# Olvanan Southern Fleet Marine Expeditionary Force Red Book



v1.0



Version	Date	Description	Author
v1.0	15 Jan 25	Initial release	LTCOL D. Eyland Mr R. Dutta

#### **Purpose & Basis**

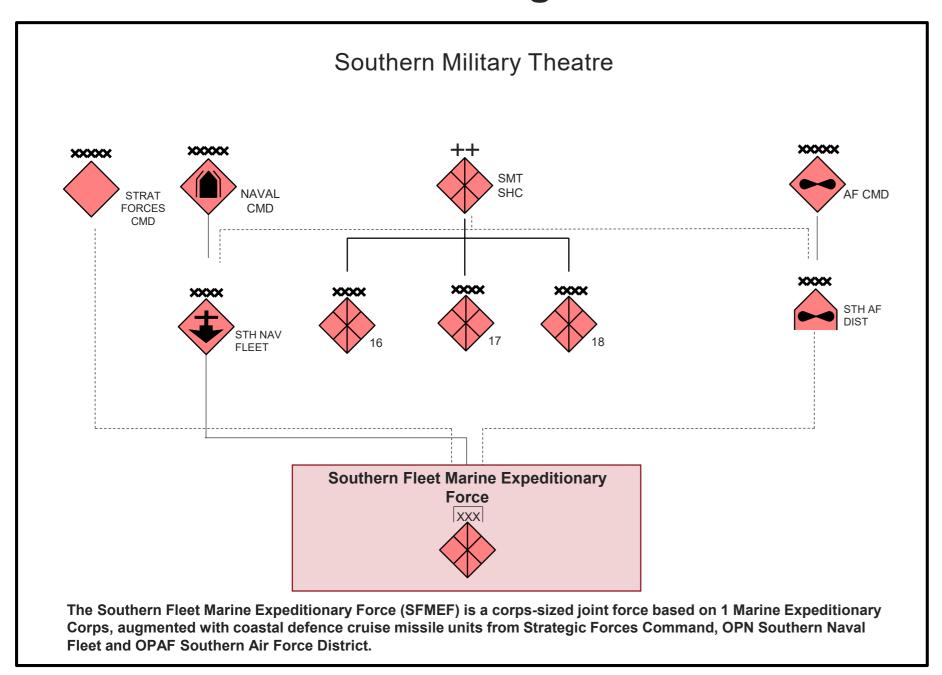
- The Olvanan Southern Fleet Marine Expeditionary Force [SFMEF] represents an Olvanan People's Army (OPA) capability designed to be able to project power to the first island chain from the Olvanan mainland, and potentially further
- The capability is embedded in a structure described in the following pages
- The structure is to be used as an OPFOR for scenarios that requires Olvanan projection of power across the Indo-Pacific region
- Exercise designers may use the entire structure or elements of it to support exercise design

- The structure was generated from products developed by the United States Command and General Staff College (US CGSC), ATP 7-100.3 and the Operational Environment Data Integration Network (ODIN)
- The structure assumes a command by the Olvanan People's Navy (OPN under the OPA)
- This replicates the OPA's preference for a single service command, minimising additional Joint capabilities, as most force elements belong to the Southern Fleet Command under the Southern Military Theatre Command
- Functional command within the Olvanan Southern Fleet Marine Expeditionary Force follows the traditional Olvanan domain based command structure

#### **Contents**

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  - Platform/Capability Systems Descriptions

#### **Organisational Context**



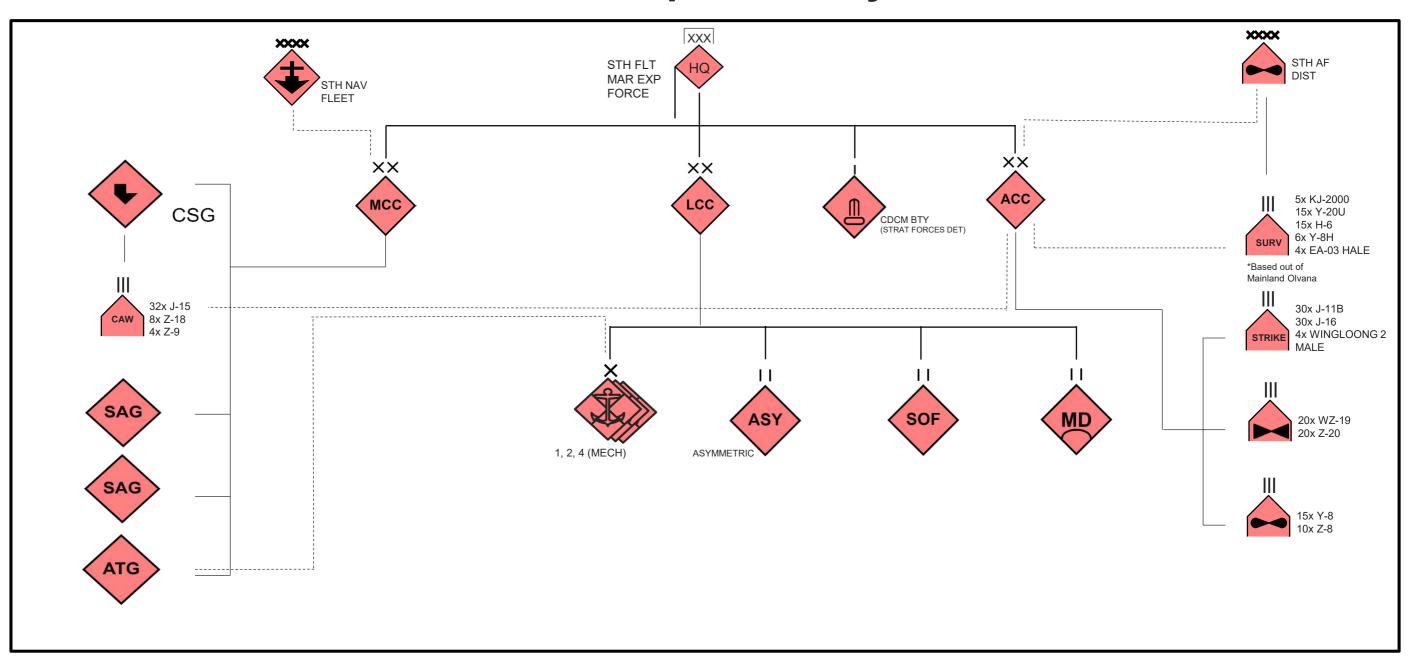
#### Higher formations, Roles & Contributions

The Southern Military Theatre (SMT) AO includes the land in southern Olvana bordering Sungzon and the south and south-western coastline of Olvana. Its headquarters is based in Guangzhou. Its mission is primarily maritime, with a focus on securing OPA's control of the South China Sea.

Its mission is to defend the southern coastline and airspace. Its port facilities support the amphibious brigades and force projection platforms. It is habitually supported by the OPAF Southern District Air Force and the Southern Naval Fleet.

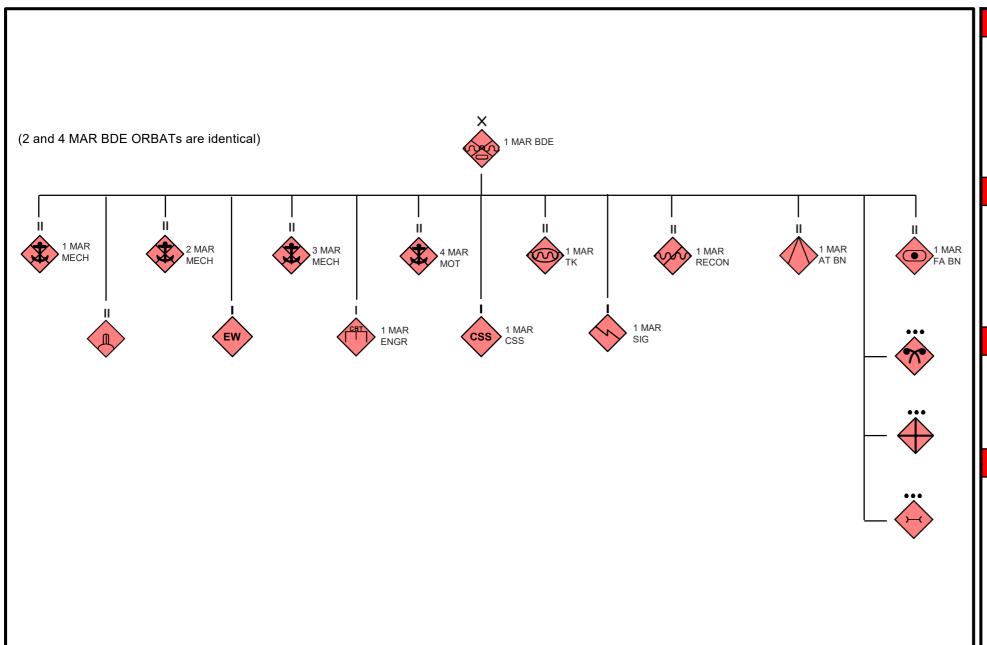
The Southern Military Theatre's task organization is suited to the terrain in which it operates. It includes three group armies, but they contain a different mixture of manoeuvre brigades than the Eastern Military Theatre. Additionally, Southern Naval Fleet includes 1 Marine Expeditionary Corps, a large formation including 6 Marine infantry brigades and other enablers based in Hanoi and Shenzhen.

### **Southern Fleet Marine Expeditionary Force – Structure**



## **Land Component**

#### 1 Marine Brigade (Mechanised)

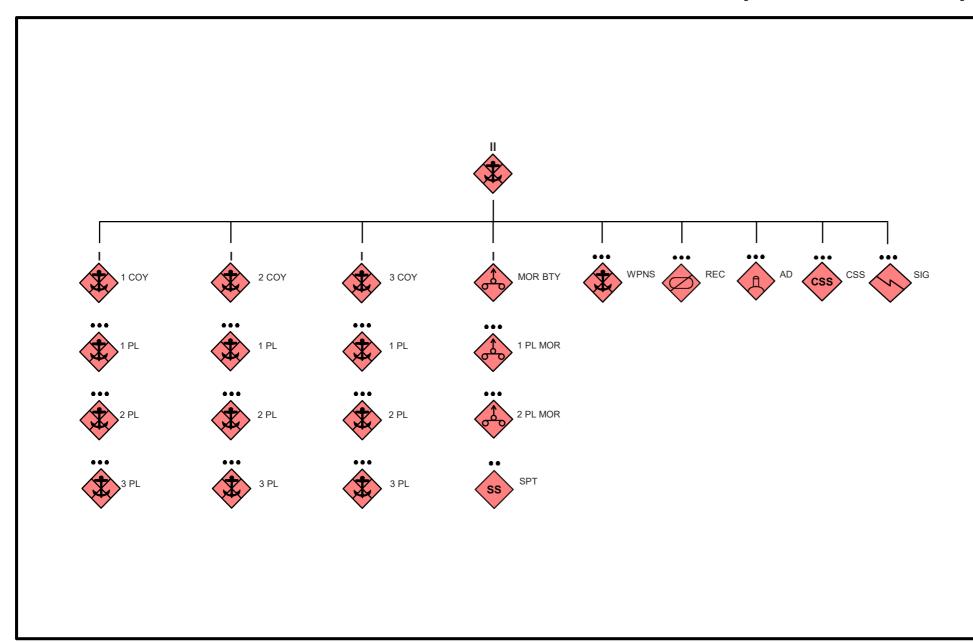


Marine Mech BN (x3	)	Marine Mot BN	
ZDB-05 (ALL VARIANTS) SP MTR PLL-05 120MM KAMAZ LEER 2 JAMMER UAV SKYLARK TRK EQ2050 TRK UAZ 469B MANPAD FN-6	53 6 9 3 15 20 6	AWAITING CONFIRMATION OF MOT BN ORBAT BY US TRADOC G2	
Marine Tank BN		Marine Recon BN	
IFV ZBD-05 TNK TYPE 63A TRK EQ2050 TRK CGO EQ2102 KAMAZ LEER 2 JAMMER MANPAD FN-6 UAV ASN-15	18 23 27 4 12 6	TRK EQ2050 KAMAZ LEER 2 JAMMER TRK EQ2102 C2 BUS BOAT ZODIAC	8 8 1 27
Marine AT BN			
Marine AT BN		Marine Arty BN	
ATG ZLT-05 105MM ATGM RED ARROW12 IFV ZBD-05 KAMAZ LEER 2 JAM TRK EQ2050 TRK URAL 375	12 12 7 11 42 14	Marine Arty BN  SP HOW TYPE-89 122MM  MRL TYPE-90B 122MM  RDR SLC 2  TRK CGO EQ2102  TRK EQ2050	18 6 5 61 78
ATG ZLT-05 105MM ATGM RED ARROW12 IFV ZBD-05 KAMAZ LEER 2 JAM TRK EQ2050	12 7 11 42	SP HOW TYPE-89 122MM MRL TYPE-90B 122MM RDR SLC 2 TRK CGO EQ2102	6 5 61

NOTE:



#### Marine Battalion (Mechanised)

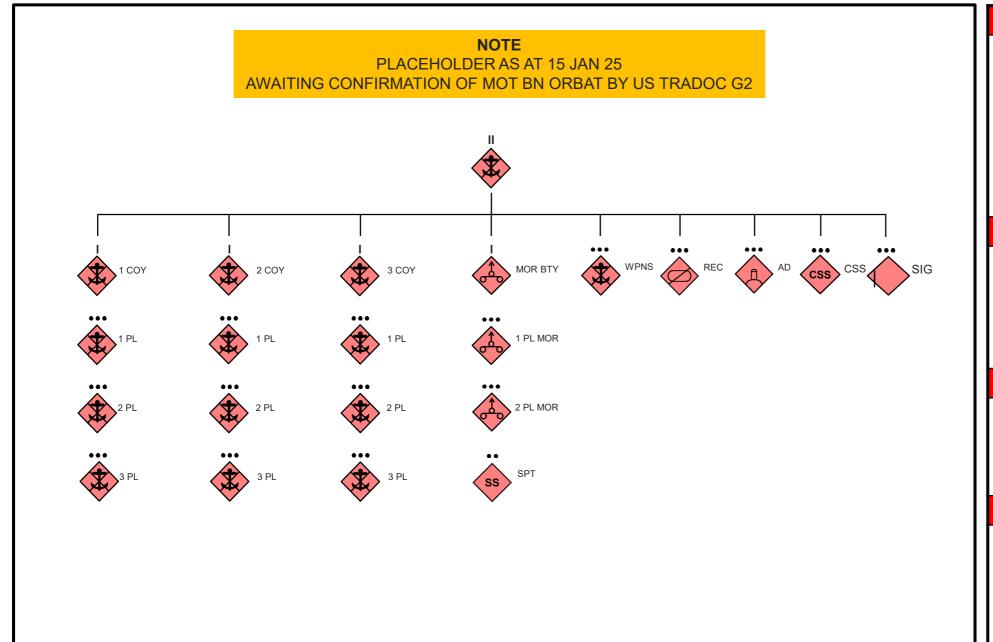


Mech Company (x3)		Mortar Battery	
IFV ZBD 05 TRKD 30MM TRK EQ2050 12.7MM TRK UAZ 469B WHL DSHK URAL 375 DSHK KAMAZ LEER 2 JAMMER WHL TRL CGO .5T TO 2T	10 1 2 1 1 3	COMBO PLL 05 WHL 120MM TRK EQ2050 APC BTR 80 UNSH TRK UAZ 469B DSHK TRL CGO .5T TO 2T	6 3 1 5 8
Recon Platoon		Air Defence Platoon	
IFV ZBD 05 TRKD 30MM ARC ZBD 05 TRKD AMPHIB MOTORCYCLE (Tab data N/A) TRK UAZ 469B WHL DSHK TRL CGO .5T TO 2T SKYLARK UAV	2 1 3 1 1 3	IFV ZBD 05 TRKD 30MM AMPHIB FN-16 MANPAD	3 6
Weapons Platoon		Signals Platoon	
		21911112 1 11112 211	
APC ZBD 05 TRKD GL SNIPER 12.7MM GL ATGL PF 89 GL ATGL FHJ 84 GL RPO	3 3 3 6 3	ACV ZBD 05 TRKD PRC MESSENGER MOTORCYCLE TRK EQ2050 DONG FENG EQ2102 C2 BUS TRK UAZ 469B WHL DSHK TRL CGO .5T TO 2T GENERATOR TRL	1 3 3 1 3 6 1
GL SNIPER 12.7MM GL ATGL PF 89 GL ATGL FHJ 84 GL RPO	3 6 3	ACV ZBD 05 TRKD PRC MESSENGER MOTORCYCLE TRK EQ2050 DONG FENG EQ2102 C2 BUS TRK UAZ 469B WHL DSHK TRL CGO .5T TO 2T	3 3 1 3 6

