriot/MEADS Bn	06465R00	115	Attached
Avenger Battery	44617R00	62	Attached
Avenger Battery	44617R00	62	Attached
Patriot/MEADS Battery	44637R00	73	Attached
Patriot/MEADS Battery	44637R00	73	Attached
Total Strength		1441	

The notional Theater Aviation Brigade shown in Table 12 is designed to provide airlift and intra-theater supply and aero-medical evacuation capabilities.

**Table 12. Notional Theater Aviation Brigade**

<b>Organization</b>	<b>SRC</b>	<b>Strength</b>	<b>Comment</b>
HHC, Theater Aviation Brigade	01226R00	81	Organic
Fixed Wing Aviation Company	01608G00	39	Organic
General Support Aviation Battalion	01275R00	565	Organic
General Support Aviation Battalion	01275R00	565	Organic
General Support Aviation Battalion	01275R00	565	Organic
Heavy Helicopter Company	01347G00	52	Organic
Airfield Operations Detachment	01623G00	67	Attached
Total Strength		1934	

The notional Military Intelligence Brigade shown in Table 13 is designed to support a joint or combined theater command with intelligence and electronic warfare capabilities.

**Table 13. Notional Military Intelligence Brigade**

<b>Organization</b>	<b>SRC</b>	<b>Strength</b>	<b>Status</b>
HHC, Military Intelligence Brigade	30802R00	82	Organic
Military Intelligence Battalion, Operations	30805R00	436	Attached
Military Intelligence Battalion, CI/HUMINT	30835R00	276	Attached
Military Intelligence Battalion, Interrogation	30725R00	160	Attached
Military Intelligence Battalion Theater Support	30875R00	399	Attached
Aerial Reconnaissance Battalion	30815R10	228	Attached
Total Strength		1581	

The notional Civil Affairs (CA) Brigade and Military Information Operations (MISO) Group shown in Tables 14 and 15 respectively are designed to support the General Purpose Forces (GPF). One CA brigade and two MISO groups support the Special Operations Forces under SOCOM. Note that these organizations have a fixed set of battalions.

**Table 14. Notional Civil Affairs Brigade**

<b>Organization</b>	<b>SRC</b>	<b>Strength</b>	<b>Status</b>
HHC, Civil Affairs Brigade (Tactical)	41730G00	110	Organic
Civil Affairs Battalion (Tactical)	41745G00	203	Organic
Civil Affairs Battalion (Tactical)	41745G00	203	Organic
Civil Affairs Battalion (Tactical)	41745G00	203	Organic
Civil Affairs Battalion (Tactical)	41745G00	203	Organic
Civil Affairs Battalion (Tactical)	41745G00	203	Organic
Total Strength		1125	

**Table 15. Notional Military Information Support Operations (MISO) Group**

<b>Organization</b>	<b>SRC</b>	<b>Strength</b>	<b>Status</b>
HHC, MISO Group (Abn)	33712G00	150	Organic
Regional Battalion	33725G00	313	Organic
Regional Battalion	33725G00	313	Organic
Regional Battalion	33725G00	313	Organic
Regional Battalion	33725G00	313	Organic
Tactical Battalion	33735G00	580	Organic
Total Strength		1982	

The notional Engineer Brigade in Table 16 is organized to provide Engineer support to a Joint Task Force. The three battalions of the notional brigade are each task organized for a different mission. The first battalion is organized to construct roads, airfields, and landing zones for UAVs and helicopters, along with basic structures. The second battalion is organized to construct a base camp, EPW camp, troop housing area, or other facilities. The third battalion is organized to operate, maintain, and perform minor construction for an existing troop facility or operating base.

**Table 16. Notional Engineer Brigade**

<b>Organization</b>	<b>SRC</b>	<b>Strength</b>	<b>Status</b>
HHC, Engineer Brigade	05402R00	134	Organic
Construction Management Section	05601GT0	9	Attached
HHC, Engineer Battalion	05436R00	77	Attached
Forward Support Company	064357R00	89	Attached
Quarry Platoon	05520GC0	35	Attached
Equipment Support Platoon	05520RF0	42	Attached
Horizontal Company	05417R00	159	Attached
Asphalt Team	05520GA0	39	Attached
Horizontal Company	05417R00	159	Attached
Concrete Section	05520GB0	12	Attached
Vertical Company	05418R00	154	Attached
HHC, Engineer Battalion	05436R00	77	Attached
Survey and Design Section	05402GL0	15	Attached
Forward Support Company	064357R00	89	Attached
Vertical Company	05418R00	154	Attached
Concrete Section	05520GB0	12	Attached
Vertical Company	05418R00	154	Attached
Concrete Section	05520GB0	12	Attached
Vertical Company	05418R00	154	Attached
Power Line Company	05618G00	83	Attached
HHC, Engineer Battalion	05436R00	77	Attached
Forward Support Company	064357R00	89	Attached
Vertical Company	05418R00	154	Attached
Facilities Engineer Detachment	05530L100	15	Attached
Vertical Company	05418R00	154	Attached
Facilities Engineer Detachment	05530L100	15	Attached
Firefighter Headquarters	05510AA0	4	Attached
Firefighter Team	05510AB0	10	Attached
Firefighter Team	05510AB0	10	Attached
Firefighter Team	05510AB0	10	Attached
<b>Total Strength</b>		<b>2363</b>	



The notional Military Police Brigade in Table 17 is organized into three battalions, each designed for a different task. The first battalion is designed to provide security and law and order for an operational base camp. The second battalion is designed to provide battlefield circulation control along the main supply routes in the area of operations. The third battalion is designed to operate a detention facility to secure EPWs and/or detainees pending disposition.

