

# *China's Navy*

*Ships and Aircraft  
of the People's  
Republic of China,  
1955 - 2021*



*edited by*  
**Larry Bond, Chris Carlson, &  
Peter Grining**

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published by

Admiralty Trilogy Group

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The editors of *China's Navy* are prepared to answer questions about the supplement. They can be reached in care of adtr-group@aol.com. Visit their website at [www.admiraltytrilogy.com](http://www.admiraltytrilogy.com).

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Cover: The Type 052C [Luyang II] class DDG *Zhengzhou*/151 leads two Type 054A [Jiangkai II] FFGs, *Jiangshan*/570 and *Daqing*/576, followed by the Type 071 [Yuzhao] class LPD *Kunlunshan*/998 at the end of a joint exercise with Russia in 2016 (PLAN).

## Introduction

### Introduction

The Peoples' Liberation Army (PLA) includes all branches of China's military. These are the Army Ground Forces or PLAGF (sometimes called "PLA Army," which is confusing, or "PLAA" in English), PLAN (Navy), PLAAF (Air Force), PLARF (Rocket Forces). Paratroop units are under PLAAF control, and the Marine Corps (PLANMC) is under the PLAN.

In early 2016, the organization of PLA changed, with the formation of Theater Commands in the North, East, South, West and Central regions (these are shown on the map on page 4). These Commands are a combination of PLAGF, PLAN and PLAAF forces. Only the East, North and South have fleets assigned.

The PLARF remains independent of the Theater Commands but would provide conventional and nuclear firepower as required.

The PLA Strategic Support Force (PLASSF, sometimes "SSF" but the full name is used to avoid confusion with the old "South Sea Fleet" acronym) handles cyber, electronic, psychological warfare and space operations. It is responsible for providing satellite targeting for the PLARF. The BeiDou satellite navigation system was extended from regional in 2012 to global coverage in 2020, removing the need for dependence on the US GPS network.

The PLA Joint Logistic Support Force, or PLAJLSF, does what the name suggests.

### People's Liberation Army Navy

In February 2016, the East Sea Fleet, North Sea Fleet, and South Sea Fleet were renamed "Theater Command Navies."

- The Northern Theater Command Navy (NTCN) (Beihai Fleet)
- The Southern Theater Command Navy (STCN) (Nanhai Fleet)
- The Eastern Theater Command Navy ETCN (Donghai Fleet).

The main bases in the NTCN are Dalian and Qingdao; the ETCN has Fujian, Shanghai and Zhoushan; the STCN has bases in Guangzhou, Yulin and Zhanjiang. The SSBNs are based at Janggezhuang, near Qingdao.

The aircraft carrier *Liaoning* was originally considered a training carrier, and was based at Qingdao in the North, directly under command of PLAN Headquarters. This is close to the Chinese equivalent of the Naval War College in Dalian, and was first used to develop carrier doctrine and build experience in flight operations at sea. With time and along with *Shandong*, it may have been designated an operational unit. In this case, it would be subordinated to a theater command - possibly the NTCN for *Liaoning* and the STCN for *Shandong*.

The People's Liberation Army Navy Marine Corps (PLANMC) was formed in April 1953, disbanded in October 1957, then reconstituted in December 1979. Only two of the six PLANMC brigades are equipped and trained for amphibious assaults. A Marine Aviation Brigade was formed in 2020 in the NTC with Z-8C transport helicopters. *Weyer's Warships of the World Fleet Handbook 2020/2021* gives its strength as 5 brigades and 12 companies.

The Chinese Coast Guard (CCG) is part of the People's Armed Police (PAP) in peacetime, and along with the rest of the PAP, the theater commands in wartime.

Coastal defenses originally had fixed and mobile artillery, then fixed cruise missiles like the HY-2 and HY-4, and the mobile YJ-62 in 2008 and YJ-12 in 2017.

PLA Naval Aviation was formed in 1952. The following are known units (All have MPA and AEW):

The ETCN has one J-10A, two JH-7, one Su-30MKK and one H-6 regiment. Ka-28, Ka-31 and Z-9D helicopters are carried by ETCN ships. UAVs were added in 2012.

The NTCN has one regiment of J-8F and two of JH-7A. Embarked helicopters are Z-9C/D. The NTCN is possibly the only fleet not using UAVs.

The STCN has three regiments of J-11B, one JH-7A regiment, one H-6 regiment. Ships have Z-9C/D helicopters.

The PLAN has its own air defense units - ETCN has an AAA regiment, NTCN has an air defense brigade with SAM unit and AAA regiment. The STCN has an air defense brigade which includes HQ-6 SAM and LD-2000 AAA.

### People's Liberation Army Air Force

Each division typically had two operational and one training regiments, each of 24 aircraft. As part of the reorganization in 2018, PLAAF fighter and attack units are now Air Brigades, independent of Divisions. Each brigade has 24-28 aircraft. Specialized aircraft remain in regiments under divisions.

This book covers the hardware that China possessed between 1955 and the present day. Equally important is the training provided. This improved from 2017 with more realistic training and improved instructor selection. However, PLAAF training was also hindered by the training aircraft available. This problem was solved in 2019 when the JL-10 trainer entered service.

The PLAAF also operates a large number of surface-to-air missile units for area defense, including the Russian S-300 and S-400 (a second brigade was delivered in early 2020) and domestic HQ-9, HQ-12 and HQ-22 with the ballistic missile defense HQ-19.

Starting in the mid 1980s, most of the 37mm and 57mm AAA were transferred to the Army, although most of the 85mm and 100mm were retained by the air force.

From 2015, the PLAAF increased maritime training. PLAAF aircraft now carry anti-ship missiles - the J-16 with YJ-83K, and H-6K and H-6N with YJ-83K or YJ-12 missiles.

### Others

The PLAAF originally flew helicopters to support the Army. The PLA Army Aviation Corps was formed in 1986. Currently each PLAGF Group Army has an aviation brigade with 3 to 8 battalions, each battalion has 12 helicopters and sometimes a UAV battalion.

The PLAGF combined arms battalions have four QW-2 SAM launchers, brigades have HQ-7 or HQ-17 and AAA. Group armies have the HQ-16 Buk. At all levels AAA remains.

The PAP have an internal security and disaster relief roles in peacetime, but would operate under the PLAGF in wartime, with a primary focus on border security. They have a number of Z-8 and Z-9 transport helicopters.

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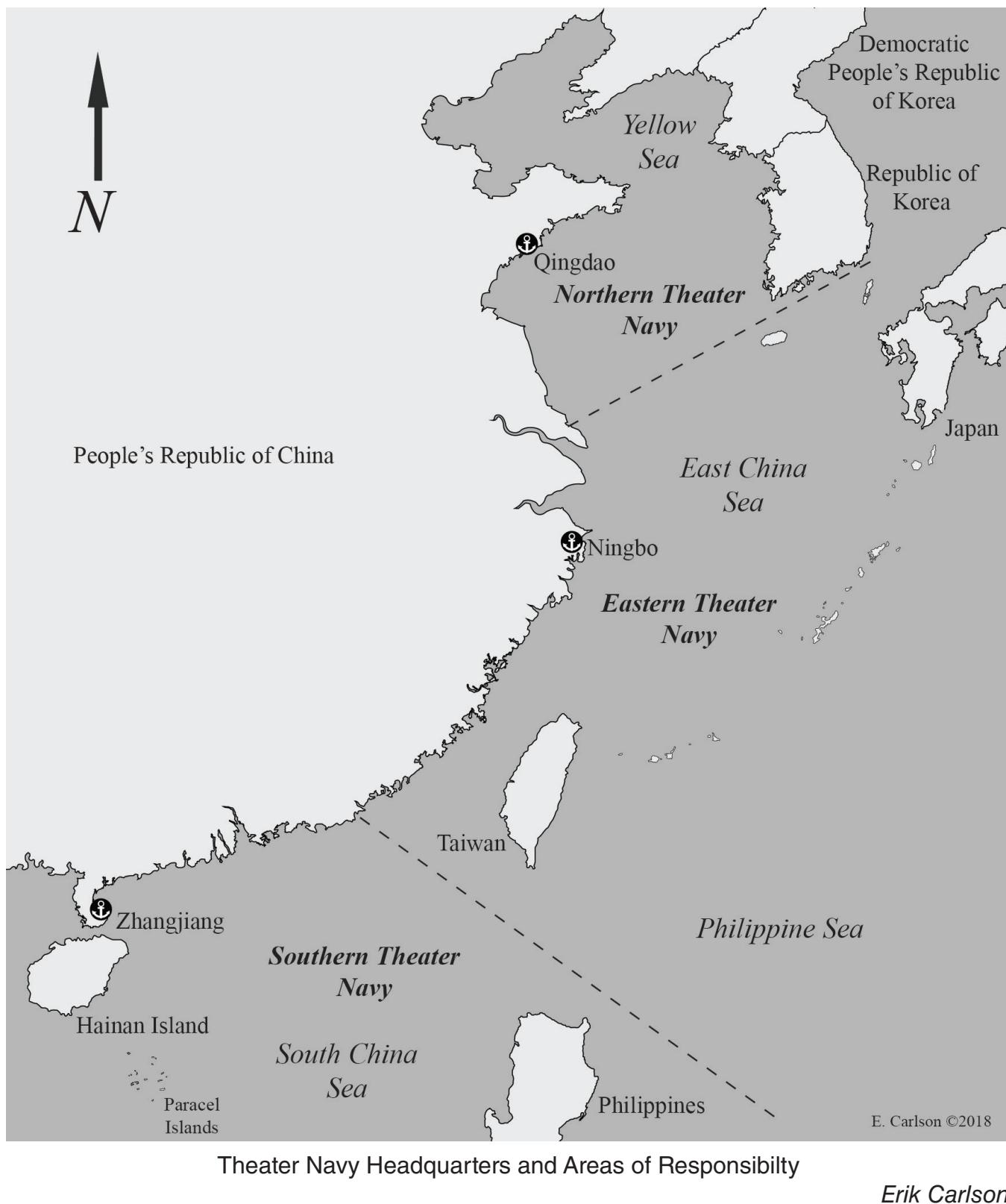
*(Introduction, continued)*

### **Jointness**

Before the Theater Commands were formed, joint operations were rarely practiced. By 2017, exercises between Naval Aviation and the Air Force were routine. The jointness process is ongoing, including the joint service JSTIDS data link.

For example, in mid-2020, the Western Theater Command integrated PLAGF and PLAAF air defense systems, including sharing radar contacts.

**PLA Theater Commands**



## Abbreviations

Annex Y lists all the ship type abbreviations, e.g., "CV" for aircraft carrier.  
 The abbreviations for the ship weapon arcs are described in section 2.2 of the rules.  
 Other abbreviations used in this annex are:

AAA	Anti-Aircraft Artillery	PAP	People's Armed Police
ACINT	Acoustic Intelligence	PLA	People's Liberation Army
ACM	Acoustic Countermeasures	PLAAF	PLA Air Force
AEW	Airborne Early Warning aircraft	PLAGF	PLA Ground Forces
BMD	Ballistic Missile Defense	PLAN	PLA Navy
CCG	China Coast Guard	PLANAF	PLAN Air Force
COMINT	Communications Intelligence	PLANMC	PLAN Marine Corps
CTC	Central Theater Command	PLARF	PLA Rocket Forces
ELINT	Electronic Intelligence	PLASSF	PLA Strategic Support Force
ESF	East Sea Fleet (now Eastern Theater Command Navy)	QRA	Quick Reaction Alert
ETCN	Eastern Theater Command Navy	RAST	(Helicopter) Recovery Assist, Secure & Transit
FCS	Fire Control System	SAM	Surface to Air Missile
fl	Full load displacement	SIGINT	Signals Intelligence
GFCS	Gunfire Control System	SLBM	Submarine-Launched Ballistic Missile
HALE	High-Altitude, Long Endurance (UAV)	SOF	Special Operations Forces
LCAC	Landing Craft, Air Cushion	SSF	South Sea Fleet (now Southern Theater Command Navy)
lt, ltshp	Lightship displacement	STCN	Southern Theater Command Navy
MALE	Medium-Altitude, Long Endurance (UAV)	std	Standard Displacement
MCM	Mine Countermeasures	subm	Submerged Displacement
MFCS	Missile Fire Control System	TBM	Tactical Ballistic Missile
Mk	Mark (version)	TDL	Tactical Data Link
MPA	Maritime Patrol Aircraft	TT	Torpedo Tube
NSF	North Sea Fleet (now Northern Theater Command Navy)	VLS	Vertical Launch System
NTCN	Northern Theater Command Navy	WTC	Western Theater Command

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**The 2012 Damage Point Standard:** China's Navy uses the "2012 Standard" to calculate a ship's damage points. This method, described in the April 2012 issue of the *Naval SITREP* (hence the name) matches historical results more closely than the older "2006 Standard" used in older ATG products.

If you are using ship data from more than one *Admiralty Trilogy* publication, make sure that the damage points have all been calculated using the 2012 Standard.

**Annex Notes:** The information on the platforms, weapons, and sensors in this annex has been standardized so that it is compatible and consistent with all *Admiralty Trilogy* games. Equipment that was used in more than one era will have the same statistics in all games. Information in this Annex is compatible with *Harpoon* 5th edition.

The Annex designations are standardized for all four *Admiralty Trilogy* games: *Dawn of the Battleship*, *Fear God & Dread Nought*, *Command at Sea*, and *Harpoon*. Gaps in the sequence are caused by annexes that are not applicable to that era or product.

If there is information in another *Triology* publication that conflicts with the data printed here, use the information in the product with the newest publication date, since new information and corrections can change statistics. If you have a question about the conflict, or about any other data listed, please contact us.

Except for Annex A, systems are listed in their annexes alphabetically, first by country, then by name. The ships in Annex A are listed in traditional order, with aircraft carriers first, then submarines, followed by major combatants, minor combatants, amphibious ships, mine warfare craft, auxiliaries, then civilian vessels. An alphabetical list of ships by class name is provided, beginning on the next page. The aircraft in Annex B are listed in alphabetical order.

Systems listed in *italics* never entered service. They existed only as hypothetical designs, in prototype or developmental form. Ships with a year in parentheses following their name have been radically altered since they entered service, and were operational in their new configuration in the listed year.

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## Annex A - Ships

### PEOPLE'S REPUBLIC OF CHINA (PRC)

**Note:** Because of a design philosophy that discounts damage control, following Soviet design practices, and quality control problems, all Chinese-built vessels have a special damage modifier of -10% for all vessels laid down before 1991, in addition to any other modifiers listed in the remarks for a ship class.

Ships laid down after 1990 suffer a -15% modifier to their damage points because Chinese designers shifted to a hybrid civilian/military construction standard.

Neither modifier applies to Chinese-built submarines.

#### Type 003

	CV
<b>Displacement:</b> 74000 std	<b>In Class:</b> 0 + 2
<b>Size Class:</b> A/Large	<b>In Service:</b> 2025?
<b>Propulsion:</b> Steam Turbine	<b>Crew:</b> c2,500
<b>Electrn Cnt:</b> 3rd Gen J&D	<b>Acoust Cnt:</b> 3rd Gen D
<b>Signature:</b> Large/Loud	<b>Armor Rating:</b> 0
<b>Weapons:</b>	<b>Cbt Sys:</b> Gen 6 Automatic
3 Catapult (2 bow, 1 waist), 2 Elevators, Arresting gear	--
PW/SW/PA/SA(18)4 HQ-10 w/18 msls	D
PW/SW/PA/SA(R)4 PJ-11 30mm (3@10.0A)	C
PA/SA(12)2 WHH-004 ASW RL w/est. 6 salvos	E
<b>Sensors:</b>	<b>ES:</b> 3rd Gen
LJG-346B, AESA X-band LAS, 2 Type 760	J
Possibly SJD-9	K
DTS-03, XS-3, JSTIDS	L
<b>Air Group:</b>	
About 70 aircraft, estimated as 48 J-15T, 4 KJ-600, 10 Z-18F, 3 Z-18A, 2 Z-8JH, 3 Z-9S	

#### Remarks:

May have electromagnetic catapults.

- 2016: First unit modules under construction.
- 2019: Second unit modules under construction.
- Jul 2020: First unit laid down in graving dock.

#### Damage & Speed Breakdown:

<b>Dam Pts:</b>	0	320	639	959	1150	1278	
<b>Surf Speed:</b>	31	23	16	8	0	Sinks	

#### Type 002 [Kuznetsov Mod]

	CV
<b>Displacement:</b> 53000 std	<b>In Class:</b> 1
<b>Size Class:</b> A/Large	<b>In Service:</b> 2019
<b>Propulsion:</b> Steam Turbine	<b>Crew:</b> ~2,100
<b>Electrn Cnt:</b> 3rd Gen J&D	<b>Acoust Cnt:</b> 3rd Gen D
<b>Signature:</b> Large/Loud	<b>Armor Rating:</b> 0
<b>Weapons:</b>	<b>Cbt Sys:</b> Gen 6 Automatic
2 Elevators, Arresting gear	--
PW/SW/PA(18)3 HQ-10 w/18 msls	D
SW/PA/SA(R)3 PJ-11 30mm (3@10.0A)	C
PA/SA(12)2 WHH-004 ASW RL w/est. 6 salvos	E
<b>Sensors:</b>	<b>ES:</b> 3rd Gen
LJG-346A, LJQ-382, LJQ-364, 2 Type 760	J
SJD-9	K
DTS-03, XS-3, JSTIDS	L
<b>Air Group:</b>	
• 2nd Wing: 24 J-15, 3 J-15D, 6 Z-18F, 4 Z-18J, 2 Z-18A, 1 Z-8JH, 2 Z-9S	

#### Remarks:

*Shandong*/17. Angled flight deck for landings, bow ski ramp for takeoffs. J-15s limited to light loads (less than 80% of max payload) for ski jump takeoffs.

#### Damage & Speed Breakdown:

<b>Dam Pts:</b>	0	256	512	767	921	1023	
<b>Surf Speed:</b>	29	22	15	7	0	Sinks	

#### Ex-Russian Project 1143.5 [Kuznetsov]

<b>Type 001</b>	<b>CV</b>						
<b>Displacement:</b> 52000 std	<b>In Class:</b> 1						
<b>Size Class:</b> A/Large	<b>In Service:</b> 2012						
<b>Propulsion:</b> Steam Turbine	<b>Crew:</b> 2100						
<b>Electrn Cnt:</b> 3rd Gen J&D	<b>Acoust Cnt:</b> 3rd Gen D						
<b>Signature:</b> Large/Loud	<b>Armor Rating:</b> 0						
<b>Weapons:</b>	<b>Cbt Sys:</b> Gen 5 Human						
2 Elevators, Arresting Gear	--						
PW/SW/PA (18)3 HQ-10 w/18 msls	D						
SW/PA/SA(R)3 PJ-11 30mm (3@10.0A)	C						
PA/SA(12)2 WHH-004 ASW RL w/est. 6 salvos	E						
<b>Sensors:</b>	<b>ES:</b> 3rd Gen						
LJG-346, LJQ-382, LJQ-364, 2 Type 760	J						
SJD-9	K						
TJN-906, JSTIDS	L						
<b>Air Group:</b>							
• 1st Wing: 24 J-15, 6 Z-18F, 4 Z-18J, 2 Z-9S							
<b>Remarks:</b>							
<i>Liaoning</i> /16 (ex-Varyag). Purchased incomplete from Ukraine in 1992, refurbished and completed at Dalian 2002-12. Used as developmental platform for PRC carrier technology. Angled flight deck for landings, bow ski ramp for takeoffs. Special damage modifier of -15% for Chinese hybrid construction. J-15s limited to light loads (less than 80% of max payload) for ski jump takeoffs.							
• May 18 - Feb 19: Refit with rebuilt island and improved combat system, estimated as Gen 6 Automatic.							
<b>Damage &amp; Speed Breakdown:</b>							
<b>Dam Pts:</b>	0	252	505	758	909	1010	
<b>Surf Speed:</b>	29	21	15	7	0	Sinks	

#### Type 094/09IV, 094A/09IVA [Jin]

<b>Type 094/09IV, 094A/09IVA [Jin]</b>	<b>SSBN</b>						
<b>Displacement:</b> 11500 subm	<b>In Class:</b> 2/4						
<b>Size Class:</b> B/Medium	<b>In Service:</b> 2010						
<b>Propulsion:</b> Nuclear	<b>Crew:</b> 120						
<b>Electrn Cnt:</b> None	<b>Acoust Cnt:</b> 3rd Gen						
<b>Signature:</b> Small//Loud/Noisy	<b>Armor Rating:</b> 0						
<b>Max Depth:</b> Int V	<b>Btry Rng:</b> 5 (Emerg)						
<b>Weapons:</b>	<b>Cbt Sys:</b> Gen 5 Automatic						
PB/SB(3)2 533mm TT w/12 Yu-6, Yu-10, Yu-12	F						
(12)1 JL-2/2A SLBM	--						
<b>Sensors:</b>	<b>ES/AIR:</b> 3rd/3rd Gen						
SQZ-265A bow and towed array, SQG-207	K						
LQK-359A mast radar	J						
<b>Remarks:</b>							
<i>Changzheng</i> 9/411, <i>Changzheng</i> 10/412, <i>Changzheng</i> 11/413, <i>Changzheng</i> 12/414, <i>Changzheng</i> 18/420, <i>Changzheng</i> 19/421. Same propulsion plant and basic design as the Type 09III SSN, Loud Signature. Double-hull construction. Type 09IVA has improved streamlining, Noisy Signature.							
• 22 Dec 13: First JL-2 launched.							
<b>Damage &amp; Speed Breakdown:</b>							
<b>Dam Pts:</b>	0	54	109	163	195	217	
<b>Surf Speed:</b>	15	11	8	4	0	Sinks	
<b>Subm Speed:</b>	22	17	11	6	0	Sinks	

#### Type 092/09II [Xia]

<b>Type 092/09II [Xia]</b>	<b>SSBN</b>
<b>Displacement:</b> 8325 subm	<b>In Class:</b> 1
<b>Size Class:</b> B/Medium	<b>In Service:</b> 1983
<b>Propulsion:</b> Nuclear	<b>Crew:</b> 110
<b>Electrn Cnt:</b> None	<b>Acoust Cnt:</b> 1st Gen
<b>Signature:</b> Small/Loud	<b>Armor Rating:</b> 0
<b>Max Depth:</b> Int IV	<b>Btry Rng:</b> 5 (Emerg)
<b>Weapons:</b>	<b>Cbt Sys:</b> Gen 3 Semi-Automatic
PB/SB(3)2 533mm TT w/12 Yu-3	F
(12)1 JL-1 SLBM	--

<b>Sensors:</b>	ES/AIR: 1st/1st Gen	K
SQZ-3		J
Type 353A-1 mast radar		
<b>Remarks:</b>		
<i>Changzheng 6/406 in NTCN near Qingdao. Modified Han class, double-hull design. Deploys in Bohai Bay against Russian targets.</i>		
• 1985: First JL-1 launch fails.		
• Sep 88: First successful JL-1 launch.		
• 1995 - 2001: Refit with SQZ-262B replacing SQZ-3, LQZ-353B radar replacing Type 353A-1, Yu-3A/3B torpedo and JL-1A SLBM added.		
• 2006 - 09: Three-year refit. Possibly known as Type 09IIIM.		
• 2020: No longer operational, possibly used for training.		
<b>Damage &amp; Speed Breakdown:</b>		
Dam Pts: 0 44 88 131 158 175		
Surf Speed: 15 11 8 4 0 Sinks		
Subm Speed: 22 16 11 6 0 Sinks		
<b>Type 032 [Qing]</b>	SSB	
<b>Displacement:</b> 5050 subm	In Class: 1	
<b>Size Class:</b> B/Medium	In Service: 2012	
<b>Propulsion:</b> Diesel-Electric	Crew: 88	
<b>Electrn Cnt:</b> None	Acoust Cnt: 3rd Gen	
<b>Signature:</b> Small/Quiet	Armor Rating: 0	
<b>Max Depth:</b> Int II	Btry Rtnng: 200 (new)	
<b>Weapons:</b>	Cbt Sys: Gen 5 Automatic	
(4) VLS forward of the sail	D	
2 SLBM tubes in the sail	--	
PB&SB(1)2 533mm TT	F	
<b>Sensors:</b>	ES/AIR: 3rd/3rd Gen	K
SQZ-265A bow array, SQG-204A		J
LQK-359A mast radar		
<b>Remarks:</b>		
<i>Based in Shanghai with NTCN. Double-hull construction. Purpose-built test platform with SLBM and cruise missile tubes. SLBM tubes in sail and VLS tubes forward of sail. Likely able to launch DH-10 land attack cruise missiles and YJ-18 antiship cruise missiles from the VLS tubes. Can carry 100 scientists/researchers in addition to crew with an endurance of three days. Sensors estimated.</i>		
• 2017: Fitted for SLBM testing with an addition to the aft portion of the sail.		
<b>Damage &amp; Speed Breakdown:</b>		
Dam Pts: 0 31 63 94 113 125		
Surf Speed: 10 8 5 3 0 Sinks		
Subm Speed: 14 11 7 4 0 Sinks		
<b>Type 6631/Type 31/</b>		
<b>Russian Project 629 [Golf I]</b>	SSB	
<b>Displacement:</b> 3600 subm	In Class: [1]	
<b>Size Class:</b> C/Small	In Service: 1965 - 2013	
<b>Propulsion:</b> Diesel-Electric	Crew: 80	
<b>Electrn Cnt:</b> None	Acoust Cnt: 1st Gen	
<b>Signature:</b> VSmall/Noisy	Armor Rating: 0	
<b>Max Depth:</b> Int IV	Btry Rtnng: 150 (old)	
<b>Weapons:</b>	Cbt Sys: Gen 2 Manual	
(3)1 SLBM tubes in the sail for R-11FM	--	
PB&SB(2)2 533mm TT w/4 ET-46, 53-38, 53-39	F/Russia	
PQ&SQ(2)2 533mm TT w/4 ET-46, 53-38, 53-39	F/Russia	
<b>Sensors:</b>	ES/AIR: 1st/1st Gen	K/Russia
MG-10, MG-200 Arktika-M		J/Russia
Flag		
<b>Remarks:</b>		
<i>Also Type 6631. Built in PRC from plans and components supplied by the Soviet Union for a Project 629 submarine. Double-hull construction. Max torpedo launch depth is Int I. R-11FM not transferred, boat used for training.</i>		
• 1974: Converted to trials platform for JL-1 SLBM with two tubes.		
• Nov 78: Completes refit for submerged JL-1 launch.		
• 12 Oct 82: First JL-1 launch.		
• 1991: To reserve.		
• 1995 - 99: Refitted to take JL-2, possibly only one tube. Fire control		

updated to Gen 3 Semi-Automatic with Yu-1, Yu-4A/4B torpedoes.		
• Early 2013: Retired from service and struck.		
<b>Damage &amp; Speed Breakdown:</b>		
Dam Pts: 0 25 50 75 90 100		
Surf Speed: 14 11 7 4 0 Sinks		
Subm Speed: 12 8 6 3 0 Sinks		
<b>Type 093A/09IIIA [Shang]</b>	SSN	
<b>Displacement:</b> 6250 subm	In Class: 5	
<b>Size Class:</b> B/Medium	In Service: 2012	
<b>Propulsion:</b> Nuclear	Crew: 105	
<b>Electrn Cnt:</b> None	Acoust Cnt: 3rd Gen	
<b>Signature:</b> Small/Noisy	Armor Rating: 0	
<b>Max Depth:</b> Int V	Btry Rtnng: 5 (Emerg)	
<b>Weapons:</b>	Cbt Sys: Gen 5 Automatic	
PB&SB(3)2 533mm TT w/18 Yu-6, Yu-10, Yu-12, YJ-18B	F, D	
<b>Sensors:</b>	ES/AIR: 3rd/3rd Gen	K
SQZ-265A bow and towed array, SQG-207, SQG-204A		J
LQK-359A mast radar		
<b>Remarks:</b>		
<i>Changzheng 2/410, Changzheng 13/415, Changzheng 14/416, Changzheng 15/418, Changzheng 16/419. Double-hull construction, anechoic coating. Built up area behind the sail houses the towed array handling equipment.</i>		
<b>Damage &amp; Speed Breakdown:</b>		
Dam Pts: 0 36 73 109 131 145		
Surf Speed: 15 11 8 4 0 Sinks		
Subm Speed: 28 21 14 7 0 Sinks		
<b>Type 093 Mod/09III Mod [Shang]</b>	SSN	
<b>Displacement:</b> 6250 subm	In Class: 1	
<b>Size Class:</b> B/Medium	In Service: 2012	
<b>Propulsion:</b> Nuclear	Crew: 105	
<b>Electrn Cnt:</b> None	Acoust Cnt: 3rd Gen	
<b>Signature:</b> Small/Noisy	Armor Rating: 0	
<b>Max Depth:</b> Int V	Btry Rtnng: 5 (Emerg)	
<b>Weapons:</b>	Cbt Sys: Gen 5 Automatic	
PB&SB(3)2 533mm TT w/18 Yu-6, Yu-10, Yu-12, YJ-18B	F, D	
<b>Sensors:</b>	ES/AIR: 3rd/3rd Gen	K
SQZ-265A bow array, SQG-207, SQG-204A		J
LQK-359A mast radar		
<b>Remarks:</b>		
<i>Changzheng 1/409. Double hull construction, anechoic coating. Modifications to the sail for hydrodynamic, drag reduction improvements.</i>		
<b>Damage &amp; Speed Breakdown:</b>		
Dam Pts: 0 36 73 109 131 145		
Surf Speed: 15 11 8 4 0 Sinks		
Subm Speed: 28 21 14 7 0 Sinks		
<b>Type 093/09III [Shang]</b>	SSN	
<b>Displacement:</b> 6250 subm	In Class: 2	
<b>Size Class:</b> B/Medium	In Service: 2006	
<b>Propulsion:</b> Nuclear	Crew: 105	
<b>Electrn Cnt:</b> None	Acoust Cnt: 3rd Gen	
<b>Signature:</b> Small/Loud	Armor Rating: 0	
<b>Max Depth:</b> Int V	Btry Rtnng: 5 (Emerg)	
<b>Weapons:</b>	Cbt Sys: Gen 5 Automatic	
PB&SB(3)2 533mm TT w/18 Yu-6, Yu-10, Yu-12, YJ-18B	F, D	
<b>Sensors:</b>	ES/AIR: 3rd/3rd Gen	K
SQZ-265A bow array, SQG-207, SQG-204		J
LQK-359A mast radar		
<b>Remarks:</b>		
<i>Changzheng 7/407 ETCN, Changzheng 8/408 STCN. Double-hull construction, anechoic coating.</i>		
<b>Damage &amp; Speed Breakdown:</b>		
Dam Pts: 0 33 67 100 120 133		
Surf Speed: 15 11 8 4 0 Sinks		
Subm Speed: 28 21 14 7 0 Sinks		

**Type 091/09I [Han]****Displacement:** see remarks**Size Class:** B/Medium**Propulsion:** Nuclear**Electrn Cnt:** None**Signature:** Small/Loud**Max Depth:** Int IV**Weapons:**

PB&amp;SB(3)2 533mm TT w/20 Yu-3

**Sensors:**

SQZ-3, TS-6 (401-402)

SQZ-3, SQG-2, TS-6 (403-405)

Type 353A-1 mast radar

**Remarks:**

Hulls 401 - 405. *Changzheng* ("Long March") 1-5. All NTCN at Qingdao. First two (401, 302) are 98 m/5000 tons submerged, last three (403, 404, 405) are 106m/5640 tons submerged. Can carry 36 mines and two torpedoes. Double-hull construction.

- Late 80s - Mid 90s: 401 and 402 refits.
- May 88: Test launches of Yu-3 torpedoes from maximum depth.
- 1990s: Two transferred to STCN.
- 1992 - 98: 403, 404 and 405 refits with SQZ-262B sonar, LQZ-353B mast radar. Combat System upgrade to Gen 4 Semi-Automatic to fire Yu-3A/3B torpedoes and YJ-82 missiles. Designated Type 09IG.
- 2005: One unit fitted with SQG-207 sonar.
- 2020: Not operational. May be used for training.
- Struck: 401 2000, 402 2005.

**Damage & Speed Breakdown:**

DP (401, 402):	0	31	63	94	113	125
DP (403+):	0	34	68	101	122	135
Surf Speed:	12	9	6	3	0	Sinks
Subm Speed:	25	19	12	6	0	Sinks

**SSN****In Class:** 5 - 2**In Service:** 1974**Crew:** 79**Acoust Cnt:** 1st Gen**Armor Rating:** 0**Btry Rtn:** 5 (Emerg)**Cbt Sys:** Gen 2 Manual**F****ES/AIR:** 1st/1st Gen**K**

SQZ-265A bow and towed array, SQG-207, SQG-204A (039C)

**K****J****Remarks:**

Double-hull construction, anechoic coating, automatic torpedo reloading with two turns to reload all torpedo tubes. AIP system is a Chinese Stirling Engine.

- Type 039A: 330-333 with ETCN.
- Type 039B: 334-339 in ETCN, 340, 341 NTCN.
- Type 039B with new sail shape: 342-346 NTCN, 347 STCN. Unknown 348 and 349.
- 2014: 339 test fires YJ-18B.
- 2014 - 15: Upgrades to Yu-10 and Yu-12 as weapons become available.
- May 21: New variant (Type 039C) seen with different sail shape and towed array sonar.

**Damage & Speed Breakdown:**

Dam Pts:	0	25	50	75	90	100
Surf Speed:	13	10	7	3	0	Sinks
Subm Speed:	19	14	10	5	0	Sinks

**SS****Type 033G [Wuhan A]****Displacement:** 2100 subm**Size Class:** C/Small**Propulsion:** Diesel-Electric**Electrn Cnt:** None**Signature:** VSmall/Noisy**Max Depth:** Int II**Weapons:**

PB&amp;SB(1)6 YJ-8

PB&amp;SB(3)2 533mm TT w/12 Yu-1/1B/1C, Yu-4A/4B

PQ&amp;SQ(2)1 533mm TT w/2 Yu-1/1B/1C, Yu-4A/4B

**Sensors:**

SQZ-D, SQG-2

Type 353A mast radar

**Remarks:**

*Yuanzheng* 351. Type 033 boat converted while under construction. Double-hull construction. Fires missiles while surfaced: max sea state 4, max speed 8 knots, takes 6 min after surfacing to prepare for launch. Double hull. Can crash dive.

- Early to mid 80s: Served as trials submarine.

**Damage & Speed Breakdown:**

Dam Pts:	0	18	35	53	63	70
Surf Speed:	15	11	8	4	0	Sinks
Subm Speed:	13	10	6	3	0	Sinks

**SSG****In Class:** [1]**In Service:** 1987 - 1998**Crew:** 53**Acoust Cnt:** 1st Gen**Armor Rating:** 0**Btry Rtn:** 150 (old)**Cbt Sys:** Gen 3 Semi-Automatic**D****Type 039A/039B/039C [Yuan]****Displacement:** 3600 subm**Size Class:** C/Small**Propulsion:** Diesel-Electric/AIP**Electrn Cnt:** None**Signature:** VSmall/VQuiet**Max Depth:** Int V**Weapons:**

PB&amp;SB(3)2 533mm TT w/12 Yu-6, Yu-9, YJ-82, YJ-18B

**Sensors:** ES/AIR: 3rd/3rd Gen

SQZ-265A bow array, SQG-204 (039A)

SQZ-265A bow array, SQG-207, SQG-204A (039B)

**SSP****In Class:** 4/14 + 2**In Service:** 2006/2010**Crew:** 50**Acoust Cnt:** 3rd Gen**Armor Rating:** 0**Btry Rtn:** 250 (new)**Cbt Sys:** Gen 5 Automatic**F, D****Type 039, 039G [Song]****Displacement:** 2250 subm**Size Class:** C/Small**Propulsion:** Diesel-Electric**Electrn Cnt:** None**Signature:** VSmall/Noisy/Quiet**Max Depth:** Int V**Weapons:**

PB&amp;SB(3)2 533mm TT w/12 Yu-3B

**Sensors:** ES/AIR: 2nd/2nd Gen

SQZ-262C, SQG-2B

LQZ-353B mast radar

**Remarks:**

Double-hull construction. Two torpedo tubes fitted for wire-guided torpedoes. Can carry 20 mines and 2 torpedoes.

- 1998 - 99: 320 tests YJ-82.
- Type 039 has stepped sail. Commenced sea trials in August 1995, but had many problems to include noise issues (Noisy signature). *Yuan Zheng* 20/320 in NTCN.
- Type 039G with anechoic coating. *Yuan Zheng* 21-23/321-323 in NTCN; *Yuan Zheng* 14/314 in ETCN.
- Upgrade to Yu-3BG and Yu-6 as weapons become available.

**Damage & Speed Breakdown:**

Dam Pts:	0	18	37	55	66	73
Surf Speed:	12	9	6	3	0	Sinks
Subm Speed:	18	14	9	5	0	Sinks

**SS**

<b>Russian Project 636/636M [Improved Kilo]</b>							<b>SS</b>
<b>Displacement:</b> 3100 subm	<b>In Class:</b> 2/8						
<b>Size Class:</b> C/Small	<b>In Service:</b> 1998						
<b>Electrn Cnt:</b> None	<b>Acoust Cnt:</b> 2nd Gen						
<b>Propulsion:</b> Diesel-Electric	<b>Crew:</b> 52						
<b>Signature:</b> VSmall/VQuiet	<b>Armor Rating:</b> 0						
<b>Max Depth:</b> Int IV	<b>Btry Rtn:</b> 200 (new)						
<b>Weapons:</b>	<b>Cbt Sys:</b> Gen 3 Semi-Automatic						
PB&SB(3)2 533mm TT w/18 weapons, est loadout							
12 53-65K, 6 TE-2-01	F/Russia						
F&A(1)1 QW-series MANPADS (when surfaced)	D/Russia						
<b>Sensors:</b>	<b>ES/AIR:</b> 2nd/2nd Gen						
MGK-400 Rubikon, MG-519 Arfa-G	K/Russia						
MRK-50 Kaskad mast radar	J/Russia						

**Remarks:**

*Yuanzheng* 66/366-75/375. 366 and 367 are Project 636. 368 - 375 are Project 636M. 366-371 in ETCN, 372-375 in STCN. Double-hull construction, anechoic coating. Automatic, rapid torpedo tube reload, reload time for all tubes takes two Tactical Turns. The two lower outboard tubes can support wire-guided torpedoes. Maximum torpedo launch depth is Int III. Can carry 24 MDM-1 mines and 6 torpedoes. MGK-400 Rubikon passive array is located in the lower bow, the active array is in the sail. Active sonar coverage is limited to ±30° off own ship's course. Both types can fire the TE-2-01 torpedoes purchased with the Project 636M submarines. Project 636M modified to fire 3M54E anti-ship cruise missiles.

**Damage & Speed Breakdown:**

<b>Dam Pts:</b>	0	23	46	68	82	91	
<b>Surf Speed:</b>	11	8	6	3	0	Sinks	
<b>Subm Speed:</b>	20	15	10	5	0	Sinks	

<b>Russian Project 877EKM [Kilo]</b>							<b>SS</b>
<b>Displacement:</b> 3040 subm	<b>In Class:</b> 2						
<b>Size Class:</b> C/Small	<b>In Service:</b> 1994						
<b>Propulsion:</b> Diesel-Electric	<b>Crew:</b> 53						
<b>Electrn Cnt:</b> None	<b>Acoust Cnt:</b> 2nd Gen						
<b>Signature:</b> VSmall/Quiet	<b>Armor Rating:</b> 0						
<b>Max Depth:</b> Int IV	<b>Btry Rtn:</b> 200 (new)						
<b>Weapons:</b>	<b>Cbt Sys:</b> Gen 3 Semi-Automatic						
PB&SB(3)2 533mm TT w/18 weapons, est loadout							
12 53-65K, 6 TEST-71MK	F/Russia						
<b>Sensors:</b>	<b>ES/AIR:</b> 2nd/2nd Gen						
MGK-400 Rubikon, MG-519 Arfa-G	K/Russia						
MRK-50 Kaskad mast radar	J/Russia						

**Remarks:**

*Yuanzheng* 64/364, *Yuanzheng* 65/365. Both ETCN. Double-hull construction, anechoic coating. Automatic, rapid torpedo tube reload, reload time for all tubes takes two Tactical Turns. The two lower outboard tubes can support wire-guided torpedoes. Maximum torpedo launch depth is Int III. Can carry 24 MDM-1 mines and 6 torpedoes. MGK-400 Rubikon passive array is located in the lower bow, the active array is in the sail. Active sonar coverage is limited to ±30° off own ship's course.

**Damage & Speed Breakdown:**

<b>Dam Pts:</b>	0	22	45	67	80	89	
<b>Surf Speed:</b>	10	8	5	3	0	Sinks	
<b>Subm Speed:</b>	17	13	9	4	0	Sinks	

<b>Type 035B [Ming]</b>							<b>SS</b>
<b>Displacement:</b> 2110 subm	<b>In Class:</b> 4						
<b>Size Class:</b> C/Small	<b>In Service:</b> 1998						
<b>Propulsion:</b> Diesel-Electric	<b>Crew:</b> 57						
<b>Electrn Cnt:</b> None	<b>Acoust Cnt:</b> 2nd Gen						
<b>Signature:</b> VSmall/Quiet	<b>Armor Rating:</b> 0						
<b>Max Depth:</b> Int IV	<b>Btry Rtn:</b> 165 (new)						
<b>Weapons:</b>	<b>Cbt Sys:</b> Gen 4 Semi-Automatic						
PB&SB(3)2 533mm TT w/14 Yu-3A/3B	F						
PQ&SQ(2)1 533mm TT w/2 Yu-3A/3B	F						
<b>Sensors:</b>	<b>ES/AIR:</b> 2nd/2nd Gen						
SQZ-262C, SQG-2B	K						
Type 353A mast radar	J						

**Remarks:**

309-312 in STCN. Double-hull construction. Improved fire control, YJ-82 missiles carried. Maximum torpedo launch depth is Int I.

- Upgrade to Yu-3BG and Yu-9 as weapons become available.

• 2006: Fitted with anechoic coating.

**Damage & Speed Breakdown:**

<b>Dam Pts:</b>	0	18	35	53	63	70	
<b>Surf Speed:</b>	15	11	8	4	0	Sinks	
<b>Subm Speed:</b>	18	14	9	5	0	Sinks	

<b>Type 035G [Ming]</b>							<b>SS</b>
<b>Displacement:</b> 2110 subm	<b>In Class:</b> 12 - 3						
<b>Size Class:</b> C/Small	<b>In Service:</b> 1990						
<b>Propulsion:</b> Diesel-Electric	<b>Crew:</b> 57						
<b>Electrn Cnt:</b> None	<b>Acoust Cnt:</b> 2nd Gen						
<b>Signature:</b> VSmall/Noisy	<b>Armor Rating:</b> 0						
<b>Max Depth:</b> Int IV	<b>Btry Rtn:</b> 165 (old)						
<b>Weapons:</b>	<b>Cbt Sys:</b> Gen 3 Semi-Automatic						
PB&SB(3)2 533mm TT w/14 Yu-1B/1C, Yu-4A/4B	F						
PQ&SQ(2)1 533mm TT w/2 Yu-1B/1C, Yu-4A/4B	F						
<b>Sensors:</b>	<b>ES/AIR:</b> 2nd/2nd Gen						
SQZ-262C, SQG-2	K						
Type 353A mast radar	J						

**Remarks:**

PRC-built improved Romeo. Double-hull construction. Redesigned propeller. Maximum torpedo launch depth is Int I. 356-363 in NTCN, 305-308 in STCN. 308 fitted as AIP test ship, 2400 t submerged.

- Apr 03: 361 suffers a snorkel accident that resulted in the loss of the entire crew.
- Jun 16: 358 struck and converted to a museum sub.
- Nov 16: 356 and 357 transferred to Bangladesh.

**Damage & Speed Breakdown:**

<b>Dam Pts:</b>	0	18	35	53	63	70	
<b>Dam Pts (AIP):</b>	0	19	38	57	68	76	
<b>Surf Speed:</b>	15	11	8	4	0	Sinks	
<b>Subm Speed:</b>	18	14	9	5	0	Sinks	

<b>Type 035, 035A [Ming]</b>							<b>SS</b>
<b>Displacement:</b> 2110 subm	<b>In Class:</b> [6]						
<b>Size Class:</b> C/Small	<b>In Service:</b> 1974/1982 - 2013						
<b>Propulsion:</b> Diesel-Electric	<b>Crew:</b> 57						
<b>Electrn Cnt:</b> None	<b>Acoust Cnt:</b> 1st Gen						
<b>Signature:</b> VSmall/Noisy	<b>Armor Rating:</b> 0						
<b>Max Depth:</b> Int IV	<b>Btry Rtn:</b> 165 (old)						
<b>Weapons:</b>	<b>Cbt Sys:</b> Gen 2 Manual						
PB&SB(3)2 533mm TT w/14 Yu-1	F						
PQ&SQ(2)1 533mm TT w/2 Yu-1	F						
<b>Sensors:</b>	<b>ES/AIR:</b> 2nd/2nd Gen						
SQZ-D	K						
Type 353A mast radar	J						

**Remarks:**

PRC-built improved Romeo with reduced drag hull. Double-hull construction. Maximum torpedo launch depth is Int I. Can carry 28 mines forward and 2 torpedoes aft.

- Upgrade to Yu-1B/1C as weapons become available.
- Type 035 with Project 033 electric motors. Considered a failure. 232, 233. Retired 1981.

• Type 035A with more powerful engines for increased submerged speed and 2nd Generation acoustic decoys. 342, 352-354 in NTCN. Struck 2010-13.

• Late 90s: Project 035A upgraded to Project 035G.

**Damage & Speed Breakdown:**

<b>Dam Pts:</b>	0	18	35	53	63	70	
<b>Surf Speed:</b>	15	11	8	4	0	Sinks	
<b>Sub Sp (035):</b>	12	8	6	3	0	Sinks	
<b>Sub Sp (035A):</b>	18	14	9	5	0	Sinks	

China's Navy

**Type 6633/Type 33****Russian Project 633 [Romeo]**

SS

Displacement:	1730 subm	In Class:	[84]	
Size Class:	C/Small	In Service:	1964/1967/1980s	
Propulsion:	Diesel-Electric	Crew:	53	
Electrn Cnt:	None	Acoust Cnt:	1st Gen	
Signature:	VSmall/Noisy	Armor Rating:	0	
Max Depth:	Int IV	Btry Rtn:	150 (old)	
Weapons:	PB&SB(3)2 533mm TT w/12 ET-80, ET-46, 53-39, Yu-1	Cbt Sys:	Gen 2 Manual	F
	PQ&SQ(2)1 533mm TT w/2 ET-80, ET-46, 53-39, Yu-1			F
Sensors:	ES/AIR: 1st/1st Gen			
Type 105, Type 108				K
Type 353A mast radar				J

**Remarks:**

*Changcheng* 126, 128, 136-154, 160-165, 170-173, 175, 176, 208-230, 234-236, 239, 245-260, 267-283, 286-294, 304, 343-349, 355, 777  
 PRC-built Russian Project 633 class. Double-hull construction. Can crash dive. Maximum torpedo launch depth is Int I. Can carry 24 MDT mines and 2 torpedoes. Exported as ES5A (1980), ES5B (1984).  
 • First two units (Type 6633) built from kits supplied by Russia. Six planned, but support stopped with the Sino-Soviet breakup.  
 • Type 33: Chinese series production version.  
 • Mid-80s: Improved with capability to launch homing torpedoes (Yu-1B/1C, Yu-4A/4B), Gen 3 Semi-Automatic combat system. Radar upgraded to Type 353A. Sonar updated to SQZ-262A. Possibly fitted with 2nd Gen ACM.  
 • 1973 - 75: Six Type 33 transferred to North Korea.  
 • 1983: *Changcheng* 250 fitted with DUUX-5 sonar and DR-2000U 2nd Gen ES.  
 • 1983 - 84: Four Type 33 transferred to Egypt.  
 • Operational/Reserve: 24 1977, 77 1981, 84 1990, 30/~50 1992, 20/50 1995, 37/31 1999, 31/9 2002, 21/10 2005, 7 2008, 8 2010.  
 • Decommed by 2015. 10 1983, 10 1990-92, 5 1993-94, 1 1998, 5 1998, 1 2000, 3 2001, 1 2002, 6 2003, 5 2004, 9 2006, 9 2007, 2 2008, 1 2011, 1 2012. Remainder unknown.

**Damage & Speed Breakdown:**

Dam Pts:	0	15	31	46	55	61	
Surf Speed:	15	11	8	4	0	Sinks	
Subm Speed:	13	10	6	3	0	Sinks	

**Type 6603/Type 3/****Russian Project 613 [Whiskey]**

SS

Displacement:	1350 subm	In Class:	[21]	
Size Class:	D/Small	In Service:	1956 - 90	
Propulsion:	Diesel-Electric	Crew:	52	
Electrn Cnt:	None	Acoust Cnt:	1st Gen	
Signature:	VSmall/Noisy	Armor Rating:	0	
Max Depth:	Int III	Btry Rtn:	150 (old)	
Weapons:	PB&SB(3)2 533mm TT w/12 ET-80, ET-46, 53-39	Cbt Sys:	Gen 1 Manual	F/Russia
	PQ&SQ(2)1 533mm TT w/2 ET-80, ET-46, 53-39			F/Russia
Sensors:	ES/AIR: 1st Gen/None			
Tamir 5L, Mars-24K				K/Russia
Flag				J/Russia

**Remarks:**

119-123, 127, 129, 131, 201-207, 221, 241, 243, 244, 265-267. An unknown number of units were transferred complete, then others supplied as kits, the final units built in China with Russian equipment. Can crash dive. Double-hull construction. Max torpedo launch depth is Shallow. Five were Project 613-IV with F(2)1 2M-8 25mm, sixteen were Pr. 613-V with no deck guns. Local production initially as Type 6603, later renamed Type 3.  
 • 1 Dec 59: One lost after collision.  
 • 1989: Six struck by this date. Remainder used for harbor training or in reserve.

**Damage & Speed Breakdown:**

Dam Pts:	0	13	26	39	47	52	
Surf Speed:	18	14	9	5	0	Sinks	
Subm Speed:	13	10	6	3	0	Sinks	

**Ex-Russian Project 96M Series XV**

SSC

Displacement:	350 subm	In Class:	[4]	
Size Class:	E/VSmall	In Service:	1954 (1943)	
Propulsion:	Diesel-Electric	Crew:	23	
Max Depth:	Int I	Btry Rtn:	30	
Signature:	VSmall/Noisy	Armor Rating:	0	

<b>Weapons:</b>	<b>Cbt Sys:</b> Gen 2 Manual	<b>F/Russia</b>
Bow(2)2 533mm TT w/4 Type 53-39		<b>C/Russia</b>

**Sensors:**  
 Mars-8  
**Remarks:**

*Guofang* 21/201 (ex M-276), *Guofang* 22/202 (ex M-277), *Guofang* ?/203 (ex M-278), *Guofang* ?/204 (ex M279). Transferred in two batches, in 1954 and 1956.  
 • Hull numbers later changed.  
 • 1 Dec 59: Project 96M hull number 418 collided with frigate *Hengyang* and sank; 38 lost, 1 survivor.

**Damage & Speed Breakdown:**

Dam Pts:	0	5	11	16	19	21	
Surf Speed:	16	12	8	4	0	Sinks	
Subm Speed:	8	6	4	2	0	Sinks	

**Ex-Russian Type S (Stalinets) Series IXbis**

SS

Displacement:	1078 subm	In Class:	[4]	
Size Class:	D/Small	In Service:	1954 (1939) - 70s	
Propulsion:	Diesel-Electric	Crew:	45	
Max Depth:	Int I	Btry Rtn:	60	
Signature:	VSmall/Noisy	Armor Rating:	0	

<b>Weapons:</b>	<b>Cbt Sys:</b> Gen 1 Manual	<b>F/Russia</b>
Bow(2)2 533mm TT w/10 53-38 or 53-39		<b>F/Russia</b>
Stern(2)1 533mm TT w/2 53-38 or 53-39		<b>F/Russia</b>
F(1)1 B-24 100mm/51 (0.1L)		<b>C/Russia</b>

**Sensors:**  
 Mars-12 (*Xinzhongguo* 11, 12)  
*Tamir-5L* (*Xinzhongguo* 13, 14)  
**Remarks:**

*Xinzhongguo* 11/401 (ex S-52), *Xinzhongguo* 12/402 (ex S-53), *Xinzhongguo* 13/403 (ex S-24), *Xinzhongguo* 14/4041 (ex S-25).  
 • Hull numbers later changed from 401 - 404 to 421 - 424.

**Damage & Speed Breakdown:**

Dam Pts:	0	11	23	34	41	45	
Surf Speed:	19	14	10	5	0	Sinks	
Subm Speed:	9	7	5	2	0	Sinks	

**Type 055 [Renhai]**

CG

Displacement:	10300 std	In Class:	3 + 5 + 4	
Size Class:	B/Medium	In Service:	2020	

Propulsion:	COGAG	Crew:	280	
Electrn Cnt:	3rd Gen J&D	Acoust Cnt:	3rd Gen D	

Signature:	Small/Quiet	Armor Rating:	0	
Weapons:		Cbt Sys:	Gen 6 Automatic	

F&A(4)1, F&A(48)1 VLS w/HQ-9B, DH-10, YJ-18, Yu-8//LJG-346B			
--	--	--	--

D, E

F(1)1 PJ-45A 130mm/70//AES A X-band (1.7)

C

F(R)1 PJ-11 30mm//LJP-349 (10.0A)

C

A(24)1 HQ-10 w/24 msls

D

PB/SB(3)2 324mm TT w/3 Yu-7C

F

Aft Pad(1)2 Z-9 or Z-18F or Z-20

B

**Sensors:** ES: 3rd Gen

LJG-346B, AESA X-band LAS, AESA targeting complex,

Type 760, Type 757, Type 754

J

Poss SJD-11, SJG-311

K

DTS-03, XS-3, JSTIDS

L

PW&SW EO/IR/Laser (4th Gen)

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**Remarks:** *Nanchang*/101, *Lhasa*/102, *Dalian*/105, *Yan'an*/106, *Anshan*/103,

*Zunyi*/107, *Zhuhai*(?)/108, *Dandong*(?)/104. Aluminum superstructure, special damage modifier of -15%. Reduced radar/IR signature, integrated mast. Fitted with helicopter recovery system and dual fin

stabilizers. Each of 4 LJG-346B arrays can engage 6 targets with 2 missiles each. Possibly 16 planned. NTCN: *Nanchang*, *Lhasa*, STCN: *Dalian*.

#### Damage & Speed Breakdown:

Dam Pts:	0	71	142	212	255	283
Surf Speed:	31	23	16	8	0	Sinks

#### **Russian Project 956E [Sovremenny III] DDG**

Displacement:	6500 std	In Class: 2
Size Class:	B/Medium	In Service: 2019 (2000)
Propulsion:	Steam Turbine	Crew: 296
Electrn Cnt:	3rd Gen J&D	Acoust Cnt: 2nd Gen T
Signature:	Medium/Noisy	Armor Rating: 0
Weapons:		Cbt Sys: Gen 5 Human

F/A(16)2 VLS w/16 HQ-16B  
//PW/SW/PA/SA 4 Chinese MR-90 Orekh  
PB&SB(4)2 YJ-12A  
F(24)1 HQ-10 w/24 missiles  
F/A(2)2 AK-130 130mm/70//F LJP-344 (6.0)  
PW/SW/PA/SA(R)4 AK-630 30mm  
//PS/SS 2 LJP-347B (2@8.8)  
PB/SB(3)2 324mm TT w/3 Yu-7C

Aft Pad(1)1 Ka-28 Helix A

**Sensors:** ES: 2nd Gen

LJQ-382, LJQ-364, LJQ-366, 2 Type 760

MGK-335EM

TJN-906

#### Remarks:

*Hangzhou*/136, *Fuzhou* /137. ETCN at Ningbo. Aluminum superstructure, special damage modifier of -15%. Special damage modifier of -10% for Russian surface ship design. Major refit to replace many Russian sensors and weapons with modern Chinese systems. Helicopter not normally carried. No ASW weapon storage, limited repair facilities for helicopter. Fitted with fin stabilizers. CHP armor rating for AK-130 is 2.

- 2015 - Jan 19: *Hangzhou* refitted to Sovremenny III.
- Dec 18 - Mar 21: *Fuzhou* refitted to Sovremenny III.

#### Damage & Speed Breakdown:

Dam Pts:	0	56	112	167	201	223
Surf Speed:	32	24	16	8	0	Sinks

#### **Type 051B [Luhai] (2016) DDG**

Displacement:	6100 std	In Class: 1
Size Class:	B/Medium	In Service: 2016 (1999)
Propulsion:	Steam Turbine	Crew: 250
Electrn Cnt:	3rd Gen J&D	Acoust Cnt: 2nd Gen T
Signature:	Small/Noisy	Armor Rating: 0
Weapons:		Cbt Sys: Gen 5 Human

F&A(32)1 VLS w/16 HQ-16A, Yu-8  
//PW/SW/PA/SA 4 Chinese MR-90 Orekh

PS/SS(4)2 YJ-12A

F(2)1 PJ-33B 100mm/56 //LJP-344 (1.3)

P/S(R)2 PJ-11 30mm (10.0A)

PB/SB(3)2 324mm TT w/3 Yu-7A/7B

Aft Pad (1)2 Z-9C Haitun

**Sensors:** ES: 3rd Gen ES

LJQ-382, LJQ-364, Type 760, Type 754

SJD-9, SJG-206

TJN-906

PW/SW EO/IR (3rd Gen)

#### Remarks:

*Shenzhen*/167 STCN. Configuration as of 2016 refit, w/complete replacement of all weapons and sensors. Fitted with dual stabilizers. Aluminum superstructure, special damage modifier of -15%.

#### Damage & Speed Breakdown:

Dam Pts:	0	50	100	149	179	199
Surf Speed:	30	23	15	8	0	Sinks

#### **Type 052D [Luyang III]**

Displacement:	6300 std	In Class: 19 + 6
Size Class:	B/Medium	In Service: 2014
Propulsion:	CODOG	Crew: 280
Electrn Cnt:	3rd Gen J&D	Acoust Cnt: 3rd Gen D
Signature:	Med/Noisy	Armor Rating: 0
Weapons:		Cbt Sys: Gen 5 Human

F&A(32)2 VLS w/64 total HQ-9B, YJ-18A, DH-10, Yu-8  
//LJG-346A

#### **DDG**

D, E  
A(24)1 HQ-10 w/24 msls  
F(1)1 PJ-45A 130mm/70//LJP-344 (1.5)  
F(R)1 PJ-12 30mm (6.2A)  
PB/SB(3)2 324mm TT w/3 Yu-7A/7B  
Aft Pad (1)1 Ka-28 Helix A or Z-9C Haitun

D  
D  
C  
C  
F  
B

Sensors: ES: 3rd Gen  
LJG-346A, LJQ-364, LJQ-517B, LJQ-366, Type 760, Type 754  
SJD-9, SJG-311  
TJN-906, JSTIDS  
F EO/IR (3rd Gen)

J  
K  
L  
--

#### Remarks:

Fitted with dual stabilizers and helicopter recovery system for Z-9C. Aluminum superstructure, special damage modifier of -15%. Each LJG-346A array can engage 6 targets with 2 missiles each.

- Batch 1. NTCN - *Xining*/117, *Urumqi*/118, *Guiyang*/119. ETCN - *Xiamen*/154. STCN - *Kunming*/172, *Changsha*/173, *Hefei*/174, *Yinchuan*/175.

- Batch 2 (9th through 13th units) fitted with PJ-11 vice PJ-12, AA strength 10.0A. NTCN - *Chengdu*/120, *Qiqihar*/121. ETCN - *Taiyuan*/131, *Nanjing*/155. STCN - *Hohhot*/161.

- Batch 3 (14th unit and later) have five-meter longer stern/helo pad with Z-20 helicopter. Displacement 6600 std. NATO designation Luyang III Mod. PJ-11 (AA strength 10.0A), LJQ-520 [Oyster Grill] replaces LJQ-517B radar. Gen 6 Automatic combat system and DTS-03 data link instead of TJN-906. NTCN - *Tangshan*/122, *Huainan*/123, *Jiaozuo*/124. ETCN - *Suzhou*/132, *Baotou*/133, *Shaoxing*/134, *Zibo*/156, *Wuxi*/157. STCN - *Nanning*/162, *Kaifeng*/163, *Guilin*/164, *Zhanjiang*/165.

- Jan 20: *Yinchuan* seen during exercise, possibly fitted with four floating antiship missile decoys. *Guiyang* fitted by January 2021.

#### Damage & Speed Breakdown:

Dam Pts (1,2):	0	51	102	153	184	204
Dam Pts (3):	0	53	105	158	189	210
Surf Speed:	29	22	15	7	0	Sinks

#### **Type 051C [Luzhou]**

Displacement:	6900 std	In Class: 2
Size Class:	B/Medium	In Service: 2006
Propulsion:	Steam Turbine	Crew: 280

Electrn Cnt: 3rd Gen J&D Acoust Cnt: 2nd Gen T

Signature: Medium/Noisy Armor Rating: 0

Weapons: Cbt Sys: Gen 5 Human

F&A(1)2 VLS w/8 48N6 (fwd), A(1)4 VLS w/8 48N6 (aft)  
//A 30N6E1

#### **D/Russia**

D  
PS/SS(2)4 YJ-83

C  
F(1)1 PJ-87 100mm/55//EO/IR sensor

C  
P(S)2 PJ-12 30mm (6.2A)

F  
PB/SB(3)2 324mm TT w/3 Yu-7A/7B

F  
Aft Pad

L  
**Sensors:** ES: 3rd Gen

MR-760 Fregat MA, Mineral-M J/Russia

LJQ-364, 2 Type 760, Type 754 J

SJD-9 K

TJN-905/Integrated Data Type I L

F EO/IR (3rd Gen) --

#### Remarks:

*Shenyang*/115, *Shijiazhuang*/116. NTCN. Enlarged follow-on to Luhai design. Aluminum superstructure, special damage modifier of -15%. Shaped to reduce RCS (although that's questionable given the height of the forward superstructure). Aft pad only for small helicopter - no fuel, weapons, or maintenance capability. Fitted with dual fin stabilizers.

**Damage & Speed Breakdown:**

Dam Pts:	0	54	108	162	194	216
Surf Speed:	31	23	16	8	0	Sinks

**Russian Project 956EM [Sovremenny II] DDG**

Displacement:	6500 std	In Class:	2
Size Class:	B/Medium	In Service:	2006
Propulsion:	Steam Turbine	Crew:	296
Electrn Cnt:	3rd Gen J&D	Acoust Cnt:	2nd Gen T
Signature:	Medium/Noisy	Armor Rating:	0
<u>Weapons:</u>		Cbt Sys:	Gen 4 Semi-Automatic
F/A(1)2 Uragan w/24 9M38 //PW/SW/P/S/PA/SA 6 MR-90 Orekh	D/Russia		
PB&SB(4)2 Moskit-MVE (3M80MVE)	D/Russia		
F(2)1 AK-130 130mm/70//MR-184 (3.0)	C/Russia		
P/S(2R&8)2 Kortik w/32 msls//2 3P87 (8.8A)	C&D/Russia		
P/S(6)2 RBU 1000 Smerch-3 w/4 salvoes	E/Russia		
P/S(2)2 533mm TT w/2 53-65K	F/Russia		
Aft Pad(1)1 Ka-28 Helix A	B		
<u>Sensors:</u>	ES: 3rd Gen		
MR-750 Fregat-M2, MR-352M Positiv-ME1.2, Mineral-M, 3 MR-212 Vaygach-U	J/Russia		
MGK-335EM	K/Russia		
TJN-905/Integrated Data Type I	L		

Remarks:

*Taizhou/138, Ningbo/139.* ETCN. New-build units ordered by PRC. Aluminium superstructure, special damage modifier of -15%. Special damage modifier of -10% for Russian surface ship design. Helicopter not normally carried, facilities have no ASW ordnance storage, limited maintenance. Can be fitted with 2 mine rails. Fitted with fin stabilizers. CHP armor rating for AK-130 and Moskit-MVE is 2.

**Damage & Speed Breakdown:**

Dam Pts:	0	56	112	167	201	223
Surf Speed:	32	24	16	8	0	Sinks

**Type 052C [Luyang II] DDG**

Displacement:	6200 std	In Class:	6
Size Class:	B/Medium	In Service:	2004
Electrn Cnt:	3rd Gen J&D	Acoust Cnt:	2nd Gen T
Propulsion:	CODOG	Crew:	280
Signature:	Medium/Noisy	Armor Rating:	0
<u>Weapons:</u>		Cbt Sys:	Gen 5 Human
F&A(1)6 VLS w/6 HQ-9A msls (fwd), (1)2 VLS w/6 HQ-9A msls (aft) //LJG-346 (six msls per mount, 48 total)	D		
PS/SS(4)2 YJ-62	D		
F(1)1 PJ-87 100mm/55//LJP-344 (3.0)	C		
F/A(R)2 PJ-12 30mm (2@6.2A)	C		
PB/SB(3)2 324mm TT w/3 Yu-7A/7B	F		
Aft Pad (1)1 Ka-28 Helix A or Z-9C Haitun	B		
<u>Sensors:</u>	ES: 3rd Gen		
LJG-346, LJQ-364, LJQ-517B, LJQ-366, Type 760, Type 754	J		
SJD-9, SJG-206	K		
TJN-905/Integrated Data Type I	L		

Remarks:

*Lanzhou/170, Haikou/171, Changchun/150, Zhengzhou/151, Jinan/152, Xian/153.* 170, 171 in STCN. 150-153 in ETCN. Aluminium superstructure, special damage modifier of -15%. Fitted with dual fin stabilizers, helicopter recovery system for Z-9C only. 150-153 have laser warning sensors. Each of four LJG-346 arrays can engage 6 targets with 2 missiles each.

**Damage & Speed Breakdown:**

Dam Pts:	0	50	101	151	181	201
Surf Speed:	29	22	15	7	0	Sinks

**Type 052B [Luyang I]**

Displacement:	6050 std	In Class:	2
Size Class:	B/Medium	In Service:	2004
Propulsion:	CODOG	Crew:	280
Electrn Cnt:	3rd Gen J&D	Acoust Cnt:	2nd Gen T
Signature:	Medium/Noisy	Armor Rating:	0
<u>Weapons:</u>		Cbt Sys:	Gen 5 Human
F/A(1)2 Shtil-1 w/24 9M317 //4 PW/SW/PA/SA MR-90 Orekh	D/Russia		
PS/SS(4)4 YJ-83	D		
F(1)1 PJ-87 100mm/55//LJP-344 (3.0)	C		
PS/SS(R)2 PJ-12 30mm (6.2A)	C		
PB/SB(3)2 324mm TT w/3 Yu-7A/7B	F		
PB&SB(6)2 WHH-003 ASW RL w/5 salvoes	E		
Aft Pad (1)1 Ka-28 Helix A or Z-9C Haitun	B		
<u>Sensors:</u>	ES: 3rd Gen ES		
MR-750 Fregat M2, Mineral-M	J/Russia		
LJQ-364, Type 760, Type 754	J		
SJD-7	K		
TJN-905/Integrated Data Type I	L		

Remarks:

*Guangzhou/168, Wuhan/169.* Both in STCN. Aluminum superstructure, special damage modifier of -15%. Fitted with dual stabilizers, helicopter recovery system for Z-9C only.

- 2019: Guangzhou in refit with HQ-16B VLS replacing Shtil mechanical launchers. Hangar modified.

**Damage & Speed Breakdown:**

Dam Pts:	0	50	99	149	178	198
Surf Speed:	29	22	15	7	0	Sinks

**Russian Project 956E [Sovremenny I]**

Displacement:	6500 std	In Class:	2
Size Class:	B/Medium	In Service:	2000
Propulsion:	Steam Turbine	Crew:	296
Electrn Cnt:	3rd Gen J&D	Acoust Cnt:	2nd Gen T
Signature:	Medium/Noisy	Armor Rating:	0
<u>Weapons:</u>		Cbt Sys:	Gen 3 Semi-Automatic
F/A(1)2 Uragan w/24 9M38 //PW/SW/P/S/PA/SA 6 MR-90 Orekh	D/Russia		
PB&SB(4)2 Moskit-M (3M80M)	D/Russia		
F/A(2)2 AK-130 130mm/70//F MR-184 (5.1)	C/Russia		
PW/SW/PA/SA(R)4 AK-630 30mm //PS/SS 2 MR-123 (7.6)	C/Russia		
P/S(6)2 RBU 1000 Smerch-3 w/4 salvoes	E/Russia		
Aft Pad(1)1 Ka-28 Helix A	B		
P/S(2)2 533mm TT w/2 53-65K	F/Russia		
<u>Sensors:</u>	ES: 2nd Gen		
MR-750 Fregat-M2, Mineral-M, 3 MR-212/201 Vaygach-U	J/Russia		
MGK-335EM	K/Russia		

Remarks:

*Hangzhou/136, Fuzhou /137.* ETCN at Ningbo. Incomplete units 19 and 20 of Russian Sovremenny class purchased by Chinese Jan 98. Aluminium superstructure, special damage modifier of -15%. Special damage modifier of -10% for Russian surface ship design. Helicopter not normally carried. No ASW weapon storage, limited repair facilities for helicopter. Fitted with fin stabilizers. CHP armor rating for AK-130 and Moskit-M is 2.