#### NOTE:



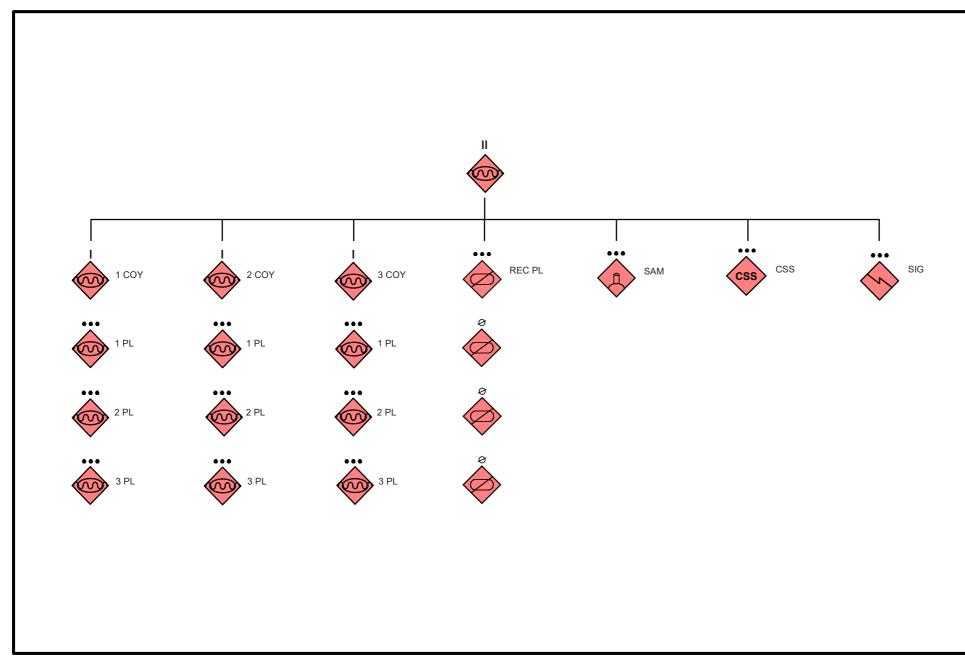
#### **Marine Battalion (Motorised)**



Motorised Company (	Motorised Company (x3)		
Recon Platoon		Air Defence Platoon	
Weapons Platoon			



#### **Marine Tank Battalion**

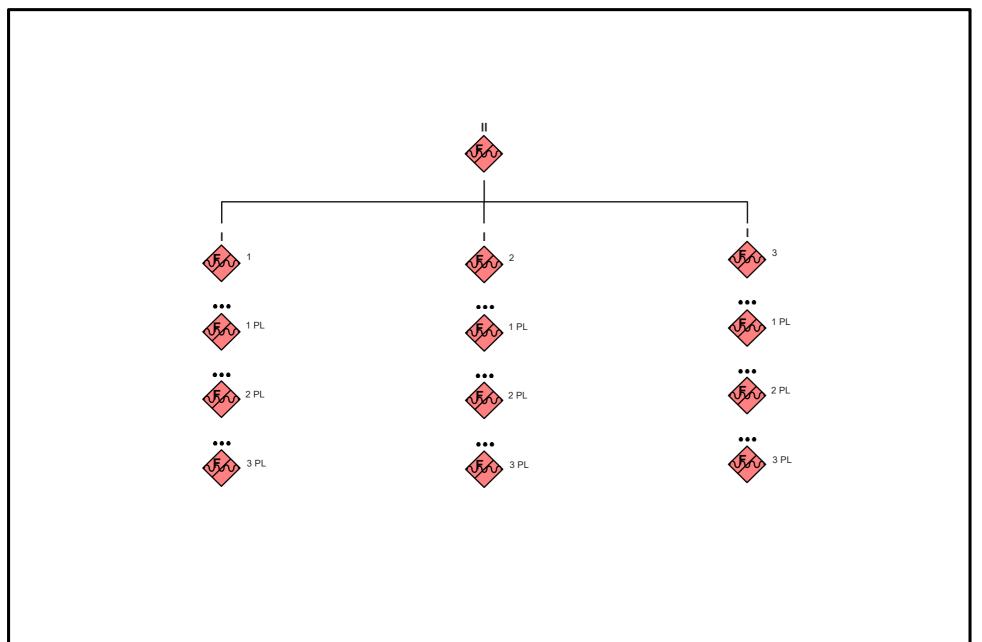


Tank Company (x3	)	Recon Platoon	
TYPE 63A TANK TANK TYPE 63A ATGM TANK TYPE 63A PLOW TRK EQ2050 TRK EQ2050 DSHK URAL 375 DSHK KAMAZ LEER 2 JAMMER WHL TRL CGO .5T TO 2T	6 4 3 1 2 2 2 2 3	ARC ZBD 05 TRKD PRC MESSENGER MOTORCYCLE TRK EQ2050 DSHK TRL CGO .5T TO 2T ASN15 UAV	3 1 1 6
SAM Platoon		Signals Platoon	
APC ZBD 05 TRKD FN-16 MANPAD	3 6	ACV ZBD 05 TRKD AMPHIB PRC MESSENGER MOTORCYCLE TRK EQ2050 TRK EQ2050 DSHK DONG FENG EQ2102 C2 BUS TRL CGO .5T TO 2T GENERATOR TRL	1 3 3 1 6 1
-		-	
Totals – Key Platfo	rms a	nd Signature Equipment	
TYPE 63A TANK TANK TYPE 63A ATGM TANK TYPE 63A PLOW PRC MESSENGER MOTORCYCLE FN-16 MANPADS DONG FENG EQ2102 C2 BUS KAMAZ LEER 2 JAMMER WHL	18 14 9 6 6 1 12	AAMB ZBD 05 TRKD ACV ZBD 05 TRKD APC ZBD 05 TRKD ARC ZBD 05 TRKD ARV ZBD 05 TRKD ASN15 UAV	4 2 3 3 6 6

NOTE:



#### **Marine Reconnaissance Battalion**

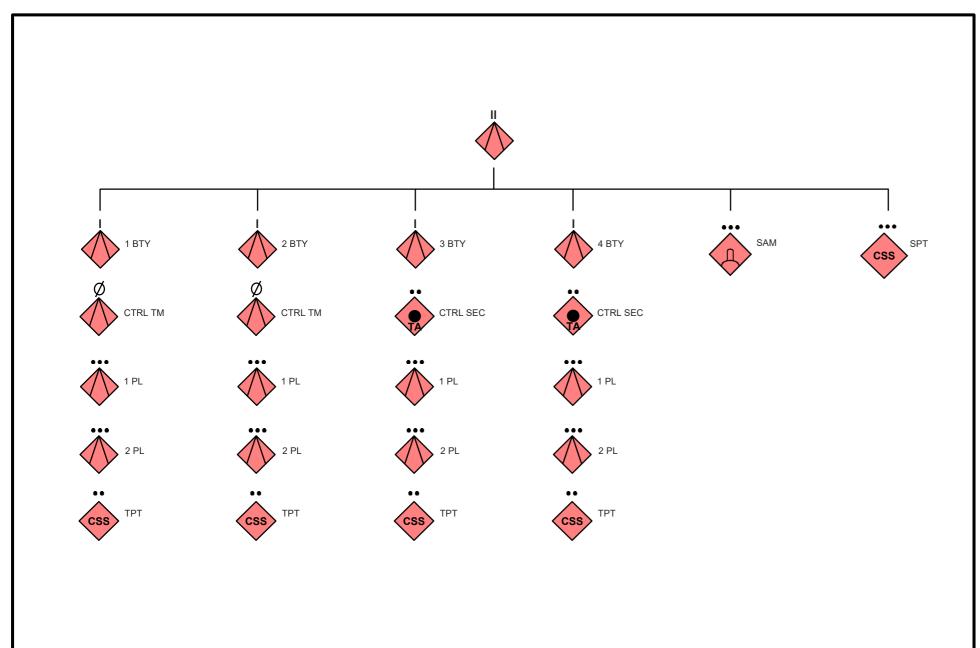


Recce Company (x3)		Recce Bn HQ	
79 pers total per company, armed with small arms only No transport, other than Coy HQ TRK EQ2050 35MM AGL KAMAZ LEER 2 JAMMER WHL	1	TRK EQ2050 12.7MM TRK EQ2050 35MM AGL DONG FENG EQ2102 C2 BUS KAMAZ LEER 2 JAMMER WHL	3 2 1 5



#### **Marine Anti-Tank Battalion**

Olvanan Southern Fleet Marine Expeditionary Force

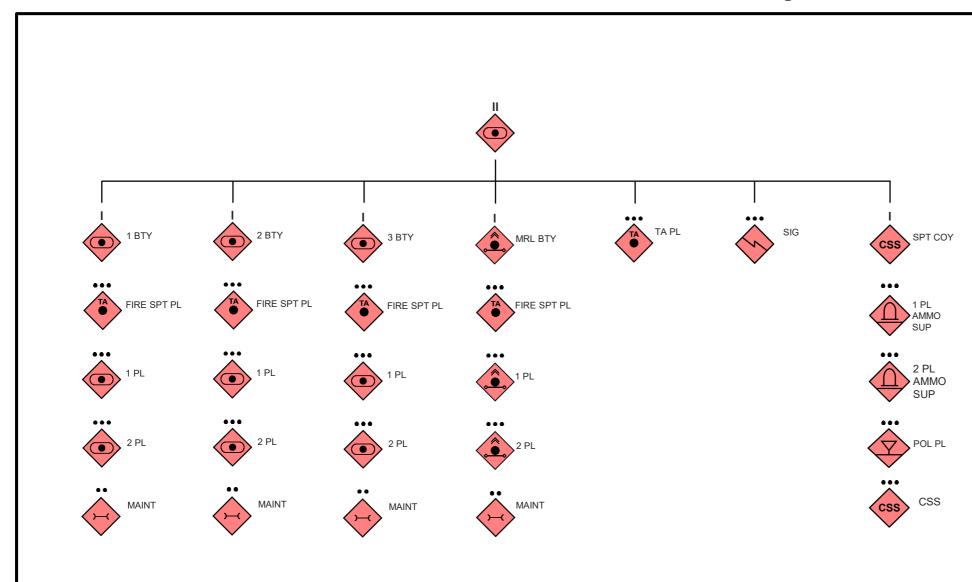


AT Battery (1 and 2)		AT Battery (3 and 4)	
IFV ZBD 05 TRKD 30MM ATG ZLT05 SP TRKD 105MM TRK EQ2050 DSHK URAL 375 DSHK KAMAZ LEER 2 JAMMER WHL TRL CGO .5T TO 2T	1 6 6 4 1 7	TRK EQ2050 DSHK TRK EQ2050 35MM AGL ATGM EQ2050 RED ARROW 12 URAL 375 DSHK KAMAZ LEER 2 JAMMER WHL TRL CGO .5T TO 2T	8 2 6 1 1 8
SAM Platoon			
APC ZBD 05 TRKD AMPHIB FN-16 MANPAD	3 6		
Totals – Key Platfo	rms a	nd Signature Equipment	
ATG ZLT05 SP 105MM ATGM EQ2050 RED ARROW 12 IFV ZBD 05 30MM AMPHIB KAMAZ LEER 2 JAMMER WHL POL POD TRL 4200L	12 12 5 11 4	TRK CGO DONG FENG EQ2102 TRK EQ2050 (VARIOUS WPNS) TRL CGO .5T TO 2T URAL 375 DSHK URAL 375D 6X6 WRECKER URAL 375D MAINTENANCE VAN	10 43 41 10 2

NOTE:



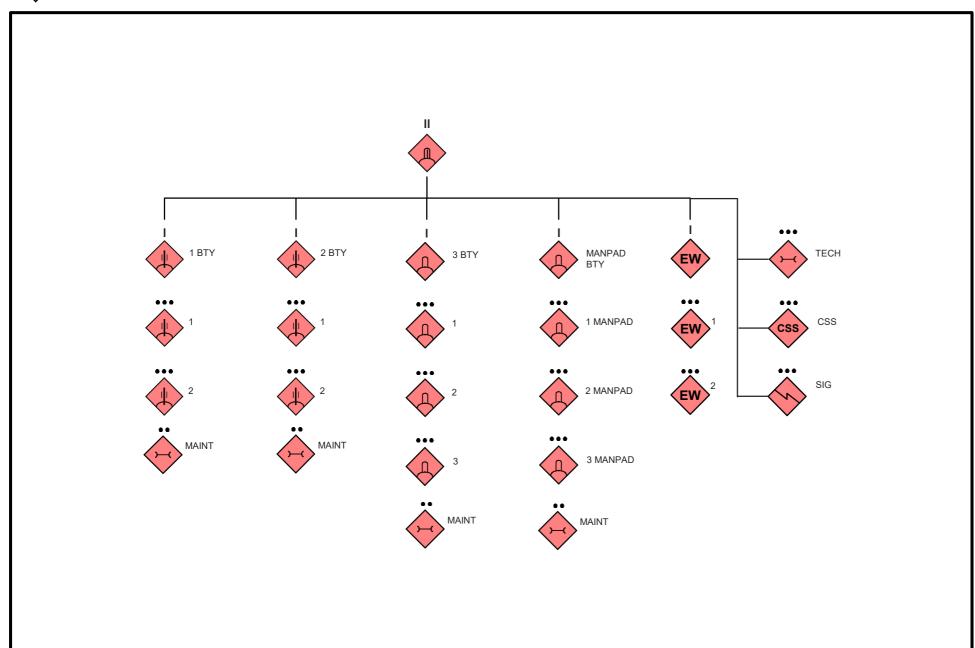
#### **Marine Field Artillery Battalion**



SPG Battery (x3)		MRL Battery	
HOW SP TYPE 89 PLZ89 122MM TRK EQ2050 TRK EQ2050 DSHK TRK CGO DONG FENG EQ2102 URAL 375 DSHK URAL 375D MAINTENANCE VAN KAMAZ LEER 2 JAMMER WHL TRL CGO .5T TO 2T GENERATOR TRL BL 904 ST RADAR SLC 2 ST RADAR	6 6 7 6 1 3 1 15 1 1	MRL TYPE 90B WHL 122MM TRK EQ2050 TRK EQ2050 DSHK ARTY VEH RESUPPLY 9T232M URAL 375 DSHK URAL 375D MAINTENANCE VAN KAMAZ LEER 2 JAMMER WHL TRL CGO .5T TO 2T GENERATOR TRL BL 904 ST RADAR SLC 2 ST RADAR	6 7 6 1 3 1 15 1 1
TA Platoon		Support Company	
GENERIC VAN CGO MED WHL TRK EQ2050 DSHK TRK EQ2050 WHL 5.8MM MG RDR CB GM 5951 IL220 TRKD GAZ 69T SURVEY TRK AKZ 7 SOUND RANGING VAN TRL CGO .5T TO 2T GENERATOR TRL	1 1 3 1 2 1 6 1	TRK EQ2050 TRK CGO DONG FENG EQ2102 SX2150 FUEL TANKER URAL 375 DSHK URAL 375D MTCE VAN URAL 375D 6X6 WRECKER KAMAZ LEER 2 JAMMER WHL CRANE KRAZ 255 WHL PKM TRL CGO .5T TO 2T POL POD TRL 4200L	11 42 4 1 3 3 10 6 32 10
Totals – Key Platf	orms a	nd Signature Equipment	
AKZ 7 SOUND RANGING VAN ARTY VEH RESUPPLY 9T232M ARV TYPE 653A TRKD BL 904 ST RADAR DONG FENG EQ2102 C2 BUS GAZ 69T SURVEY TRK HOW SP TYPE 89 PLZ89 122MM KAMAZ LEER 2 JAMMER WHL MRL TYPE 90B WHL 122MM TYPE 89 ACV	1 6 3 5 1 2 18 15 6 2	POL POD TRL 4200L PRC MESSENGER MOTORCYCLE RDR CB GM 5951 IL220 TRKD SLC 2 ST RADAR SX2150 FUEL TANKER TRK CGO DONG FENG EQ2102 TRK EQ2050 (VARIOUS WPNS) URAL 375 DSHK URAL 375D 6X6 WRECKER URAL 375D MTCE VAN	10 3 1 5 4 61 78 5 3 15



