

Notes on ORBAT Construction

These ORBATs are a living document as almost every force in the region is updating and changing their forces to counter China. The most effort has been put into correctly ascertaining the forces of China, Taiwan, and the US. Where possible weaker sources have been cross checked, but the author is hindered by their lack of foreign language training in the many languages of the region to obtain and read highly accurate information. As such errors and anachronisms may occur, correct them for your games and please inform me of any mistakes you find.

Australia

RAN¹

- 3 x Hobart DDG
- 8 x ANZAC FFG
- 6 x Minehunter Coastal
- 6 x Collins SS
- 2 x LHD
- 1 x LSD

Total amphibious lift can carry 1 Battalion, typically 2nd Battalion, Royal Australian Regiment

RAAF²

- No. 1 Squadron – Boeing F/A-18F Super Hornet (Multi-Role Fighter)
- No. 2 Squadron – Boeing E-7A Wedgetail (AEW&C)
- No. 3 Squadron – Lockheed-Martin F-35A Lightning (Multi-Role Fighter)
- No. 4 Squadron – Pilatus PC-21 (JTAC Training)
- No. 6 Squadron – Boeing E/A-18G Growler (Electronic Warfare)
- No. 10 Squadron – Lockheed AP-3C Orion (Maritime Patrol)
- No. 11 Squadron – Boeing P-8 Poseidon (Maritime Patrol)
- No. 32 Squadron – Beechcraft King Air 350 (School of Air Warfare Support)
- No. 33 Squadron – Airbus KC-30A MRTT (Air Refueling/Transport)
- No. 34 Squadron – Boeing 737 BBJ, Dassault Falcon 7X (VIP Transport)
- No. 35 Squadron – Alenia C-27J Spartan (Transport)
- No. 36 Squadron – Boeing C-17A Globemaster III (Transport)
- No. 37 Squadron – Lockheed C-130J-30 Super Hercules (Transport)
- No. 75 Squadron – McDonnell Douglas F/A-18A Hornet (Multi-Role Fighter)
- No. 76 Squadron – BAE Systems Hawk 127 (Lead-in Fighter Training/ADF Support)
- No. 77 Squadron – Lockheed-Martin F-35A Lightning (Multi-Role Fighter)
- No. 79 Squadron – BAE Systems Hawk 127 (Hawk Conversion/ADF Support)
- No. 100 Squadron – Heritage aircraft
- No. 292 Squadron – Lockheed AP-3C Orion (AP-3C Conversion)
- CFS – Pacific Aerospace CT4B, Pilatus PC-21 (Flying Instructor Training)
- ADFBFTS – Pacific Aerospace CT4B (Basic Tri-Service Flying Training)
- No. 2 FTS – Pilatus PC-21 (Advanced RAAF and RAN Flying Training)
- No. 2 OCU – Lockheed-Martin F-35A Lightning (Multi-Role Fighter)
- ARDU – Various Aircraft Types (Flight Testing)

Combat Aircraft Breakdown³

- 49 x F/A-18A

¹ navy.gov.au - Accessed 01/31/22

² https://en.wikipedia.org/wiki/Royal_Australian_Air_Force - Accessed 01/31/22, the combat aircraft are verified by <https://www.airforce.gov.au/technology/aircraft/air-combat> (accessed 6/22/2022), which states 24 F/A-18 flying, plus 50 operational F-35 as per <https://defbrief.com/2022/06/21/australias-f-35a-fleet-grows-to-50-airframes-with-latest-delivery/>

³ <https://www.flightglobal.com/download?ac=83735> (2022)

- 23 x F/A-18F
- 23 x F-35A

Army⁴

- 1st Division
 - 1st Div. is expeditionary, so when large forces are deployed abroad, they are subordinated to 1st Div.
 - Headquarters, 1st Division
 - Amphibious Task Group (Brisbane)
 - 2nd Battalion, Royal Australian Regiment (amphibious infantry)
- 7 Mech Infantry Brigades – Various Locations
 - Combat Arms: 2 Mechanized Infantry Regiments, 1 Motorized Infantry Regiment.
 - Support Arms: HQ, Artillery Regiment, Combat Engineer Regiment, Signal Regiment, Combat Service Support Battalion
- 2 Combat Support Brigade – New South Wales
 - HQ, Intelligence Battalion, MP Battalion, Engineer Support Regiment, Signal Regiment, 2 Artillery Regiments
- 17th Sustainment Brigade - Dispersed
 - HQ, Signal Squadron, 3 Force Support Battalions, 3 Health Battalions
- 5 light batteries of artillery and a handful of additional regiments
- Special Operations Command – New South Wales
 - Special Air Service Regiment
 - 1st Commando Regiment
 - 2nd Commando Regiment
 - Special Operations Engineer Regiment
 - Special Operations Logistics Squadron
- 16th Aviation Brigade - Dispersed
 - 1st Aviation Regiment (Tiger ARH helicopters)
 - 5th Aviation Regiment (MRH 90 Taipan and Chinook helicopters)
 - 6th Aviation Regiment (MRH 90 Taipan helicopters)

⁴ https://en.wikipedia.org/wiki/Structure_of_the_Australian_Army - Accessed 02/03/22

New Zealand

Navy⁵

- 2 x ANZAC Class Frigate
- 2 x Offshore Patrol Vessel
- 1 x Sustainment Vessel
- 1 x Multi-role Vessel (can lift 400 troops along with vehicles)
- 2 x Inshore Patrol Vessels

Air Force

Organization⁶

- No. 3 Squadron (NH90, AW109) - RNZAF Base Ohakea
- No. 5 Squadron (Lockheed P-3K2 Orion) - RNZAF Base Auckland
- No. 6 Squadron (Kaman SH-2G(I) Super Sea Sprite) - RNZAF Base Auckland
- No. 40 Squadron (Lockheed C-130H(NZ) Hercules, Boeing 757-2K2 Combi) - RNZAF Base Auckland
- No. 42 Squadron (Beechcraft Super King Air 350) - RNZAF Base Ohakea

Aircraft⁷

- Aircraft
 - 5 x P-3K Maritime Patrol Aircraft
 - 2 x 757 Transport Aircraft
 - 5 x C-120H
- Helicopters
 - 5 x AW-109
 - 8 x NH-90
 - 9 x SH-2G

Army⁸

- 1st (NZ) Brigade
 - 1st Battalion, Royal New Zealand Infantry Regiment
 - 2nd/1st Battalion, Royal New Zealand Infantry Regiment
 - 2/4 Battalion, Royal New Zealand Infantry Regiment*
 - 3/6 Battalion, Royal New Zealand Infantry Regiment*
 - 5/7 Battalion, Royal New Zealand Infantry Regiment*
 - Queen Alexandra's Mounted Rifles
 - 16th Field Regiment
 - 2nd Engineer Regiment
 - 1st Command Support Regiment
 - 2nd Combat Service Support Battalion
 - 3rd Combat Service Support Battalion
- Special Operations Component Command
 - 1st New Zealand Special Air Service Regiment

⁵ <https://www.nzdf.mil.nz/navy/our-equipment/ships-and-watercraft/> - Accessed 02/03/22

⁶ https://en.wikipedia.org/wiki/Royal_New_Zealand_Air_Force - Accessed 02/03/22

⁷ <https://www.flightglobal.com/download?ac=83735> (2022)

⁸ <https://www.nzdf.mil.nz/army/our-structure/> - Accessed 02/03/22

- *Reserves
 - 2/4 Battalion, Royal New Zealand Infantry Regiment
 - 3/6 Battalion, Royal New Zealand Infantry Regiment
 - 5/7 Battalion, Royal New Zealand Infantry Regiment

UK

Forces in Theater

- 2 x Offshore Patrol Vessel⁹
- British Forces Brunei¹⁰
 - Headquarters BFB
 - 2nd Battalion, the Royal Gurkha Rifles
 - 7 Flight Army Air Corps (Bell 212 helicopter)

Reinforcements

- Queen Elizabeth Carrier Task Force
 - 1 x Queen Elizabeth Class Carrier
 - 2 x F-35B Squadrons
 - 1 x Albion class LPD
 - 1 x Royal Marine Battalion
 - 1 x Bay class LSD
 - 2 x Type 45 Destroyer
 - 3 x Type 23 Frigates
 - Astute Class Submarine
- Various elements can be activated and moved to Brunei to link up with units to form an Infantry Brigade.
- Expeditionary Air Wings (UK Bases)
 - No. 121 Expeditionary Air Wing (RAF Coningsby) – multi-role operations
 - No. 135 Expeditionary Air Wing (RAF Leeming) – fighter operations
 - No. 138 Expeditionary Air Wing (RAF Marham) – fighter operations
 - No. 140 Expeditionary Air Wing (RAF Lossiemouth) – fighter operations

⁹ <https://ukdefencejournal.org.uk/royal-navy-offshore-patrol-vessels-visit-san-diego-to-start-pacific-deployment/> (2021)

¹⁰ <https://www.britishforcesbrunei.co.uk/about-bruneigarrison> - Accessed 3/08/22

France

In Theater

- Nothing suitable for high intensity combat.¹¹

Reinforcements

- Navy¹²
 - Charles de Gaulle CSG
 - 2 x Rafale Squadron (4th Gen Multirole)
 - Screen of Various
 - 1 x Rubis SSN
 - 1 x ESG
 - Centered on Mistral class
 - 1 x Troupes de Marine Brigade
 - Screen of Various
- Air¹³
 - 1 Mirage 200-5F Squadron (4th Gen Multirole)
 - 1 Mirage 2000D Squadron (3rd Gen Tac Bomber)
 - 2 Rafale Squadron (4th Gen Multirole)
- Army¹⁴
 - Scratch Pacific Mech Brigade
 - 2e RPIMa Regiment
 - 5th Regiment of Cuirassier
 - 5th Regiment Outre Mer
 - 11th Airborne Brigade
 - 27th Mountain Brigade
 - 9th Marine Infantry Brigade

¹¹ Other units are present but are not for high intensity combat - https://espritsurcouf.fr/geopolitique_la-strategie-de-la-france-dans-l-indo-pacifique_par_joseph-le-gall/

¹² [https://www.iiss.org/blogs/research-paper/2022/03/taiwan-cross-strait-stability-and-european-security-\(2022\),-pg.-26](https://www.iiss.org/blogs/research-paper/2022/03/taiwan-cross-strait-stability-and-european-security-(2022),-pg.-26)

¹³ Numbers drawn from [https://www.flightglobal.com/download?ac=83735-\(2022\),-numbers-given-as-number-that-could-be-drawn-for-Pacific-service](https://www.flightglobal.com/download?ac=83735-(2022),-numbers-given-as-number-that-could-be-drawn-for-Pacific-service).

¹⁴ IISS The Military Balance 2021 pg.102

Canada

Army (Ready Forces)¹⁵

- 3 Mechanized Brigade Groups (5th CMBG,¹⁶ 1st CMBG,¹⁷ and 2nd CMBG)
 - three infantry battalions (two mechanized, one light)
 - an armoured regiment
 - an artillery regiment
 - a combat engineer regiment
 - a reconnaissance squadron
 - appropriate combat support, communications, medical and service support units
- Given the amount of airlift available, staging this into theater would be difficult with the heavy equipment. A scratch Light Infantry Brigade might more easily be formed by taking the three light infantry battalions plus supporting equipment.