- Jan 02: Two new-build units, Project 956EM, ordered. Listed separately.
- 2006: Fitted with TJN-905/Integrated Data Type I data link.
- 2015 - Jan 19, Dec 18: Hangzhou and Fuzhou refitted, listed separately as Sovremenny III.

**Damage & Speed Breakdown:**

Dam Pts:	0	56	112	167	201	223
Surf Speed:	32	24	16	8	0	Sinks

**Type 051B [Luhai]**

Displacement: 5900 std

Size Class: B/Medium

Propulsion: Steam Turbine

Electrn Cnt: 2nd Gen J&amp;D

Signature: Medium/Noisy

**Weapons:**

F(8)1 HQ-7 w/8 msis//LJG-345

PS/SS(4)4 YJ-83

F(2)1 PJ-33A 100mm/56//LJP-344 (1.3)

PW/SW/PA/SA(2)4 PJ-76A 37mm//PS/SS 2 LJP-347G (4.1)

PB/SB(3)2 324mm TT w/3 Yu-7A

Aft Pad (2)1 Ka-28 Helix or A Z-9 Haitun

**Sensors:** ES: 2nd Gen ES

LJQ-363S, LJQ-381A, LJQ-517A, Type 760, Type 754

SJD-7

YJN-901, YJN-902, YJN-903

**Remarks:**

Shenzhen/167 STCN. Enlarged follow-on to Type 052 Luhu design. Fitted helicopter recovery system for Z-9C only, dual fin stabilizers. Has 16 HQ-7 manual reloads. Aluminum superstructure, special damage modifier of -15%. Planned second unit canceled.

- Sep 98: Service entry delayed due to production problems caused by poor quality workmanship..
- 2006: PJ-33B replaces the earlier PJ-33A mount. Fitted with TJN-905 data link replacing YJN-901/902/903.
- Mar 15 - Aug 16: Major refit, listed separately.

**Damage & Speed Breakdown:**

Dam Pts:	0	49	98	146	176	195	
Surf Speed:	31	23	16	8	0	Sinks	

DD

**Damage & Speed Breakdown:**

Dam Pts:	0	29	78	116	140	155
Surf Speed:	30	23	15	8	0	Sinks

DD

**Type 051DT [Luda IV]**

Displacement: 3250 std

Size Class: C/Small

Propulsion: Steam Turbine

Electrn Cnt: 2nd Gen J&amp;D

Signature: Small/Noisy

**Weapons:**

A(8)1 Crotale w/8 msis//DRBC-32F Castor C

P&amp;S(3)2 HY-1A

F/A(2)2 Type 76 130mm/58//F LJP-343GA (2.5)

F/P/S(2)3 Type 76 57mm/70 (1.3L)

P/S(2)4 Type 61 25mm (0.3L)

F(12)2 WHH-002 w/5 salvoes

**Sensors:** ES: 2nd Gen

Type 515A, LJQ-363, Type 760

Sea Tiger (Kaifeng)

Type 354 (Dalian)

SJD-5B

**Remarks**

Kaifeng/109, Dalian/110, both NTCN. Kaifeng converted 1989 - 90 with Crotale launcher and Castor II radar, Gen 3 combat system. Sea Tiger radar. Has 8 manual reload Crotale missiles. Runs trials through 1992. Operational 1993. Aluminum superstructure, special damage modifier of -15%.

- 1999: Kaifeng received Gen 4 Semi-Automatic combat system, PS/SS(4)4 YJ-83, PJ-76A 37mm//LJP-347G, AA strength 4.1, 130mm AA is 3.4, LJQ-517A517A replaces Type 515A, Sea Tiger replaced by Type 354 radar. Probably converted to (8)1 HQ-7//A LJG-345 SAM system. Probably received YJN-901, 902, 903 data links.
- 2002: Dalian/110 converted to same configuration from Type 051Z.
- May 2019: Kaifeng, Dalian decommissioned.

**Damage & Speed Breakdown:**

Dam Pts:	0	40	80	119	143	159
Surf Speed:	32	24	16	8	0	Sinks

DD

**Type 052 [Luhu]**

DD

Displacement: 4200 std

Size Class: C/Small

Propulsion: CODOG/CPP

Electrn Cnt: 2nd Gen J&amp;D

Signature: Small/Noisy

**Weapons:**

F(8)1 Crotale/w/8 msis//1 DRBC 32F Castor C (Harbin) D/France

F(8)1 HQ-7 w/8 msis//1 LJG-345 (Qingdao)

PS/SS(4)2 YJ-8A

F(2)1 PJ-33A 100mm/56//LJP-344 (1.2)

PW/SW/PA/SA(2)4 PJ-76A 37mm//F/A 2 LJP-347G (4.1)

F(12)2 WHH-002 w/5 salvoes

PB/SB(3)2 324mm TT w/3 Yu-7A

Aft Pad(1)2 Z-9C

**Sensors:** ES: 2nd Gen

Sea Tiger (Harbin) J/France

LJQ-360 (Qingdao) J

LJQ-518, Type 760, Type 754 J

DE 1160B, DE 1164 VDS K/USA

**Remarks:**

Harbin/112, Qingdao/113. NTCN. Third unit canceled. Fitted with twin fin stabilizers and French-designed Samahe Harpoon-type helicopter recovery system. Crotale/HQ-7 have 8 manual reload missiles. Aluminum superstructure, special damage modifier of -15%.

- Late 90s: Harbin fitted with HQ-7, LJG-345 MFC radar replacing Crotale and Castor II.
- Late 98: Qingdao suffered engineering casualty in port gearbox. Repaired locally.
- 2002-03: Harbin fitted LJQ-360 replacing Sea Tiger radar, P/S(4)4 YJ-83 replacing YJ-8A.
- 2004-05: Qingdao fitted with PS/SS(4)4 YJ-83 replacing YJ-8A.
- 2011-12: Harbin, Qingdao refitted with PS/SS(R)2 PJ-12 30mm (AA strength 6.2A) replacing the four PJ-76A 37mm mounts. LJQ-518 air search radar replaced by LJQ-517B, LJQ-364 replaces LJQ-360, SJD-9 replaces DE-1160B hull sonar, DE 1164 VDS replaced by SJG-206 towed array, F(12)2 WHH-002 replaced by F(5)2 WHH-003 ASW RL w/5 salvoes. Other modifications include 2nd Generation towed acoustic decoy, 3rd Gen ES, 3rd Gen J&D, Gen 5 Human combat system, and TJN-906 data link.

**Type 051G [Luda III]**

DD

Displacement: 3250 std

Size Class: C/Small

Propulsion: Steam Turbine

Electrn Cnt: 2nd Gen D

Signature: Small/Noisy

**Weapons:**

P&amp;S(3)2 HY-1A

F/A(2)2 Type 76 130mm/58//F LJP-343G (2.5)

F/P/S/A(2)4 PJ-76A 37mm//F/A 2 LJP-347G (5.3)

F(12)2 WHH-002 ASW RL w/5 salvoes

**Sensors:** ES: 1st Gen

LJQ-517H-1, LJQ-381A, Type 760, Type 756 J

SJD-5A (Zhanjiang) K

DE 1160B, DE 1164 VDS (Zhuhai) K/USA

HN-900 L

**Remarks:**

Zhanjiang/165 (G1), Zhuhai/166 (G2), both STCN. Aluminum superstructure, special damage modifier of -15%. Can carry 38 mines. First PLAN ships fitted with data links - HN-900. Anti-ship cruise missile targeting uses LJP-343G.

- Zhuhai fitted with Type 825 1st Gen ECM, removed during modernization, completed with PS/SS(2)4 YJ-8A vice HY-1A. Fitted with PB/SB(3)2 324mm TT w/3 A.244.
- 1999: Zhuhai modernized, YJ-8A replaced by PS/SS(4)4 YJ-83, 130mm replaced by F/A(2)2 PJ-33B 100mm/56//F LJP-344, AA strength 2.5. Aft 37mm and aft LJP-347G replaced by A(8)1 HQ-7//A LJG-345 with 8 manual reloads. 2nd Gen jammers and decoys fitted, 2nd Gen ES, LJQ-517H-1 replaced by LJQ-517A. LJQ-381A replaced by LJQ-363. Yu-7B torpedoes replace A.244.
- 2003: Zhanjiang modified as Zhuhai 1999 refit with PB/SB(3)2 324mm TT w/3 Yu-7 torpedoes added.

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- Decommed: *Zhanjiang* and *Zhuhai* in Aug 2020.

**Damage & Speed Breakdown:**

Dam Pts:	0	40	80	119	143	159
Surf Speed:	32	24	16	8	0	Sinks

**Type 051 [Luda II]****DD****Displacement:** 3250 std**Size Class:** C/Small**Propulsion:** Steam Turbine**Signature:** Small/Noisy**Weapons:****In Class:** [1]**In Service:** 1987 (1970) - 2007**Crew:** 280**Armor Rating:** 0**Cbt Sys:** Gen 3 Semi-Automatic

P&amp;S(3)2 HY-1A

**D**

F(2)1 Type 76 130mm/58//F Type 343G (1.3)

**C**

F/P/S(2)3 Type 76 57mm/70 (0.4L)

**C**

P/S(2)4 Type 61 25mm (0.3L)

**C**

F(12)2 Type 75 ASW RL w/5 salvoes//SJD-4

**E**

PB/SB(3)2 324mm TT w/3 A.244

**F**

Aft Pad(1)2 AS.365SA

**B****Sensors:****J**

Type 515A, Type 354, Type 352, Type 756, Type 752

**K**

SJD-2, SJD-4

**Remarks**

*Jinan*/105. Type 051 refitted 1987 with helicopter pad and recovery system as trials ship. Aluminum superstructure, special damage modifier of -15%.

- 1987: Crotale system trialled on helo pad. Removed after trials completed.
- 24 Dec 87: First helicopter operations.
- 1994: Z-9C helicopter available to replace AS.365SA
- Nov 07: Decommed.

**Damage & Speed Breakdown:**

Dam Pts:	0	40	80	119	143	159
Surf Speed:	32	24	16	8	0	Sinks

**Type 051Z [Luda I]****DD****Displacement:** 3250 std**Size Class:** C/Small**Propulsion:** Steam Turbine**Signature:** Small/Noisy**Weapons:****In Class:** [2]**In Service:** 1980 - 2012**Crew:** 280**Armor Rating:** 0**Cbt Sys:** Gen 2 Manual

P&amp;S(3)2 HY-1J

**D**

F/A(2)2 Type 76 130mm/58//F Type 343G (2.5)

**C**

F/P/S/A(2)4 Type 66 57mm/70//2 Type 341 (1.4)

**C**

P/S(2)4 Type 61 25mm (0.3L)

**C**

F(12)2 Type 75 ASW RL w/5 salvoes

**E****Sensors:****J**

Type 515A, Type 354, Type 352, Type 756, Type 752

**K****Remarks**

*Dalian*/110 NTCN, *Hefei*/132 in ETCN. Completed as "Zihui" or command ships with flag spaces. Aluminum superstructure, special damage modifier of -15%.

- Mar - Aug 83: *Hefei* fitted with Gen 3 Semi-automatic, Type 381 radar. *Dalian* commissioned to this standard.
- 2000s: Type 381 radar removed from *Hefei*. 2nd Gen ES fitted.
- 2002: *Dalian* converted to Type 051DT standard, listed separately.
- Nov 2012: *Hefei* decommissioned.

**Damage & Speed Breakdown:**

Dam Pts:	0	40	80	119	143	159
Surf Speed:	32	24	16	8	0	Sinks

**Type 051D [Luda I]****DD****Displacement:** 3190 std**Size Class:** C/Small**Propulsion:** Steam Turbine**Signature:** Small/Noisy**Weapons:****In Class:** [6]**In Service:** 1978 - 2019**Crew:** 280**Armor Rating:** 0**Cbt Sys:** Gen 2 Manual

P&amp;S(3)2 HY-1J

**D**

F/A(2)2 Type 76 130mm/58//F Type 343G (2.5)

**C**

F/P/S/A(2)4 Type 76 37mm (1.3L)

**C****P/S(2)4 Type 61 25mm (0.3L)****C**

F(12)2 Type 75 ASW RL w/5 salvoes//SJD-N

**E**

4 Type 64 DC Proj w/3 Type 62 Large DC

**E**

4 DC Rack w/1 Type 62 Large DC

**E****Sensors:****ES: 1st Gen**

Type 515A, Type 354, Type 352, Type 751, Type 752

**J**

SJD-1, SJD-N

**K****Remarks:**

*Xining*/108, *Kaifeng*/109, *Chongqing*/133, *Zunyi*/134, *Nanchang*/163, *Guilin*/164. ETCN 133, 134, NTCN 108, 109, STCN 163, 164. Batch 2 of Type 051, refined design. Can carry 38 mines vice DC. Aluminum superstructure, special damage modifier of -15%.

- Jul 85: *Kaifeng* trials HY-1A missiles, in service 1987.

- Jul 89 - Dec 90: *Kaifeng* converted to Luda IV configuration, listed separately.

- 1989-90: Backfitted with SJD-2, SJD-4 sonars, DC rails and projectors removed. Fitted for UNREP.

- 2004: *Xining*, *Chongqing*, *Guilin*, *Zunyi* upgraded with Gen 3 Semi-automatic combat system, 2nd Gen ES, and TJN-905 data link fitted. LJQ-517H-1 replaces Type 515A. *Nanchang* and *Guilin* transferred to NTCN.

- 2015: *Zunyi* transferred to NTCN.

- Decommed: *Xining* 2013. *Chongqing* 2014, *Nanchang* 2016, *Zunyi*, *Guilin* May 2019.

**Damage & Speed Breakdown:**

Dam Pts:	0	39	79	118	141	157
Surf Speed:	32	24	16	8	0	Sinks

**Type 051 [Luda I]****DD****Displacement:** 3190 std**In Class:** [7]**Size Class:** C/Small**In Service:** 1971 - 2012**Propulsion:** Steam Turbine**Crew:** 280**Signature:** Small/Noisy**Armor Rating:** 0**Weapons:****Cbt Sys:** Gen 2 Manual

P&amp;S(3)2 HY-1J

**D**

F/A(2)2 Type 76 130mm/58//Wok Wan optical director

**C**

F/P/S/A(2)4 Type 61 37mm (0.8L)

**C**

P/S(2)4 Type 61 25mm (0.3L)

**C**

F(12)2 Type 75 ASW RL w/5 salvoes//SJD-N

**E**

4 Type 64 DC Proj w/3 Type 62 Large DC each

**E**

4 DC Rack w/1 Type 62 Large DC each

**E****Sensors:****ES: 1st Gen**

Type 515A or 515B, Type 352, Type 354, Type 751, Type 752

**J**

SJD-1, SJD-N

**K****Remarks:**

*Jinan*/105, *Xi'an*/106, *Yinchuan*/107, *Nanjing*/131, *Guangzhou*/160, *Changsha*/161, *Nanning*/162. ETCN 131, NTCN 105-107, STCN 160-162. Based on plans for Project 56 Kotlin class received in 1957. Many design flaws, including poor watertight compartmentation, special damage modifier of -10%. Aluminum superstructure, special damage modifier of -15%. Can carry 38 mines vice DC.

- *Nanjing*, *Changsha* and *Nanning* completed with Type 343 GFC radar for Type 76 130mm, AA strength 2.5. Others backfitted by 1975.

- *Nanjing* fitted with 2nd Gen Decoys.

- *Yinchuan*, *Nanjing*, *Hefei* and *Nanning* are fitted with Type 515B vice Type 515A.

- Sep 73: HY-1J first test fired.

- 9 Mar 78: *Guangzhou* lost from a magazine explosion.

- Apr 80: *Jinan* fitted with Gen 3 Semi-Automatic combat system for trials. Removed Oct 83.

- Aug 86 - Jul 87: *Jinan* refitted with hangar, listed separately as Type 051 [Luda II].

- 1987: Fitted with HY-1A.

- 1989-90: Backfitted with SJD-2, SJD-4 sonars, DC rails and projectors removed. Fitted for UNREP.

- Decommed: *Xi'an* Sep 07; *Jinan* Nov 07; *Changsha* Aug 08; *Nanjing*, *Nanning* Sep 12; *Yinchuan* Oct 12.

**Damage & Speed Breakdown:**

Dam Pts:	0	35	70	104	125	139
Surf Speed:	32	24	16	8	0	Sinks

**Type 6607/Type 7/****Ex-Russian Project 7 [Gordy]****DD**

**Displacement:** 1657 std  
**Size Class:** C/Small  
**Propulsion:** Steam Turbine  
**Signature:** Small/Noisy  
**Weapons:**

**In Class:** [4]  
**In Service:** 1954 (1938) - 92  
**Crew:** 250  
**Armor Rating:** 0  
**Cbt Sys:** Gen 1 Manual

F/A(1)4 B-13-2C 130mm/50/F Zarya  
F/P/S/A(2)4 V-11M 37mm/67 (0.8L)  
P&S(3)2 533mm TT w/3 53-39  
2 BMB-1 DC Proj w/4 BB-1 DC each  
2 DC Rail w/5 BB-1 DC each

C/Russia  
C/Russia  
F/Russia  
E/Russia  
E/Russia

**Sensors:**  
Gyuys-1M4, Lin, Neptun  
Tamir-5N, Mars-16

J/Russia  
K/Russia

**Remarks:**  
Anshan (ex-Rekordny)/201, Fushun (ex-Rezky)/202, Changchun (ex-Reshitelnly)/203, Taiyuan (ex-Retiviy)/204. NTCN. 40 DC total. Can carry 60 moored mines replacing DC. Class built with brittle hull steel that was susceptible to fragmentation damage, special damage modifier of -10%. Single engine room, double the speed reduction of all Engineering critical hits.

- 1968-74: 533mm TT replaced by P&S(2)2 SY-1 missiles. Type 64 DC projectors w/3 Type 62 Large DCs each replace BMB-1. Type 62 Large DC replace BB-1 on a one for one basis. Radar fit Russian P-8 and Don, Chinese Type 352, and Type 751. Sonar fit SJD-3. Anshan Jan-Dec 68, Fushun May 69 - Feb 70, the last two from 1970 - 74.
- Oct 1974: Hull numbers changed to 101, 102, 103, and 104.
- Decommed: Anshan 1992 (as a museum ship), Fushun 1989, Changchun 1990, Taiyuan 1991 (as stationary training ship).

**Damage & Speed Breakdown:**

<b>Dam Pts:</b>	0	27	54	80	96	107
<b>Surf Speed:</b>	32	24	16	8	0	Sinks

**Type 054A [Jiangkai II]****FFG**

**Displacement:** 3600 std  
**Size Class:** C/Small  
**Propulsion:** CODAD  
**Electrn Cnt:** 3rd Gen J&D  
**Signature:** Small/Noisy

**In Class:** 30 + 4 + 16  
**In Service:** 2006  
**Crew:** 190  
**Acoust Cnt:** 2nd Gen T  
**Armor Rating:** 0  
**Cbt Sys:** Gen 5 Human

**Weapons:**  
F&A(32)1 VLS w/32 HQ-16A and Yu-8  
//PW/SW/PA/SA Chinese MR-90 Orehk  
PS/SS(2)4 YJ-83

F(1)1 PJ-26 76mm/59//LJP-349 (3.0)

P/S(R)2 PJ-12 30mm (6.2A)  
PB/SB(3)2 324mm TT w/3 Yu-7A/7B  
PB&SB(6)2 WHH-003 ASW RL w/5 salvoes

Aft Pad (1)1 Z-9C Haitun or Ka-28 Helix A

**Sensors:**  
ES: 3rd Gen ES  
LJQ-382, LJQ-364, LJQ-366, Type 760, Type 754  
SJD-9, SJG-206  
TJN-905/Integrated Data Type I  
F EO/IR (3rd Gen)

**Remarks:**

- Fitted with helo recovery system for Z-9C only, dual fin stabilizers. Aluminum superstructure, special damage modifier of -15%.
- Units 1-16 as above: ETCN - 529, 530, 548, 549; NTCN - 538, 546, 547, 550; STCN - 568-575.
  - Units 17-26 (Daqing/576) have PJ-11 vice PJ-12 (AA strength 10.0A), 4 mg added, SJG-311 active towed array vice SJG-206 passive array. 3rd Gen acoustic decoy vice towed decoy. ETCN - 515, 532, 577, 578; NTCN - 539, 576, 579, 598; STCN - 531, 536. Sometimes referred to as Type 054A+.
  - Units 27-30 have improved EW systems, unknown changes. ETCN - 599; NTCN - 542, 533; STCN - 500.
  - Feb 12: 568 Chaohu renamed Hengyang.
  - May 12: 529 Zhoushan/529 operates three S-100 UAV during an exercise.

- Jul 15: Yu-8 trials first seen publicly launched.

• 2020: Speculation of the re-start of Type 054A production has been shown to be true with the launch of two new hulls in Jul and Aug 2021. A total build of an additional 10 to 20 frigates is anticipated. Early photographs show a new director for the HQ-16, type unknown.

**Damage & Speed Breakdown:**

<b>Dam Pts:</b>	0	35	70	105	126	140
<b>Surf Speed:</b>	27	20	14	7	0	Sinks

**Type 054 [Jiangkai I]****FFG**

**Displacement:** 3500 std  
**In Class:** 2  
**Size Class:** C/Small  
**Propulsion:** Diesel  
**Electrn Cnt:** 3rd Gen J&D  
**Signature:** Small/Noisy  
**Weapons:**

F(8)1 HQ-7A w/8 missiles//LJG-345  
PS/SS(4)2 YJ-83

F(1)1 PJ-87 100mm/55//LJP-344 (3.0)

P/S/PA/SA(R)4 PJ-13 30mm//A LJP-347G (5.9)

PB/SB(3)2 324mm TT w/3 Yu-7A/7B

PB&SB(6)2 WHH-003 ASW RL w/5 salvoes

Aft Pad (1)1 Ka-28 Helix A or Z-9C Haitun

**Sensors:** ES: 3rd Gen ES

LJQ-364, LJQ-360, Type 760, Type 754

SJD-9

TJN-905/Integrated Data Type I

F EO/IR (3rd Gen)

**Remarks:** Ma'an Shan/525, Wenzhou/526 in ETCN. Design includes shaping to reduce radar signature. Z-9C can use helicopter recovery system. Aluminum superstructure, special damage modifier of -15%. Eight automatic reloads for HQ-7A, estimated one minute per missile. Fitted with dual fin stabilizers.

- Feb 19: Ma'an Shan enters mid-life refit. Planned changes unknown, but include replacing HQ-7A with 24 cell HQ-10 launcher and improved (unknown) EW.

**Damage & Speed Breakdown:**

<b>Dam Pts:</b>	0	35	69	104	124	138
<b>Surf Speed:</b>	27	20	14	7	0	Sinks

**Type 053H1G [Jianghu I Upgrade] (2007)****FF**

**Displacement:** 1674 std  
**In Class:** 6 - 2  
**Size Class:** D/Small  
**Propulsion:** Diesel  
**Electrn Cnt:** 2nd Gen J&D  
**Signature:** Small/Noisy  
**Weapons:**

PS/SS(4)2 YJ-83

F/A(2)2 PJ-33B 100mm/56//LJP-343G (2.5)

PW/SW/PA/SA(2)4 PJ-76A 37mm//A LJP-347G (4.1)

F(6)2 WHH-003 ASW RL w/5 salvoes

**Sensors:** ES: 2nd Gen

LJQ-361, Type 760, Racal Decca 1226

SJD-5A

TJN-905/Integrated Data Type I

**Remarks:** Zigong/558, Kangding/559, Dongguan/560, Shantou/561, Jiangmen/562, Zhaoqing/563. 558 and 559 ETCN, remainder STCN. Type 053H-1 [Jianghu I Mod] class upgraded 2007 - 2010. Single engine room, double the speed reduction of Engineering critical hits. Fitted with fin stabilizers. Aluminum superstructure, special damage modifier of -15%.

- 2010: Zigong renamed Beihai. Kangding renamed Foshan.

• 2020: Jiangmen, Zhaoqing designated training ships.

- Feb 20: Dongguan, Shantou decommed.

**Damage & Speed Breakdown:**

<b>Dam Pts:</b>	0	26	51	77	92	102
<b>Surf Speed:</b>	26	20	13	7	0	Sinks

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**Type 053H3 [Jiangwei II]**

Displacement:	2250 std	In Class:	10 - 2
Size Class:	C/Small	In Service:	1998
Electrn Cnt:	2nd Gen J&D	Acoust Cnt:	None
Propulsion:	Diesel/CPP	Crew:	168
Signature:	Small/Noisy	Armor Rating:	0
Weapons:		Cbt Sys:	Gen 4 Semi-Automatic
F(8)1 HQ-7 w/8 msds//LJG-345		D	
PS/SS(4)2 YJ-83		D	
F(2)1 PJ-33A 100mm/56//LJP-343GA (1.2)		C	
PW/SW/PA/SA(2)4 PJ-76A 37mm//A LJP-341 (4.1)		C	
F(6)2 WHH-003 ASW RL w/5 salvos		E	
Aft Pad(1)1 Z-9C Haitun		B	
<b>Sensors:</b>	<b>ES:</b> 2nd Gen		
LJQ-517H-1, LJQ-360, Racal Decca 1290, Type 754		J	
SJD-5A		K	
YJN-901, 902		L	

**Remarks**

- ETCN - *Jiaxing*/521, *Lianyungang*/522, *Putian*/523, *Sanming*/524, *Huaihua*/566, *Xiangfan*/567. NTCN - *Luoyang*/527, *Mianyang*/528, *Yichang*/564. STCN - *Yulian*/565. Fitted with helicopter recovery system. Has 8 manual reloads for HQ-7. Single engine room, double the speed reduction of Engineering critical hits. Fitted with fin stabilizers. Aluminum superstructure, special damage modifier of -15%. • *Luoyang*/527 and *Mianyang*/528 have LJQ-517B replacing LJQ-517H-1, LJQ-361A replacing LJQ-360, LJG-344 replacing LJG-343GA, LJP-347G replacing LJP-341, TJN-905 data link. • Late 00s: All ships fitted with LJQ-517B replacing LJQ-517H-1. Some may have received 2nd Gen towed acoustic countermeasures. • 2008: *Yulian* renamed *Sanya*. • Jun 11: *Xiangfan* renamed *Xiangyang*. • Apr 13: *Sanya* renamed *Huludao* and transferred to NTCN. • 2017 - 2020: *Luoyang*, *Minayang*, *Yichang*, *Huludao*, *Xiangyang* and *Huaihua* modernized. Jiangwei II Upgrade has F(8)1 HQ-10 vice HQ-7, all PJ-76A replaced with PA/SA(R)2 modified PJ-13 30mm//A LPJ-347G (AA strength 2.9), LPJ-344 replaces LPJ-343GA for PJ-33, LJQ-361A replaces LJQ-360 radar, SJD-5B sonar replaces SJD-5A. 3rd Gen EO/IR, 3rd Gen ES, 3rd Gen J&D, 5th Gen Human combat system, and TJN-906 data link added. • 2019: *Lianyungang*/522 and *Putian*/523 transferred to Bangladesh.

**Damage & Speed Breakdown:**

Dam Pts:	0	26	51	77	92	102
Surf Speed:	27	20	14	7	0	Sinks

**Type 053H1G [Jianghu I Mod]**

Displacement:	1565 std	In Class:	6
Size Class:	D/Small	In Service:	1993
Propulsion:	Diesel	Crew:	195
Electrn Cnt:	2nd Gen J&D	Acoust Cnt:	None
Signature:	Small/Noisy	Armor Rating:	0
Weapons:		Cbt Sys:	Gen 3 Semi-Automatic
P&S(2)2 SY-1A or SY-2		D	
F/A(2)2 Type 79 100mm/56//F LJP-343G (1.5)		C	
PW/SW/PA/SA(2)4 PJ-76A 37mm//A LJP-341 (3.5)		C	
F(6)2 WHH-003 ASW RL w/5 salvos		E	
<b>Sensors:</b>	<b>ES:</b> 2nd Gen		
LJQ-517H-1, LJQ-360, Racal Decca 1226		J	
SJD-5A		K	
HN-900		L	

**Remarks**

- Zigong/558, Kangding/559, Dongguan/560, Shantou/561, Jiangmen/562, Zhaoqing/563. 558, 559 in ETCN, rest in STCN. Single engine room, double the speed reduction of Engineering critical hits. Fitted with fin stabilizers. Aluminum superstructure, special damage modifier of -15%. • 2007 - 10: Additional modifications to Type 053H1G [Jianghu I Upgrade] listed separately.

**Damage & Speed Breakdown:**

Dam Pts:	0	25	49	74	88	98
Surf Speed:	26	20	13	7	0	Sinks

FF

**Type 053H2G [Jiangwei I]**

Displacement:	2180 std	In Class:	[4]
Size Class:	C/Small	In Service:	1992 - 2018
Propulsion:	Diesel/CPP	Crew:	170
Electrn Cnt:	2nd Gen J&D	Acoust Cnt:	None
Signature:	Small/Noisy	Armor Rating:	0
Weapons:		Cbt Sys:	Gen 3 Semi-Automatic

F(6)1 HQ-61B//F LJG-342 D

P/S(3)2 YJ-8A D

F(2)1 Type 79 100mm/56//F LJP-343G (0.8) C

PW/SW/P/S(2)4 PJ-76A 37mm//A LJP-341 (3.5) C

F(6)2 WHH-003 ASW RL w/5 salvos E

Aft Pad(1)1 Z-9C Haitun B

**Sensors:** ES: 2nd Gen

LJQ-517B, LJQ-360, Racal Decca 1226, Type 760, Type 754 J

SJD-5A K

HN-900 L

**Remarks**

Anqing/539, Huainan/540, Huaibei/541, Tongqing/542. All ETCN. No SAM reloads. Fitted with helicopter recovery system. Single engine room, double the speed reduction of Engineering critical hits. Fitted with fin stabilizers. Aluminum superstructure, special damage modifier of -15%.

- Hulls 540 and 542 fitted with developmental SJG-206 towed array. PJ-33B replaces the Type 79 100mm gun (AA strength 1.2).
- 2015: Anqing, Huainan, Huaibei converted to coast guard cutters, listed separately.
- 2019: Tongqing gifted to Sri Lanka.

**Damage & Speed Breakdown:**

Dam Pts:	0	25	50	75	90	100
Surf Speed:	27	20	14	7	0	Sinks

**Type 053H2 [Jianghu III]**

Displacement:	1655 std	In Class:	[3]
Size Class:	C/Small	In Service:	1986 - 2019
Propulsion:	Diesel	Crew:	160
Electrn Cnt:	2nd Gen J&D	Acoust Cnt:	None
Signature:	Small/Noisy	Armor Rating:	0
Weapons:		Cbt Sys:	Gen 3 Semi-Automatic

PB&amp;SB(2)4 YJ-8 D

F/A(2)2 Type 79 100mm/56//F LJP-343G (1.5) C

PW/SW/PA/SA(2)4 Type 76 37mm//A Type 341 (3.7) C

F(5)2 Type 65 ASW RL w/5 salvos E

**Sensors:** ES: 2nd Gen

Type 354, Type 352, Racal Decca 1290, Type 752 J

SJD-5 K

**Remarks**

Huangshi/535, Wuhu/536, Zhoushan/537. All ETCN. Type 65 ASW RL fixed in train, ship must be pointed directly at the target to fire. Single engine room, double the speed reduction of Engineering critical hits. Fitted with fin stabilizers. Aluminum superstructure, special damage modifier of -15%.

- Zhoushan had a LJQ-517H-1 radar, and YJ-8A vice YJ-8.
- Mid-1990s: LJQ-517H-1 radar removed from Zhoushan.
- Transfers to NTCN: 536 in 1999, 535 in 2000, 537 in 2006.
- 2000s: Fitted with PS/SS(4)2 YJ-83 missiles vice YJ-8/A. YJN-901, 902 data links added. Type 352 removed.
- 2006: Zhoushan renamed Cangzhou.
- 2013-14: 535, 536 sold to Bangladesh.
- 2014: Zhoushan transferred to Nansha Patrol Brigade of the South China Sea.
- 2019: Cangzhou decommissioned and sunk as a target ship.

**Damage & Speed Breakdown:**

Dam Pts:	0	25	51	76	91	101
Surf Speed:	27	20	14	7	0	Sinks

**Damage & Speed Breakdown:**

Dam Pts:	0	25	49	74	88	98
Surf Speed:	26	20	13	7	0	Sinks

FF

**Type 053H1Q [Jianghu II]**

**Displacement:** 1550 std  
**Size Class:** D/Small  
**Propulsion:** Diesel  
**Electr Cnt:** 2nd Gen J&D  
**Signature:** Small/Noisy  
**Weapons:**  
 P&S(2)1 SY-1A  
 F(1)1 Compact 100mm/55 Mk1//Naja EO GFC  
 PW/SW/P/S(2)4 Type 76 37mm//A Type 341 (3.7)  
 F(5)2 Type 65 ASW RL w/5 salvoes  
 PB/SB(3)2 324mm TT w/3 A.244  
 Aft Pad(1)1 AS.365SA

**In Class:** [1]  
**In Service:** 1986 - 2019  
**Crew:** 185  
**Acoust Cnt:** None  
**Armor Rating:** 0  
**Cbt Sys:** Gen 2 Manual

FF

**Sensors:**  
 Type 354, Type 352, Type 756  
 SJD-5

**Remarks:**

*Siping*/544. NTCN. Helo pad aft for Z-9. First PRC-built ship with a helicopter pad. Type 65 ASW RL fixed in train, ship must be pointed directly at the target to fire. Single engine room, double the speed reduction of Engineering critical hits. Fitted with fin stabilizers. Aluminum superstructure, special damage modifier of -15%.

- 1992: SY-2 available to replace SY-1A.
- 1994: Z-9 available to replace AS.365SA.
- Mid 1990s. Type 362 radar replaces Type 352.
- 20 Aug 06: Transferred to Chinese Naval Academy as a training ship.
- 28 Jul 10: Renamed *Lushun*.
- Sep 19: Decommissioned.

**Damage & Speed Breakdown:**

Dam Pts:	0	24	49	73	87	97
Surf Speed:	27	20	14	7	0	Sinks

**Type 053H1 [Jianghu I]**

**Displacement:** 1425 std  
**Size Class:** D/Small  
**Propulsion:** Diesel  
**Signature:** Small/Noisy  
**Weapons:**  
 P&S(2)2 SY-1

**In Class:** 9 - 8  
**In Service:** 1982 - 2019  
**Crew:** 175  
**Armor Rating:** 0  
**Cbt Sys:** Gen 2 Manual

FF

F/A(2)2 Type 79 100mm/56//F Type 343G (1.5)  
 PW/SW/PA/SA(2)4 Type 61 37mm/Type 341 (1.5)  
 F(5)2 Type 65 ASW RL w/5 salvoes  
 4 Type 64 DC Proj w/3 Type 62 Large DC each

**Sensors:**  
 Type 354, Type 352, Type 756

**Remarks:**

*Ningbo*/533, *Jinhua*/534, *Dandong*/543, *Linfen*/545, *Shaoguan*/553, *Anshun*/554, *Zhaotong*/555, *Xiangtan*/556, *Jishou*/557. 533, 534 in ETCN. 543, 545 in NTCN. 553-557 in STCN. Type 65 ASW RL fixed in train, ship must be pointed directly at the target to fire. Can carry 24 mines. DCs can also be rolled off the mine rails. Single engine room, double the speed reduction of Engineering critical hits. Aluminum superstructure, special damage modifier of -15%.

- 1984: SY-1A available to replace SY-1.
- Sep 89: *Xiangtan*/556 transferred to Bangladesh.
- 1986 - 1990: Fitted with 2nd Gen missile decoys, 2nd Gen ES, LJQ-517H-1 and Racal Decca 1290 radars. Trainable PB&SB(6)2 WHH-003 ASW RL w/5 salvoes replaced Type 65.
- 1992 SY-2 available to replace SY-1A.
- 2003: *Ningbo*/533 renamed *Taizhou*.
- 2012: *Anshun*/554, *Jishou*/557 transferred to Burma/Myanmar.
- 2012: *Dandong*/543, *Shaoguan*/553, *Zhaotong*/555 converted to OPV. SY-1/2 deactivated, LJQ-517H-1 radar removed, 2 vice 4 37mm mounts (AA strength 0.8), 4 mg and 2 RIB added.
- Decommissioned: *Taizhou*/533, *Jinhua*/534, *Linfen*/545 2019, *Zhaotong*/555 Apr 21, *Dandong*/543 May 21.

**Damage & Speed Breakdown:**

Dam Pts:	0	23	46	69	83	92
Surf Speed:	27	20	14	7	0	Sinks

**Type 053H [Jianghu I]**

**Displacement:** 1425 std  
**Size Class:** D/Small  
**Propulsion:** Diesel  
**Signature:** Small/Noisy  
**Weapons:**

P&S(2)2 SY-1

**C/France**

F/A(1)2 B-34 100mm/56//optical director

PW/SW/P/S/PA/SA(2)6 Type 61 37mm (**0.8L**)

F(5)2 Type 65 ASW RL w/5 salvoes

4 Type 64 DC Proj w/3 Type 62 Large DC each

**Sensors:**

Type 354, Type 352, Type 756

SJD-3

**Remarks:**

509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 552. 511-517 in ETCN. 519, 520 in NTCN. 509, 510, 518 in STCN. Type 65 ASW RL fixed in train, ship must be pointed directly at the target to fire. Can carry 24 mines. DCs can also be rolled off the mine rails.

Single engine room, double the speed reduction of Engineering critical hits. Aluminum superstructure, special damage modifier of -15%. • *Xiamen*/515, *Changsha*/516 and *Nanping*/517 completed with F(5)4 Type 65 ASW RL vice two.

• *Wuxi*/512, *Huaiyin*/513, and *Zhenjiang*/514 have 2 Type 756 radars.

• Aug 81: *Changsha*/516 renamed *Jiujiang*.

• 1984: SY-1A available to replace SY-1.

• 1985: *Jiujiang*/516 had 100mm replaced by F/A(2)2 Type 79 100mm//F Type 343G (AA strength 1.5), fitted with fin stabilizers, Type 65 ASW RL reduced to two.

• 18 Aug 85: *Kaifeng*/520 damaged in typhoon. Never repaired, decommed 1992, struck 1993.

• 1990s: Fitted with 2nd Gen missile decoys. *Huaiyin*/513 fitted with HN-900 receive-only data link.

• 1992: SY-2 available to replace SY-1A.

• 2002-04: *Jiujiang*/516 refitted as fire support ship. SY-1/2 launchers replaced by (50)5 HJP-12 122mm MRL (land attack only), Type 79 100mm replaced by PJ-33B (AA strength 2.1). P/S/PA/SA Type 61 37mm removed (AA strength 0.3L). NATO designation Jianghu V.

• 20 Dec 06: *Huaiyin*/513 renamed *Huai'an*.

• Mar 07: *Changde*/509 and *Shaoxing*/510 transferred to the Coast Guard, armed with F(1) Type 61 37mm/67 (AA strength 0.3L), P/S(2)2 QJG-02 14.5mm (AA strength 0.3L), Type 760 and Type 756 radars only. Both struck 2016.

• 2010-11: *Changzhi*/519 fitted for trials with F(24)1 HQ-10 w/24 missiles, replacing PW/SW 37mm, AA strength 0.3L.

• 2012: *Ji'an*/518 and *Nanping*/517 converted to training ships.

• Decommed: *Kaifeng*/520 1993, *Xiamen*/515 2010, *Nantong*/511, *Wuxi*/512, *Ji'an*/518, *Changzhi*/519, *Maoming*/551, *Yibin*/552 2012, *Huainan*/513, *Zhenjiang*/514 2013, *Jiujiang*/516 2018, *Nanping*/517 2019.

**Damage & Speed Breakdown:**

Dam Pts:	0	23	46	69	83	92
Surf Speed:	27	20	14	7	0	Sinks

**Type 053K [Jiangdong]**

**Displacement:** 1674 std  
**Size Class:** C/Small  
**Propulsion:** Diesel  
**Signature:** Small/Noisy  
**Weapons:**

F/A(1)2 HQ-61B w/12 msis//F/A Type 342

F/A(2)2 Type 79 100mm/56//Type 343G (1.5)

P/S(2)4 Type 76 37mm//A Type 341 (3.7)

(5)2 Type 65 ASW RL w/5 salvoes

2 Type 64 DC Proj w/3 Type 62 Large DC each

2 DC chutes w/6 Type 62 Large DC each

**Sensors:**

Type 352, Type 756

SJD-3

FF

**In Class:** [2]  
**In Service:** 1975 - 94  
**Crew:** 198  
**Armor Rating:** 0  
**Cbt Sys:** Gen 2 Manual

**ES:** 1st Gen

D

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**Damage & Speed Breakdown:**

Dam Pts:	0	23	46	69	83	92
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Surf Speed:	27	20	14	7	0	Sinks
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J

K

**Remarks:**

*Yingtan*/531, Hull 2/532. Hull 2 did not receive an official name, although many Western sources list the name as *Zhundong*. Hull 2 was never fully operational. Both assigned to the ETCN. Type 65 ASW RL fixed in train. Total of 48 DCs carried. Problems with HQ-61B delayed operational status. Takes one Tactical Turn to reload HQ-61B. Based on a Soviet design, special damage modifier of -10%.

- 1975-86: *Yingtan* served as developmental ship. First successful HQ-61B test Nov 1984.
- 1978: Hull 2 seriously damaged in a collision with the freighter *Daxinganling*. Was never fully repaired nor fitted with HQ-61B missile system or Type 381 radar. Decommissioned in 1986 and sunk as a target ship.
- Nov - Dec 86: Operational SAM system, Type 381 radar, UNREP rigs fitted to *Yingtan* only.
- Decommed: *Yingtan* 1994.

**Damage & Speed Breakdown:**

Dam Pts:	0	27	54	81	97	108	
Surf Speed:	27	20	14	7	0	Sinks	

**Type 65 [Jiangnan]**

Displacement:	1145 std	In Class:	[5]	FF
Size Class:	D/Small	In Service:	1966-95	
Propulsion:	Diesel	Crew:	163	
Signature:	Small/Noisy	Armor Rating:	0	
Weapons:	F/2A(1)3 B-34 100mm/56//optical director only	Cbt Sys:	Gen 2 Manual	C/Russia
F/P/S/A(2)4 Type 61 37mm (0.5L)				C
P/S(2)2 Type 82 14.5mm (0.3L)				C
F(5)2 Type 65 ASW RL w/5 salvos				E
4 Type 64 DC Proj w/3 Type 62 Large DC each				E
2 DC chutes w/6 Type 62 Large DC each				E
<b>Sensors:</b>	ES: 1st Gen			
Type 351				J
Don				J/Russia
Tamir 11				K/Russia

**Remarks:**

*Haikou*/209, *Xiaguan*/231, *Nanchong*/232, *Kaiyuan*/233, *Dongchuan*/214. *Haikou* ETCN, remainder STCN. PRC version of Russian Project 50 [Riga] class, 100mm guns are Russian B-34 models taken from coastal defense installations. Type 65 ASW RL fixed in train. Total of 48 DCs carried. Based on a Soviet design, special damage modifier of -10%.

- 1970s: Hull numbers were changed to 529, 501, 502, 503, 504. Type 351 radar replaced with a Type 751.
- 1981: *Haikou* transferred to STCN.
- Decommed: *Haikou*, *Kaiyuan*, *Xiaguan* 1993. *Dongchuan*, *Nanchong* 1995.

**Damage & Speed Breakdown:**

Dam Pts:	0	21	42	63	76	84	
Surf Speed:	22	17	11	6	0	Sinks	

**Type 6601/Type 1/**

Ex-Russian Project 50 [Riga]		FF
Displacement:	1186 std	In Class: [4]
Size Class:	D/Small	In Service: 1957 - 94
Propulsion:	Steam Turbine	Crew: 168
Signature:	Small/Noisy	Armor Rating: 0
Weapons:	F/2A(1)3 B-34 100mm/56//F Yakor-M1 (1.0)	Cbt Sys: Gen 2 Manual
PA/SA(2)2 V-11M 37mm (0.3L)		C/Russia
F(6)2 RBU 1200 Uragan w/5 salvos//Pegas-2M		E/Russia
4 BMB-2 DC Proj w/4 BB-1 DC each		E/Russia
2 DC chutes w/6 BB-1 DC each		E/Russia
P&S(2)1 533mm TT w/2 53-39		F/Russia
<b>Sensors:</b>	ES: 1st Gen	
Fut-N, Neptun-M		J/Russia
Pegas 2M		K/Russia

**Remarks:**

*Kunming*/505, *Chengdu*/506, *Guizhou*/507, *Hengyang*/508. Assembled in China from Russian components. Single engine room, double the speed reduction of engineering critical hits. Total of 48 DCs carried. Can carry 28 mines instead of DC. Bridge, 100mm guns and engineering have CHP armor rating of 2. Poor turning circle, treat as C-sized on Ship Turning Distance table. Soviet design, special damage modifier of -10%. Aluminum superstructure, -15% damage modifier.

- May 71 - Sep 73: Converted to Type 1 class with Type 352 radar added. TT replaced by P&S(2)1 SY-1.
- Jan 74: Transferred to STCN.
- 1978-79: P/S(2)2 Type 82 14.5mm added, AA rating (0.3L). Type 752 radar replaces Neptun-M.
- 1 Aug 86: *Guizhou* renamed as *Pingxiang*, *Hengyang* as *Xichang*.
- Decommed: *Chengdu* 1992, *Xichang* 1993, *Kunming* 1994, *Pingxiang* 1995.

**Damage & Speed Breakdown:**

Dam Pts:	0	18	36	54	65	72	
Surf Speed:	28	21	14	7	0	Sinks	

**Type 056A [Jiangdao]**

Displacement:	1300 std	In Class:	50	FFL
Size Class:	D/Small	In Service:	2014	
Propulsion:	Diesel/CPP	Crew:	70	
Electrn Cnt:	3rd Gen J&D	Acoust Cnt:	3rd Gen D	
Signature:	Small/Noisy	Armor Rating:	0	
Weapons:	PS/SS(2)2 YJ-83	Cbt Sys:	Gen 5 Human	D
A(8)1 HQ-10 w/8 msls				D
F(1)1 PJ-26 76mm/59//LJP-347G (3.0)				C
P/S(1)2 PJ-17 30mm (0.1L)				C
PB/SB (3)2 324mm TT w/3 Yu-7A/7B				F
<b>Sensors:</b>	ES: 3rd Gen			J
LJQ-361A, Type 760, Type 754				K
SJD-9, SJG-311				L
TJN-906				--
F EO/IR (3rd Gen)				--

**Remarks:**

Aft pad for Medium helo with recovery system for Z-9C/D, no hangar. Fitted with fin stabilizers. Stern modified to accommodate towed array. Can carry Yu-8 replacing YJ-83. Aluminum superstructure, special damage modifier of -15%.

- 21st and later units have QJG-02 14.5mm vice PJ-17, AA strength 0.1L, new EW fit.

**Damage & Speed Breakdown:**

Dam Pts:	0	18	36	53	64	71	
Surf Speed:	28	21	14	7	0	Sinks	

**Type 056 [Jiangdao]**

Displacement:	1300 std	In Class:	22	FFL
Size Class:	D/Small	In Service:	2013	
Propulsion:	Diesel/CPP	Crew:	70	
Electrn Cnt:	3rd Gen J&D	Acoust Cnt:	None	
Signature:	Small/Noisy	Armor Rating:	0	
Weapons:	PS/SS(2)2 YJ-83	Cbt Sys:	Gen 5 Human	D
A(8)1 HQ-10 w/8 msls				D
F(1)1 PJ-26 76mm/59//LJP-347G (3.0)				C
P/S(1)2 PJ-17 30mm (0.1L)				C
PB/SB (3)2 324mm TT w/3 Yu-7A/7B				F
<b>Sensors:</b>	ES: 3rd Gen			J
LJQ-361A, Type 760, Type 754				K
SJD-9				L
TJN-906				--
F EO/IR (3rd Gen)				--

**Remarks:**

Aft pad for Medium helo, no hangar. Fitted with stabilizers. Aluminum superstructure, special damage modifier of -15%.

**Damage & Speed Breakdown:**

Dam Pts:	0	18	36	53	64	71	
Surf Speed:	28	21	14	7	0	Sinks	

**Type 55A [Shantou]**

**Displacement:** 75 std  
**Size Class:** F/VS Small  
**Propulsion:** Diesel  
**Signature:** VSmall/Noisy  
**Weapons:**  
 F/A(2)2 Type 61 37mm (0.5L)  
 P/S(2)2 Type 69 14.5mm (0.3L)  
 8 DC racks w/1 Type 62 Large DC each

**Sensors:**

Reya or Zarnitsa

**Remarks:**

Also known as 'Swatow' class. Some fitted with F(2)1 Type 56 75mm recoilless rifle (see 8.3.6). Can replace DCs with mines.

- 1982: 20 ETCN, 14 NTCN, 16 STCN.
- Transfers: 8 to North Korea in 1968. 12 to North Vietnam in 1970s.
- Struck: 10 1977, 5 1979, 12 1981, 50 1980s-92.

**Damage & Speed Breakdown:**

Dam Pts:	--	--	--	--	--	15.1
Surf Speed:	22	17	11	6	0	Sinks

**PB**

**In Class:** [76]  
**In Service:** 1956 - Mid 1990s  
**Crew:** 36  
**Armor Rating:** 0  
**Cbt Sys:** None

**C****C****E****Remarks:**

Modernized ASW variant of Type 037. Hulls 612-614, 633, 634, 710-713, 743, 744, 761-763, 786-789. Later units have PJ-76F 37mm (AA strength 1.1L) and YJN-901, 902 data links including 613, 614 and 634.

- 2008: 611 renamed 619.
- 2015: 710 and 711 transferred to Tanzania with PJ-76A 37mm.
- 2016: 786 and 787 to Namibia. 631, 632, 635, 788 struck.
- 2018: 17 remain.
- 2020: Nine remain - 613, 634, 635, 713, 761, 762, 763.

**Damage & Speed Breakdown:**

Dam Pts:	0	13	25	38	45	50
Surf Speed:	28	21	14	7	0	Sinks

**PC**

**Displacement:** 125 std  
**Size Class:** E/VS Small  
**Propulsion:** Diesel  
**Signature:** VSmall/Noisy  
**Weapons:**  
 F/A(2)2 Type 61 37mm (0.5L)  
 P/S(2)2 Type 61 25mm (0.2L)  
 P/S(2)2 Type 82 14.5mm/93 mg (0.3L)

**In Class:** 22 - 1**In Service:** 1992**Crew:** 44**Armor Rating:** 0**Cbt Sys:** Gen 1 Manual**C****C****C****Sensors:**

Type 351

**J****Remarks:**

1202-1208, 1239, 1240, 2327, 2329, 4339-4348. Based on Shanghai II, interim class until arrival of Type 037. Similar units exported to Bangladesh, Sierra Leone, Sri Lanka and Tunisia. Fitted with fin stabilizers. Transferred with Anitsu 76U nav radar (Generic X-band international).

- Decommed: 1202 in 2016.

**Damage & Speed Breakdown:**

Dam Pts:	0	5	11	16	19	21
Surf Speed:	28	22	15	7	0	Sinks

**PC****Type 037I, 037ID [Haijiu]**

**Displacement:** 450 std  
**Size Class:** D/Small  
**Propulsion:** Diesel  
**Signature:** Small/Noisy  
**Weapons:**  
 F/A(2)2 Type 66 57mm/70 (0.3L)  
 F/A(2)2 Type 69 30mm/F LJP-341 (1.7)  
 F(5)4 Type 65 ASW RL w/5 salvoes  
 2 Type 64 Proj w/3 Type 62 Large DC each  
 2 DC Rail w/6 Type 62 Large DC each

**In Class:** [1, 3]**In Service:** 1984**Crew:** 72**Armor Rating:** 0**Cbt Sys:** Gen 3 Semi-Automatic**C****C****E****E****E****Sensors:**

Type 756

**J**

SJD-3

**K****Remarks:**

Nanhui/688, Yongjia/693, Ruian/694, Anji/697. All ETCN. First unit is 037I, the last three are 037ID. Type 65 ASW RL fixed in train, ship must be pointed directly at the target to fire. Fitted with fin stabilizers and to be refueled at sea.

- 1986: 688 and 693 fitted with French SS 12 VDS replacing aft 57mm and all DC, 57mm AA strength reduced to 0.2L
- Mid-1990s: Some fitted with 2nd Gen ES.
- Decommed: 694 in 1995, 688 in 2013, 693 and 697 date unknown.

**Damage & Speed Breakdown:**

Dam Pts:	0	13	25	38	45	50
Surf Speed:	28	21	14	7	0	Sinks

**PC****Type 52/52A**

**Displacement:** 50 fl  
**Size Class:** F/VS Small

**Propulsion:** Diesel  
**Signature:** VSmall/Noisy

**Weapons:**

F/A(2)2 Type 96 25mm (0.2L) (Type 52)

F(1)1 70K 37mm (0.1L) (Type 52A)

P/S(1)2 Type 54 12.7mm (0.1L)

8 DC racks w/1 BM-1 DC each

**PB**

**In Class:** [20]  
**In Service:** 1952 - ?  
**Crew:** ?  
**Armor Rating:** 0  
**Cbt Sys:** None

**C/Japan****C/Russia****C****E/Russia****Remarks:**

501 - 520. First indigenous PRC warship. Fitted for mechanical mine-sweeping. Early construction, special damage modifier of -10%.

**Damage & Speed Breakdown:**

Dam Pts:	--	--	--	--	--	9.3
Surf Speed:	12	9	6	3	0	Sinks

**Type 037IS [Haiqing]**

**Displacement:** 450 std

**Size Class:** D/Small

**Propulsion:** Diesel

**Signature:** Small/Noisy

**Weapons:**

F/A(2)2 Type 66 57mm/70 (0.3L)

F/A(2)2 Type 69 14.5mm (0.7L)

F(6)2 WHH-003 ASW RL w/5 salvoes (est)

**Sensors:**

Type 756

SJD-3A

**PC**

**In Class:** 25 - 16  
**In Service:** 1994 (1964)  
**Crew:** 71  
**Armor Rating:** 0  
**Cbt Sys:** Gen 4 Semi-Automatic

**C****C****E****K****J****K****Damage & Speed Breakdown:**

Dam Pts:	0	13	25	38	45	50
Surf Speed:	28	21	14	7	0	Sinks

**Type 037 [Hainan]**

Displacement: 375 std

Size Class: D/Small

Propulsion: Diesel

Signature: Small/Noisy

**Weapons:**F/A(2)2 Type 66 57mm/70 (**0.3L**)F/A(2)2 Type 61 25mm (**0.2L**)

F(5)4 Type 65 ASW RL w/5 salvos

2 Type 64 Proj w/3 Type 62 Large DC each

2 DC Rail w/6 Type 62 Large DC each

**Sensors:**

Type 351 (most) or Type 512 (some)

Tamir 11 (early), SJD-3 (late) hull sonars

**Remarks:**

275-285, 290, 302, 305, 609, 610, 618-622, 626-629, 636-643, 646-681, 683-687, 689-692, 695, 696, 698, 699, 701, 707, 723-733, 740-742, one other. Type 65 ASW RL fixed in train, ship must be pointed directly at the target to fire. Can carry 12 mines replacing all DC.

- Strength: 95 in early 00s, 93 in 2009, 67 in 2016, 7 in 2020.
- 1982: 26 upgraded to Type 037JZ with fin stabilizers.
- Transfers: Bangladesh eight 1982-85; Egypt eight 1983-85; Myanmar 12 1991-94; North Korea six 1975-78; Pakistan - two in 1976, two in 1980.
- 2020: Seven remain in military service - 4 Type 037JZ and 3 Type 037. Three more are in service as Navy medical ambulances.
- 2021: Last four 031Z decommed.

**Damage & Speed Breakdown:**

Dam Pts:	0	11	22	33	40	44	
Surf Speed:	30	22	15	8	0	Sinks	

PC

In Class: [101]

In Service: 1964

Crew: 69

Armor Rating: 0

Cbt Sys: Gen 2 Manual

C

C

E

E

E

E

J

K/Russia

PG

**Type 62I [Shanghai III]**

Displacement: 150 std

Size Class: E/Very Small

Propulsion: Diesel

Signature: VSmall/Noisy

**Weapons:**F/A(2)2 Type 61 37mm (**0.5L**)P/S(2)2 Type 61 25mm (**0.2L**)

2 DC Rails w/4 Type 62 Large DC

C

C

E

**Sensors:**

Type 756, Type 753

SJD-3

J

K

**Remarks:**

1101-1108, 1201, 1231-1238, 1241-1245, 1271, 1272, 1275-1282, 1301-1313, 2326-2329, others. Possibly fitted wth fin stabilizers.

- Decommed: 1201, 1271, 1272 in 2016.

**Damage & Speed Breakdown:**

Dam Pts:	0	6	12	18	22	24	
Surf Speed:	25	19	13	6	0	Sinks	

PG

**Type 62 [Shanghai II]**

Displacement: 122 std

Size Class: E/Very Small

Propulsion: Diesel

Signature: VSmall/Noisy

**Weapons:**F/A(2)2 Type 61 37mm (**0.5L**)P/S(2)4 Type 61 25mm (**0.2L**)

2 DC Rails w/4 Type 62 Large DC

C

C

E

**Sensors:**

Zarnitsa or Reya

Tamir 11

J/Russia

K/Russia

**Remarks:**

Built by different yards, slightly different configurations. Can carry 10 mines. First two are 0111S, remainder 0111SII.

- Later fitted with Type 756 replacing Zarnitsa or Reya radar.
- 0111S fitted with 2 RBU-1200 ASW RL w/4 salvos and a dipping sonar (use SKD-1). Some units also had an aft facing RBU-1200 that was later removed.

**Damage & Speed Breakdown:**

Dam Pts:	0	5	11	16	19	21	
Surf Speed:	28	21	14	7	0	Sinks	

PG

**Type 62 [Shanghai I]**

Displacement: 113 std

Size Class: E/Very Small

Propulsion: Diesel

Signature: VSmall/Noisy

**Weapons:**F/A(2)2 Type 61 37mm (**0.5L**)P/S(2)2 Type 61 25mm (**0.2L**)

2 DC Racks w/8 BB-1 or Type 62 Large DC

C

C

E

**Sensors:**

None or Type 351

Tamir 11

J

K

**Remarks:**

Built by different yards, slightly different configurations. Can carry 10 mines. Fitted with smoke generator.

- 0111: F/A(2)2 Type 66 57mm (**0.2L**) on single prototype only.
- 0111A: F/A(2)2 Type 61 37mm. Some STCN units have 85mm replacing forward 37mm, probably the 90K 85mm/52, AA strength 0.1L with 37mm AA strength 0.3L.
- 0111B, 0111C, 0111D: As 0111A with different engines. C and D have radar, D has more powerful engines.
- 1964: Some fitted with F(2)1 Type 56 75mm recoilless rifle (see 8.3.6) and aft 82mm mortar (illumination only). Some fitted with searchlights.
- 1970s: Type 61 37mm replaced by Type 76 37mm, AA strength 1.2L.
- Possibly one 0111, 30 0111A 1961-65, 16 0111B, 216 0111C (includes 91 export) from 1965, 85 0111D.

**Type 6604/Type 4/Ex-Russian****Project 122bis [Kronstadt] Series II**

PC

Displacement: 309 std

Size Class: E/Very Small

Propulsion: Diesel

Signature: VSmall/Noisy

**Weapons:**F(1)1 90K 85mm/52 (**0.1L**)A(1)2 70K 37mm (**0.3L**)F/P/S(2)3 2M-1 12.7mm (**0.2L**)

2 RBU (RSB-12) ASW RL w/4 salvos

2 BMB-1 DC Proj w/3 BB-1 DC each

2 DC rails w/6 BB-1 DC each

C/Russia

C/Russia

C/Russia

E/Russia

E/Russia

E/Russia

J/Russia

K/Russia

**Remarks:**

251-256 in NTCN. 262, 263, 633-635 in ETCN. 651-656 in STCN. ex-Russian 611-616 in unknown fleets. Type 6604 or Type 04 in PLAN service. The RBU ASW RLs are not only fixed in train, they are also fixed in elevation and can only fire at a range of 0.7 nmi. Chinese-built ships use the RBU 260 (RGB-260) ASW Rocket Launcher. DC loadout is 30 BB-1 or Type 62 DCs. Eighteen KB or M08/39 mines can be carried in place of DCs. Soviet design, special damage modifier of -10%.

- 1955 - 57: Six ex-Russian, 14 were built under license in PRC - 8 at the Shanghai shipyard and 6 at Guangzhou shipyard.
- Late 1960s: RBM/RBU 260 launchers replaced with F(5)2 Type 65 ASW RL w/5 salvos.
- 1989 - 92: All units decommed.

**Damage & Speed Breakdown:**

Dam Pts:	0	9	18	26	32	35	
Surf Speed:	19	14	10	5	0	Sinks	

- Exported to Albania, Bangladesh, Cameroun, Congo, Guinea, North Korea, North Vietnam, Pakistan, Sierra Leone, Sri Lanka, Tanzania, Tunisia and Zaire.

**Damage & Speed Breakdown:**

Dam Pts:	0	5	10	15	18	20	
Surf Speed:	30	23	15	8	0	Sinks	

**Type 22 [Houbei]**

**Displacement:** 224 std  
**Size Class:** E/VSmall  
**Propulsion:** Diesel/Waterjet  
**Electrn Cnt:** 3rd Gen D  
**Signature:** Stealthy/Noisy  
**Weapons:**  
 PB&SB(4)2 YJ-83  
 F(R)1 PJ-13 30mm (0.8L)

**Sensors:**

LJQ-362 Mod, Type 760  
 TJN-905/Integrated Data Type I  
 F 3rd Gen EO/IR

**Remarks:**

ETCN - 2208-2231, NTCN - 2108-2119, STCN - 2303-2331. Wave-piercing catamaran hull, reduced signature. May carry F&A(1)1 QW-1. Waterjet propulsion. Aluminum construction, special damage modifier of -25%, multihull, special damage modifier of -25%.

**Damage & Speed Breakdown:**

Dam Pts:	0	4	8	12	14	16	
Surf Speed:	48	36	24	12	0	Sinks	

**PGG**

**In Class:** 65  
**In Service:** 2007  
**Crew:** 12  
**Acoust Cnt:** None  
**Armor Rating:** 0  
**Cbt Sys:** 5th Gen Human

D

C

J

L

--

ES: 3rd Gen

**Remarks:**

651-656, 751-756, 766 and 767 in STCN. 757-760, 764 and 765 in ETCN.

- Jan 21: Possibly 13 remain - 654, 751, 753-760, 764, 766, 767
- Decommed: 752 Jun 15, 765 Jun 18. 651-653, 656 between late 2018 and early 2020.

**Damage & Speed Breakdown:**

Dam Pts:	0	12	23	37	44	49	
Surf Speed:	32	24	16	8	0	Sinks	

**PGG****Type 21 [Hola]**

**Displacement:** 180 n  
**Size Class:** E/VSmall

**In Class:** [1]  
**In Service:** 1970 - 90s

**Propulsion:** Diesel  
**Signature:** VSmall/Noisy  
**Weapons:**

**Crew:** 26  
**Armor Rating:** 0  
**Cbt Sys:** Gen 2 Manual

D

C

PB&amp;SB(1)2 SY-2

F/A(2)2 Type 61 25mm (0.3L)

**Sensors:**

Type 352

J

**Remarks:**

5100. Enlarged Osa with radome aft; unsuccessful. Similar design offered for export. Soviet design, special damage modifier of -10%.

**Damage & Speed Breakdown:**

Dam Pts:	0	8	15	23	27	30	
Surf Speed:	32	24	16	8	0	Sinks	

**PT****Type 27IIB [Huzhou]**

**Displacement:** 89 std

**In Class:** [2]  
**In Service:** 1984 - 2008

**Size Class:** F/VSmall

**Crew:** 15

**Propulsion:** Diesel

**Armor Rating:** 0

**Weapons:**

**Cbt Sys:** Gen 2 Manual

C

P/S(2)2 Type 61 25mm (0.2L)

F

PB&amp;SB(1)4 533mm TT w/1 Yu-1

**Sensors:**

Type 351

J

**Remarks:**

The first indigenous torpedo boat, originally began its development as a steel-hulled missile boat. Only two were built before production was terminated in favor of missile-armed patrol craft.

- Early 1990s: The Type 351 radar is replaced by a Type 753.
- 2008: Both hulls were decommed.

**Damage & Speed Breakdown:**

Dam Pts:	--	--	--	--	--	17	
Surf Speed:	34	26	17	9	0	Sinks	

**PT****Ex-Russian Project 183 [P-6]**

**Displacement:** 61 std

**In Class:** [92]

**Size Class:** F/VSmall

**In Service:** 1957 - 1998

**Propulsion:** Diesel

**Crew:** 20

**Signature:** VSmall/Noisy

**Armor Rating:** 0

**Weapons:**

**Cbt Sys:** Gen 1 Manual

C/Russia

F/A(2)2 2M-3 25mm (0.3L)

F/Russia

PB&amp;SB(1)2 533mm TT w/1 53-39 torp

**Sensors:**

Zarnitsa

J/Russia

**Remarks:**

Can carry 8 BB-1 DC or replace both 533mm TT with 18 AMD-2-500 mines. Local designation Type 6602. Wooden construction, -35% damage modifier.

- Operational: 65 in 1982, 10 1995 (possibly reserve).

• 1951 - 52: 12 ex-Russian delivered.

• 1956 - 66: 80 built in China.

• 1967: Ten transferred to North Vietnam.

• Struck: 5 1981, 40 1991-93

**Damage & Speed Breakdown:**

Dam Pts:	--	--	--	--	--	7.3	
Surf Speed:	44	33	22	11	0	Sinks	

**Type 037IG [Houxin]**

**Displacement:** 430 std  
**Size Class:** D/Small  
**Propulsion:** Diesel  
**Electrn Cnt:** 2nd Gen D  
**Signature:** Small/Noisy  
**Weapons:**

PB&SB(2)2 YJ-8A  
 F/A(2)2 PJ-76A 37mm//LJP-341 (3.5)  
 PW/SW(2)2 Type 69 14.5mm (0.3L)

**Sensors:**

LJQ-352C, Type 756

HN-900 (recieve only)

**PGG**

**In Class:** 20 - 7  
**In Service:** 1991  
**Crew:** 71  
**Acoust Cnt:** None  
**Armor Rating:** 0  
**Cbt Sys:** Gen 3 Semi-Automatic

D

C

C

J

L

ES: 2nd Gen

**Damage & Speed Breakdown:**

Dam Pts:	--	--	--	--	--	7.3	
Surf Speed:	44	33	22	11	0	Sinks	

7.3

Sinks

**Ex-Russian Project 123bis [P-4]**

PT

<b>Displacement:</b> 18 std	<b>In Class:</b> [48]
<b>Size Class:</b> F/Very Small	<b>In Service:</b> 1950 - 90s?
<b>Propulsion:</b> Diesel	<b>Crew:</b> 7
<b>Signature:</b> VSmall/Noisy	<b>Armor Rating:</b> 0
<b>Weapons:</b>	<b>Cbt Sys:</b> Gen 1 Manual
F(2)1 2M-7 14.5mm (0.3L)	C/Russia
PB&SB(1)2 457mm TT w/2 45-36N torp	F/Russia
6 DC Racks w/1 BM-1 or Type 62 Small DC each	E/Russia

**Remarks:**

Aluminum construction, -25% damage modifier. Boats can be transferred by railroad. Local name Type 123. Many backfitted with a Type 512 radar.

- Oct 50-51: Transferred.
- 1983: Four transferred to Bangladesh.

**Damage & Speed Breakdown:**

<b>Dam Pts:</b>	--	--	--	--	--	3.8
<b>Surf Speed:</b>	42	32	21	11	0	Sinks

**Ex-Russian Project 123K [P-4]**

PT

<b>Displacement:</b> 19 std	<b>In Class:</b> [211]
<b>Size Class:</b> F/Very Small	<b>In Service:</b> 1946 - 1995
<b>Propulsion:</b> Diesel	<b>Crew:</b> 7
<b>Signature:</b> VSmall/Noisy	<b>Armor Rating:</b> 0
<b>Weapons:</b>	<b>Cbt Sys:</b> Gen 1 Manual
F(2)1 2M-7 14.5mm (0.3L)	C/Russia
PB&SB(1)2 457mm TT w/2 45-36N torp	F/Russia
6 DC Racks w/1 BM-1 or Type 62 Small DC each	E/Russia

**Sensors:**

Zarnitsa	J/Russia
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**Remarks:**

Aluminum construction, -25% damage modifier. Boats can be transferred by railroad.