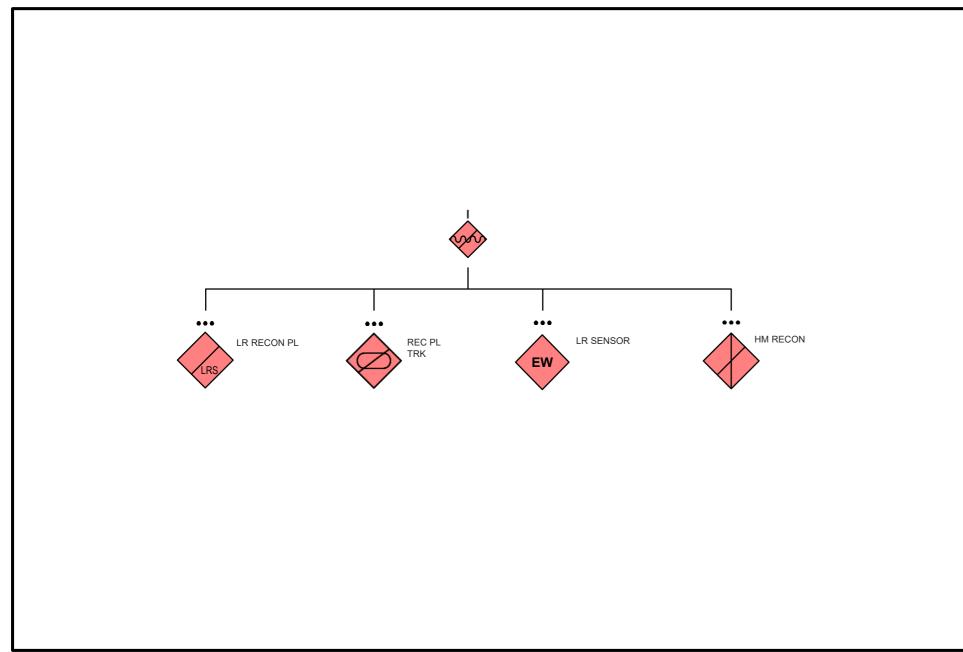
#### **Marine Air Defence Battalion**



SP AAA Battery (x2)		SHORAD Battery	
35MM SP AAA PGZ 07 TRK EQ2050 (SOME W/DSHK) ACV CLC 2B TRKD RDR TA CLC 2B TRKD URAL 375 DSHK URAL 375D MTCE VAN	6 7 1 1 1 1	TRK EQ2050 (SOME W/DSHK) HQ 17 CSA15 SAM LAUNCHER URAL 375 DSHK SA 15 BTY C3 VEHICLE 9S737 SA 15 TRANSLOADER SA 15 MTCE VEH	7 6 1 1 9 3
MANPAD Battery		EW Battery	
ZBD 04 AIFV TRK EQ2050 (SOME W/DSHK) URAL 375 DSHK URAL 375D MTCE VAN FN-16 MANPAD	10 7 1 3 18	ZBD 04 AIFV TRK EQ2050 DSHK URAL 375 DSHK RDR EW 106 HGR	2 8 1 2
Totals – Key Plat	forms a	nd Signature Equipment	
35MM SP AAA PGZ 07 HQ 17 CSA 15 SAM LAUNCHER FN-16 MANPAD ACV CLC 2B TRKD AP 16D EW RADAR ARV TYPE 653A TRKD DONG FENG EQ2102 C2 BUS GAZ 69 4X4 CMD VEHICLE POL POD TRL 4200L PRC MESSENGER MOTORCYCLE RDR EW 106 HGR RDR TA CLC 2B TRKD	12 6 18 2 1 3 1 1 4 3 2 2	SA 15 BTY C3 VEHICLE 9S737 SA 15 MTCE VEH SA 15 TRANSLOADER TRK EQ2102 (SOME W/MG) TRK EQ2050 (SOME W/DSHK) URAL 375 DSHK URAL 375D 6X6 WRECKER URAL 375D MTCE VAN ZBD 04 AIFV	1 3 9 18 57 5 3 20 12



#### **Marine Reconnaissance Company**

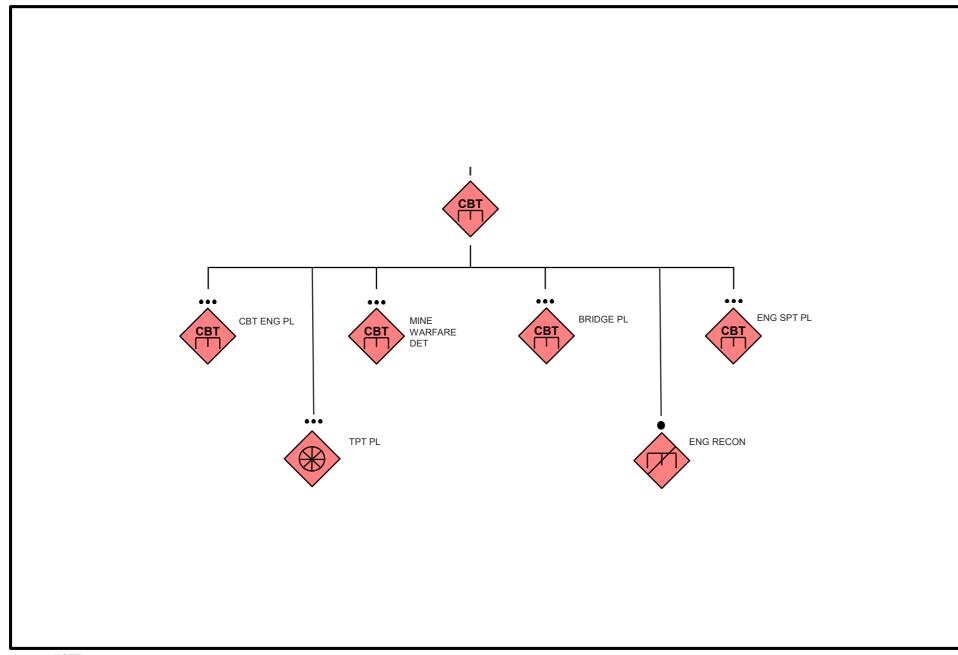


LR Recon Platoon		Recon Platoon, Tracked	
ARC ZBD 05 TRKD	4	IFV ZBD 05 TRKD 30MM ARC ZBD 05 TRKD FARA GND SVLNC RDR	2 1 3
LR Sensor Platoon		High Mobility Recon	
HJ 62C ACV ZBD 05 TRKD TRK EQ2050 WHL 5.8MM MG TRL CGO .5T TO 2T	2 1 4 4	PRC MESSENGER MOTORCYCLE TRK EQ2050 DSHK TRL CGO .5T TO 2T STRUNA 1 BISTATIC RADAR FARA GND SVLNC RDR	9 3 3 3 8
Totals – Key Plat	forms a	nd Signature Equipment	
ACV ZBD 05 TRKD ARC ZBD 05 TRKD HJ 62C IFV ZBD 05 30MM KAMAZ LEER 2 JAMMER WHL PRC MESSENGER MOTORCYCLE	2 6 2 2 2 2 9	STRUNA 1 BISTATIC RADAR TRK EQ2050 TRK EQ2050 WHL 5.8MM MG TRL CGO .5T TO 2T URAL 375 DSHK	3 5 4 9 2

All Marine tanks, IFV, APC are amphibious



#### **Marine Engineer Company**

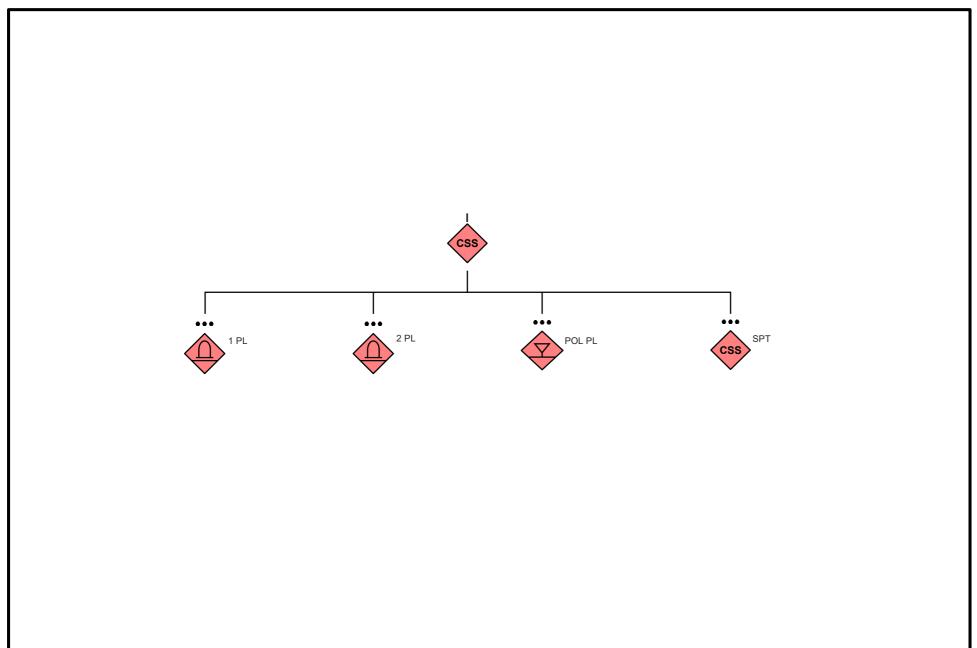


Combat Engineer Platoc	\n	Bridge Platoon	
IFV ZBD 05 30MM TRK EQ2050 35MM AGL TRL CGO .5T TO 2T	6 1 1	TRK EQ2050 12.7MM TRK BRIDGE GQL 1111 SCISSOR MT 55A AVLB TRL CGO .5T TO 2T	1 4 3 1
Engineer Recon			
IFV ZBD 05 30MM AAMB ZBD 05 TRKD	1		
Engineer Support Platoc	on	Mine Warfare Platoon	
GENERIC FRONT LOADER TRKD TRK EQ2050 (VARIOUS WPNS) TRK CGO DONG FENG EQ2102 AEV GCZ 111 WHL TRK TRENCH GJW410 TRKD URAL 375D MAINTENANCE VAN KAMAZ LEER 2 JAMMER WHL TRL CGO .5T TO 2T CRANE SHOVEL 305V GENERATOR TRL	2 4 2 4 1 2 3 2 1	TRK EQ2050 12.7MM/5.8MM TRK CGO EQ2102 (4 W MG) GBL 132 MINE LAYER GBL 131 MINE LAYER GSL 130 MINECLEARING VEH AEV GCZ 111 WHL TRK UAZ 469B MINE DETECTOR PMZ 4 KAMAZ LEER 2 JAMMER WHL TRL CGO .5T TO 2T	4 19 3 3 1 1 1 3 16 4
Totals – Key Platfo	rms a	nd Signature Equipment	
AEV GCZ 111 WHL CRANE SHOVEL 305V GBL 131 MINE LAYER GBL 132 MINE LAYER GSL 130 MINECLEARING VEH IFV ZBD 05 30MM AMPHIB KAMAZ LEER 2 JAMMER WHL MINE ROLLER KMT 7 MT 55A AVLB PMZ 4 TRK BRIDGE GQL 111 SCISSOR	3 2 3 3 1 8 27 9 3 3 4	TRK CGO EQ2102 WHL TRK CIV CREW CAB WHL TRK DUMP KRAZ 255 WHL TRK EQ2050 (VARIOUS WPNS) TRK TRENCH GJW410 TRKD TRK UAZ 469B MINE DETECTOR URAL 375 DSHK URAL 375D MAINTENANCE VAN	29 2 2 17 4 1 1

NOTE:



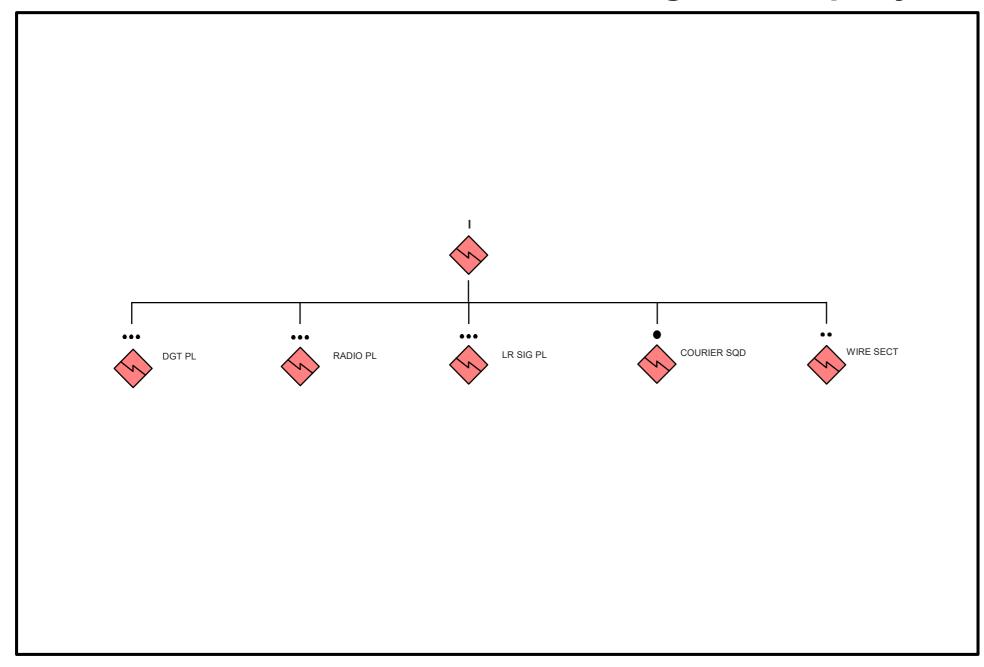
#### **Marine Materiel Support Company**



Materiel Support Platoon (2	x2)	POL Platoon	
TRK EQ2050 TRK CGO DONG FENG EQ2102 KAMAZ LEER 2 JAMMER WHL CRANE KRAZ 255 WHL PKM TRL CGO .5T TO 2T	1 10 10 2 1	TRK EQ2050 TRK CGO DONG FENG EQ2102 SX2150 FUEL TANKER TRL CGO .5T TO 2T POL POD TRL 4200L	1 10 4 1 6
Support Platoon			
AAMB ZBD 05 TRKD AMPHIB ARV ZBD 05 TRKD AMPHIB TRK EQ2050 TRK CGO EQ2102 W MG URAL 375D MAINTENANCE VAN URAL 375D 6X6 WRECKER KAMAZ LEER 2 JAMMER WHL CRANE KRAZ 255 WHL PKM TRK WATER KRAZ 255B 9500L TRL CGO .5T TO 2T POL POD TRL 4200L TRL WATER 1200 L ACMAT ALM GENERATOR TRL	3 3 4 12 3 3 10 2 2 4 4 4 2 2		



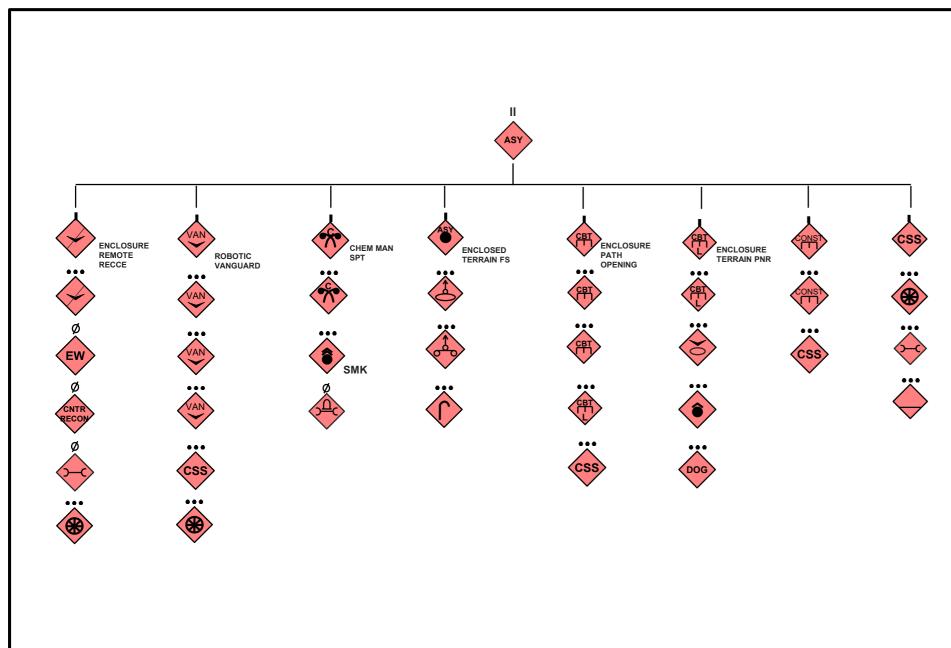
### **Marine Signal Company**



Digital Platoon		Radio Platoon	
ACV ZBD 05 TRKD AMPHIB TRK EQ2050 TRK EQ2050 12.7MM TRL CGO .5T TO 2T	3 3 1 4	ACV ZBD 05 TRKD AMPHIB TRK EQ2050 TRK EQ2050 12.7MM DONG FENG EQ2102 C2 BUS TRL CGO .5T TO 2T GENERATOR TRL	5 5 6 5 11 5
LR Signals Platoon		Courier Squad	
TRK EQ2050 12.7MM DONG FENG 2012 SATCOM DONG FENG EQ2102 C2 BUS EQ2102 RADIO RELAY STATION TRL CGO .5T TO 2T GENERATOR TRL	3 2 5 3 7 6	PRC MESSENGER MOTORCYCLE	3
Wire Section			
TRK EQ2050 TRK EQ2050 12.7MM TRL CGO .5T TO 2T	1 1 2		



