

The Military Balance

ISSN: 0459-7222 (Print) 1479-9022 (Online) Journal homepage: <http://www.tandfonline.com/loi/tmib20>

Chapter Two: Comparative defence statistics

To cite this article: (2018) Chapter Two: Comparative defence statistics, The Military Balance, 118:1, 19-26, DOI: [10.1080/04597222.2018.1416969](https://doi.org/10.1080/04597222.2018.1416969)

To link to this article: <https://doi.org/10.1080/04597222.2018.1416969>



Published online: 13 Feb 2018.



Submit your article to this journal [↗](#)



Article views: 703



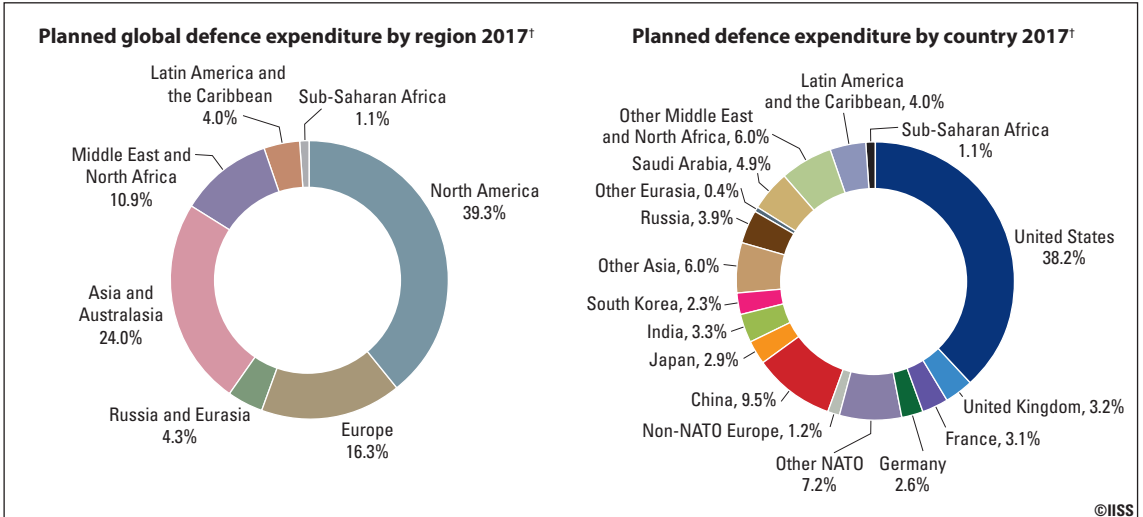
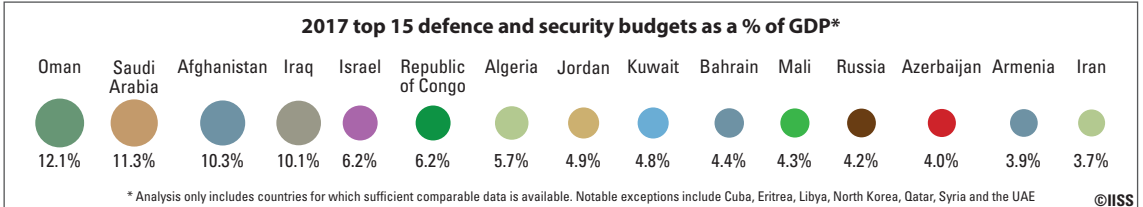
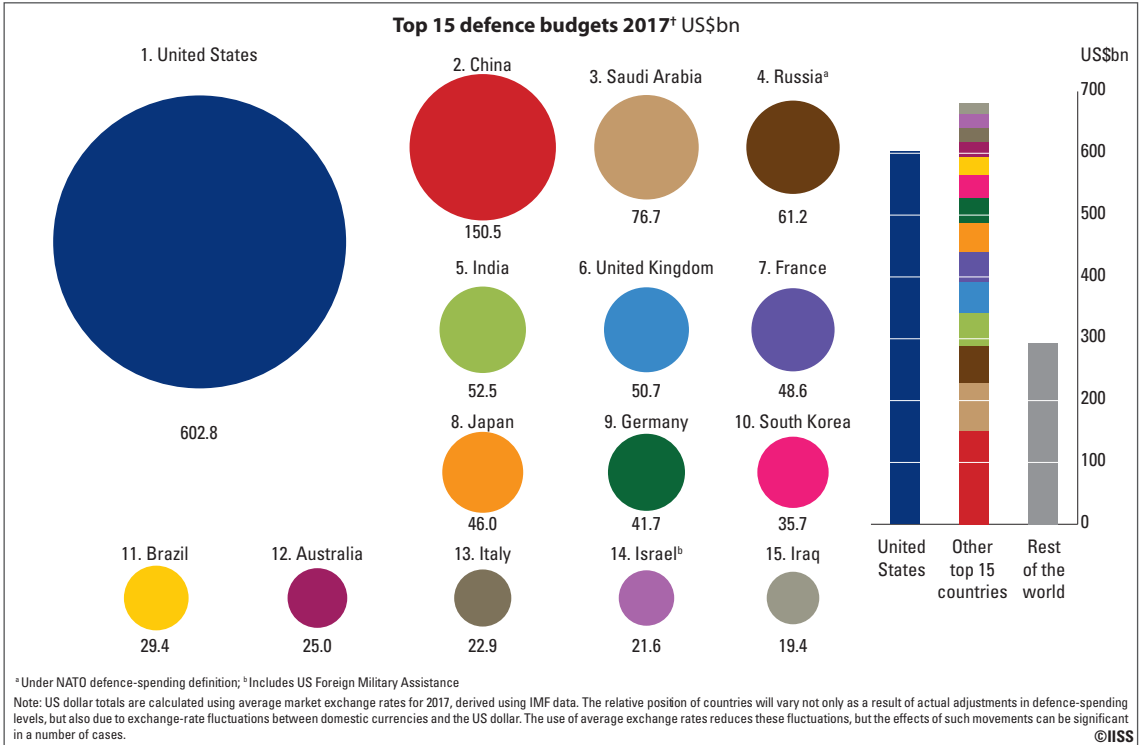
View related articles [↗](#)