- Operational: 55 plus 50 reserve, 81 total 1989, 60 1992.
- 1951 - 55: 90 ex-Russian delivered.
- 1952 - 60: 55 built in China.
- Transfers: Albania - 6 in 1956, 6 in 1965. Bangladesh 4 in 1983.
- Decommed: 10 in 1976, 20 in 1977, 5 in 1978, 5 1981, 60 1980s-1995.

**Damage & Speed Breakdown:**

<b>Dam Pts:</b>	--	--	--	--	--	3.9
<b>Surf Speed:</b>	48	36	24	12	0	Sinks

**Type EM1B Homa/Hema**

PTG

<b>Displacement:</b> 73 std	<b>In Class:</b> [1]
<b>Size Class:</b> F/Very Small	<b>In Service:</b> 1970 - 1990s
<b>Propulsion:</b> Diesel	<b>Crew:</b> 20
<b>Signature:</b> VSmall/Noisy	<b>Armor Rating:</b> 0
<b>Weapons:</b>	<b>Cbt Sys:</b> Gen 2 Manual

PB&amp;SB(1)2 SY-1

D

F(2)2 Type 61 25mm (0.3L)

C

**Sensors:**

Type 352	J
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**Remarks:**

Unsuccessful modification of Houku. Lengthened hull for an additional Type 61 25mm mount.

**Damage & Speed Breakdown:**

<b>Dam Pts:</b>	--	--	--	--	--	15
<b>Surf Speed:</b>	38	29	19	10	0	Sinks

**Type 24/EM1A [Houku]**

PTG

<b>Displacement:</b> 68 std	<b>In Class:</b> [75]
<b>Size Class:</b> F/Very Small	<b>In Service:</b> 1968 - 2010?
<b>Propulsion:</b> Diesel	<b>Crew:</b> 17
<b>Signature:</b> VSmall/Noisy	<b>Armor Rating:</b> 0
<b>Weapons:</b>	<b>Cbt Sys:</b> Gen 2 Manual

PB&amp;SB(1)2 SY-1

D

F(2)1 Type 61 25mm (0.2L)

C

**Sensors:**

Type 352	J
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**Remarks:**

Also known as Hegu and Hoku class. Steel-hulled version of Russian Komar.

- Operational: 50 in 1995, 28 in 1999, 25 in 2002.
- 1980 - 82: One fitted with PB&SB(2)2 YJ-8 w/2 missiles. Trials in Oct-Nov 84.
- Early 00s: 25 additional units in reserve.
- Transfers: 4 to Albania 1976-77, 5 Bangladesh 1983-92, 6 Egypt 1984, 4 Pakistan 1981-82.
- Decommed: 5 1983, 20 1993-94, 16 1995-97, 5 1998-99, remainder in 2000s.

**Damage & Speed Breakdown:**

<b>Dam Pts:</b>	--	--	--	--	--	14
<b>Surf Speed:</b>	37	28	19	9	0	Sinks

**Type 6621/Type 21 [Huangfeng]/****Russian Project 205 Moskit [Osa I]**

PTG

<b>Displacement:</b> 173 std	<b>In Class:</b> [124]
<b>Size Class:</b> F/Very Small	<b>In Service:</b> 1963 - 2007?

<b>Propulsion:</b> Diesel	<b>Crew:</b> 28
<b>Signature:</b> VSmall/Noisy	<b>Armor Rating:</b> 0
<b>Weapons:</b>	<b>Cbt Sys:</b> Gen 2 Manual

PB&SB(1)4 SY-1	D
F/A(2)2 Type 61 25mm (0.3L)	C
<b>Sensors:</b>	J

Based on a Soviet design, special damage modifier of -10%.

- Operational: 65 plus 35 reserve 1995, 34 1999, 30 2002, 14 2005-08, 11 2011?
- 1965 - 85: Local production as Type 21.
- 1976 - 80: Eighteen fitted with F/A(2)2 Type 69 30mm//A Type 341A [Round Ball] (1.7).
- 1984: SY-1 available to replace SY-1.
- 1990: SY-2 replaces SY-1A.
- 1995: Three to Yemen as Type 21 [Hounan] with F/A(2)2 Type 69 30mm//Type 341 (AA strength 1.7) and PB&SB(2)2 YJ-8 w/2 missiles replacing SY-2.
- Transfers: 4 Bangladesh 1988, 4 North Korea 1980, 4 Pakistan 1984.
- Struck: 5 1983, 14 1993-94, 26 1995-97, 4 1998-99, 4 2000.

**Damage & Speed Breakdown:**

<b>Dam Pts:</b>	0	6	12	18	22	24
<b>Surf Speed:</b>	38	29	19	10	0	Sinks

**Type 6623/Type 23/****Ex-Russian Project 183R [Komar]**

PTG

<b>Displacement:</b> 66 std	<b>In Class:</b> [23]
<b>Size Class:</b> F/Very Small	<b>In Service:</b> 1960 - 1980s

<b>Propulsion:</b> Diesel	<b>Crew:</b> 17
<b>Signature:</b> VSmall/Noisy	<b>Armor Rating:</b> 0
<b>Weapons:</b>	<b>Cbt Sys:</b> Gen 2 Manual

PB&SB(1)2 P-15 Termit	D/Russia
F(2)1 2M-3M 25mm (0.2L)	C/Russia
<b>Sensors:</b>	J/Russia

Wooden construction, -35% damage modifier. Locally known as Type 6623.

- Estimate fitted with SY-1 in late 1960s replacing P-15.
- Decommed: 20 in late 1970s, 3 in early 80s.

**Damage & Speed Breakdown:**

<b>Dam Pts:</b>	--	--	--	--	--	7.6
<b>Surf Speed:</b>	38	29	19	10	0	Sinks

**Type 25/26 [Huchuan]**

**Displacement:** 39/44 std  
**Size Class:** F/VS Small  
**Propulsion:** Diesel  
**Signature:** VSmall/Noisy  
**Weapons:**  
 A(2)2 2M-7 14.5mm (**0.7L**) - Type 25  
 F/A(2)2 2M-7 14.5mm (**0.7L**) - Type 26  
 PB&SB(1)2 533mm TT w/1 53-39 or Yu-1

**Sensors:**

Zarnitsa (Type 25)  
 Type 756 (Type 26)

**Remarks:**

Hydrofoil. Based on Russian P-8 class PT boat. Treat as large radar target if travelling at 25 kts+. The rooster tail thrown up when the ship is foilborne increases the size of the radar echo. Type 25 (Type 6625) has aluminum construction, special damage modifier of -25%. Type 26 (Type 6626) is steel and is 5 tons heavier and three knots slower. Based on a Soviet design, special damage modifier of -10%.

- 1966 - 80: 120 delivered. Hydrofoil in ETCN only, STCN have hydrofoils removed, maximum speed estimated as 25 knots.
- Operational 80 in 1995, 15 in 1999, 20 in 2003.
- Decommed: 40 in 1984, 10 in 1993-94, 48 in 1995-97, 15 in 2003
- 42 Transfers: 23 Albania 1968-73, 4 Bangladesh 1988, 4 Pakistan 1975, 3 Romania 1970s, 4 Tanzania 1975, 4 Zaire 1976-78.

**Damage & Speed Breakdown:**

Dam Pts (25):	--	--	--	--	--	6.6
Dam Pts (26):	--	--	--	--	--	9.5
Surf Speed:	25	19	13	6	0	Sinks
Speed (25):	55	41	28	14	0	Sinks
Speed (26):	52	39	26	13	0	Sinks

**PTH**

**In Class:** [120]  
**In Service:** 1966 - 2005  
**Crew:** 11  
**Armor Rating:** 0  
**Cbt Sys:** Gen 1 Manual

**C/Russia****Type 68/69 [Yuqin]**

**Displacement:** 50 std  
**Size Class:** E/VS Small  
**Propulsion:** Diesel  
**Signature:** VSmall/Noisy  
**Weapons:**

F/A(2)2 Type 69 14.5mm (**0.7L**)  
 or  
 F/A(2)2 Type 61 25mm (**0.3L**)

**Sensors:**

Type 726

**Remarks:**

Type 68 for cargo, Type 69 for troops. The designation is sometimes listed as Yuch'in. Amphibious construction, special damage modifier of -25%. Often used for General support duties. Can carry one tank or 100 troops or 36 t cargo.

**Damage & Speed Breakdown:**

Dam Pts:	--	--	--	--	--	8.7
Surf Speed:	12	9	6	3	0	Sinks

**LCU**

**In Class:** [300]  
**In Service:** 1968 - ?  
**Crew:** 10  
**Armor Rating:** 0  
**Cbt Sys:** None

**C****C****J****Type 271III/IIIA [Yulu]**

**Displacement:** 614 std  
**Size Class:** D/Small  
**Propulsion:** Diesel  
**Signature:** Small/Noisy  
**Weapons:**  
 PW/SW/PA-SA(2)4 Type 82 14.5mm (**0.7L**)

**Sensors:**

Furuno Generic nav radar

**Remarks:**

V-bow with ramp. Can carry 3 tanks or 7 APC or 200 troops or 150 t cargo. Amphibious, special damage modifier of -25%.

**Damage & Speed Breakdown:**

Dam Pts:	0	12	23	35	41	46
Surf Speed:	15	11	8	4	0	Sinks

**LCM**

**In Class:** 2  
**In Service:** 1989  
**Crew:** 56  
**Armor Rating:** 0  
**Cbt Sys:** None

**C****Type 271I/II [Yuwei]**

**Displacement:** 500 std  
**Size Class:** E/VS Small  
**Propulsion:** Diesel  
**Signature:** VSmall/Noisy  
**Weapons:**  
 PW/SW/PA-SA(2)4 Type 82 14.5mm (**0.7L**)

**Sensors:**

Racal Decca 1226/1290

**Remarks:**

First unit Type 271I, completed in 1970, was a testbed that was later converted to a Type 271II. Modified to Type 271IID in 1979 with a new design landing ramp and anchor system. Flat ramp. Can carry 3 tanks or 300 troops or 150 t cargo. Amphibious, special damage modifier of -25%. Used by Army as supply ships.

**Damage & Speed Breakdown:**

Dam Pts:	0	10	20	30	36	40
Surf Speed:	13	10	7	3	0	Sinks

**LCM**

**In Class:** [300+]  
**In Service:** 1978  
**Crew:** 36  
**Armor Rating:** 0  
**Cbt Sys:** None

**C****LCMA****Type 726, Type 726A [Yuyi]**

**Displacement:** 150 std  
**Size Class:** E/VS Small  
**Propulsion:** Gas Turbine  
**Signature:** VSmall/VQuiet  
**Weapons:**  
 SW(1)1 QJZ-89 12.7mm (**0.1L**)

**In Class:** 3, 13 + 6 + 8

**In Service:** 2011, 2017

**Crew:** 6

**Armor Rating:** 0

**Cbt Sys:** None

**C****Sensors:**

Raytheon Pathfinder

**J/USA**

**Remarks:**  
 3226-3239, 3320-3322, 3325-3327, 3330-3334, 3337. Air cushion vehicle, all rubber skirt, special damage modifier of -30%. Amphibious construction, special damage modifier of -25%. Bow and stern ramps. 3320-3322 are Type 726 with Ukrainian engines in STCN.

- 2016: Construction of Type 726A begins, with Chinese propulsion replacing Ukrainian engines. Delivered from 2017. Can carry 50 tons normally, 60 tons max overload - one main battle tank or 2 APC or 80 troops.

**Damage & Speed Breakdown:**

Dam Pts:	0	3	6	8	10	11
Surf Speed:	60	45	30	15	0	Sinks

China's Navy

**Type 722II [Jinsha II]**

**Displacement:** 70 std  
**Size Class:** F/VS Small  
**Propulsion:** Gas Turbine  
**Signature:** VSmall/VQuiet  
**Weapons:**  
 PW/SW(2)2 Type 69 14.5mm (0.3L)

**LCPA**

**In Class:** [10]  
**In Service:** 1987 - 2001  
**Crew:** 5  
**Armor Rating:** 0  
**Cbt Sys:** None

**C****Sensors:**

Raytheon Pathfinder

**J/USA****Remarks:**

Air cushion vehicle, all rubber skirt, special damage modifier of -30%. Aluminum construction, special damage modifier of -25%. Amphibious construction, special damage modifier of -25%. Can carry 15 t cargo or 120 troops.

**Damage & Speed Breakdown:**

Dam Pts:	--	--	--	--	--	3.6
Surf Speed:	46	35	23	12	0	Sinks

**Type 724 [Payi]**

**Displacement:** 6.4 std  
**Size Class:** G/VS Small  
**Propulsion:** Diesel  
**Signature:** Stealthy/VQuiet

**In Class:** 20  
**In Service:** 1994  
**Crew:** 3  
**Armor Rating:** 0

**LCPA****Sensors:**

Nav radar

**J****Remarks:**

Air cushion vehicle, all rubber skirt, special damage modifier of -30%. Amphibious construction, special damage modifier of -25%. • 2020: 3310-3312, 8530-8438 reported in service. Can carry 10 troops or 1.5 t cargo.

**Damage & Speed Breakdown:**

Dam Pts:	--	--	--	--	--	1.3
Surf Speed:	40	30	20	10	0	Sinks

**Type 074A [Yubei]**

**Displacement:** 650 std  
**Size Class:** D/Small  
**Propulsion:** Diesel  
**Signature:** Small/Noisy

**In Class:** 10  
**In Service:** 2004  
**Crew:** 27  
**Armor Rating:** 0  
**Cbt Sys:** None

**LCU****PW/SW(2)2 Type 69 14.5mm (0.3L)****Sensors:**

Type 756

**J****Remarks:**

3128, 3129 in NTCN. 3232-3235 in ETCN, 3315-3318 in STCN. Amphibious construction, special damage modifier of -25%. Catamaran, special damage modifier of -25%. Can carry 3 light tanks or 6 IFV or 250 troops.

**Damage & Speed Breakdown:**

Dam Pts:	0	7	13	20	23	26
Surf Speed:	18	14	9	5	0	Sinks

**Ex-Russian Project 1232.2 Zubr****[Pomornik]/Type 958**

**Displacement:** 480 std  
**Size Class:** D/Small  
**Propulsion:** Gas Turbine  
**Electrn Cnt:** 2nd Gen D

**In Class:** 4 + 1  
**In Service:** 2014  
**Crew:** 31  
**Acoust Cnt:** None  
**Armor Rating:** 0  
**Cbt Sys:** Gen 4 Semi-Automatic

**LCUA****PW/SW(R)2 PJ-13 30mm//EO GFC (0.8L)****Sensors:**

LJQ-362 Mod, Type 760

**C**

TJN-906

**L**

F 3rd Gen EO/IR/laser rf

**Remarks:**

Surface effect amphibious landing craft. Four ordered from Ukraine, two built in Ukraine (4435, 4436), three in PRC. 18 Igla missiles carried. Max speed loaded is 40 knots, range 300 nm. Endurance 5 days, 1 day loaded. Maximum speed can only be supported in sea

state 3 or less. At sea state 4, speed is limited to a maximum of 35 knots and at sea state 5 and higher the Type 958 cannot go to sea. Special damage modifier of -30% for hovercraft construction. Amphibious construction, special damage modifier of -25%. Aluminum alloy construction, -25% damage modifier. CHP armor rating for troop (cargo) compartment is 2. Can carry 80 mines.

**Damage & Speed Breakdown:**

Dam Pts:	0	3	7	10	12	13
Spd Loaded:	40	30	20	10	0	Sinks
Spd Empty:	60	45	30	15	0	Sinks

**LHD**

**Displacement:** 35000 std  
**Size Class:** A/Large  
**Propulsion:** Diesel  
**Electrn Cnt:** 3rd Gen J&D  
**Signature:** Large/Noisy  
**Weapons:**

**In Class:** 1 + 2  
**In Service:** 2021  
**Crew:** ~1200  
**Acoust Cnt:** 3rd Gen D  
**Armor Rating:** 0  
**Cbt Sys:** Gen 5 Human

**PW/SA(R)2 PJ-11 30mm (2@10.0A)**

F/PA(24)2 HQ-10 w/24 msis	<b>D</b>
3 Type 726/726A LCMA	<b>A</b>
2 elevators	--

**Sensors:**  
 LJQ-382, AESA X-band LAS, Type 760, Type 754  
 TJN-906, JSTIDS  
 F/A 3rd Gen EO/IR

**Air Group:**  
 28-30 helicopters, including Z-8, Z-9, Z-10, Z-18, and Z-20.

**Remarks:**  
 Hainan/31 in STCN, hull 2/32 is in sea trials, and hull 3/33 has been launched. Likely fitted with fin stabilizers. Spots for 6 large helos. Amphibious construction, special damage modifier of -25%.

**Damage & Speed Breakdown:**

Dam Pts:	0	137	274	411	493	548
Surf Speed:	23	17	12	6	0	Sinks

**LPD**

**Displacement:** 18500 std  
**Size Class:** B/Medium  
**Propulsion:** Diesel/CPP  
**Electrn Cnt:** 3rd Gen D  
**Signature:** Medium/Noisy  
**Weapons:**

**In Class:** 8  
**In Service:** 2007  
**Crew:** 120 + 400  
**Acoust Cnt:** --  
**Armor Rating:** 0  
**Cbt Sys:** Gen 5 Human

F(1)1 PJ-26 76mm//LJP-349A (3.0)	<b>C</b>
P/S/PA/SA(R)4 PJ-13 30mm//A LJP-347G (5.9)	<b>C</b>

(50)4 120mm MLR (ground targets only)	--
4 Type 726/726A LCMA	<b>A</b>

2 Landing Craft	--
Aft Pad(2)4 Z-8, Z-9, Z-10, Z-18 helicopters	<b>B</b>

<b>Sensors:</b> LJQ-360, LJQ-364, Type 760, Type 754	<b>ES:</b> 3rd Gen
TJN-906	<b>J</b>

F EO/IR (3rd Gen)	<b>L</b>
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<b>Remarks:</b> Kunlunshan/998, Jinggangshan/999, Changbaishan/989, Yimengshan/988, Wuzhishen/979, Longhushan/980, Longhushan/980, Wudangshan/986, Quilanshan/985, 980, 986 and 988 in ETCN, remainder STCN. Special damage modifier of -25% for amphibious ship. Fitted with stabilizers. Helo pad aft with spots for two large helicopters. Provision for P/S(1)2-4 mg.	--
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• 2014: Cleared for Z-10 attack helicopter.	--
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• Sep 19: One Type 071E ordered by Thailand with F(?)1 HQ-10 added, P/S CIWS replaces PJ-13. Helo pad has spots for three S-70B, well deck for 4 LCM.	--
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**Damage & Speed Breakdown:**

Dam Pts:	0	90	179	269	322	358
Surf Speed:	25	19	13	6	0	Sinks

**Type 073A [Yunshu]****Displacement:** 1550 std**Size Class:** C/Small**Propulsion:** Diesel**Signature:** Small/Noisy**Weapons:**F(2)1 PJ-76F 37mm (**0.6L**)**Sensors:**

Type 760, Type 753C

**Remarks:**

*Shengzhoushan/941, Lushan/942, Yushan/943, Mengshan/944, Huashan/945, Songshan/946, Lushan/947, Xueshan/948, Hengshan/949, Taishan/950.* 941-944 in ETCN, 945-950 in STCN. Amphibious construction, special damage modifier of -25%. Can carry and lay 80 mines instead of cargo.

**Damage & Speed Breakdown:**

Dam Pts:	0	17	34	51	61	68	
Surf Speed:	17	13	9	4	0	Sinks	

**LSM****In Class:** 10**In Service:** 2003**Crew:** 74**Armor Rating:** 0**Cbt Sys:** Gen 4 Semi-Automatic**C****J****Remarks:**

965, 969, 970, 972, 977, 981, 984, 985. Amphibious construction, special damage modifier of -25%.

**Damage & Speed Breakdown:**

Dam Pts:	0	14	29	43	51	57	
Surf Speed:	17	13	9	4	0	Sinks	

**LSM****Type 074 [Yuhai]****Displacement:** 656 std**Size Class:** D/Small**Propulsion:** Diesel**Signature:** Small/Noisy**Weapons:**F(2)1 Type 61 25mm (**0.2L**)**LSM****In Class:** 15 - 6**In Service:** 1995**Crew:** 56**Armor Rating:** 0**Cbt Sys:** Gen 4 Semi-Automatic**C**PW/SW(2)2 Type 69 14.5mm (**0.3L**)**C****Sensors:**

Type 760

**J****Remarks:**

3111-3113, 3115-3117 in NTCN. 3229, 3231, 3244, 3357-3359, 7593-7595 in ETCN. Special damage modifier of -25% for amphibious ship. Bow ramp.

- The three Hong Kong Garrison ships, 3357-3359 (Type 074 HKG Yuhai mod class) have F(1)1 PJ-17 30mm (0.1L) and PW/SW(1)2 QJZ-89 12.7mm (0.1L).

**Damage & Speed Breakdown:**

Dam Pts:	0	10	20	29	35	39	
Surf Speed:	17	13	9	4	0	Sinks	

**LSM****Type 073III [Yudeng]****Displacement:** 1460 std**Size Class:** D/Small**Propulsion:** Diesel**Signature:** Small/Noisy**Weapons:**F(2)1 PJ-76F 37mm (**0.6L**)**C****Sensors:**

Type 760, Type 753C

**J****Remarks:**

*Wudangshan/990* in STCN. Amphibious construction, special damage modifier of -25%. Can carry and lay 80 mines instead of cargo.

- 2010: Decommed, later converted with two deck hatches and a crane and reactivated as island resupply ship in South China Sea. Renamed *Jinchengshan*.

**Damage & Speed Breakdown:**

Dam Pts:	0	17	33	50	59	66	
Surf Speed:	17	13	9	4	0	Sinks	

**LSM****Type 073II [Yudao]****Displacement:** 1040 std**Size Class:** D/Small**Propulsion:** Diesel**Signature:** Small/Noisy**Weapons:**PW/SW/PA/SA(2)4 Type 61 25mm (**0.3L**)**C****Sensors:**

Type 756

**J****In Class:** [8]**In Service:** 1980**Crew:** 87**Armor Rating:** 0**Cbt Sys:** Gen 2 Manual**Remarks:**

965, 969, 970, 972, 977, 981, 984, 985. Amphibious construction, special damage modifier of -25%.

**Damage & Speed Breakdown:**

Dam Pts:	0	14	29	43	51	57	
Surf Speed:	17	13	9	4	0	Sinks	

**Type 079, Type 079II [Yulian]****LSM****Displacement:** 730 std**In Class:** [30]**Size Class:** D/Small**In Service:** 1976/1979 - 2016**Propulsion:** Diesel**Crew:** 36**Signature:** Small/Noisy**Armor Rating:** 0**Weapons:****Cbt Sys:** Gen 2 ManualPW/SW/PA/SA(2)4 Type 61 25mm (**0.3L**)**C**

PW/SW(40)2 BM-21 rocket launchers (some units)

**J****Sensors:**

Type 753A

**J****Remarks:**

Single Type 079 built for Vietnam, but taken over during construction by PLAN. Type 079II built in series production for the PLAN. Hulls 957 - 964, 966 - 988. Only some units have the BM-21 rocket launchers for shore bombardment only. Amphibious construction, special damage modifier of -25%.

**Damage & Speed Breakdown:**

Dam Pts:	0	11	23	34	41	45	
Surf Speed:	12	9	6	3	0	Sinks	

**Ex-US LSM-1 [Hua]****LSM****Displacement:** 480**In Class:** [14]**Size Class:** D/Small**In Svc:** 1949 (1943) - 1993**Propulsion:** Diesel**Crew:** 60**Signature:** Small/Noisy**Armor Rating:** 0**Weapons:****Cbt Sys:** NoneF/PA/SA(2)3 V-11 37mm (**0.5L**)**C/USA**P/S(2)2 2M-3 25mm (**0.2L**)**C/Russia****Sensors:**

Type 726

**J****Remarks:**

352, 353, 354, 393, 511, 809, 810, 811, 931, 932, 933, 934, 935, 936.

394-396 in NTCN. 511, 931-936 in ETCN. 352-354, 393 in STCN.

Amphibious construction, special damage modifier of -25%. Configuration after being rearmed in the early 1950s. Armament and radar fit varied. Gun arcs estimated. Most have two mine-laying ports aft.

- Jul 49: Eight defect to Nationalists. Also 15 transferred to Communists.
- 1981-91: 14 remain in service.

**Damage & Speed Breakdown:**

Dam Pts:	0	10	20	29	35	39	
Surf Speed:	15	11	8	4	0	Sinks	

**Type 072A, Type 072B [Yuting II]****LST****Displacement:** 3700 std**In Class:** 9, 6**Size Class:** C/Small**In Service:** 2003/2015**Propulsion:** Diesel**Crew:** 104**Signature:** Small/Noisy**Armor Rating:** 0**Weapons:****Cbt Sys:** Gen 4 Semi-AutomaticF(2)1 PJ-76F 37mm (**0.6L**) (072A)**C**F(1)1 PJ-17 30mm (**0.1L**) (072B)**C**

2 LCVP

**A****Sensors:**

Type 760, Type 753C

**J****TJN-905****L****Remarks:**

Type 072A: *Tianzhushan/911, Daqingshan/912, Baxianshan/913, Huadingshan/992, Luo Xiaoshan/993, Daiyunshan/994, Wangyan-shan/995, Laotieshan/996, Yuneushan/997*.

- Type 072B: *Dabieshan/981, Taihangshan/982, Wuyishan/914, Culai-shan/915, Tianmushan/916, Wutaishan/917*.

- 911 and 912 in NTCN, 913-917, 981, 982 in ETCN, 992-997 in STCN. Helo pad aft, not fitted with refueling or maintenance facil-

ties. Aft ramp for either two Type 724 LCPA or amphibious vehicles. Amphibious construction, special damage modifier of -25%.

- 2014: Cleared for Z-10 attack helicopter.

#### Damage & Speed Breakdown:

Dam Pts:	0	31	61	92	110	122
Surf Speed:	20	15	10	5	0	Sinks

#### Type 072III, Type 072IIIHG [Yuting I] LST

**Displacement:** 3430 std

**In Class:** 5, 5

**Size Class:** C/Small

**In Service:** 1992/1997

**Propulsion:** Diesel

**Crew:** 110

**Signature:** Small/Noisy

**Armor Rating:** 0

#### **Weapons:**

**Cbt Sys:** Gen 4 Semi-Automatic

F/PW/SW(2)3 PJ-76F 37mm (1.2L) (072IIIHG)

**C**

F/PW/SW(2)3 Type 66 57mm/70 (0.3L) (072III)

**C**

2 LCVP

**A**

#### **Sensors:**

Type 760, Type 753C

**J**

YJN-901

**L**

#### **Remarks:**

Helo pad aft, not fitted with refueling or maintenance facilities. Aft ramp for either two Type 724 LCPA or amphibious vehicles. Amphibious construction, special damage modifier of -25%.

- Type 072III: *Emeishan*/991, *Danxiashan*/934, *Xiufengshan*/935, *Haiyangshan*/936, *Qingchengshan*/937. All STCN.
- Type 072IIHG: *Yandangshan*/908, *Jihuashan*/909, *Huangganshan*/910, *Putuoshan*/939, *Tiantaishan*/940. 908-910 in NTCN. 939 and 940 in ETCN.
- Feb 18: *Haiyangshan*/936 fitted with F(1)1 experimental railgun for trials, replacing Type 66 57mm. Bow ramp welded shut.

#### Damage & Speed Breakdown:

Dam Pts:	0	29	58	87	104	116
Surf Speed:	20	15	10	5	0	Sinks

#### Type 072, Type 072II [Yukan] LST

**Displacement:** 3100 std

**In Class:** 3 - 2, 4 - 2

**Size Class:** C/Small

**In Service:** 1978 - 2020

**Propulsion:** Diesel

**Crew:** 133

**Signature:** Small/Noisy

**Armor Rating:** 0

#### **Weapons:**

**Cbt Sys:** Gen 3 Semi-Automatic

F/PW/SW/A(2)4 Type 66 57mm/70 (0.5L)

**C**

P/S(2)4 Type 61 25mm (0.3L)

**C**

2 LCVP

**A**

#### **Sensors:**

2 Type 753

**J**

#### **Remarks:**

Type 072: *Yuntaishan*/927, *Wufengshan*/928, *Zijinshan*/929. All STCN.

Type 072II: *Lingyanshan*/930, *Dongtingshan*/931, *Helanshan*/932, *Liupanshan*/933. All ETCN. Amphibious construction, special damage modifier of -25%.

- Late 1990s: Type 753 radars replaced by Type 760 and Type 753C. YJN-901 data link added.
- 2014 - 15: *Dongtingshan* and *Helanshan* temporarily transferred to the Coast Guard.
- 2016?: *Wufengshan* converted to accommodation ship for South China Sea islands with helo pad and LJQ-517B radar fitted, all 57mm removed.
- 2016: *Yuntaishan* transferred to the naval academy as a training ship.
- Decommed: *Yuntaishan*, *Wufengshan*, *Zijinshan* Jul 20, *Lingyanshan* Jul 21

#### Damage & Speed Breakdown:

Dam Pts:	0	30	59	89	106	118
Surf Speed:	18	14	9	4	0	Sinks

#### Ex-US LST-1 LST

**Displacement:** 2160

**In Class:** [21]

**Size Class:** C/Small

**In Svc:** 1949 (1942) - 1998

**Propulsion:** Diesel

**Crew:** 209

**Signature:** Small/Noisy

**Armor Rating:** 0

#### **Weapons:**

**F/A(2)2 Mk26 3in/50 (0.6L)**

**Cbt Sys:** Gen 1 Manual

**C/USA**

**P/S(2)2 V-11 37mm (0.3L)**

**C/Russia**

#### **Sensors:**

1 - 2 Type 726

**J**

#### **Remarks:**

355, 361, 901, 902, 903, 906, 907, 921, 922, 923, 924, 925, 926, 927, 928.

Transferred to China in 1949. 300 series are in STCN, 901 - 907 are in NTCN, 921-926 are in ETCN. Amphibious construction, special damage modifier of -25%. Configuration after being rearmed in the early 1950s. Some fitted to lay mines. Armament and radar fit varied. Gun arcs estimated. Additional units served as merchant vessels.

- Armament varied, later fit was A(2)1 ZiF-31 57mm (0.1L), F/PA/ SA(2)3 V-11M 37mm & PW/SW/A(1)3 70K 30mm, combined 30mm AA strength 0.8L.

- Two transferred to Vietnam as tankers.

- 1970s: Some used as accommodation ships or tenders.

- 1995: Two in reserve, 11 operational. 921-926 ETCN, 901-907 NTCN, 355, 361 STCN.

- 1997: Eight remain.

- 1999: Three remain.

#### Damage & Speed Breakdown:

Dam Pts:	0	27	54	80	96	107
Surf Speed:	11	8	5	3	0	Sinks

#### Type 918 [Wolei]

**MM**

**Displacement:** 2300 std

**In Class:** 1

**Size Class:** C/Small

**In Service:** 1988

**Propulsion:** Diesel

**Crew:** 200

**Signature:** Small/Noisy

**Armor Rating:** 0

#### **Weapons:**

**Cbt Sys:** Gen 4 Semi-Automatic

F/PW/SW/A(2)4 PJ-76 37mm (1.9L)

**C**

6 mine rails w/200 mines total

**G**

#### **Sensors:**

Type 760, Type 753C

**J**

#### **Remarks:**

Liaoyang/814. NTCN. Designed to block Bohai Strait, with secondary supply role. Minelayer, special damage modifier of -25%.

- Nov 12: Weapons removed. Transferred to Maritime Surveillance Agency, renamed *Haijian*/112.

- 2013: Transferred to Coast Guard, renamed *Haijing*/1212.

#### Damage & Speed Breakdown:

Dam Pts:	0	24	49	73	87	97
Surf Speed:	18	14	9	5	0	Sinks

#### Type 082II [Wozang]

**MHS**

**Displacement:** 575 std

**In Class:** 11

**Size Class:** D/Small

**In Service:** 2005

**Propulsion:** Diesel

**Crew:** 16

**Signature:** Small/Noisy

**Armor Rating:** 0

#### **Weapons:**

**Cbt Sys:** Gen 4 Semi-Automatic

F(2)1 Type 61 25mm (0.2L) (804)

**C**

F(1)1 CS/AN2 30mm (0.1L) (Rest)

**C**

2 IJM-01 ROV

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#### **Sensors:**

Type 760

**J**

Raytheon Pathfinder

**J/USA**

Mine classification sonar

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TJN-906, JSTIDS

**L**

#### **Remarks:**

Huoqiu/704 was prototype unit. Kunshan/707, Kaiping/745, Rongcheng/734, Donggang/736, Rudong/808, Zhijiang/737, Hui-min/735, Chibi/745, Hejian/812, Zhenlai/???. Production units began to enter service in 2012. 704, 707 in ETCN; 745 STCN; 808, 734 and 736 NTCN. Can control three Type 529 MSD. Reduced magnetic signatures, treat as Size E-G against influence mines. Built with a GRP hull. Special damage modifier of -10%.

#### Damage & Speed Breakdown:

Dam Pts:	0	13	27	40	48	53
Surf Speed:	16	12	8	4	0	Sinks

**Type 082I [Wosao II]**

**Displacement:** 305 std  
**Size Class:** E/Very Small  
**Propulsion:** Diesel  
**Signature:** VSmall/Noisy  
**Weapons:**  
F(2)1 Type 61 25mm (**0.2L**)  
Type 316 mechanical sweep  
Type 317 magnetic sweep  
Type 318 & 319 acoustic sweeps  
**Sensors:**  
Type 753C  
Raytheon Pathfinder  
Mine hunting sonar  
TJN-905  
**Remarks:**  
*Zhuji/806, Haiyan/807, Haimen/816, Wenling/817, Pingdu/738, Changyi/739, Yangshuo/822, Yongsheng/823, Daxin/824, Huarong/825, Rongjiang/826, Qiongshan/827.* Differences with the Type 082 include an enclosed bridge and a cylindrical mast. 806, 807, 816, 817 in ETCN. 824-827 in STCN. 738, 739, 822, 823 in NTCN.  
Can carry 6 mines. Chinese-built engines.  
**Damage & Speed Breakdown:**  

Dam Pts:	0	8	17	25	30	33	Sinks
Surf Speed:	15	11	8	4	0		

**MSC**

**In Class:** 12  
**In Service:** 2006  
**Crew:** 28  
**Armor Rating:** 0  
**Cbt Sys:** Gen 4 Semi-Automatic  
**C:**  
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**J/USA:**  
J  
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--  
**L:**  
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**Remarks:**  
*Zhuji/806, Haiyan/807, Haimen/816, Wenling/817, Pingdu/738, Changyi/739, Yangshuo/822, Yongsheng/823, Daxin/824, Huarong/825, Rongjiang/826, Qiongshan/827.* Differences with the Type 082 include an enclosed bridge and a cylindrical mast. 806, 807, 816, 817 in ETCN. 824-827 in STCN. 738, 739, 822, 823 in NTCN.  
Can carry 6 mines. Chinese-built engines.  
**Damage & Speed Breakdown:**  

Dam Pts:	0	8	17	25	30	33	Sinks
Surf Speed:	15	11	8	4	0		

**Type 082 [Wosao I]**

**Displacement:** 305 std  
**Size Class:** E/Very Small  
**Propulsion:** Diesel  
**Signature:** VSmall/Noisy  
**Weapons:**  
F(2)1 Type 61 25mm (**0.2L**)  
Type 316 mechanical sweep  
Type 317 magnetic sweep  
Type 318 & 319 acoustic sweeps  
**Sensors:**  
Type 753C  
Raytheon Pathfinder  
Mine hunting sonar  
**Remarks:**  
*Chun'an/700, Xiangshan/701, Chongming/702, Fenghua/703.* All ETCN. 800 has mechanical sweep only. Can carry 6 mines. Russian-built engines.  
• 1998-99: Fitted with YJN-901 data link.  
**Damage & Speed Breakdown:**  

Dam Pts:	0	8	17	25	30	33	Sinks
Surf Speed:	15	11	8	4	0		

**MSC**

**In Class:** 4  
**In Service:** 1987  
**Crew:** 28  
**Armor Rating:** 0  
**Cbt Sys:** Gen 3 Semi-Automatic  
**C:**  
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--  
**J/USA:**  
J  
--  
--  
**Remarks:**  
*Chun'an/700, Xiangshan/701, Chongming/702, Fenghua/703.* All ETCN. 800 has mechanical sweep only. Can carry 6 mines. Russian-built engines.  
• 1998-99: Fitted with YJN-901 data link.  
**Damage & Speed Breakdown:**  

Dam Pts:	0	8	17	25	30	33	Sinks
Surf Speed:	15	11	8	4	0		

**Type 058 [Fushun]**

**Displacement:** 275 fl  
**Size Class:** E/Very Small  
**Propulsion:** Diesel  
**Signature:** VSmall/Noisy  
**Weapons:**  
F(2)1 Type 61 37mm (**0.3L**)  
P/S(2)2 Type 69 14.5mm (**0.3L**)  
Sweep gear (acoustic, magnetic, mechanical)  
**Sensors:**  
Type 512  
Tamtir 11  
**Remarks:**  
• 1972: One sent to Hanoi in North Vietnam to clear mines.  
• 1992: 10 operational.  
• Later to naval militia for training. Struck from 1990s, including 5 each 1990-92 and 1993-94.  
**Damage & Speed Breakdown:**  

Dam Pts:	0	7	15	22	26	29	Sinks
Surf Speed:	12	9	6	3	0		

**MSC**

**In Class:** [20]  
**In Service:** 1971 - 2015  
**Crew:** 30  
**Armor Rating:** 0  
**Cbt Sys:** None  
**C:**  
**C:**  
--  
**K/Russia:**  
J  
--  
**Remarks:**  
• 1972: One sent to Hanoi in North Vietnam to clear mines.  
• 1992: 10 operational.  
• Later to naval militia for training. Struck from 1990s, including 5 each 1990-92 and 1993-94.  
**Damage & Speed Breakdown:**  

Dam Pts:	0	7	15	22	26	29	Sinks
Surf Speed:	12	9	6	3	0		

**Type 057K [Lianyun]**

**Displacement:** 188 std  
**Size Class:** D/Small  
**Propulsion:** Diesel  
**Signature:** Small/Noisy  
**Weapons:**  
P/S(2)2 Type 69 14.5mm (**0.3L**)  
Sweep gear  
**Sensors:**  
Type 512  
**Remarks:**  
Converted trawler with steel hull. Used by local Military Districts. Civilian construction, -50% damage modifier.  
• 1995: 25 operational, 50 in reserve.  
**Damage & Speed Breakdown:**  

Dam Pts:	0	4	7	11	13	14	
Surf Speed:	12	9	6	3	0		Sinks

**MSC**

**In Class:** [80]  
**In Service:** 1962 - 2010s  
**Crew:** 46  
**Armor Rating:** 0  
**Cbt Sys:** Gen 2 Manual  
**C:**  
--  
**J:**  
**Remarks:**  
Converted trawler with steel hull. Used by local Military Districts. Civilian construction, -50% damage modifier.  
• 1995: 25 operational, 50 in reserve.  
**Damage & Speed Breakdown:**  

Dam Pts:	0	4	7	11	13	14	
Surf Speed:	12	9	6	3	0		Sinks

**Type 529 [Wonang]**

**Displacement:** 60 std  
**Size Class:** E/Very Small  
**Propulsion:** Diesel/Waterjet  
**Signature:** VSmall/Noisy  
**Weapons:**  
Acoustic/magnetic sweep  
**Remarks:**  
8041-8043, 8081-8083, 8091-8093, 8111-8113, 8141-8143, 8181-8183. For unmanned and remotely-controlled use; three controlled by each Type 082II Wozang class MHS. Control link range 6 nmi. For example, 804 controls 8041-8043, 818 controls 8181-8183. Based on PLA armed reconnaissance boat that is capable of 32 knots max speed.  
**Damage & Speed Breakdown:**  

Dam Pts:	--	--	--	--	--	--	12.0
Surf Speed:	15	11	8	4	0		Sinks

**MSD**

**In Class:** 18  
**In Service:** 2005  
**Crew:** --  
**Armor Rating:** 0  
**Cbt Sys:** --  
--  
**Remarks:**  
8041-8043, 8081-8083, 8091-8093, 8111-8113, 8141-8143, 8181-8183. For unmanned and remotely-controlled use; three controlled by each Type 082II Wozang class MHS. Control link range 6 nmi. For example, 804 controls 8041-8043, 818 controls 8181-8183. Based on PLA armed reconnaissance boat that is capable of 32 knots max speed.  
**Damage & Speed Breakdown:**  

Dam Pts:	--	--	--	--	--	--	12.0
Surf Speed:	15	11	8	4	0		Sinks

**Type 312 [Futi]**

**Displacement:** 47 std  
**Size Class:** F/Very Small  
**Propulsion:** Diesel/CPP  
**Signature:** VSmall/Noisy  
**Weapons:**  
Acoustic/magnetic sweep  
**Remarks:**  
Fitted with 3.2 nmi control link. Uses electric propulsion for sweeping at 5 knots with Quiet acoustic signature.  
• Transfers: 6 to Pakistan, 21 to Vietnam.  
• 1995: Four operational, 42 in reserve.  
• 2008: Two remain in reserve.  
**Damage & Speed Breakdown:**  

Dam Pts:	--	--	--	--	--	--	10.0
Surf Speed:	12	9	6	3	0		Sinks

**MSD**

**In Class:** [62]  
**In Service:** 1972  
**Crew:** 0 + 3  
**Armor Rating:** 0  
**Cbt Sys:** None  
--  
**Remarks:**  
Fitted with 3.2 nmi control link. Uses electric propulsion for sweeping at 5 knots with Quiet acoustic signature.  
• Transfers: 6 to Pakistan, 21 to Vietnam.  
• 1995: Four operational, 42 in reserve.  
• 2008: Two remain in reserve.  
**Damage & Speed Breakdown:**  

Dam Pts:	--	--	--	--	--	--	10.0
Surf Speed:	12	9	6	3	0		Sinks

**Type 081A [Wochi Mod]**

**Displacement:** 858 std  
**Size Class:** D/Small  
**Propulsion:** Diesel  
**Signature:** Small/Noisy  
**Weapons:**  
F(1)1 CS/AN2 30mm (**0.1L**)  
Sweep gear  
2 IJM-01 ROV  
**Sensors:**  
Type 760, Type 753C  
Mine hunting sonar  
TJN-906  
**Remarks:**  
Xiaoyi/741, Taishan/742, Changshou/743, Heshan/744, Qingzhou/730, Yucheng/731, Xuanwei/733, Wudi/732, Renhuai/710, Jiangshan/711, Tingzhi/?, Yu'Qing/?, Chishui/?, Renshou/?  
**MCM**

**In Class:** 14  
**In Service:** 2012  
**Crew:** ?  
**Armor Rating:** 0  
**Cbt Sys:** Gen 4 Semi-Automatic  
**C:**  
--  
**J:**  
--  
**L:**  
**Remarks:**  
Xiaoyi/741, Taishan/742, Changshou/743, Heshan/744, Qingzhou/730, Yucheng/731, Xuanwei/733, Wudi/732, Renhuai/710, Jiangshan/711, Tingzhi/?, Yu'Qing/?, Chishui/?, Renshou/?  
**MCM**

China's Navy

**Damage & Speed Breakdown:**

Dam Pts:	0	16	33	49	59	65	Sinks
Surf Speed:	17	13	9	4	0	Sinks	

**Type 081 [Wochi]**

Displacement: 847 std  
 Size Class: D/Small  
 Propulsion: Diesel  
 Signature: Small/Noisy  
Weapons:  
 F(2)1 PJ-76F 37mm (**0.6L**)  
 Sweep gear  
 2 IJM-01 ROV

Sensors:

Type 760, Type 753C  
 Mine hunting sonar  
 TJN-905

Remarks:

Zhangjiagang/705 in NTCN, Jingjian/706 in ETCN, Liuyang/749 and Luxi/740 in STCN.

**Damage & Speed Breakdown:**

Dam Pts:	0	17	35	52	62	69	Sinks
Surf Speed:	17	13	9	4	0	Sinks	

**MCM**

In Class: 4  
 In Service: 2007  
 Crew: ?  
**Armor Rating: 0**  
 Cbt Sys: Gen 4 Semi-Automatic

**C**  
--  
--  
**J**  
**L**

**Damage & Speed Breakdown:**

Dam Pts:	0	31	62	92	111	123	Sinks
Surf Speed:	18	14	9	4	0	Sinks	

**AF**

**Type 904B [Danyao II]**  
 Displacement: 9100 std  
 Size Class: B/Medium  
 Propulsion: Diesel  
 Signature: Med/Noisy  
Weapons:

F/A(1)2 PJ-17 30mm (**0.2L**)  
 P/S(1)2 QJG-02 14.5mm (**0.1L**)  
 4 LCVP  
 Aft Pad(1)1 Z-8A

**In Class: 2**  
**In Service: 2015**  
 Crew: c240  
**Armor Rating: 0**  
 Cbt Sys: None

**C**  
**C**  
**A**  
**B**  
**J**

Sensors:

2 Type 760

**Remarks:**  
*Junshanhu/908, Luguhu/909. Both in the STCN. General stores resupply ship. Four davits for landing craft. Auxiliary, special damage modifier of -25%.*

**Damage & Speed Breakdown:**

Dam Pts:	0	56	112	167	201	223	Sinks
Surf Speed:	19	14	10	5	0	Sinks	

**AF****Type 6610/Type 10/****Russian Project 254M [T-43]****MSF**

Displacement: 500 std  
In Class: 53 - 52  
 Size Class: D/Small  
In Service: 1958 - 2016  
 Propulsion: Diesel  
 Signature: Small/Noisy  
Weapons:  
 F/A(2)2 Type V-11M/Type 61 37mm (**0.5L**)  
 P/S(2)2 2M-3M/Type 61 25mm (**0.2L**)  
 2 BMB DC Proj w/6 BB-1 DC  
 Sweep gear (acoustic, magnetic, mechanical)

**C/Russia**  
**C/Russia**  
**E/Russia**  
--

Sensors:

Type 756  
 Tamir 11  
**K/Russia**

Remarks:

Soviet construction, special damage modifier of -10%. Includes at least 4 Pr. 254K as Type 6605, 33 Pr. 254M as Type 6610, unknown Type 05 and 16 Type 010.

- Strength: 24 in 2005, 14 in 2007.
- 1982: 23 operational - 341, 342, 375-380 in ETCN. 364-366, 801-803, 807 in NTCN. 386-389, 396-399 in STCN.
- 2000s: 994-996 converted to survey ships.
- 2019: Single unit, 834, operational.
- Decommed: 849 in 1987; 845 in 1993; 824, 827 in 1997; 364, 375-380, 386-399, 801-807, 821-823, 863 in 2003-07; 831 in 2013; 811, 832 in 2014; 812, 813 in 2016; 808, 809, 830, 833, 850-854 in 2016-18.

**Damage & Speed Breakdown:**

Dam Pts:	0	12	24	36	43	48	Sinks
Surf Speed:	14	11	7	4	0	Sinks	

**Type 072 [Yantai]****AE**

Displacement: 3300 std  
 Size Class: C/Small  
 Propulsion: Diesel  
 Signature: Small/Noisy  
Weapons:  
 F(2)1 PJ-76F 37mm (**0.6L**)

**In Class: [3]**  
**In Service: 1992(1978)-2020**  
 Crew: 109  
**Armor Rating: 0**  
 Cbt Sys: None

**C**

Sensors:

2 Type 753  
**J**

**Remarks:**  
*Yuntaishan/927, Wufengshan/928, Zijinshan/929. All STCN. Special damage modifier of -25% for amphibious construction. Type 072 [Yukan] LSTs converted to ammunition ships. New bow without doors.*

**Damage & Speed Breakdown:**

Dam Pts:	0	31	62	92	111	123	Sinks
Surf Speed:	18	14	9	4	0	Sinks	

**AF**

**Type 904A [Danyao I]**  
 Displacement: 8900 std  
 Size Class: B/Medium  
 Propulsion: Diesel  
 Signature: Med/Noisy  
Weapons:

F/A(2)2 PJ-76F 37mm (**1.2L**)  
 P/S(2)2 Type 69 14.5mm (**0.3L**)  
 4 LCVP

**In Class: 1**  
**In Service: 2007**  
 Crew: 240  
**Armor Rating: 0**  
 Cbt Sys: None

**C**  
**C**  
**A**  
**J**

Sensors:

2 Type 760

**Remarks:**  
*Fuxianhu/888 in STCN. Island resupply ship. Four davits for landing craft. Helo pad aft. Auxiliary, special damage modifier of -25%.*  
 • Nov 09: Loaned to China Fishery Law Enforcement Agency as its largest patrol ship. Returned to naval service Aug 14.

**Damage & Speed Breakdown:**

Dam Pts:	0	55	110	165	198	220	Sinks
Surf Speed:	19	14	10	5	0	Sinks	

**AF****Type 904 [Dayun]**

Displacement: 6512 std  
 Size Class: B/Medium  
 Propulsion: Diesel  
 Signature: Med/Noisy  
Weapons:

F/A(2)2 PJ-76 37mm (**1.2L**)  
 P/S(2)2 Type 61 25mm (**0.2L**)  
 4 LCVP

**In Class: 2 - 1**  
**In Service: 1992**  
 Crew: 240  
**Armor Rating: 0**  
 Cbt Sys: None

**C**  
**C**  
**A**  
**J**

Sensors:

2 Type 760

**Remarks:**  
*Dongtinghu/883, Jingpohu/884. Both in the STCN. General stores resupply ship. Four davits for landing craft. Helo pad aft. Auxiliary, special damage modifier of -25%.*

**Damage & Speed Breakdown:**

Dam Pts:	0	48	97	145	174	193	Sinks
Surf Speed:	22	17	11	6	0	Sinks	

**Dongleng [Danlin]**

Displacement: 590 std

Size Class: D/Small

Propulsion: Diesel

Signature: Small/Noisy

**Weapons:**

F/A(2)2 Type 61 25mm (0.2L)

**Sensors:**

Type 726

**Remarks:**

*Haileng/531, 591, 592, 594 in STCN. Haiyun 794, 972, 975 in ETCN.*  
Have three holds. Others in civil service. Civilian construction, -50% damage modifier.

**Damage & Speed Breakdown:**

Dam Pts:	0	8	15	23	27	30	
Surf Speed:	15	11	8	4	0	Sinks	

AF

In Class: [7]

In Service: 1960

Crew: 35

Armor Rating: 0

Cbt Sys: None

C

**Type 814A [Dadie]**

Displacement: 1861 std

Size Class: C/Small

Propulsion: Diesel

Signature: Small/Noisy

**Weapons:**

F/A(2)2 Type 81 14.5mm (0.7L)

**Sensors:**

Type 756, Type 753A

**Remarks:**

*Bei Diao/841 in NTCN. Later renumbered 900. Fleet auxiliary, special damage modifier of -25%. Fitted with stabilizers.*

- Early 2000s fitted with a tactical data link, possibly TJN-905.

**Damage & Speed Breakdown:**

Dam Pts:	0	21	42	63	76	84	
Surf Speed:	20	14	10	5	0	Sinks	

AGI

In Class: 1

In Svc: 1986

Crew: 170

Armor Rating: 0

Cbt Sys: None

C

**Type 815A [Dongdiao II]**

Displacement: 4600 std

Size Class: C/Small

Propulsion: Diesel

Signature: Small/Noisy

**Weapons:**

PW/SW/PA/SA(1)4 CS/AN2 30mm (0.2L)

P/S(1)2 QJG-02 14.5mm (0.1L)

Aft Pad(1)1 helicopter

**Sensors:**

ES: 3rd Gen

Type 760, Type 753C, Targeting complex (See Remarks)

TJN-906, JSTIDS

**Remarks:**

*Tianwangxing/853, Tianlangxing/854, Haiwangxing/852, Tianquanxing/855, Kaiyangxing/856, Tiangshuxing/857, Hengxing/858, Jinxing/859, with two more under construction. 855, 858 in the ETCN; 854, 856, 859 in the NTCN; and 852, 853, 857 in the STCN. Missile surveillance and intelligence ship. Helo pad aft. 853-855 has the Band Stand radome with the LJQ-366 targeting complex. 856-859 have a cylindrical radome [Top Hat?] with a new targeting complex that is described as having capabilities similar to the Russian Monolit-V. Hull 856 and on could be the Type 815B. Combat system rating more of an indication of the surveillance and tracking capabilities of the ship and not its combat capabilities. Fleet auxiliary, special damage modifier of -25%.*

**Damage & Speed Breakdown:**

Dam Pts:	0	35	71	106	127	141	
Surf Speed:	20	15	10	5	0	Sinks	

AGM/AGI

In Class: 6 + 2

In Svc: 2010

Crew: 250

Armor Rating: 0

Cbt Sys: Gen 5 Human

C

C

B

J

L

**Type 625C [Haiyang]**

Displacement: 3324 std

Size Class: C/Small

Propulsion: Diesel

Signature: Small/Noisy

**Sensors:**

Type 756, Type 753A

**Remarks:**

*Nan Diao/412. Marine survey ship, civilian construction, special damage modifier of -50%. Operating crew of 38 and can accommodate 63 scientists and researchers.*

**Damage & Speed Breakdown:**

Dam Pts:	0	24	48	71	86	95	
Surf Speed:	19	14	10	5	0	Sinks	

AGOR

In Class: 1

In Svc: 1981

Crew: 38 + 63

Armor Rating: 0

ES: 2nd Gen

J

**Type 815 [Dongdiao I]**

Displacement: 4600 std

Size Class: C/Small

Propulsion: Diesel

Signature: Small/Noisy

**Weapons:**

F(2)1 Type 76 37mm (0.6L)

PA/SA(2)2 Type 61 25mm (0.2L)

Aft Pad(1)1 helicopter

**Sensors:**

ES: 3rd Gen

Type 760, Type 753C

YJN-901, 902, 903

**Remarks:**

*Beijixing (ex-Dongdiao 232)/851. Missile surveillance and intelligence ship. Helo pad aft. East Sea Fleet. Combat system rating more of an indication of the surveillance and tracking capabilities of the ship and not its combat capabilities. Fleet auxiliary, special damage modifier of -25%.*

- 2007: Completes refit. Data link likely upgraded to TJN-905/Integrated Data Type I, Combat System updated to Gen 5 Human.

**Damage & Speed Breakdown:**

Dam Pts:	0	35	71	106	127	141	
Surf Speed:	20	15	10	5	0	Sinks	

AGM/AGI

In Class: 1

In Svc: 1999

Crew: 250

Armor Rating: 0

Cbt Sys: Gen 4 Semi-Automatic

C

C

B

J

L

**Type 927 [Dongjian]**

Displacement: 5000 std

Size Class: C/Small

Propulsion: Diesel-Electric

Signature: Small/Quiet

**Sensors:**

Type 760, Type 753C

SJG-208 towed array

JSTIDS

**Remarks:**

*Tianxuanganxing/780, Tianjixing/781, Yaoguangxing/782, Muxing/783, Xingle/784. All STCN. SWATH hull, special damage modifier of -25%. Fleet auxiliary, special damage modifier of -25%. Maximum speed for towed array operations is 10 knots. Named for stars in the Big Dipper constellation.*

**Damage & Speed Breakdown:**

Dam Pts:	0	25	50	75	90	100	
Surf Speed:	15	11	8	4	0	Sinks	

AGOS

In Class: 4 + 1

In Service: 2019

Crew: ≈50

Armor Rating: 0

K

L

**Type 073IIY [Yudao]**

Displacement: 1040 std

Size Class: D/Small

Propulsion: Diesel

Signature: Small/Noisy

**Weapons:**

F(2)1 Type 76 37mm (0.6L)

**Sensors:**

Type 756

**Remarks:**

Landing ships converted to ammunition supply ships. Carrying capacity is 300 tons. Special damage modifier of -25% for amphibious construction.

**Damage & Speed Breakdown:**

Dam Pts:	0	14	29	43	51	57	
Surf Speed:	16	12	8	4	0	Sinks	

AK

**Damage & Speed Breakdown:**

Dam Pts:	0	35	71	106	127	141	
Surf Speed:	20	15	10	5	0	Sinks	

**[Hongqi]****Displacement:** 590 std**Size Class:** C/Small**Propulsion:** Diesel**Signature:** Small/Noisy**Weapons:**

F/A(2)/Type 61 25mm (0.3L)

**Sensors:**

Type 726

**Remarks:**

Similar to the Dongleng [Danlin] class Used to support offshore island garrisons. Can carry some passengers. Sister in commercial service. Civilian construction, special damage modifier of -50%.

**Damage & Speed Breakdown:**

<b>Dam Pts:</b>	0	8	15	23	27	30	
<b>Surf Speed:</b>	14	11	7	4	0	Sinks	

**In Class:** 8**In Service:** 1970s**Crew:** 35**Armor Rating:** 0**Cbt Sys:** None**AK****C****J**

starboard for solid and liquid transfer. 10,400 tons marine fuel, 700 tons aviation kerosene, 250 tons fresh water, 70 tons lube oil, and 680 tons dry cargo, ammo, provisions. Helo pad aft. Fueling stations: 1P/1S/Astern. Dry cargo stations: 1P/1S. Auxiliary, special damage modifier of -25%. Standard displacement estimated.

**Damage & Speed Breakdown:**

<b>Dam Pts:</b>	0	57	113	170	203	226	
<b>Surf Speed:</b>	19	14	10	5	0	Sinks	

**Donghaidao [Mod Hansa Sonderburg]****Displacement:** 15000 std**Size Class:** A/Large**Propulsion:** Diesel**Signature:** Large/Noisy**Sensors:**

Nav radar

**Remarks:**

*Donghai Dao*/868. Semi-submersible heavy lift vessel. Lift capacity is about 40,000 tons. Fitted with stabilizers. Can carry Zubr class LCUs. Civilian construction, special damage modifier of -50%.

**Damage & Speed Breakdown:**

<b>Dam Pts:</b>	0	65	130	194	233	259	
<b>Surf Speed:</b>	14	11	7	4	0	Sinks	

**AHT****In Class:** 1**In Service:** 2015**Crew:** ~50**Armor Rating:** 0**J****Type 901 [Fuyu]****Displacement:** 20000 std**Size Class:** A/Large**Propulsion:** Gas Turbine**Signature:** Large/Noisy**Weapons:**

PW/SW/PA/SA(R)4 PJ-13 30mm//F LJP-347 (5.9)

**AOR****In Class:** 2 + 1?**In Service:** 2017**Crew:** 200**Armor Rating:** 0**Cbt Sys:** Gen 5 Human**C****Aft pad(1)2 Z-8****Sensors:****ES:** 3rd Gen**B**

LJQ-364, LJQ-361A, 2 Type 760

TJN-906, JSTIDS

**L****Remarks:**

*Hulunhun*/901, *Chaganhu*/905. One more predicted, but no sign construction has begun. Both NTCN. Fitted with stabilizers. 48,000 tons full load, standard displacement estimated.. Carries 15000 tons marine fuel, 5000 tons aviation kerosene, 3,000 tons dry stores and ammunition, 1500 tons potable water. Fueling stations: 3P/2S. Dry cargo stations: 1P/1S. Auxiliary, special damage modifier of -25%.

**Damage & Speed Breakdown:**

<b>Dam Pts:</b>	0	94	189	283	339	377	
<b>Surf Speed:</b>	25	19	13	6	0	Sinks	

**Type 903A [Fuchi Mod]****Displacement:** 9265 std**Size Class:** B/Medium**Propulsion:** Diesel**Signature:** Large/Noisy**Weapons:**

PW/SW/PA/SA(1)4 CS/AN2 30mm (0.2L)

**AOR****In Class:** 7 + 1**In Service:** 2013**Crew:** 130**Armor Rating:** 0**Cbt Sys:** None**C****Aft Pad (1)1 Z-8****Sensors:**

Type 760, Type 753C, Type 754

**B**

TJN-906, JSTIDS

**L****Remarks:**

NTCN *Taihu*/903, *Dongpinghu*/902, *Kekexilihu*/908 (?). ETCN *Chaohu*/890, *Gaoyuhu*/904. STCN *Honghu*/906, *Luomahu*/907, one more. 23,000 tons full load, increased displacement over Type 903 to accommodate aviation fuel. Replenishment stations port and

**C****Type 903 [Fuchi]****In Class:** 2**In Service:** 2005**Crew:** 130**Armor Rating:** 0**Weapons:****Cbt Sys:** None**AOR****C****B****Sensors:****J**

Type 760, Type 753C

**L****Remarks:**

*Qiandaohu*/886 ETCN, *Weishanhu*/887 STCN. 20,500 tons full load. Carries 10,400 tons marine fuel, 250 tons fresh water, 70 tons lube oil, 680 tons dry cargo, ammo, provisions. Helo pad aft. Fueling stations: 1P/1S/Astern. Dry cargo stations: 1P/1S. Auxiliary, special damage modifier of -25%. Standard displacement estimated.

**Damage & Speed Breakdown:**

<b>Dam Pts:</b>	0	50	100	150	180	200	
<b>Surf Speed:</b>	19	14	10	5	0	Sinks	

**Russian Project 1596 [Fusu]****In Class:** 1**In Service:** 1996**Crew:** 125**Armor Rating:** 0**Weapons:****Cbt Sys:** None**AOR****C****B****PW/SW/PA/SA(1)4 Type 85 12.7mm (0.1L)****Aft Pad(1)1 helicopter****J**

Type 760, Type 753C

**L****Remarks:**

*Quinghaihu*/885 STCN. Ex-*Nan Yun* 953, ex-*Nancang* 885, ex-*Vladimir Peregudov*. Purchased 80% complete from Ukraine, modified and completed in China as Type 908. 35,000 tons full load. Carries 9630 tons of marine fuel oil and 13370 tons of ammunition and dry stores. Fueling stations: 2P/2S/Astern. Dry cargo stations: 1P/1S. Single shaft, double the speed reduction of Engineering critical hits. Converted merchant ship, -35% damage modifier. Standard displacement estimated.

- 2011: Fitted with PW/SW/A(1)3 PJ-17 30mm//3 EO GFC, AA strength 0.2L.

**Damage & Speed Breakdown:**

<b>Dam Pts:</b>	0	72	144	216	259	288	
<b>Surf Speed:</b>	16	12	8	4	0	Sinks	

**Type 905 [Fuqing]****In Class:** [2]**In Service:** 1979 - 2020**Crew:** 146**Armor Rating:** 0**Weapons:****Cbt Sys:** None**AOR****C****PW/SW/P/S(2)4 Type 76 37mm (1.2L)****Sensors:****J****Remarks:**

*Taicang*/881 NTCN, *Fengcang*/882 ETCN. Aft pad for medium helicopter; no hangar. Initially not fitted with weapons. Additional unit serves as merchant vessel *Hai Lang*. 21,740 tons full load. Carries 10550 tons marine fuel oil, 1000 tons diesel oil, 200 tons feed water,

200 tons potable water, 50 tons lube oil, 50 tons dry stores. Has 2P/2S/Astern fueling stations. Special damage modifier of -25% for auxiliary. Standard displacement estimated.

- Late 80s: Fitted to UNREP stores, 1P/1S dry cargo stations added.
- 1994: *Taicang* fitted with weapons.
- 2002: *Fengcang* fitted with weapons.
- 2003: *Taicang* renamed *Hongzehu*, *Fengcang* as *Poyanghu*. Fitted with TJN-905 data link.
- 6 Sep 18: *Hongzehu* decommed, will become a museum in Taizhou city.
- 6 Jul 20: *Poyanghu* decommed.

**Damage & Speed Breakdown:**

Dam Pts:	0	57	113	170	203	226
Surf Speed:	18	14	9	4	0	Sinks

AOT

**Type 631 [Fuchang]****Displacement:** 1400 std**Size Class:** C/Small**Propulsion:** Diesel**Signature:** Small/Noisy**Sensors:**

Type 760

**Remarks:**

*Dongyou* 637, *Beiyou* 567, probably others in civilian service. 2,300 tons full load. Cargo is estimated to be 650 tons fuel oil. Single shaft, double the speed reduction of engineering critical hits. Merchant construction, special damage modifier of -50%. Standard displacement estimated.

**Damage & Speed Breakdown:**

Dam Pts:	0	13	27	40	48	53
Surf Speed:	12	9	6	3	0	Sinks

AOT

**In Class:** 6**In Service:** ~2007**Crew:** 30**Armor Rating:** 0

J

**Type 640 [Fubai]****Displacement:** 1615 std**Size Class:** C/Small**Propulsion:** Diesel**Signature:** Small/Noisy**Sensors:**

Type 760, Type 753C

**Remarks:**

*Dongyun* 640, *Nanyou* 968, *Nanyou* 971, *Nanyou* 972. Designation is an estimate. Estimate 4,900 tons full load. Cargo is estimated to be 3,000 tons fuel oil. Civilian construction, special damage modifier of -50%. Single shaft, double the speed reduction of engineering critical hits.

**Damage & Speed Breakdown:**

Dam Pts:	0	15	30	44	53	59
Surf Speed:	15	11	7	4	0	Sinks

AOT

**In Class:** 4**In Service:** 2004**Crew:** 48**Armor Rating:** 0

J

**Type 637 [Fuxiao]****Displacement:** 1615 std**Size Class:** C/Small**Propulsion:** Diesel**Signature:** Small/Noisy**Sensors:**

Type 760, Type 753C

**Remarks:**

*Dongyou* 637, *Beiyou* 567, probably others in civilian service. Estimate 4,900 tons full load. Cargo is estimated to be 3,000 tons fuel oil. Single shaft, double the speed reduction of engineering critical hits. Merchant construction, special damage modifier of -50%. Standard displacement estimated.

**Damage & Speed Breakdown:**

Dam Pts:	0	15	30	44	53	59
Surf Speed:	12	9	6	3	0	Sinks

AOT

**In Class:** 2+**In Service:** 2004**Crew:** 35**Armor Rating:** 0

J

**Damage & Speed Breakdown:**

Dam Pts:	0	15	30	44	53	59
Surf Speed:	12	9	6	3	0	Sinks

**3000-ton Tanker [Jinyou]**

AOT

**Displacement:** 1530 std**In Class:** 3 - 2**Size Class:** C/Small**In Service:** 1989**Propulsion:** Diesel**Crew:** 40**Signature:** Small/Noisy**Armor Rating:** 0**Sensors:**

Type 758, Type 757

J

**Remarks:**

*Dongyun* 622, *Dongyun* 625, *Dongyun* 675. 4,800 tons full load. Cargo is 25,000 barrels, ≈3,000 tons, diesel fuel. Built in Japan. Single shaft, double the speed reduction of engineering critical hits. Merchant construction, special damage modifier of -50%. Standard displacement estimated.

**Damage & Speed Breakdown:**

Dam Pts:	0	14	29	43	51	57
Surf Speed:	15	11	8	4	0	Sinks

AOT

**Type 621 [Shengli]****Displacement:** 1655 std**Size Class:** C/Small**Propulsion:** Diesel**Signature:** Small/Noisy**Weapons:****In Class:** [3]**In Service:** 1981**Crew:** 48**Armor Rating:** 0**Cbt Sys:** None

C

F(2)1 Type 66 57mm/70 (0.2L)

C

A(2)1 Type 61 25mm (0.2L)

C

**Sensors:**

2 Type 756

J

**Remarks:**

*Dongyun* 620, *Dongyun* 621, *Dongyun* 632. Other units serve as commercial tankers, two units dedicated to PLAN service. 4,950 tons full load. Carries 3002 tons diesel fuel. Civilian construction, special damage modifier of -50%. Single shaft, double the speed reduction of engineering critical hits. Standard displacement estimated.

- 2004: *Dongyun* 632 struck by this date.

- 2018: *Dongyun* 621 converted to Coast Guard WPS *Hai Jing* 3412.

- 2020: *Dongyun* 620 struck.

**Damage & Speed Breakdown:**

Dam Pts:	0	15	30	45	54	60
Surf Speed:	14	11	7	4	0	Sinks

**Type 632II [Fujian]**

AOT, AWT

**Displacement:** 1488 std**In Class:** 16, 4**Size Class:** C/Small**In Service:** 1972 - ?**Propulsion:** Diesel**Crew:** 30**Signature:** Small/Noisy**Armor Rating:** 0**Weapons:****Cbt Sys:** None

C

PW/SW(2)2 Type 61 25mm (0.2L)

C

**Sensors:**

Type 726

J

**Remarks:**

Designation is an estimate. Slightly larger Type 632 class. 2,400 tons full load. Carries 650 tons fuel oil. Four ships of the class are used as water tankers. Single shaft, double the speed reduction of engineering critical hits. Merchant construction, special damage modifier of -50%. Standard displacement estimated.

**Damage & Speed Breakdown:**

Dam Pts:	0	14	28	42	50	56
Surf Speed:	10	8	5	3	0	Sinks

**Type 632 [Fulin]**

AOT, AWT

**Displacement:** 1360 std**In Class:** [8, 4]**Size Class:** C/Small**In Service:** 1964**Propulsion:** Diesel**Crew:** 30**Signature:** Small/Noisy**Armor Rating:** 0**Weapons:****Cbt Sys:** None

C

F/A(2)2 Type 61 25mm (0.3L)

**Sensors:**

Type 726 or Type 751

J

**Remarks:**

2,200 tons full load. Carries 600 tons fuel oil. Single shaft, double the speed reduction of engineering critical hits. Merchant construction, special damage modifier of -50%. Standard displacement estimated.