**Table 17. Notional Military Police Brigade**

<b>Organization</b>	<b>SRC</b>	<b>Strength</b>	<b>Status</b>
HHC, Military Police Brigade	19402R00	108	Organic
CID Element	19880R00	21	Attached
HHD, Military Police Battalion	19467R00	66	Attached
Law and Order Detachment	19717R00	45	Attached
Law and Order Detachment	19717R00	45	Attached
MP Company (Combat Support)	19477R00	169	Attached
MP Company (Combat Support)	19477R00	169	Attached
HHD, Military Police Battalion	19467R00	66	Attached
MP Company (Combat Support)	19477R00	169	Attached
MP Company (Combat Support)	19477R00	169	Attached
MP Company (Combat Support)	19477R00	169	Attached
MP Company (Combat Support)	19477R00	169	Attached
HHC, MP Battalion (Internee/Resettlement)	19646A00	144	Attached
MP Company (Internee/Resettlement)	19653R00	123	Attached
MP Company (Internee/Resettlement)	19653R00	123	Attached
MP Guard Company	19667R00	156	Attached
MP Guard Company	19667R00	156	Attached
Total Strength		1959	

The notional Chemical Brigade in Table 18 is designed to detect and identify CBRN events, decontaminate personnel and vehicles in during a CBRN event, and provide obscurants to conceal ground operations from enemy surveillance. The BIDS Company provides a capability to detect and identify biological attacks.

**Table 18. Notional Chemical Brigade**

<b>Organization</b>	<b>SRC</b>	<b>Strength</b>	<b>Status</b>
HHC, Chemical Brigade	03492R00	77	Organic
Chemical Company BIDS	03470R00	156	Attached
HHD, Chemical Battalion	03496R00	61	Attached
Chemical Company Heavy	03420R30	147	Attached
Chemical Company Combat Support	03410R00	115	Attached
Chemical Company Heavy	03420R30	147	Attached
Chemical Company MX Smoke	03440R10	148	Attached
HHD, Chemical Battalion	03496R00	61	Attached
Chemical Company Combat Support	03410R00	115	Attached
Chemical Company Heavy	03420R30	147	Attached
Chemical Company MX Smoke	03440R10	148	Attached
Chemical Company MX Smoke	03440R10	148	Attached
	<b>Total Strength</b>	<b>1487</b>	

The notional Tactical Signal Brigade shown in Table 19 is designed to provide a theater network.

**Table 19. Notional Tactical Signal Brigade**

<b>Organization</b>	<b>SRC</b>	<b>Strength</b>	<b>Status</b>
HHC, Tactical Signal Brigade	11632R00	101	Organic
Theater Network Operations & Security Center	11623R00	150	Attached
Combat Camera Company	11693R00	178	Attached
Strategic Signal Battalion	11655G00	381	Attached
Expeditionary Signal Battalion	11975R00	489	Attached
Tactical Installation Networking Company	11623R00	160	Attached
Expeditionary Signal Battalion	11975R00	489	Attached
Tactical Installation Networking Company	11623R00	160	Attached
	<b>Total Strength</b>	<b>2108</b>	

The notional Medical Brigade shown in Table 20 is designed to provide theater level support.

**Table 20. Notional Medical Brigade**

<b>Organization</b>	<b>SRC</b>	<b>Strength</b>	<b>Comment</b>
HHC, Medical Brigade	08420R00	105	Organic
Medical Logistics Management Center	08670R00	59	Attached/OPCON
Area Medical Laboratory	08668R00	41	Attached/OPCON
Area Dental Company	08473R00	88	Attached/OPCON
HHC, Multi-Functional Medical Battalion	08485R00	78	Attached/OPCON
Veterinary Service Support Team	08516R00	7	Attached/OPCON
Air Ambulance Company	08443R00	86	Attached/OPCON
Ground Ambulance Company	08453R00	65	Attached/OPCON
Ground Ambulance Company	08453R00	65	Attached/OPCON
Blood Support Detachment	08430R00	22	Attached/OPCON
Area Support Medical Company	08453R00	78	Attached/OPCON
Area Support Medical Company	08453R00	78	Attached/OPCON
Area Support Medical Company	08453R00	78	Attached/OPCON
Medical Logistics Company	08488R00	77	Attached/OPCON
HHC, Multi-Functional Medical Battalion	08485R00	78	Attached/OPCON
Veterinary Service Support Team	08516R00	7	Attached/OPCON
Air Ambulance Company	08443R00	86	Attached/OPCON
Ground Ambulance Company	08453R00	65	Attached/OPCON
Ground Ambulance Company	08453R00	65	Attached/OPCON
Blood Support Detachment	08430R00	22	Attached/OPCON
Area Support Medical Company	08453R00	78	Attached/OPCON
Area Support Medical Company	08453R00	78	Attached/OPCON
Area Support Medical Company	08453R00	78	Attached/OPCON
Medical Logistics Company	08488R00	77	Attached/OPCON
Combat Support Hospital	08955R00	490	Attached/OPCON
Combat Support Hospital	08955R00	490	Attached/OPCON
	<b>Total Strength</b>	<b>2633</b>	

### Forces for Foreign Military Operations

This section presents notional forces for the seven kinds of foreign military operations shown in Table 21. Except for the Global Counter-Terrorism Campaign, it addresses the General Purpose Forces (GPF) in the Army’s Operating Force. Special Operations Forces (SOF) conduct the Global Counter-Terrorism Campaign and will be involved in many of these operations but will be addressed separately in a follow-on paper. Notional troop lists for domestic military operations are presented in the following section. These seven types of notional operations provide the basis for creating a reasonable range of Army forces used to conduct them. For the first three operations, Marine Corps and Navy forces are shown to provide more realism.