Navy

- MARPAC¹⁸
 - Frigates (Halifax Class)
 - HMCS Vancouver (FFH 331)
 - HMCS Regina (FFH 334)
 - HMCS Calgary (FFH 335)
 - HMCS Winnipeg (FFH 338)
 - HMCS Ottawa (FFH 341)
 - Coastal defence vessels (Kingston Class)
 - HMCS Nanaimo (MM 702)
 - HMCS Edmonton (MM 703)
 - HMCS Whitehorse (MM 705)
 - HMCS Yellowknife (MM 706)
 - HMCS Saskatoon (MM 709)
 - HMCS Brandon (MM 710)
 - Submarines
 - HMCS Victoria (SSK 876)
 - HMCS Corner Brook (SSK 878)
 - HMCS Chicoutimi (SSK 879)
- MARALNT (possibly some units would be deployed to assist)¹⁹
 - A Fleet of 15 His Majesty's Canadian Ships:
 - 7 Multi-Role Patrol Frigates
 - 6 Maritime Coastal Defence Vessels
 - 2 Long Range Patrol Submarines

Air Force (Expeditionary Elements Only)²⁰

¹⁵ <https://www.canada.ca/en/army/corporate/the-canadian-army-of-today.html> (Accessed July 7, 2022)

¹⁶ <https://www.canada.ca/en/army/corporate/2-canadian-division.html> (Accessed July 18, 2022)

¹⁷ <https://www.canada.ca/en/army/corporate/3-canadian-division.html> (Accessed July 18, 2022)

¹⁸ https://en.wikipedia.org/wiki/Maritime_Forces_Pacific (Accessed July 7, 2022)

¹⁹ <https://www.canada.ca/en/navy/corporate/our-organization/structure/marlant/units.html> (Accessed July 7, 2022)

²⁰ Based on <https://www.canada.ca/en/air-force/corporate/wings-squadrons.html> and <https://www.canada.ca/en/air-force/corporate/reports-publications/royal-canadian-air-force-map.html> (accessed July 7, 2022)

- 425 Tactical Fighter Squadron (CF-188 Hornet)
- 433 Tactical Fighter Squadron (CF-188 Hornet)
- 401 Tactical Fighter Squadron (CF-188 Hornet)
- 409 Tactical Fighter Squadron (CF-188 Hornet)

China

Force Quality

Overall Force Quality

In recent years the PLA has instituted several initiatives to increase the quality of their personnel, which, while in early days seem to be making progress. The shift in 2021 to twice a year intake of conscripts, rather than once a year will likely improve the manning and quality of units, given that it works better with the training schedule the PLA uses (from 50% of conscripts being minimally qualified, to 75% year-round). Chinese units with large numbers of conscripts have visibility improved readiness as a result. It also allows for better recruitment of college students, however the twice a year cycle may be creating some issues within the force of seniority between different sets of conscripts leading to bullying. There remain issues with the quality of the NCO corps, of which the PLA is aware. In 2022, new moves have been made to increase the quality of the NCO corps by clarifying roles and providing promotion pathways as well as providing better mechanisms to manage the NCOs leaving the service.²¹ While it is early to make predictions on changes that will take many years to pan out, the overall trends thus far look encouraging.

Amphibious Units

PLAA Amphibious Brigades appear to be capable amphibious operators, having gained skills over the past 5 years after their 2017 reorganization to the point of publicly conducting multi-brigade exercises.²² The 1st and 2nd PLANMC Brigades have been and continue to be well trained in amphibious operations, and the 6th appears to also be competent. The quality of other brigades is unknown, and the 4th and 5th Brigades have not been publicly observed conducting amphibious training.²³

There is also a complete lack of oppositional training against a proper OPFOR for PLAA Amphibious Brigades,²⁴ this also appears to be a problem for PLANMC Brigades as well.²⁵ Chinese sources often note that a lack of capability to conduct joint operations is a problem that is being worked on.²⁶ These problems are compounded by the fact that both the PLAA Amphib Brigades and PLANMC Brigades utilized 2 year conscripts meaning that long term knowledge is not kept. “[T]he PLA will likely need several more years before it is comfortable executing larger training events with multiple amphibious brigades landing simultaneously. Although recent smaller scale exercises utilized joint capabilities, with PLAN vessels delivering PLAA landing forces and PLAAF aircraft providing fire support, the limited scale is not representative of the realistic requirements expected during a joint island landing campaign.”²⁷ In addition PLAA Amphibious Brigades and PLANMC Brigades may lack the ability to easily call for helicopter support.²⁸

Airborne Units

²¹ <https://warontherocks.com/2022/08/people-win-wars-a-2022-reality-check-on-pla-enlisted-force-and-related-matters/> (2022)

²² *Crossing The Strait*, China’s Military Prepares for War with Taiwan, National Defense University Press, 2022 pg. 180.

²³ *Crossing The Strait*, China’s Military Prepares for War with Taiwan, National Defense University Press, 2022 pg. 181-182

²⁴ *Crossing The Strait*, China’s Military Prepares for War with Taiwan, National Defense University Press, 2022 pg. 178

²⁵ *Crossing The Strait*, China’s Military Prepares for War with Taiwan, National Defense University Press, 2022 pg. 184

²⁶ See any selection of the Chinese Maritime Studies Institute's China Maritime Report's

²⁷ *Crossing The Strait*, China’s Military Prepares for War with Taiwan, National Defense University Press, 2022 pg. 183

²⁸ *Crossing The Strait*, China’s Military Prepares for War with Taiwan, National Defense University Press, 2022 pg. 178

Training is generally battalion level, with a few at brigade level. Airborne training often occurs at night, and units have trained against heavier Blue forces. It is unclear if any joint training has been done with other services to any significant degree.²⁹ The airborne lack the capability to conduct joint operations, namely no known training in: providing air cover to transport aircraft, practicing with fixed wing close air support for airborne troops, and in practicing with supporting fires from the Army, Navy, or Rocket Force.³⁰ For a full scale assault the airborne corps “does not appear to train to execute a multi-brigade deployment.”³¹

SOF

SOF train at small unit levels regularly in a variety of circumstances and with a variety of simulated missions and to practice different skills. They also practice in larger drills as part of combined arms training, with examples of SOF operations at battalion level.³² Several areas of deficiency are noted:³³

- Questions on the quality of special mission equipment available to SOF, though it is difficult to assertation the extent of problems or if they have already been remedied.
- Lack of technical reconnaissance training, meaning that “SOF officers and personnel have comparatively weak ability to obtain and handle intelligence” (for example vehicle recognition, and lack of training with small drones).
- SOF units do not appear to train for psychological or unconventional war (training is focused on direct action).
- SOF units from different services also do not appear to train together regularly, and several SOF forces exist outside the normal chain of command, though moves to increase training appear to be happening.
- Lack of permanent joint command structure for SOF below the theater level. It appears that lower-level moves are being made to remedy this at the moment.

PLAN

North Theater Navy³⁴. Headquartered in Qingdao - responsible for the Bo Hai, Yellow Sea, and northern portion of the East China Sea. It falls under the PLA Northern Theater Command.

- Surface fleet
 - 1 x Carrier
 - 11 x Destroyers
 - 12 x Frigate
 - 12 x Corvettes
 - 15 x Missile Patrol Craft
- Subsurface fleet
 - 4 x SSN
 - 14 x SS (14 modern Type 39)³⁵
- Amphibious fleet
 - 2 x tank landing ships

²⁹ *Crossing The Strait*, China’s Military Prepares for War with Taiwan, National Defense University Press, 2022 pg. 202-203

³⁰ *Crossing The Strait*, China’s Military Prepares for War with Taiwan, National Defense University Press, 2022 pg. 211-212

³¹ *Crossing The Strait*, China’s Military Prepares for War with Taiwan, National Defense University Press, 2022 pg. 216

³² China Maritime Report No. 18: Chinese Special Operations in a Large-Scale Island Landing (2022) pg. 10-13

³³ China Maritime Report No. 18: Chinese Special Operations in a Large-Scale Island Landing (2022) pg. 14-16

³⁴ Report on Military and Security Developments Involving the Peoples Republic of China 2021, pg. 54

³⁵ <http://www.andrewerickson.com/wp-content/uploads/2021/04/Screen-Shot-2021-04-01-at-5.32.24-PM.png> (2021)

- 3 x medium landing ships
- Air Assets³⁶
 - 2nd Aviation Division - Y-8 and Y-9 Transport aircraft
 - 5th Aviation Brigade - Probably 1 regiment of JH-7 attack-bombers and a second regiment of J-8 interceptors
- PLANMC Assets³⁷
 - 5th Marine Brigade, 6th Marine Brigade

East Theater Navy³⁸. Headquartered in Ningbo - covers the majority of the East China Sea and the Taiwan Strait. It falls under the PLA Eastern Theater Command.

- Surface fleet
 - 13 x Destroyers
 - 23 x Frigates
 - 24 x Corvettes
 - 38 x Missile Patrol Craft
- Subsurface fleet
 - 18 x SS (11 modern Type 39, 2 old 636, 5 unknown)³⁹
- Amphibious fleet
 - 3 x Amphibious Transport Docks
 - 16 x Tank Landing Ships
 - 5 x Medium Landing Ships
- Air Assets⁴⁰
 - 4th Aviation Brigade (PLAN) - J-10, Su-30 (2019)
 - 6th Aviation Brigade (PLAN) - JH-7 Fighter-Bomber (2019)
- PLANMC Assets⁴¹
 - 3rd Marine Brigade (in Jinjiang, Fujian), 4th Marine Brigade (in Jieyang, Guangdong)

South Theater Navy⁴². Headquartered in Zhanjiang - responsible for the South China Sea. It falls under the PLA Southern Theater Command.

- Surface fleet
 - 1 x Aircraft Carrier
 - 10 x Destroyers
 - 14 x Frigates
 - 20 x Corvettes
 - 14 x Missile Patrol Craft
- Subsurface fleet
 - 2 x SSN
 - 6 x SSBN
 - 14 x SS (2 old Pr. 636, 7 old Type 35, 4 modern Type 39, 1 unknown)⁴³

³⁶ PLA Aerospace Power: A Primer on Trends in China's Military Air, Space, and Missile Forces 2nd Edition (2015). pg.34

³⁷ China Maritime Report No. 15: The New Chinese Marine Corps: A "Strategic Dagger" in a Cross Strait Invasion (2021) pg. 4

³⁸ Report on Military and Security Developments Involving the Peoples Republic of China 2021, pg. 54

³⁹ <http://www.andrewerickson.com/wp-content/uploads/2021/04/Screen-Shot-2021-04-01-at-5.32.24-PM.png> (2021)

⁴⁰ PLA Aerospace Power: A Primer on Trends in China's Military Air, Space, and Missile Forces 2nd Edition (2015). pg.34

⁴¹ China Maritime Report No. 15: The New Chinese Marine Corps: A "Strategic Dagger" in a Cross Strait Invasion (2021) pg. 4

⁴² Report on Military and Security Developments Involving the Peoples Republic of China 2021, pg. 54

⁴³ <http://www.andrewerickson.com/wp-content/uploads/2021/04/Screen-Shot-2021-04-01-at-5.32.24-PM.png> (2021)

- Amphibious fleet
 - 5 x Amphibious Transport Docks
 - 10 x Tank Landing Ships
 - 8 x Medium Landing Ships
- Air Assets⁴⁴
 - ? Air Brigade - J-11 and J-7 fighters (2019)
 - ? Air Brigade - J-11 fighters (2019)
 - ? Regiment - H-6 bombers
- PLANMC Assets⁴⁵
 - 1st Marine Brigade, 2nd Marine Brigade

Marine Brigades⁴⁶

- 8 total, 5 deployed in Eastern or Southern theaters

Mine Warfare and Countermeasure⁴⁷

- 38 Ships

PLAAF

Total Aircraft Overview (Includes non-frontline aircraft, training aircraft, etc.)

- 5th Gen⁴⁸ - 150? (Only some parts are operational and non-prototype or testing airframes)⁴⁹ - 3 Aviation Brigades are equipped with J-20s.⁵⁰
- 4th Gen⁵¹ - 900
- 3rd Gen Fighters/Attack Aircraft⁵² - 900, (attack aircraft are of poor quality)⁵³
- Bombers⁵⁴
 - 4 x H-6K Regiments (can carry 6 x LACM per plane) – 22nd, 24th, 28th Air Regiments, plus elements of 107th and 108th
 - 1 x H-6H Regiment – 29th Air Regiment, plus elements of 107th
 - 2 x H-6M Regiments – 30th Air Regiment, plus elements of 107th and 108th
 - 1 x H-6N Regiment (H-6K variant, can carry ALBM externally (including 1 x Nuclear ALBM at a time⁵⁵, and can be refueled in air⁵⁶) – 108th Air Brigade
 - 1 x H-6U Regiment (Tankers) - 23rd Air Regiment

⁴⁴ PLA Aerospace Power: A Primer on Trends in China's Military Air, Space, and Missile Forces 2nd Edition (2015). pg.34

⁴⁵ China Maritime Report No. 15: The New Chinese Marine Corps: A "Strategic Dagger" in a Cross Strait Invasion (2021) pg. 4

⁴⁶ China Maritime Report No. 15: The New Chinese Marine Corps: A "Strategic Dagger" in a Cross Strait Invasion (2021) pg. 4

⁴⁷ Combined Sources, pg. 130 of [https://csis-website-prod.s3.amazonaws.com/s3fs-](https://csis-website-prod.s3.amazonaws.com/s3fs-public/publication/210607_Cordesman_Chinese_Strategy.pdf?G7hUZdWUVJgaJzyC4E9Qj1m3w13SfjQ)

[public/publication/210607_Cordesman_Chinese_Strategy.pdf?G7hUZdWUVJgaJzyC4E9Qj1m3w13SfjQ](https://nationalinterest.org/blog/buzz/china%E2%80%99s-j-20-fighter-jet-fierce-it-has-numbers-problem-194739)