- Four are water tankers, some not armed.
- 1992: Seven remain in service.
- 2020: All are out of service.

**Damage & Speed Breakdown:**

Dam Pts:	0	13	26	39	47	52
Surf Speed:	10	8	5	3	0	Sinks

**Type 626 [Fuzhou]**

Displacement: 1200 std

Size Class: C/Small

Propulsion: Diesel

Signature: Small/Noisy

**Weapons:**

F(2)2 Type 61 25mm (0.3L)

P/S(2)2 Type 69 14.5mm (0.3L)

**Sensors:**

Type 726 or Type 751

**Remarks:**

2,300 tons full load. Carries 600 tons fuel oil. Single shaft, double the speed reduction of engineering critical hits. Merchant construction, special damage modifier of -50%.

- 2020: All are out of service.

**Damage & Speed Breakdown:**

Dam Pts:	0	12	24	36	43	48
Surf Speed:	11	8	6	3	0	Sinks

**AOT, AWT**

In Class: [18, 7]

In Service: 1964

Crew: 35

Armor Rating: 0

Cbt Sys: None

**Type 917 [Dasan]**

Displacement: 550 std

Size Class: D/Small

Propulsion: Diesel/Waterjet

Signature: Small/Noisy

**Weapons:**

F(1)1 CS/AN2 30mm//EO director (0.1L)

**Sensors:**

Type 760

TJN-906

F 3rd Gen EO/IR

**ARS**

In Class: 3

In Service: 2012

Crew: ?

Armor Rating: 0

Cbt Sys: None

C

J

L

--

**Remarks:**

Fast-response rescue ship. *Bei Jin*/143 NTCN, *Dong Jin*/335 ETCN, *Nan Jin*/511 STCN. Trimaran, special damage modifier of -25%. All-aluminum construction, special damage modifier of -25%.

**Damage & Speed Breakdown:**

Dam Pts:	0	7	15	22	26	29
Surf Speed:	25	19	13	6	0	Sinks

**ASR**

Displacement: 7000 std

Size Class: B/Medium

Propulsion: Diesel

Signature: Medium/Quiet

**Weapons:**

LR-7 submersible

**Sensors:**

Type 760, Type 754

TJN-906

J

L

**Remarks:**

*Haiyandao*/846, *Liugongdao*/832, *Shangdao*/847. Submarine support and rescue. One ship carries LR-7 submersible, the other two carry PRC-designed DSRV. Helo pad midships, fitted with stabilizers. Auxiliary, special damage modifier of -25%.

**Damage & Speed Breakdown:**

Dam Pts:	0	58	117	175	210	233
Surf Speed:	18	14	9	5	0	Sinks

**Leizhou**

Displacement: 556 std

Size Class: D/Small

Propulsion: Diesel

Signature: Small/Noisy

**Weapons:**

F(2)1 Type 61 37mm (0.3L)

P/S(2)2 Type 61 25mm (0.2L)

**Sensors:**

Type 726 or Type 751

**Remarks:**

900 tons full load. Estimate 250 tons fuel. Single shaft, double the speed reduction of Engineering critical hits. Civilian construction, special damage modifier of -50%.

**Damage & Speed Breakdown:**

Dam Pts:	0	7	15	22	26	29
Surf Speed:	10	8	5	3	0	Sinks

**AK, AOT, AWT**

In Class: 1, 5, 4

In Service: Early 60s

Crew: 30

Armor Rating: 0

Cbt Sys: None

**Type 645**

Displacement: 4435 std

Size Class: C/Small

Propulsion: Diesel

Signature: Small/Noisy

**Weapons:**1 DSRV (only on *Xiangyanghong 09*)**Sensors:**

2 Type 756

**WAGOR**

In Class: 4 - 2

In Svc: 1979

Crew: 150

Armor Rating: 0

Cbt Sys: None

--

**Qiongsha**

Displacement: 1615 std

Size Class: C/Small

Propulsion: Diesel

Signature: Small/Noisy

**Weapons:**

PW/SW/PA/SA(2)4 Type 69 14.5mm (0.7L)

**AP**

In Class: 6 - 5

In Service: 1980

Crew: 59

Armor Rating: 0

Cbt Sys: None

**Remarks:**

*Xiangyanghong 09*, *Xiangyanghong 14*, *Xiangyanghong 15*, *Xiangyanghong 16*. Civilian construction, special damage modifier of -50%.

- *Xiangyanghong 09* occasionally employed as an AGI.

- 2 May 93: *Xiangyanghong 16* lost in collision with Japanese merchant tanker.

- ????: *Xiangyanghong 15* removed from service.

**Damage & Speed Breakdown:**

Dam Pts:	0	29	58	86	104	115
Surf Speed:	19	14	10	5	0	Sinks

**Type QDZ [Hulai II]**

Displacement: 330 std

Size Class: E/VSmall

Propulsion: Diesel

Signature: VSmall/Noisy

**Weapons:**

F(1)1 QJG-02 14.5mm mg

**Sensors:**

Type 756

**WPC**

In Class: 30

In Service: 2015

Crew: 26

Armor Rating: 0

Cbt Sys: None

C

J

**Damage & Speed Breakdown:**

Dam Pts:	0	15	30	44	53	59
Surf Speed:	16	12	8	4	0	Sinks

**Remarks:**

Fitted with a smoke grenade launcher and high-capacity water cannon, as well as other small arms. Has a fast-launch stern ramp system for a deploying a high speed interceptor rigid inflatable boat (RIB). All-aluminum construction, special damage modifier of -25%.

**Damage & Speed Breakdown:**

Dam Pts:	0	8	16	23	28	31
Surf Speed:	32	24	12	8	0	Sinks

**Hutao III****WPG****Displacement:** 625 std**In Class:** 2**Size Class:** D/Small**In Service:** 2019**Propulsion:** Diesel/Waterjet**Crew:** ?**Signature:** Small/Noisy**Armor Rating:** 0**Weapons:****Cbt Sys:** None

F(1)1 PJ-17 30mm//EO GFC (0.1L)

PA/SA(1)2 QJZ-89 12.7mm (0.1L)

**Sensors:**

Type 756, Type 753C

**Remarks:**

Speed estimated.

**Damage & Speed Breakdown:**

Dam Pts:	0	14	28	42	50	56
Surf Speed:	35	26	18	9	0	Sinks

**Hutao I****WPG****Displacement:** 600 std**In Class:** 9**Size Class:** D/Small**In Service:** 2015**Propulsion:** Diesel**Crew:** ?**Signature:** Small/Noisy**Armor Rating:** 0**Weapons:****Cbt Sys:** None

F(1)1 CS/AN2 30mm (0.1L)

PA/SA(1)2 QJZ-89 12.7mm (0.1L)

**Sensors:**

Type 756, Type 753C

**Damage & Speed Breakdown:**

Dam Pts:	0	13	26	39	47	52
Surf Speed:	30	23	15	8	0	Sinks

**Type 718B [Zhaojun]****WPS****Displacement:** 2500 std**In Class:** 9**Size Class:** C/Small**In Service:** 2017**Propulsion:** Diesel**Crew:** ?**Signature:** Small/Noisy**Armor Rating:** 0**Weapons:****Cbt Sys:** Gen 4 Semi-Automatic

F(1)1 PJ-26 76mm//LJP-347G (3.0)

PA/SA(1)2 PJ-17 30mm//2 EO GFC (0.1L)

**Sensors:**

LJQ-360, Type 760, Type 753C

TJN-906

A 3rd Gen EO/IR/laser rf

**Remarks:**

Helo pad aft. Aluminum superstructure, special damage modifier of -15%.

**Damage & Speed Breakdown:**

Dam Pts:	0	28	55	83	99	110
Surf Speed:	27	20	14	7	0	Sinks

**Type 818 [Zhaoduan]****WPS****Displacement:** 3600 std**In Class:** 6**Size Class:** C/Small**In Service:** 2017**Propulsion:** CODAD**Crew:** ?**Signature:** VSmall/Noisy**Armor Rating:** 0**Weapons:****Cbt Sys:** Gen 5 Human

F(1)1 PJ-26 76mm/59 (3.0), P/S(R)2 PJ-13 30mm

//LJP-347G (2.9)

Aft Pad (1)1 Z-9S Haitun

**Sensors:**

LJQ-361A, Type 760, Type 753C

**J**

SJD-9

**K**

TJN-906

**L**

F 3rd Gen EO/IR/laser rf

**--****Remarks:**

Cutter based on Type 054A. Fitted with helo recovery system, high-capacity water cannon. Aluminum superstructure, special damage modifier of -15%.

**Damage & Speed Breakdown:**

Dam Pts:	0	35	70	105	126	140
Surf Speed:	25	19	13	6	0	Sinks

**Zhatou****WPS****Displacement:** 10000 std**In Class:** 2**Size Class:** B/Medium**In Service:** 2015**Propulsion:** Diesel**Crew:** ?**Signature:** Medium/Noisy**Armor Rating:** 0**Weapons:****Cbt Sys:** Gen 5 Human

F(1)1 PJ-26 76mm/59//EO director

**C**

PA/SA(1)2 PJ-17 30mm//2 EO directors (0.1L)

**C**

Aft Pad(1)2 helos

**B****Sensors:**

LJQ-361A, Type 760, Type 753C

**J**

TJN-906

**L**

F 3rd Gen EO/IR/laser rf

**--****Remarks:**

Also known as Zhaotou. Aluminum superstructure, special damage modifier of -15%.

**Damage & Speed Breakdown:**

Dam Pts:	0	69	139	208	249	277
Surf Speed:	25	19	13	6	0	Sinks

**Type 918 [Shuoshi II]****WPS****Displacement:** 5418 std**In Class:** 4**Size Class:** C/Small**In Service:** 2015**Propulsion:** Diesel**Crew:** 25**Signature:** Small/Noisy**Armor Rating:** 0**Weapons:****Cbt Sys:** Gen 5 Human

PW/SW(1)2 QJZ-89 12.7mm (0.1L)

**C**

Aft Pad(1)1 helicopter

**B****Sensors:**

LJQ-361A, Type 760, Type 753C

**J**

TJN-906

**L**

F 3rd Gen EO/IR/laser rf

**--****Remarks:**

Provision for F(1)1 PJ-26 76mm with EO director. Fitted with high-capacity water cannon. Aluminum superstructure, special damage modifier of -15%.

**Damage & Speed Breakdown:**

Dam Pts:	0	46	92	138	166	184
Surf Speed:	22	17	11	6	0	Sinks

**Type 401 [Zhaolai]****WPS****Displacement:** 4000 std**In Class:** 4**Size Class:** C/Small**In Service:** 2014**Propulsion:** Diesel**Crew:** ?**Signature:** Small/Noisy**Armor Rating:** 0**Sensors:**

Type 760, Type 753C

**J**

TJN-906

**L**

F 3rd Gen EO/IR/laser rf

**--****Remarks:**

Provision for F(1)1 PJ-26 76mm with EO director. Helo pad aft. Fitted with high-capacity water cannon. Aluminum superstructure, special damage modifier of -15%.

**Damage & Speed Breakdown:**

Dam Pts:	0	38	75	113	135	150
Surf Speed:	24	18	12	6	0	Sinks

<b>Zhaoyu</b>	<b>WPS</b>	<b>Type 059/80 [Shucha II]</b>	<b>WPS</b>
Displacement: 3080 std	In Class: 12	Displacement: 3000 std	In Class: 10
Size Class: C/Small	In Service: 2014	Size Class: C/Small	In Service: 2014
Propulsion: Diesel	Crew: 50	Propulsion: Diesel-Electric	Crew: 80
Signature: Small/Noisy	Armor Rating: 0	Signature: Small/Noisy	Armor Rating: 0
<u>Weapons:</u>	Cbt Sys: None	<u>Weapons:</u>	Cbt Sys: None
F(1) PJ-17 30mm//EO director (0.1L)	C	Aft Pad(1) helicopter	B
PA/SA(1)2 QJZ-89 12.7mm (0.1L)	C	Sensors:	J
Aft Pad(1)1 helicopter	B	Type 760, Type 753C	L
<u>Sensors:</u>	J	TJN-906	--
Type 760, Type 753C	L	F 3rd Gen EO/IR/laser rf	--
TJN-906	--	<u>Remarks:</u>	
F 3rd Gen EO/IR/laser rf	--	Provision for F(1)1 PJ-17 30mm. Fitted with high-capacity water cannon.	
<u>Remarks:</u>		<b>Damage &amp; Speed Breakdown:</b>	
Fitted with high-capacity water cannon. Aluminum superstructure, special damage modifier of -15%.		Dam Pts: 0 38 76 113 136 151	
<b>Damage &amp; Speed Breakdown:</b>		Surf Speed: 18 14 9 5 0 Sinks	
Dam Pts: 0 32 63 95 113 126			
Surf Speed: 20 15 10 5 0 Sinks			
<b>Zhaochang</b>	<b>WPS</b>	<b>Zhaotim</b>	<b>WPS</b>
Displacement: 3000 std	In Class: 1	Displacement: 1000 std	In Class: 11
Size Class: C/Small	In Service: 2015	Size Class: D/Small	In Service: 2014
Propulsion: Diesel-Electric	Crew: ?	Propulsion: Diesel	Crew: 35
Signature: Small/Noisy	Armor Rating: 0	Signature: Small/Noisy	Armor Rating: 0
<u>Weapons:</u>	Cbt Sys: None	<u>Weapons:</u>	Cbt Sys: None
F(1) PJ-17 30mm//EO director (0.1L)	C	PA/SA(1)2 QJZ-89 12.7mm (0.1L)	C
PA/SA(1)2 QJZ-89 12.7mm (0.1L)	C	<u>Sensors:</u>	J
Aft Pad(1)1 helo	B	Type 760, Type 753C	L
<u>Sensors:</u>	J	<u>Remarks:</u>	
Type 760, Type 753C	L	Ice strengthened hull. Provisions for F(1)1 PJ-17 30mm. Fitted with high-capacity water cannon.	
TJN-906	--	<b>Damage &amp; Speed Breakdown:</b>	
F 3rd Gen EO/IR/laser rf	--	Dam Pts: 0 18 36 54 65 72	
<u>Remarks:</u>		Surf Speed: 20 15 10 5 0 Sinks	
Tumbledown hull. Fitted with high-capacity water cannon. Aluminum superstructure, special damage modifier of -15%.			
<b>Damage &amp; Speed Breakdown:</b>			
Dam Pts: 0 31 62 93 112 124			
Surf Speed: 20 15 10 5 0 Sinks			
<b>Zhaogao</b>	<b>WPS</b>	<b>Type III [Shuke III]</b>	<b>WPS</b>
Displacement: 1500 std	In Class: 4	Displacement: 1250 std	In Class: 5
Size Class: D/Small	In Service: 2015	Size Class: D/Small	In Service: 2013
Propulsion: Diesel/CPP	Crew: 60	Propulsion: Diesel	Crew: ≈43
Signature: Small/Noisy	Armor Rating: 0	Signature: Small/Noisy	Armor Rating: 0
<u>Weapons:</u>	Cbt Sys: None	<u>Sensors:</u>	
F(1)1 CS/AN2 30mm//EO director (0.1L)	C	Type 760, Type 753C	J
PA/SA(1)2 QJZ-89 12.7mm (0.1L)	C	TJN-906	L
<u>Sensors:</u>	J	F 3rd Gen EO/IR/laser rf	--
Type 760, Type 753C	L	<u>Remarks:</u>	
TJN-906	--	Provisions for F(1)1 PJ-17 30mm. Fitted with high-capacity water cannon.	
F 3rd Gen EO/IR/laser rf	--	<b>Damage &amp; Speed Breakdown:</b>	
<u>Remarks:</u>		Dam Pts: 0 21 42 63 76 84	
Medium-sized helo pad aft, no hangar. Fitted with stabilizers. Aluminum superstructure, special damage modifier of -15%.		Surf Speed: 20 15 10 5 0 Sinks	
<b>Damage &amp; Speed Breakdown:</b>			
Dam Pts: 0 20 39 59 70 78			
Surf Speed: 25 19 13 6 0 Sinks			
<b>Type IIA [Shuke II]</b>	<b>WPS</b>	<b>Type II [Shuke II]</b>	<b>WPS</b>
Displacement: 1120 std	In Class: 4	Displacement: 1120 std	In Class: 4
Size Class: D/Small	In Service: 2011	Size Class: D/Small	In Service: 2011
Propulsion: Diesel	Crew: 43	Propulsion: Diesel	Crew: 43
Signature: Small/Noisy	Armor Rating: 0	Signature: Small/Noisy	Armor Rating: 0
<u>Weapons:</u>		<u>Sensors:</u>	
Type 760, Type 753C		Type 760, Type 753C	J
TJN-906		TJN-906	L
F 3rd Gen EO/IR/laser rf		F 3rd Gen EO/IR/laser rf	--
<u>Remarks:</u>		<u>Remarks:</u>	
Provision for F(1)1 QJG-02 14.5mm mg. Fitted with high-capacity water cannon.		Provision for F(1)1 QJG-02 14.5mm mg. Fitted with high-capacity water cannon.	
<b>Damage &amp; Speed Breakdown:</b>		<b>Damage &amp; Speed Breakdown:</b>	
Dam Pts: 0 20 39 59 70 78		Dam Pts: 0 20 39 59 70 78	
Surf Speed: 20 15 10 5 0 Sinks		Surf Speed: 20 15 10 5 0 Sinks	

**Type 718 [Haixun II] class****WPS**

<b>Displacement:</b> 1375 std	<b>In Class:</b> 1
<b>Size Class:</b> C/Small	<b>In Service:</b> 2009
<b>Propulsion:</b> Diesel	<b>Crew:</b> ?
<b>Signature:</b> Small/Noisy	<b>Armor Rating:</b> 0
<b>Weapons:</b>	<b>Cbt Sys:</b> None
F(1)1 CS/AN3 37mm ( <b>0.4L</b> )	<b>C</b>
PA/SA(2)2 Type 69 14.5mm ( <b>0.3L</b> )	<b>C</b>
<b>Sensors:</b>	
Type 760, Type 753C	<b>J</b>
<b>Remarks:</b>	
Formerly <i>Pudong</i> /1001. Aft pad for large helicopter. The new single barrel 37mm is on very few ships. Gun designation is estimated. Fitted with high-capacity water cannon.	
<b>Damage &amp; Speed Breakdown:</b>	
<b>Dam Pts:</b>	0      23      45      68      81      90
<b>Surf Speed:</b>	20     15     10     5     0     Sinks

**Type 053H2G [Jiangwei I]****WFF**

<b>Displacement:</b> 2180 std	<b>In Class:</b> 3
<b>Size Class:</b> C/Small	<b>In Service:</b> 2015 (1991)
<b>Electrn Cnt:</b> 2nd Gen J&D	<b>Acoust Cnt:</b> None
<b>Propulsion:</b> Diesel/CPP	<b>Crew:</b> ?
<b>Signature:</b> Small/Noisy	<b>Armor Rating:</b> 0
<b>Weapons:</b>	<b>Cbt Sys:</b> Gen 4 Semi-Automatic
PW/SW/PA/SA(2)4 PJ-76A 37mm//A LJP-341 ( <b>4.1</b> )	<b>C</b>
Aft Pad(1)1 Z-9S	<b>B</b>
<b>Sensors:</b>	
Type 760, Type 752C	<b>J</b>
F 3rd Gen EO/IR/laser rf	
<b>Remarks:</b>	
Hai Jing 31239 ( <i>Anqing</i> /539), Hai Jing 31240 ( <i>Huainan</i> /540), Hai Jing 31241 ( <i>Huabei</i> /541). Originally <i>Hai Jing</i> 2201, <i>Hai Jing</i> 2202, <i>Hai Jing</i> 2203. Fitted with RAST. Aluminum superstructure, special damage modifier of -15%.	
<b>Damage &amp; Speed Breakdown:</b>	
<b>Dam Pts:</b>	0      25      50      75      90      100
<b>Surf Speed:</b>	27     20     14     7     0     Sinks

## Annex B - Aircraft

### PEOPLE'S REPUBLIC OF CHINA (PRC)

#### AG600 Kunlong

**Man Rtngr:** 0.5/0.5  
**Size/Signature:** Large/Large  
**Sensors:** ?

#### Patrol/SAR

**Damage Value:** e50  
**Bombsight:** None

**Ceiling:** 6000 meters  
**Cruise Range:** 2065 nmi  
**Remarks:**  
 Amphibian. 'Water Dragon'. Can carry 50 survivors. Ordered by Chinese Coast Guard.  
 • 26 Jul 20: First flight.

#### ASN-104

**Man Rtngr:** 0.0  
**Size/Signature:** VSmall/VSmall  
**Sensors:** EO sensor

#### Recon Drone

**Damage Value:** e4  
**Bombsight:** None

**Ceiling:** 3200- meters  
**Cruise Range:** 135 nmi  
**Remarks:**  
 PLAGF. Fitted with 32 nmi LOS control link. Launched from catapult, recovered by parachute. System includes one ground control station and six UAV. TV camera images processed post mission - no real time capability.

#### ASN-105B

**Man Rtngr:** 0.0  
**Size/Signature:** VSmall/VSmall  
**Sensors:** EO sensor

#### Recon Drone

**Damage Value:** e4  
**Bombsight:** None

**Ceiling:** 6000 meters  
**Cruise Range:** 475 nmi  
**Remarks:**  
 Improved ASN-104 with PLAGF. Fitted with 81 nmi LOS control link. Launched from catapult, recovered by parachute. Camera and TV images processed post mission - no real time capability.

#### ASN-206

**Man Rtngr:** 0.0  
**Size/Signature:** VSmall/VSmall  
**Sensors:** EO sensor

#### Recon UAV

**Damage Value:** e5  
**Bombsight:** None

**Ceiling:** 6000 meters  
**Cruise Range:** 545 nmi  
**Remarks:**  
 Improved ASN-104 service with PLAGF. Fitted with 81 nmi LOS control link. Launched from catapult, recovered by parachute. JWP-01 is recon, JN-1102 has COMINT and communications jammer, RKL-164 communications jamming, RKL-165 decoy (Small radar signature), TK-J226 communications relay. System is one ground station and 6 to 10 UAV.  
 • Jul 11: Used by STCN for ship communications relay during exercise.

#### ASN-207

**Man Rtngr:** 0.0  
**Size/Signature:** VSmall/VSmall  
**Sensors:** EO sensor

#### Recon UAV

**Damage Value:** e5  
**Bombsight:** None

**Throttle Setting/Speed in knots**

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	80	110	--
Med:	80	110	--

**Ceiling:** 6000 meters

**Engine Type:** IP

**Cruise Range:** 815 nmi

**Int Fuel:** ? kg

**Remarks:**

In Svc: 2002

PLAGF. Fitted with 81 nmi LOS control link. Launched from catapult, recovered by parachute. Possibly known as WZ-6 in PRC service. JWP-02 recon, RKL-167 communications jammer, RKZ-167 standoff jammer (clutter rating 12). Also communications relay UAV to increase control link to 324 nmi.

- 2011: Improved BZK-006/WZ-6A enters service with PLAGF. Each control station can control two UAV. Also JWP-01 for artillery fire direction, RKT-164 communications jammer, TKJ-226 communications relay, RKL-165 decoy (Small radar signature), RKZ-167 radar jammer.
- 2013: JMP-02 deployed by PLARF for long range target acquisition.
- 2018: 15 BZK-006 reported in service.
- Feb 21: KVD-001 recon in service with PLAGF to pass targets and communications relay to attack helicopters.

#### ASN-209

**Man Rtngr:** 0.0  
**Size/Signature:** VSmall/VSmall  
**Sensors:** EO sensor

#### Recon UAV

**Damage Value:** e5  
**Bombsight:** None

**Throttle Setting/Speed in knots**

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	76	97	--
Med:	76	97	--

**Ceiling:** 5000 meters

**Engine Type:** IP

**Cruise Range:** 645 nmi

**Int Fuel:** ? kg

**Remarks:**

In Svc: 2011?

Used by PLAN as Yining (Silver Eagle). Fitted with 108 nmi LOS control link. Launched from catapult, recovered by parachute. Also used for communications relay. Exported to Egypt with 18 delivered 2012-14.

#### AU-21 Puma

**Man Rtngr:** 0.0  
**Size/Signature:** Large/Small  
**Sensors:** Sea Dragon 3 radar

#### Recon Aerostat

**Damage Value:** 12  
**Bombsight:** --

**Ceiling:** 5000 meters

**Engine Type:** --

**Remarks:**

In Svc: 2005

Aerostat, 12000 m<sup>3</sup> volume. Can operate for 25 days in 30 m/s winds in air and 45 m/s on ground.

- 2003 - 04: Two delivered. Based on Fujian province, opposite Taiwan.
- Mar 13: Third delivered with PRC radar (use Russian Sea Dragon 3 stats until additional information available). Based at Ganyingcun, near Beijing. First two lost by this date.

#### Be-6M [Madge]/Qing-6

**Man Rtngr:** 0.5/0.5  
**Size/Signature:** Large/Large  
**Sensors:** Retractable PSBN-M radar

#### Maritime Patrol/SAR

**Damage Value:** 38

**Bombsight:** Manual

**Throttle Setting/Speed in knots**

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	180	204	--
Med:	215	224	--

**Ceiling:** 6100 meters

**Engine Type:** RP

**Cruise Range:** 2250 nmi

**Int Fuel:** 7400 kg

**Ordnance Loadouts:**

**Payload:** 4000 kg

**Def Guns:** 2 NR-23 23mm each in dorsal and tail positions (0.4)

- 16 FAB-100 or 8 FAB-500
- 8 PLAB-100

**Remarks:****In Svc:** 1955 - 98

Flying boat. Listed armament is original fit. All armament later removed and relegated to search and rescue role.

- Oct 55: Six ex-Russian Be-6M delivered.
- 1972: Possibly fitted with up to 60 HF-1 sonobuoys, probably Bakul-like acoustic processor.
- 1974-78: Four fitted with TP engines. Cruise range estimated as 2465 nmi. Renamed Qing-6.
- 1982: Life extension program.
- Sep 83: Some equipped with MAD.
- 1998: Qing-6 retired.

**BZK-005 Giant Eagle****Recon UAV**

**Man Rtnge:** 0.0      **Damage Value:** e9  
**Size/Signature:** VSmall/VSmall      **Bombsight:** None

**Sensors:** EO sensor/2nd Gen FLIR

*Throttle Setting/Speed in knots*

Altitude	Cruise	Full Mil	Reheat
Low:	80	100	--
Med:	80	100	--
High:	80	100	--

**Ceiling:** 8000 meters      **Engine Type:** TP  
**Cruise Range:** 2540 nmi      **Int Fuel:** ? kg

**Remarks:**

In service with PLAAF as BZK-005 Changying (Giant Eagle) and PLAN as BZK-005H Sea Eagle, based on Daishan Island. Fitted with LOS and satellite control links. Operates from runway.

- Jun 16: Sea Eagle deployed to Woody Island.
- 2018: 108 reported in service, possibly 84 PLAAF, 24 PLANAF.
- Nov 18: PLAAF BZK-005C under test with two hp for weapons, payload 300 kg.
- 2020: BZK-005B?Sky Eagle in service with PLAAF. Fitted with SAR radar, retains EO.

**BZK-007 Sunshine****Recon UAV**

**Man Rtnge:** 0.0      **Damage Value:** e6  
**Size/Signature:** VSmall/VSmall      **Bombsight:** None

**Sensors:** EO sensor/2nd Gen FLIR

*Throttle Setting/Speed in knots*

Altitude	Cruise	Full Mil	Reheat
Low:	e100	124	--
Med:	e100	124	--

**Ceiling:** 7500 meters      **Engine Type:** TP  
**Cruise Range:** 1360 nmi      **Int Fuel:** ? kg

**Remarks:**

In service with PLAGF and PLANAF. Fitted with LOS and satellite data links. Operates from runway.

- 2018: 24 reported in service.

**BZK-008****Recon UAV**

**Man Rtnge:** 0.0      **Damage Value:** e3  
**Size/Signature:** VSmall/VSmall      **Bombsight:** None

**Sensors:** EO sensor/2nd Gen FLIR

*Throttle Setting/Speed in knots*

Altitude	Cruise	Full Mil	Reheat
Low:	80	97	--
Med:	80	97	--

**Ceiling:** 4500 meters      **Engine Type:** IP  
**Cruise Range:** 340 nmi      **Int Fuel:** ? kg

**Remarks:**

In service with PLAAF, PLAGF and PLANAF. Fitted with 81 nmi LOS control link. Launched from catapult, recovered by parachute. Also known as CH-91.

**BZK-009 Wind Shadow****Recon UAV**

**Man Rtnge:** 0.0      **Damage Value:** 13  
**Size/Signature:** Small/VSmall      **Bombsight:** None

**Sensors:** EO sensor

*Throttle Setting/Speed in knots*

Altitude	Cruise	Full Mil	Reheat
Low:	330	e350	--
Med:	330	e350	--
High:	330	e350	--

**Ceiling:** 15000 meters      **Engine Type:** TJ  
**Cruise Range:** 1685 nmi      **Int Fuel:** 1000 kg

**Remarks:**

PLAAF. Reduced RCS. Wing Loong 10. Feng Ying (Wind Shadow). System is one control station and three UAV. Operates from runway. Fitted with 155 nmi control link, and possibly satellite control link.

- 2018: 12 reported in service.

**Camcopter® S-100****Recon UAV**

**Man Rtnge:** 0.0      **Damage Value:** 5  
**Size/Signature:** VSmall/VSmall      **Bombsight:** None

**Sensors:** 2nd Gen FLIR

*Throttle Setting/Speed in knots*

Altitude	Cruise	Full Mil	Reheat
Low:	55	120	--
Med:	55	120	--

**Ceiling:** 5470 meters      **Engine Type:** IP  
**Cruise Range:** 280 nmi      **Int Fuel:** ? kg

**Remarks:**

VTOL UAV. Unknown which control link is used with PRC S-100, either 27 nmi or 54 nmi or 108 nmi. 18 systems with PLAN, possibly also with CCG.

- 2012: Three operate from Type 054A frigate *Zhoushan*.

**CH-1****Recon UAV**

**Man Rtnge:** 0.0      **Damage Value:** 5  
**Size/Signature:** VSmall/VSmall      **Bombsight:** --

**Sensors:** EO sensor/2nd Gen FLIR

*Throttle Setting/Speed in knots*

Altitude	Cruise	Full Mil	Reheat
Low:	65	80	--
Med:	65	80	--

**Ceiling:** 3000 meters      **Engine Type:** IP  
**Cruise Range:** 330 nmi      **Int Fuel:** 26 kg

**Remarks:**

Medium-range recce Rainbow (Cai Hong) UAV. Launched by rocket booster from truck, parachute landing. Fitted with 54 nmi LOS control link.

- 2000: First flight.

**CH-2****Recon UAV**

**Man Rtnge:** 0.0      **Damage Value:** e5  
**Size/Signature:** VSmall/VSmall      **Bombsight:** --

**Sensors:** EO sensor/2nd Gen FLIR

*Throttle Setting/Speed in knots*

Altitude	Cruise	Full Mil	Reheat
Low:	e80	97	--
Med:	e80	97	--

**Ceiling:** 4600 meters      **Engine Type:** IP?  
**Cruise Range:** 680 nmi      **Int Fuel:** ? kg

**Remarks:**

Development of CH-1, identical layout. Rocket-booster launch, parachute landing. Has 108 nmi LOS control link.

**CH-3**

**Man Rtngr:** 0.0      **Damage Value:** e8  
**Size/Signature:** VSmall/VSmall      **Bombsight:** --

**Sensors:** 2nd Gen FLIR, laser designator

*Throttle Setting/Speed in knots*

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	e80	140	--
Med:	e80	140	--

**Ceiling:** 4000 meters

**Cruise Range:** 815 nmi

**Ordnance Loadouts:**

- 2 AR-1 or 2 FT-5 (CH-3A)

**Remarks:**      **In Svc:** Export

Canard layout. Operates from runway. LOS control link to an estimated 135 nmi. Export only from 2013 to Algeria (5 2018), Myanmar (12 2014-15), Nigeria (5 2014), Pakistan (20 2013-16) and Turkmenistan (2016).

- CH-3A added satellite data link. 180 kg max payload. Endurance 6 hours w/max payload.
- 2007: First flight.

**CH-4A/B**

**Recon/Attack UAV**

**Man Rtngr:** 0.0      **Damage Value:** e9

**Size/Signature:** VSmall/VSmall      **Bombsight:** --

**Sensors:** 2nd Gen FLIR, laser rangefinder, laser designator

*Throttle Setting/Speed in knots*

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	97	127	--
Med:	97	127	--

**Ceiling:** 5000 meters

**Cruise Range:** 2475/1155 nmi

**Ordnance Loadouts:**

- 4 AR-1 or 4 FT-9/50 (CH-4B)

**Remarks:**      **In Svc:** Export

CH-4A is recce with first range and fuel, CH-4B is mixed attack/recce with second range and fuel. Operates from runway. Fitted with 135 nmi LOS data link. Exported to Algeria (5 2018), Egypt, Iraq (4 2015), Jordan (6 2016), UAE and Saudi Arabia (5 2015).

- Sep 11: First flight. Offered for export in 2014.
- 2015: Exported to Iraq. Iraqi units photographed with AR-1, FT-9/50 PGMs.

**CH-5**

**Recon/Attack UAV**

**Man Rtngr:** 0.0      **Damage Value:** e11

**Size/Signature:** VSmall/VSmall      **Bombsight:** --

**Sensors:** 2nd Gen FLIR, laser rf./designator

*Throttle Setting/Speed in knots*

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	90	162	--
Med:	90	162	--

**Ceiling:** 7000 meters

**Cruise Range:** 4040 nmi

**Ordnance Loadouts:**

- 6 underwing HP

**Remarks:**      **In Svc:** Export

"Cai Hong" (Rainbow). MTOW 3300 kg. Recce/combat missions.

MALE. Has 135 nmi LOS control link. Operates from runway.

- 2017: Ready for series production.

• Sep 17: Shown with 80 kg PGM. Can carry AR-1 SALH antitank missile.

• Oct 17: Shown with @4 AR-1 on inners, @2 AR-2 on mid-wing and outer wing HP, total of 8 AR-1 and 8 AR-2.

• Jul 20: First flight of maritime variant.

**Recon/Attack UAV**

**Damage Value:** e8

**Bombsight:** --

**CH-96**

**Recon UAV**

**Man Rtngr:** 0.0      **Damage Value:** 3

**Size/Signature:** VSmall/VSmall      **Bombsight:** --

**Sensors:** 2nd Gen FLIR, laser designator

*Throttle Setting/Speed in knots*

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	54	65	--
Med:	54	65	--

**Ceiling:** 5000 meters

**Cruise Range:** 825 nmi

**Remarks:**      **In Svc:** ?

LOS control link to 54 nmi. Launched from catapult, recovered by skyhook. Flown by PLAN.

**CH-802**

**Recon UAV**

**Man Rtngr:** 0.0      **Damage Value:** 2

**Size/Signature:** VSmall/VSmall      **Bombsight:** --

**Sensors:** EO

*Throttle Setting/Speed in knots*

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	38	48	--
Med:	38	48	--

**Ceiling:** 4000 meters

**Engine Type:** Electric

**Int Fuel:** --

**Remarks:**      **In Svc:** 2008?

Used by PLAAF airborne regiments. 8.1 nmi control link. Launched by hand, recovers by gliding. System includes 3 UAV, one command station.

**CH-901**

**Attack? UAV**

**Man Rtngr:** 0.0      **Damage Value:** 2

**Size/Signature:** VSmall/VSmall      **Bombsight:** Computing

**Sensors:** Optical camera with 2 km range

*Throttle Setting/Speed in knots*

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	81	81	--

**Ceiling:** 450 meters

**Engine Type:** Electric

**Int Fuel:** 0 kg

**Remarks:**      **In Svc:** 2016?

Man-portable tube-launched UAV, loitering munition. Aircraft weighs 9 kg, flies at 81 kts, endurance of 120 min, radius of 8.1 nmi. Warhead 2.7 kg, 9 dp, penetration 0.

**CH-902**

**Recon UAV**

**Man Rtngr:** 0.0      **Damage Value:** 1

**Size/Signature:** VSmall/VSmall      **Bombsight:** --

**Sensors:** EO

*Throttle Setting/Speed in knots*

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	32	43	--
Med:	32	43	--

**Ceiling:** 4300 meters

**Engine Type:** Electric

**Int Fuel:** --

**Remarks:**      **In Svc:** 2010

PLAGF. LOS control link to 8.1 nmi. Launched by hand, recovers by gliding. System includes 3 UAV, one command station.

**FC-31 Gyrfalcon**

**Fighter**

**Man Rtngr:** 5.0/2.5      **Damage Value:** 27

**Size/Signature:** Small/Stealthy      **Bombsight:** Advanced

**Countermeasures:** 3rd Gen J&D

**Inflight Refuel:** P

**Sensors:** EO targeting system (3rd Gen FLIR/IRST, laser designator), possibly KLJ-7A AESA radar, HMV, 2nd Gen RWR

*Throttle Setting/Speed in knots*

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	460	650	700
Med:	460	685	865
High:	460	720	1030
VHigh:	460	720	1030

<b>Ceiling:</b> 16500 meters	<b>Engine Type:</b> TF	
<b>Cruise Range:</b> 945 nmi	<b>Int Fuel:</b> 7260 kg	
<b>Additional Fuel</b>	<b>Fuel Wt.</b>	<b>Range Add.</b>
2400 L drop tank	1945 kg	360 nmi
<b>Ordnance Loadouts:</b>	<b>Payload:</b> 8000 kg	
<b>Off Guns:</b> est. 1 Type 30-4 30mm (2.5)		
• 6 PL-15 or PL-21 internally; 4 PL-15 or 4 YJ-91 or 4 YK-83K, 2 PL-10 externally		
• 4 500 kg deep penetration bombs internally, 4 more and 2 PL-10 under wings		
<b>Remarks:</b>	<b>In Svc:</b> ?	
'Falcon Eagle'. Export fighter derived from J-31 prototype. Stealthy in front quarter only ( $300^{\circ}$ - $060^{\circ}$ ) with internal loadout, VSmall elsewhere or with external loadout. Model shown 2014. Can carry 2000 kg internally, 6000 kg externally. Speeds estimated. Prototypes use RD-33 engines, service examples possibly WS-21 engines.		
• Nov 14: First test flight of FC-31. The PLAAF showed no interest in the J-31.		
• 2020: Naval J-35 possibly under testing. Might replace the J-15T with the Type 003 aircraft carrier. First flight rumored as 2022.		
• Late 21: Rumored first flight of PLAAF J-21.		

<b>II-28/H-5 [Beagle]</b>			
<b>Man Rtngr:</b> 1.5/1.0	<b>Damage Value:</b> 33	<b>Bomber</b>	
<b>Size/Signature:</b> Medium/Medium	<b>Bombsight:</b> Ballistic		
<b>Sensors:</b> PSBN-M radar			
<i>Throttle Setting/Speed in knots</i>			
<i>Altitude</i>	<i>Cruise</i>	<i>Full Mil</i>	<i>Reheat</i>
Low:	390	430	--
Med:	390	486	--
High:	390	460	--
<b>Ceiling:</b> 12500 meters	<b>Engine Type:</b> TJ		
<b>Cruise Range:</b> 1105 nmi	<b>Int Fuel:</b> 6405 kg		
<b>Additional Fuel</b>	<b>Fuel Wt.</b>	<b>Range Add.</b>	
1675 L drop tank (est.)	1355 kg	275 nmi	
<b>Ordnance Loadouts:</b>	<b>Payload:</b> 1000 kg		
<b>Off Guns:</b> 2 NR-23 23mm (1.6) - II-28 only			
<b>Off Guns:</b> 1 Type 23-2 23mm (1.4) - H-5 only			
<b>Def Guns:</b> 2 NR-23 23mm in tail (0.5) - II-28 only			
<b>Def Guns:</b> 2 Type 23-2 23mm in tail (0.6) - H-5 only			
• 12 FAB-100 or 8 FAB-250 or 4 FAB-500 bombs (II-28)			
• 8 Type 250-1 or 6 Type 250-2 bombs (B-5)			
• 1 Type 3000-2 bomb (overload)			
• 1 H-5-2152 Nuclear bomb (H-5A only)			
• 2 RAT-52/Yu-2 torps (II-28T, PLANAF H-5 only)			
• 2 500 kg or 1 1000 kg mines			
• 4 500 kg mines (overload)			
• 2 drop tanks (HZ-5)			

<b>Remarks:</b>	<b>In Svc:</b> Oct 52 - 08
PRC aircraft identical to Russian versions. Overload payload is 3000 kg with reduced fuel, reduce Maneuver rating by additional 0.5, speed by 10% (until it's dropped).	
• 1953: Thirteen Soviet II-28s purchased.	
• 1954: Additional 200 II-28 purchased.	
• Mar 55 - 56: 64 II-28T and 12 trainers, 186 RAT-52 torpedoes delivered. Around 100 II-28 converted to II-28T by 1980.	
• 1959: One II-28 converted to escort jammer with Russian SPS-2, clutter rating 10. One II-28 fitted for ELINT.	
• Aug 67 - 84: Local production as H-5 without radar, requires visual LOS to bomb, in service 1968. 372 PLAAF, 92 PLANAF torpedo bombers. Exported as B-5; 1 to Albania, 6 to Cambodia, 20 to North Korea, 14 to Romania.	
• 1968: Exported as B-5 to Albania and Romania.	
• 27 Dec 68: First live drop of nuclear bomb. Around 30 nuclear-capable H-5A delivered.	
• 1969: Fitted with Type 241 radar.	
• Early 70s: Fitted with Type 242 radar.	
• Dec 74: HJ-5 trainer introduced, 186 built.	
• 1977: HZ-5 recon version enters service, range increased to 1620 nmi, carried 2 optical cameras in the bomb bay. Retired 2005.	
• Early 80s - 97: 40 converted to HD-5 with 1st Generation ES and	

analog standoff radar jammers (clutter rating 13) in bomb bay. All weapons removed. Similar to Yak-28PP. Retired 2008?

- 1984: Yu-2 rocket torpedo out of service.
- 1986: Retired from bombing role.
- May 09: Last H-5 retired.

<b>H-6A [Badger]</b>	<b>Bomber</b>
<b>Man Rtngr:</b> 0.5/0.5	<b>Damage Value:</b> 47
<b>Size/Signature:</b> Large/Large	<b>Bombsight:</b> Ballistic
<b>Sensors:</b> Type 241 radar	

<i>Throttle Setting/Speed in knots</i>			
<i>Altitude</i>	<i>Cruise</i>	<i>Full Mil</i>	<i>Reheat</i>
Low:	300	360	--
Med:	430	480	--
High:	430	520	--
<b>Ceiling:</b> 12800 meters	<b>Engine Type:</b> TJ		
<b>Cruise Range:</b> 2785 nmi	<b>Int Fuel:</b> 36300 kg		
<b>Ordnance Loadouts:</b>	<b>Payload:</b> 9000 kg		
<b>Off Guns:</b> 1 fixed Type 23-2 23mm in nose (1.4)			
<b>Def Guns:</b> 3 twin Type 23-2 23mm in defensive turrets (0.8)			
• 16 Type 250-2 or 12 Type 500-2 or 6 Type 1500-2 or 2 Type 3000-2 bombs			
• 2 AKD-63 or 2 AKD-63B, AKK-802K guidance pod (H-6H, H-6M)			
• 2 AKD-20, 1 KG-600 ECM, 1 KL-700 ES pods (H-6M only)			
• 8 1000 kg bombs (use Russian FAB-1000M43)			
• 1 H639 or 3 H524-23 nuclear bombs			
• 12 500 kg or 4 1000 kg sea mines			
• 4 Yu-2 torpedoes			
• 1 WZ-8 drone (H-6MW only)			

<b>Remarks:</b>	<b>In Svc:</b> 1971
One Tu-16H and one T-16K imported from Russia, later converted to nuclear role for 1965 and 1967 nuclear tests, later converted back. 120 delivered 1970 - 1987 with 8th, 10th, 36th, 48th Bomber Divisions, H-6C/E/F/H have 2985 nmi range due to redesigned wings. PLANAF used H-6C and H-6F. All variants used by PLAAF.	
• <b>H-6A:</b> Stats as above. Has optical bombsight, limited to bombing targets in visual LOS. Updated to H-6All from 1980.	
• <b>H-6All:</b> Fitted with all weather avionics, Type 244 radar, Type 211 tail GFC, rear aspect Gen 0 RWR over $090^{\circ}$ - $270^{\circ}$ and to blind bomb area targets. In service 1982.	
• <b>H-6Z:</b> Three H-6A aircraft converted in 1979 to reconnaissance role.	
• <b>H-6C</b> (initially H-6III) -6All with 1st Gen J&D, Type 244 radar, all aspect Gen 0 RWR. In service late 1983.	
• <b>H-6E:</b> H-6All upgraded with computing bombsight, 2nd Gen J&D. Nose 23mm and dorsal twin 23mm removed (0.6). In service 1994.	
• <b>H-6F:</b> H-6A/C aircraft converted with computing bombsight, 2nd Gen J&D, conventional weapons only, nose 23mm removed. In service 1994.	
• <b>H-6H:</b> H-6F conversions with Type 245 radar. All guns removed. Fitted with internal control link for AKD-63. In service 2005.	
• <b>H-6I:</b> Planned version of H-6A with four turbofan engines, cruise range 3700 nmi, damage value 67. Canceled 1978 due to failure of WS-9 engines.	
• <b>H-6M:</b> has HP for four land attack cruise missiles, Type 245 radar, 2nd Gen J&D, 2nd Gen RWR, retains bomb capability. Retains tail turret (0.6). Requires AKK-802K pod to guide AKD-63. In service 2007, modified from H-6F.	
• <b>H-6MW:</b> PLAAF H-6M conversions for WZ-8 drone on CL replacing bomb bay. Possibly in service 2019.	
• <b>H-6Z:</b> Three aircraft converted in 1979 to reconnaissance role.	
• <b>HD-6:</b> ELINT version with all weapons removed. In service late 1990s.	
• <b>HG-6:</b> Escort jammer variant with 2nd Gen RWR (can only jam weapons radars). Clutter rating 12. In service 1983.	
• 1971 - 86: Around 140 H-6A delivered.	
• Mid 90s: Retired from nuclear bomber role.	
• 2011: H-6E/F 107th; H-6H 22nd, 28th, 29th, 144th; H-6H/M 108th regiments.	
• 2014: H-6H fitted with 2nd Gen J&D, 2nd Gen RWR.	
• 2015: H-A/All/E/F withdrawn from frontline service, used for training.	
• 2018?: H-6H deployment to Woody Island.	

## China's Navy

- 2019: 120 of all types in service with PLAAF.
- 2021: PLAAF regiments. CTC - 107th H-6K/H Lintong, 108th H-6K/M Wugong; ETC - 29th H-6H at Luhe, 30th H-6M/MW at Luhe.

**H-6D/G/L [Badger]**

**Man Rtnq:** 0.5/0.5      **Damage Value:** 47  
**Size/Signature:** Large/Large      **Bombsight:** Ballistic  
**Counterm:** 1st Gen J&D      **Inflight Refuel:** N  
**Sensors:** Type 245 radar, Gen 0 RWR

**Attack**

Throttle Setting/Speed in knots			
<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	300	360	--
Med:	430	480	--
High:	430	520	--

**Ceiling:** 12000 meters      **Engine Type:** TJ  
**Cruise Range:** 2945 nmi      **Int Fuel:** 36300 kg  
**Ordnance Loadouts:**      **Payload:** 8000 kg  
**Def Guns:** 3 twin Type 23-2H 23mm in defensive turrets (1.3)  
 • 2 YJ-6 (H-6D)  
 • 2 YJ-61 (H-6D, mid 90s)  
 • 4 YJ-83K or 4 AKD-88 (H-6G)  
 • 2 YJ-83K or 2 AKD-88, ES pod, standoff jammer pod (H-6G)  
 • 2 YJ-12, 1 KG-600 ECM, 1 KL-700 ES pod (H-6L)  
 • 12 500 kg or 4 1000 kg sea mines  
 • 16 Type 250-2 or 12 Type 500-2 or 6 Type 1500-2 or 2 Type 3000-2 bombs

**Remarks:**      **In Svc:** Dec 85

Retains conventional bombing capability. PLANAF only.

- **H-6D:** Around 30 delivered by 1992, possibly retired 2010. Four of these exported to Iraq as B-5D.
- **H-6G:** 24-30 H-6F with 2nd Gen J&D, 2nd Gen RWR. All guns removed. Replaces H-6D. In service 2002 with ETCN and STCN.
- **H-6L:** H-6G conversions with provision of YJ-12. In service Feb 19.
- 1990s: Eight H-6D converted to tanker, listed separately.
- 2011: Three regiments - H-6G at Danyang East; H-6D/G, H-6DU at Shanhagun and Guiping.
- 2013 or 2014: H-6G operational with YJ-12, as H-6L loadout.
- 2011: Two regiments - H-6G, H-6DU at Shanhagun and Guiping.
- 2018: H-6Gs seen with underwing defensive ECM pods.
- 2018: Regiments - 17th H-6G/H-6DU at Cangzhou ETCN, 23rd H-6G/H-6DU at Guiping STCN.
- 2019: 30 remain.

**H-6J/K/N**

**Man Rtnq:** 1.0/0.5      **Damage Value:** 47  
**Size/Signature:** Large/Large      **Bombsight:** Advanced  
**Counterm:** 3rd Gen J&D(e)      **Inflight Refuel:** N  
**Sensors:** H-6K Radar, 2nd Gen FLIR, 2nd Gen RWR

**Bomber**

Throttle Setting/Speed in knots			
<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	340	370	--
Med:	470	490	--
High:	470	530	--

**Ceiling:** e13000 meters      **Engine Type:** TF  
**Cruise Range:** 3900 nmi      **Int Fuel:** c38580 kg  
**Ordnance Loadouts:**      **Payload:** 12000 kg  
 • 6 AKD-20 (H-6K/N)  
 • 1 NORINCO 'MOAB' bomb, 2 pods  
 • 4 AKD-63 or 4 AKD-63B, AKK-802K guidance pod, 2 pods (H-6K)  
 • 4 AKD-20 or 4 AKD-63 or 4 AKD-63B, 2 pods (H-6N)  
 • 6 YJ-12 or 6 YJ-83K, 2 pods (H-6J)  
 • 4 YJ-12, 2 pods (H-6K/N)  
 • 1 CH-AS-X-13 or 1 WZ-8, 2 pods (H-6N)  
 • 36 Type 250-3/-4 or 12 Type 500-3/-4 bombs externally  
 • 16 Type 250-2 or 12 Type 500-2 or 6 Type 1500-2 or 2 Type 3000-2 bombs internally  
 • 12 500 kg or 4 1000 kg sea mines (estimated)

**Remarks:**      **In Svc:** Oct 09

Re-engined with Russian D-30KP TF replacing the original Chinese engines. Composite materials used in the structure, glass cockpit. Tail stinger replaced by electronics. Speeds and range estimated. Pods

are either KL-700 ES, KG-600 ECM or KG-800 escort jammer pods. Can probably carry bombs and mines as the H-6D/G/L.

- **H-6J:** PLANAF antishipping. In service 2018, with eight with 1st Regiment Guiping STCN by Jan 2019, 5th Regiment Changzhou in ETCN in 2019.
- **H-6K:** PLAAF cruise missile carrier. 28th Regiment Anqing ETC Mid 12, 24th Regiment Leiyang STC Mid 12, 29th Regiment Luhe ETC 2013, 22nd Regiment Shaodong STC 2015, 108th Regiment H-6K/M Wugong CTC 2017. Each regiment has approximately 20 a/c.
- **H-6N:** PLAAF. Fitted with inflight refueling probe, 4th Gen J&D, internal guidance link for AKD-63. Bomb bay replaced by semi-conformal mount for CH-AS-X-13 ASBM. Possibly in service 2018. At least 4 in Aug 2019 with 106th Brigade PLAAF HQ Command.
- 2015: About 15 H-6K in service.
- 2016: H-6K assessed as dual-capable with nuclear armed AKD-20.
- Dec 16: Seen with @ 6 250 kg on each of its six wing HP. Also shown firing AKD-63, AKD-88 (w/guidance pod).
- 2018: ETC - 28th H-6K Anqing; STC - 22nd H-6K Shaodong, 24th H-6K Leiyang.
- Jan 19: H-6K test drops NORINCO 'MOAB'.
- Apr 20: H-6J seen with YJ-12. Around 60 H-6K operational in three regiments.
- Aug 20: First reported H-6J deployments to Woody Island.
- Late 20: H-6KG with 4th Gen J&D delivered to 24th Regiment as mixed H-6K/KG unit.
- 2021: Possibly WS-18 engines replace D-30KP.

**H-6U, H-6DU [Badger]**

**Man Rtnq:** 0.5/0.5      **Damage Value:** 47  
**Size/Signature:** Large/Large      **Bombsight:** Ballistic  
**Counterm:** 2nd Gen D      **Inflight Refuel:** N/2D  
**Sensors:** Type 245 radar (H-6DU only)

**Tanker**

**Throttle Setting/Speed in knots**

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	300	360	--
Med:	430	480	--
High:	430	520	--

**Ceiling:** 12800 meters      **Engine Type:** TJ  
**Cruise Range:** 2920 nmi      **Int Fuel:** 36300 kg

**Remarks:**      **In Svc:** 1996

12 H-6U with PLAAF, sometimes called HY-6 and HU-6. 8 H-6DU or HU-6D with PLANAF converted from H-6D in Changzhou ETCN and Guiping STCN. Maximum transfer fuel is 18500 kg or 1750 nmi. Cannot refuel J-15, J-16 or Su-30MKK series due to incompatible hose and drogue system.

- 2001: PLAAF 143rd renamed 23rd Regiment.
- 2016-18: Fitted with 2nd Generation RWR and 3rd Generation decoys by this date. PLAAF H-6U at STC Leiyang with 23rd Brigade.
- 2019: Five PLANAF remain.

**II-10 [Beast], II-10UTI**

**Man Rtnq:** 2.0/1.5      **Damage Value:** 18  
**Size/Signature:** Small/Small      **Bombsight:** Manual

**Attack**

**Throttle Setting/Speed in knots**

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	180	277	--
Med:	180	277	--

**Ceiling:** 7500 meters      **Engine Type:** IP  
**Cruise Range:** 380 nmi      **Int Fuel:** 540 kg

**Ordnance Loadouts:**      **Payload:** 800 kg  
**Off Guns:** 2 VYa 23mm, 2 7.62mm ShKAS in wings (1.9)

**Def Guns:** 1 B-20 20mm in dorsal cupola (0.4)  
 • 8 RS-82 rockets, 4 FAB-100 kg bombs  
 • 4 RS-132 rockets, 2 FAB-250 kg bombs  
**Remarks:**      **In Svc:** Dec 50 - 1972

Early production aircraft. Flown by 5th, 11th, 22nd and 28th Ground Attack Divisions.

- Aug 50-1952: 274 II-10s and 12+ II-10UTIs imported from Russia 1972: The last 128 (25 II-10UTIs) were retired.
- II-10UTI replaced rear gunner with instructor, only 2 NR-23mm in wings (1.8).

**II-12 [Coach]**

**Man Rtngr:** 0.5/0.5      **Damage Value:** 31

**Size/Signature:** Medium/Medium      **Bombsight:** --

*Throttle Setting/Speed in knots*

<b>Altitude</b>	<b>Cruise</b>	<b>Full Mil</b>	<b>Reheat</b>
Low:	156	216	--
Med:	175	216	--

**Ceiling:** 6700 meters

**Cruise Range:** 1055 nmi

**Ordnance Loadouts:**

**Remarks:** In Svc: 1950 - 1986

Forty-three aircraft imported 1950 - 1951 for civil and military transport use.

- 1951 - 54: One aircraft converted to standoff jammer role, clutter rating 8.
- 1959: Two converted to photoreconnaissance aircraft.
- 1972: One converted to ELINT.
- 1972: Jammer aircraft fitted with Type 963 1st Gen J.

**Transport**

**Ceiling:** 15850 meters

**Cruise Range:** 470 nmi

**Additional Fuel**

400 L drop tank      **Fuel Wt.** 325 kg      **Range Add.** 195 nmi

**Ordnance Loadouts:**

**Off Guns:** 2 Type 23-1 23mm, 1 Type 037-1 37mm (2.5)

- 2 400 L drop tanks

• 4 8\*57mm rocket pods or 2 Type 250-1 bombs

**Remarks:**

In Svc: 1956 - 1986

Cannot use reheat at Low altitude.

- **JZ-5:** Recon version with internal cameras, two Type 23-1 23mm cannon (1.7).

• 1956 - 69: 730 MiG-17F license production as Type 56.

• 1964: Type 56 renamed J-5. Exported as F-5 to Albania, Bangladesh, Cambodia, North Korea, North Vietnam, Somalia, Sudan, Tanzania, Zimbabwe.

**II-76MD, TD [Candid]****Transport**

**Man Rtngr:** 0.5/0.5

**Damage Value:** 90

**Size/Signature:** Large/Large

**Bombsight:** None

*Throttle Setting/Speed in knots*

<b>Altitude</b>	<b>Cruise</b>	<b>Full Mil</b>	<b>Reheat</b>
Low:	405	460	--
Med:	405	460	--
High:	405	460	--

**Ceiling:** 12000 meters

**Cruise Range:** 3995 nmi

**Remarks:** In Svc: 1991

Can carry 145 troops or 126 paratroops or 9000 kg cargo. Can increase payload to 48000 kg with reduced fuel load. Not fitted with tail guns.

- 1991-96: 14 II-76TD delivered to China United Airline, but later passed to PLAAF 13th Air Regiment, 13th Transport Division. Not fitted for parachute operations, maximum payload 50000 kg. Three later converted to KJ-2000, listed separately.
- 2012: Three II-76MD delivered.
- 2013: 38th Air Regiment, 13th Transport Division equipped.
- 2013 - 16: 12 II-76MD delivered.
- 2019: 22 operational including 7 II-76TD and 12 II-76MD.
- 2021: 38th Paozhuwan II-76TD, 39th Dangyang II-76MD/TD.

**II-78 [Midas]****Tanker**

**Man Rtngr:** 0.5/0.5

**Size/Signature:** Large/Large

**Countermeasures:** None

**Damage Value:** 90

**Bombsight:** None

**Inflight Refuel:** N/3D

*Throttle Setting/Speed in knots*

<b>Altitude</b>	<b>Cruise</b>	<b>Full Mil</b>	<b>Reheat</b>
Low:	405	460	--
Med:	405	460	--
High:	405	460	--

**Ceiling:** 12000 meters

**Cruise Range:** 5085 nmi

**Remarks:** In Svc: Late 2015

Has 28000 kg in cabin tanks or 112840 kg total (85720 kg or 3862 nmi can be transferred). Can be converted to transport in six hours (use II-76MD stats) and back to tankers in 12 hours. Usually operates as inflight refuel N/2D in PLAAF service.

- Oct 14, Jul 15, Apr 16?: Three ex-Ukrainian delivered to 38th at Paozhuwan.

**J-5 [Fresco C]****Fighter**

**Man Rtngr:** 4.0/2.5

**Size/Signature:** Small/Small

**Damage Value:** 16

**Bombsight:** Manual

*Throttle Setting/Speed in knots*

<b>Altitude</b>	<b>Cruise</b>	<b>Full Mil</b>	<b>Reheat</b>
Low:	380	590	--
Med:	420	590	610
High:	420	545	570
VHigh:	--	--	560

**Ceiling:** 15850 meters

**Cruise Range:** 470 nmi

**Additional Fuel**

400 L drop tank      **Fuel Wt.** 325 kg      **Range Add.** 195 nmi

**Ordnance Loadouts:**

**Off Guns:** 2 Type 23-1 23mm, 1 Type 037-1 37mm (2.5)

- 2 400 L drop tanks

• 4 8\*57mm rocket pods or 2 Type 250-1 bombs

**Remarks:**

In Svc: 1956 - 1986

Cannot use reheat at Low altitude.

- **JZ-5:** Recon version with internal cameras, two Type 23-1 23mm cannon (1.7).

• 1956 - 69: 730 MiG-17F license production as Type 56.

• 1964: Type 56 renamed J-5. Exported as F-5 to Albania, Bangladesh, Cambodia, North Korea, North Vietnam, Somalia, Sudan, Tanzania, Zimbabwe.

**J-5A [Fresco D]****Fighter**

**Man Rtngr:** 3.5/2.0

**Damage Value:** 16

**Size/Signature:** Small/Small

**Bombsight:** Manual

*Throttle Setting/Speed in knots*

<b>Altitude</b>	<b>Cruise</b>	<b>Full Mil</b>	<b>Reheat</b>
Low:	370	580	--
Med:	400	575	605
High:	400	560	570
VHigh:	--	--	560

**Ceiling:** 16300 meters

**Cruise Range:** 415 nmi

**Additional Fuel**

400 L drop tank      **Fuel Wt.** 325 kg      **Range Add.** 170 nmi

**Ordnance Loadouts:**

**Off Guns:** 3 Type 23-1 23mm (2.6)

- 2 400 L drop tanks

• 2 Type 250-1 bombs

**Remarks:**

In Svc: 1959 - 1990

Cannot use reheat at Low altitude. Equipped seven regiments.

- 1959 - 60: 100 MiG-17PF delivered. More than 300 Type 56A produced locally 1965 - 69.

• 1964: Renamed J-5A. Exported to Albania as F-5A.

• **JJ-5** trainer: 1087 produced 1967 - 84.

• 1975: 16 JJ-5 converted to JZ-5 reconnaissance aircraft for gunfire observation. Converted back to trainers in 1986.

• 1989: Remains in service with at least the 131st Air Regiment.

**J-6 [Farmer C]****Fighter**

**Man Rtngr:** 3.5/2.5

**Damage Value:** 22

**Size/Signature:** Small/Small

**Bombsight:** Manual

*Throttle Setting/Speed in knots*

<b>Altitude</b>	<b>Cruise</b>	<b>Full Mil</b>	<b>Reheat</b>
Low:	450	590	600
Med:	450	620	760
High:	450	640	785
VHigh:	--	--	785

**Ceiling:** 16720 meters

**Cruise Range:** 530 nmi

**Additional Fuel**

760 L drop tank      **Fuel Wt.** 615 kg      **Range Add.** 265 nmi

**Ordnance Loadouts:**

**Off Guns:** 3 Type 30-1 30mm (3.6)

- 2 760 L drop tanks

• 2 Type 250-1 bombs

**Remarks:**

In Svc: Sep 64 - 2011?

Flown by PLAAF and PLANAF.

- 1958 - 64: 200 MiG-19S kits delivered.

• Dec 61: 767 Type 59 delivered from this date. Retired 2006.

• 1964: Renamed J-6. Exported as F-6 to Albania and North Vietnam.

• 1967 - 72: 49 JZ-6 recon delivered with internal cameras, two 23-2 23mm (2.7). 46th You Hung Tun until Apr 12, 93rd Suzhou until 2011.

• 1977-83: **J-6XA** variant with SL-2J range-only radar.

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**J-6A [Farmer B]****Man Rtng:** 2.5/1.5**Size/Signature:** Small/Small**Sensors:** RP-5 Izumrud 5 radar**Damage Value:** 22**Bombsight:** Manual**Fighter***Throttle Setting/Speed in knots*

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	440	590	600
Med:	440	620	690
High:	440	640	780
VHigh:	--	--	750

**Ceiling:** 17250 meters**Engine Type:** TJ**Cruise Range:** 555 nmi**Int Fuel:** 1735 kg**Additional Fuel****Fuel Wt.****Range Add.**

760 L drop tank

615 kg

185 nmi

**Ordnance Loadouts:****Payload:** 1270 kg**Off Guns:** 2 Type 30-1 30mm (2.4)

- 2 drop tanks

- 2 drop tanks, 2 PL-2A (1976) or 2 PL-2B (1981)

**Remarks:** **In Svc:** 1962 - 1995?

A copy of the MiG-19P [Farmer B]. Poor quality affected maintenance.

- 1959 - 61: 83 Type 59A produced. Only 69 delivered to service units 1962 - 64 due to poor quality.
- 1964: Renamed J-6A. None exported.
- 21 Dec 75: First flight of conversion with additional hp for PL-2 missiles. Estimated in service 1976.
- 1989: Flown by 12th Air Regiment.

**J-6B [Farmer B]****Man Rtng:** 2.5/1.5**Size/Signature:** Small/Small**Sensors:** RP-2U Izumrud 2 radar**Damage Value:** 22**Bombsight:** Manual**Fighter***Throttle Setting/Speed in knots*

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	440	600	620
Med:	440	620	650
High:	440	640	675
VHigh:	--	--	610

**Ceiling:** 16700 meters**Engine Type:** TJ**Cruise Range:** 485 nmi**Int Fuel:** 1735 kg**Additional Fuel****Fuel Wt.****Range Add.**

400 L drop tank

325 kg

110 nmi

**Ordnance Loadouts:****Payload:** 1270 kg

- 4 PL-1, 2 drop tanks

**Remarks:****In Svc:** 1958 - 1986

A copy of the MiG-19PM [Farmer D]. Can engage single target with one, two or four missiles at the same time. Poor quality affected maintenance.

- 1961 - 66: Nineteen Type 59B delivered. Renamed J-6B in 1964.
- 1974: Fitted with two Type 23-1 23mm (1.7) when PL-1 retired.

**J-6Bing [Farmer C]****Man Rtng:** 3.5/2.5**Size/Signature:** Small/Small**Damage Value:** 21**Bombsight:** Manual**Fighter***Throttle Setting/Speed in knots*

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	450	590	600
Med:	450	620	760
High:	450	640	785
VHigh:	--	--	785

**Ceiling:** 17250 meters**Engine Type:** TJ**Cruise Range:** 530 nmi**Int Fuel:** 1800 kg**Additional Fuel****Fuel Wt.****Range Add.**

760 L drop tank

615 kg

185 nmi

**Ordnance Loadouts:****Payload:** 1270 kg**Off Guns:** 3 Type 30-1 30mm (3.6)

- 2 drop tanks, 2 PL-2A or 2 PL-2B
- 2 drop tanks, 2 Type 250-2/3 bombs
- 2 drop tanks, 2 8\*57mm rocket pods
- 2 Type 250-3 bombs (J-6W)

**Remarks:****In Svc:** 1970 - 2010s

Improved agility due to redesigned wing design and WP-6A engines. Incorrectly known as J-6C.

- **J-6IIIC:** 303 high altitude versions. Ceiling 18500 meters. In service 1977 - 2000.

- **JZ-6:** Internal cameras for Low and Medium altitudes, 2 Type 23-2 30mm (1.7). 133 delivered 1967 - 84, retired after 2010.

- 1969 - 84: 3,677 produced. Export F-6C to Bangladesh, Cambodia, Egypt, Iraq, North Korea, Pakistan, Somalia, Sudan and Tanzania.

- 1992 - 00: Passed from fighter to attack role.

- Aug 06: Retired from PLANAF.

- May 10: Retired from attack role. JZ-6 remains in service.

- 200 converted to J-6W drone guided by GPS. Based in Fujian Province in ETC at Fuzhou, Jiangangshan, Lianchang, Wuyishan, Yangtang Li. FOL at Huain, Jinjiang, Longtian and Xingning. First seen July 2011. Treat as Land Attack Cruise Missiles with D2+ guidance. Operated by 180th Unmanned Attack brigade in ETC.

**J-7 I Fishbed C****Fighter****Man Rtng:** 3.5/2.0**Size/Signature:** Small/Small**Sensors:** Type 222 RO radar**Damage Value:** 17**Bombsight:** Manual*Throttle Setting/Speed in knots*

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	440	520	594
Med:	455	650	670
High:	470	700	1174
VHigh:	470	700	1174

**Ceiling:** 18000 meters**Engine Type:** TJ**Cruise Range:** 545 nmi**Int Fuel:** 1895 kg**Additional Fuel****Fuel Wt.****Range Add.**

480 L supersonic drop tank 390 kg 160 nmi

**Ordnance Loadouts:****Payload:** 1350 kg**Off Guns:** 2 Type 30-1 30mm (2.4)

- 1 drop tank, 2 PL-2A or 2 PL-2B
- 1 drop tank, 2 HF-7D or HF-25 rocket pods
- 1 drop tank, 2 Type 250-2 bombs
- 2 Type 500-2 bombs

**Remarks:****In Svc:** Jun 75 - early 90s

MiG-21F-13 [Fishbed C] license production with reduced fuel and second 30mm cannon. Thirteen imported from Russia. Two under-wing and C/L HP.

- 1975 - 81: 188 J-7I delivered. Exported as F-7A to Albania and Egypt.

- 1987: Renamed J-7A.