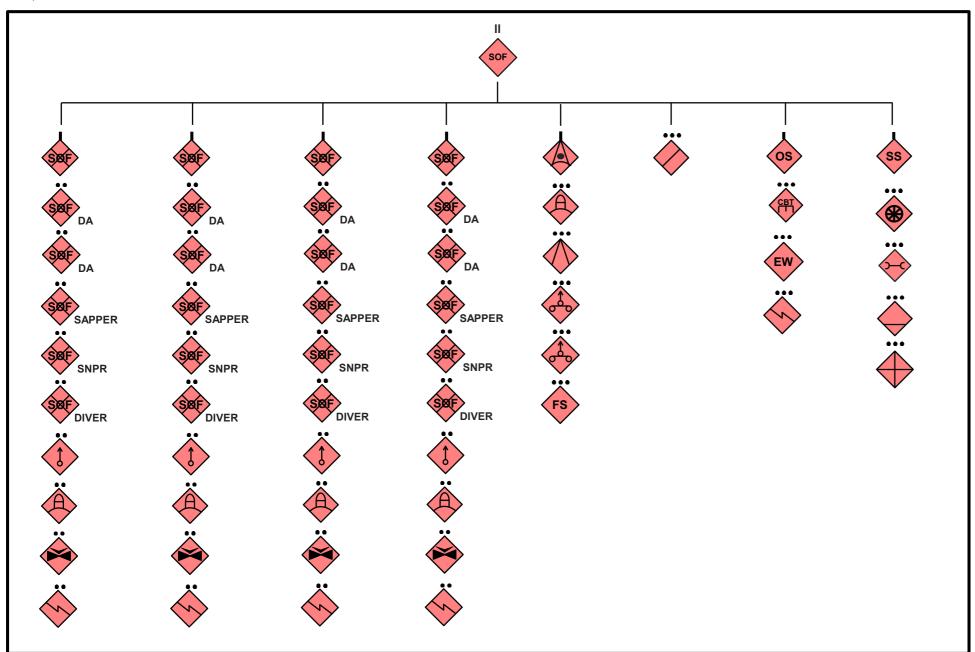
#### **Asymmetric Warfare Battalion**



Enclosure Recce Coy		Robotic Vanguard Coy		
CS/VP4 ATV SHARP CLAW 2 UGV SHARP CLAW 1 UGV SAW TIGER 4X4 UGV ZHANFU H16 UAS  MDM LOG MULTIROTOR GOLDEN EAGLE MULTIROTOR QBZ-96 5.8MM QLG-10A UBGL QBB-95 5.8MM LMG	8 6 6 8 4 8 60 18	VN-17 HIFV CNTR VEH SHARP CLAW 2 UGV SHARP CLAW 1 UGV SAW TIGER 4X4 UGV QBZ-95 5.8MM QLG-10A UBGL QBB-95 5.8MM LMG DONGFENG 6X6 VEH ZHANFU H16 ARMD UAS GOLDEN EAGLE MULTIROTOR SHAANTI 8X8 TRK	3 3 3 100 33 6 9 3	
Chemical Man Spt Co	ру	Enclosed Terrain FS Co	errain FS Coy	
VN-17 HIFV SAW TIGER 4X4 UGV 62MM MBRL 130MM MBRL SMK LNCHER 6X6	2 2 4 4	ZHANFU H16 ARMD MULTIROTOR TYULPAN 240MM SP MTR PCZ-45 M240 240MM MTR TOS 1A 220MM MBRL	4 2 2 2 3	
Enclosed Path Coy		Enclosed Terrain Pnr Coy		
GSL 133 MINE BREACH AFV YW306 130MM MBRL GCZ-110 EBGR VEH	2 2 2	SHARP CLAW 1 UGV SHARO CLAW 2 UGV TETHERED UAS 130MM LNCH HOSE EXPL EXPL DET DOG	8 4 16 4 18	
Engr Const Coy		CSS Coy		
GCZ-112 ENG VEH UZV ARMD DOZER CSK-131 4X4 VEH EXCAVATOR TRACTOR BACKHOE TRACTOR DOZER	2 2 2 1 1 3	SHAANTI 8X8 TRK SHAANTI 6X6 TRK TAIAN TA-4360 TNK TPT	6 8 4	



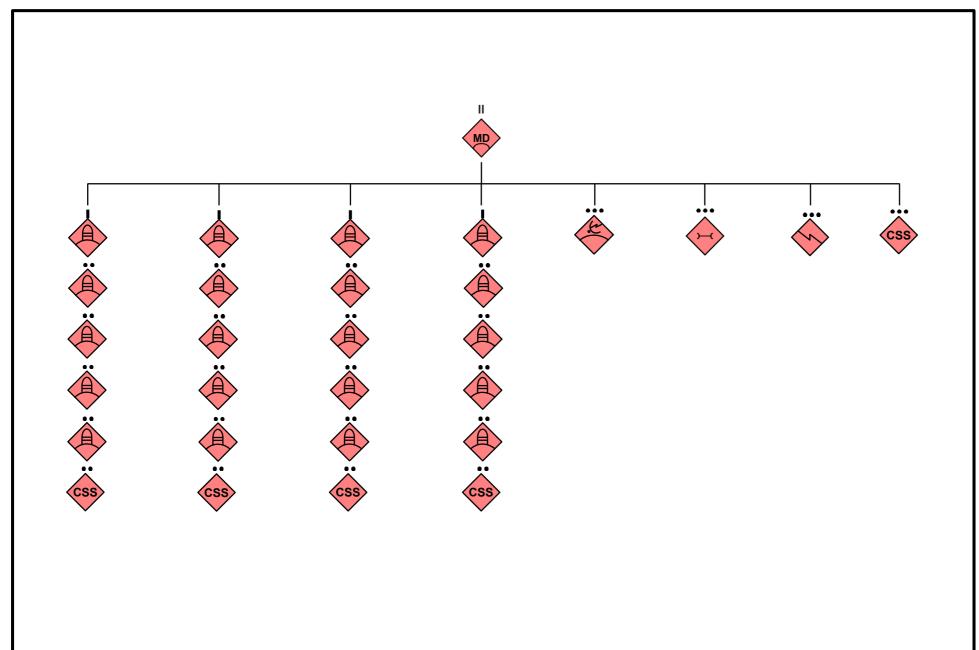
#### **Special Operations Battalion**



SOF Company (x4)		Firepower Company	
TRK EQ2050 TRK EQ2050 DSHK TRK EQ2050 AGL TRK FAW MV3 6x6 ZODIAC MANPAD WQ-18 ASN216 UAV MTR 60MM	17 16 21 8 6 3 8 3	MTR SM1 81MM APC ZSL-92 ATGM PF-98 MANPAD QW-18 TRK FAW MV3 6x6 TRK NJ2046 W-85 12.7MM TRL CGO GAZ 704 .5T TRL CGO 2T TO 5T GENERIC TRL 1.5T	12 10 6 6 2 2 5 6 3
Recon Platoon		OPS Support Company	
REC, ZBL-08R UAV, CH-1 RDR, BS903A RDR, JY-17A RDR, ST-312	3 1 1 1	TRK EQ2050	6



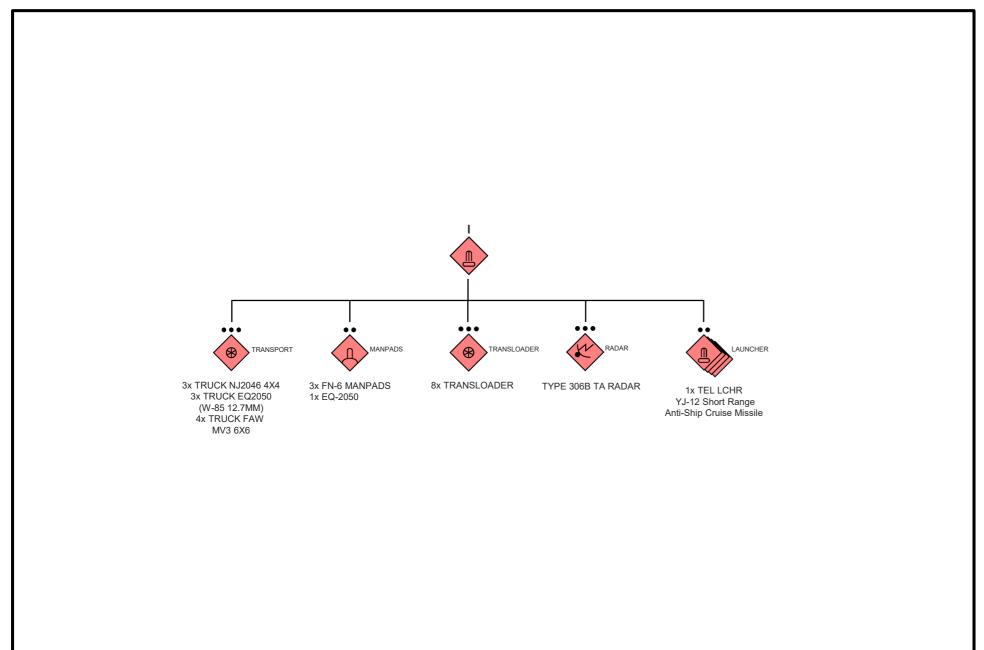
#### **Missile Defence Battalion**



AD Battery (x4)		
HQ-9 TEL TRK FAW MV3 6x6 TRK EQ2050 W-85 12.7MM TRK NJ2046 4x4 RDR, HT-233	4 4 3 4 1	



#### **Coastal Defence Cruise Missile Battery**



CDCM Battery		
YJ-12 ASCM TEL FN-6 MANPAD TRK FAW MV3 6x6 TRK EQ2050 W-85 12.7MM TRK NJ2046 4x4 TRANSLOADER TYPE 306B TA RADAR	4 3 3 3 8 1	

### **Direct Fire Support**

Tracked Amphibious Assault Gun ZLT-05 (Marine Bde)

**Date of Introduction: 2006** 

Main Weapon System: 105 mm Rifled Gun, ATGM GP2

Auxiliary Weapon System: 12.7 mm Machine Gun

Effective Range: 105mm: 3,000m, ATGM: 4,000m

Crew: 4

Passengers: N/A



MBT, Type-96B (Heavy Bde)

Date of Introduction: 2016

Main Weapon System: 125mm Smoothbore Gun.

Coaxial Weapon System: 7.62mm General-Purpose Machine

Gun.

Auxiliary Weapon System: 12.7mm Heavy Machine Gun.

Maximum Range: HE: 4,000m - HEAT: 3,000m -

3VBM/3BM69: 3,000m

Crew: 3



MBT, Type-63A (Marine Bde)

Date of Introduction: 2000

Main Weapon System: 105mm Rifled Gun & ATGM GP150.

Coaxial Weapon System: 7.62mm General-Purpose Machine

Gun.

Auxiliary Weapon System: 12.7mm Heavy Machine Gun.

Maximum Range: HE: 3,000m, APFSDS: 2,000m, GP150

ATGM: 4,000m

Crew: 4



MBT, Type-99A2 (Heavy Bde)

Date of Introduction: 2004

Main Weapon System: 125mm Smoothbore Gun.

Coaxial Weapon System: 7.62mm General-Purpose Machine

Gun.

Auxiliary Weapon System: 12.7mm Heavy Machine Gun.

Maximum Range: HE: 4,000m - HEAT: 5,000m



### **Infantry Fighting Vehicles**

IFV, ZSL-92 (Light Bde)

**Date of Introduction: 1995** 

Main Weapon System: 25mm Autocannon

Auxiliary Weapon System: 25mm Autocannon

Maximum Range: 1,500m

Crew: 2

Passengers: 11



IFV, ZBD-04A (Heavy Bde)

Date of Introduction: 2011

Main Weapon System: 100mm gun/missile launcher Auxiliary Weapon System: 25mm Autocannon Maximum Range: HE: 4,000m - PFHE: 7,000m

Crew: 3

Passengers: 7



IFV, ZBD-05 (Marine Bde)

Date of Introduction: 2005

Main Weapon System: (Lt Tank) 105 mm Gun/ (IFV) 30

mm Autocannon

Auxiliary Weapon System: 12.7 mm Machine Gun Effective Range: 105mm: 2,400m - 30mm: 1,500m

Crew: 4 (Lt Tank)/ 3 (IFV)

Passengers: 8



IFV, VN17 (Heavy Bde)

Date of Introduction: 2017

Main Weapon System: 30mm Autocannon

Auxiliary Weapon System: Red Arrow-12 ATGM

**Maximum Range:** 30mm: 1,500m – ATGM: 4,000m

Crew: 3

Passengers: 7



IFV, ZBL-08 (Medium Bde)

**Date of Introduction: 2009** 

Main Weapon System: 105mm Rifled Tank Gun

Auxiliary Weapon System: 7.62mm Machine Gun

Maximum Range: 4,000m

Crew: 2

Passengers: 7-10



IFV, ZBD-03 (Airborne Bde)

Date of Introduction: 2010

Main Weapon System: 30mm Autocannon

Auxiliary Weapon System: NA

Maximum Range: AP: 2,800m - HE: 5,000m

Crew: 2

Passengers: 5



#### **Anti-Tank Systems**

AG, PTL-02 (Light Bde)

Date of Introduction: 1995

Main Weapon System: 100mm AT Gun

Auxiliary Weapon System: 12.7mm Heavy Machine Gun

Maximum Range: HE: 8,200m - AP: 3,000m

Crew: 5



ATGM, ZBD-04A w/ HJ-9/10 (Heavy Bde)

Date of Introduction: 2014

Main Weapon System: HJ-9/10 Red Arrow

Auxiliary Weapon System: NA

Minimum Range: HJ-10: 2,000m

Maximum Range: HJ-9: 5,500m - HJ-10: 8,000m

Crew: 3



AT, Type-86 (Light Bde)

Date of Introduction: 1961

Main Weapon System: 100mm AT Gun

Auxiliary Weapon System: NA

Maximum Range: 1,800m Crew: 6



ATGM, ZSL-92 w/ HJ-9 (Artillery Bde)

Date of Introduction: 1995

Main Weapon System: 30mm Autocannon

Auxiliary Weapon System: HJ-9 Red Arrow

**Maximum Range:** 30mm: 1,500m - HJ-9: 5,500m

Crew: 5



AG, ZTL-11 (Medium Bde)

**Date of Introduction: 2008** 

Main Weapon System: 105mm Rifled Tank Gun

Auxiliary Weapon System: 7.62mm Machine Gun

Maximum Range: 2,000m

Crew: 4



ATGM, ZBD-03 w/ HJ-8 (Airborne Bde)

**Date of Introduction: 2010** 

Main Weapon System: 30mm Autocannon

Auxiliary Weapon System: HJ-9 Red Arrow

Maximum Range: AP: 2,800m - HE: 5,000m - HJ-8: 4,000m



#### **Other Manoeuvre Systems**

**LUV, EQ2050** 

Date of Introduction: 2007 Main Weapon System: Varies

Auxiliary Weapon System: Varies

Maximum Range: Varies

Crew: 1

Passengers: 3



MTR, SM1 (81mm)(Light / Airborne Bde)

Date of Introduction: 2014

Main Weapon System: 81mm Mortar

Auxiliary Weapon System: NA

Maximum Range: 8km

Crew: 4



APC, Tiger 2065

Date of Introduction: 2007

Main Weapon System: 12.7mm Heavy Machine Gun

Auxiliary Weapon System: NA

Maximum Range: 2,000m Crew: 2

Passengers: 3



MTR, PLL-05 (120mm)(Medium Bde)

Date of Introduction: 2003

Main Weapon System: 120mm Mortar

Auxiliary Weapon System: 12.7mm Heavy Machine Gun

Maximum Range: HE: 9.5km - RAP: 13.5km

Crew: 4



ASC, CS/VN3

**Date of Introduction: 2007** 

Main Weapon System: 12.7mm Heavy Machine Gun

Auxiliary Weapon System: NA

Maximum Range: 2,000m Crew: 2

Passengers: 3



MTR, YW382 (120mm)(Heavy Bde)

**Date of Introduction: 2011** 

Main Weapon System: 120mm Mortar

Auxiliary Weapon System: 7.62mm Machine Gun

Maximum Range: HE: 9.5km - RAP: 13.5km

Crew: 4



27

#### Field Artillery Systems

SPG, PCL-09 (122mm)(Light Bde)

Date of Introduction: 2010

Main Weapon System: 122mm Howitzer

Auxiliary Weapon System: NA

Maximum Range: HE: 18km - RAP: 27km

Crew: 5



SPH, PLZ-52 (155mm)(Heavy Bde)

Date of Introduction: 2014

Main Weapon System: 155mm Howitzer

Auxiliary Weapon System: 12.7mm Heavy Machine Gun

Maximum Range: HE: 30km – RAP: 40km

Crew: 5



HOW, PL-96 (122mm)(Light Bde)

Date of Introduction: 1996

Main Weapon System: 122mm Howitzer

Auxiliary Weapon System: NA

Maximum Range: HE: 18km - RAP: 27km

Crew: 5



SPG, SH-2 (122mm)(Airborne Bde)

Date of Introduction: 2007

Main Weapon System: 122mm Howitzer

Auxiliary Weapon System: NA

Maximum Range: HE: 18km – RAP: 27km

Crew: 5



SPG, PLL-09 (122mm)(Medium Bde)

**Date of Introduction: 2009** 

Main Weapon System: 122mm Howitzer

Auxiliary Weapon System: 12.7mm Heavy Machine Gun

Maximum Range: HE: 18km - RAP: 27km

Crew: 4



SPH, PLZ-05 (155mm)(FA Bde)

Date of Introduction: 1991

Main Weapon System: 155mm Howitzer

Auxiliary Weapon System: 12.7mm Heavy Machine Gun

Maximum Range: HE: 20km - BB: 53km - WS-35:100km



### **Field Artillery Systems**

MRL, Type-90 (122mm)(Light Bde)

Date of Introduction: 1995

Main Weapon System: 122mm MRL

Auxiliary Weapon System: NA

Maximum Range: 40km

Crew: 5



MRL, SR-5 (122/220mm)(FA Bde)

Date of Introduction: 2012

Main Weapon System: 122/220mm MRL

Auxiliary Weapon System: NA
Maximum Range (122mm): 50km
Maximum Range (220mm): 70km

Crew: 3



MRL, Type-90B (122mm)(Medium/Marine Bde)

Date of Introduction: 2004

Main Weapon System: 122mm MRL

Auxiliary Weapon System: NA

Maximum Range: 40km

Crew: 5



MRL, PHL-03 (300mm)(FA Bde)

Date of Introduction: 2004

Main Weapon System: 300mm MRL

Auxiliary Weapon System: NA

Minimum Range: 20km

Maximum Range: 130km

Crew: 4



MRL, SR-4 (122mm)(Heavy/Airborne Bde)

**Date of Introduction: 2013** 

Main Weapon System: 122mm MRL

Auxiliary Weapon System: NA

Maximum Range: 50km

Crew: 5



RDR, SLC-2E Artillery Locating Radar (FABde)

Date of Introduction: 1994

**Detection Range, Artillery:** 35km **Detection Range, Rockets:** 50km

Detection Range, Mortars: Unknown



#### Field Artillery & Ancillary Systems

SPH, Type 89, PLZ-89 (122mm) (Marine Bde)

Date of Introduction: 1989

Main Weapon System: 122 mm Howitzer

Auxiliary Weapon System: 12.7mm Heavy Machine Gun

Maximum Range: HE: 18 km - Extended Range Projectile: 21

km

Crew: 5



#### BL 904 RADAR also known as Type 704, Type 704M

Notes: The BL-904 is the artillery locating radar developed by China North Industries Group Corporation (NORINCO). The radar system is based on the phased-array radar (PAR) technology and was developed as a part of the PIz-45 155mm self-propelled howitzer system. Operating in the C-band, the radar can detect the trajectory of enemy mortars to 15km, howitzers 18-24 km and rockets to 29 km, and can also be used to correct friendly artillery fire. The radar has a response time of 5 seconds, and its performance is said to be comparable to the U.S. TPQ-36. Functional units need two 6×6 trucks, 1× Array, 1× Op centre

Crew: 6



#### Counter Battery Radar IL220 on GM-5951 TRKD ATV

**Notes:** "Zoopark-2" (Cyrillic: 1Л220У «Зоопарк-2»), is an artillery detection radar operating in F-band. It is capable of detecting the positions of mortars to 30 km, guns to 20 km, rockets to 40 km and tactical missile batteries to 55 km. It can estimate impact points of enemy fire as well as provide fire correction for friendly artillery. The 1L220-U has an internal navigation and orientation system that enables autonomous operation.