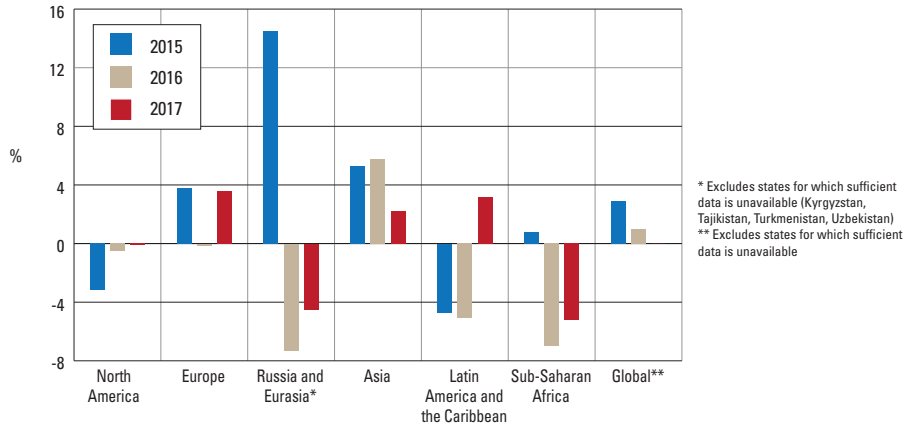
View Crossmark data [↗](#)

