GLOBAL DEVELOPMENTS

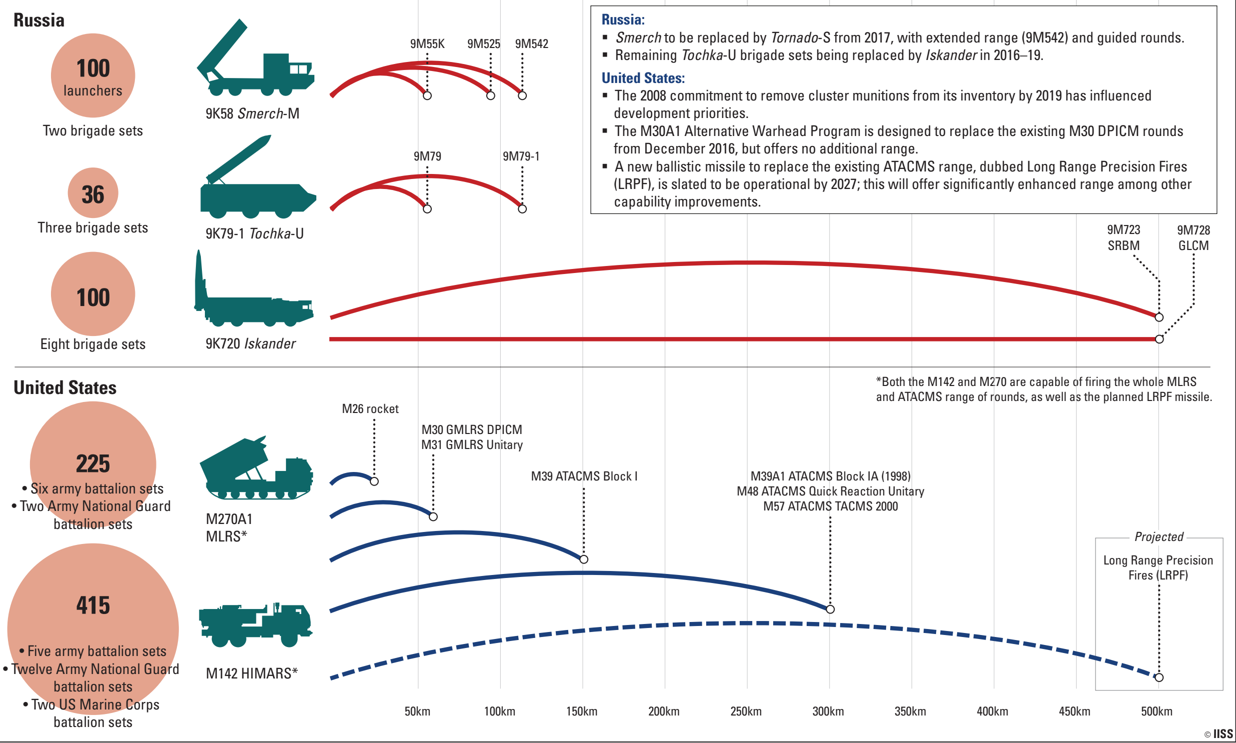
- **The West no longer has an effective monopoly** on the use of expeditionary airpower (or carrier aviation).
- Continuing a recent trend, **non-Western states are increasingly willing and able to use expeditionary military force independently**, either in their near abroad or further afield: Russia (Syria, Ukraine), Israel (Syria, Lebanon), GCC (Yemen), UAE (Libya, Yemen) and Turkey (Syria and Iraq).
- **Modernisation of nuclear deterrent systems will be a significant cost driver for all of the P5** as existing platforms and weapons reach the end of their service lives.

LAND WARFARE

- The composition of the NATO Enhanced Forward Presence (EFP) battlegroups is becoming clearer. They will represent **a substantial increase on the existing armoured forces in the three Baltic States**: the Canadian, German and UK-led battlegroups will consist largely of tracked armoured forces. Although in total equivalent to only a single heavy brigade, the EFP battlegroups can be taken alongside NATO's standby force (the VJTF) and the United States' separate deployment of an Armoured Brigade Combat Team to Central and Eastern Europe, to represent a significant increase in Allied forces available for conventional deterrence in the region.
- By the end of 2016, **Russia had begun forming at least five new army divisions**, one tank and four motor-rifle, on the basis of existing brigades. Three of the motor-rifle divisions are being established on Russia's border with Ukraine. Once at full strength, each of these divisions is expected to have four manoeuvre regiments and 10,000 personnel.
- The **conflicts in Ukraine and Syria have seen heavy armour employed in significant numbers**, with several variants of tank used. Just as important has been the continued vulnerability of armour to artillery and rocket attack, while even very modern tanks have proven vulnerable to legacy anti-tank missiles.
- **Eastern European countries continue to recapitalise their armoured vehicle fleets**. Estonia has taken delivery of the first ex-Dutch CV90s and Latvia continues receiving ex-UK CVR(T)s. Meanwhile, Poland began taking delivery of *Krab* howitzers and also ordered *Rak* mortars, which are based on its indigenously produced *Rosomak* armoured vehicle. Lithuania looks to modernise its own fleet by placing an order for *Rosomak* vehicles, which are planned to be fitted with Israeli turrets and *Spike* missiles.