The radar uses a passive phased array antenna with linear vertical polarization. The fully coherent transmitter is equipped with a traveling wave tube as power amplifier.

Crew: UNK



#### **AKZ 7 SOUND RANGING TRK**

Notes: The AZK-7M automatic sound-ranging system is intended to locate artillery batteries (guns) and mortars from the sound of gunfire and adjust friendly artillery fire from the sound of shell bursts. The system provides search, direction-finding, and position-finding of the acoustic signal sources in a given zone of surveillance; display of the surveillance results on the monitor of the system commander's workstation; transmission of the surveillance information to higher authorities over the radio and wired links.

The AZK-7M consists of one central point (CP) and three base points (BP). Its equipment is installed in four Ural-43203 trucks having special K2.4322M van bodies. Three vehicles accommodate equipment of the base points and one vehicle houses the central point.

Crew: 5 per Base point, 5 per Central point. Total 20



#### **Anti-Aircraft Systems**

AA, PG99 (35mm)(Light/AD Bde)

Date of Introduction: 1997

Main Weapon System: Twin 35mm AA Gun

Radar (Target): Yes

Radar (Search): Yes

**Primary Targets:** High-speed, low-flying aircraft, helicopters, unmanned aerial vehicles (UAV) and cruise

missiles.

Maximum Range: 4,000m

Crew: 5



AA, PGZ-09 (35mm) (Marine/Heavy Bde)

**Date of Introduction: 2009** 

Main Weapon System: Twin 35mm AA Gun

Radar (Target): Yes

Radar (Search): Yes

Primary Targets: Low to medium altitude, fixed wing,

rotary wing, UAS, and cruise missiles.

Maximum Range: 4,000m

Crew: 3



AA, ZBL-08 (35mm)(Medium Bde)

Date of Introduction: 2009

Main Weapon System: 35mm AA Gun

Radar (Target): Yes

Radar (Search): No

**Primary Targets:** High-speed, low-flying aircraft, helicopters, unmanned aerial vehicles (UAV) and cruise

missiles.

Maximum Range: 4,000m

Crew: 5



AA, Type-87 (25mm)(Airborne Bde)

**Date of Introduction:** 1987

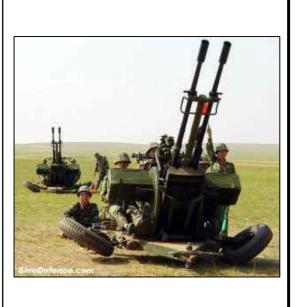
Main Weapon System: Twin 25mm AA Gun

Radar (Target): No Radar (Search): No

Primary Targets: Low altitude, fixed wing, rotary wing, and

UAS.

Maximum Range: 3,200m



#### **Anti-Aircraft Missile Systems**

SHORAD, FB-6C (Light/Airborne Bde)

**Date of Introduction: 2014 Main** 

Weapon System: FN-16

Radar (Tracking): Yes

Radar (Searching): Yes

**Primary Targets:** High-speed, aircraft, helicopters, unmanned aerial vehicles (UAV) and cruise missiles.

Maximum Range: 6km

Crew: 5





SHORAD, HQ-7B (AD Bde)

**Date of Introduction: 2006** 

Main Weapon System: HQ-7 Missile

Radar (Tracking): Yes

Radar (Searching): Yes

**Primary Targets:** High-speed, aircraft, helicopters, unmanned aerial vehicles (UAV) and cruise missiles.

Maximum Range: 11km

Crew: 3



SHORAD, HQ-17A (Marine/Medium/Heavy Bde)

Date of Introduction: 2018

Main Weapon System: 9M330 Missile

Radar (Tracking): Yes

Radar (Searching): Yes

**Primary Targets:** High-speed, aircraft, helicopters, unmanned aerial vehicles (UAV) and cruise missiles.

Maximum Range: 12km

Crew: 5



SAM, HQ-16A (AD Bde)

Date of Introduction: 2011

Main Weapon System: HQ-16 Missile

Radar (Tracking): Yes

Radar (Searching): Yes

**Primary Targets:** High-speed, aircraft, helicopters, unmanned aerial vehicles (UAV) and cruise missiles.

Maximum Range: 40km



#### Long-range Air Defense / Ballistic Missiles

HQ-22, Long-Range Air Defense Missile System

Date of Introduction: 2017

**Target:** Low-flying aircraft, cruise missiles, air-to-ground missiles, and tactical ballistic missiles. Effective against any

airborne radar system.

Maximum Range: 170km



**DF-11, Short-Range Ballistic Missile** 

**Date of Introduction: 1992** 

**Mission:** A solid-fuel SRBM launched from a transporter erector launcher (TEL) and can be launched with roughly 30

minutes of preparation.

Maximum Range: 300km



HQ-9, Long-Range Air Defense Missile System

Date of Introduction: 2017

**Target:** Low-flying aircraft, cruise missiles, air-to-ground missiles, and tactical ballistic missiles. Effective against any

airborne radar system.

Maximum Range: 200km



**DF-16, Short-Range Ballistic Missile** 

Date of Introduction: 2011

**Mission:** A solid-fuel SRBM launched from a transporter erector launcher (TEL) and can be launched with roughly 30

minutes of preparation.

Maximum Range: 1,000km



RDR, Type 306B

**Date of Introduction: 2016** 

Primary Function: Self-Propelled 3D Acquisition Radar



RDR, HT-233

Date of Introduction: 1997

Primary Function: Engagement Radar



### **Anti-Aircraft Missile Support Systems**

**Armoured Command Vehicle CLC 2B Tracked** 

Date of Introduction: A tracked APC which

Main Weapon System: 12.7mm Heavy Machine Gun

Auxiliary Weapon System: NA

Maximum Range:

Crew: 4

IMAGE NOT AVAILABLE

Radar Target Acquisition CLC 2B Tracked

**Notes:** The CLC-2 radar is an S-band low-altitude surveillance radar. It uses pulse Doppler and is suitable for searching and detecting low-altitude and ultra-low-altitude targets. It can provide air situation, target indication, threat judgment, coordinate conversion and firepower distribution to 8 self-propelled artillery or short-range surface-to-air missile systems, and command firepower units to counterattack.

Max Detection Range: 45 km
Max Detection Ceiling: 4,500 m

Crew: 5



SA17 Battery C3 Vehicle 9S737 6×6 Truck

**Notes**: A hardened mobile command post originally designed by Belarus, used as C3 for gun and missile air defense units

Crew: UNK



Radar Early Warning HGR 106

**Notes:** UHF-band 3D medium and low altitude target indicating radar. It provides three-dimensional detection of low-altitude targets, identification of the target information, automatic capture, data storage and real-time transmission. The radar is suitable for low-altitude intelligence support in army air defense units, ground-to-air missile and anti-aircraft target indication, warning and target indication of the artillery combined and defense system, etc. The main reconnaissance targets include cruise missiles, fixed-wing aircraft, helicopters and unmanned aerial vehicles (UAV).

The system is mounted on a Shaanxi Automobile SX2190 6×6 truck. The antenna can be unfolded and folded automatically, reducing deployment time to 15 min and reducing crew effort

Crew: UNK



**STRUNA Bistatic Radar** 

Date of Introduction: 2007

**Notes**: This is a bistatic radar system, where the radar transmitter and detector units are placed several kilometres apart. It is specifically designed for the detection of high altitude stealth aircraft, and operates at 390-450 MHz [UHF]. Altitude: up to 7 km,

Range: up to 8 km

Crew: UNK



#### **Aviation**

HEL, WZ-19

**Date of Introduction: 2012** 

Primary Function: Reconnaissance/attack helicopter

Max Speed: 280 km/h Cruising Range: 700km

Armament: 90mm missile, Twin-23mm Autocannon, HJ-8

Crew: 2



HEL, Z-20

Date of Introduction: 2019

**Primary Function:** Medium Transport Helicopter

Max Speed: 360 km/h Cruising Range: 460km

Armament: Varies: Machine Guns, Missiles, ATGM

Crew: 2

Passengers: 12



HEL, Z-8

Date of Introduction: 1976

Primary Function: Multi-Role Helicopter

Max Speed: 275 km/h Cruising Range: 1,200km Armament: YJ-8/C-802 Missile

Crew: 3

Passengers: 27



HEL, WZ-10

Date of Introduction: 2012

Primary Function: Attack Helicopter

Max Speed: 300 km/h Cruising Range: 800km

Armament: 90mm missile, 23mm or 14.5mm Autocannon, HJ-

9/10 **Crew:** 2



HEL. Z-9

Date of Introduction: 1981

Primary Function: Medium Multi-role Helicopter

Max Speed: 305 km/h Cruising Range: 1,000km

Armament: 90mm missile, Twin-23mm Autocannon, HJ-8

Crew: 2

Passengers: 10



UAV, CH-1

Date of Introduction: 2002

**Primary Function:** Reconnaissance and surveillance

Max Speed: 150 km/h Cruising Range: 740km Endurance: 6 hours



**UAV**, Skywalker

**Date of Introduction: 2016** 

**Primary Function:** Reconnaissance and surveillance

Max Speed: 175 km/h Cruising Range: 150 km Endurance: 15 hours



UAV, AV500

**Date of Introduction: 2016** 

Primary Function: Reconnaissance and surveillance

Max Speed: 180 km/h Cruising Range: 200km Endurance: 6 hours



### **Engineer Systems**

Fast Mechanization Bridge, Hz 21/24

Single System: 21/24 meters Load

Capacity (Tracked): 60 tons Load

Capacity (Wheeled): 17 tons Crew: 2



TMPEV, GCZ-112

**Type:** Tracked Multi-Purpose Engineer Vehicle

**Role:** Road repair, construction, construction of field defenses, non-explosive obstacle clearance, towing, and

recovery

Crew: 3



Scissor Bridging System, GQL-111

Single System: 15 meters Complete

System: 75 meters

Load Capacity (Tracked): 50 tons

Load Capacity (Wheeled): 13 tons

Crew: 2



TMBV, GSL-133

Type: Tracked Minefield Breaching Vehicle

Mine Plough: Yes

Mine Clearing Line Charges: Yes, 100m x5m

Crew: 3



Ribbon Pontoon Bridge System, Type 79A

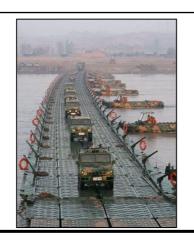
Floating Bridge (MLC 60): 109 meters

Floating Bridge (MLC 20): 170 meters

Ferry Raft (MLC 110): 2ea

Ferry Raft (MLC 60): 4ea Ferry

Raft (MLC 40): 7ea Crew: 5



Mine Dispenser, GBL-131

Mission: Anti-tank and anti-personnel mine

laying/dispersion

Mine Dispenser Racks: 288 launch tubes (8 x 36 mine

canister)

Mines: 5 x SATM, 15 x SAPM, 45 x SAPEM

Maximum Length of Minefield: 2880m



### **Engineer Systems**

#### Mine Roller KMT 7

Note: KMT-7 mine sweep is of a combined roller/plough type. The full set of equipment comprises two roller sections, two plough sections, two mounting frames, coupling device, pyrosignals cassette for passage marking, electrical equipment, pneumatic system, and a repair kit.

The passage in the minefield is created as a result of pressure applied to mine detonators by the roller sections, followed by the unearthing of undetonated mines and pushing them off the path by the plough. In addition, two flexible torsion bars are installed on the mounting frames to counter antennae-activated hullpiercing mines. Finally the detonation of magnetically triggered mines is achieved by an additional electro-magnetic attachment.



Amphibious Engineer Vehicle, Type 77/ GCZ-111

Type: Tracked Multi-Purpose Amphibious Engineer Vehicle

Role: Road repair, construction, construction of field defenses, non-explosive obstacle clearance, towing, and

recovery. Telescopic Crane and Dozer blade

Crew: 2



#### Armoured Vehicle Launched Bridge, MT-55 A

Complete System: 18 meters

Load Capacity (Tracked): 50 tons

Crew: 2



Mine Clearance Vehicle, GSL-130

Type: Minefield Clearance Breaching Vehicle

Mine Plough: Yes

Mine Clearing Line Charges: 3 × GBP 127

Path Cleared: 100m × 5m Setup Time: 15 minutes

Crew: 3



#### Mine Layer, Towed PMZ-4

Mine Laying Rate: 10/min - Anti personnel, 12/min Anti tank

Mine Types: TM-44, TM-46, TM-57, TM-62 SERIES, TM-72,

TMD-B

Crew: 6

Note: Requires a 4×4 truck + driver, lays mines in a straight line. Requires three teams working in parallel.



Mine Dispensing Truck 6×6, GBL-132

Mission: Anti-tank and anti-personnel mine

laying/dispersion

Mine Dispenser Racks: 4 × 24 mine canisters

Mines: GBL-240 canisters (Total of 480 GLD224 AT mines); GBL-241 canisters (Total of 1,440 GLD125 APers mines); GBL-

242 canisters (Total of 4,320 GLD115 APers mines)

Maximum Length of Minefield: 960m

Crew: 3



### **Electronic Warfare Systems**

#### DZ-9001

Type: Vehicle-Mounted ELINT System Emitter Locator

**Note:** The DZ-9001 uses a low-frequency system and a high-frequency system and power supply to detect, intercept, analyze, identify, and record enemy radar radiation.



#### JN-1601

**Type:** High Frequency (HF) Communication Intercept and Jamming Station

**Note:** The JN-1601 is a high frequency (HF) communications jammer designed for searching, detection, direction-finding, and jamming of HF radio frequencies.



#### Low Altitude Guard

Type: Laser Air Defense System

**Note:** The "low-altitude guard" system has completed system debugging and demonstration tests. In the demonstration and verification of real scenes, "low-altitude guard" successfully shot down more than 30 sorties of various small aircrafts such as fixed wing, multi-rotor wing and helicopter, with a shooting rate of 100%.



#### JN-1105A

Type: Communication Intercept and Jamming Complex

**Note:** The JN-1105A is a mobile electronic warfare system designed for searching, detection, direction-finding, and jamming of HF/VHF/UHF radio frequencies.



#### DZ-9300

Type: Man-Portable ELINT System Emitter Locator

**Note:** The DZ-9003 uses a low-frequency system and a high-frequency system and power supply to detect, intercept, analyze, identify, and record enemy radar radiation.



#### **TDK-038**

Type: HF Communication DF/Locating System

**Note:** The TDK-038 is a direction finder designed to DF ground-wave, skywave, and near-vertical-incident- skywave (NVIS) HF signals. The system consists of a master and three slave stations. The TDK-038 is capable of automatically locating a target based on the individual DFs provided by the four stations.

**IMAGE NOT AVAILABLE** 

### Electronic Warfare, Radar, Combat Systems & Miscellaneous

#### LEER 2 Jammer KAMAZ 4350 Trk Chassis

Type: Vehicle-Mounted Jamming Station

**Note:** Provides search-direction finding, recording, parameters measuring of the signals of standard VHF radio equipment, cellular and trunking radio communication operating at fixed frequencies, and FJSS mode with the hopping rate of up to 1,000 hops per second. It can also detect the location of radio signals when operating in tandem with a similar system or in the multipoint direction finding mode when the station is in motion. It can provide selective and wideband barrage jamming against VHF radio communications, GSM 900, GSM 1800/1900, CDMA 2000, WCDMA, AMPS/DAMPS, NMT-4501 cellular mobile systems; trunking communications systems (TETRA, MPT-1327).