⁴⁸ <https://nationalinterest.org/blog/buzz/china%E2%80%99s-j-20-fighter-jet-fierce-it-has-numbers-problem-194739>

⁴⁹ <https://www.flightglobal.com/download?ac=83735> (2022)

⁵⁰ *PLA Aerospace Power: A Primer on Trends in China's Military Air, Space, and Missile Forces 3rd Edition* (2022) pg.22

⁵¹ Average of Japanese Ministry of Defense, Defense of Japan, 2020, p. 65 and U.S. Department of Defense, Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2021, p. 55

⁵² Total listed fighters from sources minus above number of 4th gen fighters. Source: U.S. Department of Defense, Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2021, p. 55

⁵³ PLA Aerospace Power: A Primer on Trends in China's Military Air, Space, and Missile Forces 2nd Edition (2015). Pg 21

⁵⁴ PLA Air Force Bomber Force Organization, China Aerospace Studies Institute (2022), pg. 8 and 10-14. Assuming completely equal breakdown of Regiments when flying multiple types: H-6K - 3.8, H-6H - 1.3, H-6M - 1.8, H-6N - 1

⁵⁵ Enabling a More Externally Focused and Operational PLA (2022) Chapter 7, specifically pg.137,

<https://press.armywarcollege.edu/cgi/viewcontent.cgi?article=1947&context=monographs>

⁵⁶ *PLA Aerospace Power: A Primer on Trends in China's Military Air, Space, and Missile Forces 3rd Edition*, China Aerospace Studies Institute (2022), pg. 20

- Fighter Trainers⁵⁷ - 1,200
- Transport⁵⁸ - 400
- Special Mission Aircraft⁵⁹ - 150

Combat Aircraft Breakdown⁶⁰

- J-7 – 388 (3rd Gen Multirole)
- J-8 – 96 (3rd Gen Multirole)
- J-10 – 235 (4th Gen Fighter, J-10C is 4.5)
- J-11/16/Su-27/30/35 – 315 (4th Gen Fighter, J-16 and Su-30/35 are 4.5)
- J-20 – 150⁶¹ (5th Gen Fighter) - only are operational (e.g. non-prototype or testing airframes)
- JH-7 – 140⁶² (4th Gen Bomber w/ AShM capability)
- Q-5 – 118 (3rd Gen Bomber)

Airborne Brigades

3 light motorized, 2 mechanized, and 1 air assault. 1 special operations brigade. 1 transport brigade. All deployed in Eastern or Southern theaters.⁶³

Breakdown⁶⁴

Light Motorized: 127th, 128th, 131st

Mech: 133rd, 134th.

Air Assault: 130th

PLARF

Only one missile brigade is located in the far west of China and is likely a DF-21 brigade. As such all missiles would be available for use in a Taiwan scenario.⁶⁵

For some idea of what a pair of 2,000 lb. missiles do when they blow up see the footnote for an overhead drone shot.⁶⁶

Conventional Weapons

(Dual Use indicates the weapon can have nuclear or conventional warheads)

⁵⁷ U.S. Department of Defense, Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2020, August 21, 2020, p. 166.

⁵⁸ U.S. Department of Defense, Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2020, August 21, 2020, p. 166.

⁵⁹ U.S. Department of Defense, Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2020, August 21, 2020, p. 166.

⁶⁰ <https://www.flightglobal.com/download?ac=83735> (2022)

⁶¹ <https://nationalinterest.org/blog/buzz/china%E2%80%99s-j-20-fighter-jet-fierce-it-has-numbers-problem-194739>

⁶² The Military Balance, Volume 121, 2021 - Issue 1, Chapter 6: Asia

⁶³ Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2021, p. 161

⁶⁴ *Crossing The Strait*, China's Military Prepares for War with Taiwan, National Defense University Press, 2022 pg. 200-202

⁶⁵ <https://chinapower.csis.org/conventional-missiles/> (late 2020, very early 2021?)

⁶⁶ <https://twitter.com/RALee85/status/1560043907165163527>

System	Range (mi)	Type	Missiles	Launchers	Payload (lbs.)	Notes
CJ-10 or HN-2 (Previously DH-10) ⁶⁷	1,369	Conventional, AShM	300	54	1,100	Tomahawk Equivalent, Air Launched conventional and AShM available
DF-11/CSS-7 ⁶⁸	370	Dual Use	500	200	1,400	
DF-11A ⁶⁹	373	Dual Use, AShM, Bunker Buster	100 ⁷⁰	20 ⁷¹	1,100	
DF-12 ⁷²	250	HE, Bunker Buster, AShM	?	?	480	AShM variant is the M20B, has BMD countermeasures, MaRV?
DF-15B ⁷³	495	Dual Use, Bunker Buster	425	81	1,100	Assuming all DF-15's are B's even though that's not true
DF-16 ⁷⁴	621	Dual Use	30	12	2,200	
DF-17 ⁷⁵	1,400	Dual Use, AShM	16	16	?	Hypersonic, AShM in development, at least 16 in service
DF-21A/E ⁷⁶	1,554	Dual Use	40	80	1,320	Nukes. Range is for type A
DF-21C ⁷⁷	1,087	Dual Use	75*	26*	1,320	
DF-21D ⁷⁸	1,243	Dual Use, AShM	75*	18*	1,320	Carrier Killer w/MaRV
DF-26 ⁷⁹	2,486	Dual Use, AShM	100ish	48 ⁸⁰	?	"Guam Killer"

* These numbers are probably slightly low as there are total 60 launchers and 200+ missiles.⁸¹

Coastal Defense Missiles

YJ-12 and YJ-62 missiles are in service with coastal defense units on ground-based launchers.

⁶⁷ [RANGE, LAUNCHERS] Regaining the High Ground at Sea: Transforming the U.S. Navy's Carrier Air Wing for Great Power Competition - CSBA 2017 [ALL ELSE] Understanding the People's Liberation Army Rocket Force, Maj. Christopher J. Mihal, 2021

⁶⁸ [Source states 600 total missiles and 100 DF-11A, so 600-100 = 500] Understanding the People's Liberation Army Rocket Force, Maj. Christopher J. Mihal, 2021. [RANGE] Introducing the DF-17: China's Newly Tested Ballistic Missile Armed With a Hypersonic Glide Vehicle 2017 [ALL ELSE] Understanding the People's Liberation Army Rocket Force, Maj. Christopher J. Mihal, 2021

⁶⁹ [PAYLOAD] Regaining the High Ground at Sea: Transforming the U.S. Navy's Carrier Air Wing for Great Power Competition - CSBA 2017, [ALL ELSE] Understanding the People's Liberation Army Rocket Force, Maj. Christopher J. Mihal, 2021

⁷⁰ Number in line with Carrier Killer, China's Anti-Ship Ballistic Missiles and Theater of Operations in the early 21st Century (2022) pg. 50's estimate of 80-120

⁷¹ Carrier Killer, China's Anti-Ship Ballistic Missiles and Theater of Operations in the early 21st Century (2022) pg. 50

⁷² <https://missilethreat.csis.org/missile/df-12/> - accessed 02/09/22

⁷³ Regaining the High Ground at Sea: Transforming the U.S. Navy's Carrier Air Wing for Great Power Competition - CSBA 2017

⁷⁴ [PAYLOAD] DF-16 on Missile Threat 01/31/22, [ALL ELSE] Regaining the High Ground at Sea: Transforming the U.S. Navy's Carrier Air Wing for Great Power Competition - CSBA 2017

⁷⁵ [RANGE] Introducing the DF-17: China's Newly Tested Ballistic Missile Armed With a Hypersonic Glide Vehicle 2017 [ALL ELSE] Understanding the People's Liberation Army Rocket Force, Maj. Christopher J. Mihal, 2021

⁷⁶ [# OF MISSILES] Understanding the People's Liberation Army Rocket Force, Maj. Christopher J. Mihal, 2021 [ALL ELSE] Regaining the High Ground at Sea: Transforming the U.S. Navy's Carrier Air Wing for Great Power Competition - CSBA 2017

⁷⁷ Regaining the High Ground at Sea: Transforming the U.S. Navy's Carrier Air Wing for Great Power Competition - CSBA 2017, [# of Missiles] DF-21 on Missile Threat 01/31/22

⁷⁸ Regaining the High Ground at Sea: Transforming the U.S. Navy's Carrier Air Wing for Great Power Competition - CSBA 2017, [# of Missiles] DF-21 on Missile Threat 01/31/22

⁷⁹ Regaining the High Ground at Sea: Transforming the U.S. Navy's Carrier Air Wing for Great Power Competition - CSBA 2017, [# of Missiles] Carrier Killer, China's Anti-Ship Ballistic Missiles and Theater of Operations in the early 21st Century (2022) pg. 48 [# of Launchers] Carrier Killer, China's Anti-Ship Ballistic Missiles and Theater of Operations in the early 21st Century (2022) pg. 50

⁸⁰ Previous estimates of the number of launchers being 16 is probably the low end, as it is the number seen in a parade in 2015 (Carrier Killer, China's Anti-Ship Ballistic Missiles and Theater of Operations in the early 21st Century (2022) pg. 48)

⁸¹ Carrier Killer, China's Anti-Ship Ballistic Missiles and Theater of Operations in the early 21st Century (2022) pg. 50

YJ-12 ASHM (with land attack ability) (250–400 km range, supersonic sea skimming), but I have no information on how many units, how many were produced, and where units are located (other than some in the Spratly Islands).

YJ-62 (150-250 nautical mile range, subsonic sea skimming) is also in service but again I have no information on how many units, how many were produced, and where units are located.

Nuclear Weapons⁸²

Note heavy overlap of missile types with the above table.

Land Based Ballistic Missiles						
Type	# Of Launchers	Year Deployed	Range (km)	Warheads x yield (kilotons)	# of Warheads	Notes
DF-4	6	1980	5,500 km	1 x 3,300	6	Probably in process of retirement if not already retired
DF-5A	10*	1981	12,000 km	1 x 4,000-5,000	10	Total missiles 18 ⁸³ (or likely 1:1 with number of launchers)
DF-5B	10*	2015	13,000 km	5x 200-300	50	
DF-5C	?*	-2020	13,000 km	? x MIRV	?	
DF-15	20? ⁸⁴	1990	600 km	1 x Unknown	?	Not yet operational. In 1993 CIA stated that warhead had been developed but unknown if deployed
DF-17	18	-2021	1,800+ km	1 x HGV	?	
DF-21A/E	40	2000, 2016	2,100+ km	1 x 200-300	40	
DF-26	100	2016	4,000 km	1 x 200-300	20	
DF-31	6 or 56-70 ⁸⁵	2006	7,200 km	1 x 200-300	6 or 32+ ⁸⁶	
DF-31A	36	2007	11,200 km	1 x 200-300	36	
DF-31AG	36	2018	11,200 km	1 x 200-300	36	Not yet operational
DF-41	-18	-2021	12,000 km	(3 x 200-300)	54	
Submarine-Launched Ballistic Missiles						
Type	# Of Launchers	Year Deployed	Range (km)	Warheads x yield (kilotons)	# of Warheads	Notes
JL-2	4/48	2016	7,000+	1 x 200-300	48	JL-2
	2/24	-2021	7,000+	2 x 200-300	-24	
Aircraft Delivered Nuclear Weapons						
Type	# Of Launchers	Year Deployed	Range (km)	Warheads x yield (kilotons)	# of Warheads	Notes
H-6	20	1965/2009	3,100+	1 x bomb	20	
				(1 x ALBM)	N/A	

* It seems that the total number of launchers is around 20, but it is unknown which missiles/reloads exactly are given to which launchers⁸⁷

⁸² Source: Hans M. Kristensen and Matt Korda, "Nuclear notebook: Chinese nuclear forces, 2020," Bulletin of the Atomic Scientists, December 7, 2020, <https://thebulletin.org/premium/2020-12/nuclear-notebook-chinese-nuclear-forces-2020/>.