**J-7 II Fishbed****Fighter****Man Rtng:** 3.5/2.0**Size/Signature:** Small/Small**Sensors:** Type 222 RO radar, Gen 0 RWR.**Damage Value:** 17**Bombsight:** Manual*Throttle Setting/Speed in knots*

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	440	520	594
Med:	455	650	670
High:	470	700	1174
VHigh:	470	700	1174

**Ceiling:** 18000 meters**Engine Type:** TJ**Cruise Range:** 520 nmi**Int Fuel:** 1895 kg**Additional Fuel****Fuel Wt.****Range Add.**

480 L supersonic drop tank 390 kg 155 nmi

720 L drop tank 585 kg 230 nmi

**Ordnance Loadouts:****Payload:** 1350 kg**Off Guns:** 2 Type 30-1 30mm (2.6)

- 3 hp - J-7II, J-7IIA, J-7IIC
- 1 drop tank, 2 PL-2A/B or 2 PL-5B/C/E/I
- 1 drop tank, 2 PL-8 (J-7IIC only)
- 1 drop tank, 2 Type 250-2 bombs
- 1 drop tank, 2 HF-7D or 2 HF-25 rocket pods

- 5 hp - J-7K, J-7IIM
  - 1 drop tank, 4 PL--5B/C/E/EII
  - 1 drop tank, 2 PL-8
  - 1 drop tank, 4 Type 250-2 bombs
  - 1 drop tank, 4 HF-7D or 4 HF-25 rocket pods
  - 2 480 L drop tanks, 2 PL-5B/C/E/EII

**Remarks:****In Svc:** 1980

Major production version. Improved WP-7B engine over J-7 I, 2 underwing and C/L HP.

- 1979 - 86: 474 J-7II delivered to PLAAF.
- Sep 82 - Mar 84: J-7IIA with Western avionics tested including first PRC a/c with HUD. Not taken into service.
- 1986 - 90s: J-7II upgraded to J-7IIM, with additional two wing hp and ballistic bombsight.
- Feb 86 - 93: 221 J-7IIM/BH delivered to PLAAF and PLANAF. Provision for bombs, PL-8 and 2nd Generation decoys. Later known as J-7BH.
- 1987: Renamed - J-7II as J-7B, J-7BH as J-7H, J-7IIM as J-7M.
- 1988: JJ-7 trainer variant, 79 to Air Force and Navy, 93 exported.
- 1990 - 99: 55 J-7K delivered. As J-7IIM.
- Dec 11: Retired from frontline fighter role with PLAAF, used for lead in fighter training.
- 2014: Retired from PLANAF, including STC 24th Jialaishi 2010 and 27th Ledong 2004. PLAAF has 8 J-7B/K and 9 J-7H regiments.
- 2016: STC 126th converts from J-7II to JH-7A.
- 2017: 132nd with J-7B converts to J-7E.
- 2018: 288 J-7B and 98 J-7H remain.
- 2019: Nine regiments with J-7B (includes CTC possibly 20th, 53rd, 57th, 71st; NTC 91st, 94th; WTC 99th, 112th; 1 training), four with J-7H (NTC 63rd, WTC 18th; STC 125th and unknown WTC disbanded 2019).
- 2019: 20th with J-7B converts to J-7E.
- Early 20: 53rd with J-7B converts to J-7E.
- Mar 21: 18th with J-7H converts to J-11.
- 2021: 18th with J-7H converts to J-11. PLAAF has 5 Brigades. CTC - 57th Shangqiu F-7B, 71st? Xishanbeixiang J-7B; NTC - 63rd Hailang J-7H, 91st Liuhe J-7B/H, 94th Xuzhou J-7B.
- Export J-7II with 3 hp, known as F-7B, to Egypt, North Korea, Sudan, USAF (*Constant Peg* 1987-88) and Tanzania.
- Export J-7II with 5 hp to Sri Lanka F-7BS.
- Export J-7IIA with 5 hp, Type 226 RO radar, ballistic bombsight, 1st Gen RWR to Bangladesh F-7MB; Iran F-7N; Iraq, Myanmar and Zimbabwe F-7M; Pakistan F-7P.

**J-7C/D [Fishbed J]****Fighter****Man Rtnng:** 3.0/2.0**Damage Value:** 18**Size/Signature:** Small/Small**Bombsight:** Manual**Sensors:** JL-7 (J-7C) or JL-7A (J-7D) radar, Gen 0 RWR.

Throttle Setting/Speed in knots			
<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	480	500	620
Med:	520	590	860
High:	520	660	1100
VHigh:	520	740	1205

**Ceiling:** 17700 meters**Engine Type:** TJ**Cruise Range:** 495 nmi**Int Fuel:** 2240 kg**Additional Fuel****Fuel Wt.****Range Add.**

480 L supersonic drop tank

390 kg

125 nmi

720 L drop tank

585 kg

185 nmi

**Ordnance Loadouts:****Payload:** 1600 kg**Off Guns:** 1 Type 23-3A 23mm (3.3)

• 1 drop tank, 4 PL-2B or 4 PL-5B/C/E/EII

• 1 drop tank, 4 PL-8 (J-7D)

• 2 480 L drop tanks, 2 PL-2B or 2 PL-5B/C/E/EII

• 1 drop tank, 4 HF-7D or 4 HF-16 rocket pods

• 1 drop tank, 10 Type 100-2 or 4 Type 250-2 or 2 Type 500-2 bombs

**Remarks:** In Svc: Dec 89 - 2016

Reverse engineered MiG-21MF [Fishbed J]. All weather.

• Feb 79: Six MiG-21MF supplied by Egypt.

• Feb 88 - 96: 17 J-7C delivered to 15th Air Division. Service entry delayed by WP-13 engine issues. Production cut short by poor radar

performance. Retired Nov 2011. Originally known as J-7III.

- 1995 - 99: 35 J-7D delivered to 12th and 43rd Regiments. Fitted with ballistic bombsight, 1st Gen RWR, 2nd Generation decoys and provision for PL-8. Retired 2016. Originally known as J-7IIIA.

**J-7E, J-7G [Fishcan]****Fighter****Man Rtnng:** 4.0/2.5**Damage Value:** 17**Size/Signature:** Small/Small**Bombsight:** Ballistic**Counter:** 2nd Gen D**Inflight Refuel:** N**Sensors:** Type 226 RO (J-7E) or KLJ-6E/SY-80 (J-7G) radar, 1st Gen RWR**Throttle Setting/Speed in knots**

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	480	500	550
Med:	520	590	860
High:	520	660	1100
VHigh:	520	740	1205

**Engine Type:** TJ**Int Fuel:** 2165 kg**Additional Fuel****Fuel Wt.****Range Add.**

480 L supersonic drop tank

390 kg

140 nmi

720 L drop tank

585 kg

210 nmi

**Ordnance Loadouts:****Payload:** 1800 kg**Off Guns:** 1 Type 30-1 30mm (1.2)

• 1 drop tank, 4 PL-5C/E/EII

• 1 drop tank, 2 PL-8 or 2 PL-8B (J-G, J-7L only)

• 2 480 L drop tanks, 2 PL-5C/E/EII

• 1 drop tank, 4 Type 250-3 or 2 Type 500-3 bombs

• 1 drop tank, 4 HF-7D or 4 HF-16 rocket pods

• 3 480 L drop tank, 2 PL-8 or PL-8B (late 90s)

**Remarks:****In Svc:** 1995

Improved J-7 II with double delta wing and WP-13F engine. Second cannon replaced by all weather avionics. First PRC fighter with HOTAS.

• **J-7E:** PLAAF. 263 delivered Dec 93 - 02.• **J-7EH:** PLANAF J-7E. 34 delivered. ETCN 10th Feidong until 2002, 12th Huangyan until 2010; STCN 24th Jialaishi 2010 - 14.• **J-7G:** 80 PLAAF with HMS, 2nd Gen RWR. Delivered Oct 04 - 09.• **J-7L:** 48 PLAAF J-7E upgraded to J-7G from 2012. CTC 21st Yangqing 2017; ETC 7th Wuhu 2011-17, 42nd Zhangshu 2017.

• 2014: Five J-7E (ETC 86th Rugao till 2019?; NTC 61st Yanji till 2014, 88th; STC 25th Waisha 2005-Feb 21; WTC 97th), three J-7G (NTC 36th 2012, 44th 2010; STC 52nd 2019).

• 2017: 7th Air Regiment with J-7L converts to J-16.

• 2017: Four J-7E units remain.

• Exports with Grifo-7MG radar: Namibia F-7NM, Nigeria F-7NI, Pakistan F-7PG.

• Exports with SY-80 radar: Bangladesh F-7BG and F-7BGI, Sri Lanka F-7GS, Tanzania F-7TN.

• 2021: Five J-7E (CTC - 20th Tangsha 2019, 53rd Wudangshan 2020; 88th Dalian NTC, 132nd Xinagyun STC 2017, 97th Dazu WTC), two J-7G - 44th Bikeqi NTC and 52nd Wuhan STC.

**J-7MF****Fighter****Man Rtnng:** 4.0/2.5**Damage Value:** 17**Size/Signature:** Small/Small**Bombsight:** Computing**Counter:** 2nd Gen D**Inflight Refuel:** N**Sensors:** Grifo 7 radar, 1st Gen RWR**Throttle Setting/Speed in knots**

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	480	500	550
Med:	520	590	860
High:	520	660	1185
VHigh:	520	740	1185

**Ceiling:** 16000 meters**Engine Type:** TF**Cruise Range:** 485 nmi**Int Fuel:** 1930 kg**Additional Fuel****Fuel Wt.****Range Add.**

480 L supersonic drop tank

390 kg

140 nmi

720 L drop tank

585 kg

210 nmi

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**Ordnance Loadouts:** Payload: 3000 kg**Off Guns:** 2 Type 30-1 30mm (2.4)

• 4 100 kg or 250 kg bombs

• 1 720 L DT, 2 480 L DT, 2 PL-12, 2 PL-5EII

**Remarks:** In Svc: Export

Proposed export version of J-7 as backup for JF-17/FC-1 export fighter. Chin air intake, WP-14 engine. Seven hardpoints. Speeds estimated.

• 8 Jun 98: First flight of experimental F-7FS with chin air intake, WP-13IIS engine, based on J-7II.

• 2002: First proposed. Never flown. Export name would have been F-7MF.

**J-8/J-8 I [Finback A]****Fighter****Man Rtn:** 2.5/1.5**Damage Value:** 26**Size/Signature:** Small/Small**Bombsight:** Ballistic**Sensors:** Type 222 RO (J-8) or Type 204 (J-8I) radar**Throttle Setting/Speed in knots**

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	460	580	700
Med:	460	670	1010
High:	460	760	1320
High:	--	--	1320

**Ceiling:** 20800 meters**Engine Type:** TJ**Cruise Range:** 625 nmi**Int Fuel:** 3994 kg**Additional Fuel****Fuel Wt.****Range Add.**

800 L drop tank

650 kg

145 nmi

1400 L drop tank

1135 kg

255 nmi

**Ordnance Loadouts:****Payload:** 4500 kg**Off Guns:** 2 Type 30-1 30mm (2.4) (J-8) or 1 Type 23-3A 23mm (3.3) (J-8 I)

• 1 800 L drop tank, 4 PL-2B (J-8)

• 1 800 L drop tank, 4 PL-5B (J-8I)

• 1 800 L drop tank, 4 HF-7D or 4 HF-25 rocket pods

• 2 480 L drop tanks, 1 800 L drop tank, 2 PL-2B or PL-5B

• 2 800 L drop tanks, KA-112A recon pod (JZ-8)

**Remarks:****In Svc:** 1980 - 2014?

• 1980 - 85: 112 day only J-8 delivered. No radar, not fitted for rockets.

• 1985 - 90: 31 all-weather J-8I delivered. Was originally to have canceled Type 30-2 cannon and canceled PL-4 AAM.

• 1989: 8 J-8 converted to recon JZ-8 with cannon removed. Retired 2006.

• 1993: 24 J-8I upgraded to J-8IE with JL-8AG radar, PL-5B, 2nd Gen decoys, 1st Gen RWR. Retired 2008.

• 1987: Renamed - J-8I as J-8A, J-8IE as J-8E.

• 2002: WTC 16th at Yinchuan re-equipped with J-11.

• 2007: NTC 15th Regiment at Jiaozhou converted to J-8FH, listed separately.

• 2008: NTC 88th J-8E replaced by J-7E.

• 2009: Most withdrawn from service.

• 2011: CTC 70th J-8E at Zunhua re-equipped with J-7E/G.

**J-8 II [Finback B]****Fighter****Man Rtn:** 3.0/1.5**Damage Value:** 26**Size/Signature:** Small/Small**Bombsight:** Computing**Counter:** 2nd Gen D**Inflight Refuel:** P**Sensors:** Radar (see Remarks), 1st Gen RWR (090-270° only)**Throttle Setting/Speed in knots**

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	520	580	700
Med:	520	670	1010
High:	520	760	1262
VHigh:	--	--	1262

**Ceiling:** 20000 meters**Engine Type:** TJ**Cruise Range:** 675 nmi**Int Fuel:** 4320 kg**Additional Fuel****Fuel Wt.****Range Add.**

800 L drop tank

650 kg

145 nmi

1400 L drop tank

1135 kg

255 nmi

**Ordnance Loadouts:** Payload: 4500 kg**Off Guns:** 1 Type 23-3A 23mm (3.3)

• 1 1400 L DT, 2 800 L DT, and either:

• 4 PL-5B/C/E (J-8II, J-8IIA)

• 4 PL-8 (J-8D)

• 2 PL-8, 2 PL-11 (J-8H)

• 2 PL-8, 2 PL-12 (J-8F)

• 2 PL-8 (JZ-8F)

• 4 HF-7D or 4 HF-25 rocket pods

• 2 800 L drop tanks, and either:

• 8 Type 250-3 bombs, 2 PL-5B/C/E

• KG-300G ECM pod, 2 YJ-91 (J-8G) (2010)

• KG-300G or KZ-900 ELINT (2017) or SLAR pod, 2 PL-12, 2 PL-8 (JZ-8F)

• 1 1400 L drop tank, 2 PL-11, 4 PL-8 (J-8C)

• 1 1400 L drop tank, 2 R-27R, 4 PL-5 or PL-9 (F-8IIM)

**Remarks:** In Svc: 1992

All weather. PL-4 AAM canceled. J-8F/G/H have computing bombsight. J-8C/D/F/H and JZ-8F have removable inflight refueling probe. J-8F/H can carry KG-300G ECM pod replacing 1400 L drop tank.

• **J-8II:** SL-5A (Type 208) radar. Not fitted with bombs. 54 delivered 1992-95. NTC 35th at Gaomi last unit from 2003- 17.• **J-8IIA/J-8B:** JL-8A radar, all aspect 1st Gen RWR. 50 delivered 1993-00. In service 1996. Later converted to J-8BH and J-8BF. J-8II or J-8B units - 2nd Anshan till 2003, 3rd Qiqihar, 25th Longshui, 34th Shandong till 2012, 76th Chongming, 87th Quzhou.• **J-8II/J-8C:** Israeli EL/M-2035 radar. Four prototypes, test flights 1992. Replaced by J-11B.• **J-8IIB/J-8D [Finback B Mod]:** J-8B fitted with inflight refueling probe, provision for KZ-900 and KG-300G. In service 1995. Some later updated to J-8DF and F-8DH. 25th Longshui.• **J-8F:** Type 1492 radar, HMS, can engage 2 targets at once with PL-12. 56 delivered 2005-09 plus J-8BF and J-8DF upgrades. In service 2003 with one PLANAF (15th NTC Jiaozhou 2007, later to J-8H?) and PLAAF regiments - 2nd Anshan 2003, 3rd Qiqihar 2003-2018 NTC, 4th Foshan J-8DF/DH, 9th Changji WTC 2006-2020 J-8F/H, 15th Qingdao, 76th J-8DF Chongming ETC 2017, 89th Zhoushuizi?• **J-8G:** J-8H standard with cannon replaced by 2nd Gen ELS. Used for trials only in 2001.• **J-8H:** Converted Air Force J-8Ds (2004, -8DH) and J-8Bs (2005, -8BJ), plus new-build J-8H with KLJ-1/2 radar, HMS, PL-11. 109th Air Brigade Changji, WTC 2004-20. 25th Longshui, 63rd Mudanjiang, 76th Chongming till 2017, 87th Quzhou.• **JZ-8F:** Recon version of J-8F with internal cameras replacing cannon. 20-30 delivered. In service 2006. Renamed JC-8F in August 2012. 93rd Suzhou ETC, 60th Xinzhou STC, 46th Yu Hung Tun NTC.• **F-8IIM:** Export proposal with Zhuk-8 (1996) or JL-10A (2004) radar, can engage 2 targets.

• Apr 90: Peace Pearl deal canceled. Would have had APG-66 radar, computing bombsight and Aspide AAM. 50 were planned to be delivered between 1991-95.

• Systems: PL-8 in 1994, KG-300G ECM pod in 2010, KZ-900 ELINT pod in 2017.

• 1 Apr 01: J-8B lost in collision with USN EP-3E over South China Sea.

• 2002: WTC 109th equipped with J-8H, also J-8F in 2006, replaced by J-11B in 2020. STC 4th equipped with J-8DH and J-8DF, replaced by J-11 in 2017.

• 2003: NTC 35th equipped with J-8B.

• 2007 - 08: STCN 25th with J-8B/D converted to J-8BH/J-8DH. Converted to J-11B in 2013.

• 2010: PLAAF has 108 J-8B, 36 J-8D, 24 J-8F, 49 J-8H, 24 JZ-8F. PLAAF has 48 all versions.

• 2013: J-8B possibly retired from PLAAF.

• 2018: J-8II and J-8B retired by this date. PLAAF - NTC 15th Air Regiment, 5th Naval Air Division at Jiaozhou has 24 J-8F/FH, est.4 JC-8F.

• 2019: 96 PLAAF, 47 PLAAF.

**J-9**

**Man Rtnng:** 2.5/2.0  
**Size/Signature:** Small/Small  
**Sensors:** Type 205 radar

**Interceptor**

**Damage Value:** 24  
**Bombsight:** Computing

Throttle Setting/Speed in knots			
Altitude	Cruise	Full Mil	Reheat
Low:	520	580	700
Med:	520	670	1060
High:	520	760	1434
VHigh:	--	--	1434
<b>Ceiling:</b>	23000 meters	<b>Engine Type:</b> TF	
<b>Cruise Range:</b>	755 nmi	<b>Int Fuel:</b> e4500 kg	
<b>Additional Fuel</b>		<b>Fuel Wt.</b>	<b>Range Add.</b>
1400 L drop tank	1135 kg		270 nmi
<b>Ordnance Loadouts:</b>		<b>Payload:</b>	e3500 kg

**Off Guns:** 2 Type 23-2 23mm (2.7)

- 2 drop tanks, 2 PL-4A, 2 PL-5B

**Remarks:**

**In Svc:** --

Design study begun in 1964, interrupted several times, canceled 1980 because of problems with PRC WS-6 TF engine, as well as changing requirements. Parallel design with J-8 as replacement for MiG-21, but more technologically advanced. Single engine tailless delta wing with canard. Initial goal was Mach 2.2, 1600 km range, then (1975) Mach 2.5 with a ceiling of 23000 m and 2000 km range. Originally planned first flight in 1980/81, production in 1983. Speeds and drop tank size estimated.

**J-10A Menglong [Firebird]****Fighter**

**Man Rtnng:** 4.5/2.0  
**Size/Signature:** Small/Small  
**Countermeasures:** 3rd Gen D  
**Sensors:** KLJ-3/Type 1473 radar, 2nd Gen RWR, HMS.

**Damage Value:** 21  
**Bombsight:** Advanced  
**Inflight Refuel:** P

Throttle Setting/Speed in knots			
Altitude	Cruise	Full Mil	Reheat
Low:	490	650	792
Med:	490	690	1147
High:	490	740	1147
VHigh:	--	--	1147
<b>Ceiling:</b>	18000 m	<b>Engine Type:</b> TF	
<b>Cruise Range:</b>	615 nmi	<b>Int Fuel:</b> 4500 kg	
<b>Additional Fuel</b>		<b>Fuel Wt.</b>	<b>Range Add.</b>
1100 L drop tank	890 kg		175 nmi
1500 L drop tank	1215 kg		240 nmi
<b>Ordnance Loadouts:</b>		<b>Payload:</b>	4500 kg

**Off Guns:** 1 twin barrel Type 23-3A 23mm (3.3)

- 2 1500 L DT, 1 1100 L DT, 2 PL-8 (2004) or 2 PL-10 (Sep 18), and either:

- 2 PL-11 (2004)
- 2 PL-12 (2006)
- 4 Type 250-3 or 4 Type 250-4 bombs, 2 PL-12
- 8 Type 250-3 or 8 Type 250-4 bombs
- 2 LS-500J, JDC-01A targeting pod (2016)

**Remarks:**

**In Svc:** Jul 04

FBW controls. Can engage two targets at once with PL-11, four with PL-12. Uses elements of Israeli Lavi fighter with Russian engine and design work. Aerodynamically unstable, quad FBW control system.

- Two-seat J-10S trainer variant. In service 2006. Also used by J-10B/C units.
- PLAAF: CTC 43rd Huairen 2012, 70th Zunha 2018, 72nd Yangcun 2009-2018; ETC 8th Changxing 2006; NTC 2nd Chifeng 2007, 34th Qihe 2012, 36th Wendeng ?; STC 5th Li Chia Tsun 2010? - 2015, 26th Huiyang 2010 - 2020, 124th Tianyang 2013, 130th Mengzi 2016, 131st Luliang 2004-2016.
- 2002 - 14: 224 J-10A and 48 J-10S delivered for one PLANAF and nine PLAAF regiments.
- Oct 05: Cleared to be refueled by tankers.
- 2010: PLANAF ETCN 12th Brigade at Huangyan operational.
- 2011: Testing dual underwing racks for PL-12. Increase to 4 PL-12 in above loadout.
- Aug 12: LGB operational. Designation provided by ground teams.

- 2014: Exhibited at Zuhai with guided ordnance. Possible ordnance includes LT-2 LGB, LS-6-series glide bombs, FT-1 PGM, YJ-91 anti-ship msds.

- Jul 16: PLANAF first unit with JDC-01 targeting pod. PLAAF operational later.
- Feb 16: Offered for export as FC-20. No takers.
- Jun 19: Deployment to Paracel Islands.
- Apr 21: Some J-10A to training role at the PLAAF flight academy.

**J-10B/C Menglong [Firebird]****Fighter**

**Man Rtnng:** 5.0/2.5      **Damage Value:** 21

**Size/Signature:** Small/VSmall      **Bombsight:** Advanced

**Countermeasures:** 3rd Gen D      **Inflight Refuel:** P

**Sensors:** J-10B or J-10C radar, 2nd Gen IRST, HMS or HMD, 2nd Gen RWR, est. JSIDLS TDL

**Throttle Setting/Speed in knots**

Altitude	Cruise	Full Mil	Reheat
Low:	490	650	710
Med:	490	690	910
High:	490	740	1030
VHigh:	--	--	1030
<b>Ceiling:</b>	18000 meters	<b>Engine Type:</b> TF	
<b>Cruise Range:</b>	640 nmi	<b>Int Fuel:</b> 4500 kg	
<b>Additional Fuel</b>		<b>Fuel Wt.</b>	<b>Range Add.</b>
1100 drop tank	890 kg		180 nmi
1500 drop tank	1215 kg		250 nmi
<b>Ordnance Loadouts:</b>		<b>Payload:</b>	4500 kg

**Off Guns:** 1 Type 23-3A 23mm (3.3)

- 2 1500 L DT, 1 1100 L DT, 2 PL-8 (J-10) or 2 PL-10 (J-10C), and either:

- 2 PL-12 (J-10B) or 2 PL-15 (J-10C) - QRA
- 4 PL-12 (J-10B) or 4 PL-15 (J-10C)
- 2 YJ-91, KL-700 ES pod
- 2 YJ-83K
- 2 LS-500J, JDC-01A targeting pod
- 2 AKD-88 or 2 AKD-88A, AKK-802K guidance pod
- 8 Type 250-3 or 8 Type 250-4 bombs

**Remarks:**

**In Svc:** 2015/2017

Upgraded J-10 with lighter aircraft, signature radar reduction over 300°-060° (VSmall, Small elsewhere), new radar, next-Gen avionics, modified airfoils, more powerful AL-31FN series 3 engine. First flight Dec 08. Production started 2013. Can engage 4 targets at once with PL-12 or PL-15.

- **J-10B:** HMS, PL-8 and PL-12. 56 delivered 2014-2015. CTC 56th Zhengzhou 2015; NTC 61st Yanji 2014; STC 5th Li Chia Tsun Nov 15.

- **J-10C:** HMD, PL-10 and PL-15. Delivered from Feb 16. Offered for export as FC-10E. ETC 25th Waisha Feb 21; CTC 72nd Yangcun 2018; NTC 2nd Chifeng 2019 J-10A/C; STC 5th Li Chia Tsun Oct 18 J-10B/C, 25th Yangting 2021, 131st Luliang 2016.

- Sep 17: Shown with SEAD loadout: 2 YJ-91 ARMs, associated guidance pod, and KL-700A ES pod.

- Jul 19: WS-10B replaces AL-31FN series 3 engine.

- 2020: 468 total J-10A/B/C in service.

**J-11B [Flanker L]****Fighter**

**Man Rtnng:** 4.5/3.0      **Damage Value:** 35

**Size/Signature:** Medium/Small      **Bombsight:** Computing

**Countermeasures:** 2nd Gen J&D      **Inflight Refuel:** N

**Sensors:** KLJ-4 radar, 2nd Gen IRST, 2nd Gen RWR. IRST and laser rangefinder linked to helmet-mounted sight.

**Throttle Setting/Speed in knots**

Altitude	Cruise	Full Mil	Reheat
Low:	430	600	745
Med:	485	680	1020
High:	485	760	1350
VHigh:	--	--	1350
<b>Ceiling:</b>	18500 m	<b>Engine Type:</b> TF	
<b>Cruise Range:</b>	1465 nmi	<b>Int Fuel:</b> 9400 kg	

**Ordnance Loadouts:** **Payload:** 6000 kg

**Off Guns:** 1 Type 30-4 30mm (2.5)

- 2 PL-12, 2 PL-8B - QRA

- 6 PL-12, 4 PL-8B

- 6 PL-15, 4 PL-10 (J-11BG)

- KG-800 escort jammer or KL-700 ES pod, 2 PL-10, 4 PL-12 (J-11BG)

- 4 Type 250-3/-4 or Type 500-3/-4 bombs, 4 PL-12, 4 PL-8B

**Remarks:** **In Svc:** Feb 08

Chinese-manufactured copy of J-11A. Planned to use WS-10A Taihang engines, but reliability problems required reversion to Russian AL-31F. Later J-11Bs have WS-10Ds from late 2009. KLJ-4 can engage 4 targets at once with PL-12. Small radar signature 300°-060° due to RAM coatings., Medium signature from all other angles.

- PLAAF: CTC - 19th Zhangjiakou 2016; ETC - 95th Liyangang 2010; NTC - 1st Anshan 2008-2021, 89th Pudadian 2010; WTC - 109th Changji 2020, 111th Korla 2011-2016.
- May 10: J-11B in service with PLANAF. 22nd 2012, 24th 2014 at Jialaishi and 25th Xisha 2013 regiments at Hainan Island with STCN. FOL at Woody Island.
- Two-seat version is J-11BS, IOC 2010 with both PLAAF and PLANAF, cruise range 1135 nmi. Estimated as 90 PLANAF and 32 PLANAF.
- Dec 07: 120 - 180 PLAAF, 40+ PLANAF delivered from this date.
- Jun 16: Fitted with data link, probably JSIDLS TDL.
- 2017: Production re-commences with J-11BG. Estimated as PL-10, PL-15. Only 1st Air Brigade, Anshan in NTC operational in 2020.
- Nov 17: First seen with PL-10, PL-15 AAM and KL-700B ES pod.
- Sep 19: First seen with KG-800 escort jammer pod.
- Nov 19: J-11DG seen. Estimated as J-11BG with AESA radar (use J-16 radar) and unknown guided munitions. Possibly J-11B upgrades as J-11BD.
- 2020: Around 200 in PLAAF service.
- Jul 21: PLANAF seen with new ECM pod.

## J-12

### Fighter

**Man Rng:** 4.0/2.5

**Damage Value:** 15

**Size/Signature:** Small/Small

**Bombsight:** Manual

**Sensors:** None

*Throttle Setting/Speed in knots*

Altitude	Cruise	Full Mil	Reheat
Low:	460	590	600
Med:	460	600	650
High:	460	620	700
VHigh:	460	620	700

**Ceiling:** 16970 m

**Cruise Range:** 345 nmi

**Engine Type:** TJ

**Int Fuel:** 1250 kg

**Additional Fuel**

**Fuel Wt.**

**Range Add.**

400 L drop tank

325 kg

130 nmi

**Ordnance Loadouts:**

**Payload:** 945 kg

**Off Guns:** 1 Type 30-1 30mm, 1 Type 23-2 23mm (2.0)

- 2 drop tanks or 2 PL-2B or 2 Type 250-1 bombs

**Remarks:** **In Svc:** --

Lightweight fighter design to replace MiG-19, prototype first flight in Oct 70. Performance disappointing due to insufficient thrust. Development abandoned in 1978 due to superior performance of J-7II. Speeds estimated.

## J-15 Feisha

### Fighter

**Man Rng:** 4.5/3.0

**Damage Value:** 35

**Size/Signature:** Medium/Medium

**Bombsight:** Computing

**Countermeasures:** 2nd Gen D

**Inflight Refuel:** P

**Sensors:** KLJ-4 radar, 2nd Gen IRST, 2nd Gen RWR. IRST and laser rangefinder linked to helmet-mounted sight.

*Throttle Setting/Speed in knots*

Altitude	Cruise	Full Mil	Reheat
Low:	430	600	700
Med:	485	680	860
High:	485	760	1240
VHigh:	--	--	1240

**Engine Type:** TF

**Cruise Range:** 1135/880 nmi

**Int Fuel:** 9500 kg

**Ordnance Loadouts:**

**Payload:** 6500 kg

**Off Guns:** 1 Type 30-4 30mm (2.5)

- 2 PL-8, 2 PL-12 (QRA)

- 8 PL-12, 4 PL-8B

- 2 YJ-83K or 2 YJ-91, 6 PL-12, 4 PL-8B

- 2 AKD-88, AKK-802K guidance pod, 4 PL-12, 4 PL-8B

- 4 Type 250-3/-4 or Type 500-3/-4 bombs, 4 PL-12, 4 PL-8B

- UPAZ-1A buddy store on C/L (2014)

- 3 standoff jammer pods, 2 YJ-91, 2 PL-15 (est. J-15D)

**Remarks:**

**In Svc:** Late 2014

Carrier-capable version of J-11B. Forward canards, folding wings, arrestor hook, reinforced landing gear. KLJ-4 can engage 4 targets with PL-12. Can take off with full AAM loadout from short 105 m position with no wind over the bow or fully loaded from long 195 m position with 10 knots wind speed. Shore based at Huangdicun in Northern Fleet. Use first range for J-15, J-15A, J-15T and second range for two seat J-15D and J-15S.

- **J-15B:** Development version with AESA radar (use J-16 radar), PL-10 and PL-15 replace PL-8 and PL-12. Status unknown.

- **J-15D:** Two-seat EW version with AESA radar (use J-16 radar), 3rd Gen ES pods replacing wingtip PL-8. IRST and gun removed. Single prototype under testing late 2019. Possibly for Type 003 carrier.

- **J-15S:** Two seat trainer version. First flight Nov 2012. Possibly in service Dec 2018.

- **J-15T:** Catapult launched version for Type 003 aircraft carrier.

Possibly fitted with AESA radar (use J-16 radar), PL-10 replaces PL-8, PL-15 replaces PL-12. First flight 1 July 2016. Production from Feb 21.

- Deliveries: 10 a/c Apr - Nov 14; 13 a/c Sep 15 - Apr 17. Back in production by Mar 20 with third batch in service from Sep 20 with 20 delivered by mid-2021. Fourth batch delivered from Aug 21 with at least 4 delivered.

- 2001: Prototype Su-33 delivered from Ukraine.

- Dec 15: YJ-83K fired against target boat.

- Apr 16: Two lost.

- May 18: Night operations commence. Declared operational Sep 18. First night buddy refueling July 2020.

- Nov 19: J-15 seen with AKD-88, YJ-91.

- Nov 20: First pilots direct from training through carrier qualifications. Previous to this all pilots were experienced.

## J-16

### Fighter

**Man Rng:** 4.5/3.0

**Damage Value:** 37

**Size/Signature:** Medium/Medium

**Bombsight:** Computing

**Countermeasures:** 3rd Gen J&D

**Inflight Refuel:** P

**Sensors:** J-16 radar, 3rd Gen IRST/laser rf. linked to HMS, NVG, 2nd Gen RWR, est. JSIDLS TDL

*Throttle Setting/Speed in knots*

Altitude	Cruise	Full Mil	Reheat
Low:	430	600	700
Med:	485	680	930
High:	485	760	1130
VHigh:	--	--	1130

**Ceiling:** 17300 meters

**Engine Type:** TF

**Cruise Range:** 1135 nmi

**Int Fuel:** 9640 kg

**Ordnance Loadouts:**

**Payload:** 8000 kg

**Off Guns:** 1 Type 30-4 30mm (2.5)

- 8 PL-12, 4 PL-8

- 8 PL-15, 4 PL-10 (2018)

- 2 PL-12 or 2 PL-15, 2 PL-8 or PL-10 - QRA

- 2 PL-8 or 2 PL-10, 2 PL-12 or 2 PL-15, and either:

- 6 LS-500J, JDC-01A targeting pod

- 4 AKD-88, AKK-802K guidance pod (Jul 18?)

- 4 YJ-91, KL-700 ES pod

- 4 YJ-83K, jammer pod (Feb 20)

- 4 GB-6 antirunway munitions (2019)

- 2 KG-800 escort jammer pods, 2 YJ-91, 2 PL-15 (est. J-16D)

**Remarks:**

**In Svc:** May 15

Two-seat multirole attack aircraft. Chinese version of Su-30MKK WS-10A engines. Twelve HP. May have reduced signature. PLAAF only. Can engage an estimated 6 targets at once with PL-12 or PL-15.

Loadouts estimated. In service delayed from 2015 to 2017 by radar problems.

- **J-16:** Stats as above. ETC 7th Wuhu 2017; 40th Nanchang 2018, 83rd Hangzhou Mar 21?; NTC 3rd Qiqihar 2018; STC 26th Huiyang Apr 20; WTC 98th Chongqing 2018, 99th Chongqing 2020.
- **J-16B:** Rumored improved version with unknown changes.
- **J-16D:** EW version with 3rd Gen ES/ELS pods replacing 2 wingtip PL-10. IRST/laser rf and GSh-30-1 removed. In service Feb 2019.
- Strength: 20 (Dec 16), ~100 (Dec 18), 128 (Mar 19).
- May 15: Possibly delivered for training and trials. First operational unit 2017.
- 2018: PL-10 with HMD replaces PL-8, PL-15 replaces PL-12.
- Feb 20: PLAAF 40th seen with YJ-83K.
- Jul 21: Possibly under evaluation by PLANAF.

### J-20 Mighty Dragon [Firefang]

**Man Rtng:** 4.5/4.0

**Damage Value:** 38

**Size/Signature:** Medium/VSmall

**Bombsight:** Advanced

**Counter:** 4th Gen J&D

**Inflight Refuel:** P

**Sensors:** KLJ-5 radar, IRST 3rd Gen, HMV, 2nd Gen RWR, probably JSIDLS TDL

### Fighter

#### Throttle Setting/Speed in knots

Altitude	Cruise	Full Mil	Reheat
Low:	540	630/760	700/800
Med:	540	640/780	810/900
High:	540	690/810	920/990
VHigh:	--	--	1100/1290

**Ceiling:** 20000 meters

**Engine Type:** TF

**Cruise Range:** 1325 nmi

**Int Fuel:** 11340 kg

**Additional Fuel**

**Fuel Wt.**

**Range Add.**

2400 L drop tank

1945 kg

325 nmi

**Ordnance Loadouts:**

**Payload:** e5500 kg

- 4 PL-15, 2 PL-10 - both internally
- 2 drop tanks, 4 PL-15 externally

**Remarks:**

**In Svc:** 2019

Chengdu. Wei Long (Mighty Dragon). Early a/c use AL-31FN and AL-31FN series 3 engines. Use first speeds for AL-31 series and WS-10C, second speeds for WS-15. Can carry internal loadout for VSmall signature and optionally external loadout, increasing signature to Small. Fitted with retractable Luneburg lens, can switch between VSmall and Medium radar signature.

- 2017 - 19: 60 AL-31F-M2 Russian engines delivered for prototypes and first production series. Not supercruise capable.
- Feb 18: Delivered to 176th Tactical Training Center.
- Mar 19: First a/c delivered to 9th Air Brigade at Wuhu, ETC.
- 2019: 15 a/c operational.
- Oct 19: J-20A in production with domestic WS-10C engines.
- 2020: Possibly 85th Brigade at Fuzhu, ETC commences conversion.
- Feb 20: Feb 20 - Jun 21: 1st Air Brigade at Anshan, NTC converts from J-11B.
- 2022 - 24: Expected service entry of J-20B with WS-15 engines. Flight testing from Jan 21.

### JH-7 Feibao [Flounder]

### Attack

**Man Rtng:** 2.5/2.0

**Damage Value:** 31

**Size/Signature:** Medium/Medium

**Bombsight:** Manual

**Counter:** 1st Gen J&D

**Inflight Refuel:** N

**Sensors:** Type 232H Eagle Eye (Block 01), or JL-10A (Block 02) radar, 1st Gen RWR

#### Throttle Setting/Speed in knots

Altitude	Cruise	Full Mil	Reheat
Low:	480	540	650
Med:	480	630	685
High:	480	720	918

**Ceiling:** 15500 meters

**Engine Type:** TF

**Cruise Range:** 910 nmi

**Int Fuel:** 6540 kg

**Additional Fuel**

**Fuel Wt.**

**Range Add.**

800 L drop tank

650 kg

130 nmi

1400 L drop tank

1135 kg

225 nmi

**Ordnance Loadouts:**

**Payload:** 6500 kg

**Off Guns:** Type 23-3A 23mm (3.3)

- 2 PL-5B/C/E/EII in all loadouts on wingtip HP

• 800 L drop tank, and either:

- 4 YJ-81 (late 1996)
- 4 YJ-83K (Jul 02)
- 20 Type 250-3 or 10 Type 500-3 or 4 Type 1000-3 bombs
- 3 800 L drop tanks, and either:
  - 2 YJ-81 or 2 YJ-83K
  - ES pod, standoff jammer pod (2008)
  - 10 Type 250-3 or 6 Type 500-3 or 2 Type 1000-3 bombs

**Remarks:**

**In Svc:** 1996

"Flying Leopard." Analog FBW. Used by PLANAF only. Fitted with UK Spey Mk202 engines. Can operate from semi-prepared strips. Service entry delayed by FBW, engine and radar problems.

- ETCN Air Regiments with 6th Naval Air Division. Block 01 - 16th at Dachang 1996 then Ningbo 2017; Block 02 - 17th at Dachang 2003 then 18th at Yiwu later.

- 1992: 18 pre-production Block 01 delivered with Type 232H radar and YJ-81 msls.

- 2002-04: 20 Block 02 delivered with JL-10A radar and YJ-83K vice YJ-81.

- 2007 - 08: Block 01 upgraded to Block 02 standard.

### JH-7A Feibao [Flounder]

### Attack

**Man Rtng:** 2.5/2.0

**Damage Value:** 30

**Size/Signature:** Medium/Medium

**Bombsight:** Computing

**Counter:** 2nd Gen J&D

**Inflight Refuel:** N

**Sensors:** JL-10A radar, 2nd Gen RWR

#### Throttle Setting/Speed in knots

Altitude	Cruise	Full Mil	Reheat
Low:	480	540	650
Med:	480	630	830
High:	480	720	1004

**Ceiling:** 15500 meters

**Engine Type:** TF

**Cruise Range:** 925 nmi

**Int Fuel:** 6540 kg

**Additional Fuel**

**Fuel Wt.**

	<b>Rage Add.</b>
800 L drop tank	650 kg
1400 L drop tank	1135 kg

**Ordnance Loadouts:**

**Payload:** 7000 kg

**Off Guns:** Type 23-3A 23mm (3.3)

- In all loadouts: 2 PL-5 series on tip HP; 2 PL-8 on outer UW HP

• 800 L drop tank, and either:

- 4 YJ-83K
- 20 Type 250-3 or 10 Type 500-3 or 4 Type 1000-3 bombs
- 12 MKC-03-500 mines

• 3 800 L drop tanks, and either:

- 2 AKD-88 or 2 AKD-88A, AKK-802K guidance pod
- 2 YJ-83K or 2 YJ-91
- ES pod, standoff jammer pod (2008)
- ES pod, KG-800 escort jammer pod (JH-7AII 2016)
- 10 Type 250-3 or 6 Type 500-3 or 4 Type 1000-3 bombs

• 3 800 L drop tanks, KDC-01 targeting pod, and either:

- 2 LS-500J (2006)
- 2 GB-1 (2018)
- 4 GT-100 (2020)

**Remarks:**

**In Svc:** 2004

Upgraded JH-7. New engines, fire control system, weight-saving design. All-weather. HP increased from 7 to 11. 3/wing, C/L, 2 under inlets, 2 on wingtips. Digital FBW. Can TF using radar at 485 kts. Uses WS-9 engine (Spey Mk202 copy). Can operate from semi-prepared strips. Single piece front cockpit canopy, no overwing fences. Can replace PL-8 with HF-7D rocket pods.

- **JH-7B:** Proposed version with increased payload, improved engines, new radar and inflight refueling probe. Replaced by J-16.

- PLAAF Brigades. ETC - 83rd Hangzhou 2004-21?, 84th Jiaxing 2011. NTC - 14th Weifang 2007 (renamed 15th by 2015), 31st Siping 2009. STC - 126th Liuzhou 2016. WTC - 110th Urumqi 2011.

- PLAN units. STCN - 27th Regiment, 9th Division at Ledong 2004; NTCN - 13th Regiment, 5th Division at Qinhuangdao 2009, 14th Brigade at Yantai/Laishan 2006.

- 2004 - 16: At least 250 a/c delivered.

- 2014: KL-700A ES and/or KG-600 ECM pods available - one pod replaces both PL-8.
- 2019: Variant JH-7All seen, possibly new radar and avionics, integration with KG-800 escort jammer pods.
- Apr 20: Long-range AAM seen.

**JL-9****Advanced Trainer**

**Man Rtngr:** 3.5/2.0      **Damage Value:** 18  
**Size/Signature:** Small/Small      **Bombsight:** Computing

**Sensors:** JL-10GJ radar, 2nd Gen RWR*Throttle Setting/Speed in knots*

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	440	470	500
Med:	455	520	680
High:	470	590	860
VHigh:	470	590	860

**Ceiling:** 16000 meters**Cruise Range:** 540 nmi

**Additional Fuel**      **Fuel Wt.**      **Range Add.**  
 480 L drop tanks      390 kg      150 nmi  
 720 L drop tanks      585 kg      225 nmi

**Ordnance Loadouts:**      **Payload:** 2000 kg

- 5 HP with up to 3 drop tanks. 480 L on all three, 720 L on C/L.
- 720 L drop tank, 2 480 L drop tanks
- 2 480 L drop tanks, 2 PL-5 or 2 PL-8 or 2 PL-9, 23mm gun pod
- 720 L drop tank, 2 Type 250-3 bombs, 2 HF-7D rocket pods

**Remarks:**      **In Svc:** 2013

Also export FTC-2000 Shanying (Mountain Eagle). Used by both air force and navy. Developed from and replaces JJ-7 trainer.

- JL-9A: Fitted with 2nd Generation decoys.
- JL-9G is carrier landing variant, not fitted with arresting hook. Used for shore carrier approaches and takeoff over ski jump. In service 2013. JL-9GJ from with arrestor hook tested from May 2020.
- FT-2000G export to Cambodia with unknown radar, provision for SD-10A. Delivered 2021-23.
- FTS-2000S: Export for Sudan.

**JL-10****Advanced Trainer**

**Man Rtngr:** 4.0/2.5      **Damage Value:** 21  
**Size/Signature:** Small/Small      **Bombsight:** Advanced

**Sensors:** NVG*Throttle Setting/Speed in knots*

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	460	500	650
Med:	460	530	725
High:	460	545	800
VHigh:	460	545	800

**Ceiling:** 16000 meters**Cruise Range:** 635 nmi

**Additional Fuel**      **Fuel Wt.**      **Range Add.**  
 800 L drop tank      650 kg      385 nmi

**Ordnance Loadouts:**      **Payload:** 3000 kg

- 2 HP per wing, inners wet. Wingtip rails option for AAM
- 2 drop tanks, PC-2A 23mm gun pod, 2 LS-6-250 or 2 TL-10, 2 PL-5EII (L-15Z)
- PC-2A 23mm gun pod, 2 HF-7D, 2 Type 250-3 bombs

**Remarks:**      **In Svc:** 2017

Also Hongdu L-15 Falcon for export. Quad FBW flight control.

- JL-10II: PLAAF L-15A with JL-10GJ radar. Possibly 2018.
- JL-10III: PLAAF L-15B. Development from 2019.
- L-15A: Advanced jet trainer. Not fitted with reheat. PLAAF JL-10 and PLANAF JL-10H.
- L-15B: Lead in fighter trainer with reheat, 40 nmi PESA radar, RWR and weapons. Payload 3500 kg.
- L-15C: L-15A with L-15B avionics. Exports to Zambia as L-15Z, possibly with SY-80 radar.
- 2006: L-15Z displayed at air show with PL-5EII, LS-6-250, TL-10, drop tanks and bombs.
- Jul 20: First PLAAF pilots complete training.

**K-8 Karakorum****Trainer/Light Attack**

**Man Rtngr:** 3.0/2.5      **Damage Value:** 14

**Size/Signature:** Small/Small      **Bombsight:** Computing*Throttle Setting/Speed in knots*

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	260	435	--
Med:	260	450	--
High:	260	435	--

**Ceiling:** 13600 meters**Cruise Range:** 530 nmi

**Additional Fuel**      **Fuel Wt.**      **Range Add.**  
 250 L drop tank      205 kg      195 nmi

**Ordnance Loadouts:**      **Payload:** 945 kg

- PC-2A 23mm gun pod, 2 PL-5EII or 2 PL-7 (export)
- PC-2A gun pod, 2 HF-7D rocket pods
- PC-2A gun pod, 2 Type 250-3 GP or cluster bombs

**Remarks:**

Joint PRC/Pakistan project. Used by the PRC as JL-8 with domestic systems. Exported to Angola, Bangladesh, Bolivia, Egypt, Ghana, Myanmar, Namibia, Sri Lanka, Sudan, Tanzania, Venezuela, Zambia, Zimbabwe.

**Ka-28 [Helix A]****ASW****Man Rtngr:** 2.5/2.0      **Damage Value:** 18**Size/Signature:** Small/Small      **Bombsight:** None**Sensors:** Izumrud sonobuoy processor, Osminog radar, VGS-3 Ros-V dipping sonar or MAD*Throttle Setting/Speed in knots*

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	124	146	--
Med:	124	146	--

**Ceiling:** 5000 meters**Cruise Range:** 315 nmi

**Ordnance Loadouts:**      **Engine Type:** TS  
 • 1 APR-3E torp  
 • 8 PLAB-250-120 DC  
 • 2 KAB-250-100PL  
 • 16 RGB-16 sonobuoys

**Remarks:**      **In Svc:** 1998?

Helicopter. Export version of Russian Ka-27 Helix with more powerful engines and additional fuel. All weapons carried internally. External fuel tanks permanently fitted. Can carry either dipping sonar or MAD on a mission, but not both at same time. Not fitted with rescue winch or cargo hook. 11th Regiment Ningbo ETC.

- Deliveries: 2 (1997), 3 (1999), 9 (2009-10).
- **Ka-28PS:** Three SAR/transport delivered 1999. Fitted with rescue hoist, 4000 kg cargo hook. All weapons removed. Sensors Osminog radar only.
- Mid 2000: APR-3E delivered.
- Jun 16: At least one Ka-28PS fitted with 2nd Gen FLIR.

**Ka-31 [Helix E]****AEW****Man Rtngr:** 2.5/2.0**Damage Value:** 17**Size/Signature:** Small/Small      **Bombsight:** None**Sensors:** E-801 Oko radar. Lacks onboard processing, LOS data link only to ship. Use the ship's combat system to determine detection delay.*Throttle Setting/Speed in knots*

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	100	119	--
Med:	100	119	--

**Ceiling:** 3500 meters**Cruise Range:** 255 nmi

**Remarks:**      **In Svc:** 2011?

Helicopter. Maximum speed with radar deployed is 80 knots, treat as fully loaded. Takes two minutes to extend or retract radar. 11th Regiment Ningbo ETCN. Possibly fitted with HN-900 TDL.

- Late 2010 - Late 2011: Nine delivered.

**KJ-200 [Moth]**

**Man Rtngr:** 0.5/0.5      **Damage Value:** 68  
**Size/Signature:** Large/Large      **Bombsight:** --  
**Sensors:** KJ-200 radar, Gen 4 Semi-Automatic combat system, 3rd Gen ES, est. JSIDLS TDL

Throttle Setting/Speed in knots			
Altitude	Cruise	Full Mil	Reheat
Low:	300	350	--
Med:	300	350	--
High:	--	350	--

**Ceiling:** 10100 meters      **Engine Type:** TP  
**Cruise Range:** 2565 nmi      **Int Fuel:** 22900 kg  
**Remarks:**  
Based on Y-8C airframe, 12 built with 6 PLAAF, 6 PLANAF. Radar similar to PS-890 Erieye. Also known as Y-8W Gao Xin 5.

- **KJ-200:** Radar covers 030°-150° and 210°-330°.
- **KJ-200A:** At least three PLAAF refitted with nose radome for increased coverage, estimated as 210°-150°. First seen Dec 2016.
- **KJ-200B:** PLAN KJ-200A expected to enter service in 2020 with 3rd Gen ESM added.
- 2008: In service with PLAAF ETC 77th Regiment at Wuxi.
- 2010: In service with PLANAF 4th Regiment, 2nd NAD at Laiyang.
- Mar 13: Five PLAAF, six PLANAF.

**KJ-500**

**Man Rtngr:** 0.5/0.5      **Damage Value:** 68  
**Size/Signature:** Large/Large      **Bombsight:** --  
**Counterme:** 2nd Gen D      **Inflight Refuel:** N  
**Sensors:** KJ-500 radar, Gen 4 Semi-Automatic combat system, 3rd Gen ES, estimate JSIDLS TDL

Throttle Setting/Speed in knots			
Altitude	Cruise	Full Mil	Reheat
Low:	295	350	--
Med:	295	350	--
High:	--	350	--

**Ceiling:** 10400 meters      **Engine Type:** TP  
**Cruise Range:** 2565 nmi      **Int Fuel:** e22900 kg  
**Remarks:**  
Uses Y-9 airframe. Gao Xin 10.

- **KJ-500A:** Adds inflight refueling probe. In service Nov 20 with PLAAF.
- Apr 15: KJ-500 in service with PLANAF. ETCN Dachang 2020, STCN Lingshui Apr 15, NTCN Laiyang 2019?
- Jun 17: 4 PLAAF, 2 PLANAF.
- 2018: PLAAF in ETC 76th Regiment Wuxi, then Jiujiang 2019. FOL in WTC at Lhasa and Shigatse. STCN at Lingshui.
- 2019: 13 PLAAF, 9 PLANAF in NTCN Qinhuangdao and STCN.
- May 20: At least one deployed to Fiery Cross.

**KJ-600**

**Man Rtngr:** 0.5/0.5      **Damage Value:** 42  
**Size/Signature:** Medium/Medium      **Bombsight:** --  
**Counterme:** None?      **Inflight Refuel:** P?
**Sensors:** KLC-7 radar, Gen 4 Semi-Automatic combat system, 3rd Gen ES

Throttle Setting/Speed in knots			
Altitude	Cruise	Full Mil	Reheat
Low:	e300	374	--
Med:	e300	374	--
High:	e300	374	--

**Ceiling:** 15000 meters      **Engine Type:** TP(S)  
**Cruise Range:** 1275 nmi      **Int Fuel:** e5000 kg  
**Remarks:**  
Catapult capable for Type 003 aircraft carrier. Estimated stats.

- 29 Aug 20: First flight of prototype.

**AEW****KJ-2000 [Mainring]**

**Man Rtngr:** 0.5/0.5      **Damage Value:** e84  
**Size/Signature:** Large/Large      **Bombsight:** --  
**Sensors:** KJ-2000 radar, Gen 4 Semi-Automatic combat system, est. JSIDLS TDL

Throttle Setting/Speed in knots			
Altitude	Cruise	Full Mil	Reheat
Low:	405	440	--
Med:	405	440	--
High:	405	440	--

**Ceiling:** 10000 meters      **Engine Type:** TF  
**Cruise Range:** 3470 nmi      **Int Fuel:** e64820 kg  
**Remarks:**  
• Jul 00: A-50I with Israeli EL/M-2075 radar canceled. One prototype without radar delivered to China in 2002.

- 2005 - 07: Four delivered to PLAAF. Former A-50I has inflight refueling probe, three converted from Il-76TD lack probe.
- Dec 07: Declared fully operational in ETC at Wuxi.

**AEW****La-9 [Fritz], La-9UTI**

**Man Rtngr:** 3.5/2.0      **Damage Value:** 14  
**Size/Signature:** Small/Small      **Bombsight:** Manual

**Throttle Setting/Speed in knots**

Altitude	Cruise	Full Mil	Reheat
Low:	206	346	--
Med:	232	373	--
High:	232	373	--

**Ceiling:** 10800 meters      **Engine Type:** RP(S)  
**Cruise Range:** 655 nmi      **Int Fuel:** 690 kg  
**Ordnance Loadouts:**  
**Off Guns:** 4 NS-23 23mm (2.3)

**Remarks:**  
In Svc: 1950 - 1966  
• 1949 - 51: 74 LA-9UTI trainers imported from Russia. Armed with 2 UB 12.7 12.7mm mg (0.8)  
• Aug 50: 129 delivered from this date.  
• 1959: 39 trainers still operational.  
• Retired: last 5 fighters in 1959, trainers in 1966.

**Fighter**

**Man Rtngr:** 3.5/2.0      **Damage Value:** 14

**Size/Signature:** Small/Small      **Bombsight:** Manual

**Throttle Setting/Speed in knots**

Altitude	Cruise	Full Mil	Reheat
Low:	220	305	--
Med:	220	364	--
High:	220	364	--

**Ceiling:** 10250 meters      **Engine Type:** RP(S)  
**Cruise Range:** 845 nmi      **Int Fuel:** 890 kg  
**Ordnance Loadouts:**  
**Off Guns:** 4 NS-23 23mm (2.3)

**Remarks:**  
In Svc: 1950 - 1966  
• Feb 50: 60 Russian a/c based in Shanghai.  
• Oct 50 - 53: 163 delivered.  
• Jun 51: Moves to Anshan, first missions during Korean War Jun 51.  
• 1959: 136 available.  
• 1966: Last 18 retired.

**MA60H****Maritime Patrol**

**Man Rtngr:** 0.5/0.5      **Damage Value:** 27

**Size/Signature:** Medium/Medium      **Bombsight:** --

**Sensors:** 360° belly radar (use APS-504), 2nd Gen FLIR

Altitude	Cruise	Full Mil	Reheat
Low:	230	280	--
Med:	230	280	--

**Ceiling:** 7500 meters      **Engine Type:** TP  
**Cruise Range:** 830 nmi      **Int Fuel:** 4210 kg  
**Additional Fuel:** est. 1000 L drop tanks      **Fuel Wt.:** 810 kg      **Range Add.:** 190 nmi

**Ordnance Loadouts:** Payload: 1620 kg  
 • 2 drop tanks  
**Remarks:** In Svc: 2017  
 Coast Guard variant of MA60 (Modern Ark 60), stretched Y7-200A.  
 Has extra fuel tanks scabbed to fuselage sides, 1 HP/per wing.  
 • May 17: Single a/c delivered. Based at Qionghai Boao, Hainan Island in South Sea.

**Mi-6A [Hook]** Transport  
**Man Rtnng:** 1.5/0.5      **Damage Value:** 30  
**Size/Signature:** Large/Large      **Bombsight:** None  
*Throttle Setting/Speed in knots*  

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	135	162	--
Med:	135	162	--

**Ceiling:** 4500 meters      **Engine Type:** TS  
**Cruise Range:** 235 nmi      **Int Fuel:** 6315 kg  

<u>Additional Fuel</u>	<u>Fuel Wt.</u>	<u>Range Add.</u>
3700 L cabin tank	2995 kg	160 nmi

**Off Guns:** 1 A-12.7 12.7mm (0.4)  
**Remarks:** In Svc: 1971  
 Transport for 90 troops or 60 paratroopers or 9000 kg slung load.  
 Offensive Gun arc limited to +/- 30°. Three imported from Russia in 1971.

**Mi-8T [Hip C]** Transport  
**Man Rtnng:** 1.5/0.5      **Damage Value:** 19  
**Size/Signature:** Medium/Medium      **Bombsight:** None  
*Throttle Setting/Speed in knots*  

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	120	135	--
Med:	120	135	--

**Ceiling:** 4500 meters      **Engine Type:** TS  
**Cruise Range:** 240 nmi      **Int Fuel:** 1495 kg  

<u>Additional Fuel</u>	<u>Fuel Wt.</u>	<u>Range Add.</u>
915 L cabin tank	740 kg	185 nmi

**Remarks:** In Svc: 1971 - 90s?  
 Helicopter. Can carry 24 troops or paratroopers or 2840 kg internally or 3000 kg slung load. Can carry one or two cabin tanks at the expense of cargo - each tank halves payload carried.  

- 1972: Ten imported from Russia, 8 for Air Force, 2 for Navy.
- 1974: Five imported for Air Force.
- 1975: Ten imported for Air Force.
- 1979: Ten imported, 4 for Air Force, 6 for Navy.
- 1986: PLAAF Mi-8s handed over to PLAGF.

**Mi-17, Mi-171** Transport  
**Man Rtnng:** 2.0/1.0      **Damage Value:** 19  
**Size/Signature:** Medium/Medium      **Bombsight:** None  
*Throttle Setting/Speed in knots*  

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	120	135	--
Med:	120	135	--

**Ceiling:** 5000 meters      **Engine Type:** TS  
**Cruise Range:** 260 nmi      **Int Fuel:** 1495 kg  

<u>Additional Fuel</u>	<u>Fuel Wt.</u>	<u>Range Add.</u>
915 L cabin tank	740 kg	185 nmi
475 L drop tank	385 kg	95 nmi

**Ordnance Loadouts:** Payload: 1500 kg  

- 6 hp for Type 250-3 bombs or 6 475 L drop tanks
- 8 AKD-9 (some Mi-17V-7)
- 2 Standoff jammer pods (PLAGF 2020)

**Remarks:** In Svc: 1985  
 Helicopter. Can carry 24 troops or paratroopers. Can carry one or two cabin tanks at the expense of cargo - each tank halves payload carried.  

- Some Mi-17V-5, Mi-17V-7, Mi-171E later fitted with 2nd Gen FLIR, NVG for SAR.
- 1991: 24 Mi-17V-1 delivered. Slung load 5000 kg. Later fitted with 2nd Gen decoys, HP.

- 1996-03: 95 Mi-17V-5 delivered with rear ramp. Can carry 40 troops or 34 paratroops. Slung load 5000 kg.
- 1999-00: 15 Mi-171 delivered. Slung load 4000 kg. Some fitted with 2nd Gen FLIR, 2nd Gen RWR, laser warning system.
- 2003-04: 25 Mi-17V-7 delivered with rear ramp.
- 2007-14: 165 Mi-171E delivered with rear ramp.
- 2019: 16 PLAAF, 240 PLAGF Mi-17 and Mi-171 in service.
- 2020: 18 Mi-171Sh ordered with NVG, 2nd Gen FLIR, 2nd Gen decoys. Delivered from Apr 21.
- 2021: Some Mi-171, Mi-171E fitted with S(1)1 12.7mm door mg. Some Mi-17V-5/V7, Mi-171E fitted with laser warning system 2nd Gen RWR, 3rd Gen D, floatation gear as SOF transports.
- Some Mi-171 fitted with KLC-11 battlefield radar, two 475 L drop tanks, 2nd Gen RWR. Treat as fully loaded with radar extended.
- Mar 21: Some Mi-171 fitted with S(1)1 12.7mm door mg.

**MiG-9 [Fargo]** Fighter  
**Man Rtnng:** 2.0/1.0      **Damage Value:** 17  
**Size/Signature:** Small/Small      **Bombsight:** Manual  
*Throttle Setting/Speed in knots*  

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	240	466	--
Med:	240	480	--
High:	305	460	--

**Ceiling:** 13500 meters      **Engine Type:** TJ  
**Cruise Range:** 300 nmi      **Int Fuel:** 1300 kg  

<u>Additional Fuel</u>	<u>Fuel Wt.</u>	<u>Range Add.</u>
300 L drop tank	245 kg	80 nmi

**Ordnance Loadouts:** Payload: 500 kg  
**Off Guns:** 2 NS-23 23mm, 1 N-37 37mm (1.8)  
**Remarks:** In Svc: 1950 - 1959  

- Nov - Dec 50: 369 delivered. Originally flown by Russian pilots.
- 1959: Retired due to short range.

**MiG-15 [Fagot A], MiG-15UTI** Fighter  
**Man Rtnng:** 2.5/1.5      **Damage Value:** 15  
**Size/Signature:** Small/Small      **Bombsight:** Manual  
*Throttle Setting/Speed in knots*  

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	330	565	--
Med:	330	560	--
High:	320	530	--

**Ceiling:** 15400 meters      **Engine Type:** TJ  
**Cruise Range:** 505 nmi      **Int Fuel:** 1225 kg  

<u>Additional Fuel</u>	<u>Fuel Wt.</u>	<u>Range Add.</u>
260 L drop tank	210 kg	125 nmi
300 L drop tank	245 kg	145 nmi

**Ordnance Loadouts:** Payload: 500 kg  
**Off Guns:** 2 NS-23 23mm, 1 N-37 37mm (1.8)  

- 2 drop tanks
- 2 FAB-50 or FAB-100 bombs

**Remarks:** In Svc: Oct 50 - 1980, 1986  

- Aug 50 - 51: 654 MiG-15 delivered from Russia.
- 1951 - 58: 357 MiG-15UTI imported.
- Jun 50: 40 operational. Flown by Russian pilots. PRC pilots operational Nov 1950.
- 28 Dec 50: First combat missions over North Korea by Chinese pilots.
- 2 Nov 51: First sorties by four recon MiG-15.
- Nov 54 - 55: Additional aircraft converted to recon.
- 1958: Some converted to MiG-15UTI trainers when J-5 and J-6 enter service.
- 1967 - 69: Back to fighter role in new fighter Divisions - 38th MiG-15, 41st mixed J-6/MiG-15, 44th mixed J-5/MiG-15.
- 1980: Last 18 MiG-15 retired.
- 1986: last MiG-15UTI retired.

**MiG-15bis [Fagot B]**

**Man Rtnng:** 2.0/1.0  
**Size/Signature:** Small/Small

**Damage Value:** 15  
**Bombsight:** Manual

*Throttle Setting/Speed in knots*

<i>Altitude</i>	<i>Cruise</i>	<i>Full Mil</i>	<i>Reheat</i>
Low:	340	580	--
Med:	345	600	--
High:	350	550	--
<b>Ceiling:</b>	15400 meters		
<b>Cruise Range:</b>	455 nmi		
<b>Additional Fuel</b>			
260 L drop tank	210 kg	115 nmi	
300 L drop tank	245 kg	135 nmi	
400 L drop tank	325 kg	180 nmi	

**Ordnance Loadouts:** **Payload:** 1050 kg

**Off Guns:** 2 NR-23 23mm, 1 N-37 37mm (2.4)

- 2 drop tanks
- 2 FAB-100 or 2 FAB-250 bombs

**Remarks:** **In Svc:** Aug 52 - 1986  
 • Deliveries: 348 Aug - Oct 52, 134 May-Oct 53. Additional deliveries through 1961, totaling 1460.  
 • 27 Jun 52: First PLANAF unit operational - 1st Air Division near Shanghai.  
 • 1956: Thirty-one converted to reconnaissance role.  
 • 1959: Some converted to MiG-15bisUTI two-seat trainers.  
 • 1965: Fitted for interim attack between Il-10 and Q-5, then converted to target drones. Drones retired 1986.  
 • 1966 - 71: Back to fighter role in new fighter Divisions - 37th, 39th and 43rd with MiG-15bis; 49th mixed J-6/MiG-15bis; 40th, 47th mixed J-5/MiG-15bis.  
 • 1986: Retired.

**MiG-17 [Fresco A]**

**Man Rtnng:** 3.5/2.0  
**Size/Signature:** Small/Small

**Damage Value:** 16  
**Bombsight:** Manual

*Throttle Setting/Speed in knots*

<i>Altitude</i>	<i>Cruise</i>	<i>Full Mil</i>	<i>Reheat</i>
Low:	380	570	--
Med:	430	590	--
High:	430	550	--
<b>Ceiling:</b>	15100 meters		
<b>Cruise Range:</b>	500 nmi		
<b>Additional Fuel</b>			
400 L drop tank	325 kg	205 nmi	

**Ordnance Loadouts:** **Payload:** 900 kg

**Off Guns:** 1 N-37 37mm, 2 NR-23 23mm (2.5)

- 2 400 L drop tanks
- 2 FAB-50 or 2 FAB-100 bombs
- 2 drop tanks, 2 S-21 rockets (MiG-17AS and attack)
- 2 FAB-50 or 2 FAB-100 or 2 FAB-250, 2 S-21 rockets (attack)
- 2 drop tanks, 2 ORO-57K rocket pods (attack)

**Remarks:** **In Svc:** 1956 - 86

96 imported from Russia in 1956.

**MiG-17F [Fresco C]**

**Man Rtnng:** 4.0/2.5  
**Size/Signature:** Small/Small

**Damage Value:** 16  
**Bombsight:** Manual

*Throttle Setting/Speed in knots*

<i>Altitude</i>	<i>Cruise</i>	<i>Full Mil</i>	<i>Reheat</i>
Low:	380	590	--
Med:	420	590	610
High:	420	545	570
VHigh:	--	--	560
<b>Ceiling:</b>	16470 meters		
<b>Cruise Range:</b>	470 nmi		
<b>Additional Fuel</b>			
400 L drop tank	325 kg	190 nmi	

**Fighter****MiG-17PF [Fresco D]**

**Ordnance Loadouts:**

**Payload:** 650 kg

**Off Guns:** 1 N-37 37mm cannon, 2 NR-23 23mm (2.5)

- 2 drop tanks
- 2 S-21 rockets
- 2 FAB-50 or 2 FAB-100 or 2 FAB-250 bombs

**Remarks:** **In Svc:** 1956 - 1986?  
 206 imported from Russia in 1956. Locally produced as J-5.

**Fighter****MiG-19PM [Farmer D]**

**Man Rtnng:** 3.5/2.0

**Damage Value:** 16

**Size/Signature:** Small/Small

**Bombsight:** Manual

**Sensors:** RP-5 Izumrud radar, Gen 0 RWR (90°-270°)

*Throttle Setting/Speed in knots*

<i>Altitude</i>	<i>Cruise</i>	<i>Full Mil</i>	<i>Reheat</i>
Low:	370	580	--
Med:	400	575	605
High:	400	560	570
VHigh:	--	--	560
<b>Ceiling:</b>	16300 meters		
<b>Cruise Range:</b>	415 nmi		
<b>Additional Fuel</b>			
400 L drop tank	325 kg	170 nmi	

**Ordnance Loadouts:**

**Payload:** 670 kg

**Off Guns:** 3 NR-23 23mm (2.7)

- 2 400 L drop tanks

**Remarks:** **In Svc:** 1956 - 1990?  
 RWR has rear aspect only. 96 imported from Russia in 1956, then license-produced as J-5A.

**MiG-19PM [Farmer D]**

**Man Rtnng:** 2.5/1.5

**Damage Value:** 22

**Size/Signature:** Small/Small

**Bombsight:** Manual

**Sensors:** RP-2U Izumrud 2 radar, Gen 0 RWR (90°-270°)

*Throttle Setting/Speed in knots*

<i>Altitude</i>	<i>Cruise</i>	<i>Full Mil</i>	<i>Reheat</i>
Low:	440	600	620
Med:	440	620	650
High:	440	640	675
VHigh:	--	--	610
<b>Ceiling:</b>	16700 meters		
<b>Cruise Range:</b>	485 nmi		
<b>Additional Fuel</b>			
540 L drop tank	435 kg	175 nmi	

**Ordnance Loadouts:**

**Payload:** 1270 kg

**Remarks:** **In Svc:** 1956 - 1986?

Can engage single target with one, two or four missiles at same time. Fitted for ILS for all weather operations. RWR rear aspect only. Fifteen imported from Russia in 1958, twelve from Albania in 1965. License-built in China as J-6B.