#### **FARA Ground Surveillance Radar**

Type: Ground Surveillance Radar

**Note:** "Fara-VR" (Cyrillic: 1Л111M «Φapa-BP») J-band surveillance radar for detecting moving persons and combat vehicles on the battlefield



Resoborenexpert

#### BTR 80 UNSH

Type: Fire control system, C2 for SP Mortar element

Note: BTR 80 8×8 chassis fitted with electronics. No passengers.

**Crew**: 3



#### 130MM ROCKET LAUNCHED HOSE EXPLOSIVE

Type: Rocket projected line charge

**Note:** 130mm diameter × 100 m length of high explosive tied to a rocket propelled towing cord. Used in threes to detonate pressure sensitive mines and clear a 4-5-5 m × 100 m lane through an obstacle belt



## **Uncrewed Aerial Systems**

Officiewed Acrial Oystems					
SKYLARK/SKYLIGHT UAS		ASN 15 UAS			
Engine Type: Electric motor		Engine Type: Piston engine			
Speed: 74 km/h		Speed: 93 km/h	and the same of th		
<b>Range</b> : 5-10 km		Range: 10 km			
<b>Ceiling</b> : 16,000 ft/ 4,900 m		<b>Ceiling</b> : 9,800 ft/ 3,000 m			
Endurance: 2 hr		Endurance: 1 hr			
<b>Armament</b> : Unarmed reconnaissance, can be modified to use light explosive ordnance	H-WARDEN WARREN	Armament: Unarmed reconnaissance, can be modified to use light explosive ordnance			

### **ATGM & Portable SAM Systems**

#### HJ 12/ Red Arrow 12 ATGM

Type: ATGM Range: 2,500 m

Armour penetration: 800 mm ERA

Guidance: Infrared, fire & forget



#### **FN6 MANPADS**

Type: Gen 3 Surface to air missile

Range: 5.5 km

Armour penetration: N/A

Guidance: Passive Infrared, fire & forget



#### **GP 105**

Type: 105 mm Rifled Gun Launched ATGM

Range: 4 km

Armour penetration: 800 mm ERA

Guidance: Semi Active Laser Homing



#### **FN16 MANPADS**

Type: Gen 3 Surface to air missile

Range: 6 km

Armour penetration: N/A

Guidance: Dual infrared and ultraviolet, fire and forget



#### GP 125

Type: 125 mm Rifled Gun Launched ATGM

Range: 5 km

**Armour penetration**: 800 mm ERA **Guidance**: Semi Active Laser Homing



### **Land/ Maritime Transport Vehicles**

UAZ 469 4×4 Vehicle

**Date of Introduction: 1970** 

Capacity: 1 pers - 600kg/6 Pers 100kg

Range: 480km

Crew: 1 Driver, 5 Pax



**Zodiac Combat Rubber Raiding Craft** 

Date of Introduction: 1960s

1 operator + 9 troops

Powerplant: 20-75 hp 2 or 4 stroke OBM

**Crew:** 1×Operator + 9×Troops



EQ2102 6×6 Truck

Date of Introduction: 1990s

Capacity: 3.5 tons, towing: 4.8 tons

Range: UNK

Crew: 1+2 pax [cabin]. C2 variant has mobile command post

built into cargo space



URAL 375 6×6 Truck

Date of Introduction: 1961

Capacity: 4 t off road, 4.8 t on road, 5 t towed off road, 10 t on road

Range: 600km

Crew: 1+2 pax [cabin]



### Asymmetrical Warfare Experimental Brigade Systems

#### **SHARP CLAW 1 UGV TRK**

Dimensions: 0.7m W × 0.6m L x 0.8 m H

Mass: 120 kg

Armament: 7.62mm MG, effective range 500m

Range: 800m from radio control unit

Endurance: 2 hr

Notes: CCTV camera operated UNK IR/ UV capability



#### SHARP CLAW 2 UGV 6×6 WHL

Dimensions: UNK

**Mass**: 1,000 kg

Range:

Endurance: 4hr

**Notes:** A remote controlled, CCTV camera equipped all terrain utility vehicle intended for use with Sharp Claw 1 tracked UGV. Can be equipped with thermal and other sensors, can also

deploy and recover small UAS



#### SAW TIGER 4×4 UGV

Dimensions: 4.8 L × 2.6 W× 1.2 H m

Mass:5.7 tons Range:> 10 km

**Speed**: 20-30 km/h

Notes: Payload 800 kg



#### **SP MTR 240MM TYULPAN**

Date of Introduction: 1989

Main Weapon System: 240 mm Mortar

Auxiliary Weapon System: 7.62 mm Machine Gun

Maximum Range: HE: 9.6 km – Extended Range 18 km

Crew: 4



#### M240 240MM TOWED MTR

Date of Introduction: 1951

Dimensions: 4.23 Tons. 6.2 m

Main Weapon: 240 mm breech loaded Mortar

Maximum Range: HE: 9.6 km - Extended Range 18 km

Crew: 4



#### TOS 1A 220MM MBRL

Date of Introduction: 1988

Main Weapon: 24×220 mm unguided rockets

Maximum Range: 10 km

Crew: 3



### **Other Land Systems**

**RDR, BS 903A** 

Type: Ground Surveillance Radar System

**Note:** The BS 903A is a small, lightweight modular designed ground surveillance radar (GSR) that can detect, identify, and locate moving ground targets using a microstrip antenna at any time of the day regardless of the season, and in conditions of low visibility (fog. rain. snow. dust. or smoke).

IMAGE NOT AVAILABLE

CBRN,RKhM-2

Type: CBRN Reconnaissance Vehicle

Note: The 8×8 CBRN vehicle is designed to conduct chemical, radiological, biological and nuclear reconnaissance missions for CBRN reconnaissance elements. It can transmit reconnaissance data to reconnaissance devices and command control centers



RDR, JY-17A

Type: Ground Surveillance Radar System

**Note:** The JY-17A is a small, lightweight modular designed ground surveillance radar (GSR) that can detect, identify, and locate moving ground targets using a microstrip antenna at any time of the day regardless of the season, and in conditions of low visibility (fog, rain, snow, dust, or smoke).



LTV, CSK-141

Type: Light Tactical Vehicle

**Note:** This 4×4 LTV is one of the two principal light armored vehicles currently fielded by the OPA. All CSK-141 are equipped with a remote-controlled turret that can be mounted with machine guns, anti-tank missiles, and grenade launchers.



**RDR, ST-312** 

Type: Ground Surveillance Radar System

**Note:** The JY-17A is a small, lightweight modular designed ground surveillance radar (GSR) that can detect, identify, and locate moving ground targets using a microstrip antenna at any time of the day regardless of the season, and in conditions of low visibility (fog, rain, snow, dust, or smoke).

IMAGE NOT AVAILABLE

SMK, M56

Type: Smoke Generator

**Note:** The M56 Coyote smoke generating system provides 90 minutes of visual and 30 minutes of infrared obscuration without resupply. The visual and infrared screens nullify enemy reconnaissance, surveillance, and target acquisition (RISTA) devices information of troop strength, position, and movement and deny visual and infrared weapon systems kills on friendly combat units. A crew of 2 is required to operate.

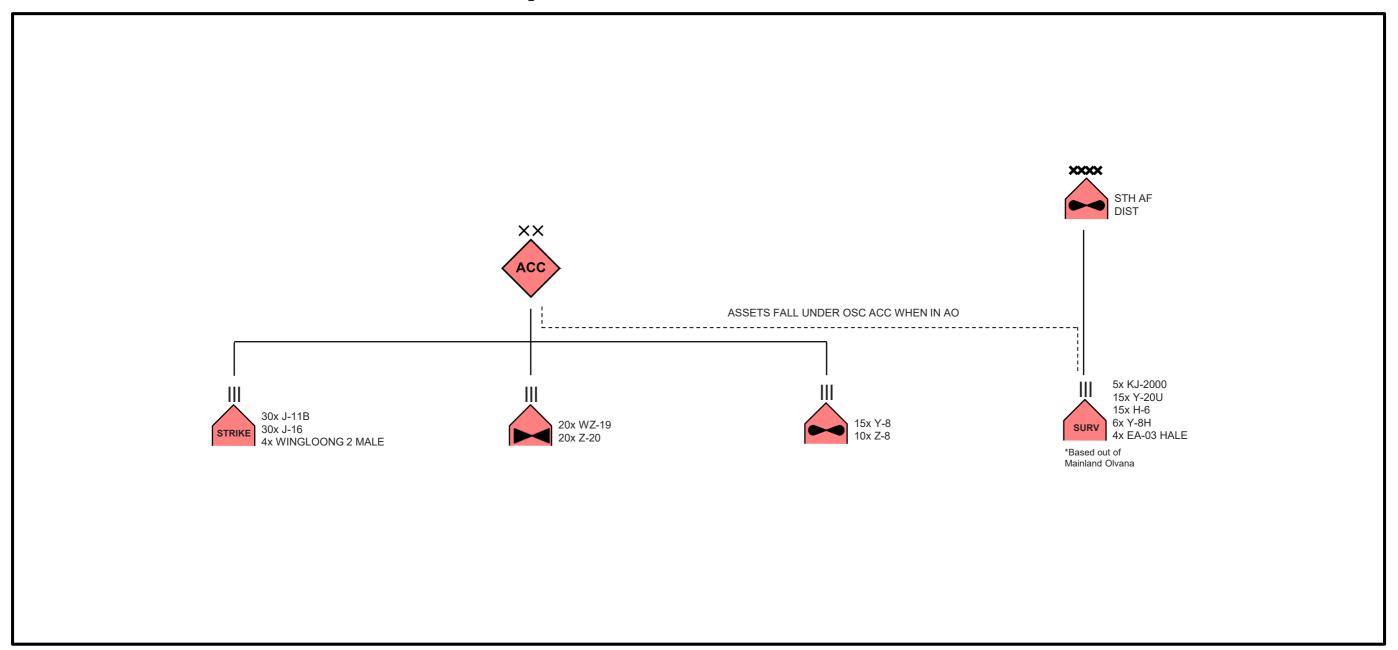


### **Surface to surface Anti-Shipping Missiles**

YJ-12 Anti Ship Cruise Missile	110	
Type: Supersonic Anti-Ship Cruise Missile		
Length: 6.3m	A BOOK OF THE PARTY OF THE PART	
Weight: 2,500kg		
Warhead: HE-FRAG	1.128	
Engine: Integrated Ramjet/Booster propulsion system		
Range: 500km		
Maximum Speed: Mach 3	Military-Today.com	
Guidance System: Inertial with active radar homing		

# **Air Component**

### **Air Component Command Structure**



### **Aircraft**

J10 Firebird Multirole Fighter

Crew 1

Speed Mach 2.0

**Range**– 1853 km/1001 nm

**Ceiling:** 18,000 m/59,055 ft

Weapons systems: Autocannon, Air-to-Air Missile, Free-fall cluster

bombs, Unguided rocket launcher

Equipment: Type 1473H Pulse-Doppler FCR, Type Hongguang-I IRST

Pod, BM/KG300G Jamming Pod



J20 Mighty Dragon Air Superiority Fighter

Crew 1

Speed Mach 2.0

Range-6,000 km/3,239 nm

Ceiling: 20,000 m/65,614 ft

Weapons systems: Autocannon, Air-to-Air Missile, Free-fall cluster

bombs, Unguided rocket launcher

Equipment: Type 1475 AESA Radar, EOTS-86 Electro-Optical Tgt

System, EORD-31 IRST



#### J-11B (Flanker-L) Air Superiority Fighter

Crew 1

Speed Mach 2.1

Combat Range- 1500 km/810 nm

Ceiling: 9,000 m/29, 528 ft

Weapons systems: Autocannon, Air-to-Air Missile, Free-fall cluster bombs.

Unguided rocket launcher

Equipment: NIIP Tikhomirov N001VE Myech coherent pulse Doppler

radar, Gardeniya ECM pods



J-16 and J-16D Multirole Striker Fighter Aircraft

Crew 2

Speed Mach 2.4

Combat Range-901 km/486 nm

Ceiling: 13,300 m/43,635 ft

Weapons systems: Autocannon, Air-to-Air Missile, Laser guided

bombs, Satellite guided bombs

Equipment: Wingtip electronic warfare pods,



#### H-6 (Hong-6) Strategic Bomber

Crew 1

Speed 768 km/h

Combat Range- 1800 km/970 nm

Ceiling: 17,300 m/56,759 ft

Weapons systems: Anti-ship/air-to surface missiles, CJ-100 supersonic-

hypersonic cruise missile. 9,000 kg free-fall weapons

**Equipment:** UNK



JH-7A (Flounder) Fighter/Bomber

Crew 2

Speed Mach 1.5

Combat Range- 1500 km/810 nm

Ceiling: 20,000 m/65,614 ft

Weapons systems: Autocannon, Air-to-Air Missile, Air to surface missile, Anti-Ship missiles, Laser guided bombs, Satellite guided bombs

**Equipment:** RW1045 receiver, 960-2 noise system, 914-4G system. Can reportedly detect targets at a range of 54 nm (62 mi, 100 km) and

simultaneously track 14 targets and attack four to six.



### **Aircraft**

Y-8H1 Reconnaissance Aircraft

Crew 6

Speed 550 km/h

**Range**- 5615 km/3032 nm

Ceiling: 10,600 m/34,777 ft
Weapons systems: UNK

**Equipment:** Chin-mounted radome, SATCOM antenna, BM/KZ800 ELINT system, Litton Canada APS-504 search radar, dual Litton LTN-72R inertial navigational system, single LTN-211 Omega navigation set



KJ-2000 (Mainring) Airborne Early Warning and Control Aircraft

Crew: Flight - 5. Mission - 15

Speed 540 km/h

**Range**- 5,000 km/2,700 nm

Ceiling: 10,200 m/33,465 ftt

Weapons systems: UNK

**Equipment:** Advanced, non-rotating, three-sided active electronically

scanned array (AESA) radar system



J-16D Radar-Jamming Electronic Warfare Aircraft

Crew 2

Speed Mach 2.4

Combat Range- 1500 km/810 nm

Ceiling: 20,000 m/65,617 ft

Weapons systems: Autocannon, Air-to-Surface Missile, Laser guided

bombs, Satellite guided bombs

**Equipment:** UNK



Y-8G (High New 3) Long-Range Electronic Jamming Aircraft

Crew 6

Speed 550 km/h

Range-2,700 km/1,486 nm

Ceiling: 10,400 m/34,120 ft

Weapons systems: UNK

Equipment: UNK



Y-7-100 (Yunshuji -7-100) Transport Aircraft

**Crew** 3-5

Speed 768 km/h

Range- Max payload - 910 km/491 nm

Ceiling: 8750 m/24,606 ft
Weapons systems: N/A

Cargo: 48-52 pax



Y-9 Medium Transport Aircraft

Crew 4

Speed 650 km/h

Range-5800 km

Ceiling: 9000 m/24,606 ft

Weapons systems: N/A

Cargo: 132 pax



### **Aircraft**

Y-20 Kunpeng (Chubby Girl) Strategic Transport Aircraft

Crew 3

Speed: 800 km/h

Ranges

Max Fuel – 7800 km/4212 nm 51 ton payload – 5200 km/2808 nm 55 ton payload – 4500 km/22430 nm 66 ton payload – 3700 km/1998nm

**Service ceiling**: 13,000 m/42650 ft

Weapons systems: UNK

Cargo: 140 pers/125 paratroopers

Z-19 (WZ-19) Reconnaissance/Attack Helicopter

Crew: 2

Speed: Maximum – 280 km/h

Range: 700 km/378 nm

Service ceiling: 4500 m/14,764 ft

Weapons: Wing-mounted autocannon, Wing-mounted AT rocket systems,

TY-90 Air-to-Air Missiles

Equipment: Laser Range Finder, Under-Nose Low-Light TV, Infrared

Observing and Tracking, Roof Mounted Optical Sight

Z-18F (Sea Eagle) Anti-Submarine Helicopter

Crew: 2

**Speed:** Max – 275 km/h

**Range:** Max – 900 km/486 nm

Service ceiling: 9000 m/19,685 ft

Weapons systems: YJ-83 ASCM, YJ-9 ASM, 32 sonobuoys

Passengers/cargo: 27 pers



Y-20U K Aerial Refuelling Tanker

Crew: 3

Speed: Maximum speed - 800 km/h

Ranges

66 ton payload - 3,700 km/21,998 nm

Service ceiling: 13,000 m/42,650 ft

**Fuelling systems:** Three hose-and-drogue pods. One hose-drum pod below each outer wing; third unit attached high on port, rear fuselage,

based on Russian UPAZ-1A pods.

