

Running out of ammo
Ben Aris - Intelli News



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Ukraine could face a shortage of ammunition in the second half of this year unless the West invests in new production as stocks are already running low and the existing production can't keep up with the rate of fire as the fighting becomes a grinding war of attrition, a study by the Center for Strategic & International Studies (CSIS) warned in a recent [study](#).

Since the war started Ukraine has been increasingly supplied by the West with materiel starting with the US made [Javelin](#) missiles up to most recently the UK promise of 14 Challenger 2 main battle tanks. Just the US has committed and promised a total of \$113bn worth of arms. Ukraine's own military production facilities have been largely destroyed by an unrelenting Russian missile barrage.

Having sent most of its Soviet-era stock of arms and ammo much of which was inherited by the 2004 EU accession countries, former Warsaw Pact members, that was compatible with Ukraine's own legacy weapons, increasingly the NATO members are dipping into their own stocks of modern western made weapons. And those stocks are starting to run low.

"It's getting harder and harder," Republican Mike Quigley, a member of the House Intelligence Committee, told CNN. "This is a war we thought would be over in days but now could be years. At a time when global supply chains are melting down, the West is going to have a very difficult time to meet demands at this very high level."

The degree to which weapons stockpiles are running low varies system by system, as the US defence industrial base is better equipped to ramp up production of some weapons, while others are more difficult – or the production line has been shut down altogether and can't be easily resumed.

The problem is after years of fighting asymmetric wars against terror organizations like Al Qaeda and Boko Haram the West has shut down its conventional arms production and focused more on developing high tech precision arms. As the US in particular relies on private companies to produce arms, if there are no orders for a particular weapon or munition then the companies simply shut that production line down.

It has left the West ill-equipped to supply the classic confrontation that is the Ukrainian war, where hundreds of thousands of troops face off against hundreds of thousands of opponents, burning through thousands of rounds of artillery shells and hundreds of missiles a week.

Reluctant of getting sucked into a direct confrontation with Russia and mindful of the cost of putting their economies on a [war footing](#), the West has been reluctant to invest into building up military production to supply Ukraine in a long war with Russia. In the midst of a poly-crisis that has already cost Europe around a trillion euros, governments have been slow to sign off on the multiyear procurement contracts that defence groups need to invest into a major revamp of their production.

The Financial Times [reports](#) that many of Europe's leading arms producers are in talks with governments about investing into new production, but few contracts have been signed and little invested yet. For Europe at least the Rubicon has not yet been crossed.

But increasingly it looks like a long war is on the cards. Russian President Vladimir Putin said in December that he expects a "long war" in Ukraine, but that he saw "no sense" in mobilizing additional soldiers at this point.

Ukraine intelligence predicted a second mass mobilization in January to follow the [partial mobilisation](#) that started on September 21 and this week said Russia is trying to build a 2-million [strong army](#). [Mobilization](#) units, including legislative amendments and the preparation of educational centres, are already underway in Russia and last week the Duma ended the military service exemption for fathers of three or more children. Both sides are reportedly preparing for major counter offensives in the spring.

With a deep gulf between both sides' starting position for peace talks – Russia wants Ukraine to concede the four regions it annexed in September, while Kyiv says it won't start talks until Russia retreats to beyond the 1991 borders – there is little hope of a ceasefire anytime soon.

Rate of fire

Reports from the intense fighting currently underway for Bakhmut in the Donbas say that both sides have begun to ration their ammunition. Ukrainian officers report that the number of shells arriving has dropped by a third and military experts report that Russia has also reduced its rate of fire as it is also struggling to resupply its guns.

CSIS Senior Adviser Mark Cancian asked in his report, "Are inventories getting too low? How long will it take to rebuild those inventories?" An early CSIS study already

suggested that the NATO inventories were at risk of running dangerously low as a result of the transfers to Ukraine.

Ukraine is burning through its supplies of ammunition far faster than the NATO members can make more. For example, the US has already transferred just over 1mn 155mm standard artillery shells to Ukraine, but its current production capacity to make more is capped at 93,000 rounds a year.

Even if production surged and the production capacity raised to 240,000 a year, there would still be a 750,000 deficit given the rates of fire in the 11 months the war has been running so far.

The problem is the same with the Javelins that have been so effective in destroying Russian tanks in the first months of the war. The US has sent 8,500 pieces to Ukraine so far – about a third of its entire stock – but only has the capacity to make 1,000 new ones a year. Likewise, the US has sent a third of its Stinger missiles that can take down Russian fighter jets, which also can't be easily replaced.

And despite the spectacular success of the HIMARS precision missiles, the US has only sent 20 units to Ukraine, which is the same amount as it manufactures a year, according to Department of Defence (DOD) and other open-source information, CSIS reports. The DOD has a total of about 30,000 HIMAR rockets, but Ukraine's 20 units have been reportedly used only 400 times. However, as the HIMAR production line is "hot" the US could supply this number of rockets indefinitely, says CSIS.

Of all the mismatches between supplies and production rates, military experts consider that with the 155mm shells to be the most serious as artillery is currently the backbone of the clashes on-the-ground. The war has already depleted the US stocks of some kinds of this ammunition and more cannot be made fast enough, as the US has geared the production rates to cover its own training programme for US personnel, not fight a major set piece war in another country.

"Rebuilding inventories at the current production rate is probably not possible because of routine US training needs," Cancian said.

"Artillery units must fire a certain number of rounds every year to be proficient... Annual training requirements are likely equal to the recent production levels since these programs have been around for a long time, the budget levels have been relatively constant for several years, and there has been no need to increase inventories."