**Table 21. Notional Foreign Military Operations**

	<b>Theater Engagement</b>	<b>Humanitarian Relief</b>	<b>Minor Contingencies</b>	<b>Global Counter-Terrorism Campaign</b>	<b>Counter-Insurgency Campaign</b>	<b>Theater: Air-Sea Battle Campaign</b>	<b>Theater: Land Combat Campaign</b>
Nature of the operations	Presence, SFA, visits exercises	Assist victims of disasters and disorders	NEOs, raids, interventions	UW and FID plus some direct action and strikes	Stability operations & security	Air & naval strikes on enemy elements.	Major land battles with air and naval support.
Combat occurrence	No direct combat	No direct combat but possible as a side effect	Ranges from no combat to intense small scale combat	Small scale but intense combat	Small scale intermittent but intense combat	Large scale combat is inherent	Large scale combat is inherent
Duration	Continuous	Weeks	Weeks - Months	Continuous	Years	Months	Years
Force Size	MEU,* BCT, SOF, ships, aircraft on rotation	Available ships, aircraft, MEUs,* logistics units	MEUs,* ALF,** some BCTs, air and naval support	Primarily SOF and strike	Large GPF force w/CMO & SFA units	Large GPF air and naval force & some land forces	Very Large GPF forces of all Services
Probability	On-going	Likely	Possible	On-going	Possible	Possible	Improbable

\* Marine Expeditionary Unit (MEU); \*\*Amphibious Landing Force

The BCT Force Equivalent (BFE) is a useful rule of thumb for estimating the total strength of a troop list that involves the employment of BCTs. The BFE is the total number of military personnel that is required, including the BCT, to sustain a BCT in operations. Based on historical data the BFE for OIF and OEF is 9,000 military personnel and an additional 9,000 contractors to sustain operations of a mature theater for those campaigns. For this study, the BFE has been adjusted to apply to BCTs with three maneuver battalions instead of two, which increases the BFE to 12,000 military personnel. The applicable BFE is also modified to take into account whether there will or will not be a plentiful supply of contractors for an operation. The historical BFE is for a mature theater where contractors were readily available. For operations that take place in areas in which contractors will not be available, the BFE is increased accordingly.

The BFE factor does not apply to Theater Engagement Operations, Humanitarian Relief Operations, or the Global Counter-Terrorism Campaign. It may apply to some minor contingency operations, depending on the size of the operation and whether the Combat Zone is in a developed area or an undeveloped area. The BFE does apply to the Counter-Insurgency Campaign, the Air-Sea Battle Campaign (with some reservations), and the Land Combat Campaign.

### Theater Engagement Operations

Table 22 shows a notional Army force designed to conduct theater engagements operations for the five regional combatant command areas of operations.

**Table 22. Notional Army Force for Global Theater Engagement Operations**

<b>Organization</b>	<b>Role</b>	<b>Strength</b>
5 IBCTs	Training teams and exercise elements on a periodic basis and rapid reaction forces as needed	22155
5 Special Forces Groups (SOF)	Conduct IW and FID in the region	11860
1 Civil Affairs Brigade (SOF)	Support GPF and SOF engagements	1125
1 MISO Group (SOF)		2689
	TOTAL	37829

Theater Engagement Operations are conducted on a continuous basis in EUCOM, CENTCOM, AFRICOM, SOUTHCOM, and PACOM. Their nature and size vary as needs evolve and resources permit. Most of these engagements, such as presence, port visits, periodic combined exercises, and security force assistance training teams, are preplanned and commence on a date certain, so there is adequate time to generate the units to participate in an engagement. The set of units needed for these operations differs in

numbers and in kind according to the region for which they are provided. This means that the units provided for these operations could be tailored to fit each CCMD.

Based on recent initiatives, we postulate the formation of a notional theater engagement force for each COCOM like that shown in Table 3. The Army has already initiated a program to align an Active Army IBCT to each of the five regional CCMDs—omitting NORTHCOM. SOCOM aligns a Special Forces Group and a Civil Affairs battalion to each of them. The notional Regional Support Battalion has been proposed but not adopted officially at this time. This core force will be augmented as necessary by other elements that support a COCOM on a temporary basis for exercises and training events. Some have suggested that an ARNG IBCT also be aligned to a specific COCOM to participate in engagement operations and provide a backup for the active units. The BFE does not apply to this type of operation because sub-elements of the BCT will be employed in small task forces for which sustainment support and enablers will be provided as necessary to fit a particular operational environment.

### Humanitarian Relief Operations

Table 23 shows a notional Army force to conduct a large inland Humanitarian Relief Operation.

