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### THE CHINESE NAVY'S DESTROYER FLEET WILL DOUBLE BY 2025. THEN WHAT?

By  
Rick Joe

China is about to finish the current phase of destroyer construction. What comes next?

It seems that every year, English-language focus on the Chinese People's Liberation Army Navy (PLAN) increases in depth and scope. This has been reflected in some increasingly detailed and far-ranging predictions for the PLAN's growth, most often in terms of the number of ships it may field in whatever particular year in the near future. This author is not immune, and has written similar pieces in the past.

As of mid-2020, a number of PLAN surface combatant programs are either drawing to a close or about to shift gear. As various other major navies around the world begin to implement their own surface combatant programs and evaluations of their own future force structure, it is useful to reflect on where the PLAN's own force balance will be in immediate future once the current phase of construction enters service - and what comes after.

#### **From 20 modern destroyers to 39 (or 40)**

As of mid-2020, the PLAN currently fields 20 modern aegis-type\* destroyers in its order of battle, supported by another 11 older, non-aegis-type destroyers. These 20 modern aegis-type destroyers are made up of six Type 052Cs, 13 Type 052Ds, and one lead Type 055.

*[\*Note - the use of the term "aegis-type" is made in reference to the general configuration of various worldwide surface combatants that boast a fixed face or fast refresh rate phased array radar system, with vertical launch systems*

*with at least a medium- to long-range anti-air warfare capability, and a contemporary combat management system. The term does not refer to the capitalized "Aegis warship," which should more accurately be used to denote warships equipped with Lockheed Martin's Aegis combat system, such as the Arleigh Burke class, Ticonderoga class, Kongo class or Sejong class, et al.]*

Of these 20 aegis-type destroyers, 18 were commissioned within the last seven years. In terms of additional aegis-type destroyers on the horizon, there are currently 11 052D destroyers in various stages of fitting out or sea trials and one 052D at Dalian shipyard expected to be launched later this year - there are also six 055 destroyers in various stages of fitting out or sea trials and one 055 at Dalian expected to be launched simultaneously with the aforementioned 052D as well. At this stage, there are currently no modules for any additional 052Ds and 055s identifiable at the two destroyer building shipyards - Jiangnan and Dalian - and the Chinese language PLA watching community suggests that there will be no immediate additional hulls after the current phase of destroyer construction.

In other words, at the end of 2020, it is likely that the current "phase" of PLAN destroyer construction will end. This construction phase will have produced a grand total of eight 055 destroyers, 25 052D destroyers, and six 052C destroyers (including the two original 052Cs built in the mid 2000s). Of course, this isn't to say that destroyer production may not resume a few years down the line, perhaps even with an initial restart of 055 or even 052D production that further leads onto a new successor class of destroyer (such as 055A or perhaps 052E) - but more on this later. There have been some rumors that a 26th 052D will also be produced; however, this doesn't appear to have eventuated.

Returning to current destroyer construction - assuming the 25th 052D and eighth 055 are launched in the second half of this year, and assuming a generous three to four year period for fitting out and sea trials prior to commissioning, with a further one year period for crew work up and optimization - it is likely that the last of the destroyers as part of the current construction phase will be commissioned and combat capable within four to five years.

That is to say, at present the PLAN fields 20 aegis-type destroyers in service; however in four to five years it is likely that the PLAN will field 39 aegis-type destroyers in service (or 40, depending on whether a 26th 052D is built or not).

These additional warships amounts to a near doubling of the number of aegis-type hulls in service. However, the actual combat capability will be more than double the present day force given the more capable nature of 052Ds compared to 052Cs, both of which are in turn even more dwarfed by the much larger 13,000 ton 055s.

## **Of Destroyers and DESFLOTs**

Those 39 aegis-type destroyers will be accompanied by the 11 older non-aegis destroyers for a total of about 50 destroyers. It is unclear how this fleet of destroyers will be organized among the PLAN's major surface combatant units.

Destroyers are currently organized about evenly between six destroyer flotillas (DESFLOTs) - which are each composed of four to five destroyers and four to five frigates. Thirty 054A frigates - with potentially an additional two to four 054As recently rumored to have been ordered as part of a production restart - currently make up the vast majority of the frigates organized between the six DESFLOTs, and are expected to be supplemented by the upcoming new generation 054B (or perhaps 057) frigates.

With an expected 50-strong destroyer force on the horizon (of which 39 would be modern, aegis types), it is not known if each DESFLOT will see an increase of ship strength or if new DESFLOTs will be raised to absorb the new hulls. It is plausible that some of the older destroyer hulls may be retired within four to five years; however many of these same ship classes have either recently undergone significant midlife upgrades or are due to begin midlife upgrades, nor are they particularly old in terms of service age. Therefore, it is likely that many of these older destroyer classes will continue to be in service until 2030, albeit as second line destroyers. The question fundamentally becomes one of fleet organization.