**MiG-19S [Farmer C]**

**Man Rtnng:** 3.5/2.5

**Damage Value:** 22

**Size/Signature:** Small/Small

**Bombsight:** Manual

**Sensors:** SRD-3 RO radar, Gen 0 RWR (rear aspect only, 90°-270°)

*Throttle Setting/Speed in knots*

<i>Altitude</i>	<i>Cruise</i>	<i>Full Mil</i>	<i>Reheat</i>
Low:	450	600	590
Med:	450	620	760
High:	450	640	785
VHigh:	--	--	785
<b>Ceiling:</b>	16720 meters		
<b>Cruise Range:</b>	530 nmi		
<b>Additional Fuel</b>			
400 L drop tank	325 kg	140 nmi	
760 L drop tank	615 kg	265 nmi	

**Fighter**

**Ordnance Loadouts:** Payload: 1270 kg

**Off Guns:** 3 NR-30 30mm (3.7)

- 2 drop tanks
- 2 FAB-250 bombs
- 2 UB-8-57 rocket pods, 2 drop tanks
- 4 UB-8-57

**Remarks:** In Svc: 1958 - 2011?

Thirty-one imported from Russia in 1958. Built in China as J-6. Maximum altitude with 760 L drop tanks carried is High.

### MiG-21F-13 [Fishbed C]/J-7

**Man Rtn:** 3.5/2.0

**Damage Value:** 17

**Size/Signature:** Small/Small

**Bombsight:** Manual

**Sensors:** SRD-5M Kvant RO radar, Gen 0 RWR

*Throttle Setting/Speed in knots*

Altitude	Cruise	Full Mil	Reheat
Low:	440	520	594
Medium	455	670	648
High:	470	700	1174
VHigh:	470	700	1174

**Ceiling:** 18800 meters

**Cruise Range:** 570 nmi

**Additional Fuel**

**Engine Type:** TJ

490 L supersonic drop tank      **Fuel Wt.** 395 kg      **Range Add.** 165 nmi

**Ordnance Loadouts:** Payload: 1350 kg

**Off Guns:** One NR-30 30mm (1.2)

- 1 DT, 2 R-3A or R-3S

- 1 DT, 2 UB-16-57 rocket pods or 2 S-24 rockets

- 1 DT, 2 OFAB-100-120 or 2 FAB-250 or 2 FAB-500

**Remarks:** In Svc: 1961 - 1973

Clear weather only. Can be fitted with single recon camera (Low altitude only). Forty aircraft assembled in China, then license-manufactured as the J-7.

### Q-5 [Fantan]

**Man Rtn:** 3.0/1.5

**Damage Value:** 23

**Size/Signature:** Small/Small

**Bombsight:** Manual

*Throttle Setting/Speed in knots*

Altitude	Cruise	Full Mil	Reheat
Low:	513	540	653
Med:	513	545	648
High:	513	550	648
High:	--	550	648

**Ceiling:** 15850 meters

**Cruise Range:** 335 nmi

**Additional Fuel**

**Fuel Wt.**

400 L drop tank      325 kg      90 nmi

760 L drop tank      615 kg      165 nmi

**Ordnance Loadouts:** Payload: 1700 kg

**Off Guns:** 2 Type 23-2 23mm (2.4)

- 2 400 L drop tanks or 2 250 kg bombs, 2 250 kg or 4 FAB-100M54 bombs internally, 2 PL-2 or 8\*57mm rocket pods (Q-5)
- 2 400 L drop tanks, 1 H524-23 nuclear bomb semi-conformally (Q-5Jia)

**Remarks:** In Svc: 1970 - 80s

Q-5 has internal bomb bay. Q-5Jia can carry semi-conformal 1000 kg nuclear bomb, can toss bomb. 250 kg bombs are FAB-250M54 or Type 250-2.

- 1970 - 79: 495 Q-5 and 20-40 Q-5Jia delivered. Late production Q-5 have two fuselage HP, add two bombs to above loadouts.

- 7 Jan 72: Q-5Jia drops live nuclear bomb.

- 1976: In service with 50th Ground Attack Division.

- Early 80s: Flown by 5th, 22nd, 28th and 50th Attack Divisions.

### Q-5I [Fantan]

**Man Rtn:** 3.0/1.5

**Damage Value:** 23

**Size/Signature:** Small/Small

**Bombsight:** Manual

*Throttle Setting/Speed in knots*

Altitude	Cruise	Full Mil	Reheat
Low:	513	540	653
Med:	513	545	648
High:	513	550	648
VHigh:	--	550	648

**Ceiling:** 15850 meters

**Cruise Range:** 565 nmi

**Additional Fuel**

**Fuel Wt.**

400 L drop tank      325 kg      85 nmi

800 L drop tank      650 kg      165 nmi

**Ordnance Loadouts:** Payload: 2000 kg

**Off Guns:** 2 Type 23-2 23mm (2.4)

- Q-5I, Q-5IA, Q-5B with 4 wing hp:

- 2 400 L drop tanks, 4 bombs, 2 rockets
- 4 bombs, 4 rockets
- 6 bombs, 2 rockets

- Q-5C, Q-5D with 6 wing hp:

- As all Q-5I, Q-5IA, Q-5B plus 2 PL-2B
- 6 bombs, 4 rockets
- 2 400 L drop tanks, 6 bombs, 2 rockets
- 2 400 L drop tanks, 4 bombs, 2 rockets, 2 PL-2B

- 2 400 L drop tanks, 2 LS-500J/LT-2, PZS-01H targeting pod, 2 rocket pods (Q-5L, Q-5N)

- 2 400 L drop tanks, 2 Yu-2 torpedoes or 2 YJ-81 missiles (Q-5Yi)

**Remarks:** In Svc: 1983 - 2018

500-600 in service since 1985. Have 4 fuselage hp and 4 or 6 wing hp. Bombs are Type 250-2, Type 250-3 GP, Type 250-3 cluster, Type 200A. Rockets are HF-7D or HF-14 pods or Russian S-21 rocket.

• **Q-5Yi:** Torpedo bomber with Type 317 radar. Canceled 1979.

• **Q-5Yi:** Missile attack with Type 317A radar. Canceled.

• **Q-5IA:** Rockets limited to Russian S-21 rockets.

• **Q-5IA:** Q-5I with ballistic bombsight. In service 1985. Later fitted with 1st Gen RWR (090° - 270° only).

• **Q-5II/Q-5B:** As Q-5IA with 1st Gen RWR (090° - 270° only). Exported to North Korea and Pakistan as A-5B.

• **Q-5III/Q-5C:** As Q-5B with 360° 1st Gen RWR. Exported to Bangladesh, Myanmar, Pakistan and Sudan as A-5C. Several dozen on PLAAF service with Type 250-3/4 bombs. In service 1986.

• **Q-5D:** Laser rangefinder and computing bombsight, 2nd Gen RWR, 2nd Gen decoys. 80-100 upgraded from 1998.

• **Q-5J:** Q-5D conversions to two seat trainers. Estimated 2810 kg fuel, range 525 nmi.

• **Q-5L:** 60 upgraded Q-5III with LRMTS, targeting pod and LGB, 2nd Gen RWR, 2nd Gen decoys. In service 2007.

• **Q-5N:** Some Q-5D upgraded to Q-5L standard from 2005.

• 2004: Q-5B of 83rd Air Regiment, 28th Ground Attack Division replaced by JH-7A.

• 2011: Q-5D of 84th Air Regiment, 28th Ground Attack Division replaced by JH-7A.

• 2012: PLANAF replaced by JH-7A.

• 2015: Military Regions - Beijing 45th Q-5I, Q-5B; Jinan - 13th, 14th Q-5L; Nanjing - 82nd Q-5D; Shenyang - 32nd, 33rd, 90th all Q-5IA, Q-5B.

• 2017: Q-5L retired from 13th Air Regiment.

• 2018: Q-5IA, Q-5B, Q-5C retired.

### Attack

### Fighter

### Attack

### Attack

**Q-6**

**Man Rtng:** 2.5/1.5  
**Size/Signature:** Small/Small  
**Countermeasures:** 2nd Gen D(e)  
**Sensors:** Reverse-engineered APQ-113 AI radar and APQ-110 terrain following radar, 2nd Gen RWR, laser rf,

**Damage Value:** 20e  
**Bombsight:** Computing  
**Inflight Refuel:** Ne

*Throttle Setting/Speed in knots*

Altitude	Cruise	Full Mil	Reheat
Low:	470	560	792
Med:	470	650	855
High:	470	740	918
<b>Ceiling:</b>	15000 meters		
<b>Cruise Range:</b>	e910 nmi		
<b>Additional Fuel</b>		<b>Engine Type:</b> TF	
800 L drop tank	650 kg	<b>Int Fuel:</b> e6500 kg	<b>Range Add.</b>
<b>Ordnance Loadouts:</b>		<b>Fuel Wt.</b>	
<b>Off Guns:</b>	2 Type 23-3A 23mm (e) (3.3)	<b>Payload:</b> 4500 kg	

- CL HP, 3 HP per wing, two on fixed glove and one pivoting on outer wing panel. CL and inners could carry tandem stores, outers were wet, possibly at fixed sweep.
- Can carry laser designator pod and LGBs up to 500 kg.

**Remarks:** **In Svc:** 1995 (e)

Nanchang design initiated in the mid-70s for a variable-geometry aircraft using MiG-23 from Egypt and captured F-111 technology. Canceled because requirements for BVR and dogfight capability, as well as all-weather attack, were too challenging. Design also included FBW control system. Also problems with WS-15 engine development. Three prototypes built, overweight. Canceled in 1989 in favor of the JH-7.

**Attack**

<i>Throttle Setting/Speed in knots</i>			
Altitude	Cruise	Full Mil	Reheat
Low:	135	145	--
Med:	135	145	--
<b>Ceiling:</b>	3150 meters		
<b>Cruise Range:</b>	310 nmi		
<b>Additional Fuel</b>		<b>Engine Type:</b> TS	
500 L drop tank	405 kg	<b>Int Fuel:</b> 3175 kg	<b>Range Add.</b>

<b>Ordnance Loadouts:</b>	<b>Payload:</b> 11800 kg
• 2 A.244 (1986) or 4 Type 62 (Large) DC on ASW version	
• 2 Yu-7 or 4 Type 62 (Large) DC on ASW version (early 1990s)	

**Remarks:** **In Svc:** 1977

Helicopter. Amphibious. Possibly also used for mine laying and mine-sweeping. Flown from Dachang in ETCN.  
 • 1977 - 78: 9 SA.321M SAR and 4 SA.321G ASW delivered.  
 • 3 Jan 80: First shipboard operations.  
 • 1987: Three HS 312 dipping sonars believed to have been delivered.

**S-70C-2 Blackhawk**

**Man Rtng:** 2.0/1.5  
**Size/Signature:** Small/Small

**Transport**

Altitude	Cruise	Full Mil	Reheat
Low:	140	160	--
Med:	140	160	--
<b>Ceiling:</b>	3180 meters		
<b>Cruise Range:</b>	225 nmi		
<b>Additional Fuel</b>		<b>Engine Type:</b> TS	
		<b>Int Fuel:</b> 1110 kg	

- Remarks:** **In Svc:** 1985
- Helicopter. PLAGF. Some fitted with 2nd Gen D and P/S(1)2 12.7mm door mg. Can carry 11 troops or 1200 kg cargo internal or 3630 kg slung load.  
 • Jul 84: 24 delivered to PLA Air Force. More than 150 were planned.  
 • 1987: Transferred to PLA Army Aviation.  
 • 1989: Maintenance affected by sanctions.  
 • 2018: Remain in service.

**SA.319B Alouette III**

**Man Rtng:** 2.5/2.0  
**Size/Signature:** Small/Small

**Transport**

Altitude	Cruise	Full Mil	Reheat
Low:	106	119	--
Med:	106	119	--
<b>Ceiling:</b>	3048 meters		
<b>Cruise Range:</b>	325 nmi		
<b>Ordnance Loadouts:</b>		<b>Engine Type:</b> TS	
		<b>Int Fuel:</b> 457 kg	
		<b>Payload:</b> 500 kg	

- Remarks:** **In Service:** 1968
- Helicopter. 'Lark III'. Can carry 6 troops or 750 kg slung cargo or 2 litters. Fifteen imported in 1968 for the Air Force and civil aviation, some possibly transferred to the Army.

**SA.321G/M Super Frelon**

**Man Rtng:** 2.0/1.0  
**Size/Signature:** Small/Small

**ASW/SAR**

**Sensors:** ORB 32 radar, HS 12 dipping sonar, sonobuoys (SA.321G)

**Damage Value:** 23

**Bombsight:** None

**SH-5 [Harb]**

**Man Rtng:** 0.5/0.5

**Size/Signature:** Large/Large

**Sensors:** Type 773 radar, MAD, 60 HF-1 or HF-2 sonobuoys and a Baku-like sonobuoy processor.

Altitude	Cruise	Full Mil	Reheat
Low:	243	299	--
Med:	243	299	--
<b>Ceiling:</b>	7000 meters		
<b>Cruise Range:</b>	2255 nmi		
<b>Ordnance Loadouts:</b>		<b>Engine Type:</b> TP	

**Def Guns:** 2 Type 23-2 23mm in dorsal turret (0.7)  
 • 6 500 kg mines or 22 PLAB-100 (est) DC or 4 A.244

- Remarks:** **In Svc:** Sep 86 - 2015?
- Flying boat fitted with beaching gear. Four in service, production stopped due to non-pressurized fuselage limiting altitude. Based at Qingdao NTCN. Planned YJ-1 supersonic ASCM and French Atlantic MPA avionics canceled.

- One converted to a fire-fighting aircraft.

**Attack**

**Man Rtng:** 3.0/2.5  
**Size/Signature:** Small/Small

**Damage Value:** 8

**Bombsight:** None

*Throttle Setting/Speed in knots*

Altitude	Cruise	Full Mil	Reheat
Low:	140	150	--
Med:	130	140	--
<b>Ceiling:</b>	4100 meters		
<b>Cruise Range:</b>	270 nmi		
<b>Ordnance Loadouts:</b>		<b>Engine Type:</b> TS	
		<b>Int Fuel:</b> 465 kg	
		<b>Payload:</b> 900 kg	

- 4 HOT 1 missiles

**Remarks:** **In Svc:** 1988

Helicopter. PLAGF. Eight SA.342L and 240 HOT missiles delivered.  
 • 2010s: Replaced in attack role by Z-10.  
 • 2020: Some remain in training role.

**SD-10 Sea Cavalry**

**Man Rtng:** 0.0  
**Size/Signature:** VSmall/VSmall

**Damage Value:** e5

**Bombsight:** None

**Sensors:** 2nd Gen FLIR

*Throttle Setting/Speed in knots*

Altitude	Cruise	Full Mil	Reheat
Low:	77	97	--
Med:	77	97	--
<b>Ceiling:</b>	5000 m		
<b>Cruise Range:</b>	390 nmi		
<b>Ordnance Loadouts:</b>		<b>Engine Type:</b> IP	

**Remarks:** VTOL UAV. Used by PLAN. Fitted with 108 nmi LOS control link.

- Feb 19: Operates from Type 052C *Lanzhou* during exercise.

**UAV****Maritime Patrol**

**Man Rtng:** 0.5/0.5

**Size/Signature:** Large/Large

**Bombsight:** Ballistic

**Sensors:** Type 773 radar, MAD, 60 HF-1 or HF-2 sonobuoys and a Baku-like sonobuoy processor.

Altitude	Cruise	Full Mil	Reheat
Low:	243	299	--
Med:	243	299	--
<b>Ceiling:</b>	7000 meters		
<b>Cruise Range:</b>	2255 nmi		
<b>Ordnance Loadouts:</b>		<b>Engine Type:</b> TP	

- 6 500 kg mines or 22 PLAB-100 (est) DC or 4 A.244

- Remarks:** **In Svc:** Sep 86 - 2015?
- Flying boat fitted with beaching gear. Four in service, production stopped due to non-pressurized fuselage limiting altitude. Based at Qingdao NTCN. Planned YJ-1 supersonic ASCM and French Atlantic MPA avionics canceled.

- One converted to a fire-fighting aircraft.

**Sharp Sword**

Man Rtn: 0.0      Damage Value: 19

Size/Signature: Small/Stealthy      Bombsight: --

Sensors: 3rd Gen FLIR, laser designator

## Throttle Setting/Speed in knots

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	460	540	--
Med:	460	540	--
High:	460	540	--

Ceiling: 12500 meters

Cruise Range: 1835 nmi

Ordnance Loadouts:

- 2 bomb bays, each 1 500 kg or 4 100 kg weapons

Remarks: In Svc: 2019

UAV. Reduced signature. Also known as GJ-11. Operates from runway. Has satellite control link. Estimated performance.

**Shendiao**

Man Rtn: 0.0

Size/Signature: Large/Large

Sensors: UAV Advanced Radar

**Recon UAV**

Damage Value: e20

Bombsight: --

## Throttle Setting/Speed in knots

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	400	460	--
Med:	400	460	--
High:	400	460	--
VHigh:	400	460	--

Ceiling: 25000 meters

Cruise Range: 3300 nmi

Remarks:

"Divine Eagle," also called Project 973. HALE. Twin-fuselage configuration. In development/test since 2011. Endurance 10 hours. Satellite control link. Operates from runway.

- Nov 18: Under testing with PLAAF at Malan, 178th UAV Brigade.

**Sky Saker FX 500**

Man Rtn: 0.0

Size/Signature: VSmall/VSmall

Sensors: 3rd Gen FLIR, SAR (not a search sensor)

**Recon UAV**

Damage Value: e9

Bombsight: None

## Throttle Setting/Speed in knots

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>
Low:	e400	430
Med:	e400	430

Ceiling: 9000 meters

Cruise Range: e680 nmi

Remarks:

Used by PLAGF. Fitted with satellite control link. Used as target acquisition for MRL and TBM. Launched from truck, possibly recovered by parachute.

**Su-27SK, J-11, J-11A [Flanker B]**

Man Rtn: 4.5/3.0

Damage Value: 35

Size/Signature: Medium/Medium

Sensors: N-001E radar, 1st Gen RWR, OLS-27 (2nd Gen IRST and laser rf/designator) linked to HMS

**Fighter**

Bombsight: Ballistic

Inflight Refuel: N

## Throttle Setting/Speed in knots

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	430	600	745
Med:	485	680	1020
High:	485	760	1350
VHigh:	--	--	1350

Ceiling: 18500 meters

Cruise Range: 1465 nmi

Ordnance Loadouts:

Off Guns: 1 GSh-30-1 30mm (2.5)

- 2 R-27R, 2 R-27T, 2 R-73 (QRA)

- 4 R-27R or R-27ER, 6 R-73

- 6 R-27R or 6 R-27ER, 4 R-73

- 4 R-27R or R-27ER, 2 R-27T or 2 R-27ET, 4 R-73

**UCAV**

- 32 OFAB-100-120 or 14 FAB-250 or 8 FAB-500, 4 R-73

- 18 FAB-250, 2 R-73

- 8 FAB-500, 4 R-73

- 4 B-8M1 or 4 B-13 rocket pods, 4 R-27R, 4 R-73

**Remarks:**

In Svc: 1992

PLAAF only. J-11 and UBK delivered from 2000 have N-001VE radar. N-001VE radar can engage 2 targets at once with RVV-AE.

- **Su-27SK:** Export single seat Su-27S, stats as above. Deliveries: 8 late 91; 10 in Nov 92; 4 in Apr 96; 14 in Jul 96.

- **Su-27UBK:** Export two seat Su-27UB, cruise range 1135 nmi. Deliveries: 4 late 91, 2 in Nov 92, 6 in Apr 96, 28 in Dec 00-02.

- **J-11:** Su-27SK kits assembled in country. 65 delivered Dec 98 - Nov 04. In service 2001.

- **J-11A:** License produced Su-27SK with N-001VE radar. 45 delivered Nov 04? - 06. Estimated in service 2005.

- Su-27SK, J-11 units: CTC - 19th Zhangjiakou 2003 - 16, 55th Jining 2016; ETC - 9th Wuhu 1992 - 2001, 40th Nanchang ? - 2016; NTC

- 1st Anshan 1992 - 20; STC - 4th Foshan, 6th Suixi 1996 - 2017; WTC

- 98th Chongqing ? - 2008, 16th Yinchuan, 18th Lintao Mar 21.

- J-11A units: CTC - 21st Zhangjiakou ? - 2016; ETC - 41st Wuyishan Apr 12?; 86th Quzhou 2008-12; NTC - 1st Anshan ? - 2008; WTC - 98th Chongqing 2008, 111th Korla 2016.

- 1996: L-203 Gardeniya-F1UE jammer pods available. Two pods replace two R-73 in above loadouts.

- Apr 97: Three were lost and 14 others damaged when they were caught in a typhoon at Fujian airbase.

- 2000: R-27ER and R-27ET available.

- 2002: RVV-AE available. Can replace R-27 in above loadouts.

- 2004: Su-27SK and J-11 updated to N-001VE radar from this date. More than 60 converted by Dec 2006. Estimated KL-609A pods replace L-203.

- 25 May 14: First exercises using highway as runway.

**Su-30MKK, MK2 [Flanker G]****Fighter**

Man Rtn: 4.0/3.0      Damage Value: 35

Size/Signature: Medium/Medium      Bombsight: Ballistic

Countermeasures: 3rd Gen D      Inflight Refuel: P

Sensors: N-001VE radar, 2nd Gen RWR, OLS-30 (2nd Gen IRST and laser rf) linked to HMS

## Throttle Setting/Speed in knots

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	430	600	700
Med:	485	680	930
High:	485	760	1130
VHigh:	--	--	1130

Ceiling: 17300 meters      Engine Type: TF

Cruise Range: 1135 nmi      Int Fuel: 9640 kg

Ordnance Loadouts:      Payload: 8000 kg

Off Guns: 1 GSh-30-1 30mm (2.5)

- 6 RVV-AE, 2 R-73, 2 L-203 Gardeniya-F1UE pods

- 2 RVV-AE, 4 R-73, 2 L-203 Gardeniya-F1UE pods - QRA

- 2 R-73, 2 L-203 Gardeniya-F1UE pods and either:

- 6 KAB-500Kr or 6 Kh-29T or 6 Kh-31P

- 4 KAB-500Kr or 4 Kh-29T or 4 Kh-31P, KG-600 ECM pod

- 3 KAB-1500Kr, 2 RVV-AE

- 4 B-8M1 or 4 B-13, 4 RVV-AE

- 8 FAB-500 or 28 FAB-250 or 32 OFAB-100-120

- APK-9 pod, 2 Kh-59M, 2 RVV-AE, KG-600 (2004)

- 4 Kh-31P (2003), KL-700 ES pod (2015)

- 6 Kh-31A (Su-30MK2)

- 5 Kh-31A, KG-600 (Su-30MK2)

- 4 Kh-59MK, 2 RVV-AE, KG-600 (Su-30MK2, 2008)

**Remarks:** In Svc: Oct 02

Can engage two targets at once with RVV-AE.

- 2004?: L-203 replaced with KL-609A?

- PLAAF Su-30MK with N-001VE radar.

- Dec 00 - 03: 76 delivered to ETC 9th Wuhu 2002; STC - 54th Changsha 2003, 85th Fuzhou 2003.

- 2015: Operational with KG-600, KL-700.

- Sep 16: Fly long range escort sorties.

- 2018: Air Brigades - 9th, 85th in ETC; 54th in STC.

- PLANAF Su-30MK2 with N-001VEP radar, in service 2004.
  - Feb - Aug 04: 24 delivered to 10th ETCN at Feidong.
  - Apr 15: Operational with KG-600 and KL-700.
  - Oct 15: Operational with PL-12 replacing RVV-AE. Estimated PL-8B replacing R-73 at the same time.

### Su-35SK [Flanker E Variant 2]      Fighter

**Man Rtnng:** 5.0/3.0      **Damage Value:** 38  
**Size/Signature:** Medium/Small      **Bombsight:** Computing  
**Countermeasures:** 3rd Gen D      **Inflight Refuel:** P  
**Sensors:** N-035K Irbis-E radar, 2nd Gen RWR, OLS-35 (3rd IRST), TCS, laser rf/designator linked to HMS, laser warning system

#### Throttle Setting/Speed in knots

Altitude	Cruise	Full Mil	Reheat
Low:	460	630	756
Med:	460	720	1020
High:	460	850	1290
VHigh:	--	--	1290

**Ceiling:** 18000 meters      **Engine Type:** TF  
**Cruise Range:** 1360 nmi      **Int Fuel:** 11500 kg

**Additional Fuel**      **Fuel Wt.**      **Range Add.**  
 2000 L drop tank      1620 kg      275 nmi

**Ordnance Loadouts:**      **Payload:** 8000 kg

**Off Guns:** GSh-30-1 30mm (2.5)

- In all loadouts carries two L-265 Khibiny-M jammer pods on wingtips
- 2 RVV-SD, 2 RVV-MD (QRA)
- 8 RVV-SD, 2 RVV-MD
- 6 RVV-SD or 6 R-27R or 6 R-27ER, 4 RVV-MD
- 4 B-13 rocket pods, 4 RVV-AE

**Remarks:**      **In Svc:** 2017

Digital FBW controls with TVC engines. Small frontal RCS from frontal aspect 300°-060°. Can engage 4 targets with RVV-SD or 2 targets with R-27R or R-27ER. Drop tanks not confirmed in service. Have yet to be seen with other air to ground weapons.

- Deliveries: 4 on 25 Dec 16, 10 in 2017, 10 in 2018. 6th Brigade at Suixi in STC.
- 7 Feb 18: First sortie over South China Sea.
- 28 Apr 18: Declared fully operational.

### Tu-2 [Bat]

### Bomber

**Man Rtnng:** 2.0/1.5      **Damage Value:** 28  
**Size/Signature:** Small/Small      **Bombsight:** Ballistic

#### Throttle Setting/Speed in knots

Altitude	Cruise	Full Mil	Reheat
Low:	230	260	--
Med:	260	280	--
High:	260	295	--

**Ceiling:** 9500 meters      **Engine Type:** RP  
**Cruise Range:** 925 nmi      **Int Fuel:** 1590 kg  
**Ordnance Loadouts:**      **Payload:** 2000 kg

**Off Guns:** 2 ShVAK 20mm (1.3)

**Def Guns:** 3 UB 12.7mm in two dorsal, ventral positions (0.3)

- 1 FAB-1000M43 internally, 2 FAB-250 externally
- 2 FAB-500 or BRAB-500 externally
- 6 FAB-250, 4 internal, 2 externally
- 4 FAB-250 internally, 10 RS-132 externally
- Estimated 2 500 kg sea mines externally

**Remarks:**      **In Svc:** 1950 - 1982

- 1949-1952: 311 Tu-2, 29 Tu-2U trainers imported from Russia.
- Jun 50: 12th Regiment of 4th Mixed Brigade formed with 20 aircraft, 9 more in October.
- Oct 50 - May 51: Flown by 8th, 10th, 20th, 23rd, 25th Divisions.
- 1953: Some converted to reconnaissance.
- 1960: Three converted to Tu-2P night fighters with RP-5 radar and 2 NR-23 23mm guns (1.8).
- 19 Nov 60: 2 Tu-2P lost.
- Jan 64: 100 a/c remain.
- 1982: Retired.

### Tu-4 [Bull]

**Man Rtnng:** 0.5/0.5      **Damage Value:** 45  
**Size/Signature:** Large/Large      **Bombsight:** Ballistic  
**Sensors:** RBP-1 Kobalt-M

#### Throttle Setting/Speed in knots

Altitude	Cruise	Full Mil	Reheat
Low:	175	265	--
Med:	200	300	--
High:	200	300	--

**Ceiling:** 11200 meters      **Engine Type:** RP(S)

**Cruise Range:** 2570 nmi      **Int Fuel:** 18030 kg

**Ordnance Loadouts:**      **Payload:** 9072 kg

**Def Guns:** 2 NR-23 23mm each in two dorsal, two ventral, tail turrets (1.4)

- 40 FAB-250M43 bombs
- 20 FAB-500M43 bombs
- 4 FAB-2000M43 or 8 FAB-1000M43 bombs
- 2 WZ-5 recon drones

**Remarks:**      **In Svc:** Jun 53 - 1988

- 1953: Ten delivered.
- 1960: Two Tu-4 trainers delivered for nuclear training.
- 1960: Four converted to Tu-4P night fighters, Kobalt radar moved to dorsal turret and poor IR sight, bomb bay converted to command bay.
- 1969 - 71: One converted to KJ-1 AEW with TP engines, Type 843 radar, Gen 2 Manual combat system. Range 2340 nmi. Not taken into service. Canceled 1979.
- 1969: One converted to a transport aircraft.
- 1970: One converted to carry 2 WZ-5 drones.
- 1970 - 73: Eleven fitted with WJ-6 turboprop engines.
- 1971: Retired from bomber role. Used in secondary roles.
- 1974-76: Four converted for ELINT. 23mm guns removed.
- 1977: Three aircraft converted to escort jammer role, estimated clutter rating 10, 23mm guns removed.
- 1978: Several converted to carry WZ-5 drone. Operational November 1981. Used over Vietnam in 1986.
- 1988: Retired.

### Tu-154M/D

**Man Rtnng:** 0.5/0.5      **Damage Value:** 46  
**Size/Signature:** Large/Large      **Bombsight:** --

#### Throttle Setting/Speed in knots

Altitude	Cruise	Full Mil	Reheat
Low:	460	480	--
Med:	460	490	--
High:	460	505	--

**Ceiling:** 11900 meters      **Engine Type:** TF

**Cruise Range:** 3030 nmi      **Int Fuel:** 40255 kg

**Remarks:**      **In Svc:** 1995

One ex-civil Tu-154M fitted with KZ-900 ELINT.

- Late 00: Fitted with SLAR replacing ELINT.
- 2006: Further eight delivered with SAR from this date.

### TYW-1

**Man Rtnng:** 0.0      **Damage Value:** e11  
**Size/Signature:** VSmall/VSmall      **Bombsight:** --

**Sensors:** EO sensor, laser designator

#### Throttle Setting/Speed in knots

Altitude	Cruise	Full Mil	Reheat
Low:	e80	105	--
Med:	e80	105	--

**Ceiling:** 7500 meters

**Engine Type:** Prop

**Cruise Range:** e2720 nmi      **Int Fuel:** ? kg

**Ordnance Loadouts:**      **Payload:** 370 kg

- 4 underwing HP

**Remarks:**      **In Svc:** 2017?

In service with PLA. Max TOW 1500 kg. Fitted with satellite control link. Operates from runway.

- 2017: Possibly export only. Based on BZK-005.

### Bomber

**Wing Loong I**

Man Rtnge: 0.0      Damage Value: e9

Size/Signature: VSmall/VSmall

Bombsight: --

Sensors: 2nd Gen FLIR, laser designator

*Throttle Setting/Speed in knots*

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	e90	151	--
Med:	e90	151	--

**Ceiling:** 5000 meters**Engine Type:** IP**Cruise Range:** 1835 nmi**Int Fuel:** 270 kg**Ordnance Loadouts:****Payload:** 200 kg

- 2 AR-1 or 2 LS-6-100 or 2 AKD-10

**Remarks:** In Svc: 2014

'Flying Dragon'. Yilong-1 and WD-1K. Clone of US MQ-1 Predator. Fitted with 135 nmi LOS and satellite control links. Operates from runway.

- Pterosaur I: Export from 2013 to Egypt (10 2017-18), Indonesia (4 2018), Pakistan (5 2015), Saudi Arabia (15 2015-17), Kazakhstan (3 2016). Fitted with LOS control link only.
- Pterodactyl I: Export to UAE (25 2013-17) and Uzbekistan (5 2014) with satellite control link.
- GJ-1: Gong-Ji Wu-Ren-Ji 1 or attack UAV. At least 60 in service with PLAAF.
- 2018: 52 GJ-1 reported in service, further 100 exported.

**Attack UAV****Attack UAV****WZ-5**

Man Rtnge: 0.0      Damage Value: 10

Size/Signature: VSmall/VSmall

Bombsight: None

Sensors: Cameras (not search sensors)

*Throttle Setting/Speed in knots*

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
VHigh:	440	--	--

**Ceiling:** 17500 meters**Engine Type:** TJ**Cruise Range:** 1150 nmi**Int Fuel:** 620 kg**Remarks:****In Svc:** 1981

Wu Zhen drone. "DR-5" in English. Copy of US AQM-34N Firebee Ryan Model 147 shot down before 1969. Launched from Medium altitude by aircraft, recovered by parachute. Nine drones delivered. Export version would have been Chang Hong-1 (CH-1). Day cameras only.

- 1970: Two or three Firebee drones repaired. One Tu-4 converted to carry 2 drones.
- 1971-76: Four built for testing.
- 1980-1986: Design finalized and six delivered to the PLAAF.
- 1986: Used in Sino-Vietnam War.
- 1991: Y-8 converted to Y-8E drone carrier can carry 2. Another Y-8 converted later.

**Recon Drone****Wing Loong ID****Attack UAV****Attack UAV**

Man Rtnge: 0.0      Damage Value: e9

Size/Signature: VSmall/VSmall

Bombsight: --

Sensors: 2nd Gen FLIR, laser designator

*Throttle Setting/Speed in knots*

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	e90	124	--
Med:	e90	124	--

**Ceiling:** 7500 meters**Engine Type:** IP**Cruise Range:** 2680 nmi**Int Fuel:** ? kg**Ordnance Loadouts:****Payload:** 400 kg

- 4 underwing HP

**Remarks:** In Svc: 2020?

All-composite airframe. MALE, endurance 35 hours. 32 ordered by Egypt. Estimated as 108 nmi LOS control link. Operates from runway.

- 23 Dec 18: Maiden flight.

**Wing Loong II****Attack UAV****Attack UAV**

Man Rtnge: 0.0      Damage Value: e14

Size/Signature: Small/Small

Bombsight: --

Sensors: SAR radar (Not a search sensor), 2nd Gen FLIR, laser

designator

*Throttle Setting/Speed in knots*

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	180	200	--
Med:	180	200	--
High:	--	200	--

**Ceiling:** 9144 meters**Engine Type:** TP**Cruise Range:** 3060 nmi**Int Fuel:** 2035 kg**Ordnance Loadouts:****Payload:** 480 kg

- 8 AKD-10

- 4 AKD-10, 8 AKD-9

**Remarks:** In Svc: 2018

Fitted with 108 nmi LOS and satellite control links. PLAAF designation Gongjii-2 (Attack-2 or GJ-2). Endurance clean 20 hours. Shown 2015. 4200 kg gross wt. Exported with LOS control link only to Egypt (ordered 2018), Pakistan, Saudi Arabia (15 2017-18) and UAE (15 2017-18).

- Dec 19: ELINT version first seen, no weapons.

**WZ-6B**

Man Rtnge: 0.0      Damage Value: ?

Size/Signature: VSmall/VSmall

Bombsight: None

Sensors: 3rd Gen FLIR, possibly 3rd Gen ES

*Throttle Setting/Speed in knots*

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	108	124	--
Med:	108	124	--

**Ceiling:** 5000 meters**Engine Type:** IP**Cruise Range:** 735 nmi**Int Fuel:** ? kg**Remarks:****In Svc:** ?

VTOL UAV. Fitted with 108 nmi LOS control link. Service status unknown.

**WZ-7 Xiang Long****Recon UAV****Recon UAV**

Man Rtnge: 0.0      Damage Value: e17

Size/Signature: Small/VSmall

Bombsight: --

Sensors: UAV Advanced Radar, TJN-906, JSTIDS data links, 3rd

Gen ES?

*Throttle Setting/Speed in knots*

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	380	405	--
Med:	380	405	--
High:	380	405	--
VHigh:	380	405	--

**Ceiling:** 18000 meters**Engine Type:** TJ**Cruise Range:** 3215 nmi**Int Fuel:** ? kg**Remarks:****In Svc:** 2017

"Sky Shadow." HALE, operates from runway, controlled by satellite control link. Also known as EA-03 and Soaring Dragon. Flown by PLAAF. Used for ASBM target acquisition.

- 2018: At least 8 in service. Based at Lingshui with STCN.
- 24 Jul 19: One shadows USS *Antietam* during Taiwan Strait transit.

- 2020: At least 13 in service.

**WZ-8****Recon Drone**

Man Rtnge: 0.0      Damage Value: e15

Size/Signature: Small/VSmall

Bombsight: --

Sensors: UAV Advanced Radar

*Throttle Setting/Speed in knots*

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
VHigh:	1890	--	--

**Ceiling:** 40000 meters**Engine Type:** Rocket**Cruise Range:** 810 nmi**Int Fuel:** ? kg**Remarks:****In Svc:** 2019?

Drone. Launched by 10th Bomber Regiment H-6N or H-6MW, recovers on runway. Reduced RCS.

**Y-5 [Colt]**

Man Rtnng: 1.5/1.0      Damage Value: 12

Size/Signature: Small/Small      Bombsight: None

Throttle Setting/Speed in knots

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	100	140	--
Med:	110	135	--

Ceiling: 4400 meters

Cruise Range: 640 nmi

Remarks:

STOL biplane. Can carry 12 troops or 10 paratroops or 1250 kg. License built An-2. Exported to Albania, Nepal, North Korea, North Vietnam.

- Y-5C: PLANAF float plane. 11 delivered 1964 - 65.
- Y-5ECM: Four aircraft converted to escort jammers in 1977, clutter rating 8.
- Oct 18: First flight of FH-98 cargo drone converted from Y-5B. Probably flown by civil company only. Carries 1500 kg cargo.

**Transport****Y-7 [Coke]**

Man Rtnng: 0.5/0.5      Damage Value: 34

Size/Signature: Medium/Medium      Bombsight: --

Throttle Setting/Speed in knots

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	243	300	--
Med:	243	300	--
High:	243	300	--

Ceiling: 8400 meters

Cruise Range: 1375 nmi

Remarks:

Reverse engineered An-24T. Military transport with single side door for 33 paratroops or 37 troops or 4600 kg cargo.

- Y-7G: Transport version used by PLAAF SAR and PLANAF transport. Can carry 5500 kg cargo or 52 passengers. In service late 1990s.
- 2019: 47 PLAAF, 17 PLANAF, 4 PLAGF.

**Transport****Y-7H [Curl]**

Man Rtnng: 0.5/0.5

Size/Signature: Medium/Medium      Damage Value: 35

Bombsight: --

Throttle Setting/Speed in knots

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	237	272	--
Med:	237	272	--
High:	237	272	--

Ceiling: 8100 meters

Cruise Range: 1240 nmi

Remarks:

Reverse engineered An-26. Military transport with rear ramp. Can carry for 30 paratroops or 40 troops or 2400 kg cargo. Four used by PLAGF.

**Transport****Y-8 [Cub]**

Man Rtnng: 0.5/0.5

Size/Signature: Large/Large      Damage Value: 61

Bombsight: --

Throttle Setting/Speed in knots

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	300	380	--
Med:	300	400	--
High:	300	420	--

Ceiling: 10500 meters

Cruise Range: 2365 nmi

Additional Fuel

9850 L auxiliary fuel

Engine Type: TP  
Int Fuel: 13445 kg

Fuel Wt.      Range Add.

7980 kg      1655 nmi

Remarks:

License produced An-12B [Cub]. Can carry 96 troops or 60 paratroops or 12500 kg cargo. Can increase cargo to 20,000 kg with reduced internal fuel. Cargo bay is unpressurized, limited to Medium altitude with troops carried. Underfloor auxiliary fuel can be filled. Reduce payload if used.

**Transport**

• Y-8: Stats as above.

• Y-8A: Modified ramp and fuselage to carry partly disassembled S-70C-2 helicopter. In service 1987.

• Y-8B: Civilian Y-8, payload 14000 kg, in service 1993.

• Y-8C: Pressurized cargo bay. Lacks provision for auxiliary fuel. Can carry 92 paratroops. In service 1994.

• Y-8D: Civilian Y-8C with Western avionics. Exported to Myanmar, Sri Lanka and Sudan.

• Y-8E: Carries two WZ-5 drones under wings. In service 1991. One converted 1991, then another later.

• May 09: First Y-8C delivered to PLANAF.

• 2019: 69 PLAAF, 13 PLANAF, 4 Y-8C with PLAGF.

**Y-8 Gao Xin**

Man Rtnng: 0.5/0.5      Damage Value: 61

Size/Signature: Large/Large      Bombsight: --

Throttle Setting/Speed in knots

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	300	380	--
Med:	300	400	--
High:	300	420	--

Ceiling: 10500 meters

Cruise Range: 1895 nmi

Remarks: In Svc: see Remarks

'High New' specialized versions based on Y-8 with pressurized cargo bays, provision for auxiliary fuel probably removed.

• Y-8CB [Maid]: Gao Xin 1 COMINT and communications jammer. Five with PLAAF from 2005.

• Y-8DZ: Updated Y-8CB. At least two ELINT with PLAAF from 2019.

• Y-8G [Mouse]: Gao Xin 3 PLAAF standoff radar jammer (clutter rating 15) covers 030°-150° and 210°-330°, 3rd Gen ES. Eight in service with Luzhou-Lantian from 2005, one lost Jan 18.

• Y-8JB [Mace]: Gao Xin 2 PLANAF ELINT. Four from 2004.

• Y-8T: Gao Xin 4 PLAAF command post. Five in service early 2000s.

• Y-8XZ: Gao Xin 7 PLAAF psychological warfare and communications jammer. At least two in service 2007.

• 2015: Y-8JB fitted with 3rd Gen ES.

• 2018: ETCN - Y-8T; NTCN - Y-8CB, Y-8G; STCN - Y-8CB, Y-8G, Y-8XZ; NTCN &amp; STC - Y-8JB.

**Y-8FQ [Maid]**

Man Rtnng: 0.5/0.5      Damage Value: 66

Size/Signature: Large/Large      Bombsight: Ballistic

Countermeasures: 3rd Gen D      Inflight Refuel: --

Sensors: KQ-200 radar, 3rd Gen FLIR, MAD, Type 605 acoustic processor with up to 100 SQ-4 and SQ-5 sonobuoys, est. 3rd Gen ES, estimated TJN-906 TDL

Throttle Setting/Speed in knots

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	300	380	--
Med:	300	400	--
High:	300	420	--

Ceiling: 10400 meters

Cruise Range: 2565 nmi

Ordnance Loadouts: Payload: 3500 kg (est)

• 3 Yu-7K torpedoes in each of two bays

• 6 KAB-250-100PL guided DC in each of two bays (2020)

• 3 500 kg mines in each of two bays

Remarks: In Svc: 2015

Also known as Gao Xin 6 and KQ-200.

• 2015: At least eight with STCN at Lingshui. FOL at Qionghai from 2020.

• 2018: At least six based at Dachang ETCN.

• 2019: At least four with 6th Regiment Dalian, NTCN.

• Apr 20: First deployment to Fiery Cross.

• May 20: Guided DC available.

**Various**

**Y-8J [Mask]**

<b>Man Rtngr:</b> 0.5/0.5	<b>Damage Value:</b> 66		
<b>Size/Signature:</b> Large/Large	<b>Bombsight:</b> --		
<b>Counterm:</b> 2nd Gen D	<b>Inflight Refuel:</b> N		
<b>Sensors:</b> Skymaster radar, Gen 2 Manual combat system, HN-900 TDL, 2nd Gen RWR			
<i>Throttle Setting/Speed in knots</i>			
<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	297	380	--
Med:	297	376	--
High:	297	351	--
<b>Ceiling:</b> 10400 meters	<b>Engine Type:</b> TP		
<b>Cruise Range:</b> 2565 nmi	<b>Int Fuel:</b> 22900 kg		
<b>Remarks:</b>	<b>In Svc:</b> 2001		

Three new plus one Y-8X conversion. Based at Laiyang with PLANAF NTCN.

**Y-8X [Maid]**

<b>Man Rtngr:</b> 0.5/0.5	<b>Damage Value:</b> 66		
<b>Size/Signature:</b> Large/Large	<b>Bombsight:</b> --		
<b>Counterm:</b> 1st Gen D	<b>Inflight Refuel:</b> N		
<b>Sensors:</b> APS-504(v)3 radar, 1st Gen RWR, cameras (not search sensors)			
<i>Throttle Setting/Speed in knots</i>			
<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	297	400	--
Med:	297	376	--
High:	297	351	--
<b>Ceiling:</b> 10400 meters	<b>Engine Type:</b> TP		
<b>Cruise Range:</b> 2565 nmi	<b>Int Fuel:</b> 22900 kg		
<b>Ordnance Loadouts:</b>	<b>Payload:</b> 20000 kg		
<b>Remarks:</b>	<b>In Svc:</b> 1986		

'Xun' or surveillance. Not fitted with data link. Possibly fitted with sonobuoys and acoustic processor. Also known as Y-8MPA.

- 1983 - 85: Four delivered to PLANAF NTCN, based at Dalian.
- Late 90s: One converted to Y-8J, listed separately.
- 2011: Two fitted with 2nd Gen FLIR, KLC-9 SLAR radar (not a search sensor), 3rd Gen ES, 2nd Gen decoys. Possibly known as Y-8XG.

**Y-9 [Claw?]**

<b>Man Rtngr:</b> 0.5/0.5	<b>Damage Value:</b> 68		
<b>Size/Signature:</b> Large/Large	<b>Bombsight:</b> --		
<b>Counterm:</b> 2nd Gen D	<b>Inflight Refuel:</b> N		
<b>Sensors:</b> 2nd Gen FLIR, 2nd Gen RWR			
<i>Throttle Setting/Speed in knots</i>			
<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	295	350	--
Med:	295	350	--
High:	295	350	--
<b>Ceiling:</b> 10400 meters	<b>Engine Type:</b> TP		
<b>Cruise Range:</b> 2805 nmi	<b>Int Fuel:</b> 23000 kg		
<b>Remarks:</b>	<b>In Svc:</b> 2012		

Stretched version of Y-8F. Equivalent to US C-130J. Can carry 106 troops or 98 paratroops or 72 stretchers or 9 pallets or 1 IFV or 3000 kg cargo, can increase cargo to 20,000 kg with reduced fuel.

- **Y-9YL:** At least two PLAAF medivac aircraft from 2019.
- 2012: Enters service with WTC 120th Regiment at Chengdu.
- Dec 16: Enters service with PLAGF PLANAF in 2020.
- 2019: PLAAF - 15 a/c with 10th Air Regiment; PLAGF - 2 a/c. WTC 11th Air Regiment commences conversion.
- Jun 20: First delivered to PLANAF. About 30 delivered.

**AEW****Y-9 Gao Xin**

<b>Man Rtngr:</b> 0.5/0.5	<b>Damage Value:</b> 68
<b>Size/Signature:</b> Large/Large	<b>Bombsight:</b> --
<b>Counterm:</b> 2nd Gen D	<b>Inflight Refuel:</b> N

**Various**

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	295	350	--
Med:	295	350	--
High:	295	350	--

<b>Ceiling:</b> 10400 meters	<b>Engine Type:</b> TP
<b>Cruise Range:</b> 2295 nmi	<b>Int Fuel:</b> 23000 kg

**Remarks:** In Svc: see Remarks

'High New' specialized versions based on Y-9 transport.

**Y-12II****Transport**

<b>Man Rtngr:</b> 0.5/0.5	<b>Damage Value:</b> 20
<b>Size/Signature:</b> Small/Small	<b>Bombsight:</b> None

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	130	158	--
Med:	130	177	--

<b>Ceiling:</b> 7000 meters	<b>Engine Type:</b> TP
<b>Cruise Range:</b> 695 nmi	<b>Int Fuel:</b> 1230 kg

**Remarks:** In Svc: 1985?

STOL. Can carry 17 troops or 1200 kg. Can increase cargo to 1700 kg with reduced fuel load. Replacement for Y-5.

**Y-20A Kunpeng****Transport**

<b>Man Rtngr:</b> 0.5/0.5	<b>Damage Value:</b> 93
<b>Size/Signature:</b> Large/Large	<b>Bombsight:</b> --

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	350	450	--
Med:	430	495	--
High:	430	495	--

<b>Ceiling:</b> 13000 meters	<b>Engine Type:</b> TF
<b>Cruise Range:</b> 3900 nmi	<b>Int Fuel:</b> 77500 kg

**Remarks:** In Svc: Jul 16

Range is with max payload. Can carry Type 99 tank or 2 IFV or 300 troops or 110 paratroops or 40000 kg cargo. Fitted with enhanced vision system (EVS) - 2nd Gen FLIR used for landing and takeoff.

- Aug 20: Eight reported in service with CTC 37th replacing Y-8C.
- May 21: First Y-20U tanker delivered to PLAAF 13th Division, possibly at Kaifeng. Possibly in service 2022.
- Aug 21: At least 11 Y-20A with 37th Air Regiment.

**Yaoying II**

Man Rtn: 0.0

Size/Signature: VSmall/VSmall

Sensors: 2nd Gen FLIR, laser designator

**Recon/Attack UAV**

Damage Value: e9

Bombsight: --

Throttle Setting/Speed in knots

Altitude	Cruise	Full Mil	Reheat
Low:	100	124	--
Med:	100	124	--

Ceiling: 7500 meters

Cruise Range: 1360 nmi

Ordnance Loadouts:

- 4 Blue Arrow 7
- 2 AKD-9
- Poss SAR radar recce pod on C/L

Remarks:

Engine Type: Prop

Int Fuel: ? kg

Payload: ? kg

In Svc: --

'Foal Eagle' or 'Harrier Hawk'. Poss for export. 1 hp per wing and on C/L. Endurance 16 hours. Controlled by 108 nmi control link, operates from runway.

• 3 Jul 18: First flight. Current status unknown.

**Z-5**

Man Rtn: 0.5/0.5

Size/Signature: Small/Small

**Transport**

Damage Value: 14

Bombsight: Manual

Throttle Setting/Speed in knots

Altitude	Cruise	Full Mil	Reheat
Low:	65	94	--
Med:	65	108	--

Ceiling: 5500 meters

Cruise Range: 160 nmi

Additional Fuel

Engine Type: RP

Int Fuel: 780 kg

Fuel Wt. Range Add.

500 L cabin tank

405 kg 120 nmi

Remarks:

In Svc: 1963 - 90s

Helicopter. License-built Mi-4. Can carry 16 troops or 1000 kg cargo externally or 1300 kg slung load. Replaced by Z-9.

• Sep 63 - 79: 545 delivered - 437 military, possibly 5 VIP, 13 SAR with rescue hoist, 40 Albania, 50 North Korea.

**Z-6**

Man Rtn: 0.5/0.5

Size/Signature: Small/Small

**Transport**

Damage Value: 18

Bombsight: None

Throttle Setting/Speed in knots

Altitude	Cruise	Full Mil	Reheat
Low:	e90	104	--
Med:	e90	104	--

Ceiling: 3500 meters

Cruise Range: 245 nmi

Remarks:

Engine Type: TS

Int Fuel: e900 kg

In Svc: --

Helicopter. Improved Z-5. Can carry 12 troops or 1200 kg.

• 1979: Canceled due to single engine lacking sufficient power.

**Z-8**

Man Rtn: 2.0/1.0

Size/Signature: Small/Small

**SAR/Transport**

Damage Value: 23

Bombsight: None

Throttle Setting/Speed in knots

Altitude	Cruise	Full Mil	Reheat
Low:	135	145	--
Med:	135	145	--

Ceiling: 3150 meters

Cruise Range: 310 nmi

Ordnance Loadouts:

Engine Type: TS

Int Fuel: 3175 kg

Payload: 11800 kg

• 2 HF-14 rocket pods (Z-8JH Indian Ocean)

Remarks:

In Svc: 1989

Helicopter. Amphibious. Can carry 39 troops or 27 paratroopers or 4000 kg payload or 5000 kg slung load. License-built French SA.321JA Super Frélon. Z-8 and Z-8A use WZ-6 engines, poor performance

and high maintenance. Remainder WZ-6C engines with standard maintenance, 4500 meters ceiling.

• Z-8: Eight PLANAF transports delivered by 1997. Production cut short due to poor quality. In service 1989.

• Z-8A: Nine PLAGF transports. Production cut short due to poor quality and engine performance. In service 1992.

• Z-8B: PLAGF transport with 2nd Gen decoys. No longer amphibious as floats removed. Around 85 delivered. In service 2011.

• Z-8C/CJ: PLANAF transport with new engines, 2nd Gen FLIR.

• Z-8J: PLANAF transport, two delivered. In service 2002. Four Z-8JH medivac delivered with 2nd Gen FLIR. At least one Z-8JH armed for Indian Ocean patrols.

• Z-8K: PLAAF SAR/transport with 2nd Gen FLIR, 2nd Gen RWR, 2nd Gen decoys. 24 delivered. In service 2005.

• Z-8KH used in Hong Kong with 3rd Gen decoys from 2010, four delivered.

• Z-8KA: PLAAF CSAR with 2nd Gen FLIR, 2nd Gen RWR, 2nd Gen decoys. In service 2009, 12 delivered.

• Z-8S: PLANAF SAR with 2nd Gen FLIR. In service 2004, four delivered.

• 6 Z-8J delivered in 2005, ship-borne, JA for transportation, JH for rescue.

• Z-8WJS: PAP variant based on Z-8B. In service 2009.

• 2015: Some Z-8B fitted with floats for amphibious operations.

• 2018: Z-8, Z-8A and Z-8B retired from this date.

• Jan 20: SOF Z-8B transports seen with laser warning system and 2nd Gen RWR.

• 2020: Marine Aviation Brigade formed at Zhucheng, NTC with Z-8C.

**Z-9B/W**

Man Rtn: 2.5/2.0

Size/Signature: Small/Small

**Transport/Attack**

Damage Value: 12

Bombsight: None

Throttle Setting/Speed in knots

Altitude	Cruise	Full Mil	Reheat
Low:	135	160	--
Med:	135	160	--

Ceiling: 4570/4940 meters

Cruise Range: 265/250 nmi

Ordnance Loadouts:

Engine Type: TS

Int Fuel: 895 kg

Payload: 800 kg

• 4 HJ-8 missiles

• 2 PC-2A 23mm or PC-1AY 12.7mm gun pods

• 2 HF-7D or HF-16 or HF-25 rocket pods (Z-9G, Z-9W, Z-9WA, Z-9WZ)

• 8 AKD-9 or 8 PL-90 (Z-9WZ)

In Svc: 1994

Helicopter. License-built AS.365. Transports can carry 8 troops or 1600 kg slung load. Use first ranges for Z-9A/B/E, second for Z-9W series.

• Z-9A: Transport version used by PLAGF.

• Z-9B: Transport version used by PLAAF. Eight for the Army in 1994, twelve for the Hong Kong Garrison in 1996.

• Z-9E: Exports to Bolivia, Ghana, Laos, Mauritania, Mali, Namibia, Zambia.

• Z-9G: Variant for the Army, adds rocket capability. In service 1998.

• Z-9W: Attack version with 80 delivered in mid 1990s. Exported as Z-9WE to Cameroon and Kenya.

• Z-9WA: Night attack version with 2nd Gen FLIR, NVG, 2nd Gen RWR, 2nd Gen decoys. In service 2002.

• Z-9WZ: As Z-9WA reconnaissance variant with laser designator. In service with PLAGF 2005, PLAAF 2007.

**Z-9C/D Dolphin [Haitun]**

Man Rtn: 2.5/2.0

Size/Signature: Small/Small

**ASW/Attack**

Damage Value: 12

Bombsight: None

Sensors: KLC-1 radar, SKD-95 dipping sonar, Type 605 acoustic processor, 12 SQ-4, 4 SQ-3 sonobuoys, est. YJN-902 TDL

Throttle Setting/Speed in knots

Altitude	Cruise	Full Mil	Reheat
Low:	135	160	--
Med:	135	160	--

## China's Navy

<b>Ceiling:</b> 4300 meters	<b>Engine Type:</b> TS
<b>Cruise Range:</b> 265 nmi	<b>Int Fuel:</b> 845 kg
<b>Ordnance Loadouts:</b>	<b>Payload:</b> 800 kg
• 2 A.244 torpedoes (AS 565SA)	
• 2 Yu-7 torpedoes (Z-9C, Z-9DF)	
• PC-1AY 12.7mm gun pod, 57mm rocket pod (Z-9CG)	
• 4 YJ-9 (Z-9D)	
<b>Remarks:</b>	<b>In Svc:</b> 1989/2003
Helicopter. License-built AS.365N Dauphin. Typically carries one torpedo on search missions, two for vectored attack. Two imported from France, 48 assembled in China (28 Z-9, 20 Z-9A). Some used by Air Force and civil aviation, two converted to communications aircraft for the Army, 2 for Army for artillery correction.	
• <b>AS.365SA:</b> Eight delivered with ORB-32 radar and HS 12 dipping sonar, in service 1989.	
• <b>Z-9C:</b> ASW version. In service 2003 with NTCN and STCN only. Exported to Pakistan as <b>Z-9EC</b> .	
• <b>Z-9CG:</b> Modified Z-9C with roof 3rd Gen FLIR added. Used for patrols in Indian Ocean.	
• <b>Z-9D:</b> Attack version with ZLC-3B radar, 2nd Gen RWR, estimated TJN-906 datalink. Not fitted with dipping sonar. Some fitted with 2nd Gen FLIR. ETCN in 2012?	
• <b>Z-9DF:</b> Z-9C replacement with new radar (use KLC-3B), Est. Type 605 acoustic processor, TJN-906 datalink and SKD-MF (designation unknown) dipping sonar. In service March 2021.	
• <b>Z-9F:</b> Four for the PAP.	
• <b>Z-9L:</b> Training version with ASW capability removed.	
• <b>Z-9S:</b> Two SAR for Navy plus four for Coast Guard from 2017. Fitted with ZLC-3B radar, 2nd Gen FLIR and rescue hoist.	
• Improved <b>Z-9E</b> attack and <b>Z-9F</b> ASW possibly in development.	
• 2008: Some Z-9C fitted with door mgs for anti-piracy role off Somalia.	
• Mar 15: Z-9C trials with the new SKD-MF dipping sonar that is a copy of the Plessey Cormorant.	
• 2019: 24 Z-9C, 14 Z-9D, 6 Z-9S delivered by this date.	

**Z-10 Pi Li Huo** **Attack**

<b>Man Rtngr:</b> 4.0/3.5	<b>Damage Value:</b> 19		
<b>Size/Signature:</b> Small/Small	<b>Bombsight:</b> Advanced		
<b>Counterme:</b> 3rd Gen J&D	<b>Inflight Refuel:</b> N		
<b>Sensors:</b> 3rd Gen RWR (ES), Laser Warning system, HMS, EO system with LLLTV, 2nd Gen FLIR, laser rf and designator. NVG compatible.			
<i>Throttle Setting/Speed in knots</i>			
<b>Altitude</b>	<b>Cruise</b>	<b>Full Mil</b>	<b>Reheat</b>
Low:	130	160	--
Med:	130	160	--
<b>Ceiling:</b> 6400 meters	<b>Engine Type:</b> TS		
<b>Cruise Range:</b> 300 nmi	<b>Int Fuel:</b> e1460 kg		
<b>Additional Fuel</b>	<b>Fuel Wt.</b>	<b>Range Add.</b>	
450 L drop tanks (est.)	365 kg	110 nmi	
<b>Ordnance Loadouts:</b>	<b>Payload:</b> 1500 kg		
Off Guns:	PX-10 23mm in chin turret (1.2)		
• 2 HF-7D rocket pods, 8 AKD-9 or 8 AKD-10 or 8 PL-90			
• 2 drop tanks, 8 AKD-9 or 8 AKD-10 or 8 PL-90 or 2 HF-7D			
• 2 drop tanks, 4 AKD-9 or 4 AKD-10 or 4 PL-90, 1 HF-7D			
• 4 LJ-21, LJ-21 Guidance Pod (2020)			
<b>Remarks:</b>	<b>In Svc:</b> Oct 10		
Helicopter. Name means "Fierce Thunderbolt." Antitank mission with secondary air-to-air capability. Designed for China by Kamov bureau as Project 941, with assistance from Agusta/Westland and Eurocopter on planned "civilian" helicopter. Armored cockpit, engines, fuel. Uses HMS during day and NVG at night.			
• Mar 14: Maritime training commences on Type 072A LST. Type 071 training in Jan 2016.			
• Jul 15: Z-10K enters service with PLAAF Airborne units. Improved engines, 3rd Gen FLIR.			
• 2018: Z-10ME displayed at Zhuhai 2018 air show with IR suppression. Some Z-10A and Z-10H fitted with additional armor.			
• Jun 20: Trials with new guided missile (AKD-10A?).			

- Sep 20: Variant seen with upwards facing engine exhausts, estimated as VSmall IR signature.

**Z-11J** **Light Utility**

<b>Man Rtngr:</b> 2.5/2.0	<b>Damage Value:</b> 8
<b>Size/Signature:</b> Small/Small	<b>Bombsight:</b> 3.5/3.0

*Throttle Setting/Speed in knots*

<b>Altitude</b>	<b>Cruise</b>	<b>Full Mil</b>	<b>Reheat</b>
Low:	120	150	--
Med:	120	150	--

**Ceiling:** 5240 m **Engine Type:** TS

**Cruise Range:** 225 nmi **Int Fuel:** 423 kg

**Ordnance Loadouts:** **Payload:** ?

**Remarks:** **In Svc:** 1998

Helicopter. Based on Eurocopter AS.305B Ecureuil. Training version of civilian Z-11 light utility helicopter. Thirty-six ordered by PLA for training (1998 - 2003).

- **Z-11W** is armed variant. Not produced.

- 4 HJ-8 ATGM

- 2 PC-1AY 12.7mm gun pods

- 2 57mm rocket pods

- **Z-11WA** is scout version. Not produced. Roof-mounted TV/IIR sight, NVG cockpit.

- **Z-11WB:** Armed variant with 4 HJ-8s, 2 PL-90, rocket or gun pods, EO sensor. Announced in 2015. Not purchased by PLA.

- **Z-11J:** Civilian police version.

**Z-15** **Medium Utility**

<b>Man Rtngr:</b> 2.5/2.0	<b>Damage Value:</b> 16
<b>Size/Signature:</b> Small/Small	<b>Bombsight:</b> --

*Throttle Setting/Speed in knots*

<b>Altitude</b>	<b>Cruise</b>	<b>Full Mil</b>	<b>Reheat</b>
Low:	140	170	--
Med:	140	170	--

**Ceiling:** 6000 m **Engine Type:** TS

**Cruise Range:** 475 nmi **Int Fuel:** 2120 kg

**Remarks:** **In Svc:** 2015

Helicopter. License-built Eurocopter EC.175. Joint Sino-French development. To replace Chinese Z-8, Mi-8/17, Z-9, Sikorsky S-70s. Max slung load 3000 kg. Probably replaced by Z-20 for military service. Domestic civil version is AC352.

- 2015: EC.175 renamed H175.

- 2020: Only PRC user is Hong Kong Government Flying Service, with seven used for SAR.

**Z-18A** **Transport**

<b>Man Rtngr:</b> 2.0/1.0	<b>Damage Value:</b> 23
<b>Size/Signature:</b> Med/Med	<b>Bombsight:</b> --

**Counterme:** 3rd Gen D **Inflight Refuel:** N

**Sensors:** 2nd Gen FLIR, 2nd Gen RWR

*Throttle Setting/Speed in knots*

<b>Altitude</b>	<b>Cruise</b>	<b>Full Mil</b>	<b>Reheat</b>
Low:	130	180	--
Med:	130	180	--
High:	--	135	--

**Ceiling:** 8000 meters **Engine Type:** TS

**Cruise Range:** 380 nmi **Int Fuel:** 3800 kg

**Remarks:** **In Svc:** 2012

Helicopter. Being tested on Tibetan plateau in Dec 2014. Can carry 27 troops or 5000 kg slung load. Based on Z-18, although PLAGF retain Z-8 names.

- **Z-8G:** PLAGF transport. In service early 2018 replacing Z-8A/B.
- **Z-8L:** Wide fuselage PLAGF transport. Possibly fitted with 3rd Gen IR jammers, laser warning system. In service 2020.

- **Z-8AWJ:** PAP transport version.

- 2012 - 13: Three PLANAF **Z-18 Bai Lu** (White Heron) delivered.

- 2017: Two Z-18S enter service with Coast Guard. Fitted with 2nd Gen FLIR and rescue winch.

- Mar 21: Some Z-8G fitted with S(1) 12.7mm door mg and laser warning system.

**Z-18F Haiying/Z-18J Haibianfu**

**Man Rtngr:** 2.0/1.0  
**Size/Signature:** Med/Med  
**Counterme:** 3rd Gen D

**Sensors:** Z-18F radar, SKD-MF (designation unknown) medium frequency dipping sonar, Type 605 acoustic processor with 30 SQ-3 and SQ-4 sonobuoys, 3rd Gen FLIR, 2nd Gen RWR, est DTS-03 TDL

*Throttle Setting/Speed in knots*

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	130	180	--
Med:	130	180	--

**Ceiling:** 3150 m  
**Cruise Range:** 485 nmi  
**Ordnance Loadouts:**

- 4 Yu-7 torpedoes (Z-18F)
- 2 YJ-9 (Z-18F)

**Remarks:** *In Svc:* 2014?

Helicopter. Improved Z-8F-100, similar to civil AC313. Glass cockpit, improved engines and airframe.

• **Z-18F** Haiying (Sea Eagle) ASW helicopter, stats as above. May have a SKD-LMF (designation unknown) dipping sonar that is reportedly a copy of the Thales FLASH system, similar to the U.S. AQS-22.  
 • 2012: **Z-18J** Haibianfu (Sea Bat) AEW version has external retractable Z-18J radar under fuselage with 360° coverage, 3rd Gen FLIR, 2nd Gen RWR, estimated DTS-03 TDL. Treat as fully loaded with the radar extended. Estimated as Gen 3 Semi-Automatic combat system. One prototype and at least three production delivered.

- 2019: Two prototype Z-18F and two Z-18J in service.
- Jun 19: First serial production Z-18F delivered. Five by 2021.

**Z-19 Hei Xuan Feng**

**Man Rtngr:** 3.0/2.5  
**Size/Signature:** Small/VSmall  
**Counterme:** 3rd Gen D

**Sensors:** 3rd Gen FLIR/TV/Laser rf. turret, HMS, 2nd Gen RWR,

*Throttle Setting/Speed in knots*

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	120	150	--
Med:	120	150	--

**Ceiling:** 5200 meters  
**Cruise Range:** 235 nmi

**Additional Fuel** *Fuel Wt.* *Range Add.*  
 345 L drop tank 280 kg 115 nmi

**Ordnance Loadouts:** *Payload:* e1150 kg

- 8 AKD-9, 8 PL-90, 2 HF-7D
- 2 fuel tanks, 4 AKD-9, 1 HF-7D or HF-25 rocket pod
- 8 AKD-9, 1 HF-7D or HF-25, 1 PC-1AY 12.7mm gun pod

**Remarks:** *In Svc:* 2012

Helicopter. Name means "Black Whirlwind." Improved Z-9W. Armored. Offered for export as Z-19E from 2018.

- Early 2017: Some fitted with MMW mast-mounted radar. Possibly known as Z-19A.
- 2019: 175 operational.
- Feb 21: Seen with laser warning system fitted.

**ASW/AEW**

**Damage Value:** 13

**Bombsight:** --

**Inflight Refuel:** N

**Z-20 Ruyunlong**

**Man Rtngr:** 2.5/2.0

**Size/Signature:** Small/Small

**Counterme:** 3rd Gen D

**Sensors:** 3rd Gen FLIR, NVG, 2nd Gen RWR, Laser warning system

*Throttle Setting/Speed in knots*

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	140	174	--
Med:	140	174	--

**Ceiling:** 6000 meters

**Cruise Range:** 315 nmi

**Additional Fuel**

*Fuel Wt.* *Range Add.*  
 500 L cabin tank 405 kg 165 nmi

**Remarks:**

Helicopter. "Cloud-entering dragon." FBW controls. Can carry 12 troops or 1000 kg cargo internally or 4000 kg slung load. Can carry cabin fuel tank, halving internal load. Can be fitted with P/S(1)2 door mg. Possibly 400 planned to replace Mi-17 series. Offered for export as Z-20E.  
 • 2019: In service with PLA ground forces with 161st Air Assault Brigade at Xinxiang, CTC. At least 15 by 2020.  
 • 2020: In service with 121st Air Assault Brigade, 75th Group Army, STC. Replaces Mi-17, operational with Z-8.  
 • Dec 20: Armed version under testing with 8 AKD-9 or 8 AKD-10.  
 • Feb 21: Fitted with IR suppression with VSmall IR signature.