**Table 23. Notional Army Force for a Humanitarian Relief Operation**

<b>Organization</b>	<b>Role</b>	<b>Strength</b>
1 Division Headquarters	Perform the command function for the operation	1099
1 Theater Aviation Brigade	Rescue, evacuation, damage estimation, and supply	1934
1 MEB	Provide MP, Engineer, and CBRN support	2406
1 Sustainment Brigade	Distribute supplies and services to victims of the disaster	4614
<b>TOTAL</b>		<b>10053</b>

It is the practice of the United States to provide assistance to other governments when natural disasters or major accidents occur in their territories. These events include earthquakes, tsunamis, storms, floods, volcanic eruptions, and nuclear or chemical releases. While each emergency is unique, the common functions in humanitarian relief operations are management of the relief operation, damage estimation, search and rescue, evacuation, provision of food, water, and clothing, medical care, and assistance in relocations. DOD has a major role in the response phase of these humanitarian relief operations. However, DOD does not usually get involved in the recovery phase of the operations.

DOD and Army participation requires a rapid response for a relatively short period of intense activity—several weeks or a few months. These operations require a few knowledgeable personnel immediately, a large force of non-specialized personnel within a few days, and a gradually declining number of personnel as the immediate effects of the emergency are past and the situation on the ground improves. Helicopters are needed for damage estimation and rescue and evacuation. Most of the labor is used to load and distribute life support supplies. Because of the way in which these operations occur, the initial efforts are made by forces in the vicinity, often Navy ships and Marine forces afloat. When the emergency occurs near the coast, Navy and Marine units usually provide the bulk of the response force, and the Army effort is limited. DOD provided at peak 22,000 troops in response to the catastrophic earthquake in Haiti in 2010, of which about 4,000 were Army.

The notional Army force shown in Table 23 is designed to conduct an operation that occurs away from coastal areas. The total strength of this notional Army force is 10,053. The MEB is the core element that provides security and engineer support. The aviation brigade provides helicopters for recon, search, and rescue, and other supply operations. A BCT is not essential for this kind of operation but could be used if necessary. The BFE factor does not apply.

### Minor Contingencies

The term “Minor Contingency” covers a wide variety of missions that do not require large forces, are limited in scope and duration, and can be either reactive or intentional. Operations in this category include raids, interventions, non-combatant evacuation operations (NEOs), and what has been termed “small wars.” The notional force shown in Figure 24 is based on 2 BCTs.

**Table 24. Notional Army Force for a Large Minor Contingency**

<b>Organization</b>	<b>Role</b>	<b>Strength</b>
1 Division Headquarters	The command function for the operation	1099
2 IBCTs	Seize and hold terrain by use of maneuver and fires.	8862
1 Combat Aviation Brigade	Reconnaissance, fire support, and airdrop support	2685
2 MEBs	Engineer mobility, military police, and CBRN support	4812
2 Fires Brigades	Fire Support for BCTs	3482
1 BfSB	Combat intelligence and surveillance support	1739
1 Theater Aviation Brigade	Intra-theater airlift, aerial supply, and medical evacuation	1934
1 Engineer Brigade	Port, airfield, and road construction as necessary	2363
2 Sustainment Brigades	Provide supplies and services to the task force	8228
	TOTAL	35204

There is great variety among possible minor contingencies. They range from battalion size to division level. The defining characteristic of minor contingencies is that they involve combat or the threat of combat, while theater engagement and humanitarian relief operations do not. Operations Just Cause in Panama, Provide Comfort in Haiti, and operations in the Balkans are examples of minor contingencies.

The notional Minor Contingency Force shown in Table 24 is for a large incursion or limited objective raid. This force is designed for combat after conducting an opposed entry phase into an underdeveloped combat zone. The BFE for this notional force has been increased to about 17,600 because contractor support cannot be depended upon. The operation requires a full array of supporting brigades. One of the two sustainment brigades will be tailored to provide either port opening/operating units and/or units to conduct over-the-shore logistics operations.

Non-Combatant Evacuation Operations (NEO) are a special case of minor contingencies. These are generally small operations that occur on short notice to safeguard and evacuate US personnel and citizens from embassies or other locations where their safety is threatened by local riots or disorder. Most NEOs will be done by Navy and Marine Corps forces in the vicinity of the location.

### **Global Counter-Terrorism Campaign**

The mission of the Global Counter-Terrorism Campaign is to find and kill or capture terrorists using U.S. forces primarily. This campaign is carried out for the most part by SOF with GPF units providing some support. This campaign is carried on continuously by the Army Special Operations Forces shown in Table 25 and by the SOF of other Services. It is conducted continuously at the small unit level in numerous locations world-wide.

**Table 25. Notional Army Force for the Global Counter-Terrorism Campaign**

<b>Organization</b>	<b>Role</b>	<b>Strength</b>
5 AC SF Groups	Conduct counter-terrorism operations	11860
2 ARNG SF Groups	Augment and reinforce AC SF groups as necessary	4744
Aviation Regiment (SOF)	Support the conduct of counter-terrorism operations as necessary	3260
Civil Affairs Brigade (SOF)		1155
1 MISO Group (SOF)		2689
Ranger Regiment		3540
SO Sustainment Brigade		480
	TOTAL	27728

A key issue when considering demand for Army units is the extent to which the SOF organizations shown in Table 25 need to be augmented by Army GPF. It is very difficult to



determine the number and kinds of GPF units that could be needed to support these essentially SOF operations. We can assume that some of that GPF support can be provided by the regionally aligned BCTs provided for theater engagement operations and/or from uncommitted units in the Army's Forces Command. In that respect, this kind of operation does not necessarily establish an increased demand for GPF units.