Chapter Two

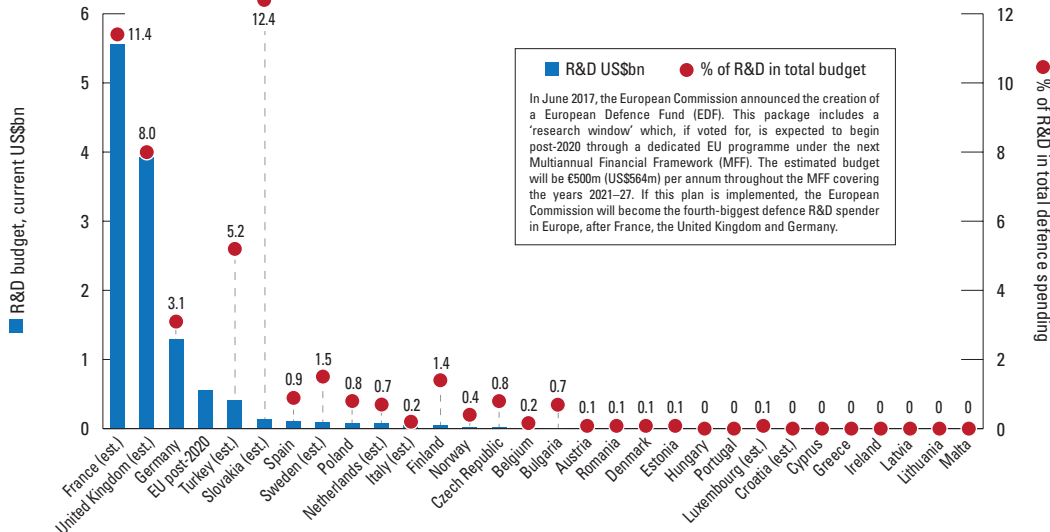
Comparative defence statistics



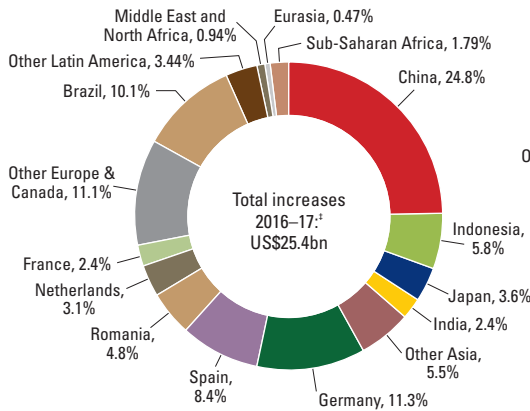
Real global defence-spending changes by region 2015-17



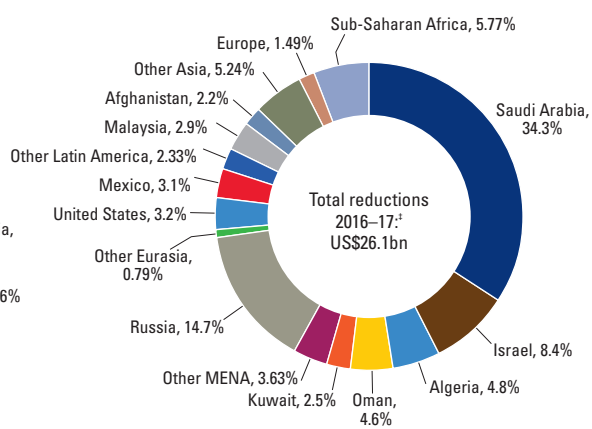
Selected European defence research and development (R&D) budgets in 2017 and planned European Union defence R&D spending



Composition of real defence-spending increases 2016-17[†]