⁸³ Carrier Killer, China's Anti-Ship Ballistic Missiles and Theater of Operations in the early 21st Century (2022) pg. 50

⁸⁴ Based on my read of the bottom table in Carrier Killer, China's Anti-Ship Ballistic Missiles and Theater of Operations in the early 21st Century (2022) pg. 50, which I may well be misunderstanding

⁸⁵ Carrier Killer, China's Anti-Ship Ballistic Missiles and Theater of Operations in the early 21st Century (2022) pg. 50

⁸⁶ Carrier Killer, China's Anti-Ship Ballistic Missiles and Theater of Operations in the early 21st Century (2022) pg. 50

⁸⁷ Carrier Killer, China's Anti-Ship Ballistic Missiles and Theater of Operations in the early 21st Century (2022) pg. 50

PLAA

Force	China Total	Eastern + Southern Theaters
Combined Arms Brigades ⁸⁸	78	24 (30 total - 6 amphib)
Amphibious Combined Arms Brigades ⁸⁹	6	6*
Army Aviation Brigades ⁹⁰	13	4
Air Assault ⁹¹	2	1
Artillery Brigades ⁹²	15	5
Airborne Brigades ⁹³	7 (under control of PLA AF)	7
Marine Brigades ⁹⁴	8 (under control of PLANMC)	5

* 2 in Hangzhou, Zhejiang, 2 in Zhangzhou, Fujian, 1 in Buluo, Guangdong, 1 in Bao'an, Guangdong.⁹⁵

Coast Guard and Maritime Militia

Coast Guard Ships⁹⁶ – 223

Breakdown:⁹⁷

- 130 large patrol ships
 - Many of the fleet's large patrol ships are well-armed and capable of conducting operations in distant waters
- 70+ fast patrol combatants
- 400+ coastal patrol craft
- Approximately 1,000 inshore and riverine vessels

Maritime Militia

- Unknown number of fishing and small ships

⁸⁸ U.S. Department of Defense, Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2021, p. 161

⁸⁹ China Maritime Report No. 20: The PLA Army Amphibious Force, April 2022, pg. 3

⁹⁰ [CHINA TOTAL DATA] PLA Aerospace Power: A Primer on Trends in China's Military Air, Space, and Missile Forces 2nd Edition (2015) [EASTERN AND SOUTHERN DATA] Uses the DoD source minus the PLA Aerospace source [OTHER DATA] U.S. Department of Defense, Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2020, August 21, 2020, p. 164.

⁹¹ PLA Aerospace Power: A Primer on Trends in China's Military Air, Space, and Missile Forces 2nd Edition (2015)

⁹² U.S. Department of Defense, Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2021, p. 161

⁹³ U.S. Department of Defense, Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2021, p. 161 [NOTE] same as Numbers, p. 58

⁹⁴ U.S. Department of Defense, Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2021, p. 161

⁹⁵ China Maritime Report No. 20: The PLA Army Amphibious Force, April 2022, pg. 3

⁹⁶ U.S. Department of Defense, Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2021, p. 162.

⁹⁷ Caitlin Campbell, China's Military: The People's Liberation Army, CRS, R46808, June 4, 2021, p. 33. This breakdown is different from IISS Military Balance 2022, pg. 238 which states 91 patrol craft and 524 overall.

- Larger ships - 5,000 ships organized into 89 militia transportation units, 53 waterway engineering units, and 143 units with other specializations⁹⁸

Civilian Car Ferries⁹⁹

- RoRo ferries ~750,000 displacement tons
 - w/ Hong Kong's ferries added +370,000 RoRo displacement tons
- Vehicle carriers ~425,000 tons

SCS Bases

All are equipped with anti-ship and anti-aircraft missile systems and offensive and defensive EW equipment¹⁰⁰

The following are southern SCS bases.

Fiery Cross Reef

Infrastructure: “Research station”¹⁰¹, aviation facilities (fixed wing and helipad), large port facilities, radar installations¹⁰², fixed weapons positions, barracks, administration buildings, and communications facilities.¹⁰³

Known Deployments: PLA deployed KJ-200 anti-submarine warfare and KJ-500 airborne early warning aircraft to Fiery Cross Reef.¹⁰⁴

Airfield Capacity: 8,800 ft runway (can land transport aircraft), 24 aircraft¹⁰⁵

Cuarteron Reef

Infrastructure: administrative buildings, weapons stations (fixed guns),¹⁰⁶ helipad, small harbor, and radar installations¹⁰⁷

Subi Reef

Infrastructure: “Research station”¹⁰⁸, aviation facilities (fixed wing and helipad), large port facilities, radar installations¹⁰⁹, fixed weapons positions, barracks, administration buildings, and communications facilities.¹¹⁰

Airfield Capacity: 8,800 ft runway (can land transport aircraft), 24 aircraft¹¹¹

⁹⁸ China Maritime Report No. 21: Civilian Shipping and Maritime Militia: The Logistics Backbone of a Taiwan Invasion, Lonnie D. Henley, May 2022. Pg. 4

⁹⁹ <https://warontherocks.com/2021/08/mind-the-gap-how-chinas-civilian-shipping-could-enable-a-taiwan-invasion/>

¹⁰⁰ Report on Military and Security Developments Involving the Peoples Republic of China 2020. Pg. 101

¹⁰¹ Report on Military and Security Developments Involving the Peoples Republic of China 2020. Pg. 19

¹⁰² Karen Leigh, Peter Martin and Adrian Leung, “Troubled Waters: Where the U.S. and China Could Clash in the South China Sea,” Bloomberg, December 17, 2020.

¹⁰³ Report on Military and Security Developments Involving the Peoples Republic of China 2020. Pg. 101-102

¹⁰⁴ Report on Military and Security Developments Involving the Peoples Republic of China 2021. Pg. 104

¹⁰⁵ JIDR 05/19 AND Report on Military and Security Developments Involving the Peoples Republic of China 2020. Pg. 79

¹⁰⁶ Report on Military and Security Developments Involving the Peoples Republic of China 2020. Pg. 101-102

¹⁰⁷ Karen Leigh, Peter Martin and Adrian Leung, “Troubled Waters: Where the U.S. and China Could Clash in the South China Sea,” Bloomberg, December 17, 2020.

¹⁰⁸ Report on Military and Security Developments Involving the Peoples Republic of China 2020. Pg. 19

¹⁰⁹ Karen Leigh, Peter Martin and Adrian Leung, “Troubled Waters: Where the U.S. and China Could Clash in the South China Sea,” Bloomberg, December 17, 2020.

¹¹⁰ Report on Military and Security Developments Involving the Peoples Republic of China 2020. Pg. 101-102

¹¹¹ JIDR 05/19 AND Report on Military and Security Developments Involving the Peoples Republic of China 2020. Pg. 79

Gaven Reef

Infrastructure: administrative buildings, weapons stations (fixed guns)¹¹², helipad, small harbor, and radar installations¹¹³

Hughes Reef

Infrastructure: administrative buildings, weapons stations (fixed guns)¹¹⁴, helipad, small harbor, and radar installations¹¹⁵

Johnson Reef

Infrastructure: administrative buildings, weapons stations (fixed guns)¹¹⁶, helipad, small harbor, and radar installations¹¹⁷

Mischief Reef

Infrastructure: Aviation facilities (fixed wing and helipad), large port facilities, radar installations¹¹⁸, fixed weapons positions, barracks, administration buildings, and communications facilities.¹¹⁹

Airfield Capacity: 8,800 ft runway (can land transport aircraft), 24 aircraft¹²⁰

The following are northern SCS bases.

Duncan Island

Infrastructure: helipad, large port, radar installation¹²¹

Money Island

Infrastructure: helipad, small port, radar installation¹²²

Tree Island

Infrastructure: helipad, large port, radar installation¹²³

Triton Island

¹¹² Report on Military and Security Developments Involving the Peoples Republic of China 2020. Pg. 101-102

¹¹³ Karen Leigh, Peter Martin and Adrian Leung, "Troubled Waters: Where the U.S. and China Could Clash in the South China Sea," Bloomberg, December 17, 2020.

¹¹⁴ Report on Military and Security Developments Involving the Peoples Republic of China 2020. Pg. 101-102

¹¹⁵ Karen Leigh, Peter Martin and Adrian Leung, "Troubled Waters: Where the U.S. and China Could Clash in the South China Sea," Bloomberg, December 17, 2020.

¹¹⁶ Report on Military and Security Developments Involving the Peoples Republic of China 2020. Pg. 101-102

¹¹⁷ Karen Leigh, Peter Martin and Adrian Leung, "Troubled Waters: Where the U.S. and China Could Clash in the South China Sea," Bloomberg, December 17, 2020.

¹¹⁸ Karen Leigh, Peter Martin and Adrian Leung, "Troubled Waters: Where the U.S. and China Could Clash in the South China Sea," Bloomberg, December 17, 2020.

¹¹⁹ Report on Military and Security Developments Involving the Peoples Republic of China 2020. Pg. 101-102

¹²⁰ JIDR 05/19 AND Report on Military and Security Developments Involving the Peoples Republic of China 2020. Pg. 79

¹²¹ Karen Leigh, Peter Martin and Adrian Leung, "Troubled Waters: Where the U.S. and China Could Clash in the South China Sea," Bloomberg, December 17, 2020.

¹²² Karen Leigh, Peter Martin and Adrian Leung, "Troubled Waters: Where the U.S. and China Could Clash in the South China Sea," Bloomberg, December 17, 2020.

¹²³ Karen Leigh, Peter Martin and Adrian Leung, "Troubled Waters: Where the U.S. and China Could Clash in the South China Sea," Bloomberg, December 17, 2020.

Infrastructure: helipad, small port, radar installation¹²⁴

Lincoln Island

Infrastructure: small port, radar installation¹²⁵

Woody Island

Infrastructure: airfield (long enough to land long range bombers on)¹²⁶, helipad, large port, radar installation¹²⁷

¹²⁴ Karen Leigh, Peter Martin and Adrian Leung, “Troubled Waters: Where the U.S. and China Could Clash in the South China Sea,” Bloomberg, December 17, 2020.

¹²⁵ Karen Leigh, Peter Martin and Adrian Leung, “Troubled Waters: Where the U.S. and China Could Clash in the South China Sea,” Bloomberg, December 17, 2020.

¹²⁶ Report on Military and Security Developments Involving the People's Republic of China 2020. Pg. 94

¹²⁷ Karen Leigh, Peter Martin and Adrian Leung, “Troubled Waters: Where the U.S. and China Could Clash in the South China Sea,” Bloomberg, December 17, 2020.

Taiwan

Force Quality

The Army

It appears that operational strength of front-line units is much less than on paper, and they would be severely understaffed for wartime (between 10%¹²⁸ to 40%¹²⁹ undermanned). Furthermore, the army has a “military training culture that limits live-fire training activities”.¹³⁰

Conscripts are given lackluster 4-month training, with few soldier skills taught. No “basics the People’s Liberation Army ... invasion scenarios ... Map reading and navigation with a compass”, no basic medical skills, insufficient firearms training¹³¹ and no inclusion in exercises.¹³² This means that C level units (reservists) seem to lack proper supply, training, and command and control,¹³³ and are general regarded as of poor quality.^{134,135} It is unknown how much of this could be overcome by morale (if applicable) and serious effort with the shadow of an invasion overhead. While the Russia-Ukraine war shows that even relatively untrained troops with high morale, mission command, and the right weapons might still have effects on the battlefield, even when lacking much training,¹³⁶ it’s unclear how much this would be applicable to Taiwan.

Under the Gu’an Operational Plan (the Taiwanese playbook for preparations against the Chinese), reservists should be recalled and trained,¹³⁷ but it is unclear how long this would take and how much benefit it would bring. This is also absent larger structural problems with the reserve force: it “has only 60 percent of the NCOs it needs, and just 40 percent of the officers it requires”¹³⁸

The Air Force

It appears that the ROCAF is a trained, competent force trained to Western standards. For example, F-16 pilots are trained to US standards and train with the US, mostly through the 21st Fighter Squadron at Luke AFB.¹³⁹ However, the increase in the number of scrambles from China crossing the median line post 2020 is wearing on the ROCAF.¹⁴⁰

Army¹⁴¹

- 6th Field Army - Zhongli, Taoyuan
 - 269th Mechanized Infantry Brigade
 - 542nd Armored Brigade
 - 584th Armored Brigade
 - 21st Artillery Command

¹²⁸ Reconceiving Taiwan’s Reserve Forces, David G. Brown, 2020

¹²⁹ <https://foreignpolicy.com/2020/02/15/china-threat-invasion-conscription-taiwans-military-is-a-hollow-shell/> (2020)

¹³⁰ *Crossing The Strait*, China’s Military Prepares for War with Taiwan, National Defense University Press, 2022 pg. 336

¹³¹ <https://www.vice.com/en/article/m7gp7v/taiwan-defense-china-invasion-conscripts> (2022)

¹³² <https://foreignpolicy.com/2020/02/15/china-threat-invasion-conscription-taiwans-military-is-a-hollow-shell/> (2020)

¹³³ <https://twitter.com/PaulHuangReport/status/1517473063926870016> (April 2022)

¹³⁴ Reconceiving Taiwan’s Reserve Forces, David G. Brown, 2020

¹³⁵ <https://foreignpolicy.com/2020/02/15/china-threat-invasion-conscription-taiwans-military-is-a-hollow-shell/> (2020)

¹³⁶ <https://www.militarytimes.com/opinion/commentary/2022/07/05/how-volunteers-can-defeat-great-powers/> (2022) - John Spencer has published a number of other pieces on this topic that report to the same effect.