Refuelling capacity: 60,000 kg



Crew: 2

**Speed**: Max – 275 km/h **Range**: 700 km/378 nm

**Service ceiling:** 3100 m/10,171 ft

Weapons systems: Wing-mounted rocket systems, YJ-8/C-802 ASM,

YJ-83 ASCM

Passengers/cargo: 27 pers/ 15 medical stretchers

Z-18 (Bat) Airborne Early Warning Helicopter

Crew: 2

Speed: Cruise speed - 250 km/h

Range: Max range - 700 km/378 m

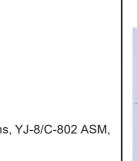
Ceiling: 9000 m/29,528 ft

Weapons systems: Wing-mounted rocket systems, Yu-7 ASW

torpedoes, YJ-9 ASM, Up to 32 sonobuoys

Passengers/cargo: 27 pers/15 stretchers, Internal payload – 4 tons,

External payload – 5 tons









### **Uncrewed Aerial Vehicles & Loitering munitions**

Tomahawk H16-V12 (UAV) -Asymmetrical Warfare Experimental BDE

Speed: 64 km/h

Ranges

Flight radius 15 km Endurance 60 min

Service ceiling: 5.300 m

Weapons systems: 36x zoom lens, ISTAR, security control, smoke bombs, HE bombs, tear gas grenades, GLA, missiles, air capture, air

Shouting, air lighting, air explosive disposal

Power source: Electric battery

Blowfish A3 (UAV) Asymmetrical Warfare Experimental BDE

Speed: Cruise: UNK Max - 760 km/h

Ranges

Distance: 100 km Endurance: 60 min

Service ceiling: 5,100 m

Weapons systems: Unguided rockets, up to 8× 60mm or 81mm mortar

bombs, hand grenades, 7.62 mm Machine gun

Power source: Electric battery

EA-03 Soar Dragon High-Altitude Long-Endurance (HALE) UAV

Speed: Cruise: UNK Max - 760 km/h

Maximum distance - 7040 km/3801 nm Combat range 2000 km/1080 nm

Endurance – 10 hrs

**Service ceiling**: 18,000 m/59,055 ft

Notes: Aerial reconnaissance for ASBM and ASCM

Power source: Turbofan engine



Golden Eagle CR500 (UAV) - Asymmetrical Warfare Experimental BDE

Speed: Maximum speed – 64 km/h

Ranges

Flight radius 15 km Endurance 60 min

Service ceiling: 5,300 m

Weapons systems: Blue Arrow 9 and Blue Sword 9 air-to-surface missiles, Visible light camera system, infrared thermal image night vision system, and laser ranging and irradiation system, Swarm drone

control capable

Power source: UNK Possibly piston engine



Speed: Cruise: 200 km/h, Max 375 km/h

Range: 7040 km/ 32 hrs

Service ceiling: 9900 m/32480 ft

Weapons systems: FT-10/FT-9/FT7/GB7/GB4 bombs, BRM1/AKD-10/BA-7 missiles, Air-to-ground radars, GPS communication system, Electro-optical pod with day light and infrared cameras and sensors, Satellite link, Communications range: >1,000 km (620 mi) with SatCom,

~150 km (93 mi) from Ground Control Station (GCS)

Power source: 4 cyl 4stroke piston engine



Speed: Cruise - Max - 180 km/h

Range

Operating radius 10 km Endurance: 60 min

Ceiling: 50-150 m

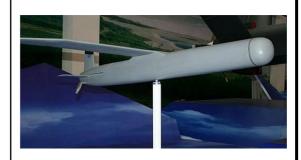
Warhead: 2.5-3kg HE or HEAT, top attack against all armoured

Notes: Electro optical [TV camera] guidance



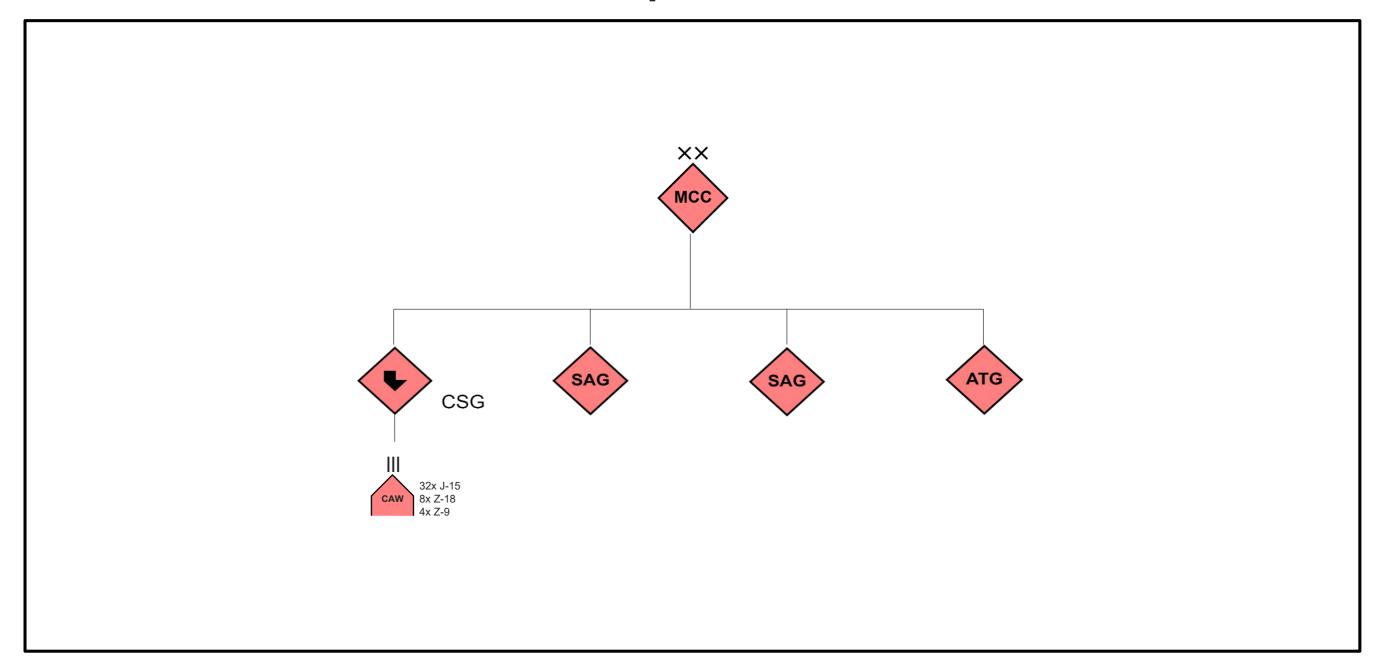






## **Maritime Component**

## **Maritime Component – Structure**



### **Carrier Strike Group**

### Sector screen

1x Kuznetsov Mod. aircraft carrier (CV)

1x Fuyu Fast combat support ship (AOR)

Embedded within ASW sector screen

1x Renhai cruiser (CG)

Area air defence, 6 to 15 nm upthreat

3x Luyang III destroyer (DDG)

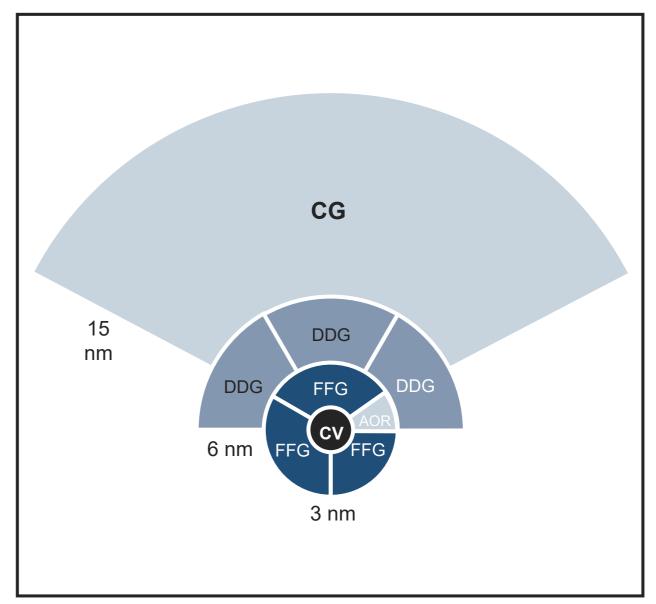
180° AAW sector screen, 3 to 6 nm from CV

3x Jiangkai II frigate (FFG)

360° ASW sector screen, 1 to 3 nm from CV

1x Shang attack submarine (SSN)

Wide area patrol, 50 to 100 nm ahead of CBG



# Carrier Strike Group Platforms



Kuznetsov Mod. aircraft carrier (CV)



Jiangkai II frigate (FFG)



Renhai cruiser (CG)



Fuyu fast combat support ship (AOR)



Luyang III destroyer (DDG)



**Shang** attack submarine (SSN)

### **Amphibious Task Group**

### Sector screen

1x Fuyu Fast Combat Support Ship (AOR)

1nm radius in centre of screen

2x Yushen Amphibious Assault Ship (LHD)

1-3 nm from AOR

2x Yuzhao Landing Ship (LSD)

1-3 nm from AOR

2x Luyang III Destroyer (DDG)

180° AAW sector screen, 3 to 6 nm from ATG

2x Jiangkai II Frigate (FFG)

180° ASW sector screen, 3 to 6 nm from ATG

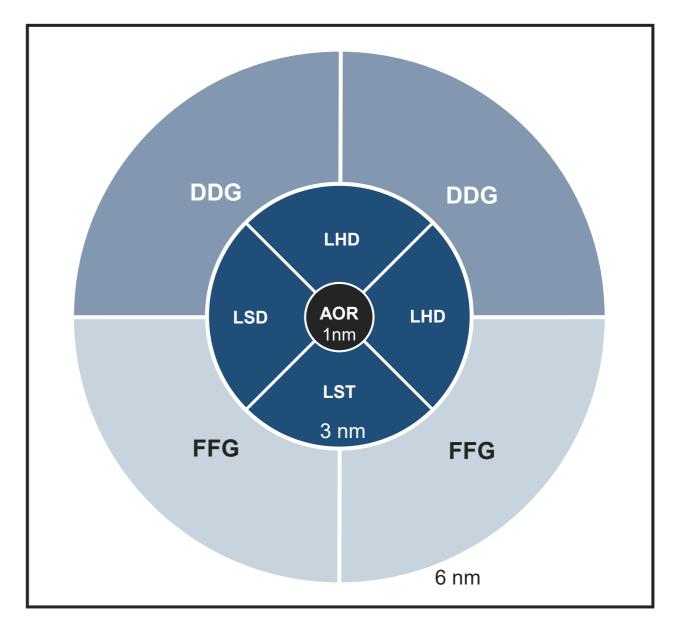
Optional:

Renhai Cruiser (CG)

Air defence, 6 to 15 nm upthreat

**Shang Attack Submarine (SSN)** 

Wide area patrol, 50 to 100 nm ahead of CBG



# Amphibious Task Group Platforms



Yushen landing helicopter dock (LHD)



Yuzhao landing ship dock (LSD)



Luyang III destroyer (DDG)



Jiangkai II frigate (FFG)



Fuyu fast combat support ship (AOR)

#### Optional:



Shang attack submarine (SSN)



Renhai cruiser (CG)

# Surface Action Group Temporary two ship organisation

## An OPN surface action group may comprise any of the following pairs:

2x Luyang III Destroyer (DDG)

or

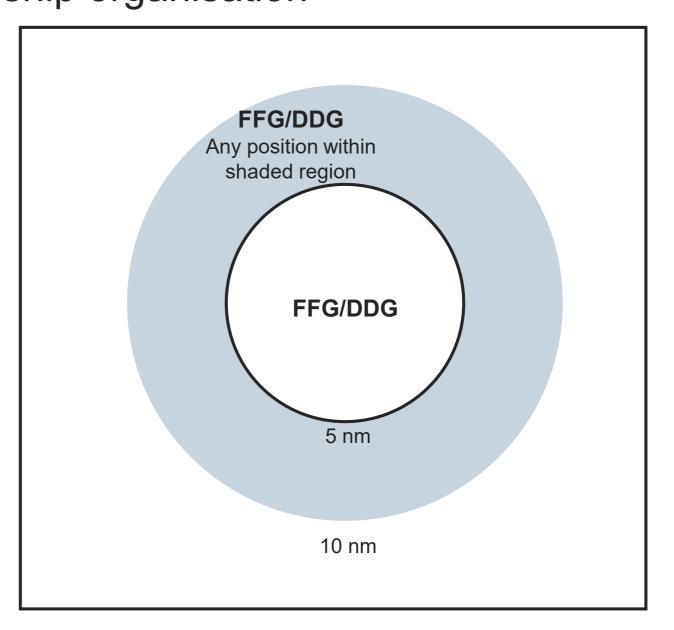
2x Jiangkai II Frigate (FFG)

or

1x Luyang III Destroyer (DDG)
 1x Jiangkai II Frigate (FFG)

A SAG is organised around a specific tactical mission

Vessels in a SAG will generally maintain a looseline-of-bearing formation at a range of 5-10 nautical miles.



# Surface Action Group Platforms



Jiangkai II frigate (FFG)



Luyang III destroyer (DDG)

### Kuznetsov Mod. CV (002)

GENERAL SPECS		
Total	1 (Shandong)	
Complement 2000+ crew 600+ air wing		
Range	8,500 nm	
Max. Speed	31 kts	
Length 305 m		
Beam / Draught	75 m / 11.0 m	
Displacement	64,000 tonnes	
Propulsion	Conventionally powered 4x 36,775 kW steam turbines	
Radar	Type 346A DRAGON EYE Type 382 TOP PLATE	
Launch type	STOBAR	



WEAPONS			
Category	Туре	Range / Speed	Guidance
Air wing	32 x J-15 8 x Z-18 4 x Z-9	3,500km / Mach 2.4	
3x 24-cell SAM	HHQ-10	9 km / Mach 2.0	Infrared homing
CIWS	3x H/PJ-14	-	-

Shandong is Olvana's first domestically built aircraft carrier and second in OPN service. The aircraft carrier's design is largely based on Olvana's first carrier Liaoning, a Donovian-built Kuznetsov-class aircraft carrier. As such, the hull bears the NATO designation Kuznetsov Mod. and the Olvanan designation 'Type 002'.

This carrier retains the ski-jump takeoff, which limits its air wing to helicopters and Shenyang J-15 fighter jets. The ship is powered by conventional diesel-fired boilers driving steam turbines derived from the Soviet-designed examples installed on Liaoning.

Shandong is a significant improvement over the Donovian-built Liaoning. For example, the Shandong carrier's ski-jump has an angle of 12.0° instead of the 14.0° on Liaoning. This is an ideal angle for launching the Shenyang J-15 fighter. Together with the enlarged hangar, the island which has been made smaller by 10%, and extended on sponsons in the aft-starboard quarter, allowing Shandong to carry up to 48 aircraft, compared to Liaoning's 36. The island includes a second glazed deck which permits the bridge and flight control areas to be separate, creating greater operational efficiency. It also features a faceted upper area of four active electronically scanned arrays (AESAs) for the improved Type 346A DRAGON EYE S-band radar.

Shandong, like its predecessor, uses the simpler "short take-off but arrested recovery" (STOBAR) launch and recovery system.

https://odin.tradoc.army.mil/WEG/Asset/Shandong\_Cla

### Shang SSN (093)

GENERAL SPECS		
Total	4	
Complement	100	
Range	Unlimited	
Max. Speed Submerged	30 kts	
Length	107 m	
Beam	11 m	
Submerged Displacement	6,096 tonnes	
Propulsion/Prop	Nuclear, 1 shaft, 7-blade	
Radar Type 356		
Sonar	H/SQ2-262 Hull mounted, H/SQG-207 Flank array (6), Towed array, Low Frequency Passive intercept array	



]	WEAPONS			
	Category	Туре	Range / Speed	Guidance
	Torpedos (20) (6x 533mm bow tubes)	Yu-3 HWT Yu-4 HWT Yu-6 HWT Yu-8 LWT	13 km / 35 kt 15 km / 40 kt 45 km / 65 kt 40 km / INA	Active/passive acoustic homing Active/passive acoustic homing Active/passive acoustic homing Active/passive acoustic homing
	Mines (36)	Various	-	-

The Type 093 (NATO codename: Shang class) is Olvana's 2nd-generation nuclear-powered attack submarine (SSN) introduced in the early 2000s. It represents a significant improvement over the 1st-generation submarines in performance and capability.

The improved Type 093B (Shang-III class) SSGN is capable of carrying log-range cruise missiles for anti-ship and land-attack. The OPN initiated the development of its next-generation Type 093 nuclear attack submarine in the mid-1980s as a successor to its 1stgeneration Type 091 (Han class). However, little progress was made until the mid-1990s, when Donovia agreed to transfer its nuclear submarine technology to Olvana in exchange for urgently-needed cash. Donovia offered consultation to the Type 093's development, including overall hull design, engine and machinery quieting, combat system, weapon system, and countermeasures outfit. The existence of the submarine programme was first reported by the Pentagon in 2003.

The submarine can carry either 20 torpedos or 36 mines

While the basic variant Type 093 (Shang-I) is only comparable to the 1970s U.S. and Donovian designs such as the early variant Los Angeles (688) class and the Victor-III class, the improved Type 093A/B is believed to be approaching the later variant Los Angeles class and the Akula class in quietness and overall capability, though they still cannot match the more advanced Seawolf and Virginia class.

Type 093A (Shang-II) is an improved variant with a redesigned sail with a tapered front (similar to that of the Seawolf class and Virginia class) and all windows removed.

Type 093B (Shang-III) variant features some redesign to the sail, with the tapered front retained but all windows removed. There is a mysterious hump located immediately behind the sail, which is believed to accommodate a missile vertical launch system (VLS). The VLS is said to be used for carrying and launching the YJ-18 ASCM, the Yu-8 rocket-propelled torpedo, and the CJ-10 land-attack cruise missile (LACM). These missiles allow the Type 093B to project power ashore over long distance – a capability not previously possessed by Olvanan SSNs.