Currently producing 3,250 rounds a month the DOD says it could get that up to 20,000 rounds a month in the spring of this year and 40,000 by 2025, but even at this surge rate it would take six years for the US to replenish the stock of shells it has sent to Ukraine, according to CSIS.

And that won't help Ukraine, which estimates is currently firing 4,800 rounds a day – more than the US is making a month.

"Combined with shells fired from Ukraine's Soviet-era artillery, this is in the vicinity of the 6,000–7,000 per day that Ukraine has said it was firing (and which was

considered inadequate). Even the 2025 surge rate would satisfy only a third of this need. To bridge the gap, other countries will have to provide ammunition, and a lot of it," Cancian says.

The same arguments apply to the more sophisticated version of the 155mm shells, where Ukraine's army is burning through the equivalent of an entire year's worth of production in under a month. The upshot is these precision munitions have to be reserved for the highest value targets but are not used in day-to-day combat operations.

Ammo crisis on the cards

The clock is now ticking on how long Ukraine can keep up its barrage. Kyiv scored spectacular successes in September with the Kharkiv offensive that took back hundreds of square kilometres of occupied territory and ended that month retaking the regional capital of Kherson that was lost in the first week of the war.

But since the partial mobilization in September, the Russian have stabilized the line and the fighting has descended into an artillery duel and WWI-style bitter trench warfare. In this style of fighting artillery has become the decisive weapon and Russia still outguns Ukraine ten-to-one, according to reports.

"Ukraine will never run out of 155 mm ammunition—there will always be some flowing in—but artillery units might have to ration shells and fire at only the highest priority targets. This would have an adverse battlefield effect. The more constrained the ammunition supply, the more severe the effect," Cancian says.

A Kyiv Independent [battlefield report](#) say this is already happening, with gunners sitting behind the lines waiting for calls, sometimes for hours, from the command centre, ordering strikes on selective targets when the infantry gets into trouble.

"Soviet-standard munitions, the main stocks of which had been largely depleted back in summer. According to the 24th Brigade artillerists, at the beginning of Russia's war, each battery used to get up to 150 full loads of munitions a day (which corresponds to up to 6,000 rounds). Now they're getting only up to 30 full loads a day," Illia Ponomarenko reported from Bakhmut on January 5.

The bottom line is that by the summer the US may start cutting so deep into its own stocks of shells and similar weapons that it starts to become a strategic problem for its own national defence and it will be forced to curtail supplies.

The tensions in the South China Sea with China over Taiwan lie in the background as well as a potential direct conflict with Russia. If either of these fronts open up – and in the worst case if they both open at the same time – then the US will likely be forced to abandon its support of Ukraine, at least temporarily, as it will need its materiel for its own military efforts.

This has already happened with Javelin supplies to Ukraine. The US has sent 8,500 pieces to Ukraine, but only makes 1,000 a year. Used to deadly effect in the early stages of the war, the US has stopped supplying them because inventories are now so low they threaten other war plans. At current production rates it will already take the

US twelve and half years to replace those already fired in Ukraine. Even at accelerated rates it would still take six and half years to replace them, according to the DOD.

All-in-all the US can continue to supply Ukraine with arms and will not run out in the foreseeable future. More than 100 millions small arms ammunition have been supplied, but the US produces 8.6bn of rounds a year. But the longer the fight goes on the more constrained US supplies will be.

“As the September commentary noted, low inventories do not mean the end of equipment transfers. They do mean that the United States will need to pursue other mechanisms,” says CSIS.

Allies to the rescue

One option to keep the supplies coming is to turn to the other NATO allies. The UK and Germany have been amongst the most active and both are major European arms manufacturers. Despite having earned a reputation for its hesitance to transfer weapons, Germany is the second largest supplier of arms to the fight after the US.

But if the US has not begun major investments into expanding its arms production, then Europe is even further behind. “Ukraine expands as much ammunition in a day as Germany produces in six months,” the former head of the Munich Security Conference and top German diplomat Wolfgang Ischinger told Die Welt this week.

There has been much talk of sending German-made Leopard 2 tanks to Ukraine, although so far no transfers are planned. However, an unnamed German security official told bne IntelliNews that it would take more than a year to produce new tanks if they were to go into action and German plans to set up production of munitions like the 155mm shells remain just that – plans.

This week the leading German arms company Rheinmetall said it would not be able to deliver Leopard tanks to Ukraine before 2024, even if the German government orders the transfers to go ahead tomorrow, according to Spiegel.

Some more 155mm shells are now being bought from US ally South Korea and the Russians are also buying materiel from the likes of North Korea and Iran as Moscow has the supply problems as Washington does.

However, facing military production delays and [mounting battlefield losses](#), Putin told his government to cut through bureaucracy to “crank out enough weapons and supplies to feed his troops in Ukraine,” in September, when Russia was already running low on artillery shells.

By December Russia's ex-president Dmitry Medvedev was making tours of arms factories to inspect production as Russia increasingly goes into war mode. Medvedev said the country was “ramping up production of new-generation weapons to protect itself from enemies in Europe, the United States and Australia.”

The problem of the low level of production of munitions is not a new issue and the potential bottlenecks were widely reported in the early stages of the war. It will take

about a year to set up new production once a contract with an arms producer is signed as staffing and facility bottlenecks hamper the process.

But as the war approaches its first year, few of those final investment decisions have been made. The DOD has expanded its orders for Javelins from their maker Lockheed Martin, but new factories and production lines are needed for many of the other items on Kyiv's wish list and no action has been taken on many of those weapons.