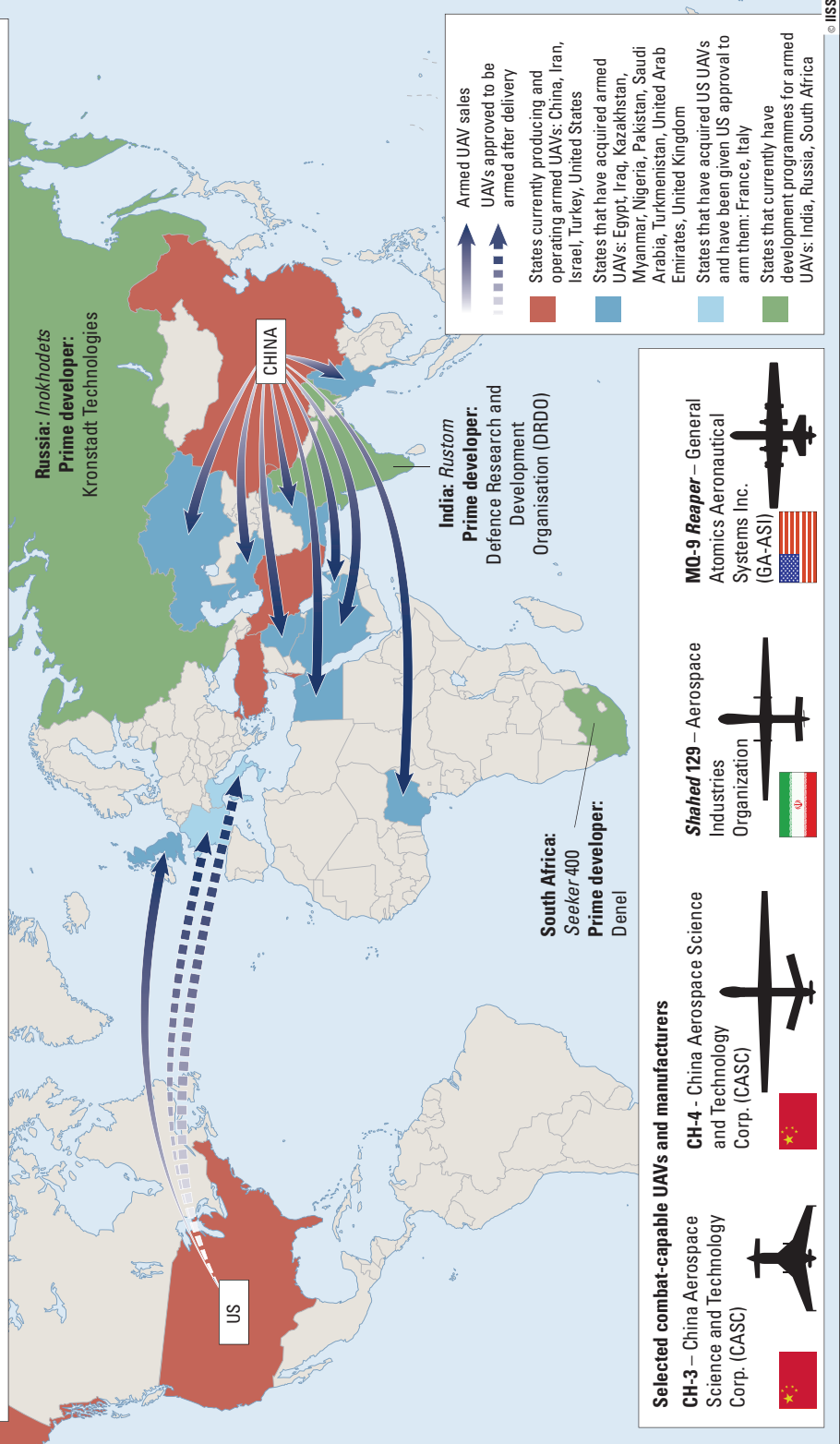


Composition of real defence-spending reductions 2016-17[†]