¹³⁷ *Modern Taiwanese Air Power*, Roy Choo and Per Ho, 2021. Pg. 41

¹³⁸ <https://rollcall.com/2022/09/28/taiwans-military-needs-overhaul-amid-china-threat-critics-say/> (2022)

¹³⁹ *Modern Taiwanese Air Power*, Roy Choo and Per Ho, 2021. Pg. 51

¹⁴⁰ *Modern Taiwanese Air Power*, Roy Choo and Per Ho, 2021. Pg. 44

¹⁴¹ *The Chinese Invasion Threat* (2017), Appendix III

- 33rd Chemical Group
- 53rd Engineering Group
- 153rd Infantry Brigade
- 206th Infantry Brigade
- Guandu Defense Command
- Lanyang Defense Command
- 10th Field Army
 - 586th Armored Brigade
 - 234th Mechanized Infantry Brigade
 - 58th Artillery Group
 - 626th Artillery Group
 - 52nd Engineering Coy
 - 36th Chemical Group
 - 74th Signals Group
 - 302nd Infantry Brigade
 - 104th Infantry Brigade
 - 257th Infantry Brigade
- 8th Field Army
 - 333rd Mechanized Infantry Brigade
 - 564th Armored Brigade
 - 43rd Artillery Command
 - 624th Group
 - 54th Engineering Group
 - 39th Chemical Group
 - 203rd Infantry Brigade
- Island Defense Units
 - Huatung Defense Command
 - Hualien Defense Team
 - Taitung Defense Team
 - Penghu Defense Command
 - Kinmen Defense Command
 - Kinmen Defense Team
 - Lieyu Defense Team
 - Matsu Defense Command
 - Nangan Defense Team
 - Beigan Defense Team
 - Juguan Defense Team
 - Dongyin Defense Command
- Other Units
 - Special Service Company (Tier 1 Special Forces Unit)
 - Tactical Reconnaissance Group
 - 32 Chung Shyang II UAV
 - 601st Air Cavalry Brigade
 - 602nd Air Cavalry Brigade
 - Army Special Operations Command
 - 5 x SF Battalions

- 202nd Military Police Command
 - Brigade element for protecting various important locations and the president in Taipei
- Army Reserves¹⁴² - In order of ease of activation
 - A-Level Reserve Units - Infantry brigades heavy manned by permanent troops, able to be quickly supplemented by small numbers of reservists. Total – 9 well equipped brigades.
 - B-Level Reserve Units - Brigades are made of active duty personal in the MND's professional military education system.
 - C-Level Reserve Units - Infantry brigades are local reserve units. Comprised of 3 to 5 battalions of infantry and one of field artillery. Total – 22 brigades
 - D-Level Reserve Units - reserve units made of soldiers from the mobilization structure itself. Total – 2-3 brigades without artillery.
 - C and D level units are of lesser quality in combat than A and B units which are as good as standing forces.¹⁴³

Navy¹⁴⁴

- Unknown Assignment
 - 1 x LPD¹⁴⁵
- 124th Flotilla - Zuoying
 - 6 x Frigates
- 131st Flotilla - Keelung
 - 12 x Missile Patrol Ships (Corvette)
 - 31 x Missile Boats
 - 2 x Corvettes
- 146th Flotilla - Magong
 - 8 x Frigates
- 151st Flotilla - Zuoying
 - 9 x LST
 - 1 x Dock Landing Ship
 - 2 x Support Ships
- 168th Flotilla - Su'ao
 - 6 x Frigates
 - 4 x Destroyers
- 192nd Flotilla
 - 3 x Minesweepers
 - 4 x Mine Hunters
 - 2 x Coastal Mine Hunters
- 256th Squadron
 - 2 x SSK

¹⁴² https://www.rand.org/content/dam/rand/pubs/research_reports/RR1700/RR1757/RAND_RR1757.pdf (2017)

¹⁴³ Combined Sources, pg. 130 of https://csis-website-prod.s3.amazonaws.com/s3fs-public/publication/210607_Cordesman_Chinese_Strategy.pdf?fG7hUZdWUVJgaJzyC4E9Qj1m3w13SfjQ, <https://foreignpolicy.com/2020/02/15/china-threat-invasion-conscription-taiwans-military-is-a-hollow-shell/> (2020)

¹⁴⁴ The Chinese Invasion Threat (2017/19), Appendix III

¹⁴⁵ <https://www.janes.com/defence-news/news-detail/taiwanese-shipbuilder-csbc-corporation-launches-first-locally-built-lpd-for-rocn>

Minelaying Capability¹⁴⁶

- 4 x Automatic Minelayers (corvettes)
- ? x Landing Craft (limited to operations in non-rough water)

Marine Corps¹⁴⁷

- 66th Marine Brigade - Guishan District, Taoyuan
 - 2 Mech Infantry, 1 Tank, and 1 M109 Battalions
- 99th Marine Brigade
 - 2 Mech Infantry, 1 Tank, and 1 M109 Battalions
- Amphibious Reconnaissance and Patrol Unit
 - 3x Recce Company
 - Marine Special Service Company (Tier 1 Special Forces Unit)
 - Underwater Demolition company
- Wuqiu Garrison Group
 - 2x Garrison Company (with towed 155mm and 105mm howitzers), plus ADA detachment of 40mm AA guns

Air Force¹⁴⁸

Survivability

Initial dispersion to Chiashan and Shizishan mountain bases will be important to survive missile strikes, but both are reliant upon a single runway at each complex. Five highway sites are acknowledged as dispersal sights, and this number may be as high as 8 with unacknowledged sites, but concrete median dividers have to be removed before the highway sites can be used. Civilian airports provide an additional option for basing.¹⁴⁹ Most aircraft shelters are not hardened to today's standards (having been built in the 1970's), but 36 new shelters will be constructed at Ching Chuan Kang Air Base from 2022-2027.¹⁵⁰

After airbases have been hit it is expected that it will take 90 to 120 minutes to fix the runway (though this can be affected by UXO and the amount of damage). Runway repair teams are well trained, practice, and have the appropriate equipment.¹⁵¹

Overall, as Taiwan is geographically close to China and the airbases, mountain complexes, and dispersal airfields are all fixed sites it is unknown how effective attempts to protect the air force from the initial strike and in the long term will be.¹⁵² If Taiwan fails to disperse its aircraft prior to the initial Chinese strike, casualties will likely be large.

ORBAT

- HQ – Taipei
- Tainan Air Base – 1st Tactical Fighter Wing
 - 1st Tactical Fighter Group – F-CK-1C and F-CK1D (operational conversion unit)
 - 3rd Tactical Fighter Group – F-CK-1C and F-CK1D

¹⁴⁶ <https://www.taipeitimes.com/News/front/archives/2022/01/15/2003771403> (2022)

¹⁴⁷ The Chinese Invasion Threat (2017/19), Appendix III

¹⁴⁸ Modern Taiwanese Air Power, Roy Choo and Per Ho, 2021. Pgs 32-34, ORBAT accurate as of April 2021

¹⁴⁹ Modern Taiwanese Air Power, Roy Choo and Per Ho, 2021. Pg. 41

¹⁵⁰ Modern Taiwanese Air Power, Roy Choo and Per Ho, 2021. Pg. 25-28

¹⁵¹ Modern Taiwanese Air Power, Roy Choo and Per Ho, 2021. Pg. 28

¹⁵² *Crossing The Strait*, China's Military Prepares for War with Taiwan, National Defense University Press, 2022 pg. 330

- 9th Tactical Fighter Group – F-CK-1C and F-CK1D
- Hsinchu Air Base – 2nd Tactical Fighter Wing
 - 41st Tactical Fighter Group – Mirage 2000-5DI and Mirage 2000-5EI
 - 42nd Tactical Fighter Group – Mirage 2000-5DI and Mirage 2000-5EI
 - 48th Training Group – Mirage 2000-5DI and Mirage 2000-5EI (operational conversion unit)
- Ching Chuan Kang Air Base – 3rd Tactical Fighter Wing
 - 7th Tactical Fighter Group – F-CK-1C and F-CK1D
 - 28th Tactical Fighter Group – F-CK-1C and F-CK1D
- Chiayi Air Base – 4th Tactical Fighter Wing¹⁵³
 - 21st Tactical Fighter Group – F-16V
 - 22nd Tactical Fighter Group – F-16V
 - 23rd Tactical Fighter Group – F-16V
- Hualien Air Base – 5th Tactical Composite Wing
 - 12th Tactical Reconnaissance Group – RF-5E, F-5F, F-16A Block 20, F-16B Block 20
 - 17th Tactical Fighter Group – F-16A Block 20, F-16B Block 20 – Aggressor squadron in training exercises
 - 26th Tactical Fighter Group – F-16A Block 20, F-16B Block 20
 - 27th Tactical Fighter Group – F-16A Block 20, F-16B Block 20 (OCU)
- Pingtung North Air Base – 6th Combined Wing
 - Anti-Submarine Warfare Group
 - 33rd Squadron – P-3C
 - 34th Squadron – P-3C
 - 20th Electronic Warfare Group
 - 2nd Early Warning Squadron – E-2K – This is made up of 6 total airframes¹⁵⁴
- Pingtung South Air Base – 6th Combined Air Wing
 - 10th Tactical Airlift Group
 - 101st Airlift Squadron – C-130H
 - 102nd Airlift Squadron – C-130H
 - 20th Electronic Warfare Group
 - 6th Electronic Warfare Squadron – C-130HE, C-130H
- Chihhang Air Base - 7th Flight Training Wing
 - 7th Flight Training Group
 - 44th Flight Training Squadron – F-5E, F-5F
 - 45th Flight Training Squadron – F-5E, F-5F
 - 46th Flight Training Squadron – F-5E, F-5F
- Gangshan Air Base – Air Force Academy
 - Air Force Academy Flight Training Command
 - Songshan Air Base Command
 - Special Transport Squadron and Presidential Flight Squadron
- Magong Air Base
 - Detachments contributed from 1st and 3rd TFW.

¹⁵³ <https://www.thedrive.com/the-war-zone/43193/taiwan-has-declared-its-upgraded-f-16v-fighter-jets-fully-operational>

¹⁵⁴ <https://www.flightglobal.com/download?ac=83735> (2022)

- Overseas
 - Luke AFB – 56th Fighter Wing
 - 21st Fighter Squadron
 - Edwards AFB – 412th Test Wing
 - 416th Flight Test Squadron

Coast Guard

Coast Guard Ships¹⁵⁵

- 13 x 1000+ tons
- 21 x ~700 tons
- 3 x 100-300 tons
- 46 x 100 tons
- 161 x Inshore and riverine vessels (100- tons)

4 of these cutters can have Hsiung Feng II fitted very quickly to them for combat roles.¹⁵⁶

Missile Inventory¹⁵⁷

Missile Name			# of Missiles	# of Launchers
Harpoon	AShM		200 ¹⁵⁸	?
Hsiung Feng II	ASCM	100 - 120 km	810 ¹⁵⁹	Ships
Hsiung Feng IIE	LACM	600 km	500-1,000 ¹⁶⁰	Trucks
Hsiung Feng III	ASCM (possible LACM)	120 - 150 km	220 ¹⁶¹	Ship, Truck
Tien Chi	SRBM (Submunition Warhead)	120 km	At least 15- 50 ¹⁶²	Silos on Tungyin and Penghu Islands ¹⁶³
Wan Chien	ALCM	240 km	~126? ¹⁶⁴	Aircraft
Yun Feng	LACM (bunker buster)	1,200 or 2,000 km (two variants)	20 ¹⁶⁵	10 ¹⁶⁶

¹⁵⁵ Coast Guard Administration (Taiwan), Wikipedia, - Accessed 01/31/22

¹⁵⁶ <https://www.thedrive.com/the-war-zone/taiwans-coast-guard-test-its-ability-to-turn-cutters-into-ship-killers> (June 2022)

¹⁵⁷ Unless otherwise referenced information comes from <https://missilethreat.csis.org/country/taiwan/> - Accessed 02/02/22

¹⁵⁸ https://armstrade.sipri.org/armstrade/page/trade_register.php

¹⁵⁹ Estimated production run of 81/year (see Missile Production Table) of 10 years (2011-2021) this is a highly conservative estimation as it assumes a full production line switch to Hsiung Sheng in 2021. As per *Crossing The Strait*, China's Military Prepares for War with Taiwan, National Defense University Press, 2022 pg. 336, the adversity to live fire exercises means that I assume that the pre-full production run covers training expenditures.