Another version of this kind of operation is the one that was conducted in Afghanistan from 2002 until 2007. In this operation, the SOF operated on their own to assist local forces to defeat the Taliban. Subsequently, BCTs were deployed in the theater to provide bases from which SOF and GPF units sortied to engage Taliban and Al Qaeda elements. As the Afghanistan campaign continued, the overall mission expanded to include security force assistance and counter-insurgency missions as well as the counter-terrorism mission.

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## Theater Counter-Insurgency Campaign

The Army has been conducting two theater counter-insurgency campaigns in Iraq (OIF) and Afghanistan (OEF) respectively. OIF was a 20 BCT campaign (including Marine corps elements), and OEF in Afghanistan started with one BCT but later had 5 BCTs. The notional CI-Campaign for which the force in Table 26 has been designed has 9 BCTs and uses a BFE of 12,000 because the BCTs now have three maneuver battalions each. It is assumed that sufficient contractors are available to provide services.

**Table 26. Notional Army Force for a Medium Sized Counter-Insurgency Campaign**

Organization	Role	Strength
1 Corps Headquarters	Command and control subordinate organizations	1141
3 Division Headquarters		3297
6 Infantry BCTs	Occupy designated areas and conduct stability operations	26586
2 Stryker BCTs		8754
1 Armored BCT		4605
2 Combat Aviation Brigades	Recon, intra-theater airlift, and aero-medical evacuation	5386
2 BfSBs	Provide tactical intelligence and HUMINT	5217
1 Fires Brigade	Fire support as necessary	1741
3 MEBs	Engineer, military police, and chemical support	7218
3 Engineer Brigades	Base and infrastructure construction, local development	7099
2 MI Brigades	Intelligence for BCT operations	3162
2 MP Brigades	Route clearance and security	3718
1 Signal Brigade	Theater communications network	2108
2 Medical Brigades	Provide healthcare services	5266
4 Sustainment Brigades	Goods and services for the BCTs and other organizations	18456
2 Civil Affairs Brigades (GPF)	Conduct civil-military operations and operate CMOCs	2250
1 MISO Group (GPF)	Conduct Tactical Psychological Operations	1982
	TOTAL	108927

This is the kind of operation for which ARFORGEN was devised. In this example, the Army should be able at all times to deploy nine BCTs or thereabouts on a specified BOG-to-dwell ratio. A ratio of one deployed out of three, this means that roughly one-third of the active Army's Expeditionary Force is ready to deploy, another one-third is unready, and the final one-third is getting ready. In this scheme, ARNG BCTs are interposed into the cycle with a ratio of one deployed out of six. The arithmetic is complicated because of the rule that says RC units can be mobilized no more than one year out of six. Because of another rule that provides RC units 60 days before deployment and 30 days after, the Army gets only nine months of utilization from the RC units. There are many possible permutations and combinations of this kind of readiness system, but there is no one

“magic number” that determines how many BCTs and enabler units need to be ready at all times.

### Theater Air-Sea Battle Campaign

Table 27 shows a notional Army force for a Theater Air-Sea Battle Campaign.

**Table 27. Notional Army Force for a Theater Air-Sea Battle Campaign**

<b>Organization</b>	<b>Role</b>	<b>Strength</b>
1 Division Headquarters	Command and control subordinate organizations	1099
4 Air Defense Brigades	Provide point and area anti-air and anti-missile defenses	5764
4 Infantry BCTs	Defend key terrain and bases, provide reaction forces	17724
3 Theater Aviation Brigades	Recon, intra-theater airlift, aero-medical evacuation	8055
1 Fires Brigade	Fires to support base defenses	1741
3 MEBs	Engineer, MP, and CBRN capabilities for bases	7218
1 MI Brigade	Recon, surveillance, and HUMINT support	1581
1 Engineer Brigade	Infrastructure and base construction and maintenance	2363
1 Signal Brigade	Communications among and within Army bases	2108
3 Sustainment Brigades	Provide distribution and admin support for the entire force	13842
<b>TOTAL</b>		<b>63495</b>

The Navy and Air Force will bear the brunt of the combat in this kind of campaign. Their forces will strike enemy forces and bases to limit the areas under enemy control. The role of the Army in this kind of campaign will be two-fold: provide ground-based anti-aircraft and missile capabilities and seize and hold bases from which air and naval forces can operate.

The four air defense brigades are the primary Army combat elements in this force. They provide air and missile defense of four operational bases and also provide some wide area air and missile defense capability. They support land-based air power and Naval power by protecting from enemy air and missile attack the bases from which the aircraft and ships operate.

The notional Army force in Figure 27 provides enough capability to occupy and defend three major base areas from which the Air Force, Navy, and Marine Corps elements operate. These bases will be under the threat of enemy air and missile attack and possibly also attacks by enemy naval infantry or Special Forces. One IBCT is provided for each base. A fourth IBCT is included to reinforce a base under attack and/or serve as a ready reaction force for the campaign. In some cases, it might be necessary for US

Marine and Army forces to conduct opposed entry operations to seize and hold territory to establish new operating bases.

The BFE for this proposed force is about 16,000, which is based on an assumption that additional support is needed for the four Air Defense Artillery Brigades that are the primary combat elements of this force. It is also assumed that contractor support will not be available in general but might be if these bases are located in friendly territory.