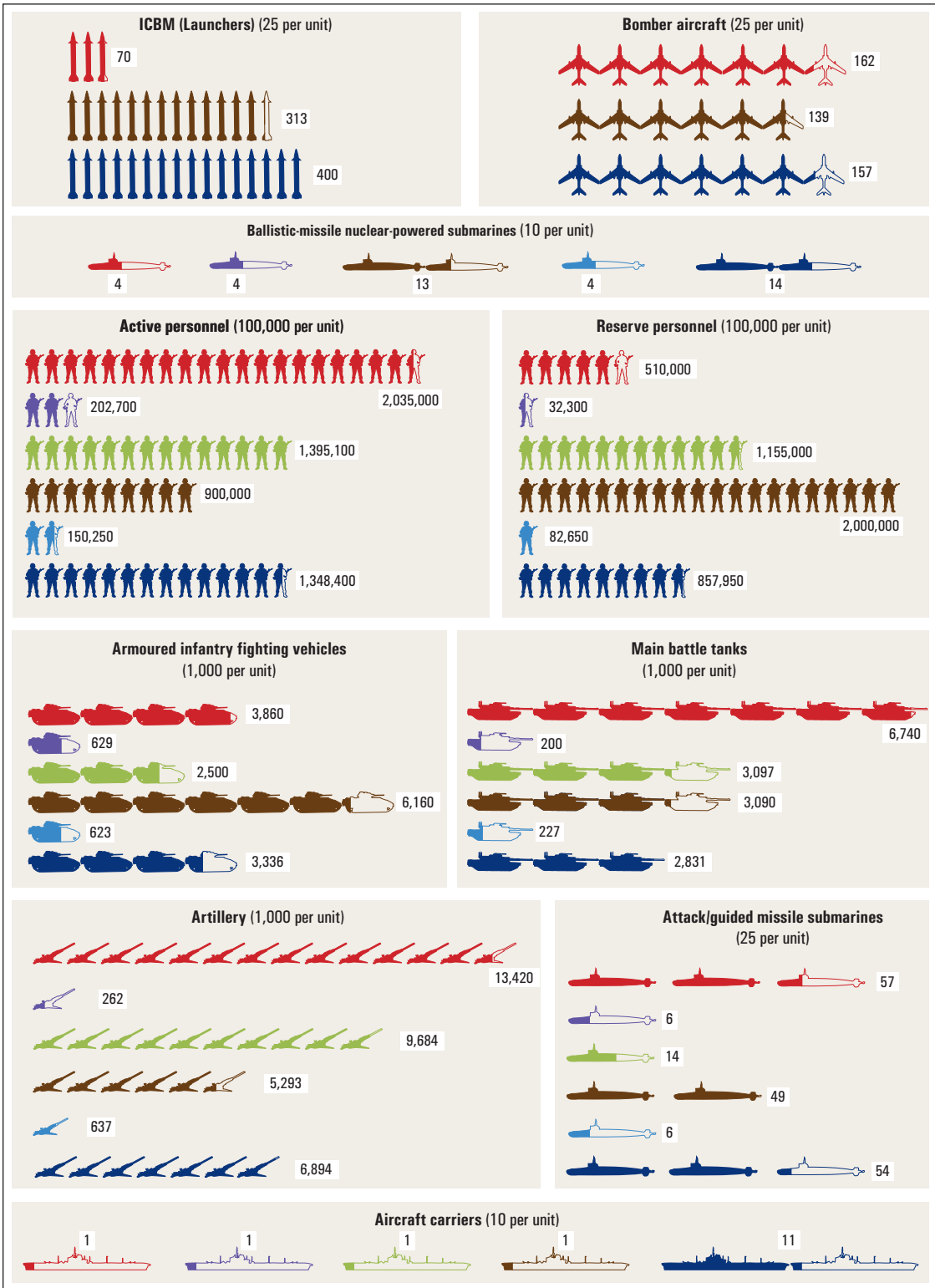


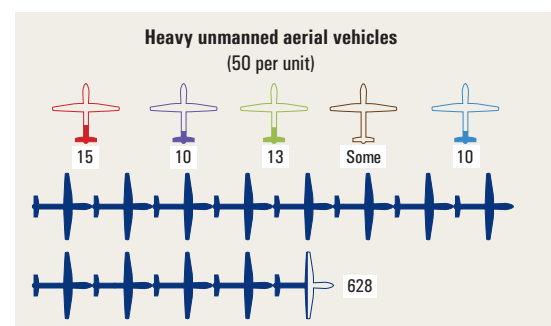
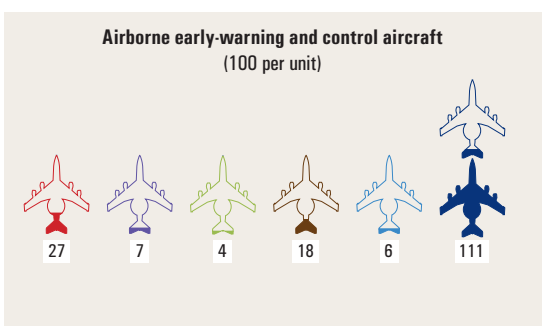
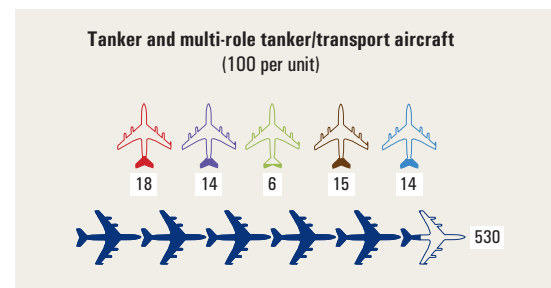
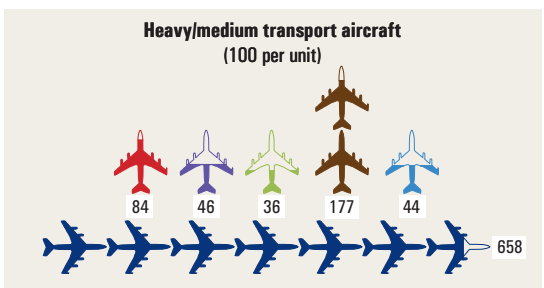
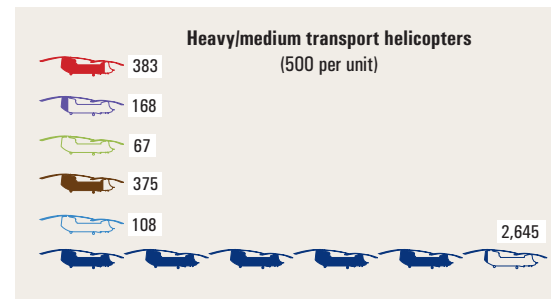
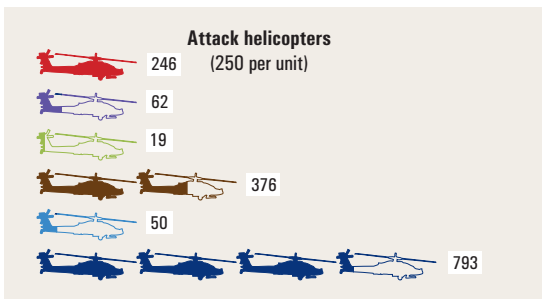
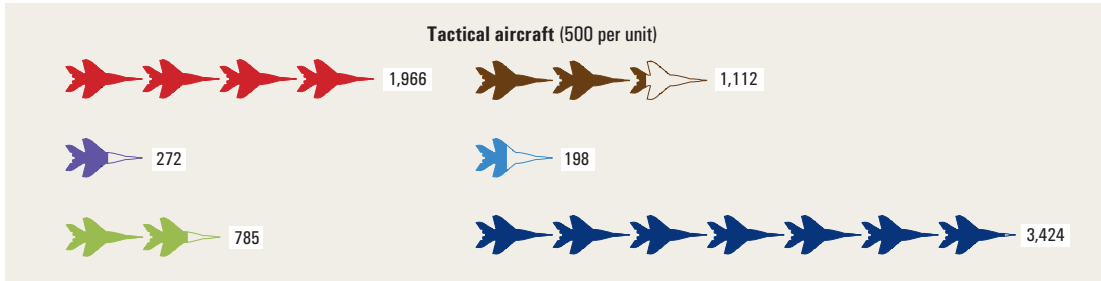
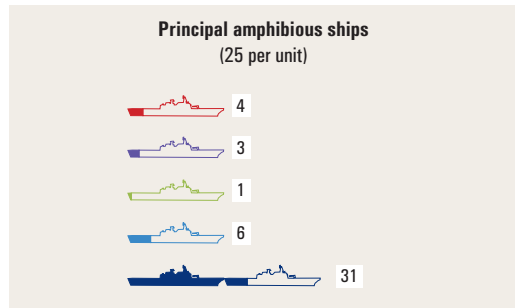
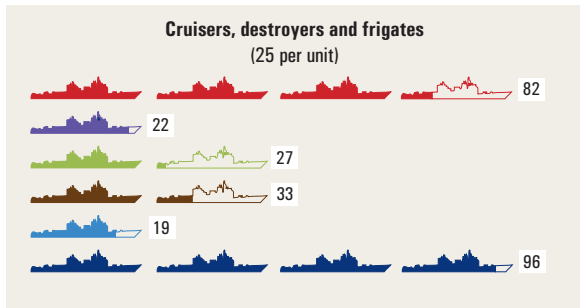
Armed unmanned aerial vehicles: production and procurement