¹⁶⁰ Hazeldine, Richard. "US trying to block Taiwan missiles: 'Defense News'", Taipei Times, 29 October 2008.

¹⁶¹ Estimated production run of 20/year (see Missile Production Table) of 11 years (2011-2022) this is a highly conservative estimation as no full-scale production pre-2011. As per *Crossing The Strait*, China's Military Prepares for War with Taiwan, National Defense University Press, 2022 pg. 336, the adversity to live fire exercises means that I assume that the pre-full production run covers training expenditures.

¹⁶² <https://missilethreat.csis.org/missile/tien-chi/> (Accessed 03/09/22)

¹⁶³ <https://missilethreat.csis.org/missile/tien-chi/> (Accessed 03/09/22)

¹⁶⁴ Estimated production run of 18/year (see Missile Production Table) of 7 years (2015-2022). As per *Crossing The Strait*, China's Military Prepares for War with Taiwan, National Defense University Press, 2022 pg. 336, the adversity to live fire exercises means that I assume that the pre-full production run covers training

¹⁶⁵ <https://missilethreat.csis.org/missile/yun-feng/> - Accessed 02/02/22

¹⁶⁶ <https://missilethreat.csis.org/missile/yun-feng/> - Accessed 02/02/22

Missile Production

It's unclear if the June 2022 deadline for upgrades of production was met as this source¹⁶⁷ indicates that the capacity upgrades were planned to be finished by June, but the language from the following article from August¹⁶⁸ would indicate that capacity upgrades were not finished.

<i>Missile</i>	<i>Production Rate</i>	<i>Missiles/Month (from Production Rate)</i>	<i>Production Start Date</i>
Hsiung Feng II + Hsiung Sheng*	81/year (initial) 131/year (post June 2022) ¹⁶⁹	6.75/mo. (initial) 10.9/mo. (post June 2022)	2011 (HF-II) ¹⁷⁰ 2021 (HS) ¹⁷¹
Hsiung Feng III	20/year (initial) 70/year (post June 2022) ¹⁷²	1.66/mo. (initial) 5.83/mo. (post June 2022)	Between 2007-2011 ¹⁷³
Tien Chien II	40/year (initial) 150/year (post June 2022) ¹⁷⁴	3.33/mo. (initial) 12.5/mo. (post June 2022)	Between 1997-2001 ¹⁷⁵
Tien-Kung III	48/year (initial), 96/year (post June 2022) ¹⁷⁶	4/mo. (initial), 8/mo. (post June 2022)	?
Wan Chien	18/year (initial), 50/year (post June 2022) ¹⁷⁷	1.5/mo. (initial), 4.16/mo. (post June 2022)	Full production in 2015 ¹⁷⁸

*Joint production line. The Hsiung Sheng is an upgraded version of the HF-III.

SAMs – 278+¹⁷⁹

¹⁶⁷<https://focustaiwan.tw/politics/202203030020> (2022) - article no longer publicly available, use the Wayback Machine to get a copy.

¹⁶⁸ <https://www.taiwannews.com.tw/en/news/4625333> (2022).

¹⁶⁹ <https://www.taiwannews.com.tw/en/news/4625333> (2022). Post June 2022 is inferred from linked article.

¹⁷⁰ While https://en.wikipedia.org/wiki/Hsiung_Feng_III#Hsiung_Sheng cites an article stating 2011, the article cannot be accessed and the 2011 number cannot be confirmed.

¹⁷¹ <https://www.taiwannews.com.tw/en/news/4099431> AND

<https://web.archive.org/web/20210117101919/https://focustaiwan.tw/politics/202101110011>

¹⁷² <https://focustaiwan.tw/politics/202203030020> (2022) - article no longer publicly available, use the Wayback Machine to get a copy.

¹⁷³ <https://missilethreat.csis.org/missile/hsiung-feng-iii/> - the missile was unveiled in 2007, and became operational in 2011, as such it entered production at some point in-between those two years.

¹⁷⁴ <https://focustaiwan.tw/politics/202203030020> (2022) - article no longer publicly available, use the Wayback Machine to get a copy.

¹⁷⁵ <https://missilethreat.csis.org/missile/tien-chi/> - missile was first test fired in 1997, and entered service in 2001, so it must have entered production at some point between those years.

¹⁷⁶ <https://focustaiwan.tw/politics/202203030020> (2022) - article no longer publicly available, use the Wayback Machine to get a copy.

¹⁷⁷ <https://focustaiwan.tw/politics/202203030020> (2022) - article no longer publicly available, use the Wayback Machine to get a copy.

¹⁷⁸ <https://missilethreat.csis.org/missile/wan-chien/> (accessed October 2022)

¹⁷⁹ Combined Sources, pg. 130 of https://csis-website-prod.s3.amazonaws.com/s3fs-public/publication/210607_Cordeman_Chinese_Strategy.pdf?fg7hUZdWUVJgaJzyC4E9Qj1m3w13SfjQ

Japan

JMSDF¹⁸⁰

Escort Flotilla 1 at Yokosuka

- 1 Helicopter Carrier (Izumo, F-35B capable¹⁸¹)
- 3 Destroyers

Escort Flotilla 2 at Sasebo

- 1 Helicopter Carrier
- 4 Destroyers

Escort Flotilla 3 at Maizuru

- 1 Helicopter Carrier
- 3 Destroyers

Escort Flotilla 4 at Kure

- 1 Helicopter Carrier (Kaga, F-35B capable¹⁸²)
- 4 Destroyers

11th Escort Squadron

- 3 Destroyers

12th Escort Squadron

- 1 Destroyer
- 2 Destroyer Escorts

13th Escort Squadron

- 2 Destroyers
- 1 Destroyer Escort

14th Escort Squadron

- 2 Destroyers
- 1 Destroyer Escort

15th Escort Squadron

- 1 Destroyer
- 2 Destroyer Escorts

Submarine Flotilla 1 at Kure

- 10 x SSK

Submarine Flotilla 2 at Yokosuka

- 8 x SSK

Landing Ship Squadron 1 (Kure)

- 3 x LST

¹⁸⁰ Submarine numbers slightly different from IISS Military Balance 2021 and 2022 (off by 1 combat sub, but this is within readiness tolerance), organization from <https://www.mod.go.jp/msdf/en/about/org/> Accessed 2/17/22, exact types (Izumo, Kaga) from https://en.wikipedia.org/wiki/Fleet_Escort_Force Accessed 2/17/22.

¹⁸¹ <https://www.defensenews.com/naval/2022/06/02/japans-converted-aircraft-carrier-to-undertake-indo-pacific-deployment/> (2022)

¹⁸² <https://www.defensenews.com/naval/2022/06/02/japans-converted-aircraft-carrier-to-undertake-indo-pacific-deployment/> (2022)

JASDF¹⁸³

- Northern Air Defense Force: Misawa, Aomori
 - 2nd Air Wing - Chitose Air Base
 - 201SQ, F-15J/DJ
 - 203SQ, F-15J/DJ
 - 3rd Air Wing - Misawa Air Base
 - 301SQ, F-35A
 - 302SQ, F-35A
- Central Air Defense Force
 - 6th Air Wing - Komatsu Air Base
 - 303SQ, F-15J/DJ
 - 306SQ, F-15J/DJ
 - 7th Air Wing - Hyakuri Air Base
 - 3SQ, F-2A/B
- Western Air Defense Force
 - 5th Air Wing - Nyutabaru Air Base
 - 305SQ, F-15J/DJ
 - 8th Air Wing - Tsuiki Air Base
 - 6SQ, F-2A/B
 - 8SQ, F-2A/B
- Southwestern Air Defense Force: Naha, Okinawa
 - 9th Air Wing - Naha Air Base
 - 204SQ, F-15J/DJ
 - 304SQ, F-15J/DJ
- Airborne Early Warning and Control Wing: Hamamatsu Air Base
 - Flight Warning and Control Group - Hamamatsu Air Base
 - 602SQ, E-767
 - Flight Alert Monitoring Group - Misawa Air Base
 - 601SQ, E-2C/D - Misawa Air Base
 - 603SQ, E-2C/D - Naha Air Base
- Electronic Warfare Squadron Iruma Air Base (EC-1, YS-11EB)
- Electronic Intelligence Squadron Iruma Air Base (YS-11EB)
- Air Rescue Wing
- Detachments: Chitose, Matsushima, Ashiya, Akita, Hyakuri, Nyutabaru, Niigata, Hamamatsu, Naha, Komatsu, Komaki (Training Squadron) (UH-60J, U-125A)
- Helicopter Airlift Squadrons: Iruma (CH-47J (LR)), Kasuga (CH-47J (LR)), Misawa (CH-47J (LR)), Naha (CH-47J (LR))
- Air Support Command: Fuchū Air Base, Tokyo
 - 1st Tactical Airlift Group - Komaki Air Base
 - 401SQ, C-130H, KC-130H
 - 404SQ, KC-767
 - 2nd Tactical Airlift Group - Iruma Air Base

¹⁸³ Squadron numbers cross checked with IISS Military Balance 2021 pg. 272-273, organizational structure and planes Wikipedia Accessed 01/31/22

- 402SQ, C-1, U-4
- 3rd Tactical Airlift Group - Miho Air Base
 - 403SQ, C-1, C-2
 - 41SQ, T-400

Combat Aircraft¹⁸⁴

- 62 x F-2A
- 155 x F-15J
- 23 x F-35A/B

JGSDF

- Amphibious Rapid Deployment Brigade¹⁸⁵ – Ainoura¹⁸⁶
 - Brigade HQ
 - 2 x Infantry Regiments
 - Artillery Battalion
 - Reconnaissance Battalion
 - Engineer Battalion
 - Combat Landing Battalion
 - Logistic Support Battalion
 - Signal Company
- 1st Airborne Brigade¹⁸⁷ - Funabashi
 - Brigade Headquarters
 - Quartermaster Company
 - Signal Company
 - 3x Airborne Infantry Battalion (1st, 2nd, 3rd)
 - Airborne Artillery Battalion
 - Airborne Logistic Support Battalion
 - Engineer Company
- 12th Airmobile Brigade¹⁸⁸ - Shintō
 - 1 recce squadron, 3 inf regiment, 1 aviation sqn, 1 field arty bn, 1 SAM coy, 1 cbt engr coy, 1 NBC coy, 1 sigs coy, 1 log bn.

Japanese Coast Guard¹⁸⁹

- Patrol vessels: 121
- Patrol craft: 234

Missile Inventory¹⁹⁰

Missile Name	Class	Range	# of Missiles	# of Launchers
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¹⁸⁴ <https://www.flightglobal.com/download?ac=83735> (2022)

¹⁸⁵ <https://www.mod.go.jp/gsdf/gcc/ardb/sta.html> – Accessed 02/03/22

¹⁸⁶ https://www.mod.go.jp/en/publ/w_paper/wp2020/pdf/R02030102.pdf

¹⁸⁷ Core info from IISS Military Balance 2021 pg. 272-273, slight supplemental info from [https://en.wikipedia.org/wiki/1st_Airborne_Brigade_\(Japan\)](https://en.wikipedia.org/wiki/1st_Airborne_Brigade_(Japan)) – Accessed 02/03/22

¹⁸⁸ IISS The Military Balance, 2022, pg. 276

¹⁸⁹ <https://www.kaiho.mlit.go.jp/info/books/report2020/html/top.html> (2021)

¹⁹⁰ <https://missilethreat.csis.org/country/taiwan/> - Accessed 02/02/22

Type 88 SSM	AShM	150 km	324 (at least) ¹⁹¹	54 ¹⁹²
Type 12 SSM	AShM	200 km	144 (at least) ¹⁹³	24 (at least) ¹⁹⁴

¹⁹¹ <https://www.navyrecognition.com/index.php/news/defence-news/year-2013-news/november-2013-navy-naval-forces-maritime-industry-technology-security-global-news/1344-jsdf-deploys-type-88-land-based-mobile-anti-ship-missiles-launchers-in-okinawa-.html> (2021)

¹⁹² Stated to have both 54 launchers by this 2007 source: Wertheim, Eric (2007). *The Naval Institute Guide to Combat Fleets of the World: Their Ships, Aircraft, and Systems*. Naval Institute Press. p. 374. ISBN 9781591149552. This source says that they deployed 54, so I feel confident that this is the correct number: <https://www.navyrecognition.com/index.php/news/defence-news/year-2013-news/november-2013-navy-naval-forces-maritime-industry-technology-security-global-news/1344-jsdf-deploys-type-88-land-based-mobile-anti-ship-missiles-launchers-in-okinawa-.html> (2021)

