



Issue 3

The Headlines of Today. The Battles of Tomorrow.

Est - 2016

Spratly Spat



China's aircraft carrier – the jewel in its naval ambitions

Slowly, but surely, the pieces are now coming together that are transforming China's navy from a largely coastal force to one with power projection capabilities.

Key to this is the aircraft carrier *Liaoning* (ex-*Varyig*) acquired from Ukraine and put in to service in 2012. As *Liaoning* was originally an *Admiral Kuznetsov* class Russian carrier, it uses the STOBAR (Short Take-Off But

Arrested Recovery) system of a forward-mounted ski-jump (rather than catapults) to put its fighters into the air. This crucially rules out fixed-wing AEW and re-supply aircraft from being launched as in US carrier designs. The ski-jump also means that *Liaoning's* J-15s can only launch with reduced payload (fuel/weapons) compared to a conventional catapult-equipped carrier.

All told, *Liaoning's* air wing at full strength would consist of 24 Shenyang J-15 Flying Shark

multirole fighters, 6 Changhe Z-18F ASW helicopters, 4 Z-18J AEW helos and a pair of Harbin Z-9 SAR helicopters. (In comparison, a US Nimitz-class supercarrier can embark an air wing of up to 90 aircraft and helicopters). The J-15 is a Chinese development of the Russian Sukhoi Su-33 naval fighter.

The 50,000tonne *Liaoning* is also conventionally powered, unlike nuclear-powered US supercarriers, which restricts its range without a dedicated logistics and support fleet.

A wider anti-access strategy

It is important to understand that China's first aircraft carrier is not seen in isolation – it forms part of a larger power projection and A2/AD strategy in the South China Sea.

Any deployment of the *Liaoning* would undoubtedly be supported by land-based assets, including 3 regiments of PLAN J-11B multirole fighters

Continued on page 2 →



The Controversy over the Spratly Islands.

and one regiment of JH-7 Flying Leopard strike aircraft based on Hainan Island. Supporting fixed-wing assets would also include AEW, ASW and ISR aircraft from shore-bases – as well as UAVs. Long-range support would also come from 50s-era Xian H-6 (Tu-16 Badger) bombers armed with anti-ship missiles.

Supporting air power, whether PLAN or PLAAF would also now be able to use the reclaimed reefs and islands that China has turned into military outposts with runways, hangars, SAMS and early warning radar. These have effectively created

non-mobile 'aircraft carriers' in the contested South China Sea.

Although air power is one part of its A2/D2 strategy, China is also boosting its underwater capabilities with new generations of attack submarines – with the Type 093B SSN being its latest design – a nuclear-powered sub with vertical tubes to launch cruise missiles. While nuclear attack submarines may grab attention, China also operate ultra-quiet Kilo, Song and Yuan-class conventional submarines, which again represent a significant threat in the littorals.



DF21 missiles.

“ It is important to understand that China’s first aircraft carrier is not seen in isolation – it forms part of a larger power projection and A2/AD strategy in the South China Sea. ”

While China has been modernising its navy, it has also invested heavily in expanding its paramilitary Coast Guard, which features large, armed cutters – with two being larger than an Arleigh Burke-class destroyer. In war, the Coast Guard would be placed under the command of the PLAN.

There is also evidence that Beijing has co-opted Chinese fishing fleets in order to press its territorial claims. For example, in early August a fishing fleet of around 200-300 vessels, along with 28 Chinese government ships approached the disputed Senkaku/Diaoyu Islands in the East China Sea as an apparent test for Japan’s resolve – as to how to deal with this ‘invasion’ of civilian foreign vessels into its territorial waters.

Evening the balance

China’s naval ambitions are also supported by developing its own unique technology for any future war at sea. In particular there is the DF-21F ‘carrier-killer’ anti-ship ballistic missile (ASBM) – a weapon unique in China’s arsenal and developed specifically to counter the US Navy’s overwhelming superiority in aircraft carriers. The DF-21F, with a range of 1,500km, has also been followed by the DF-26, which doubles the range to 3,000km, putting key US bases such as Guam at risk. Though some analysts question whether these are as much a wonder weapon as is claimed (finding a moving target like a carrier battle group with the precision needed for a ballistic missile to achieve a kill is a key challenge), it is operational and

thus presents a new threat for adversaries to take into account.