## **What Comes Next?**

Of course, the completion of the eight 055s and 25 052Ds doesn't mean the Chinese navy's destroyer procurement is "complete." Even before the first picture of the 055 modules at Jiangnan shipyard emerged, it was an accepted consensus that a successor "055A" class destroyer would follow the baseline 055 destroyer. The question was always how many 055s would be built before the first 055A emerged, and it was long suggested that 055A could be expected by the mid-2020s after at least one batch of 055s.

Therefore, one current tentative theory is that the current first batch of eight 055s may be followed up by a smaller batch of 055s within a few years - which could then immediately lead into a construction of improved 055As in the mid 2020s. This would not be dissimilar to how a restarted production of the last four 052Cs immediately segued into large scale production of the 25 052Ds we see today.

But as mentioned in previous articles on future PLAN procurement, the number of 055As that may be built and the composition of the future fleet are not clear. This is largely due to uncertainty over whether a successor to the 7,000 ton weight category destroyer - currently filled by the 052C/D - will emerge.

Given the ongoing COVID pandemic, one might be tempted to consider whether the end of the current phase of destroyer construction is some sort of cost-

cutting measure or related to the pandemic in any way. However, such a suggestion would be hard to entertain given the long lead time nature of naval ship construction. Instead, the imminent end destroyer construction would have been a procurement decision made many years ago.

### **Large Frigates or Medium Destroyers?**

Prior to the 13,000 ton 055, the 7,000 ton 052C and 052D served as the PLAN's most capable surface combatant in terms of balancing displacement and combat potential, and featured significant advantages in terms of sensors and weapons systems compared to the smaller 4,000 ton 054A frigates. Therefore come 2025, the weight distribution of PLAN blue water capable surface combatants will be divided between the 13,000 ton category, the 7,000 ton category, and the 4,000 ton category.

However, the 055 is likely to be produced in significant numbers going forwards, and more importantly the 054B frigate is expected to feature greater displacement than the 054A as well. The 054B's ambition will determine how much larger it is than 054A. Many contemporary frigate designs such as FREMM, the FFG(X) FREMM, or Type 26 family, are significantly larger in displacement compared to past medium frigate designs, offering a full displacement of at least 6,000 tons and some such as the Type 26 at 8,000 tons, rivaling or exceeding that of some current destroyers. The greater size of modern frigates is a reflection of seeking greater endurance, greater excess space for future proofing, more flexible propulsion arrangements, and more capable sensors and weapons systems as well.

If the 054B follows this trend, it too may also see a significant displacement jump from the 054A, potentially 1,500 to 2,000 tons. On the other hand, a more conservative 054B may displace only a few hundred more tons. If 054B does see a large displacement jump to reach 5,500-6,000 tons, then it would begin to approach the weight of a 052D destroyer, which will bring into question what role the 7,000 ton category plays in the overall fleet balance.

One option is that the 7,000 ton category may be succeeded by a larger and more future proof design of its own, potentially in the 8,000-9,000 ton weight category. Such a warship would likely have to be a new hull design as the current 052D design should be approaching the limits of what the hull can accommodate. This would result in a revised three tier fleet structure including the 13,000 ton category, a new 8,000-9,000 ton category, and a new 5,500-6,000 ton category for new generation blue water combatants.

Alternatively, there is also an argument for standardizing to a two tier fleet only including the 13,000 ton category and 5,500-6,000 ton category. In the context of manpower and military spending, a two tier fleet could potentially offer benefits resulting from standardization of ship hulls and subsystems. However, the exact cost breakdown of procuring and operating a two tier fleet versus a three tier fleet will likely be dependent on internal strategic assessments of which capabilities and which costs are deemed more acceptable to naval procurement on the national level.

## Summary

PLAN surface combatant procurement is at an interesting juncture where the labors of the last decade's worth of destroyer production are about to bear fruit in the near future. With 39 aegis-type destroyers in service come 2024-25, only the U.S. Navy would field a larger and more capable fleet of surface combatants in that time period.

As the current production phase comes to a close, there will inevitably be speculation as to where PLAN force development may go. There may even be speculation as to whether PLAN destroyer production will cease for a long duration of many years or even decades. However, this author still remembers in the late 2000s where some commentators believed modern PLAN destroyers would not grow significantly beyond the lone pair of 052Cs.

Key upcoming developments that can help guide predictions for the next phase of PLAN surface combatant procurement include:

- The key characteristics - especially size - of the next generation frigate, dubbed 054B (but also sometimes called 057).
- Ascertaining when production of 055 destroyers will restart as a guide for when the expected 055A successor will emerge.
- Related to the two above factors - whether a "052E" medium destroyer successor to the 052D weight category will emerge.

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**Rick Joe** is a longtime follower of Chinese military developments, with a focus on air and naval platforms.

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