¹⁹³ <https://www.thedefensepost.com/2022/03/03/japan-type-12-missile-upgrade/> (2022)

¹⁹⁴ <https://www.thedefensepost.com/2022/03/03/japan-type-12-missile-upgrade/> (2022)

United States

Navy¹⁹⁵

3rd Fleet - Point Loma, CA

- 2 x Zumwalt Class
- CSG 1 – San Diego, CA
 - 1 x CV (USS Carl Vinson)
 - 3 x F/A-18, 1 x F-35 Squadrons
 - 2 x Cruisers
 - 5 x Destroyers
- CSG 3 – San Diego, CA
 - 1 x CV (USS Abraham Lincoln)
 - 3 x F/A-18, 1 x F-35 Squadrons
 - 2 x Cruisers
 - 5 x Destroyers
- CSG 9 - San Diego, CA
 - 1 x CV (USS Theodore Roosevelt)
 - 4 x F/A-18 Squadrons
 - 2 x Cruisers
 - 5 x Destroyers
- CSG 11 – NS Everett, WA
 - 1 x CV (USS Nimitz)
 - 4 x F/A-18 Squadrons
 - 1 x Cruiser
 - 5 x Destroyers
- Surface Squadron 31 – Pearl Harbor, HI
 - 1 x Cruiser
 - 9 x Destroyers
- ESG 3 – San Diego, CA
 - 1 x LHA
 - 4 x LHD
 - 5 x LPD
 - 4 x LSD
- LCSRON - San Diego, CA
 - 13 x LCS
- MCM Squadron – San Diego, CA
 - 3 x CMC ships
- Submarine Squadron 1 – Pearl Harbor, HI
 - 2 x Los Angeles SSN
 - 6 x Virginia SSN
- Submarine Squadron 7 – Pearl Harbor, HI
 - 7 x Los Angeles SSN
- Submarine Squadron 17 – Kitsap-Bangor, WA
 - 7 x Ohio SSBN

¹⁹⁵ [https://en.wikipedia.org/wiki/List_of_units_of_the_United_States_Navy#United_States_Third_Fleet_\(NB_Point_Loma,_CA\)](https://en.wikipedia.org/wiki/List_of_units_of_the_United_States_Navy#United_States_Third_Fleet_(NB_Point_Loma,_CA)) – Accessed 02/01/22

- Submarine Squadron 19 – Kitsap-Bangor, WA
 - 4 x Los Angeles SSN
 - 2 x Ohio SSGN
 - 1 x Ohio SSBN
- Submarine Development Squadron 5 – Kitsap-Bangor, WA
 - 3 x Seawolf SSN
- Submarine Squadron 11 – Point Loma, CA
 - 4 x Los Angeles SSN

7th Fleet - Yokosuka, Japan

- 2 x Submarine tender (based in Guam)
- CSG 5 – Yokosuka, Japan
 - 1 x CV (USS Ronald Regan)
 - 4 x F/A-18 Squadrons
 - 3 x Cruisers
 - 7 x Destroyers
- ESG 7 – Sasebo, Japan
 - 1 x LCC
 - 1 x LHA
 - 2 x LPD
 - 2 x LSD
- MCM Squadron – Sasebo, Japan
 - 4 x MCM vessels
- Submarine Squadron 15 – Guam
 - 4 x Los Angeles SSN

Other Important Information

Upward Facing Hydrophone Networks - the gaps between the Philippines, the Ryukyu Islands, and Taiwan.¹⁹⁶

Marine Corps

- West Coast¹⁹⁷
 - 11th, 13th, 15th MEU - Camp Pendleton, California
- III MEF¹⁹⁸
 - 3rd Marine Division – Okinawa¹⁹⁹
 - 3rd Reconnaissance Battalion
 - 12th Marine Regiment (Artillery Unit)
 - 4th Marine Regiment
 - 31st MEU – Okinawa
 - 1st Marine Aircraft Wing²⁰⁰
 - 2 x F-35B squadrons – Iwakuni

¹⁹⁶ <https://www.foreignaffairs.com/articles/china/2022-06-16/consequences-conquest-taiwan-indo-pacific> (2022)

¹⁹⁷ https://en.wikipedia.org/wiki/Marine_expeditionary_unit - Accessed 02/01/22

¹⁹⁸ https://en.wikipedia.org/wiki/III_Marine_Expeditionary_Force - Accessed 02/01/22

¹⁹⁹ https://en.wikipedia.org/wiki/3rd_Marine_Division - Accessed 02/03/22

²⁰⁰ https://en.wikipedia.org/wiki/1st_Marine_Aircraft_Wing - Accessed 02/01/22

- 3rd Marine Littoral Regiment (same size as MEU) - Hawaii²⁰¹

Air Force

USAF Pacific²⁰²

This list includes only offensive units (no support ones)

- 3rd Wing - JB Elmendorf-Richardson, Alaska
 - 1 x F-22A Squadron
- 8th Fighter Wing (FW) Kunsan AB, South Korea²⁰³
 - 2 x F-16C/D Squadrons (35th and 80th Fighter Squadrons)
- 15th Wing JB Pearl Harbor-Hickam, Hawaii
 - 1 x F-22A Squadron (19th Fighter Squadron)
- 18th Wing Kadena AB, Japan²⁰⁴
 - 2 x Squadrons F-15C/D (44th and 67th Fighter Squadrons)
- 35th FW Misawa AB, Japan
 - 2 x F-16C/D Squadrons (13th and 14th Fighter Squadron)²⁰⁵
- 51st FW Osan AB, South Korea²⁰⁶
 - 1 x A-10C Squadron (25th Fighter Squadron)
 - 1 x F-16C/D Squadron (36th Fighter Squadron)
- 354th FW Eielson AFB, Alaska²⁰⁷
 - 1 x F-35 (355th Fighter Squadron)²⁰⁸
 - 1x F-16C/D (356th Fighter Squadron)

USAF Air Combat Command²⁰⁹

This list includes only offensive units (no support ones) and leaves out units that are dedicated to a training role.

- 1st Fighter Wing - JB Langley-Eustis, Va.²¹⁰
 - 2 x F-22 squadrons
- 4th Fighter Wing Seymour - Johnson AFB, N.C.²¹¹
 - 4 x F-15E squadrons (only 2 are expeditionary)
- 20th Fighter Wing Shaw - AFB, S.C.²¹²
 - 3 x F-16CM squadrons
- 23rd Wing - Moody AFB, Ga.
 - 2 x A-10C squadrons
- 355th Wing - Davis-Monthan AFB, Ariz.²¹³

²⁰¹ <https://www.marinecorpstimes.com/news/your-marine-corps/2020/09/22/corps-to-begin-3-year-marine-littoral-regiment-experiment-using-hawaii-marines/> (2020)

²⁰² Air Force Magazine Almanac 2021 is the general source for all following unless indicated otherwise.

²⁰³ <https://www.kunsan.af.mil/About-Us/Fact-Sheets/Article/412731/8th-fighter-wing/> - Accessed 02/01/22

²⁰⁴ https://en.wikipedia.org/wiki/18th_Wing - Accessed 02/01/22

²⁰⁵ <https://www.misawa.af.mil/Units/> - Accessed 02/01/22

²⁰⁶ https://en.wikipedia.org/wiki/51st_Fighter_Wing - Accessed 02/01/22

²⁰⁷ https://en.wikipedia.org/wiki/354th_Fighter_Wing#354th_Operations_Group - Accessed 02/01/22

²⁰⁸ <https://www.dvidshub.net/image/7023924/49th-state-welcomes-49th-f-35> (2022) - Other sources note this as a F-16C/D Squadron, but the most up to date info says they just became a F-35 unit.

²⁰⁹ Air Force Magazine Almanac 2022 is the general source for all following unless indicated otherwise.

²¹⁰ <https://www.jble.af.mil/About-Us/Units/Langley-ABF/1st-Fighter-Wing/#:~:text=The%201st%20Fighter%20Wing%20is,to%20support%20Combatant%20Commander%20taskings> - Accessed 09/28/2022

²¹¹ <https://www.seymourjohnson.af.mil/About-Us/Fact-Sheets/4th-Operations-Group/> - Accessed 09/28/2022

²¹² <https://www.shaw.af.mil/About-Us/> - Accessed 09/28/2022

²¹³ <https://www.dm.af.mil/About-DM/Units/355th-Operations-Group/> - Accessed 09/28/2022

- 1 x A-10C Squadron
- 366th Fighter Wing - Mountain Home AFB, Idaho²¹⁴
 - 2 x F-15E Squadrons
- 388th Fighter Wing - Hill AFB, Utah²¹⁵
 - 3 x F-35A Squadrons

Likely USAF bomber allocation²¹⁶

- 1 x wing of B-52 (out of 2 wings)
- 1 x wing of B-1 (out of 2 wings)
- 1 x wing of B-2 (out of 1 wing)

Army²¹⁷

- 8th Army – South Korea
 - 2nd Infantry Division²¹⁸
 - Headquarters Battalion
 - 3rd Armored BCT (rotational unit)
 - 210 Field Artillery Regiment
 - 2nd Combat Aviation Brigade
- I Corps
 - 7th Infantry Division - Washington²¹⁹
 - 1st Stryker BCT
 - 2nd Stryker BCT
 - 81st Stryker BCT
 - Divisional Artillery, 2nd Infantry Division
 - 16th Combat Aviation Brigade
 - 17th Field Artillery Brigade (HIMARS) - Washington
 - 25th Infantry Division – Hawaii²²⁰
 - 1st Striker BCT detached to Alaska
 - 2nd Infantry BCT
 - 3rd Infantry BCT
 - DIVARTY is organic to BCT's rather than their own command.
 - 25th Combat Aviation Brigade
 - United States Army, Japan²²¹
 - United States Army Aviation Battalion, Japan
 - 1st Battalion/1st Special Forces Group
 - United States Army, Alaska²²²
 - 1st Striker BCT²²³ - Alaska

²¹⁴ <https://www.mountainhome.af.mil/About-MHAFB/> - Accessed 09/28/2022

²¹⁵ <https://www.hill.af.mil/About-Us/Fact-Sheets/Display/Article/1464092/388th-fighter-wing/> - Accessed 09/28/2022

²¹⁶ Educated guess, data on # of wings pulled from Air Force Magazine Almanac 2021

²¹⁷ https://en.wikipedia.org/wiki/United_States_Army_Alaska#Current_Structure - Accessed 02/01/22

²¹⁸ <https://www.2id.korea.army.mil/About-Us/Organization/> - Accessed 02/03/22

²¹⁹ [https://en.wikipedia.org/wiki/7th_Infantry_Division_\(United_States\)#Current_structure](https://en.wikipedia.org/wiki/7th_Infantry_Division_(United_States)#Current_structure) - Accessed 02/03/22

²²⁰ [https://en.wikipedia.org/wiki/25th_Infantry_Division_\(United_States\)#Organization](https://en.wikipedia.org/wiki/25th_Infantry_Division_(United_States)#Organization) - Accessed 02/03/22

²²¹ https://en.wikipedia.org/wiki/United_States_Army,_Japan - Accessed 02/03/22

²²² https://en.wikipedia.org/wiki/United_States_Army_Alaska - Accessed 02/03/22

²²³ [https://en.wikipedia.org/wiki/25th_Infantry_Division_\(United_States\)#Organization](https://en.wikipedia.org/wiki/25th_Infantry_Division_(United_States)#Organization) - Accessed 02/03/22

- 4th BCT (Airborne) – Alaska
- Immediate Response Force – CONUS
 - 18-hour standby BCT from the 82nd Airborne
 - 18-hour standby Battalion from 75th Ranger Regiment
- NATO High Readiness Units
 - 1st Armored BCT/3rd Infantry Division (George)²²⁴
- Other Rapidly Deployable Units
 - 82nd Airborne Brigade
 - 3 BCT’s
 - One BCT is part of the Immediate Response Force
 - Two Airborne BCT’s available for deployment
 - One Combat Aviation Brigade
- Additional High Value Capabilities for Deployment
 - 4 x CONUS THADD Battery (total of 7 batteries in inventory, the other three are deployed in Hawaii, South Korea, and Guam)²²⁵
 - Patriot Batteries - Total 33 CONUS batteries + 27 batteries overseas, not all would be available for use, and not all use PAC-3 (some are still PAC-2)²²⁶
- Other rapid reaction forces are put together as needed.