In recent years, armed unmanned aerial vehicles (UAVs) have proliferated, despite US efforts to limit their sale. Domestic developments, and imports, have provided an increasing number of countries with the ability to operate weaponised systems. The most significant producers of armed UAVs are the US and China. The US, however, has so far pursued a cautious approach to the export of armed systems, while China has been less restrained. The US has supplied the armed variant of the MQ-9 *Reaper* to the United Kingdom, a close ally, but declined to do so to other partners such as Saudi Arabia. China has grasped this opportunity, and has now supplied armed UAVs to a number of countries, including Egypt, Iraq, Kazakhstan, Myanmar, Nigeria, Pakistan, Saudi Arabia and the United Arab Emirates, among others. The increased interest in such systems has also led other states to pursue their own programmes (Russia, Iran, India and South Africa, for example) or to consider arming systems already in service. Israel operates a variety of armed UAVs, but as yet there are no identified exports of such systems, although Israel has widely exported intelligence, surveillance and reconnaissance UAVs.



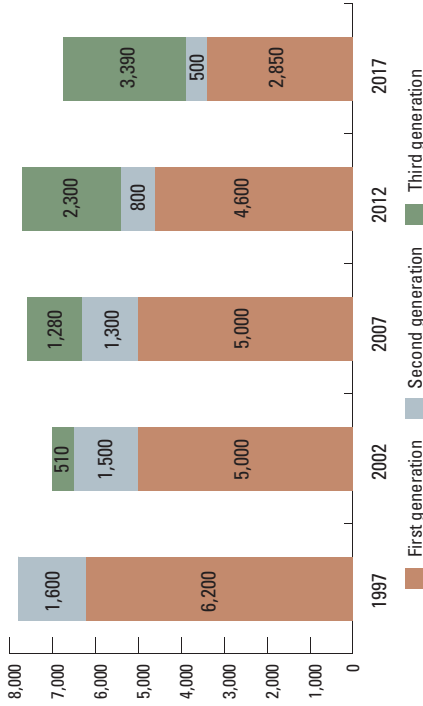
Key defence statistics





China: People's Liberation Army main battle tanks

PLA main battle tank fleet, 1997–2017



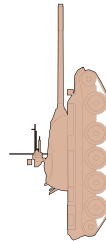
For the purposes of this analysis, generational status of each design is as below.