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## Land Combat Campaigns

The model will address Notional Army Forces for two different sizes of land combat campaigns. The Force for the medium campaign will use 18 BCTs, and the Force for the major campaign will use 40 BCTs. A BFE of 12,000 is applied to both examples.

Table 28 shows the notional troop list for a medium land combat campaign. The total requirement for this force is about 215,000 military personnel plus a significant number of contractors that can be used if the operation occurs on friendly territory. Meeting the demand for this campaign requires mobilization of a significant number of ARNG and USAR units. About a third of the total Army's BCTs would be employed.

**Table 28. Notional Army Force for a Medium Land Combat Campaign**

Organization	Role	Strength
2 Corps Headquarters	Command and control subordinate organizations	2282
6 Division Headquarters		6594
8 Infantry BCTs	Use fires and maneuver to seize and hold ground and destroy enemy forces and the enemy's will to resist	35448
3 Stryker BCTs		12131
7 Armored BCTs		32235
6 Combat Aviation Brigades		16110
2 BfSBs	Enable the combat elements to maximize their effectiveness by providing combat support to the BCTs	3478
6 Fires Brigades		10446
6 MEBs		14436
2 ADA Brigades		2882
4 Engineer Brigades	Provide additional support to sustain the operations of the BCTs.	9452
2 Theater Aviation Brigades		3868
2 MI Brigades		3162
2 MP Brigades		3918
1 Chemical Brigade		1487
2 Signal Brigades		4216
2 Medical Brigades		5266
2 Civil Affairs Brigades (GPF)		2250
1 MISO Group (GPF)		1982
10 Sustainment Brigades	Provide logistical and administrative support	46140
	TOTAL	215022

## Major Land Combat Campaign

Table 29 shows a notional Army Force for a Major Land Combat Campaign. This notional force uses 40 BCTs, would force cessation of the ARFORGEN cyclical rotation, system and require a full scale effort to ready the entire Army for sustained combat operations. Partial mobilization would be needed, and full mobilization might be advisable to place the nation on a war footing. Residual units on hand in CONUS after this deployment would be inadequate to deal effectively with another MCO, a large minor contingency, or a major domestic operation. This Major Land Combat Campaign force can reasonably be considered the greatest single demand for Army forces that might occur in the next two decades.

**Table 29. Notional Army Force for a Large Land Combat Campaign**

Organization	Role	Strength
3 Corps Headquarters	Command and control subordinate organizations	3423
10 Division Headquarters		10990
14 Infantry BCTs	Use fires and maneuver to seize and hold ground and destroy enemy forces and the enemy's will to resist	62034
8 Stryker BCTs		35016
18 Armored BCTs		82850
12 Combat Aviation Brigades		32220
4 BfSBs	Enable the combat elements to maximize their effectiveness by providing combat support	6956
10 Fires Brigades		17410
10 MEBs		24060
4 ADA Brigades		3744
6 Engineer Brigades	Provide additional support to sustain the operations of the BCTs.	12578
4 Theater Aviation Brigades		7736
3 MI Brigades		4743
4 MP Brigades		7836
1 Chemical Brigade		1487
4 Signal Brigades		8432
4 Medical Brigades		10532
4 Civil Affairs Brigades (GPF)	Civil-military and psychological operations	3875
1 MISO Group (GPF)		1982
30 Sustainment Brigades	Provide logistical and administrative support	143174
<b>TOTAL</b>		<b>481078</b>

The notional forces presented above are designed to represent a range of possible demands for Army units and personnel in SARA. Aggregation at the brigade level simplifies the model while identifying the notional units at the SRC level facilitates estimating costs when force structure modifications are proposed and analyzed. These notional forces are



inexact because units in some functions found in actual forces that would be formed are not identified explicitly. However, there is enough slack in the notional brigades to include these other functional units. Using the brigade level to define the demands is a satisfactory compromise between using only BCTs on one extreme or using thousands of parent level units at the other extreme.

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## Forces for Domestic Operations

This section addresses the notional forces needed to conduct domestic military operations. The principal difference between foreign and domestic operations is that DOD will be supporting another U.S. Government agency in the most demanding cases. Table 30 shows the range of Domestic Military Operations. They are divided into two parts.

Homeland Defense operations are conducted by DOD to defend against attacks on the United States or its approaches by enemy air, maritime, or land forces. The Air Force and Navy have the greatest responsibility for Homeland Defense in their respective domains. The Army's role is small but important.

Defense Support of Civil Authorities (DSCA) is the other kind of domestic operations. In DSCA operations, DOD forces operate in support of other U.S. Government departments as shown in Table 12. In these operations, DOD military forces provide capabilities to augment those of other Federal departments and agencies, State and local authorities, and the private sector.