Battlefield missiles and rockets: Russian and US equipment capabilities

In the past 20 years, Western armed forces have in the main prioritised airpower for long-range fire support and precision attack. However, Russia has continued to develop the range and capabilities of its heavy multiple-rocket launchers and battlefield missiles. With renewed tension between NATO and Russia, and parallel advances in the effectiveness of Russian integrated air-defence capabilities, defence planners have refocused their attention on the relative balance of long-range artillery capabilities between Russia and Western states. The US, the leading military power in NATO, possesses an overall numerical advantage in systems, but its only battalion sets based overseas are in South Korea. The distribution of these assets in Russia's ground forces means it would likely be able to concentrate greater numbers of systems faster in any future conflict scenario.



MILITARY AEROSPACE

- During the Soviet era, Moscow expended a great deal of effort on developing anti-ship missiles to be used against aircraft-carrier task groups. **After almost two decades of comparative neglect, the past few years have seen renewed interest in large anti-ship systems**. One such effort may now be close to entering service: the Tactical Missile Corp. Kh-32, based on the Kh-22 (AS-4 *Kitchen*) airframe, but with key sub-systems upgraded. The Kh-22 upgrade project dates back to the late 1980s, but was shelved for many years following the collapse of the Soviet Union. Recent Russian reports suggest state-testing of the Kh-32 may finally have been completed. The missile would form the primary anti-ship weapon for the Tu-22M *Backfire* C.
- The first two of **China's People's Liberation Army Air Force J-20 heavy multi-role fighters are now with its test unit**. Meanwhile, Su-35 combat-aircraft deliveries have finally begun and, four years after the first prototype flew, the second Shenyang J-31 was flown for the first time toward the end of 2016. These developments reflect the continuing pace of China's combat-aircraft efforts, mirrored equally by Beijing's investment in air-to-air and air-to-surface weapons.
- Some three decades after the Russian Air Force first pursued a mid-life modernisation of the MiG-29 *Fulcrum*, known as the MiG-29M, **senior officials are again discussing a substantial order for what is now dubbed the MiG-35**. United Aircraft Corp. President Yury Slusar is reported as suggesting that 'large-scale' purchases of the MiG-35 will begin in 2019. General Viktor Bondarev, head of the Russian Aerospace Forces, suggested that up to 170 MiG-35s might be acquired. Russia is also pushing the MiG-35 for export. The Russian Navy deployed the MiG-29KR carrier-borne *Fulcrum* for the first time on combat operations over Syria at the end of 2016.

NAVAL AND MARITIME

- Both the US and the UK have **made progress on their respective new nuclear-powered ballistic-missile-submarine programmes**. The United States' future *Colombia* class received its first funding in the FY2017 budget and construction of the first of the UK's new *Dreadnought* class began in 2016. Both boats will be fitted with a jointly developed Common Missile Compartment.
- In 2016 Washington announced the deployment of its THAAD missile-defence system to Korea. This is the **latest in several moves by actors in the region to bolster ballistic-missile defence** (BMD). In 2015 Japan ordered the first of a pair of BMD-capable cruisers as well as continuing to upgrade its existing cruisers for this role. South Korea meanwhile gave Hyundai Heavy Industries a contract to begin design work for a second batch of *Sejong the Great*-class cruisers for the BMD role that it plans to have in service by 2027.
- The latest gap in US aircraft carrier presence in the Middle East, albeit lasting only a few weeks after December 2016, underlines **the continuing strain on the carrier force**. The imminent delivery of the new USS *Gerald R. Ford* will finally take the force back up from ten to 11 hulls, but it will still be some two years before the ship is ready for operations.

DEFENCE ECONOMICS

- **Russia and Saudi Arabia together accounted for 73% of the US$42.3 billion cut in global defence spending in 2016**, principally due to upheavals in commodity markets in recent years. Middle East and North African states' defence spending as a proportion of GDP declined in 2016 to 5.95% (from 7.05% in 2015); this was the first reduction since 2010. Similarly, in 2016 Russia's total military expenditure decreased to 3.97 trillion roubles (US$58.9 billion), down from 4.03trn (US$66.1bn) in 2015. More defence-budget cuts have been announced for the coming years, as Russia's economy is recovering from a period of low commodity prices.
- Asia saw the **fastest real-terms defence spending growth in 2016 (at 5.5%), supported by robust economic growth**. Not only did the larger states in the region (China, India and Japan) increase their real-terms defence spending between 2015 and 2016, but so did smaller ones, including the Philippines and New Zealand. China continues to dwarf other regional states' defence budgets: China's official defence budget is 3.7 times higher than all the other states claiming or disputing features in the South China Sea combined.
- European states' 'rearmament' **began in 2015 and continued through 2016, albeit at a slower pace: between 2014 and 2015, real-term spending increased by 4.0%, but only rose by 0.5% between 2015 and 2016**. This trend masked differences across European sub-regions due to variations in economic growth and in differing threat perceptions in relation to Russia. Northern and Central Europe experienced more sustained economic growth and felt Russian assertiveness more keenly than their Western or Southern European neighbours.