Although Russia and the United States both maintain substantial numbers of main battle tanks in store, China's People's Liberation Army (PLA) currently has the world's largest active-service tank fleet. The volume and cost involved in producing sufficient modern tank designs to equip this force has, however, proved to be a significant challenge for the PLA, and it is only recently that the percentage of the tank force so-equipped has risen above 50%.

The original ZTZ-59 remains in service with a significant proportion of the PLA, despite being effectively obsolete, even in its upgraded forms. Early indigenous Chinese tank designs, such as the ZTZ-79 and ZTZ-88, had limited production runs and are now only in the inventory of a small number of units in northern and western China. The reorganisation of PLA manoeuvre units into combined-arms brigades in 2017 may result in these second-generation designs being removed from service altogether as the overall size of the PLA's tank fleet shrinks again.

The latest ZTZ-99A appears to have been produced in relatively small numbers, and issued to strategic-reserve units near Beijing, possibly because of its relatively high cost. The majority of China's third-generation tanks are still versions of the late 1990s ZTZ-96 design. The PLA's new 'light' tank, believed to have entered production with the ZTQ-15 designation, weighs almost as much as a ZTZ-59, but may nonetheless help fill the requirement for modern armour in southern China, where the terrain is not suitable for heavier modern designs such as the ZTZ-99.

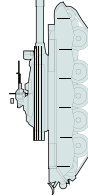
First generation



ZTZ-59/ZTZ-59-II/ZTZ-59D

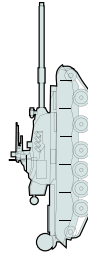
- License built T-54 design
- In production 1958–78
- Upgraded versions developed in the 1980s
- 100mm smoothbore main gun (105mm rifled in 59-II and 59D)
- 36 tonnes combat weight
- Steel armour (reactive 59D only)
- Computer fire-control (59D only)

Second generation



ZTZ-79

- In production 1978–80s
- 105mm rifled main gun
- 37 tonnes combat weight
- Steel armour



ZTZ-88A/ZTZ-88B

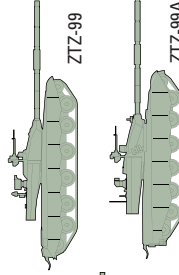
- In production 1988–90s
- 105mm rifled main gun
- 38 tonnes combat weight
- Steel armour
- Stabilised sights

Third generation



ZTZ-96/ZTZ-96A

- In production 1997–2005
- 125mm smoothbore main gun
- 42+ tonnes combat weight (reactive 96A)
- Stabilised sights
- Reportedly being upgraded to ZTZ-96B standard from 2017