**Table 30. Range of Domestic Military Operations**

Lead Agency	Homeland Defense I	Homeland Defense II	DSCA: Major Emergency	DSCA: Catastrophic Emergency	DSCA: Civil Disturbance
	DOD	DOJ (FBI)	DHS or a State	DHS	DOJ
Nature of the Operation	Deter, detect, and destroy or disarm enemy forces and/or WMD in or en route to US via adjacent areas	Respond to detection of a Radiological or Nuclear weapon or materiel en route to a US city	Support state and local authorities in managing the consequences.	Support consequence management operations per National Response Framework	Secure Federal property, quell riots, maintain law and order, and enforce Federal law.
Duration	Continuous	Hours to weeks depending on outcome of response	Days to weeks depending on kind of incident	Months for initial response and longer for recovery	Days to weeks depending on size of disturbance
Force Size	A few small specialized units as part of a Homeland Defense system	Small specialized units backed up by S&L assets and general purpose units.	Moderate numbers of general purpose force units	A few specialized and large numbers of general purpose units	Large numbers of general purpose units
Probability	Low but possible	Low but possible	High	Low but possible	Low but possible

The two kinds of Homeland Defense Operations shown in Table 30 would involve only a few Army units, primarily SOF or specialized GPF units. The land threat consists of small raids or stand-off attacks from adjacent countries or from ships, and Army units

might be used to attack and destroy enemy forces engaged in these operations. The demand for Army units is not affected by these Homeland Defense Operations.

The three kinds of DSCA operations shown in Table 30 do have an impact on the Army's force structure. All of these involve the use of Federal troops to support the civil authorities, but in different ways. Most of the effort is the use of Federal troops to assist DHS in managing the consequences of emergencies—natural disasters, accidents, and attacks. In addition, DOD has a unique role in providing under certain circumstances troops to maintain law and order and enforce Federal law.

There is a spectrum of emergencies in which the frequency of their occurrence is inversely proportional to their individual cost or damage. Thousands of minor emergencies occur daily or weekly, but their individual costs are small. Major emergencies occur frequently, and their individual costs are substantial. At the other end of the spectrum, there are catastrophic emergencies that occur rarely but have very great costs. DOD does not play a role managing minor emergencies for which local and state agencies are sufficient. DOD often plays a supporting role in managing the consequences of major emergencies by providing troops and equipment to augment local, state and other Federal agencies. DOD has a significant role in managing the consequences of catastrophic emergencies.

### **Major Emergencies**

Almost all emergencies are managed satisfactorily by local and state agencies without involving the Federal Government. When emergencies exceed the capabilities of the local and state agencies, the Federal Government provides additional capabilities to help them manage the consequences of these major emergencies. The Federal effort is led by DHS and includes many of the departments and agencies, including DOD. In many cases, the need is met by National Guard units acting under their respective governors. In some cases, Federal Troops are also used. These major emergencies occur often enough to warrant planning and preparing in advance. They include natural disasters (storms, floods, drought, volcanic eruptions, and earthquakes), and they also include accidents and attacks. Each emergency is unique in time, place, and nature, but the responses to them have many common elements, to include: command, situational awareness, population control (evacuation, stay in place, and/or law and order), infrastructure repairs, and delivery of essential goods (food, water, and clothing) and services (medical care).

DOD support in response to major emergencies is performed by existing units and does not create a demand for additional units or capabilities. Many support operations are performed by National Guard units under state control. When Federal troops are involved, they augment local and state authorities during the response phase, which lasts a few weeks or a month. DOD is not involved very much in the recovery phase that follows

the response phase. DOD does have some specialized units for these operations, but most of the work is done by GPF units that require no special training or equipment.

### Major Emergency

Table 31 shows a notional Army force that might be used to support local authorities in response to a major emergency—in this case a natural disaster. This notional force is designed to augment rather than replace or displace local and state assets or those from other Federal agencies or the private sector. The brigades in the notional division-sized force in Table 13 provide specific capabilities that are appropriate for a response operation.

**Table 31. Notional Army Force for a Generic Major Emergency (Natural Disaster)**

Organization	Role	Battalions	Strength
1 Division Headquarters	Command the Army Force	1	1099
1 Theater Aviation Brigade	Recon, airlift, evacuation	2	1934
2 MP Brigades	Security and Evacuation Control	6	3918
2 MEBs	Command one sector each	8	4812
1 Engineer Brigade	Infrastructure Repair	1	2363
2 Sustainment Brigades	Distribute essential supplies	10	9298
	TOTAL	27	23424

This notional response force is designed to conduct response operation in two sectors of the incident area, with six brigade commanders reporting to a division commander. The number and mix of units can be expanded by adding more of the brigades shown above or by adding BCTs or other kinds of units. Most of the work involved in these responses consists of providing law and order, security, traffic control, and distributing supplies. These functions can be performed by most GPF units, including BCTs, using organic vehicles and equipment.

## Catastrophic Emergency

Table 32 shows a notional force to respond to a catastrophic emergency, which in this example is a clandestine nuclear detonation in an urban area.

**Table 32. Notional Army Force to Respond to a 10kt Nuclear Detonation**

Organization	Role	Strength
1 Corps Headquarters	Command and control of subordinate organizations	1141
3 Division Headquarters		3297
3 Chemical Brigades	Specialized detection, decontamination, and defense	4461
3 Theater Aviation Brigades	Airlift for evacuation and distribution of supplies	4902
3 Medical Brigades	Triage and immediate care	7899
3 Engineer Brigades	Clear rubble and keep highways open	6789
3 Signal Brigades	Incident area communications	6324
3 MP Brigades	Evacuation management and perimeter security	5877
4 Sustainment Brigades	Distribute food, water, clothing to the force and citizens	18956
3 Infantry BCTs	Provide perimeter and area security	13291
	TOTAL	72837

DOD will be involved heavily in supporting the response to and recovery from catastrophic emergencies whose effects are very damaging and long-lived. A catastrophic emergency is defined as any natural or manmade incident, including terrorism that results in extraordinary levels of mass casualties, damage, or destruction severely affecting the population, infrastructure, environment, economy, national morale, and/or government functions. Examples of catastrophic emergencies include a 10kt nuclear detonation, pandemic influenza, plague, major earthquake (New Madrid or Cascadia), food contamination, animal disease, cyber attack, and extended power outages. A catastrophic emergency would have national impacts over a prolonged period of time and almost immediately exceed resources normally available.