**Transport**

**Damage Value:** 17

**Bombsight:** --

**Inflight Refuel:** --

**Z-20F/J**

**Man Rtngr:** 2.5/2.0

**Size/Signature:** Small/Small

**Counterme:** 3rd Gen D

**Sensors:** see Remarks

**ASW/Transport**

**Damage Value:** 17

**Bombsight:** --

**Inflight Refuel:** --

<u>Altitude</u>	<u>Cruise</u>	<u>Full Mil</u>	<u>Reheat</u>
Low:	140	174	--
Med:	140	174	--

**Ceiling:** 6000 meters

**Cruise Range:** 315 nmi

**Ordnance Loadouts:**

- 2 Yu-7 torpedoes or 2 YJ-9 (Z-20F)
- 8 KAB-250-100PL
- 8 AKD-10 or 4 YJ-9 (Z-20J)

**Remarks:** *In Svc:* 2021?

Helicopter.

• **Z-20F** ASW version with Z-20F radar (designation unknown), SKD-MF or possibly SKD-LMF dipping sonar, 3rd Gen FLIR, 2nd Gen RWR, 3rd Gen decoys. It is unknown if the Z-20F is fitted with the Type 605 acoustic processor and SQ-3/4 sonobuoys, as there is no indication of external launch tubes. Internal storage for 16 sonobuoys is certainly possible.

• **Z-20J** naval transport and attack with 3rd Gen FLIR/laser designator, rescue winch. Possibly in service June 2020.

## Annex Ba - PRC Fuel Offload Table (Probe/Drogue System)

Receiving Aircraft	Consumption rate (kg/nmi)	FC-31	H-6Z	J-8	J-10A	J-10B/C	J-15	J-16	J-20	KJ-500A	KJ-600	KJ-2000 <sup>1</sup>	Su-30 MKK	Su-35SK
Tanker														
H-6U, H-6DU	10.6	2.0	1.3	2.3	2.1	2.2	--	--	1.8	1.4	3.2	0.7	--	1.8
JL-78	18.9	3.5	2.2	4.2	3.7	3.9	3.2	3.1	3.1	2.5	5.7	1.2	3.1	3.2
Y-20U	16.9	3.1	2.0	3.8	3.3	3.4	2.9	2.8	2.8	2.2	5.1	1.1	2.8	2.9
FC-31 Buddy Refuel	5.4	1.0	0.6	1.2	1.1	1.1	0.9	0.9	0.9	--	1.6	--	0.9	0.9
J-8 II Buddy Refuel	4.5	1.0	0.5	1.2	1.1	1.1	0.9	0.9	0.9	--	1.6	--	0.9	0.9
J-10A Buddy Refuel	5.1	0.8	0.6	1.0	0.9	0.9	0.8	0.7	0.7	--	1.4	--	0.7	0.8
J-10B/C Buddy Ref.	4.9	0.9	0.6	1.1	1.0	1.0	0.9	0.9	0.9	--	1.5	--	0.9	0.9
J-15 Buddy Refuel	5.9	1.1	0.7	1.3	1.1	1.2	1.0	1.0	1.0	--	1.8	--	1.0	1.0
J-16 Buddy Refuel	6.0	1.1	0.7	1.3	1.2	1.2	1.0	1.0	1.0	--	1.8	--	1.0	1.0
Su-30 Buddy Ref.	6.0	1.1	0.7	1.3	1.2	1.2	1.0	1.0	1.0	--	1.8	--	1.0	1.0
Su-35 Buddy Ref.	5.9	1.1	0.7	1.3	1.2	1.2	1.0	1.0	1.0	--	1.8	--	1.0	1.0

**Note:**

- 1) Only the first of four KJ-2000 Mainring is fitted with an inflight refueling probe.

## Annex C - Naval Guns

Country	Name	Bore/Caliber	Shell Type	Short Range		Med Range		Long Range		Extreme Range		Max Alt	Air Rng (kyd)	AA Rating <sup>1</sup>	Remarks			
				kyds	B-Pen Dam	kyds	B-Pen Dam	kyds	B/D-Pen Dam	kyds	B/D-Pen Dam							
France	Compact 100mm/55 Mk1	HE	0 - 5.7	1	20	5.8 - 11.4	1	17	11.5 - 15.2	1/0	15	15.3 - 19.0	0/1	14	Med	9.0	1.69	
Japan	Type 96 25mm	APC	0 - 0.3	3	2	0.4 - 0.8	3	2	0.9 - 1.3	2/1	2	1.4 - 1.6	2/1	2	Med	2.7	0.12	
PRC	Type 54 12.7mm	Solid	0 - 0.2	1	0.9	0.3 - 0.5	1	0.8	0.6 - 0.8	1/0	0.7	0.9 - 1.0	1/0	0.6	Low	2.6	0.08	
PRC	QJZ-89 (Type 85, W-85)	12.7mm	Solid	0 - 0.2	1	0.9	0.3 - 0.5	1	0.8	0.6 - 0.8	1/0	0.7	0.9 - 1.0	1/0	0.6	Low	2.6	0.11
PRC	QJG-02 (Type 02) 14.5mm	APC	0 - 0.2	2	1.9	0.3 - 0.6	2	1.6	0.7 - 1.0	1/0	1.4	1.1 - 12.0	1/1	1.2	Low	2.2	0.28	
PRC	Type 69 14.5mm	APC	0 - 0.2	0	1.9	0.3 - 0.6	0	1.7	0.7 - 1.0	0/0	1.5	1.1 - 12.0	0/0	1.3	Low	2.2	0.34	
PRC	Type 82 14.5mm/93	APC	0 - 0.2	2	1.9	0.3 - 0.6	2	1.7	0.7 - 1.0	0/0	1.5	1.1 - 12.0	0/0	1.3	Low	2.2	0.34	
PRC	Type 61 25mm/79	HE	0 - 0.3	0	3	0.4 - 0.8	0	3	0.9 - 1.3	0/0	2	1.4 - 16.0	0/0	2	Low	5.0	0.17	
PRC	CSIAN2 30mm	HE	0 - 1.7	0	4	1.8 - 4.3	0	3	4.4 - 6.9	0/0	3	7.0 - 8.6	0/0	3	Low	3.2	0.18	
PRC	Type 69 30mm/65	HE	0 - 0.9	0	4	1.0 - 2.2	0	3	2.3 - 3.5	0/0	3	3.6 - 4.3	0/0	2	Low	3.6	0.28	
PRC	PJ-11 (Type 1130) 30mm	APDS	0 - 0.4	3	7	0.5 - 1.0	3	4	1.1 - 1.5	2/1	4	1.6 - 1.9	2/2	3	Low	3.0	7.57	
PRC	PJ-12 (Type 730) 30mm	APDS	0 - 0.4	3	6	0.5 - 1.0	3	4	1.1 - 1.5	2/1	3	1.6 - 1.9	2/2	3	Low	3.0	3.45	
PRC	PJ-13 30mm	HE	0 - 1.7	0	5	1.8 - 4.3	0	4	4.4 - 6.9	0/0	3	7.0 - 8.6	0/0	3	Low	3.2	1.68	
PRC	PJ-17 30mm	HE	0 - 1.7	0	4	1.8 - 4.3	0	3	4.4 - 6.9	0/0	3	7.0 - 8.6	0/0	3	Low	3.2	0.18	
PRC	CSIAN3 37mm	HE	0 - 0.4	1	5	0.5 - 1.1	1	4	1.2 - 1.8	0/0	4	1.9 - 2.2	0/1	3	Med	2.2	0.85	
PRC	Type 61 37mm/67	HE	0 - 0.4	0	4	0.5 - 1.1	0	3	1.2 - 1.8	0/0	3	1.9 - 2.2	0/0	2	Med	3.4	0.25	
PRC	PJ-76 (Type 76), PJ-76F	HE	0 - 0.4	1	4	0.5 - 1.1	1	4	1.2 - 1.8	0/0	3	1.9 - 2.2	0/1	3	Med	3.4	0.62	
PRC	PJ-76A 37mm/67 (Type 76A)	HE	0 - 0.4	1	4	0.5 - 1.1	1	4	1.2 - 1.8	0/0	3	1.9 - 2.2	0/1	3	Med	3.4	0.59	
PRC	Type 66 57mm/70	HE	0 - 0.7	1	14	0.8 - 1.8	1	12	1.9 - 2.8	1/0	11	2.9 - 3.5	1/1	9	High	6.4	0.16	
PRC	Type 76 57mm/70	HE	0 - 0.7	1	15	0.8 - 1.8	1	13	1.9 - 2.8	1/0	11	2.9 - 3.5	1/1	10	High	6.4	0.22	
PRC	PJ-26 76mm/59	HE	0 - 0.4	1	16	4.6 - 9.0	1	13	9.1 - 12.0	0/0	12	12.1 - 15.0	0/1	10	High	7.0	1.69	
PRC	Type 79 100mm/56	HE	0 - 7.4	1	18	7.5 - 14.8	1	15	14.9 - 19.7	1/0	14	19.8 - 24.6	0/1	12	High	9.0	0.25	
PRC	Type 79A/PJ-33A, PJ-33B 100mm/56	HE	0 - 7.4	1	19	7.5 - 14.8	1	16	14.9 - 19.7	1/0	14	19.8 - 24.6	0/1	13	High	9.0	0.35	
PRC	PJ-87 100mm/55 (Type 210)	HE	0 - 5.7	1	20	5.8 - 11.4	1	17	11.5 - 15.2	1/0	15	15.3 - 19.0	0/1	14	Med	9.0	1.69	
PRC	Type 76 130mm/58	HE	0 - 6.8	2	23	6.9 - 13.7	1	19	13.8 - 18.2	1/1	17	18.3 - 22.8	1/1	15	High	10.0	0.42	
PRC	PJ-45A 130mm/70	HE	0 - 8.5	2	25	8.6 - 19.1	1	21	19.2 - 25.4	1/1	19	25.5 - 31.8	1/1	17	High	16.4	0.85	
Russia	2M-1 12.7mm	Solid	0 - 0.2	1	0.9	0.3 - 0.5	1	0.7	0.6 - 0.8	1/0	0.6	0.9 - 1.0	1/0	0.5	Low	2.5	0.08	
Russia	2M-7 14.5mm/93	APC	0 - 0.2	2	1.9	0.3 - 0.6	2	1.7	0.7 - 1.0	1/0	1.4	1.1 - 1.2	1/1	13	Low	2.2	0.34	
Russia	2M-3, 2M-3M, 2M-8 25mm/79	HE	0 - 0.3	0	3	0.4 - 0.8	0	3	0.9 - 1.3	0/0	2	1.4 - 1.6	0/0	2	Low	4.0	0.17	
Russia	AK-230 30mm/65	APC	0 - 1.5	4	3	1.6 - 3.7	4	3	3.8 - 5.9	3/1	3	6 - 7.3	2/2	2	Low	3.6	0.56	
Russia	AK-630 630M 30mm/54	HE	0 - 1.8	0	4	1.6 - 3.7	0	4	3.8 - 5.9	0/0	3	6 - 7.3	0/0	3	Med	3.4	0.25	
Russia	3M87 Kortik	AO-18K 30mm/54	HE	0 - 1.8	0	3	1.9 - 4.6	0	3	4.7 - 7.3	3/1	2	7.4 - 9.1	2/2	2	Med	3.4	0.25
Russia	70K 37mm/67	AP	0 - 1.8	4	3	1.9 - 4.6	3	3	4.7 - 7.3	0/0	4	7.2 - 8.9	0/0	4	Low	3.6	2.52	
Russia	46K, V-11, V-11M 37mm/67	HE	0 - 0.4	0	3	0.5 - 1.1	0	3	1.2 - 1.8	0/0	3	1.9 - 2.2	0/0	2	Med	3.4	0.25	
Russia	21K 45mm/46	HE	0 - 2.1	1	4	2.2 - 5.3	1	4	5.4 - 8.5	0/0	3	8.6 - 10.6	0/1	3	Med	3.4	0.25	

**Annex C - Naval Guns (continued)**

<u>Country</u>	<u>Name</u>	<u>Shell Type</u>	<u>Short Range</u> <u>kyds</u>	<u>E-Pen</u> <u>Dam</u>	<u>Med Range</u> <u>kyds</u>	<u>B-Pen</u> <u>Dam</u>	<u>Long Range</u> <u>BD-Pen</u> <u>Dam</u>	<u>kyds</u>	<u>B/D-Pen</u> <u>Dam</u>	<u>Extreme Range</u> <u>kyds</u>	<u>Max Alt</u>	<u>Air Rng (kyd)</u>	<u>AA Rating<sup>1</sup></u>	
Russia	ZiF-31 57mm/79	HE	0 - 1.8	1	13	1.9 - 4.6	1	11	4.7 - 7.4	1/0	10	7.5 - 9.2	1/1	8
Russia	AK-176, A-176M 76mm/59	HE	0 - 4.5	1	16	4.6 - 9.0	1	13	9.1 - 12	0/0	12	12.1 - 15	0/1	10
Russia	90K 85mm/52	HE	0 - 5.1	1	14	5.2 - 10.2	1	12	10.3 - 13.6	0/0	10	13.7 - 17.0	0/1	9
Russia	APC	0 - 5.1	10	11	5.2 - 10.2	6	7	10.3 - 13.6	4/1	6	13.7 - 17.0	3/3	5	
Russia	HE	0 - 7.3	0	19	7.4 - 14.6	0	16	14.7 - 19.4	0/0	15	19.5 - 24.3	0/0	13	
Russia	B-24 100mm/51	APC	0 - 7.3	14	15	7.4 - 14.6	8	12	14.7 - 19.5	6/2	10	19.6 - 24.3	5/4	9
Russia	B-34 100mm/56	HE	0 - 7.3	1	17	7.4 - 14.6	1	14	14.7 - 19.5	1/0	12	19.6 - 24.3	0/1	11
Russia	B-2, B-18 102mm/45	HE	0 - 4.8	1	15	4.9 - 9.6	1	13	9.7 - 12.8	1/0	11	12.9 - 16.0	0/1	10
Russia	M1930, M1934	SAP	0 - 8.3	11	17	8.4 - 16.7	7	13	16.8 - 22.2	5/2	12	22.3 - 27.8	4/4	10
Russia	B-13-2C 130mm/50	HE	0 - 8.3	2	18	8.4 - 16.7	1	15	16.8 - 22.2	1/1	14	22.3 - 27.8	1/1	12
Russia	AK-130 130mm/70	HE	0 - 7.5	2	26	7.6 - 15.1	1	22	15.2 - 20.1	1/1	20	20.2 - 25.2	1/1	18
Russia	SM-2-1 130mm/58	HE	0 - 6.8	2	23	6.9 - 13.7	1	19	13.8 - 18.2	1/1	17	18.3 - 22.8	1/1	15
Russia	(Pattern 1957)	SAP	0 - 6.8	12	21	6.9 - 13.7	7	17	13.8 - 18.2	5/2	15	18.3 - 22.8	4/4	13
Russia	B-1-P 180mm/57	APC	0 - 8.5	32	21	8.6 - 20.7	22	16	20.8 - 33	15/5	14	33.1 - 41.3	12/9	12
Russia	(Pattern 1932)	HE	0 - 8.5	3	22	8.6 - 21.1	2	18	21.2 - 33.8	1/1	16	33.9 - 42.2	1/2	14
Russia	SAP	0 - 8.5	19	26	8.6 - 20.3	13	22	20.4 - 32.5	9/4	19	32.6 - 40.6	7/7	17	
USA	Mk26 3in/50	AP	0 - 4.4	7	11	4.5 - 8.8	4	8	8.9 - 11.7	3/1	7	11.8 - 14.6	2/2	6
USA	HC	0 - 4.4	1	11	4.5 - 8.8	1	9	8.9 - 11.7	0/0	8	11.8 - 14.6	0/0	7	
USA	Com	0 - 4.4	3	11	4.5 - 8.8	2	9	8.9 - 11.7	1/1	8	11.8 - 14.6	1/1	7	

Notes:

1. The AA rating is for the gun, including ammo modifier, per barrel (rotaries count as one). Ratings in Annex A include modifier for number of guns that bear to port or starboard and a modifier for the combat system.

**Remarks Key:**

A: Seastimmer capable, Autonomous.

**Annex C2a - Land-Based AA Batteries**

<u>Country</u>	<u>Name</u>	<u>Cht Sys Gen</u>	<u>Max Alt Band</u>	<u>Air Range Kyds</u>	<u>Local Control?</u>	<u>Battery</u>	<u>IOC</u>	<u>Remarks</u>
PRC	Type 54 12.7mm	1	Low	1.0	Y	(1)6 Type 54 12.7mm (0.2L)	1954	Copy Russian DShK
PRC	Type 56 14.5mm	1	Low	1.6	Y	(1)6 Type 54 14.5mm (1.4L)	1956	Copy Russian ZPU-4
PRC	Type 58 14.5mm	1	Low	1.6	Y	(2)6 Type 58 (0.7L)	1958	Copy Russian ZPU-2, divisional
PRC	PG-87 25mm	2	Low	1.7	Y	(2)6 PG-87 (1.0L)	1987	Replaces Type 58 14.5mm
PRC	PGZ-95	3	Low	1.7	N	(2)6 PGZ-95 & 4 QW-2/6 EO(D/N)		Each PGZ-95 has four QW-2 SAM
PRC	PGZ-04A	4	Low	1.7	N	(6@1.3), 1 CLC-2 radar (2)6 PGZ-04A & 4 FN-6/6 EO(D/N)	1999	and CLC-1 search radar Improved PGZ-95, improved link to C&C vehicle
PRC	LD-2000	5	Low	3	N	(R)8 LD-2000/8 TR47C GFC, AS (8@6.9A)	2004	C&C vehicle
PRC	PG99 35mm	4	Low	4.4	N	(2)4 PG99 35mm//1 Type 902 AS/GFC (2.4)	2005?	Land version PJ-12. Also "Type 730C"
PRC	PGZ09 35mm	5	Low	4.4	N	(2)6 PGZ-09//6 GFC-AA (6@2.4), 1 CLC-2B radar	1997	
PRC	PGL-12 35mm	5	Low	4.4	N	(R)6 PGL-12 & 2 FN-6 (6@3.6)	2009	
PRC	Type 55 37mm	1	Medium	3.2	Y	(1)6 Type 55 37mm (0.4L)	2019	
PRC	Type 63 37mm	1	Medium	3.4	Y	(1)6 Type 63 37mm (0.4L)	1955	
PRC	Type 65 37mm	1	Medium	3.8	N	(1)6 Type 65 37mm/Type 311 (2.9)	1963	
PRC	Type 74 37mm	1	Medium	3.8	N	(1)6 Type 74 37mm/Type 311 (2.9)	1965	Analog voice warning
PRC	Type 59 57mm	1	Medium	6.4	N	(1)6 Type 59 57mm//1 Miao-9 or Type 311 (1.3)	1974	
PRC	Type 56 85mm	1	High	6.4	N	(1)6 Type 56 85mm//1 Fire Can (2.5)	1959	Copy Russian S-60
PRC	Type 59 100mm	1	High	6.4	N	(1)6 Type 59 100mm//1 Miao-5 (2.5)	1956	Copy Russian KS-12A
Russia	DShK 38/46 12.7mm	1	Low	1.0	Y	(1)6 DShK 38/46 12.7mm (0.5L)	1959	Copy Russian KS-19
Russia	61K 37mm/79	1	Med	3.4	Y	(1)6 61K 37mm/67 (0.8L)	1936	
						M1939, 70K is naval mount	1937	

## Annex D1 - Surface Missiles

Country	Name	Guidance/Gen	Air Range (nmi)	ATA Rating	Msls/Dir	Surf Range (nmi)	Damage	Pen (cm)	Envelope/Flight Path	Speed (kts)	Sig-nature	IOC	Re-marks
France	Crotale	Cmd/2	0.4 - 5.5	1.5	1 @ 2	0.4 - 5.5	17 + D6/3	2	Low - Med	1575	VSmall	1978	
PRC	ASN-301	Cmd/TPRH/3				151.2	D6	1	Med Cruise	119	VSmall	2017?	A
PRC	DF-10/CJ-10	I&Sat/TERCOM/DSMAC/T1				1080	52 + D6	20	VLow Cruise	528	VSmall	2006	B
PRC	DF-10A	I&Sat/TERCOM/DSMAC/T2	0.5 - 6.5	1.0	1 @ 2	0.5 - 6.5	17 + D6/3	2	VLow Cruise	528	VSmall	2015	
PRC	HQ-7	Cmd/2	0.5 - 8.1	1.5	1 @ 2	0.5 - 8.1	17 + D6/3	2	VLow - Med	1475	VSmall	1990	
PRC	HQ-7A	Cmd/3							VLow - Med	1750	VSmall	1998	
PRC	HQ-9	TVM/3	3.8 - 55	3.0	6 @ 2	3.8 - 19	37 + D6/2	6	PVLow - VHi	3438	VSmall	2004	
PRC	HQ-9A	TVM/3	3.8 - 80	3.0	6 @ 2	3.8 - 19	37 + D6/2	6	VLow - VHi	3438	VSmall	2014	
PRC	HQ-9B	I/M/TARH?/4	3.8 - 162	3.5	6 @ 2	3.8 - 19	37 + D6/2	6	VLow - VHi	3438	VSmall	2017	
PRC	HQ-10/FL-3000N/AJK-10	PRH/TIRH/3	0.3 - 5.0	2.5	2 @ 1	0.3 - 5	15 + D6/3	5	VLow - Med	1319	VSmall	2012	D
PRC	HQ-16A	I/SARH/3	1.9 - 18.9	3.0	1 @ 2	1.9 - 19	29 + D6/2	5	VLow - VHi	2008	VSmall	2009	
PRC	HQ-16B	I/SARH/3	2.2 - 378	3.0	1 @ 2	2.2 - 19	29 + D6/2	5	VLow - VHi	2008	VSmall	2016?	
PRC	HY-61B [CSA-N-2]	SARH/2	1.6 - 5.5	0.5	1 @ 2	1.6 - 5.5	23 + D6/3	4	Low - Med	1980	VSmall	1986	
PRC	HY-1 [CSS-C-2a Silkworm]	I/TARH/1				4.5 - 37.8	52 + D6	59	Low Cruise	606	Small	1974	
PRC	HY-1J [CSS-N-2 Mod 1 Safflower]	I/TARH/1				4.5 - 27	52 + D6	59	Low Cruise	606	Small	1975	N
PRC	HY-1A [CSS-N-2 Mod 2 Safflower]	I/TARH/2				4.5 - 27	53 + D6	59	Low Cruise	606	Small	1987	M, N
PRC	HY-2 [CSS-C-3A Seersucker]	I/TARH/1				4.5 - 56.7	54 + D6	59	Low Cruise	594	Small	1970	
PRC	HY-2AI [CSS-C-3b Seersucker]	I/TIRH/2				4.5 - 56.7	54 + D6	59	Low Cruise	594	Small	1982	
PRC	HY-2B [CSS-C-3c Seersucker]	I/TARH/2				4.5 - 56.7	54 + D6	59	Low Cruise	594	Small	1982	M
PRC	HY-2G [CSS-C-3d Seersucker]	I/TARH/2				4.5 - 56.7	54 + D6	59	VLow Cruise	594	Small	1989	E
PRC	HY-4 [CSS-C-7 Sadsack]	I/TARH/3				4.5 - 82	55 + D6	59	Low Cruise	594	Small	2017	E, F
PRC	SY-1 [CSS-N-1 Mod 1 Scrubbrush]	I/TARH/1				4.5 - 19.4	52 + D6	59	Low Cruise	606	Small	1967	L
PRC	SY-1A [CSS-N-1 Mod 2 Scrubbrush]	I/TARH/2				4.5 - 19.4	52 + D6	59	VLow Cruise	606	Small	1984	
PRC	SY-2 [CSS-N-5 Sabot]	I/TARH/3				4.5 - 27	50 + D6	42	VLow Cruise	594	Small	1990-91	
PRC	YJ-8, 8A [CSS-N-4 Sardine]	I/TARH/2				4.3 - 22.7	36 + D6/2	9	VLow Cruise	594	VSmall	1987	
PRC	YJ-12A, YJ-12B	I&Sat/M/TARH/3				10.8 - 162	48 + D6	13	High Cruise	1719	VSmall	2017	
PRC	YJ-18, 18A, 18B [CSS-NX-13]	I&Sat/M/TARH/3				10.8 - 54	46 + D6	13	VLow Cruise	1320			
PRC	YJ-62	I&Sat/TARH/3				10.8 - 165.5	33 + D6/2	13	VLow Cruise	528	VSmall	2018	G
PRC	YJ-82	I/TARH/2				216 - 189	44 + D6	15	VLow Cruise	528	VSmall	2006	
PRC	YJ-83 [CSS-N-8 Saccade]	I/TARH/3				4.3 - 16.2	37 + D6/2	9	VLow Cruise	594	VSmall	c2004	
Russia	3M54E [SS-N-270 Sizzler]	I/TARH/3				8.1 - 97	38 + D6/2	9	VLow Cruise	594	VSmall	1998	H
Russia	48N6 [SA-N-20 Gargoyle]	TVM/4	1.6 - 81	3.5	6 @ 2	1.6 - 19	39 + D6/2	6	VLow - Med	1769	VSmall	1989	
Russia	Iglia (9M39) [SA-N-8 Gremlin]	IRH/2	0.3 - 2.8	1.0					VLow Cruise	1650	Stealthy	2002?	G
Russia	Kortik (9M311) [SA-N-11 Grison]	Cmd/3	1.3 - 4.3	2.5	2 @ 2	1.3 - 4.3	15 + D6/3	2	VLow Cruise	3690	VSmall	1998	
Russia	Moskit-M (3M80M) [SS-N-22 Mod 1]	I/TARH&PRH/3				10.8 - 118	42 + D6/2	14	VLow Cruise	528	Small	1996?	J
Russia	Moskit-MVE (3M80MVE)	I/TARH&PRH/3				6.5 - 130	52 + D6	20	High Cruise	1650	Small	2005	J
Russia	P-15 Termit [SS-N-2a Styx]	Cmd/TARH/1				6.5 - 76	51 + D6	20	VLow Cruise	1510			
Russia	S-2 Sopka [SSC-2b Samlet]	Cmd/TARH/1				4.3 - 20	53 + D6	59	Low Cruise	594	Small	1960	L
Russia	Shitl-1 (9M317) [SA-N-7b Grizzly]	I/SARH/TARH/4	1.6 - 22	3.0	2 @ 2	8.1 - 24.3	56 + D6	31	Low Cruise	528	Small	1958	
Russia	Uragan (9M38) [SA-N-7a Gadfly]	I/SARH/3	1.9 - 15	2.0	1 @ 2	1.6 - 21	27 + D6/2	5	VLow - High	2008	VSmall	1998	
									PVLow - VHigh	1650	VSmall	1983	

## Annex D1 - Surface Missiles (continued)

### Remarks Key:

- A: Endurance 4 hours, loiter capability. Seeker range 13.5 nmi. Launch truck carries 6 missiles.
- B: Land attack. HE or nuclear warhead. DF-10 from ship, CJ-10 from land.
- C: Possible nuclear warhead option.
- D: Can only attack missiles with TARH seekers.
- E: Terminal SSkimmer.
- F: Terminal maneuvers.
- G: Last 10.8 nmi is covered by sprint vehicle @ Mach 3.0 (1980 kts).
- H: Up to three waypoints.
- J: Terminal SSkim at 1650 kts on seeker detection, evasive maneuvers.
- L: Launching ship must steer a straight course the turn of launch. Can only be used at Sea State 3 or below.
- M: Treat as V\_Low for detection purposes.
- N: Missile has fuel for 37.8 nmi, but is restricted to 27 nmi due to fire control limitations.

### Annex D1a Coastal Defense Missile Batteries

Country	Missile Name	No. Lchrs @miss/s	Reloaders @miss/s	Acquisition Radar	Cbt Sys Gen	Setup (min)	IOC	Remarks
PRC	HY-1 [CSS-C-2 Silkworm]	4@1		Type 331, Type 405	2	20	1975	
PRC	HY-2 [CSS-C-3 Seersucker]	4@1		Type 405	2	20	early 80s	
PRC	HY-4 [CSS-C-7 Sadsack]	4@1		Type 405	2	20	c1985	Iran use
PRC	SY-1	12@1						
PRC	YJ-12	4@3						
PRC	YJ-62	4@3		SLR66, LD-JHC300	3	30	1967	One battalion w/12 launchers built.
Russia	S-2 Sopka [SS-C-2b Samlet]	4@1	4@2	Burun, Mys	2	5	2017	
Russia	S-2 Sopka [SS-C-2b Samlet]	4@1	4@2	Burun, Mys	2	5	2008	
Russia	S-2 Sopka [SS-C-2b Samlet]	4@1	4@2	Burun, Mys	2	20	1958	PRC IOC 1964

**Designer's Note:** There is little information available on the organization of Chinese coastal defense missiles. A typical battery (called a "battalion" if they follow the Russian pattern) will consist of a command vehicle, four launchers, four reload vehicles with the same number of missiles, and a radar vehicle, along with trucks for transport and light armored vehicles to provide security.

Except for the YJ-62, there is even less data available on the radars that are used by the batteries. The HY-1 used the Type 331; later missiles in the HY series might use radars like the Type 405. The YJ-12 could possibly be associated the JY-8C, but that is only a search radar, not a targeting complex like the SLR66. These suggestions are based on the characteristics of the radars and the dates they entered service, but are little better than speculation.

### Annex D3 - Antiship Ballistic Missiles

Country	Name	Guidance /Gen	Range (nmi)	Speed Band	Warhead (kg)	Launcher	In Svc.	Number in Svc.	Dam Pts	Pen- etration	Fuel	Prep (minutes)
PRC	DF-21D [CSS-5 Mod 5]	ITARH/3	552 - 920	Med Hypers	600 kg	Mobile	2012?	?	73 + D6	13	Solid	15?
PRC	DF-26B [CSS-18]	ITARH/3	1296 - 2160	Med Hypers	600 kg	Mobile	2019?	?	73 + D6	13	Solid	15?

## Annex D2 - Land-Based Surface-to-Air Missiles

Country	Name	Guidance /Gen	ATA Rating	Range (nmi)	Altitude Envelope	Speed (kts)	IOC	Remarks
PRC	DK-9	IRH/3	2.5	0.5 - 5.4	NOE - Med	1147	1991?	
PRC	FN-6	IRH/3	2.0	0.3 - 2.7	NOE - Med	1166	2000	
PRC	FN-16	IRH/3	2.5	0.3 - 3.2	NOE - Med	1166	2008	
PRC	HN-5	IRH/1	0.0	0.4 - 1.9	NOE - Med	989	1973	
PRC	HN-5A	IRH/2	0.5	0.4 - 1.9	NOE - Med	1078	late 70s	
PRC	HN-5B, -5C	IRH/2	1.0	0.4 - 2.4	NOE - Med	1078	1985	
PRC	HQ-1	Cmd/1	0.5	4.3 - 15.7	Med - VHigh	2008	1966	
PRC	HQ-2 [CSA-1]	Cmd/1	0.5	4.3 - 15.7	Med - VHigh	2235	Jul 67	
PRC	HQ-2A	Cmd/2	1.0	4.3 - 18.4	Low - VHigh	2333	1984	
PRC	HQ-2B	Cmd/2	1.0	4.3 - 18.4	Low - VHigh	2430	1987	
PRC	HQ-2J	Cmd/2	1.5	4.3 - 18.4	Low - VHigh	1650	?	
PRC	HQ-6/LY-60	SARH/2	0.5	1.6 - 5.5	Low - High	1980	1991	
PRC	HQ-64/H-6D	SARH/3	1.5	0.5 - 9.7	NOE - High	2292	1995	
PRC	HQ-7/FM-80 [CSA-4]	Cmd/1	1.0	0.3 - 6.5	NOE - Med	1460	1988	
PRC	HQ-7A/FM-90 [CSA-5]	Cmd/3	1.5	0.4 - 6.5	NOE - Med	1460	1998	
PRC	HQ-7B/FM-90 [CSA-7]	Cmd/3	2.0	0.4 - 8.1	NOE - Med	1750	2009	
PRC	HQ-9	TVM/3	3.0	3.8 - 55	NOE - VHigh	3438	C2005	
PRC	HQ-9A	TVM/3	3.0	3.8 - 80	NOE - VHigh	3438	2014?	
PRC	HQ-9B	IM/TARH?/4	3.5	3.8 - 162	NOE - VHigh	3438	2017	
PRC	HQ-12/KS-1SM	Cmd '3	2.5	2.7 - 37.8	Low - VHigh	2332	2007	
PRC	HQ-16A	I/SARH/3	3.0	1.9 - 21.6	NOE - VHigh	2008	2011	
PRC	HQ-16B	I/SARH/3	3.0	2.2 - 37.8	NOE - VHigh	2008	2016?	
PRC	HQ-17 Tor-M1	Cmd/3	2.5	0.8 - 6.5	NOE - Med	1675	1997/2005	
PRC	HQ-17A	Cmd/3	2.5	0.8 - 8.1	NOE - High	1675	2019	
PRC	HQ-22	Cmd/TSARH/3	2.5	2.7 - 92	Low - VHigh	3442	2016	
PRC	QW-1	IRH/3	1.0	0.4 - 2.7	NOE - Med	1166	1992	MANPADS
PRC	Type 95/QW-2	IRH/3	2.0	0.4 - 3.2	NOE - Med	1166	2000?	MANPADS
PRC	QW-3	Laser Beam-R/2	1.5	0.4 - 4.3	NOE - Med	1457	2003?	MANPADS
PRC	QW-4	IRH/4	2.5	0.3 - 3.2	NOE - Med	1147	2007	MANPADS
PRC	QW-11	IRH/3	1.5	0.3 - 2.7	NOE - Med	1166	2002	MANPADS
PRC	QW-11G	IRH/3	2.0	0.3 - 2.7	NOE - Med	1166	?	MANPADS
PRC	QW-18	IRH/3	2.5	0.3 - 2.7	NOE - Med	1166	2019?	MANPADS
Russia	S-75 Dvina	[SA-2a Guideline Mod 0]	0.5	4.3 - 15.7	Med - VHigh	2008	1958 (PRC)	Five batteries
Russia	S-300PMU (5V55RUD)	Cmd/1						Export only version, eight batteries
Russia	[SA-10c Grumble]	Cmd/2	3.0	2.7 - 81	NOE - VHigh	3885	1993 (PRC)	and 76N6, 36D6 radars
Russia	S-300PMU-1 (48N6)	TVM/3	3.0	1.6 - 81	NOE - VHigh	3690	1997 (PRC)	Twelve batteries
Russia	[SA-20a Gargoyle]	TVM/3	3.5	1.6 - 108	NOE - VHigh	4080	2007 (PRC)	Sixteen batteries
Russia	[SA-20b Gargoyle]							

## Annex D2 - Land-Based Surface-to-Air Missiles (continued)

<u>Country</u>	<u>Name</u>	<u>Guidance /Gen</u>	<u>ATA Rating</u>	<u>Range (nmi)</u>	<u>Altitude Envelope</u>	<u>Speed (kts)</u>	<u>IOC</u>	<u>Remarks</u>
Russia	S-400 Triumf [SA-21 Growler] (48N6DM missile)	TVM/4	3.5	1.6 - 135	NOE- VHigh	4080	2019 (PRC)	Eight batteries ordered
Russia	(9M96 missile) Tor-M1 (9M331M) [SA-15 Gauntlet]	I/M/TARH/4	3.5	0.5 - 21.6	NOE- VHigh	1945		Estimated eight batteries
Russia	Cmd/3	2.5	0.8 - 6.5	NOE - Med	1675	1999 (PRC)		

## Annex D2a - Surface-to-Air Missile Batteries

<u>Country</u>	<u>System Name</u>	<u>Acquisition Radars</u>	<u>Guidance Radar</u>	<u>Mts/ Lchr</u>	<u>Lhrs/ Btry</u>	<u>Combat Sys Gen</u>	<u>Tgts@ms/s /Btry</u>	<u>Setup Time (min)</u>	<u>Reload Time (min)</u>	<u>Remarks</u>
PRC	HQ-1, HQ-2, 2A	P-15, PRV-11	ZD-2	1	6	2	1@3 msis	45	12	Based on S-75 Dvina
PRC	HQ-2B, 2J	Type 514	SJ-202, SJ-212	1	6	3	1@3 msis	45	12	Digital electronics
PRC	HQ-6/LY-70	type 571(e)	3 illuminators	2	6	2	3@2 msis	15	20	
PRC	HQ-64/HQ-6D <sup>2</sup>	Type 571(e)	3 illuminators	4	6	3	3@2 msis	15	20	
PRC	HQ-7	FM-80 Acquisition Radar	Type 345	4	3	3	3@2 msis	15	20	Based on Crotale
PRC	HQ-7A, 7B	FM-90 Acquisition Radar	Type 345	4	3	3	3@2 msis	10	20	
PRC	HQ-9, -9A	Type 305A, Type 305B, Type 120	HT-233	4	6	3	6@2 msis	30	15	Copy of Russian S-300P
PRC	HQ-9B	Type 305A, Type 305B, Type 120	HT-233	4	6	3	6@2 msis	30	15	Copy of Russian S-300P
PRC	HQ-12	HT-233, Type 120	HT-233, SJ-231	2	6	4	3@2 msis	30	15	
PRC	HQ-16A, -16B	IBIS-150, JY-27	AB-TG680	6	4	4	4@2 msis	5	15	Based on Russian Shilka/Buk
PRC	HQ-17	IBIS-150?, 9S18M1 <sup>1</sup>	Serum Half <sup>1</sup>	8	4	4	4@2 msis	5	10	Russian Tor
PRC	HQ-22	YLC-18, JYL-1	H-200 Iulum	4	3	4	6@2 msis	5H	15	
Russia	S-75 Dvina	P-12 Yenisei, PRV-11	RSNA-75	1	6	2	1@3 msis	45	12	Requires HF radar (PRV-11)
Russia	S-300PMU	36D6, 5N66	5N63S	4	4	4	6@2 msis	5	5	
Russia	S-300PMU-1 (48N6)	36D6, 76N6	30N6-1	4	4	5A	12@2 msis	5	5	120° firing arc
Russia	S-300PMU-2 (48N6D)	36D6, 76N6	30N6-1	4	4	5A	12@2 msis	5	5	
Russia	9M400 Triumf <sup>3</sup>	91N6	Up to 6 92N6	4	4	6A	6@2 msis	5	5	PRC IOC 2018
Russia	9M331 Tor-M	39N63 Kasta-2E2	4 Scrum Half	8	4	5H	8	5	10	

**Notes:**

- 1) The Chinese designations for the HQ-17 Tor radars are unknown, but it is likely that their performance is very similar to the Russian versions: The 9S18M1 [Snow Drift] 3D radar and the Scrum Half guidance radar.
- 2) The HQ-6D version adds a command vehicle that can link to an integrated air defense net.
- 3) Each S-400 launcher can replace one 48N6DM with four 9M96.

## Annex E1 - Depth Charges

<u>Country</u>	<u>Name</u>	Weight (Kg)	Class Grouping	Damage Major	Damage Minor	Max Depth Band	IOC	Remarks
PRC	Type 62 (Large)	160	IV	12	6	Int II	1962	Copy of Russian BB-1. From DC rails/racks and Type 64 DC projector
PRC	Type 62 (Small)	36	I	5	3	Int II	1962	Copy of Russian BM-1, gunboat DC rails/racks
Russia	BB-1	165	IV	12	6	Int II	1940	
Russia	BM-1	36	I	5	3	Int II	1940	Later version w/K-3 fuze
Russia	KAB-250-100PL	94	I	5	2	Int IV	1995	First Gen passive acoustic homing DC, DE warhead
Russia	PLAB-100	100	II	8	4	Shallow	1941	
Russia	PLAB-250-120	123	II	9	4	Int I	1966	Acoustic proximity fuze

## Annex E3 - ASW Projectors

<u>Country</u>	<u>System Name</u>	Fuzing	Max Rng (nmi)	Max Depth	No. of Barrels	No. of Bombs	Hit Chances	Contact Major	Minor	IOC	Remarks
PRC	RBU 260 (RGB-260)	H	0.1	Int III	4 rails	8	--	0.14	0.20	--	5
PRC	RBU 260 (RSB-12)	H	0.6	Int III	4 rails	8	--	0.08	0.11	--	6
PRC	Type 65 (Type 62 proj)	H	0.8	Int III	5 x 25mm	10	--	0.08	0.13	--	6
PRC	Type 75 (Type 75 proj)	H	1.4	Int III	12 x 204mm	12	--	0.09	0.14	--	5
PRC	/WHH-002	C & H	1.7	Int III	5 x 25mm	10	0.02	0.10	0.16	1945	Also "FQF-2500, EDS-25A"
PRC	WHH-001 (Type 81 proj)	C & H	1.7	Int III	6 x 52mm	12	0.03	0.11	0.18	1960	C. Also "Type 65, FQF-1200"
PRC	WHH-003 (Type 81 proj)	C & H	1.7	Int III	12 x 30mm	12	0.03	0.19	0.39	1964	C. also "Type 87, FQF-3200"
PRC	WHH-004	C & H	1.6	Int III	4 rails	8	--	0.08	0.11	--	6
Russia	RBU (RSB-12)	H	0.6	Int III	6 x 305mm	6	--	0.11	0.20	--	11
Russia	RBU 1000 Smerch-3 (RGB-10)	H	0.5	Int IV	5 x 250mm	10	--	0.08	0.13	--	6
Russia	RBU 1200 Uragan (RSB-12)	H	0.6	Int III	5 x 250mm	10	--	0.11	0.20	--	6

**Notes:**

Many of these systems have many unofficial designations. These are listed in the Remarks. All systems can make one attack per Tactical Turn.

- A. Elevates, but fixed in train. Ship must be pointed directly at the target.
- B. Fixed in train and elevation. Can only fire in  $\pm 10^\circ$  directly ahead.
- C. Always fired in pairs at the same target. If only one mount can fire, halve the hit chances.
- D: Anti-torpedo capability, treat as RKP7Z-1 under 10.5 Torpedo Defenses (Hardkill System).
- E: Anti-torpedo capability, treat as RKP7Z-1 under 10.5 Torpedo Defenses (Hardkill System).

Fuzing: H = Hydrostatic, C = Contact, C & H = Contact & Hydrostatic

## Annex E4 - ASW Standoff Weapons

<u>Country</u>	<u>System Name</u>	Range (nmi)	Speed (knots)	IOC	Remarks
PRC	Yu-8	2.7 - 16.2	660	2017	The torpedo and standoff weapon have the same designation

**Annex F - Torpedoes**

<u>Country</u>	<u>Name</u>	<u>Guidance /Gen</u>	<u>Range (nm)</u>	<u>Speed (kts)</u>	<u>Diam (mm)</u>	<u>Warhead Fuzing</u>	<u>Dam vs. ship</u>	<u>Dam vs. sub</u>	<u>Launch Platforms</u>	<u>IOC</u>	<u>Max Depth</u>	<u>Weight kg</u>	<u>Propulsion</u>	<u>Remarks</u>
Italy PRC	A-244 Yu-1	Act/Pass/2 Gyro/2	3.3 1.9	30 50	324 533	C C	-- --	44 100	Surf, Air Surf, Sub	1975 1971	Int V P/S	221	Electric Thermal	PRC IOC 1986
PRC	Yu-1A	Gyro/2	4.9	39	533	/	180	--	Surf, Sub	--	P/S		Thermal	Canceled
PRC	Yu-1B	Act/Pass/2	1.9	50	533	/	180	--	Surf, Sub	1986	P/S		Thermal	P
PRC	Yu-1C	Wake-H/2	4.9	39	533	/	180	--	Surf, Sub	1988	P/S		Thermal	P
PRC	Yu-2	Gyro/1 Passive/1	2.7 7.0	63 35	450 533	C /	79 --	--	Air Sub	1971-84 1984	P/S Int III	627	Rocket Electric	A B
PRC	Yu-3	Act/Pass/2	7.0	35	533	/	--	88	Sub	1992	Int III		Electric	
PRC	Yu-3A	Wire-G/2	8.4	36	533	/	126	89	Sub	1997	Int III		Electric	
PRC	Yu-3B	Wire-G/Wake-H/3	13.5	25	533	/	128	91	Sub	2002	Int IV		Electric	
PRC	Yu-3BG	Wire-G/Wake-H/3	8.4	36	533	/	128	91	Sub	2002	Int IV		Electric	
PRC	Yu-4	Passive/1	13.5	25	533	/	158	--	Sub	1971	Int II		Electric	B, C
PRC	Yu-4A	Passive/2	8.1	36	533	/	152	--	Sub	1984	Int II		Electric	B
PRC	Yu-4B	Act/Pass/2	8.1	36	533	/	152	--	Sub	1990	Int II		Electric	B, D
PRC	Yu-6	Wire-G/Wake-H/3	16.4	50	533	/	141	100	Sub	2005	Int IV		Thermal	G
PRC	Yu-7A	Act/Pass/2	5.1	43	324	C	--	49	Air, Surf	1994	Int IV	235	Thermal	
PRC	Yu-7B	Act/Pass/3	5.1	43	324	C	--	49	Air, Surf	1994	Int IV	235	Thermal	
PRC	Yu-7C	Act/Pass/4	5.1	43	324	C	--	49	Air, Surf	2018	Int V	235	Thermal	E
PRC	Yu-8	Act/Pass/4	5.3	42	324	/	--	44	Air, Surf, Msl	2016	Int V	238	Electric	E
PRC	Yu-9	Dual-Wire/Wake-H/3	9.7	42	533	/	128	91	Sub	2012	Int IV		Electric	F
PRC	Yu-10	Dual-Wire/Wake-H/4	15.7	25	533	/	141	100	Sub	2014	Int V		Thermal	E, F, G
PRC	Yu-11	Act/Pass/4	4.9	50	324	C	--	56	Air, Surf	--	Int V	390	Thermal	E, F, G, Q
PRC	Yu-12	Dual-Wire/Wake-H/4	10.8	30	533	/	143	101	Sub	2017	Int V		Electric	E, H
Russia	45-36N	Gyro/1	1.7	41	450	C	73	--	Surf	1936		935	Steam	J, PRC IOC 1946
Russia	53-38	Gyro/1	3.3	31	533	C	81	--	Surf, Sub	1938	P/S	1615	Steam	PRC IOC 1954
Russia	53-39	Gyro/2	2.2	51	533	C	83	--	Surf, Sub	Jul 41	P/S	1780	Steam	PRC IOC 1954
			4.4	39										
			5.5	34										

**Annex F - Torpedoes (continued)**

Country	Name	Guidance /Gen	Range (nm)	Speed (kts)	Diam (mm)	Warhead Fuzing	Dam vs. ship	Dam vs. sub	Launch Platforms	IOC	Max Depth	Weight kg	Propulsion	Remarks
Russia	53-65K	Wake-H/2	10.4	45	533	I	150	--	Surf, Sub	1969	P/S	2070	Dry Steam	L, PRC IOC 1994
Russia	APR-3E Orel	Act/Pass/3	1.1	65	350	C	--	57	Air	1984	Deep I	575	Rocket	N, PRC IOC 2000
Russia	ET-46	Gyro/2	3.3	31	533	C	101	--	Sub	1949	P/S	1810	Electric	PRC IOC 1956
Russia	ET-80	Gyro/1	2.2	29	533	C	89	--	Sub	Sep 42	P/S	1800	Electric	PRC IOC 1955
Russia	RAT-52	Gyro/1	2.7	65	450	C	82	--	Air	1953	P/S	627	Rocket	A, PRC IOC 1955
Russia	TE-2-01	Wire-G/Wake-H/3	16.2	45	533	I	150	106	Surf, Sub	1999	Int V	2450	Electric	PRC IOC 1998
Russia	TEST-71M [E53-71]	Act/Pass/Wire-G/2	2.7	35	533	I	--	89	Sub	1981	Int IV	1820	Electric	PRC IOC 1994
Russia	TEST-71MK	Act/Pass/Wire-G/3	8.2	40	533	I	--	93	Sub	1986	Int IV	1820	Electric	
			13.7	24	40									
			13.7	24										

**Remarks Key:**

A: RAT-52, Yu-2 (copy of USSR RAT-52): Rocket torpedo. Drop limits 1500 m @ 430 kts. Carried by H-5 as standoff weapon. Range is for airborne travel.

Last .3 nm is in the water at 40 knots. Treat as having direct trajectory in the air.

B: Maximum launch depth 150 meters.

C: Not accepted into service. Based on Russian SAET-50M.

D: May not have been accepted by PLAN.

E: Shallow-water capable.

F: Quiet at slow speed.

G: Pump-jet propulsor.

H: Quiet at all speeds.

J: Launched from MTBs.

L: Max launch depth 100 m.

N: Unpowered search. Rocket motor starts on tgt detection.

P: Limited production run, 2-3 per submarine.

Q: Estimated designation.

## Annex G - Mines

Country	Name	Gen	Type	Fuzing	Max Depth Band	Weight (kg)	Warhead (kg)	Contact/ Full Infl. Damage			Laying Platform	In Service	Remarks
								Severe	Major	Minor			
PRC	Chen-0 500	2	Bottom	M	Shallow	500	300	132	79	39	20	Surf, Air Surf	1978
PRC	Chen-0 1000	2	Bottom	M	Shallow	1000	700	201	121	60	30	Air, Surf	1978
PRC	Chen-1 500	1	Bottom	M	Shallow	495	300	132	79	39	20	Sub, Surf	1965
PRC	Chen-1 1000	1	Bottom	M	Shallow	1080	700	201	121	60	30	Sub, Surf	1965
PRC	Chen-2 500	2	Bottom	M, A	Shallow	500	300	153	92	46	23	Sub, Surf	1975
PRC	Chen-2 1000	2	Bottom	M, A	Int I	1000	700	234	140	70	35	Sub, Surf	1975
PRC	Chen-2A 500	2	Bottom	M, A	Shallow	500	300	153	92	46	23	Sub, Surf	1978
PRC	Chen-2A 1000	2	Bottom	M, A	Int I	1000	700	234	140	70	35	Sub, Surf	1978
PRC	Chen-2B 500	3	Bottom	M, A	Shallow	500	300	159	95	48	24	Sub, Surf	1987
PRC	Chen-2B 1000	3	Bottom	M, A	Int I	1000	700	242	145	73	36	Sub, Surf	1987
PRC	Chen-3 500	2	Bottom	M, A	Shallow	500	300	153	92	46	23	Air, Sub, Surf	1973
PRC	Chen-3 1000	2	Bottom	M, A	Int I	1000	700	234	140	70	35	Air, Sub, Surf	1973
PRC	Chen-3B 500	3	Bottom	M, A, P	Int II	570	320	164	98	49	25	Air, Sub, Surf	1987
PRC	Chen-3B 1000	3	Bottom	M, A, P	Int II	950	700	242	145	73	36	Air, Sub, Surf	1987
PRC	Chen-4 120	2	Bottom	M, A, P	Shallow	120	75	76	46	23	11	Surf	1976
PRC	Chen-4 270	2	Bottom	M, A, P	Shallow	270	200	125	75	37	19	Surf	1976
PRC	Chen-5, -5A	2	Bottom	A, P	Shallow	210	120	97	58	29	15	Surf	1971
PRC	Chen-6/MTC-06	3	Bottom	M, P, A, S	Int II	740	500	208	125	62	31	Air, Sub, Surf	Late 90s
PRC	EM-57	2	Bottom	M, A	Int I	510	300	132	79	39	20	Surf	A
PRC	Mao-1	1	Moored	C	Shallow	1075	230	74	-	-	-	Surf	1962
PRC	Mao-1A	1	Moored	C	Int I	1140	230	82	-	-	-	Surf	D, Export as EM 31
PRC	Mao-1B	1	Moored	A	Shallow	1075	230	134	80	40	20	Surf	1983
PRC	Mao-2	1	Moored	C	Shallow	592	115	59	-	-	-	Surf	1985
PRC	Mao-3	2	Moored	C	Int II	1300	150	64	-	-	-	Surf	1965
PRC	Mao-4	1	Moored	A	Int II	600	125	216	130	65	32	Surf	1975
PRC	Mao-4A	1	Moored	A	Int II	600	125	216	130	65	32	Surf	1983
PRC	Mao-4B	2	Moored	A	Int II	600	125	216	130	65	32	Surf	1986
PRC	Mao-5 450	3	PWH	M, A	Int II	620	130	69	-	-	-	Surf	c1999
PRC	Mao-5 553/MQM-05	3	PWH	M, A	Int II	840	130	69	-	-	-	Sub	c1999
PRC	Piao-1, -1A	1	Drifting	C	P/S	50	25	39	-	-	-	Surf	B, 450mm
PRC	Piao-2	1	Drifting	A, C	P/S	125	50	49	-	-	-	Surf	B, 533mm
PRC	Te-1/MGT-01	2	Bottom	A	Int I	620	140	70	-	-	-	Surf	E
PRC	Te-2-I	2	Bottom	A	Int I	1000	700	234	140	70	35	Surf	F
PRC	Te-5/MQT-5	2	Bottom	S, P	Shallow	1840	380	148	89	44	22	Sub	Late 1980s
Russia	AMD-2-500	2	Bottom	M, A	Shallow	500	300	132	79	39	20	Air	G
Russia	MDM-1	2	Bottom	A, M	Int I	1120	960	235	141	71	35	Surf, Sub	1945
													PRC IOC 1957
													PRC IOC 1994

### Fuzing Abbreviations:

C = Contact  
 M = Magnetic  
 S = Seismic  
 A = Acoustic  
 P = Pressure  
 EP = Electric Potential

### Remarks Key:

A: RECO (Remote Controlled On and Off). Submarines can acoustically control the mine at a range up to 16 nmi.  
 B: Rocket propelled warhead, speed about 80 knots. Activation range is 100 yards. Exported as the EM 55.  
 C: Modified 500 kg bomb similar to the U.S. Quickstrike concept.  
 D: Retired.  
 E: Rocket propelled warhead, speed 50 knots. Activation range is 25 yards. Exported as the EM 52 mine.  
 F: RECO (Remote Controlled On and Off). Acoustic control from a shore station. Exported as the EM 53.  
 G: Modified Yu-1 torpedo. Range is 7 nmi at 25 knots. Exported as the EM 56. Chinese submarines only, up through Type 035G.

**Annex H1 - Unguided Air Ordnance**

Country	Name	Type	Warhead Type	Glide wt (kg)	Dam Pts	Glide B Pen Low/Med	Level Bomb Pen Low/Med/High	Remarks
PRC	8*57mm rocket pod	R. Pod	RP	53				8 Type 57 rockets, similar to Russian UV-8-57
PRC	HF-16 rocket pod	R. Pod	RP	95				11 Type 57 rockets
PRC	HF-25 rocket pod	R. Pod	RP	120				18 Type 57 rockets
PRC	Type 57 rocket		HE	7	2/2	--	--	
PRC	HF-7D rocket pod	R. Pod	RP	190		--	--	7 Type 90 rockets
PRC	Type 90 rocket		HE	11	3/3	--	--	
PRC	HF-14 rocket pod	R. Pod	--	450	--	24/24	--	4 Type 130 rockets
PRC	130mm rocket		HEAT	18	9/9	--	--	
PRC	NORINCO MOAB <sup>a</sup>	Bomb	HE	4500	102	59/59	51/59/59	5-6 m long, dropped by H-6K
PRC	NORINCO FAE bomb <sup>b</sup>	Bomb	Therm.	310	--	--	--	
PRC	Type 100-1 bomb	Bomb	GP	80	23	1/1	1/1/1	
PRC	Type 100-2 bomb	Bomb	GP	100	27	2/2	2/2/2	
PRC	Type 250-1 bomb	Bomb	GP	239	35	3/3	3/3/3	A, based on Russian FAB M54 series
PRC	Type 250-2 bomb	Bomb	GP	236	36	3/3	3/3/3	A, patterned after Russian FAB-250M54
PRC	Type 250-3, 250-4 bomb	Bomb	GP	216	36	4/4	3/4/4	Low-drag, also Type 250-4 retarded version, 240 kg
PRC	Type 250-1	Cl. Bomb	AP	75	--	--	--	Based on US Rockeye
PRC	Type 250-2/AT&AP	Cl. Bomb	HE	250	--	--	--	Streamlined, external carriage
PRC	Type 250-2/Antipers.	Cl. Bomb	Frag	197	--	--	--	Streamlined, external carriage
PRC	Type 250-2/Antitank	Cl. Bomb	HEAT	200	--	--	--	Streamlined, external carriage
PRC	Type 250-3	Cl. Bomb	AP	277	--	--	--	Antitank, copy of UK BL.755
PRC	Type 500-1 bomb	Bomb	GP	477	44	3/3	3/3/3	A, based on Soviet FAB M54 series
PRC	Type 500-2 bomb	Bomb	GP	473	46	3/3	3/3/3	Streamlined, external carriage
PRC	Type 500-3, 500-4 bomb	Bomb	GP	469	47	5/5	4/5/5	Low drag, also Type 500-4 retarded version, 510 kg
PRC	Type 1000-3 bomb	Bomb	GP	932	59	5/5	4/5/5	Low drag (1000-3) or high drag (1000-4)
PRC	Type 1500-1 bomb	Bomb	GP	1393	62	6/6	5/6/6	A, Based on Soviet FAB M54 series
PRC	Type 1500-2 bomb	Bomb	GP	1448	68	5/5	4/5/5	Streamlined, external carriage
PRC	Type 3000-1 bomb	Bomb	GP	2983	80	6/6	5/6/6	A, Based on Soviet FAB M54 series
PRC	Type 3000-2 bomb	Bomb	GP	2840	86	6/6	5/6/6	Streamlined, external carriage
Russia	B-8M1 rocket pod	R. Pod		400				20 * S-8 rockets
Russia	ORO-57K rocket pod	R. Pod		232				8 S-8 rockets
	S-8, S-8A, S-8M		HE	13	2/2	--/-/-	--/-/-	
	S-8D, S-8BM		FAE	12	--/-	--/-/-	--/-/-	
	S-8KO, S-8KOM, S-8T		HEAT	9	40/40	--/-/-	--/-/-	5 B-13 rockets
Russia	B-13 rocket pod	R. Pod		510				
	S-13B		SAP	23	6/7	--/-/-	--/-/-	
	S-13D/DF		Therm.	26	--/-	--/-/-	--/-/-	
Russia	BRAB-500	Bomb	AP	531	39	5/6	4/9/11	
Russia	FAB-50	Bomb	GP	45	16	1/1	1/1/1	
Russia	FAB-100	Bomb	GP	98	28	2/2	2/2/2	

## Annex H1 - Unguided Air Ordnance (continued)

Country	Name	Type	Warhead Type	Hang wt (kg)	Dam Pts	Glide B Pen Low/Med	Level Bomb Pen Low/Med/High	Remarks
Russia	FAB-250M54	Bomb	GP	239	39	3/3	3/3/3	Can be fitted with parabrake (255 kg) from 1970s
Russia	FAB-500M54	Bomb	GP	477	49	3/3	3/3/3	Can be fitted with parabrake (503 kg) from 1970s
Russia	FAB-1000M43	Bomb	GP	1077	56	6/6	5/6/6	
Russia	FAB-2000M43	Bomb	GP	2135	67	10/10	10/10/10	
Russia	OFAB-100-120	Bomb	Frag	125	27	-/-..	-/-/-..	
Russia	RS-82	Rocket	HE	6.8	6	1/1	-/-/-..	
Russia	RS-132	Rocket	HE	23.1	7	2/2	-/-/-..	
Russia	S-21/HE	Rocket	HE	118	29	4/4	-/-/-..	
Russia	S-21/HEAT	Rocket	HEAT	118	27	106/106	-/-/-..	

### Remarks Key

A: Flat-nosed, internal carriage only.

### Notes:

- 1) A "-" in the armor penetration column means that the bomb cannot be used.
- 2) Rockets and rocket pods do not have level bombing penetration values.
- 3) Cluster bombs and rocket pod damage and penetration values are based on their weight.
- 4) FAE penetration is zero, but ignore armor penetration when calculating damage. FAEs are not effective against naval targets.

## Annex H3 - Aircraft Guns

Country	Name	ATA	Damage Points	Armor Pen	Pod Hang Wt (kg)	IOC
PRC	PC-1AY 12.7mm pod	1.63	1	1	200	
PRC	PC-2A 23mm gun pod	3.06	3	0	217	2010
PRC	PX-10 23mm	1.22	2	0		
PRC	Type 23-1 23mm	0.86	2	0		1956
PRC	Type 23-2, -2H 23mm	1.35	3	0		1952
PRC	Type 23-3A 23mm	3.27	3	0		1981
PRC	Type 30-1 30mm	1.20	3	0		1961
PRC	Type 30-2 30mm	2.14	3	0		--
PRC	Type 30-4 30mm	2.46	3	1		
PRC	Type 37-1 37mm	0.64	4	0		1956
Russia	ShKAS 7.62mm	0.46	1	1		1932
Russia	UB 12.7 12.7mm	0.40	1	1		1940
Russia	B-20 20mm	0.64	2	0		1945
Russia	ShVAK, MP 20mm	0.67	2	0		1936
Russia	NR-23 23mm	0.88	3	0		1949
Russia	NS-23 23mm	0.57	3	0		1945
Russia	VYa 23mm	0.48	2	3		1940
Russia	GSh-30-1 (9A4071)	2.46	3	1		1983
Russia	NR-30 30mm	1.22	3	0		1954
Russia	N-37 37mm	0.65	4	0		1946

**Annex H2 - Guided Air Ordnance**

<u>Country</u>	<u>Name</u>	<u>Guidance /Gen</u>	<u>Range (nm)</u>	<u>Speed (kts)</u>	<u>Flight Path</u>	<u>Hang Wt (kg)</u>	<u>Damage</u>	<u>Pen (cm)</u>	<u>Sig-nature</u>	<u>IOC</u>	<u>Remarks</u>
Intl	HOT 1	Wire-G/2	0.3 - 2.1	486	Direct	23.5	9	46	vSmall	1980	PRC IOC 1988
PRC	AKD-9	SALH/3	1.1 - 3.2	700	Direct	30	11 + D6/3	64	vSmall	2012	
PRC	AKD-10	SALH/3	1.1 - 4.3	700	Direct	47	13 + D6/3	77	vSmall	2012	A
PRC	AKD-63 (ex-YJ-63)	I/TEO (D, DL)/1	10.8 - 97	486	Low Cruise	2000	52+ D6	20	Small	2004	
PRC	AKD-63B	I&Sat/TIIRH (DL)/2	10.8 - 97	486	Low Cruise	2000	52+ D6	20	Small	2013	
PRC	AKD-88, AKD-88A	I/M/TEO/3	8.1 - 124	594	Cruise	600	36 + D6/2	9	vSmall	2006	
PRC	AKD-88 (SAP)	I/TARH (MMW2)/3	8.1 - 124	594	Cruise	600	36 + D6/2	10	vSmall	2007?	
PRC	AKD-88 (Airburst)	I/TPRH/3	8.1 - 124	594	Cruise	600	D6+3	1	vSmall	2007?	Airburst
PRC	AR-1	I&Sat/3	5.4	725	Direct	45	14 + D6/3	77	vSmall	B	
PRC	AR-2	I/M/TSALH	4.3	397	Direct	20	11 + D6/3	69	vSmall	2017?	
PRC	CH-AS-X-13	I&Sat/D2+	1620	5737	Ballistic	9000	300kt	--	Small	2025?	In test 2018
PRC	CJ-10K [CH-SSSC-9]	I&Sat/TERCOM/DSMAC/2	1080	528	NOE Cruise	1090	52 + D6	13	vSmall	2009	
PRC	CJ-10K (nuclear)	I&SAT/TERCOM/2	1350	528	NOE Cruise	1090	30-90 kT or 400 kT	--	vSmall	2016	
PRC	CJ-20/AKD-20	I&Sat/TERCOM/DSMAC/3	1620	529	NOE Cruise	1700	52 + D6	13	vSmall	2018	C
PRC	CM-102	PRH/3	54.0	2295	Direct	195	D6 + 2	1	vSmall		Airburst
PRC	FT-1 500 kg	I/Sat/2	1.5 - 9.6	528	Glide	567	47	4/5/5	vSmall		
PRC	FT-2 500 kg	I/Sat/2	1.5 - 32	528	Glide	567	47	4/5/5	vSmall		
PRC	FT-3 250 kg	I/Sat/2	1.5 - 9.6	528	Glide	282	36	3/4/4	vSmall		
PRC	FT-3A 250 kg	EO or TIIRH/2	1.5 - 10.8	528	Glide	282	36	3/4/4	vSmall		
PRC	FT-4 250 kg planar wing	I/Sat/2	1.5 - 32	528	Glide	282	36	3/4/4	vSmall		
PRC	FT-5 100 kg	I/Sat/2	1.5 - 9.6	528	Glide	120	27	2/2/2	vSmall		
PRC	FT-6 250 kg planar wing	I/Sat/2	1.5 - 32	528	Glide	300	36	3/4/4	vSmall		
PRC	FT-6A	PRH/2	1.5 - 32.4	528	Glide	300	36	3/4/4	vSmall		
PRC	FT-7 130 kg planar wing	I/Sat/2	48.6	528	Glide	130	27	2/2/2	vSmall		
PRC	FT-9/50 50 kg bomb	I/Sat or EO(IIR) or IIIRH/3	1.5 - 10.8	528	Glide	50	11	1/1/1	vSmall		
PRC	FT-12 250 kg	I/Sat/3	1.5 - 40.5	528	Glide	300	36	3/4/4	vSmall		
PRC	FT-12 500 kg	I&Sat/TEO or TPRH/3	1.5 - 81	528	Glide	570	47	4/5/5	vSmall		
PRC	GB-1 500 kg bomb	SALH/3	0.6 - 4.8	528	Glide	570	47	4/5/5	vSmall		
PRC	GB-3 250 kg bomb	SALH/3	0.6 - 4.8	528	Glide	270	36	3/4/4	vSmall		
PRC	GT-100	I&Sat/TSALH/3	16.2	528	Glide	130	27	2/2/2	vSmall	2020	
PRC	HJ-8A	Cmd (optical)/2	0.05 - 1.6	428	Direct	11.2	9	55	vSmall	1984	
PRC	HJ-8	Cmd (optical)/2	0.05 - 1.6	428	Direct	11.2	9	55	vSmall	1984	
PRC	HJ-8A	Cmd (optical)/2	0.05 - 1.6	428	Direct	22.5	9	55	vSmall		
PRC	HJ-8B	Cmd (optical)/2	0.05 - 2.9	428	Direct	22.5	9	55	vSmall		
PRC	HJ-8C	Cmd (optical)/2	0.05 - 2.2	428	Direct	22.5	9	55	vSmall	1993?	
PRC	HJ-8D	Cmd (optical)/2	0.05 - 2.2	428	Direct	24.5	9	55	vSmall		
PRC	HJ-8E	Cmd (DN EO)/3	0.05 - 2.2	428	Direct				mid-90		

## Annex H2 - Guided Air Ordnance (continued)

<u>Country</u>	<u>Name</u>	<u>Guidance /Gen</u>	<u>Range (nm)</u>	<u>Speed (kts)</u>	<u>Flight Path</u>	<u>Hang Wt (kg)</u>	<u>Damage</u>	<u>Pen (cm)</u>	<u>Sig. nature</u>	<u>IOC</u>	<u>Remarks</u>
PRC	HJ-8F	Cmd (DN EO)/3	0.05 - 2.2	428	Direct	25	9	55	vSmall		
PRC	HJ-8FAE	Cmd (DN EO)/3	0.05 - 2.2	428	Direct	25	12 + D6/3	0	vSmall		
PRC	HJ-8L	Cmd (DN EO)/3	0.05 - 2.2	428	Direct	25	9	55	vSmall		
PRC	HJ-8S	Cmd (DN EO)/3	0.05 - 2.2	428	Direct	25	9	55	vSmall		
PRC	HJ-8H	Cmd (DN EO)/3	0.05 - 2.2	428	Direct	25	7	55	vSmall	2000	
PRC	LJ-21	I&Sat/TsALH & MMW/4	1.1 - 10	700	Direct	50	14 + D6/3	88	vSmall	2020?	F
PRC	LS-6-50 50 kg	I/Sat/TEO/3	1.5 - 18	528	Glide	77	11	1/1/1	vSmall		
PRC	LS-6-100 100 kg	I/Sat/TEO/3	1.5 - 18	528	Glide	132	27	2/2/2	vSmall		
PRC	LS-6-250 250 kg	I/Sat/3	1 - 32	528	Glide	282	36	3/4/4	vSmall		
PRC	LS-6-500 500 kg	I/Sat/3	1 - 32	528	Glide	570	47	4/5/5	vSmall		
PRC	LT-2 (LS-500u), JG-500	SALH/2	1.5 - 5.4	528	Glide	564	47	4/5/5	vSmall	2006	
PRC	LT-3	I/Sat/TSALH/3	1.5 - 13	528	Glide	567	47	4/5/5	vSmall	2008?	
PRC	YJ-1	II/TARH/2	6.5 - 44.8	1320	Low Cruise	1850	48 + D6	14	Small	--	E
PRC	YJ-6 [CAS-1 Kraken]	II/TARH/2	13.5 - 81	594	Low Cruise	2440	53 + D6	59	Small	1986	
PRC	YJ-7 (radar)	II/TARH/3	1.5 - 13.5	529	VLow Cruise	117	20 + D6/3	5	vSmall	2004?	
PRC	YJ-7(EO)	IM/TEO/3	1.0 - 8.1	529	VLow Cruise	117	20 + D6/3	5	vSmall	1998?	
PRC	YJ-9, YJ-9E	II/TARH/3	10 - 8.1	561	VLow Cruise	105	21 + D6/3	5	vSmall	2012? Or 2017	
PRC	YJ-9A, YJ-9EA	I/TEO/3	10 - 8.1	462	VLow Cruise	105	21 + D6/3	5	vSmall		
PRC	YJ-9B, YJ-9EB	SALH/3	10 - 8.1	561	VLow Cruise	105	21 + D6/3	5	vSmall		
PRC	YJ-12	I&Sat/TARH/3	21.6 - 216	1719	VHi Cruise	1800	48 + D6	9	vSmall	2013	D
			21.6 - 110	1320	VLow Cruise	46 + D6					
PRC	YJ-61	II/TARH/2	13.5 - 103	594	Low Cruise	2440	53 + D6	20	Small	1991	
PRC	YJ-81	II/TARH/2	4.3 - 27.5	594	VLow Cruise	610	36 + D6/2	9	vSmall	1989	
PRC	YJ-83K	II/TARH/3	8.1 - 135	594	VLow Cruise	715	38 + D6/2	9	vSmall	1998/99	
PRC	YJ-83KH	II/TARH & TI/RH (DL)/4	8.1 - 135	594	VLow Cruise	715	38 + D6/2	9	vSmall	--	
PRC	YJ-91	PRH/3	8.1 - 64.8	1940	High Cruise	600	D6 + 2	1	vSmall	2010	Airburst
Russia	KAB-500Kr	EO(D)/1	1.6 - 4.9	528	Glide	520	41	5/6/9	vSmall	1983	PRC IOC 2002
Russia	KAB-1500Kr	EO(D)/2	1.6 - 4.9	528	Glide	1560	66	9/10/15	vSmall	1992	PRC IOC 2002
Russia	Kh-29T [AS-14b Kedge]	EO(D)/2	1.6 - 6.5	791	Direct	685	43 + D6/2	10	vSmall	1978	PRC IOC 2001
Russia	Kh-31A Taifun [AS-17b Krypton]	II/TARH/3	5.4 - 37.8	1690	Direct	610	33 + D6/2	10	vSmall	1990	PRC IOC 2004
Russia	Kh-31P [AS-17a Krypton]	PRH/2	8.1 - 55	1690	Direct	600	D6 + 2	1	vSmall	1993	PRC IOC 2002
Russia	Kh-59M (unitary warhead)	I/TEO(D)/2	10.8 - 62	544	Med Cruise	930	45 + D6	10	vSmall	1991	PRC IOC 2004
Russia	Kh-59M (cluster warhead)	I/TEO(D)/2	10.8 - 62	544	Med Cruise	930	Cluster	--	vSmall	1991	PRC IOC 2004
Russia	Kh-59MK	II/TARH/3	2.7 - 154	570	VLow Cruise	930	45 + D6	10	vSmall	2008	

**Remarks Key:**

A: AKD-10A appeared in 2015, unknown improvements.