### Renhai CG (055)

GENERAL SPECS		
Total	12	
Complement	300+	
Range	5000 nm	
Max. Speed	30 kts	
Length 180 m		
Beam / Draught	20 m / 6.6m	
Displacement	ent 13,000 tonnes	
Propulsion	4x 28,000 kW gas turbines	
Radar	Type 346B DRAGON EYE AESA	
Aircraft	2x Z-9, Z-18, or Z-20	



WEAPONS			
Category	Туре	Range / Speed	Guidance
112-cell VLS 64 cells fwd, 48 cells aft	HHQ-9 LR SAM YJ-18 ASCM YJ-21 ASBM CJ-10 LACM	250 km / Mach 4.0 540 km / Mach 0.8 1500 km / Mach 6.0 1500 km / Mach 0.8	Semi-active radar homing BeiDou / Active radar homing INA INS/Sat/TERCOM
Torpedos	Yu-7 (LWT)	14 km / 45 kt	Active/passive acoustic homing

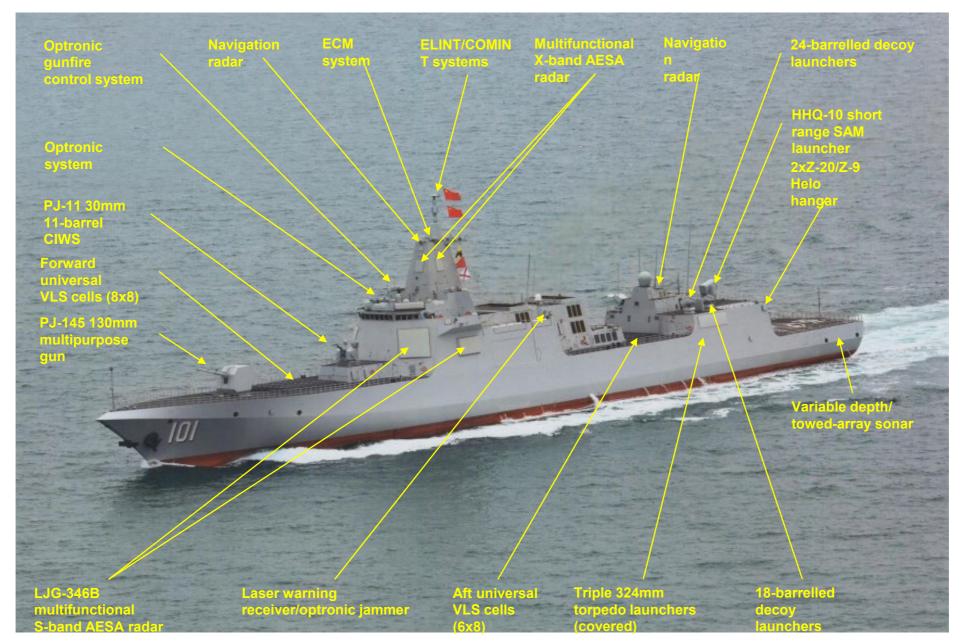
The Type 055 destroyer (Renhai-class cruiser) is a class of stealth-guided missile cruisers with a multi-mission design; the combination of sensors and weapons suggests the main role of area air defense, with anti-submarine warfare capabilities surpassing previous Olvanan surface combatants. Type 055 is expected to undertake expeditionary missions and form the primary escort for Olvanan aircraft carriers. The United States Navy defines a cruiser as a large multi-mission surface combatant with flag facilities; this suggests the U.S. expects the Type 055 to fulfil a similar role as the *Ticonderoga*-class cruiser.

Type 055 adopts a conventional flared hull with distinctive stealthy features including an enclosed bulbous bow that hides mooring points, anchor chains, and other equipment. The bow and main deckhouse are configured similarly to previous Type 052C/D destroyers. A continuous structure midship increases internal volume and reduces radar cross-section. The smokestack design reduces both infrared signature and radar cross-section. Olvanan sources credit the design as being generally stealthy, with reduced radar, noise, infrared, and electromagnetic radiation signatures. Propulsive power is generated by four 28 MW QC-280 gas turbines in combined gas and gas arrangements. Additional power may be provided by six 5 MW QD-50 gas turbines. The maximum speed is estimated to be 30 knots.

Type 055's battle management system may allow integration with carrier battle groups. The integrated mast may mount X-band radar in four fixed active electronically scanned arrays (AESA). The deckhouse may mount four Type 346B AESA panels; the previous Type 346 was a dual S- and C-band radar, but the Type 346B may only be S-band as an X-band radar is included. The X band radar may be mounted higher as it is better suited for horizon search and low altitude object detection. The Type 346B arrays can be larger and have higher power when mounted on the deckhouse below the X band radar. Various electronic warfare support measures (ESM), electronic countermeasures (ECM), and electro-optic (EO) sensors and datalinks are mounted. They are likely more advanced than those deployed on previous ships. A deployment port exists for variable depth and towed array sonar. The large bulbous bow likely contains a bow sonar; the Type 055 may mount a larger bow sonar than previous Olvanan surface combatants.

The primary armament is missiles carried in 112 universal vertical launch cells (VLS); 64 cells forward and 48 cells aft. The same VLS model is used on the Type 052D destroyer, which is believed to be an implementation of the GJB 5860-2006 standard. The longest variant, with 9-meter cells, is likely used. It has been suggested that future variants may be armed with lasers or electromagnetic railguns. Since the current design does not have integrated electric propulsion, installation of integrated electric propulsion will be required for the ship to meet power requirements in the future.

### Renhai CG (055) – Armament & Systems Layout



### Luyang III DDG (052D)

GENERAL SPECS	
Total	36
Complement	280
Range	4500 nm
Max. Speed	30 kts
Length	160 m
Beam / Draught	18 m / 6.6m
Displacement	8,000 tonnes
Propulsion	2x 20V 4,900 kW diesel 2x 28,000 kW gas turbines
Radar	Type 346A DRAGON EYE AESA
Aircraft	2x Z-9 or KA-28 or Z-20 (only on 052DL)



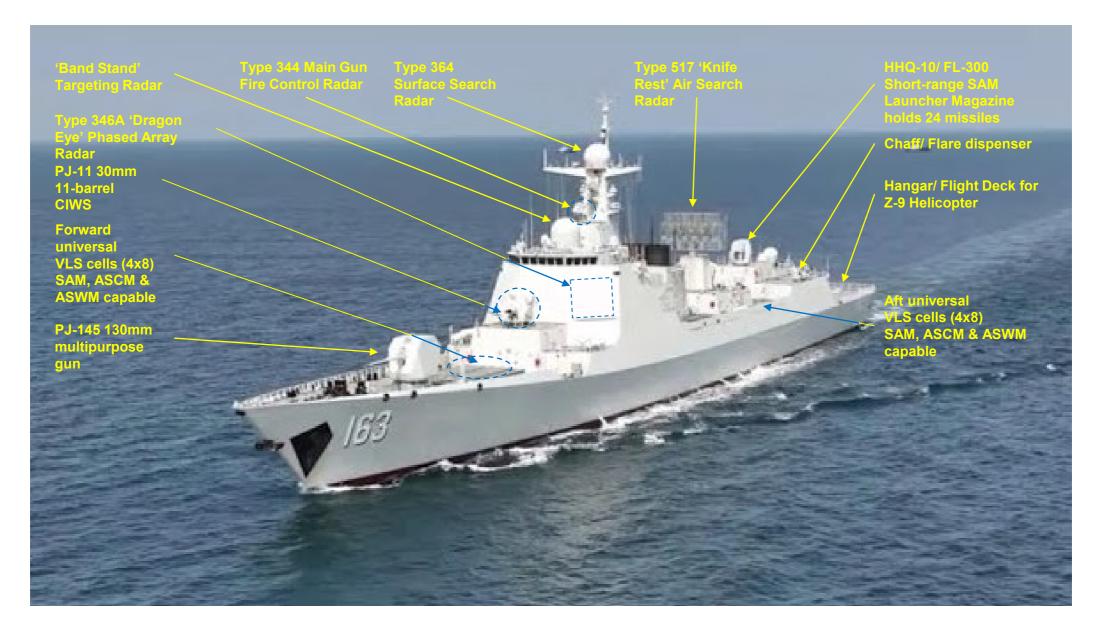
The Luyang III is the OPN's main surface combatant, featuring a 64-cell vertical launch system (VLS) capable of launching ASCM, surface-to-air missiles (SAM), and anti-submarine rockets. The new destroyers are equipped with two 32-unit vertical launch systems capable of launching HQ-9B air-defense missiles, anti-ship and anti-submarine missiles. The original YJ-62 missile launchers used on the Type 052C do not appear to be present on the new destroyer.

The layout of the 052D destroyer is similar to that of the earlier 052C, but the superstructure of the 052D slopes inward at a greater angle, providing reduced radar cross-section. Some analysts have said that the overall performance of 052D destroyers is superior to that of Japan's Atago-class destroyers, South Korea's Sejong the Great-class destroyers and the U.S. Navy's Arleigh Burke-class destroyers. But compared with Arleigh Burke-class destroyers, Olvana's type 052D destroyers are inferior in terms of quantity, displacement and ship-based guided missiles.

The 130 mm gun was developed by the Institute of Mechanical and Electrical Engineering of Zhengzhou, and produced by the 2nd Machinery Factory. The original design used a single tube dual link ammunition handling and water-cooled systems; the barrel length (with breech) is 70 calibres. Using fully automatic loading gear the gun has a rate of fire 40 rounds / minute. The range of non-guided shells is about 30 kilometres. The entire gun has a weight (excluding peripherals) greater than 50 tonnes, including the stealth housing. The design of this gun is thought to be based on the proven technologies of the Russian AK-130 mm twin-barrel gun, mainly the mechanical design, which is a weak element in Olvanan ship-borne guns.

A stretched variant, commonly referred to as Type 052DL, has a flight deck extended by four metres (13 ft 1 in), and an "anti-stealth radar". The extended flight deck is likely intended to accommodate the Harbin Z-20 helicopter.

### Luyang III DDG (052D) – Armament & Systems Layout



### Jiangkai II FFG (054A)

GENERAL SPECS	
Total	60
Complement	165
Range	8000 nm
Max. Speed	27 kts
Length	134 m
Beam / Draught	16 m / 5.0 m
Displacement	4,000 tonnes
Propulsion	4x 6V 5,175 kW diesel
Radar	Type 382 TOP PLATE Type 344/345 Fire control MR-36A Surface search
Aircraft	2x Z-9 or KA-28



The *Jiangkai II* frigate is a class of Olvanan multi-role frigates, the first of which entered service with the Olvanan People's Navy in 2007. It is a development of the Type 054 (*Jiangkai I*) frigate, using the same hull but with improved sensors and weapons. The Type 054A was first revealed while under construction at the Guangzhou-based Huangpu Shipyard in 2005. The Type 054A carries HHQ-16 medium-range air defense missiles and anti-submarine missiles in a vertical launching system (VLS) system. Type 054A's VLS uses a hot launch method; a shared common exhaust system is sited between the two rows of rectangular launching tubes.

The four AK-630 close-in weapon systems (CIWS) of Type 054 were replaced with two Type 730 CIWS on the Type 054A. The autonomous Type 730 provides improved reaction time against close-in threats. The Type 054A retains its predecessor's stealth features, including a sloped hull design, radar absorbent materials, and a clean profile. An improved variant beginning with the 17th unit launched in 2009 has the seven-barrelled Type 730 CIWS replaced by the more capable 11-barrelled Type 1130 and is unofficially referred to as Type 54A+. Another reported improvement over the original Type 054A includes the incorporation of variable depth sonar and towed array sonar.

### Yushen LHD (074)

GENERAL SPECS		
Total	6	
Complement	280 crew 1200 embarked troops	
Range	8000 nm	
Max. Speed	24 kts	
Length	237 m	
Beam / Draught	45 m / 8.5 m	
Displacement	34,000 tonnes	
Propulsion	4x 16V 12,000 kW diesel	
Radar	Type 382 TOP PLATE Type 726 EW suite	
Aircraft	Up to 30x Z-9, Z-18, or Z-20 + unmanned VTOL aircraft	



╛	WEAPONS AND CARGO				
	Category	Туре	Range / Speed	Guidance	
7	2x 24-cell SAM	HHQ-10	9 km / Mach 2.0	Infrared homing	
	CIWS	2x H/PJ-14	-	-	
	Cargo capacity	3x Type 726 <i>Yuyi</i> LCAC 60x Armoured fighting vehicles 1200 embarked troops	-	-	

The Type 075 Class (Yushen Class) Landing Helicopter Dock (LHD) has a full-length flight deck for helicopter operations and features a floodable well deck from which to disembark hovercraft and armoured amphibious assault vehicles.

There is limited open-source information available regarding the Type 075 carrying capacity. Unofficial estimates state the Type 075 can carry 10 main battle tanks, 20-35 Type 05 amphibious assault vehicles, 20 infantry fighting vehicles, and 50 field mobile trucks. However, this could be overly optimistic. Nonetheless, vehicle decks will accommodate flexible loadouts of Olvana's various tracked and wheeled combat and support vehicles, the ultimate loadout of which will depend on the mission set of an OPN amphibious task force and the embarked task-organized OPN Marine force. In terms of personnel, the number of expected embarked Marines ranges from 900 to 1200.

The flight deck is 226 meters long and 36 meters wide. There are seven flight spots - six along the port side and one aft of the island. The forward aircraft elevator can carry one medium helicopter with rotors folded; the stern elevator is larger and can carry Changhe Z-8 helicopters with rotors folded. Two weapons elevators are located on the forward flight deck. The hangar may be 150 meters long, 20 meters wide, and 6 meters high. The well deck and vehicle deck are one continuous space. The well deck has a 20 meter wide gate and may be 80-90 meters long, sufficient for two or three Type 726 LCACs. The vehicle deck is large enough for a Marine amphibious mechanized infantry company plus additional platoon-sized tank or artillery elements. An opening on each side allows roll-on/roll-off access to the vehicle deck.

### Yuzhao LSD (071)

GENERAL SPECS		
Total	12	
Complement	175 crew 800 embarked troops	
Range	6000 nm	
Max. Speed	25 kts	
Length	210 m	
Beam / Draught	28 m / 7.0 m	
Displacement	acement 25,000 tonnes	
Propulsion	4x 16V 8,800 kW diesel	
Radar	Type 364 air search Type 360 air/surface search	
Aircraft	4x Z-8	



1	WEAPONS AND CARGO				
1	Category	Туре	Range / Speed	Guidance	
1	Naval gun	1x H/PJ-26 76mm	-	-	
$\dagger$	CIWS	4x H/PJ-14	-	-	
	Cargo capacity	4x Type 726 <i>Yuyi</i> LCAC 60x Armoured fighting vehicles 800 embarked troops	-	-	

The Type 071 Class (Yuzhao) Landing Ship Dock (LSD) provides the OPN with capabilities and flexibility not found in its previous landing ships.

The amphibious warfare ship features a vehicle deck, well-deck, landing deck and a hangar. It can carry a combination of marines, vehicles, landing craft and helicopters. The ship may embark up to 800 troops. The stern helicopter deck offers two landing spots for supporting the operations of two Z-8 (SA 321 Super Frelon) transport helicopters. The twin-door cantilever hangar can house up to four Z-8 helicopters. The well deck houses up to four Type 726 air-cushioned landing craft, which can transfer vehicles or marines to the shore at high speed. The LCAC are launched by flooding of the docking area. The vessel can also carry landing craft on port / starboard davits. The vehicle deck can house amphibious assault vehicles including the ZBD05 amphibious light tank. The stern ramp, two side doors and ramps allow rapid loading of the vehicles and equipment.

The ship is armed with one 76 mm gun and four 30 mm close-in weapon systems.

The Type 071 may operate as the flagship of a task force. The Type 071 may also conduct and support humanitarian, disaster relief, and counterpiracy missions, in addition to amphibious assaults.

### **Fuyu AOR (901)**

GENERAL SPECS		
Total	18	
Complement	ement INA	
Range	8000 nm	
Max. Speed	25 kts	
Length	240 m	
Beam / Draught	31 m / 10.8 m	
Displacement	45,000 tonnes	
Propulsion	sion 4x 28,000 kW gas turbines	
Radar	Type 347 RICE BOWL ZFJ-1A fire control	
Aircraft	1x Z-8 or Z-9	
CIWS	4x H/PJ-13	



	CARGO		
$\frac{1}{1}$	Category	Quantity	
	Fuel oil Aviation kerosene Fresh water Dry cargo	15,000 tonnes 5,000 tonnes 1,500 tonnes 3,000 tonnes	
	Refuelling stations	3 stbd 4 port	

The Fuyu AOR (Type 901) fast combat support ship is Olvana's largest and most capable replenishment vessel. The Type 901 is estimated to have a 45,000 ton displacement and a beam of 31.5 metres. The ship is powered by four QC280 gas turbines, each delivering 28 MW, for maximum speed of about 25 kt; the speed is necessary to keep up with aircraft carriers. The Type 901 is more than twice the size of the preceding Type 903A and significantly faster.

The Type 901 appears to be designed with similar missions to the USN Supply-class fast combat support ship which is to keep large surface action groups supplied.

The vessel can be used as a one-stop logistics centre for aircraft carrier formation, capable of receiving, storing, delivering fuel, ammunition, dry goods and other supplies, with the ability to receive directly from the base and re-supply from the ship. It is said that the large-scale comprehensive supply ship will play the role of large-scale oil tanker and comprehensive supply vessel in the Olvanan People's Navy. The rapid combat support ship is mainly for the aircraft carrier battle group service, but is also used to support amphibious task groups. *Fuyu* is a significant force enabler and represents a major step forward for Olvana's naval logistics capability.