Unlike other DSCA operations, management of a catastrophic emergency would need DOD capabilities for an extended period of time—several months or even a year or more depending on circumstances. After the end of the response phase, it would be possible to start reducing DOD participation, but the dislocation of people and services would take a long time to remedy. Moreover, effects of a catastrophic emergency will be widespread and require additional DOD forces to provide security and distribute supplies in areas remote from the incident site.

The principal elements of a response to all catastrophic emergencies are to delineate and secure the dangerous areas, enforce evacuation and/or stay in place policies, distribute basic life necessities, treat injured and ill persons, and maintain security and

law and order. Of these, distribution of emergency supplies is the major workload. The notional forces for Army participation in these operations will look very similar to the one designed for the 10kt detonation, with some important differences based on the nature of the incident.

### Civil Disturbance Operation

Table 33 shows a notional Army force to deal with a large civil disturbance operation.

**Table 33. Notional Army Force to Respond to a Large Civil Disturbance**

Organization	Role	Strength
1 Division Headquarters	Command and control subordinate organizations	1099
2 Infantry BCTs	Patrol the areas, quell riots, and provide presence	8862
1 Theater Aviation Brigade	Reconnaissance and airlift of troops and supplies	1934
1 MP Brigade	Law and Order, security, traffic management and	1959
1 Sustainment Brigade	Distribute food, water, clothing to the force and citizens	4614
	TOTAL	18468

DOD participation in Civil Disturbance Operations is performed in accordance with authorities granted by Congress that allow military forces to enforce Federal law in the United States. These operations can be performed by existing GPF units of all Services and types. They often involve rapid deployment to the scene of the disturbance. In most cases, DOD involvement is relatively short—a few weeks or a month. For the five-day riot in Detroit in 1967, a total of 13,000 troops were used to augment the police, about 8,000 of these were federalized Michigan National Guardsmen and 5,000 were from the 82<sup>nd</sup> Airborne Division. In 1968, there were serious riots in both the District of Columbia and Baltimore after the assassination of Martin Luther King Jr. A total of about 25,000 troops were used to deal with these two civil disturbances—14,000 for DC and 11,000 for Baltimore. In both cases, local National Guard units were federalized. Another recent operation of this type occurred in 1993 when Marine, Active Army, and federalized California National Guard units were used to quell a major riot in Los Angeles. Total troop strength deployed to the Los Angeles riot was 13,500. Table 15 shows a Notional Army Force to respond to a relatively large civil disorder.

The exact size of a force used to deal with a particular civil disturbance depends on the size and degree of violence of the event. Most GPF units can with a modicum of riot control and fire discipline training perform the primary function of assuring security. The notional organization in Table 33 is representative and can be scaled up or down as appropriate.

## Demand and Supply of Notional Brigades

Table 34 shows the demands for brigades by type for six foreign and three domestic military operations based on the troop lists presented in the previous sections. These apply only General Purpose Forces. The Global Counter-Terrorism Operation is conducted entirely by Special Operations Forces and is not shown in Table 34.

**Table 34. Supply and Demand for Notional Brigades for Military Operations**

Organizations	Authorized			Foreign						Domestic		
	AC	RC	Total	TE	HR	MC	CIC	ASC	LCC	ME	CE	CD
Corps Headquarters	3	-	3				1		2		1	
Division Headquarters	10	8	18		1	1	3	1	6	1	3	1
Infantry BCT	14	20	34	5		2	6	4	8		3	2
Stryker BCT	8	1	9				2		3			
Armored BCT	10	7	17				1		7			
Combat Aviation Brigade	10	8	18			1	2		6			
Fires Brigade	7	7	14			2	1	1	6			
MEB	2	19	21		1	2	3	3	6	2		
Surveillance Brigade	3	7	10			1	2		2			
Sustainment Brigade	13	19	32		1	1	4	3	11	2	4	1
Air Defense Brigade	5	2	7					4	2			
Theater Aviation Brigade	-	6	6		1	1		3	2	1	3	1
Civil Affairs Brigade	1	9	10				2		2			
MISO Group		2	2				1		1			
MI Brigade	5		5				2	1	2			
Engineer Brigade	6	11	17			1	3	1	4	1	3	
MP Brigade	5	7	12				2		2		3	1
Chemical Brigade	1	2	3						1		3	
Signal Brigade	4	4	8				1	1	2		3	
Medical Brigade	4	10	14				1		2		2	
Total Brigades	111	149	260	5	4	12	37	22	76	8	28	6

## Observation on the Notional Army

The Notional Army presented in this paper has been prepared to provide inputs to SARA. It is designed to provide a reasonably good idea of the how the Army organizes and operates without getting down to the battalion or small unit level. In so doing, it overly simplifies the Army's modus operandi and thereby introduces inaccuracies. This Notional Army is a work in progress, and users of SARA may modify it as they deem appropriate. Suggestions for improving it are welcome. Please contact the Strategy, Forces, and Resources Division at IDA, 703-845-2000.



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