B: Launched from Medium altitude.

C: Possibly conventional and nuclear variants.

D: High altitude launch. Last 27 nm is VLow at 1585 knots. May perform terminal evasive maneuvers.

E: Flies at 50 m, treat as VLow for detection. Terminal seaskimmer. Canceled 1992.

F: Improved AKD-10, export designation LJ-21/BA-21. Official designation unknown. Requires LJ-21 Guidance Pod.

**Annex H4 - Air-to-Air Missiles**

<u>Country</u>	<u>Name</u>	<u>Guidance /Gen</u>	<u>ATA Rating</u>	<u>Max Rng (nm)</u>	<u>Hang Wt (kg)</u>	<u>Speed (kts)</u>	<u>Aspect</u>	<u>Dog-fight?</u>	<u>Snap U/D?</u>	<u>Ceiling Alt Band</u>	<u>IOC</u>	<u>Remarks</u>
Italy	Aspide	SARH/3 Beam-R/1	2.0 0.0	27 2.8	220 82	2295 1555	A N	N Y	Y N	VHigh High	1988 1964	PRC IOC 1995 A, B, retired 1974
PRC	PL-1	IRH/1	0.0	2	70	1147	N	Y	N	High	1967	
PRC	PL-2 [CAA-1]	IRH/1	0.5	2	76	1147	N	Y	N	High	1970	
PRC	PL-2A [CAA-1]	IRH/2	1.0	2	76	1147	N	Y	N	High	1981	
PRC	PL-2B [CAA-1]	IRH/2	1.5	2.7	87	1260	N	Y	N	High	1991	
PRC	PL-5B	IRH/2	1.5	3.5	85	1260	W	Y	N	High	1997	
PRC	PL-5C	IRH/3	2.0	7.5	83	1434	A	Y	N	VHigh	1999	
PRC	PL-5E	IRH/3	2.5	9.7	83	1434	A	Y	N	VHigh	2008	
PRC	PL-5EI	IRH/2	1.0	6.2	93	1434	N	Y	N	VHigh	—	
PRC	PL-6	IRH/2	1.0	1.6	90	1147	W	Y	N	High	1987	
PRC	PL-7	IRH/2	1.5	2.7	93	1147	A	Y	N	High	Early 90s	
PRC	PL-7B	IRH/2	1.5	2.7	93	1147	A	Y	N	VHigh	1983	Israeli Python 3
PRC	PL-8	IRH/3	3.0	8.1	120	1721	A	Y	N	VHigh	Late 90s	
PRC	PL-8B	IRH/3	2.5	8.1	115	1721	A	Y	N	VHigh	2005?	
PRC	PL-8C	IRH/3	3.0	10.8	115	1721	A	Y	N	VHigh	1989	HMS compatible
PRC	PL-9	IRH/2	2.0	8.1	115	1205	A	Y	N	VHigh	2002	HMS compatible
PRC	PL-9C	IRH/3	2.5	11.9	115	1205	A	Y	N	VHigh	2013	HMS compatible
PRC	PL-10	IIRH/4	3.5	10.8	105	2295	A	Y	N	VHigh	2003	
PRC	PL-11	SARH/2	2.5	13.5	220	1721	Y	Y	Y?	VHigh	2005	
PRC	PL-12	I/M/TARH/3	3.0/3.5	37.8/9.5	199	2295	A	Y	Y	VHigh	—	
PRC	PL-12A	I/M/TARH/3	3.0/3.5	40/9.5	195	2295	A	Y	Y	VHigh	—	
PRC	PL-12B	I/M/TARH/4	3.5/4.0	40/9.5	195	2295	A	Y	Y	VHigh	—	
PRC	PL-12C	I/M/TARH/4	3.5/4.0	40/9.5	195	2295	A	Y	Y	VHigh	—	
PRC	PL-12D	I/M/TARH/4	3.5/4.0	80/9.5	205	2295	A	Y	Y	VHigh	—	
PRC	PL-15	I/M/TARH/4	3.5/4.0	57.6/9.5	180-230	2295	A	Y	Y	VHigh	2017	
PRC	PL-X (PL-20?)	I/M/TARH/4	3.0/3.5	108/9.5	e600	2295	A	N	Y	VHigh	???	
PRC	PL-21	I/M/TARH/4	3.5/4.0	81/9.5	200	2869	A	Y	Y	VHigh	test 2016	
PRC	PL-90/TY-90	IRH/3	2.0	3.2	20	1147	Y	Y	N	Med	2006	Helicopter use A, export RS-2U
Russia	K-5M [AA-1a Alkalaï]	Beam-R/1	0.0	2.8	82	1555	N	Y	N	High	1958	Export R-3A
Russia	K-13 [AA-2a Atoll]	IRH/1	0.5	2.0	70	1434	N	Y	N	VHigh	1961	
Russia	R-27ER [AA-10 Alamo C]	I/M/TSARH/3	2.5	39.3	354	2295	A	Y	Y	VHigh	1990	PRC IOC 2000
Russia	R-27ET [AA-10 Alamo D]	IRH/3	2.5	37.8	347	2295	A	Y	Y	VHigh	1990	PRC IOC 2000
Russia	R-27R [AA-10 Alamo A]	I/TSARH/3	2.0	32.4	253	2008	A	Y	Y	VHigh	1983	PRC IOC 1992
Russia	R-27T [AA-10 Alamo B]	IRH/3	2.0	25.6	245	2008	A	Y	N	VHigh	1987	
Russia	R-73 [AA-11 Archer]	IRH/3	3.0	8.1	105	1434	A	Y	N	VHigh	1983	
Russia	RVV-AE [AA-12 Adder]	I/M/TARH/4	3.0/3.5	36.7/8.5	177	1721	A	Y	Y	VHigh	1994	PRC IOC 2002
Russia	RVV-MD	IRH/3	3.0	11.0	106	1434	A	Y	N	VHigh	PRC IOC 2017	
Russia	RVV-SD	I/M/TARH/4	3.5/4.0	44.6/11	190	1721	A	Y	N	VHigh	PRC IOC 2017	

**Remarks Key:**

A: Minimum launch altitude Medium.  
 B: Eight PL-1 converted to PL-1A in 1965 with VHigh ceiling.

## Annex H5 - Aircraft Electronics Pods

<u>Country</u>	<u>Name</u>	<u>Gener-ation</u>	<u>Hang Wt (kg)</u>	<u>I/O</u>	<u>Remarks</u>
PRC	AKK-802K guidance pod	--	260	2006	
PRC	BM/KG 8601 defensive ECM pod	2	200	1996	Guidance pod for AKD-63, 63B, AKD-88, 88A, range 150 nmi
PRC	BM/KG 8605 defensive ECM pod	2	200	1993	
PRC	K/JDC-01 targeting pod	2	230	2006	Also YINGS III Model 390. Laser designator pod, EO & FLIR
PRC	K/JDC-01A targeting pod	2	230	2016	Same pod as JDC-01 with different interface
PRC	K/PZS-01H targeting pod	1	200	2005	Simplified day only
PRC	KA-112A recon pod	--	590	mid-80s	
PRC	KG-300G defensive ECM pod	2	150	1999?	First shown in 1998, can also be used as an ESM for launching ARMs
PRC	KG-600 defensive ECM pod	3	e250	2014	
PRC	KG-800 escort jammer pod	3	500	2016	Clutter rating 16
PRC	KG-900G defensive ECM pod	4	e250		
PRC	KL-609A defensive ECM pod	3	150	2004	Replacement for Gardeniya on Su-27SK and J-11
PRC	KL-700, 700A, -700B ES pod	3	250		Hang weight estimated
PRC	KZ-900 ELINT pod	1	200	1998?	
PRC	LJ-21 Guidance Pod	--	50	2020	Name unknown, provides midcourse guidance link to LJ-21
PRC	Standoff Jammer Pod	--	450	2008	Designation unknown, Clutter rating 14
PRC	SLAR reconnaissance pod	--	600	2006	For J-8F
PRC	YINGS III Model 330 targeting pod	2	230	2015	Laser designator pod, EO & FLIR
PRC	YINGS III Model 360 targeting pod	2	230		Laser designator pod, EO & FLIR, offered at Zhuhai 2016
Russia	APK-9 Telon guidance pod	--	260	1983	Required for Kh-59, 59M. PRC IOC 2004
Russia	L-203 Gardeniya-F1UE defensive ECM pod	2	150	1990s	PRC IOC 1996
Russia	L-265 Khibiny-M defensive ECM pod	4	205	2017	PRC IOC 2017

## Annex H6 - Anti-Runway Ordnance

<u>Country</u>	<u>Name</u>	<u>Pcut</u>	<u>Hang Wt (kg)</u>	<u>Warhead (Kg)</u>	<u>Release Alt</u>	<u>IOC</u>	<u>Remarks</u>
PRC	Anti-runway CBU	.50	250	16 * 4.5	Low	2019	Range 70 nmi, Inertial & Sat/2 guidance, Glide flight path at 528 knots, VSmall signature, carries twelve antirunway submunitions
PRC	TL-500/GB-6 cluster bomb	.80	680	High - Med			
PRC	Type 200A or 200-4 antirunway bomb	.60	200	--	Low	1996	Based on Durandal, parachute retarded, then rocket-booster
Russia	Kh-29T	.80	657/688	317	Low-Med	Med	Special popup mode and optional delayed fuze, PRC IOC 2002
Russia	S-13T	.50	160	37	Med	mid-80s	Five * B-13L 122mm rocket pod, PRC IOC 1992
All	Laser-guided bombs	.70	Varies	Varies	High - Med	--	Must designate the runway
All	Satnav-guided bombs	.85	Varies	Varies	High - Med	--	
All	1000 kg/2000 lb bomb <sup>1</sup>	.50	1000	Varies	Med	--	Unguided
All	500 kg/1000 lb bomb <sup>1</sup>	.40	500	Varies	Med	--	Unguided
All	227 kg/250 lb bomb <sup>1</sup>	.30	227	Varies	Med	--	Unguided

Pcut = Probability that a cut has occurred, given that the munition hit the target.

Release Altitude = The altitude band that the munition must be released from to successfully inflict a cut, if it hits.

**Notes:**

- 1) Low-drag bombs only. Retarded bombs won't penetrate the runway surface.

## Annex H7 - Free-Fall Nuclear Weapons

<u>Country</u>	<u>Name</u>	<u>Weight (kg)</u>	<u>Warhead Yield (kT)</u>	<u>Burst Type</u>	<u>In Service</u>	<u>Remarks</u>
PRC	Project 2923	1550	300	S		First Chinese nuclear bomb. First tested 1965
PRC	H524-23	2000	2770	A		Air-dropped version of DF-3 warhead
PRC	Project 639	4500	3300	S	1970	Thermonuclear, tested from H-6A Jun 67, H639-6, H639-23 variants
PRC	Kuang Biao-1	1000	<100	S	1972	"Hurricane-1"; thermonuclear, on Q-5Jia

## Annex J1 - Naval Radars

Country	System	Function	Detection Range						Gen	IOC	Remarks
			Large	Medium	Small	VSmall	Stealthy				
France	Sea Tiger	AS	91	87	62	25	7.5	4	1987		
		SS	40	32	18	10	5.7				
Japan	Furuno, Generic	Nav	48	28	16	9	5	3			
PRC	AESA X-Band LAS	LAS	75	75	63	25	7.6	6	2020		
		SS	40	40	30	17	9				
PRC	AESA										
	Targeting Complex	SS-T	135	135	99	56	31	6	2020		
PRC	LJG-346	3D, MFC	125	125	90	36	11	6	2006		
	[Dragon Eye]	SS	30	30	20	11	6				
PRC	LJG-346A	3D, MFC	150	150	110	44	13	6	2014		
	[Dragon Eye]	SS	35	35	20	11	6.3				
PRC	LJG-346B]	3D, MFC	250	247	177	71	21	6	2020	LPI	
	[Dragon Eye]	SS	38	38	25	14	8				
PRC	LJQ-348	LAS	50	42	30	12	3.6	4	1991		
		SS	35	35	20	11	6.3				
PRC	LJP-349	GFC									
PRC	LJQ-352C	LAS	20	17	12	4.8	1.4	3	1990		
	[Square Tie]	SS	40	40	23	13	7.1				
PRC	LQZ-353B	SS	15	15	8.5	4.8	2.7	3	1990s	Radar mast	
PRC	LQK-359A	SS	20	20	12	6.8	3.8	4	2006	Radar mast	
PRC	LJQ-360	LAS	81	81	73	29	8.7	4	1992		
		SS	57	32	18	10	5.7				
PRC	LJQ-361	LAS	35	35	35	18	5.4	4	1993		
		SS	57	32	18	10	5.7				
PRC	LJQ-361A	LAS	35	35	35	20	6.0	5	2007		
		SS	35	32	18	10	5.7				
PRC	LJQ-362 Mod	LAS	35	35	27	11	3.2	5	2005	D	
		SS-T	65	65	49	28	15				
PRC	LJQ-363	LAS	30	30	30	17	5.2	3	1990		
		SS	63	35	20	11	6.3				
PRC	LJQ-363S	LAS	35	35	35	20	6.0	4	1999		
		SS	76	43	24	14	7.6				
PRC	LJQ-364	LAS	54	54	54	22	6.5	5	2004		
		SS	35	35	25	14	7.9				
PRC	LJQ-366 [Band Stand]	SS-T	120	120	72	40	22	4	2004	B	
PRC	LJQ-381A Sea Eagle C										
	[Rice Screen]	3D	135	112	80	32	10	4	1988		
PRC	LJQ-382	3D	162	162	124	49	15	5	2004		
	Sea Eagle S/C	SS	27	27	22	13	7.0				
PRC	LJQ-517H-1, H2	AS	135	95	68	27	8.1	4	1999		
PRC	LJQ-517A/B	AS	189	132	95	38	11	4	1990		
PRC	LJQ-518 Hai Ying										
	[Sea Eagle]	AS	129	90	65	26	7.7	4	1994		
PRC	LJQ-520 [Oyster Grill]	AS	250	245	175	70	21	5	2020	Est. designation	
PRC	Navigation radar	Nav	36	25	14	8.0	4.4	--	--	Generic	
PRC	[Top Hat?]	SS-T	135	135	77	43	24	5		B, C	
PRC	Type 351 [Pot Head]	LAS	16	13	10	3.8	1.1	1	1960		
		SS	14	14	10	6	3.2				
PRC	Type 352/352A/B	LAS	20	17	12	4.8	1.4	2	1970s		
	[Square Tie]	SS	30	30	17	10	5.3				
PRC	Type 353A	SS	10	10	5.7	3.2	1.8	2	1974	Radar mast	
PRC	Type 353A-1	SS	10	10	5.7	3.2	1.8	2	1974	Radar mast	
PRC	Type 354 [Eye Shield]	LAS	70	56	40	16	4.8	2	1970s		
		SS	30	30	18	10	5.7				
PRC	Type 362	LAS	30	23	16	6.5	2.0	3	1985	Exported as ESR-1	
		SS	50	30	17	10	5.3				
PRC	Type 381 [Rice Screen]	3D	108	91	65	26	7.8	3	1984		
PRC	Type 512 [Skin Head]	AS	16	15	11	4.2	1.3	1	late 50s		

## Annex J1 - Naval Radars (continued)

Country	System	Function	Detection Range						Gen	IOC	Remarks
			Large	Medium	Small	VSmall	Stealthy				
PRC	Type 515A [Bean Sticks]	SS AS	14 108	13 76	8 54	4.3 22	2.4 6.5		2	1971	
PRC	Type 515B [Pea Sticks]	AS	81	57	41	16	4.9		2	1975	
PRC	Type 517 [Knife Rest A]	AS	108	76	54	22	6.5		3	1982	
PRC	Type 726 [Fin Curve]	Nav	25	23	13	7.4	4.1		2	Late 60s	
PRC	Type 751	Nav	36	36	20	12	6.4		2	1964	
PRC	Type 752	Nav	48	27	15	8.6	4.8		2	1969	
PRC	Type 753	Nav	24	24	18	10	5.6		2	1972	
PRC	Type 753A	Nav	36	36	22	12	6.7		3	1980	
PRC	Type 753C	Nav	48	48	29	16	9.0		3	1987	
PRC	Type 754	LAS	24	24	18	7.2	2.2		4	1994	
PRC	Type 756 [Fin Curve]	Nav	64	44	25	14	7.9		3	1981	
PRC	Type 757	Nav	24	24	14	8	4.3		3	1984	
PRC	Type 758	Nav	48	47	27	15	8.4		3	1988	
PRC	Type 760	Nav	96	57	32	18	10		4	1990	
Russia	Don, Don 2	Nav	18	18	12	6.8	3.8		2	1957	
Russia	Flag [Snoop Plate]	SS	10	10	6	3.2	1.8		1	1953	
Russia	Fut-N [Slim Net]	AS	80	69	49	20	6		1	1955	
Russia	Gyuys-1M4 [Cross Bird]	AS	29	20	15	5.8	1.7		1	1945	
		SS	9.0	7.0	4.0	2.2	1.2				
Russia	Lin [Ball Gun]	SS	18	18	10	5.7	3.2		1	1955	
		LAS	18	18	13	5.1	1.5				
Russia	Mineral [Band Stand]	SS-T	100	100	66	37	21		3	1982	A
Russia	Mineral-M [Band Stand]	SS-T	135	135	77	43	24		4	1991	B
Russia	MR-212/201 Vaygach-U [Palm Frond]	SS	25	25	18	10	5.7		3	1976	
Russia	MR-352M Positiv-M1.2 [Cross Round]	3D	45	45	32	13	3.8		5	1999	
Russia	MR-750 Fregat-M2 [Top Plate]	3D	81	81	67	27	8.0		4	1982	
Russia	MR-760 Fregat-MA [Top Plate]	3D	81	81	67	27	8		4		
Russia	MRK-50 Kaskad [Snoop Tray]	Nav	25	25	20	11	6				
Russia	Neptun/Neptun-M	Nav	12	12	7.1	4.0	2.2		3	1970	Radar mast
Russia	P-8 [Knife Rest A]	AS	14	12	7	4	2		1	1950	
Russia	Rangout	SS	76	53	38	15	5		1	1952	
		LAS	55	43	24	14	8		2	1958	
Russia	Reya [Pot Head]	LAS	20	17	12	5	1.4				
Russia	Zarnitsa [Skin Head]	AS	16	15	11	4.2	1.3		1	1949	
		SS	14	13	7.6	4.3	2.4				
UK	Racial Decca 1226/1290	Nav	48	28	16	9	5		2		
USA	Raytheon Pathfinder	Nav	35	19	11	6	3		3		

## Remarks Key:

- A: Passive channel is a 3rd Gen ES.  
 B: Passive channel is a 4th Gen ES.  
 C: Notional targeting complex on later Type 815A.  
 D. Does not have a passive targeting component, only radar and datalink.

## Annex J2 - Land Radars

Country	System	Function	Detection Range						IOC	Mobility	Remarks
			Large	Medium	Small	VSmall	Stealthy	Gen			
PRC	CLC-1	LAS	5.9	5.9	5.9	2.5	0.7	4	1995	M	Type 95 Self-Propelled Air Defense Vehicle
PRC	CLC-2	LAS	24	24	24	10	3.1	4	1995	M	Type 95 AA battery, on command post vehicle
PRC	CLC-3	3D LAS	43	43	43	18	5.5	4	1996	M	Mast-mounted
PRC	CLC-3A	3D LAS	81	81	61	24	7.3	6	2014	M	Mast-mounted
PRC	Eagle	SS, GFC	35	35	29	15	7.3	2	1970s	M	Mobile coastal radar, possibly also LR62
PRC	FM-80, FM-90	Acquisition radar	LAS	14	14	4	1	3			Performance estimated, designation unknown
PRC	HGR-106	3D LAS	113	113	81	32	10	5	2014	M	
PRC	HK-JM	AS	175	175	125	50	15	5	c2014	T	
PRC	HK-JM2	AS	280	280	201	80	24	5	c2014	T	
PRC	HT-233	MFC	81	81	81	32	10	5	1997	M	
PRC	IBIS	LAS	20	14	10	4	1	3		T	DK-9 SAM battery acquisition
PRC	IBS-150	3D	81	81	81	34	10	5	2000	M	
PRC	JH-12	LAS	108	108	100	40	12	5	2014	T	Also LLQ-113C
PRC	JH-16	3D	243	243	174	69	21	5	2014	M	Truck mounted on mast
PRC	JH-18	3D LAS	81	81	61	24	7.3	5	2014	M	Truck mounted on mast
PRC	JL3D-90A	3D	162	162	162	77	23	5	c2010	T	Possibly LLQ-304 and Type 390A
PRC	JL3D-91B	3D	250	250	224	90	27	5	2016	T	
PRC	JLG-843 [Rice Cake]	HF	108	81	58	23	7.0	2	1958	T	Also LLQ-402
PRC	JLP-440 [Cross Out]	AS	130	130	106	42	13	2	1958	T	Also LLQ-202
PRC	JY-8C	LAS	135	135	115	46	14	5	2014	T	
PRC	JY-11	3D LAS	108	108	103	41	12	5	2000s	M	
PRC	JY-11B	3D LAS	162	162	143	57	17	5	2014	M	Truck mounted on mast
PRC	JY-12	3D	189	189	166	66	20	5	2014	M	Truck mounted on mast
PRC	JY-26 Skywatcher-U	3D	270	270	257	103	31	6	2014	T	
PRC	JY-27 [Wide Mat]	AS	270	270	257	103	31	5	2000	T	
PRC	JY-27A Skywatch-V	3D	324	324	285	114	34	6	2014	T	
PRC	JY-29	AS	135	135	115	46	14	5	2005	M	
PRC	JYL-1	3D	243	243	200	80	24	5	2005	T	
PRC	JYL-1A Skywatcher-S	3D	297	297	257	103	31	6	2014	T	
PRC	LD-JHC300	SS	162	162	162	93	52	5	2003	F	
PRC	LR61	LAS	75	53	38	15	4.5	5	2005	M	Coastal radar
PRC	LR63	SS-T	65	65	65	36	20	6	2005	M	
PRC	REC-1	LAS	70	70	50	20	6.0	4	1990s	T	Coastal radar
PRC	REL-1	AS	189	187	133	53	16	4	1990s	F/T	
PRC	REL-2	AS	129	128	91	36	11	4	1990s	F	
PRC	REL-2A	AS	162	160	114	46	14	4	1990s	F	
PRC	REL-3	AS	202	200	143	57	17	4	1990s	T	
PRC	REL-4	AS	216	216	87	26	5	2000			

**Annex J2 - Land Radars (continued)**

Country	System	Function	Detection Range					IOC	Mobility	Remarks
			Large	Medium	Small	vSmall	Stealthy			
PRC	REL-6B	AS	194	192	137	55	16	4	1990s	T
PRC	REL-51	AS	205	203	145	58	17	5	2000s	T
PRC	RES-1	LAS	81	57	41	16	4.9	5	mid-2000s	M
PRC	SJ-202 [Gin Sling A]	MFC	62	46	33	13	3.9	2	1959	T
PRC	SJ-212	MFC	62	46	33	13	4	4	1994	T
PRC	SJ-231	MFC	65	48	34	14	4	5	2010	T
PRC	SLC-6	3D	324	324	250	100	30	6	2016	T
PRC	SLC-7	3D	243	243	98	29	6	6	2016	M
PRC	SLR66	SS-T	97	97	76	43	24	5	c2012	M
										Passive mode is treated as 4th Gen ES for indigenous system and 3rd Gen ES export
PRC	Type 101	AS	108	76	54	22	6.5	1	1953	T
PRC	Type 120	LAS	108	107	76	31	9.2	5	2005	M
PRC	Type 305A	3D, MFC	216	216	196	78	23	6	2012	M
PRC	Type 305B	3D	297	297	256	102	31	5	2012	T
PRC	Type 313 [Moon Face]	AS	65	46	33	13	3.9	1	1953	F
PRC	Type 314A [Moon Mat]	AS	73	51	36	15	4.4	2	1954	F
PRC	Type 314B [Moon Plate]	AS	95	67	48	19	5.7	2	1954	T
PRC	Type 331	SS	25	19	11	6	3	2	1960s	F
PRC	Type 383 [Wall Rust]	3D	189	132	95	38	11	4	mid-1980s	M
PRC	Type 383G	3D	81	57	41	16	4.9	4	1990s	M
PRC	Type 384 [Great Wall]	3D	173	173	124	49	15	4	1998	F/T
PRC	Type 385 [High Guard]	3D	270	270	211	84	25	5	2004	T
PRC	Type 389 [Wall Eye]	LAS	95	95	86	34	10	3	mid-1980s	T/F
PRC	Type 389F	LAS	95	95	86	34	10	4	1990s	T
PRC	Type 402	SS	30	30	17	10	5.3	2	1957	F
PRC	Type 404A	SS	35	35	20	11	6.2	2	mid-1970s	F
PRC	Type 405	LAS	70	56	40	16	4.8	2	1976	F/M
										Coastal radar, mobile version is truck mounted
PRC	Type 406 [Moon Cone]	AS	135	95	68	27	8.1	2	1956	T
PRC	Type 408	AS	250	175	125	50	15	2	1960	F
PRC	Type 408A	AS	250	175	125	50	15	2	1965	T
PRC	Type 408C	AS	290	203	145	58	17	4	1980s	T
PRC	Type 501	AS	162	113	81	32	10	4	1985	T
PRC	Type 502	AS	225	225	200	80	24	4	1996	F/T
PRC	Type 503	AS	243	170	122	49	15	4	1986	T
PRC	Type 513 [Slot Rest]	AS	108	76	54	22	6.5	2	1957	T
PRC	Type 514 [Chop Rest]	AS	135	95	68	27	8.1	2	1965	T
PRC	Type 514A	AS	162	113	81	32	10	3	1980	T
PRC	Type 514B	AS	210	147	105	42	13	4	1990s	T
PRC	Type 571	LAS	113	81	58	23	7.0	3	≈1985	T
PRC	Type 572	AS	135	133	95	38	11	4	2000s	T
										SAM acquisition radar Also LLQ-112

## Annex J2 - Land Radars (continued)

Country	System	Function	Detection Range						IOC	Mobility	Remarks
			Large	Medium	Small	VSmall	Stealthy	Gen			
PRC	Type 572B	AS	97	96	69	27	8.2	4	2000s	T	Also LLQ-112A
PRC	Type 581 [Cross Slot]	LAS	189	144	103	41	12	2	1963	T	Also LLQ-104
PRC	Type 582 [Rice Cup]	HF	127	89	63	25	7.6	2	1963	T	
PRC	Type 586	AS	189	187	133	53	16	2	1965	T	Also LLQ-203
PRC	Type 589 [Cross Legs]	AS	243	170	122	49	15	2	1963	F	Also LLQ-114
PRC	Type 589B	AS	243	229	164	66	20	3	1980	T/M	Also LLQ-113B
PRC	Type 706	LAS	32	32	32	13	3.9	3	1990s	M	Also IBIS
PRC	Type 902/X band	LAS, GFC	10	10	10	4.0	1.2	3	1990s	M	
PRC	Type 902/C band	LAS	19	19	19	7.6	2.3	3	?	M	
PRC	YLC-2A	3D	297	297	256	102	31	5	2012	T	
PRC	YLC-2A-V	AS	270	270	256	102	31	5	2016	T	
PRC	YLC-2V	3D	297	297	288	115	35	5	2014	T	
PRC	YLC-6	LAS	97	97	96	38	12	4	2005	M	
PRC	YLC-6H	LAS	97	97	96	38	12	5	2015	M	
PRC	YLC-6M	LAS	108	108	108	51	15	4	2014	M	
PRC	YLC-7	AS	135	135	108	43	13	4	mid-1990s	T	
PRC	YLC-8, YLC-8A	AS	270	270	205	82	25	5	2010	T	
PRC	YLC-8B	3D	325	325	296	119	36	5	2017	T	Possibly LLQ-609
PRC	YLC-15	LAS	11	11	11	5	1.4	4	2008	M	
PRC	YLC-18	3D LAS	162	162	162	69	21	5	2008	M	
Russia	5N66/76N6 [Clam Shell]	AS	65	65	65	26	8	4	mid-80s	M	
Russia	Mast mount	AS	49	49	49	20	6				
Russia	Trailer mount	AS									
Russia	9S18M1 Kupol-M1										
Russia	[Snow Drift]	3D	86	86	69	27	8	4	mid-80s	M	
Russia	36D6/ST-68UM [Tin Shield]							4	1980	T	
Russia	Mast mount		95	91	65	26	8				
Russia	Trailer mount		79	63	45	18	5				
Russia	39N63 Kasta-2E2										
Russia	[Squat Eye E]	3D	81	81	61	24	7	4		M	
Russia	91N6 [Big Bird]	3D	324	314	224	90	27	5	2014	M	
Russia	Mys (48R6)	SS	100	74	53	21	6	3		M	S-2 Sopka acquisition
Russia	PRV-11 Vershina	HF	91	67	48	19	6	2	1962	T	
Russia	[Side Net]										
Russia	P-12 Yensei										
Russia	[Spoon Rest A]	AS	106	74	53	21	6	2	1956	M	
Russia	P-15 Tropa [Flat Face A]	AS	113	81	58	23	7	2	1955	T	
<b>Mobility Abbreviations:</b>			F fixed radars	M mobile radars						T transportable radars	

## Annex J3 - Air Radars

Country	System	Function	Gen	Lge	Med	Small	VSmall	Stealthy	Eng # Targets	Arc	IOC	Remarks
Canada	APS-504(V)3	SS	3	250	221	126	71	40	360°	mid-80s		
France	ORB 32 Heracles II	SS	3	150	150	101	57	32	180°	1986		
Israel	EL/M-2035	AI	4	153	107	76	31	9	4	120°		
Israel	EL/M-2075 Phalcon	AS	4	340	240	171	68	21		360°		
Italy	Grifo 7	LD/SD	4	30	30	21	8	3	1	60°	2001	
PRC	H-6K radar	SS	5	175	98	56	32	18	--	120°	2009	A
PRC	J-10B radar	LD/SD	5	114	80	57	23	7	4	90°	2015	A
PRC	J-10C radar	LD/SD	6	137	96	69	27	8	4	90°	2017	A
PRC	J-16 radar	LD/SD	6	171	120	86	34	10	6	90°	2015	A
PRC	JL-7	AI	2	25	18	13	5	2	1	60°	1989	
PRC	JL-7A	AI	2	38	27	19	8	2	1	60°	1995	
PRC	JL-7AG	LD/SD	2	34	24	17	7	2	1	60°	1990s	
PRC	JL-8A, AG (Type 208B)	AI	3	38	27	19	8	2	1	120°	1996	
PRC	JL-9	AI	4	97	68	48	19	6	1	120°	1990s?	
PRC	JL-10	AI, SS	4	46	43	31	12	4	1	120°		
PRC	JL-10A Shen Ying	AI	4	43	30	22	9	3	6	120°	2004	
		SS, TF		120	67	38	22	12	--	120°		
PRC	JL-10GJ	LD/SD	4	34	24	17	7	2	4	120°	2013?	
PRC	KJ-1 (Type 843)	AS	2	167	117	83	33	10	--	360°	1971	
PRC	KJ-200 radar	3D	5	162	91	52	29	16	--	2 x 120°	2008	
PRC	KJ-500 (JY-06?)	3D	5	189	106	60	34	19	--	360°	2015	
PRC	KJ-2000 (Type 88)	3D	5	342	240	171	68	21	--	80°		
PRC	KJ-3000 radar	3D	6	400	282	201	81	24	--	360°	2020s?	
PRC	KLC-1	SS	4	158	89	51	28	16	--	120°	2003	
PRC	KLC-3B	SS	5	172	97	55	31	17	1	120°	2012?	
PRC	KLC-7 Silk Road Eye	3D	6	342	240	171	68	21	--	360°	2023?	
	Extended rng mode	3D		455	319	228	91	27	--	80°		
PRC	KLJ-1/2 (Type 1471)	LD/SD	3	70	56	40	16	5	1	360°	1995	
PRC	KLJ-3 (Type 1473)	LD/SD	4	81	64	26	8	2/4	120°	2004		
		SS		162	91	52	29	16				

## Annex J3 - Air Radars (continued)

<u>Country</u>	<u>System</u>	<u>Function</u>	<u>Gen</u>	<u>Lge</u>	<u>Med</u>	<u>Small</u>	<u>VSmall</u>	<u>Stealthy</u>	<u>Eng # Targets</u>	<u>Arc</u>	<u>IOC</u>	<u>Remarks</u>
PRC	KLJ-4 (Type 1474)	LD/SD	4	81	81	64	26	8	4	120°	2008	
PRC	KLJ-5 (Type 1475)	LD/SD	6	190	133	95	38	11	6?	90°	2019	
PRC	KLJ-6E, SY-80	AI	4	180	101	58	32	18	1	60°	2004	
PRC	KLJ-6F	LD/SD	4	32	22	16	6	2	2	60°	2004	
PRC	KLJ-7A	LD/SD	6	173	121	86	35	10	2	120°	2010	
PRC	KQ-200	SS	5	210	118	67	38	21	2	120°	2021?	?
PRC	L-15B radar	LD/SD	5	210	118	67	38	21	--	360°	2015	A
PRC	SY-80	AI	3	32	23	16	6	2	1	60°		
PRC	Type 88	3D	5	254	178	127	51	15	--	360°	2006	
PRC	Type 201 (SL-1)	AI	2	11	8	6	2	1	1	120°	1950s	
PRC	Type 204 (SR-4 or SL-4)	AI	2	32	22	16	6	2	1	76°	1985	
PRC	Type 205	AI	3	38	27	19	8	2	1	120°	1980s	
PRC	Type 208 (SL-5)	AI	3	38	30	22	9	3	1	120°	1992	
PRC	Type 232H Eagle Eye	SS	3	120	67	38	22	12	--	120°	1996	
PRC	Type 241 (HL-2)	SS	2	22	12	7	4	2	--	360°	1969?	
PRC	Type 242	SS	2	22	12	7	4	2	--	360°	1970s	
PRC	Type 244 Kobalt (HL-2A)	SS	2	49	27	16	9	5	--	360°	1982	
PRC	Type 245 (HL-4)	SS	2	175	98	56	32	18	1	360°	1985	
PRC	Type 317	SS	2	27	15	9	5	3	1	120°	1976	
PRC	Type 317A	SS, TA	3	35	21	14	7	3	--	120°	1978	
PRC	Type 773	AI	32	23	16	6	2	1	360°	1986		
PRC	Type 1492	LD/SD	3	205	115	66	37	20	--	120°	2003	
PRC	Type 1493	LD/SD	4	70	56	40	16	5	2	120°	2008	
PRC	UAV Advanced Radar	SS	6	250	140	80	45	25	--	360°	C	
PRC	Z-18F radar	SS	5	120	67	38	22	12	--	360°	2019?	A
PRC	Z-18J radar	AS	5	214	150	107	43	13	--	360°	2018	A
PRC	Z-19 radar	MMW	5	11	6	4	2	1	--	360°	2020s	A
PRC	Z-20F radar	SS	5	120	67	38	22	12	--	360°	1995	
Russia	E-801 Oko	AS	5	171	120	86	34	10	--	360°		
Russia	N-001E	LD/SD	4	65	64	45	18	5	2	140°	1991	
Russia	N-001VE Meych	LD/SD	4	65	65	51	20	6	2	120°	?	
Russia	N-001VEP Meych	LD/SD	4	114	80	57	23	7	1	140°	2000	
Russia	Zhuk-8/N-1010 Zhuk	LD/SD	4	49	34	24	10	3	4	120°	--	
		SS, TA	72	43	29	14	7					

**Annex J3 - Air Radars (continued)**

<u>Country</u>	<u>System</u>	<u>Function</u>	<u>Gen</u>	<u>Lge</u>	<u>Med</u>	<u>Small</u>	<u>VSmall</u>	<u>Stealthy</u>	<u>Eng # Targets</u>	<u>Arc</u>	<u>IOC</u>	<u>Remarks</u>
Russia	N-035 Irbis	LD/SD	5	215	151	108	43	13	8	250°	2015	SAR, NCTR
		SS		216	216	164	92	51				
Russia	Osminog [Splash Drop]	SS	3	100	90	51	29	16		360°	1981	
Russia	PSBN-M [Mushroom]	SS	2	22	12	7	4	2	--	360°	1951	
Russia	RBP-1 Kobalt-M											
Russia	[Mushroom II]	SS	2	49	27	16	9	5	--	360°	1952	
Russia	RP-1,-1U Izumrud											
	[Scan Can]	AI	2	6	4	1.7	0.5	1	1	15°	1953	
Russia	RP-2U Izumrud 2	AI	2	14	10	7	3	0.8	1	120°	1957	
Russia	RP-5 Izumrud 5											
	[Scan Odd]	AI	2	8	8	6	2.3	0.7	1	120°	1955	
Russia	Sea Dragon 3	SS	5	144	81	46	26	14	--	360°	?	SAR/ISAR
		AS		101	71	51	20	6				
UK	Skymaster	AS	3	125	87	62	25	7	--	360°	?	
		SS		124	69	40	22	12				
USA	APG-66	LD/SD	4	74	52	37	15	4	1	120°	1978	
		SS		80	62	35	20	11				
USA	APQ-113/130/165/169	AI	3	30	22	16	6	2	1	60°	1967	B
		SS, TF		80	71	40	23	13				

**Remarks Key:**

A: Designation unknown.

B: Use these performance values for the radar on canceled Q-6 aircraft.

C: Notional radar for Shendiao, WZ-7, and WZ-8 UAVs.

## Annex K1 - Search Sonars

Country	Name	Function	Mounting Type	Base Active Range	Base Passive Range	Gen	Freq Band <sup>a</sup>	Platform	IOC	Remarks
France	DUUX 5 Fenelon	Search & Rng	Flank	--	2.1	5	LMF-MF	Sub	1977	G
France	SS 12	Search	VDS	1.8	0.5	5	HFa	Surf	c1978	
PRC	SJD-1	Search	Bow	2.0	0.5	2	MFa	Surf	1970	C
PRC	SJD-2	Search	Bow	2.2	0.6	3	MFa	Surf	1988	Also known as SJD-II
PRC	SJD-3	Search	Keel	1.4	0.2	3	HFa	Surf	1975	E, Also known as Type 303
PRC	SJD-3A	Search	Keel	1.6	0.3	4	HFa	Surf	1988	E, H
PRC	SJD-4	Attack	Keel	1.0	--	3	HFa	Surf	1988	E, Also known as SJD-IV
PRC	SJD-5	Search	Bow	1.6	0.3	3	HFa	Surf	1980	E, H, Also known as Type 305
PRC	SJD-5A	Search	Bow	1.8	0.4	4	HFa	Surf	1990	H
PRC	SJD-5B	Search	Bow	2.0	0.5	5	HFa	Surf	2000	H
PRC	SJD-7	Search	Bow	3.0	1.3	5	MFa	Surf	1995	
PRC	SJD-9	Search	Bow	3.6	1.4	6	LMF-MFa	Surf	2005	Also known as Type 307
PRC	SJD-11	Search	Bow	4.3	1.5	7	LMF-MFa	Surf	2017	F
PRC	SJD-N	Attack	Keel	0.6	--	3	HFa	Surf	1970	E, Also known as Type 675
PRC	SJG-206	Search	Twd	--	6.0	6	VLF-LF	Surf	2004	Long, slow speed
PRC	SJG-208	Search	Twd	--	20	6	VLF-LF	Surf	2000	B, Long, slow speed
PRC	SJG-311	Search	Twd	7.0	7.0	7	VLF-LMFa	Surf	2012	Long, slow speed
PRC	SQG-2, 2B	Ranging	Flank	--	1.9	4	LMF-MF	Sub	1989	G
PRC	SQG-204	Ranging	Flank	--	2.2	5	LMF-MF	Sub	1994	G, also known as SQG-4
PRC	SQG-204A/204B	Search & Rng	Flank	--	2.5	6	LMF-MF	Sub	2004	G
PRC	SQG-207	Search	Flank	--	3.0	6	LF-LMF	Sub	2004	
PRC	SQZ-262A/B/C	Search	Bow	2.1	2.0	5	LF-MFa	Sub	1989	
PRC	SQZ-265A	Search	Bow	2.5	2.5	6	LF-MFa	Sub	2004	
PRC	SQZ-3	Search	Bow	1.5	1.4	6	VLF-LF	Sub	2013	Short, slow towed array
PRC	SQZ-D	Search	Bow	1.5	1.4	3	HFa	Sub	1974	
PRC	Type 105	Search	Bow	0.8	0.4	2	HFa	Sub	1975	
PRC	Type 108	Search	Flank	--	1.0	2	LF-LMF	Sub	1960	
PRC	TS-6	Mine Det.	Bow	0.5	--	2	HFa	Sub	1974	
Russia	Feniks [Trout Cheek]	Search	Bow	--	1.1	2	MF-HF	Sub	1953	
Russia	Mars-8	Search	Flank	--	0.6	1	LF-LMF	Sub	1939	
Russia	Mars-12	Search	Flank	--	0.7	1	LF-LMF	Sub	1939	
Russia	Mars-16	Search	Flank	--	0.8	1	LF-MF	Surf, Sub	1939	
Russia	Mars-24K	Search	Flank	--	1.0	1	LF-MF	Sub	1945	
Russia	MG-10, MG-10M [Trout Cheek]	Search	Bow	--	1.4	3	LMF-HF	Sub	1958/60	
Russia	MG-200 Arktika /Arktika-M [Pike Jaw]	Search	Sail/Bow	1.5	1.0	3	HFa	Sub	1957/60	E
Russia	MG-519 Arfa-G [Mouse Squeak]	Detection	Bow	0.7	--	4	HFa	Sub	1985	D
Russia	MGK-335EM Platina-M	Search	Bow	4.3	1.5	5	LMF-MFa	Surf	1985	

## Annex K1 - Search Sonars (continued)

<u>Country</u>	<u>Name</u>	<u>Function</u>	<u>Mounting Type</u>	<u>Base Active Range</u>	<u>Base Passive Range</u>	<u>Gen</u>	<u>Freq Band<sup>a</sup></u>	<u>Platform</u>	<u>IOC</u>	<u>Remarks</u>
Russia	MGK-400 Rubikon [Shark Eye]	Search	Bow	2.5	2.5	4	LMFa-MF	Sub	1973	A
Russia	Pegas 2, 2M [Buck Toe]	Search	Keel	1.6	0.5	3	HFa	Surf	1953/56	E, H
Russia	Tamir-5L/LS [Perch Gill]	Search	Keel	0.8	0.4	2	HFa	Sub	1945	E
Russia	Tamir-5NNS [Perch Gill]	Search	Keel	0.3	--	2	HFa	Surf	1945	E
Russia	Tamir-11/11M [Stag Hoof]	Search	Keel	1.0	0.4	3	HFa	Surf	1952	E
USA	DE 1160B	Search	Keel	2.6	1.3	5	MFa	Surf	1979	
USA	DE 1164	Search	VDS	3.0	1.3	5	MFa	Surf		

### Remarks Key:

- A: Active array limited to ±30° off own ship's course. Cannot use BB or CZ paths.
- B: Surveillance array similar to SURTASS.
- C: Also known as SJD-I and Type 601.
- D: No VDS component in PRC service.
- E: Searchlight sonar. Player must choose 90° sector each Tactical Turn to search.
- F: Possible designation for sonar on Type 055 CG.
- G: Wave Front Curvature passive ranging.
- H: Functions as an attack sonar. Provides depth information for ASW RL.

## Annex K2 - Airborne Sonars

<u>Country</u>	<u>System Name</u>	<u>Type</u>	<u>Base Active Range</u>	<u>Base Passive Range</u>	<u>Gen</u>	<u>Freq Band</u>	<u>Sonobuoy Life (hrs)</u>	<u>IOC</u>	<u>Remarks</u>
France	HS 12 (TSM 8252)	D	1.7	0.4	5	HF	--	1982	PRC use on SA.321J helo
France	HS 312	D	1.9	0.5	5	HF	--	c1986	Three believed delivered to PRC in 1987
PRC	HF-1/SKF-1	S	--	0.2	2	MF	5	1967	Threshold, omni-directional, Int I max depth
PRC	HF-2/SKF-2	S	--	0.3	2	LMF-MF	5	1972	Threshold, omni-directional, Int I max depth
PRC	SKD-1	D	0.5	0.2	2	MFa	--	1976	Shallow max depth
PRC	SKD-95	D	1.7	0.4	5	HFa	--	2000	Also known as "Type 605"
PRC	SKD-MF	D	2.6	0.8	6	MFa	--	c2014	Designation unknown
PRC	SKD-LMF	D	3.8	1.3	6	LMFa-MF	--	dev	Copy of Plessey Cormorant dipping sonar
PRC	SQ-3	S	1.3	--	5	HFa	8	2004	Designation unknown. Still in development
PRC	SQ-4	S	--	1.3	5	VLF-MF	8	2004	Possibly to be deployed on Z-18F
Russia	RGB-16 [Type 16]	S	3	0.9	4	VLF-LMFa	4	1985	Omni-directional, command activated
Russia	VGS-3 Ros-V [Lamb Tail]	D	2.5	0.5	5	MFa	--	1981	EER & LOFAR. Combined RGB-75 and RGB-15 Ka-27 Helix A

Types: D = Dipping sonar, S = Sonobuoy

### Annex K3 - Airborne Sonar Processors

<u>Country</u>	<u>Aircraft</u>	<u># of Sonobuoys</u>	<u>Processor Name</u>	<u>Total Channels</u>	<u># of Search Channels</u>	<u># of Localiz. Channels</u>	<u># of Active Channels</u>	<u>Remarks</u>
PRC	Ka-28 [Helix A]	16	Izumrud	68	16	0	0	Uses RGB-16 sonobuoys
PRC	Q-6 [Madge]	63	Baku-like	12	12	0	0	Possible copy of Soviet Baku receiver
PRC	SH-5 [Harb]	60	Baku-like	18	18	0	0	Uses HF-1 sonobuoys
PRC	Y-8FQ [Maid]	100	Type 605	48	40	0	8	Uses HF-2 sonobuoys
PRC	Z-9C Haitun	16	Type 605	16	12	0	4	Uses Chinese SQ series sonobuoys
PRC	Z-18F Sea Eagle	30	Type 605	16	12	0	4	Uses Chinese SQ series sonobuoys
PRC	Z-20F	25?	Type 605	16	12	0	4	May use Chinese SQ series sonobuoys - unconfirmed

### Annex L - Tactical Data Links

<u>Country</u>	<u>System</u>	<u>TDL Type</u>	<u>Surface LOS (nmi)<sup>2</sup></u>	<u>Air LOS (nmi)<sup>2</sup></u>	<u>Beyond LOS (nmi)<sup>2</sup></u>	<u>SATCOM Relay</u>	<u>Jamming Resistance</u>	<u>IOC 2020?</u>	<u>Remarks</u>
PRC	DTS-03 <sup>1</sup>	RT	25	250	--	--	Yes	12	1988
PRC	HN-900	TL	25	--	--	--	Yes	0	Similar to Link 16, also called JSIDLS
PRC	JSTIDS	RT	--	200	--	--	Yes	8	Separate from the TJN-906. Theater-level, not installed on every ship
PRC	TJN-905	NRT	25	100	300	--	--	0	Compatible with TJN-905 series/906
PRC	TJN-905/Integrated	NRT	25	100	300	--	--	0	Similar to Link 11
PRC	Data Type I	RT	25	150	Relay	Yes	8	2004	Modification of the TJN-905
PRC	TJN-906	RT	--	250	--	Yes	12	2010	Compatible with TJN-901/902/903
PRC	XS-3 <sup>1</sup>	RT	--	250	--	--	--	2020?	Similar to Link 16. Compatible with TJN-905 series and YJN-901/902/903
PRC	YJN-901	NRT	25	--	--	--	0	1997	Similar to CEC
PRC	YJN-902	NRT	--	100	--	--	0	1997	Ship to ship. Similar to Link 11
PRC	YJN-903	NRT	--	--	300	--	0	1997	Ship and air. Similar to Link 11
									Ship to shore. Similar to Link 11

Types: Time Late (TL), Near Real-Time (NRT), Real-Time (RT)

JSTIDS: Joint Service Tactical Information Distribution System

JSIDLS: Joint Service Integrated Data Link System

LOS: Line-of-sight

Relay: TDL coverage can be extended by using similarly equipped platforms to relay data to platforms over the horizon

SATCOM: Satellite communications

#### Notes:

1. Export designation. PLAN designation is unknown.
2. All ranges are estimated.

## Annex W Environment

The weather, lighting conditions, and sonar conditions may be specified by a scenario, agreed on by both players, or randomly Generated. The parts of a complete environment description are: The time of day, sea state, wind direction, clouds, visibility, and sonar conditions.

### Time of Day

Time is recorded using the 24-hour military clock: midnight is 0000 or 2400 hours; noon is 1200 hours; 7:30 PM is 1930 hours. Noon is 1200 hours. 1959 hours (7:59 PM) is followed by 2000 hours.

Generate a random time of day by using D6 rolls. First roll for the quarter of the day, re-rolling a 5 or 6. Then roll again, adding that number to the value for the quarter in parentheses. This is the hour of the day in military time.

### RANDOM TIME GENERATION

<u>Die Roll</u>	<u>Quarter</u>
1	First (0)
2	Second (6)
3	Third (12)
4	Fourth (18)
5	Reroll
6	Reroll

### Sea State & Wind Speed

Sea State is a standard method of describing wave height. The table below provides a method for determining wave height. Sea state can affect gunnery, flight operations, or other naval evolutions.

### RANDOM SEA STATE & WIND

D100 Roll	Height of Seas (ft)	Wind (kts)	Beaufort Scale	Sea State	Description
01-05	Dead Calm	0	0 & 1	0	Glassy
06-10	0	5	2	1	Rippled
11-20	2	10	3	2	Wavelets
21-40	4	15	4	3	Slight
41-60	6	20	5	4	Moderate
61-85	9.5	25	6	5	Rough
86-90	13.5	30	7	6	Very Rough
91-92	18	40	8	6	Very Rough
93-94	23	45	9	6	Very Rough
95-96	29	50	10	7	High Seas
97-98	37	60	11	8	Very High Seas
99-00	45	65+	12	9	Phenomenal

### Wind Direction

Wind direction is given as a number in degrees ranging from 000 to 359, usually stated in relation to true north. This is the direction the wind is blowing from. A wind from 000°T means that the wind is blowing directly north to south.

Generate the wind randomly by rolling D6 and subtracting one. Multiply the remainder times sixty, then add D6 times ten to this result. For example, if the two D6 rolls are 3, then 5, the direction is  $((3-1)*60)+(5*10) = 120+50 = 170^{\circ}\text{T}$ .

### Cloud Generation

- 1) Roll D6 for the number of cloud layers. If the scenario starts after 1200 and before 2400, add one to the die roll.

1-2	No Clouds
3-5	One Layer
6	Two Layers

- 2) Roll for the altitude band of each layer

1	Low	(0-2000 m)	Starts at 1000 m alt
2-4	Medium	(2001-7500)	Starts at $(D6+1)*1000$ m
5-6	High	(7501-13500)	Starts at $(D6+6)*1000$ m

- 3) Roll for the thickness of each layer, then for the coverage of the layer

		Scattered	Intermittent	Broken	Overcast
1-3	1,000 meters	1-4	5-7	8-9	0
4	2,000 meters	1-3	4-6	7-8	9-0
5	4,000 meters	1	2-3	4-7	8-0
6	10,000 meters	1-4	6-0		

If the thickness exceeds the thickness of the altitude band, it joins the next altitude band.

Scattered clouds block 25% of the visual LOS, Intermittent block 50%, Broken block 75%, and Overcast completely block line of sight.

### Visibility

This describes the distance at which objects can be seen. With 100% visibility, objects can be seen at maximum possible distance, but haze, smoke, fog, or precipitation can reduce the value. Roll randomly on the following table to find out the visibility.

RANDOM VISIBILITY TABLE

Die Roll <u>D100</u>	% <u>Visibility</u>	Clear <u>Day</u>	Clear <u>Night</u>	Day <u>Precip</u>	Night <u>Precip</u>
01-02	100	Unlimited			
03-05	90	Unlimited			
06-10	80	V Clear			
11-20	70	V Clear			
21-35	60	Clear			
36-50	50	Clear	Full Moon		
51-65	40	Clear	Gibbous		
66-80	30	Lt Haze	Quarter	Misty	
81-90	20	Hazy	Crescent	Light	
91-95	10	Lt Fog	New Moon	Interm	Misty
96-98	5	Thick Fog	Lt Fog	Heavy	Light
99-00	2	Dense Fog	Thick Fog		Interm-Hvy

### Sonar Conditions

Sonar detection ranges are affected by the water's temperature, precipitation, and other factors. The listed range may be either decreased or increased. Randomly determine the sonar range multiplier by rolling 7+D6 and multiplying it times 10%. This yields a factor between 80% and 130%. This applies equally to all sonars used by both sides in a game, since the water conditions affect both sides.

## Annex Y - List of Ship Classifications

-G	Suffix to a ship class indicating an area defense SAM of at least 10 nmi range (e.g. DDG, SSG, CG)
-N	Suffix to a ship class designation indicating nuclear propulsion (e.g. SSN, CGN)

### **Combatants**

#### **Aviation Ships**

CV	multi-purpose aircraft carrier
CVA	attack aircraft carrier
CVH	helicopter carrier
CVL	Light aircraft carrier
CVN	multi-purpose aircraft carrier (nuclear)
CVS	ASW aircraft carrier

#### **Surface Combatants**

BB	battleship
BC	battle cruiser
CA	heavy cruiser (gun)
CG	guided missile cruiser
CGH	guided missile helicopter carrier
CGN	guided missile cruiser (nuclear)
DD	destroyer
DDG	guided missile destroyer
FF	frigate
FFG	guided missile frigate
FFL	corvette (light frigate)

#### **Submarines**

SS	submarine
SSA	auxiliary submarine
SSB	ballistic missile submarine
SSBN	ballistic missile submarine (nuclear)
SSC	coastal submarine
SSG	guided missile submarine
SSGN	guided missile submarine (nuclear)
SSM	minisubmarine
SSN	submarine (nuclear)
SSP	submarine (air-Independent propulsion)

#### **Patrol Combatants**

PG	patrol gunboat
PHM	guided missile patrol combatant (hydrofoil)

#### **Amphibious Warfare Type Ships**

LCC	amphibious command ship
LHA	amphibious assault ship (General purpose)
LHD	amphibious assault ship (multi-purpose)
LKA	amphibious cargo ship
LPA	amphibious transport
LPD	amphibious transport dock
LPH	amphibious assault ship (helicopter)
LSD	dock landing ship
LSL	Landing ship, logistic

LST tank landing ship

#### **Combat Logistics Ships**

AE	ammunition ship
AEFS	fleet replenishment ship
AF	store ship
AFS	combat store ship
AO	oiler
AOF(L)	large fleet tanker
AOF(S)	small fleet tanker
AOE	fast combat support ship
AOR	replenishment oiler
AOS	Support tanker

#### **Mine Warfare Ships**

MCM	mine countermeasures ship
MCS	mine countermeasures support ship
MHC	mine hunter, coastal
MHS	mine hunting ship
MM	Minelayer
MSB	minesweeping boat
MSD	minesweeping drone
MSF	fleet minesweeper
MSI	inshore minesweeper
MSS	specialized minesweeper

#### **Patrol Craft**

ATC	mini-armored troop carrier
PB	patrol boat
PC	coastal patrol craft
PBR	river patrol craft
PCF	patrol craft (fast patrol combatant)
PG	patrol gunboat
PM	river monitor
PS	large patrol ship
PT	torpedo boat
PTG	guided missile patrol craft

#### **Amphibious Warfare Ships and Craft**

LCUA	landing craft, air cushion
LCFS	fire support landing craft
LCM	medium landing craft
LCP	personnel landing craft
LCU	utility landing craft
LCVP	vehicle/personnel landing craft
LKA	amphibious cargo ship
LPA	amphibious transport
LPD	dock landing ship
LSDV	swimmer delivery vehicle
LSM	medium landing ship
LSSC	light SEAL support craft
LST	tank landing ship
LWT	amphibious warping tug
MSSC	medium SEAL support craft
SLWT	side loading warping tug
SWCL	special warfare craft, light

## Annex Y - List of Ship Classifications

SWCM special warfare craft, medium

HSS Helicopter support ship

### Auxiliaries

#### **Mobile Logistics Ships**

AD	destroyer tender
AE	ammunition ship
AF	stores ship
AR	repair ship
AO	oiler
AOR	replenishment oiler
AW	water tanker

#### **Support Type Ships**

ACS	auxiliary crane ship
AEM	missile tender
AFT	transport stores ship
AG	miscellaneous auxiliary
AGB	icebreaker
AGE	experimental auxiliary
AG/FF	frigate/FAC support ship
AGDS	deep submergence support ship
AGF	miscellaneous command ship
AGI	intelligence collection ship
AGP	patrol craft tender
AGM	missile range instrumentation ship
AGOR	oceanographic research ship
AGOS	ocean surveillance ship
AGS	surveying ship
AGSS	auxiliary research submarine
AH	hospital ship
AK	cargo ship
AKR	vehicle cargo ship
AOG	gasoline tanker
AOT	transport oiler
AP	transport
APA	Amphibious transport
AR	repair ship
ARR	nuclear propulsion repair ship
ARC	cable repairing ship
ARL	repair ship, small
ARS	salvage ship
AS	submarine tender
ASR	submarine rescue ship
ATA	ocean tug
ATF	fleet ocean tug
ATS	salvage and rescue ship
AVB	aviation logistic support ship
AVM	guided missile ship
AVT	auxiliary aircraft landing training ship

### Support Craft/Service Craft

#### **Tugs (self-propelled)**

YTB	large harbor tug
YTL	small harbor tug
YTM	medium harbor tug

#### **Tankers (self-propelled)**

YO	fuel oil barge
YOG	gasoline barge
YW	water barge

#### **Lighters and Barges (self-propelled)**

YF	covered lighter
YFU	harbor utility cart

#### **(non-self-propelled)**

YC	open car lighter
YCF	car float
YCV	aircraft transportation lighter
YFN	covered lighter
YFN	large covered lighter
YFNX	lighter (special-purpose)
YFRN	refrigerated covered lighter
YFRT	range tender
YGN	garbage lighter
YON	gasoline barge
YOS	oil storage barge
YSR	sludge removal barge
YWN	water barge

#### **Other Craft (self-propelled)**

DSRV	deep submergence rescue vehicle
DSV	deep submergence vehicle
NR	submersible research vehicle (nuclear propelled)
YAG	miscellaneous auxiliary service craft
YFB	ferry boat or launch
YTT	torpedo trials craft
YM	dredge
YP	patrol craft, training

#### **Unclassified Miscellaneous**

IX	unclassified miscellaneous unit
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## Annex Z - Conversion Factors & Scales

One Tactical Turn equals 3 minutes.

One Intermediate Turn equals 30 minutes, or 10 tactical turns.

Speed in knots/120 = nautical miles covered in one Incremental Move Phase.

Speed in knots/20 = nautical miles covered in one Tactical turn.

Speed in knots/2 = nautical miles covered in one Intermediate turn.

**A ship's damage points** are based on its standard displacement (submerged displacement for subs).

Sometimes a ship's displacement is not provided as a standard displacement.

Multiply GRT by 75%, to approximate standard displacement.

Multiply full load (fl) displacements by .85 to approximate standard displacement.

Multiply lightship (ltshp) displacements by 1.13 to approximate standard displacement.

$$DP = 0.177 \times (\text{Displ})^{0.80} \quad (\text{2006 Standard})$$

$$DP = .85 \times (\text{Displ})^{0.667} \quad (\text{2012 Standard})$$

Merchant/civilian ships (minimal DC fittings, large cargo holds, no transverse bulkheads): -50%

Merchants converted to warships (involving reconstruction): -35%

Warships built to mercantile standards (implying less watertight compartmentalization and lower shock criteria):

laid down before 1990: -25%

laid down 1990 and after: -15%

Materials other than steel used in a large part of the ship's construction:

Titanium: +15%

GRP: -10%

Aluminum superstructure: -15%

Aluminum hull & superstructure: -25%

Wood: -25%

Submarines (less reserve buoyancy): -50%

Hovercraft/SES: -30%

Multihull (catamaran, trimaran, SWATH) -25%

Supertankers: -75%

National modifier: -10%

Fleet Auxiliary or Amphibious ship or Minelayer (cargo holds): -25%

Laid down before 1925: -15%

Special damage modifiers listed in the remarks have already been factored into the damage point value.

The damage point/speed levels are computed at 25, 50, 75, 90, and 100 percent of total damage.

### Trilogy Ship Size classes:

Size Class	Signature	Displacement
A	Large	18001+
B	Medium	5501 - 18000
C	Small	1501 - 5500
D	Small	351 - 1500
E	VSmall	101 - 350
F	VSmall	21 - 100
G	Stealthy	<= 20

### Damage points from above water weapon impacts:

Blast energy =  $0.6 \times W \times TE \times 4132$

Fragment Energy =  $(1/2 \times \text{Fragment mass} \times \text{Composite velocity}^2)/1000$

Fragment mass =  $m \times p$

where m is case weight (warhead weight - explosive filler weight)

where p is 90% for AP warheads, 70% for SAP warheads, 50% for HE warheads

Composite velocity =  $2500 \times (1/(m/W + 0.5))$

Residual Mass Energy =  $(1/2 \times .33 \times \text{Weapon weight} \times \text{impact velocity}^2)/1000$

Bombs, Shells =  $0.5 * (\text{Blast Energy} + \text{Fragment Energy})^{1/3}$

Missiles =  $0.5 * (\text{Blast Energy} + \text{Fragment Energy} + \text{Residual Mass Energy})^{1/3}$

**Damage points from underwater weapon impacts:**

Depth Charges:

Major =  $(W \times TE)^{1/2}$

Minor =  $0.5 \times (W \times TE)^{1/2}$

Mines:

Severe =  $7.6 \times 0.6 \times (W \times TE)^{1/2}$

Major =  $7.6 \times 0.3 \times (W \times TE)^{1/2}$

Minor =  $7.6 \times 0.15 \times (W \times TE)^{1/2}$

Torpedoes:

Contact Damage =  $12.1 \times (W \times TE)^{1/3}$

Influence Damage =  $7.6 \times (W \times TE)^{1/2}$

- Lightweight Torpedoes (e.g., UK Stingray) with directed-energy (shaped charge) warheads should use the equation for influence damage

**Harpoon V AA Strengths** are based on:

Gun AA Strength \* number of barrels \* number of mounts \* Fire Control modifier \* Ammunition modifier

The **Gun AA Strength** is found in Annex CThe **number of barrels** is per mount. Rotaries are entered as single barrelsThe **number of mounts** is not based on the total number on the ship, but on the number that can bear to either side.

Examples:

P/S(1)2 = 1, since a single mount fires to either side.

2F/P/S(1)4 = 3, since three can fire to either side.

F/A(1)2 = 2

These examples assume a single radar directing mounts. If the F/A(1)2 mounts had two radars, then the ship can engage two targets, and the number of mounts would be 1, and each would fire at half the total value. In the Annex A listing, the strength would be listed as "(2@nn.n)", since the player can take two shots.

*General Rule:* If the AA guns have overlapping arcs, then divide the guns between the available radars and use that for the number mounts. List the AA strength in Annex A as "(number of radars@mounts assigned to each radar)"

The **fire control** modifier is based on the combat system/gunnery standard:

<u>Combat System</u>	<u>Gun Std</u>	<u>FC Modifier*</u>
Gen 1 Manual	GS III	1.00
Gen 1 Manual	GS IV	1.25
Gen 2 Manual	GS V	1.50
Gen 3 Semi-Automatic	GS V	1.50
Gen 4 Semi-Automatic	GS VI	1.75
Gen 5 Automatic	GS VI	1.75
Gen 6 Automatic	GS VI	1.75
Mk15 Closed Loop		2.00
Local control (no radar)		0.5

The **ammunition modifier** allows for several different types:

Standard impact- or time-fuzed AA shells	1.0
Proximity-fuzed shells	2.0
Armor-Piercing Discarding Sabot	1.5
Guided shells	3.0
AHEAD or 3P ammunition	4.0

Autonomous mounts have an "A" suffix.

Mounts without a radar director have an "L" suffix, as well as the 0.5 modifier.

**Armor Equivalents:**

Here is a list of armor equivalents for other building materials in terms of Class B armor. In other words, the number presented is the amount of the material in centimeters that is required to equal one centimeter of Class B deck armor.

Material Thickness in cms	
Reinforced Concrete (3,000 psi)	18
Reinforced Concrete (5,000 psi)	15
Stone/Brick Masonry	20
Wood	45
Sand	70
Bare Soil	120
Soil with plants	80

You can combine different types of materials (sand on top of concrete for example) by adding up the equivalent armor ratings and multiplying by 0.85.

*Example:* Hardened bunker: 3 ft Reinforced concrete (5000 psi), with 5 ft of sand on top.

$$\text{Reinforced concrete thickness} = (3 \times 12 \times 2.54) = 91.4 \text{ cm}$$

$$\text{Reinforced concrete armor rating} = 91.4/15 = 6.1$$

$$\text{Sand thickness} = (5 \times 12 \times 2.54) = 152.4 \text{ cm}$$

$$\text{Sand armor rating} = 152.4/70 = 2.2$$

Bunker Armor Rating =  $(6.1 + 2.2) \times 0.85 = 7.1$  or 7. If the combination results in an armor thickness less than the largest component (concrete in this example) than simply use that components armor rating as the structures armor rating. The other material is not thick enough to provide any additional protection.

**Aircraft Damage Values:**

(Empty Weight in kg<sup>1/3</sup>) \* (Engine Factor <sup>1/2</sup>) \* Construction Factor \* Armor Factor

Engine factor: The number of separate engines is multiplied by 1.0, podded engines are multiplied by 0.75, tandem engines are treated as a single engine.

Construction Factor

Wood and Fabric: 0.5

Mixed metal, wood, fabric construction: 0.65

Monocoque construction, no self-sealing tanks: 0.8

Helicopters: 0.8

Monocoque construction, with self-sealing tanks: 1.0

Armor Factor:

1.0: normal construction

1.1: Armored against 7.62mm fire

1.2: Armored against 12.7mm fire

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