New technologies and weapon systems will also boost China’s A2/AD strategy. Its first stealth fighter, the J-20 is now in low-rate initial production and is expected to enter service in the next couple of years. Though the aircraft’s true role is still unclear, indications point to a heavy strike fighter or long-range interceptor. Also being developed are a range of UAVs, including the SAC Divine Eagle – a large ‘anti-stealth’ AEW drone that would use a conformal VHF antenna array to counter low-observable targets – again a weapon unique to China that has no equivalent in the West.

While the *Liaoning* by itself will give the PLAN an overwhelming overmatch against smaller nations in Asia-Pacific such as the Philippines or Vietnam, it is by using it in concert with these other assets that Beijing hopes its A2/AD strategy will be robust enough to deter the more powerful US Navy and its allies from venturing into its own backyard. Again, the goal here may be not to win in a head-on WW2-style Midway carrier vs carrier clash – but simply to be able to inflict enough crippling damage and losses as to make it untenable

that an adversary would try in the first place.

This wider A2/AD environment means that while the *Liaoning* lacks the offensive air wing punch of a US supercarrier and its attendant air defences of an Aegis carrier battlegroup, it makes up for in shore-based missile, air and sub-surface support in the South China Sea.

More carriers on the way

A second aircraft carrier (CV17) is now under development by China, this time being built by itself. Like the *Liaoning*, (CV16) it, too, will use the STOBAR configuration. It is intended to enter service in the 2020s, further boosting China’s naval capabilities. However, having gained operational experience and knowledge with these two vessels, China’s next generation of aircraft carriers may well be big-deck nuclear-powered and use catapults and arrestors – true supercarriers able to carry an air wing of 75.

While much of the focus around Chinese naval modernisation has understandably focused on the South (and East) China Sea, it is important to note that PLAN ships are now



becoming a more frequent sight elsewhere around the globe, such as in the Suez Canal,

Strategic context

We have already seen a new assertiveness from China over its claims in the South China Sea, which is leading its neighbours in the region to become increasingly concerned. While China’s military modernisation is still very-much a work in progress – some observers suggest that Beijing’s growing confidence, and the fact that many pieces of the A2/AD jigsaw are now in place (reinforced hangars for fighters on Fiery Cross, Subi and Mischief Reefs in the Spratly islands were

spotted in the summer) may tempt it to act sooner, rather than later, by declaring an AIDZ or an air and sea exclusion zone.

In July 2016, Beijing suffered a major setback when an international Permanent Court of Arbitration (PCA) rejected its historical claims to extend exclusive economic zones (EEZs) from man-made reefs in the South China Sea. This public ‘loss of face’ then may sting China into more uncharacteristic, riskier power plays. In addition, the US Presidential election in November may provide a window of opportunity to act while Washington is distracted with domestic political affairs electing



Chinese J11.



Liaoning before refurbishment.

a new leader. Ominously, following the PCA's ruling in August, it was reported that China's defence minister had warned the country must prepare for a 'People's war at sea'.

At stake here is not just China's national prestige and a few uninhabited reefs, but the attendant fishing rights and the

oil, gas and potential mineral riches that may lie deep under the surface.

Summary

The *Liaoning* then is important as the most visible emblem of China's naval ambitions and the PLAN's transition into a blue-water navy. However, as

the country's first ever aircraft carrier it is also a learning tool and a way in which China will develop its own experience and concept of operations for how it best uses aircraft carriers. China's military modernisation is also a long-term project, as it transitions into a high technology fighting force.

As noted above, for anyone wishing to challenge China in its own back yard, the presence of this carrier, supported by 'carrier killer' DF-21Fs, shore-based long-range SAMs and long-range missiles, aircraft along with submarines means that the A2/AD challenge is becoming progressively much tougher.



Song class submarine.