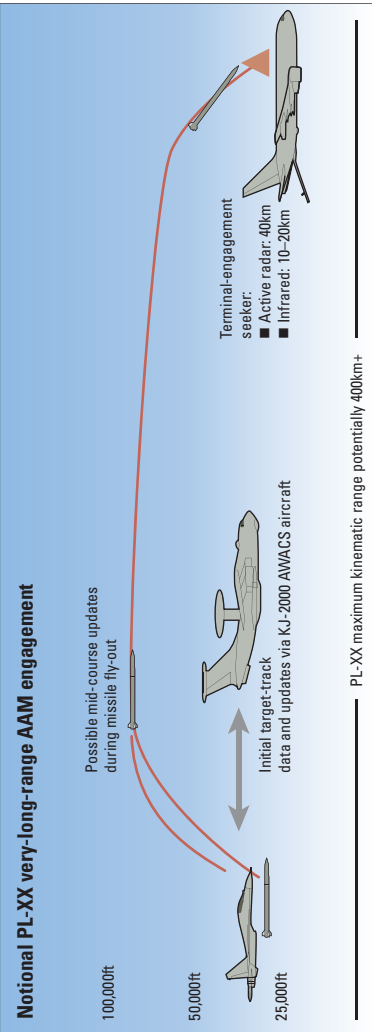
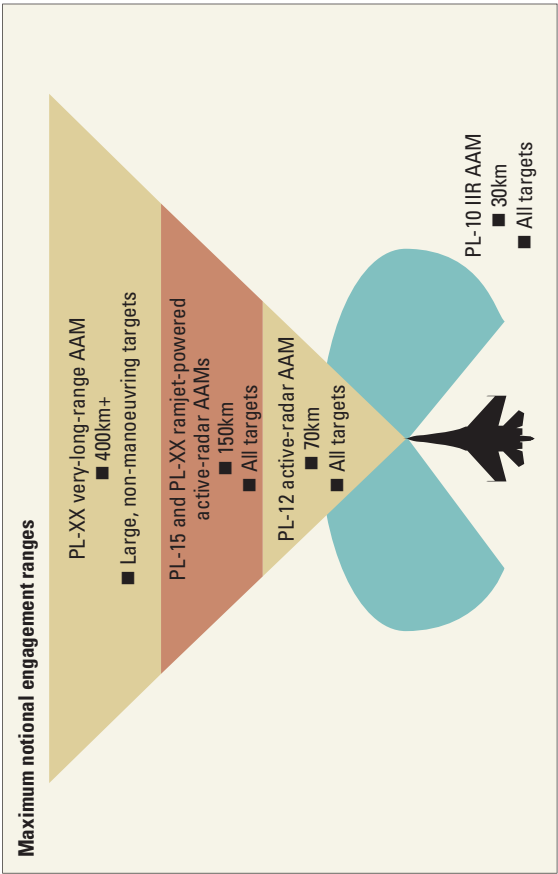
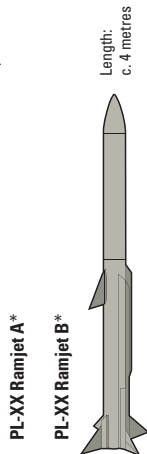
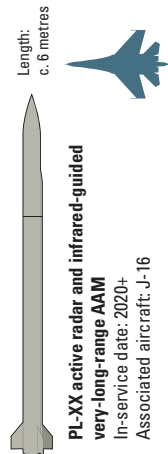
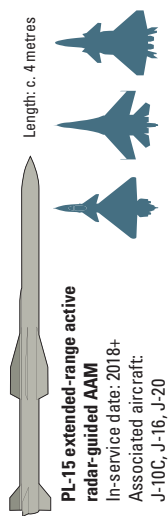
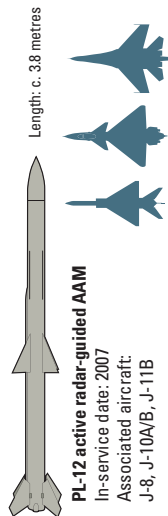
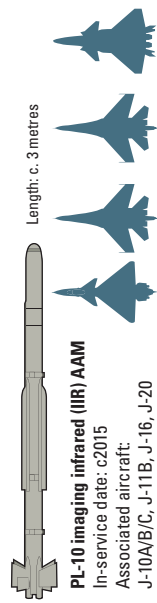


ZTZ-99/ZTZ-99A

- Currently in production
- 125mm smoothbore main gun
- 50+ tonnes combat weight
- Steel/composite/reactive armour
- Stabilised sights
- Computer fire-control system
- Active-protection system (99A)

China: air-to-air missile progress

In 2015, the People's Liberation Army Air Force (PLAAF) introduced the PL-10 imaging infrared guided short-range air-to-air missile (AAM) into service. It could be followed in 2018 by the PL-15 extended-range active radar-guided missile. Furthermore China may have at least three other medium and very-long-range AAMs in various stages of development. China is in the midst of a near-unprecedented scale and pace of development that will improve considerably its air-to-air weapons inventory, and provide the defence industry with increasingly credible products for the export market. The PL-10 was advertised for export very shortly after its entry into service with the PLAAF.



*In development

Selected Chinese and Asia-Pacific regional naval shipbuilding since 2000

China's naval-shipbuilding output since 2000 has been remarkable both for its scale and breadth, with an industrial base centred on seven major shipyards. For some time, it has been engaged in considerable series production of large and small surface combatants. In the sub-surface arena, the production of a total of 38 new units, including ballistic-missile submarines, is also significant. In terms of submarine, destroyer, frigate and corvette production, China has either exceeded or nearly matched the collective outputs of the next three principal regional navies, whose own naval programmes have themselves been significant by global standards. China has also produced nine new under-way-replenishment vessels and it has launched its first home-built aircraft carrier and first modern cruiser, filling two major capability gaps. Over the time period, the United States has built more carriers (3), nuclear-attack submarines (14), destroyers (33) and large amphibious ships (15) than China, but not as many small surface combatants. There is still uncertainty over how robust Chinese warship designs are relative to their competitors, as well as their systems integration and weapons performance. The critical issue now is China's ability to sustain this level of output and address weaknesses, such as in submarine design and amphibious capacity.