Missile Inventories

Weapon	Type	# in Inventory	Launch Platform	Notes
JASSM	Air-to-Surface	3,000 ²²⁷	B-1B, B-52. Externally F-16, F-15E, F/A-18, F-35	200 nm
JASSM-ER	Air-to-Surface	2,000 ²²⁸	B1B, Externally F-15E	500 nm
LRASM	AShM	198 ²²⁹	Aircraft	
Maritime Strike Tomahawk	AShM	88 ²³⁰	Ship	
Naval Strike Missile	AShM	30 ²³¹	Ship	100-300 miles

Munitions Inventories

All of the following at current production rates, which could be expanded.

²²⁴ <https://www.defensenews.com/news/pentagon-congress/2022/02/25/thousands-of-us-troops-deploying-for-first-ever-nato-response-force-activation-amid-russia-attack/> (2022)

²²⁵ <https://www.armscontrol.org/factsheets/usmissiledefense> (2019)

²²⁶ <https://media.defense.gov/2019/Jan/17/2002080666/-1/-1/1/2019-MISSILE-DEFENSE-REVIEW.PDF> (2019) pg. 50

²²⁷ <https://sgp.fas.org/crs/weapons/R45996.pdf> (2021) pg.15-16, number based on guesswork from source and known production rates for end of FY2022

²²⁸ <https://sgp.fas.org/crs/weapons/R45996.pdf> (2021) pg.15-16, number based on guesswork from source and known production rates for end of FY2022

²²⁹ <https://www.defensenews.com/naval/2020/02/11/as-china-continues-rapid-naval-expansion-the-us-navy-begins-stockpiling-ship-killing-missiles/> (2021) – current number is based on projected buys from 2021

²³⁰ <https://www.defensenews.com/naval/2020/02/11/as-china-continues-rapid-naval-expansion-the-us-navy-begins-stockpiling-ship-killing-missiles/> (2021) – current number is based on projected buys from 2021

²³¹ <https://www.defensenews.com/naval/2020/02/11/as-china-continues-rapid-naval-expansion-the-us-navy-begins-stockpiling-ship-killing-missiles/> (2021) – current number is based on projected buys from 2021

Javelin – 14,000 in stockpile, 2,100 produced a year, heading towards 4,000²³²
PRISM – 110 produced a year²³³
JASSM – 500 produced a year²³⁴
Tomahawk – 60 produced a year²³⁵

Pacific Bases

Guam

Anderson AFB

THAAD Battery and Iron Dome Battery²³⁶

Northwest Field

Can land tankers, THAAD²³⁷

Wake Island

Major air facilities and runway can take any aircraft.²³⁸ It is at the extreme end (if not out of IRBM range) from China and is likely inside the outer engagement envelope of GBMD.²³⁹

Tinian Island

Can take fast jets and could be used, but cannot sustain military operations for a long time²⁴⁰

Midway

Saipan

²³² <https://rusi.org/explore-our-research/publications/commentary/return-industrial-warfare> (2022)

²³³ <https://rusi.org/explore-our-research/publications/commentary/return-industrial-warfare> (2022)

²³⁴ <https://rusi.org/explore-our-research/publications/commentary/return-industrial-warfare> (2022)

²³⁵ <https://rusi.org/explore-our-research/publications/commentary/return-industrial-warfare> (2022)

²³⁶ <https://www.thedrive.com/the-war-zone/42687/the-iron-dome-air-defense-system-is-heading-to-guam> (2021)

²³⁷ <https://www.thedrive.com/the-war-zone/44232/kc-46-tanker-shows-it-can-rapidly-unload-tons-of-fuel-to-thirsty-fighters-at-austere-airstrips> (2022)

²³⁸ <https://www.thedrive.com/the-war-zone/34404/big-airfield-expansion-on-wake-island-seen-by-satellite-as-u-s-preps-for-pacific-fight> (2022) and the earlier article <https://www.thedrive.com/the-war-zone/34404/big-airfield-expansion-on-wake-island-seen-by-satellite-as-u-s-preps-for-pacific-fight> (2020)

²³⁹ <https://www.thedrive.com/the-war-zone/34404/big-airfield-expansion-on-wake-island-seen-by-satellite-as-u-s-preps-for-pacific-fight> (2022)

²⁴⁰ <https://www.thedrive.com/the-war-zone/37885/air-force-to-build-alternate-airbase-on-tinian-island-in-case-guam-gets-knocked-out> (2020)

Philippines

Navy²⁴¹

- 2 x LPD
- 2 x Frigates
- 1 x Corvette
- 6 x Offshore Patrol Vessels
- 18 x Missile Boats

Air Force

- 12 x KAI FA-50 Golden Eagle²⁴²
- 2 x Squadron Light Attack Aircraft²⁴³
- 1 x Squadron AH-1 Cobra²⁴⁴

Marine Corps²⁴⁵

- 1st Marine Brigade
- 2nd Marine Brigade
- 3rd Marine Brigade
- 4th Marine Brigade
- 7th Marine Brigade (Reserve)
- Rotating Marine Rifle Battalion
- Field Artillery Battalion
 - 105mm and 155mm howitzers, towed ADA guns
- Assault Armor Battalion
 - IVF's

Army²⁴⁶

- 1st Brigade Combat Team (Light/Mech Infantry)
- Large number of conventional forces

Coast Guard²⁴⁷

- 3 large patrol ships
- 18 patrol craft
- 36 coastal patrol craft

Missile Inventory

No land based anti-ship missiles or extra missile stores

²⁴¹ https://en.wikipedia.org/wiki/Philippine_Navy#Ships - Accessed 02/03/22

²⁴² Aviation Week and Space Technology 02/10/20 cross checked with <https://www.flightglobal.com/download?ac=83735> (2022)

²⁴³ https://en.wikipedia.org/wiki/Philippine_Air_Force#Organization - Accessed 02/03/22 cross checked with <https://www.flightglobal.com/download?ac=83735> (2022)

²⁴⁴ https://en.wikipedia.org/wiki/Philippine_Air_Force#Organization - Accessed 02/03/22 cross checked with <https://www.flightglobal.com/download?ac=83735> (2022)

²⁴⁵ https://en.wikipedia.org/wiki/Philippine_Marine_Corps - Accessed 02/03/22

²⁴⁶ https://en.wikipedia.org/wiki/Philippine_Army#Organization - Accessed 02/03/22

²⁴⁷ https://en.wikipedia.org/wiki/Philippine_Coast_Guard - Accessed 02/03/22

Vietnam

Navy²⁴⁸

- 6 x SSK (Kilo Class)
- 4 x Guided Missile Frigates (Gepard Class)
- 3 x ASW Frigates (Petya-II/-III Class)
- 2 x ASW Corvettes (Pohang Class)
- 21 x Missile Boats (Mixed classes)
- 12 x Gunboats
- 5 x Torpedo Boats
- 5 x LST
- 4 x RoRo
- 8 x MCM Ships
- At least two Naval Infantry (Marine) Brigades:
 - 101st Naval Infantry Brigade²⁴⁹
 - 147th Naval Infantry Brigade²⁵⁰

Air Force

Structure²⁵¹

- 371st Air Force Division
 - 931st Fighter Regiment (Su-22M4/UM3K) - Yên Bái Air Base
 - 921st Fighter Regiment (Su-22M4/UM3K) - Phúc Yên Air Base
 - 923rd Fighter-bomber Regiment (Su-30MK2) - Tho Xuan Airport
 - 927th Fighter Regiment (Su-30MK2) - Kép Air Base
 - 916th Helicopter Regiment (Mi-8/17) - Hòa Lạc Air Base
 - 918th Air Transport Regiment (An-2, An-26, An-30, M-28, C-295M) - Gia Lam Airport
- 372nd Air Force Division
 - 929th Fighter-Bomber Regiment (Su-22M4) - Da Nang International Airport
 - 930th Helicopter Regiment (Mi-8/17) - Da Nang International Airport
 - 940th Fighter/Air Training Regiment (Su-27SK/UBK) - Phu Cat Airport
- 370th Air Force Division
 - 937th Fighter-Bomber Regiment (Su-22M4/UM3K) - Thanh Son Air Base
 - 935th Fighter Regiment (Su-30MK2) - Biên Hòa Air Base
 - 917th Mixed Air Transport Regiment (Mi-8/17) - Tan Son Nhat International Airport
- Vietnam People's Air Force Academy
 - 910th Air Training Regiment (L-39C) - Dong Tac Airport
 - 920nd Air Training Regiment (Unknown Aircraft) - Nha Trang Air Base
- 361st Air Defense Division
- 363rd Air Defense Division

²⁴⁸ https://en.wikipedia.org/wiki/List_of_equipment_of_the_Vietnam_People%27s_Navy – Accessed 02/03/22

²⁴⁹ <https://nhandan.vn/tin-tuc-su-kien/huan-luyen-the-luc-o-lu-doan-hai-quan-danh-bo-101-279712/> – Accessed 02/03/22

²⁵⁰ <https://baoquangninh.com.vn/lu-doan-hai-quan-danh-bo-147-ra-quan-huan-luyen-nam-2017-2333653.html> – Accessed 02/03/22

²⁵¹ Numbers checked by <https://www.flightglobal.com/download?ac=83735> (2022), with structure and air bases from https://en.wikipedia.org/wiki/Vietnam_People%27s_Air_Force – Accessed 02/03/22

- 365th Air Defense Division
- 375th Air Defense Division
- 377th Air Defense Division
- 367th Air Defense Division

Combat Aircraft Breakdown²⁵²

- 34 x Su-22 (3rd Gen Fighter-Bomber)
- 46 x Su-27/30 (4th Gen Fighter)
- 6 x Medium Cargo Aircraft
- 87 x Mi-8/17
- 25 x L-39/NG (3rd Gen Trainer Aircraft, can be converted for light attack)

Army²⁵³

- 1st Corps Major Units:
 - 308th Infantry Division
 - 312th Infantry Division
 - 390th Infantry Division
- 2nd Corps Major Units:
 - 304th Infantry Division
 - 306th Infantry Division
 - 325th Infantry Division
- 3rd Corps Major Units:
 - 10th Infantry Division
 - 31st Infantry Division
 - 320th Infantry Division
 - 198th Commando Regiment
- 4th Corps Major Units:
 - 7th Infantry Division
 - 9th Infantry Division
 - 324th Infantry Division
 - 429th Commando Regiment

Coast Guard²⁵⁴

- 9 x 1000+ tons (Cutters, OPV's)
- 16 x 400-600 ton patrol ships
- 32 x 100-200 ton patrol ships
- 50 x High-Speed Patrol boat (glorified speedboats)

²⁵² <https://www.flightglobal.com/download?ac=83735> (2022)

²⁵³ https://en.wikipedia.org/wiki/People%27s_Army_of_Vietnam – Accessed 02/03/22

²⁵⁴ https://en.wikipedia.org/wiki/Vietnam_Coast_Guard – Accessed 02/03/22

Missile Inventory

Weapon	Platform	Range	Number
Short Range Air-to-Air Missile	Aircraft		3,075 ²⁵⁵
Beyond Visual Range Air-to-Air Missile	Aircraft		320+ ²⁵⁶
Kh-29	Aircraft	30 km	100 ²⁵⁷
Kh-31	Aircraft	110 km (P variant)	100 ²⁵⁸
Kh-59	Aircraft	200 km	200 ²⁵⁹
SUCD (B and C) ²⁶⁰	TEL		24 ²⁶¹
Costal Defense Missiles	Shore based Launchers	Varies, 50-750km	~100 ²⁶²

²⁵⁵ https://en.wikipedia.org/wiki/Vietnam_People%27s_Air_Force – Accessed 02/03/22

²⁵⁶ https://en.wikipedia.org/wiki/Vietnam_People%27s_Air_Force – Accessed 02/03/22

²⁵⁷ https://en.wikipedia.org/wiki/Vietnam_People%27s_Air_Force – Accessed 02/03/22

²⁵⁸ https://en.wikipedia.org/wiki/Vietnam_People%27s_Air_Force – Accessed 02/03/22

²⁵⁹ https://en.wikipedia.org/wiki/Vietnam_People%27s_Air_Force – Accessed 02/03/22

²⁶⁰ <https://www.armscontrol.org/factsheets/missiles#3> (2017)

²⁶¹ Number as given by IISS Military Balance 2017, 338–9. but I cannot access it to confirm

²⁶² Educated guess, based on data from https://en.wikipedia.org/wiki/List_of_equipment_of_the_Vietnam_People%27s_Navy – Accessed 02/03/22