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# New weapons and the new tactics which they make possible: three examples

3317 Views | October 02, 2019 | 14 Comments



Тяжёлый ударный БПЛА С-70 «Охотник»	Дальность полёта	6 000 км	Боевая нагрузка	6 т
	Высота полёта	18 км	Максимальная скорость	1 400 км/ч

[this analysis was written for the Unz Review]

There are probably hundreds of books out there about the so-called "Revolution in Military Affairs", some of them pretty good, most of them very bad, and a few very good ones (especially [this one](#)). For a rather dull and mainstream discussion, you can check the [Wikipedia article on the RMA](#). Today I don't really want to talk this or similar buzzwords (like "hybrid warfare" for example). Frankly, in my experience, these buzzwords serve two purposes:

1. to sell (books, articles, interviews, etc.)
2. to hide a person's lack of understanding of tactics, operational art and strategy.

This being said, there \*are\* new things happening in the realm of warfare, new technologies are being developed, tested and deployed, some extremely successfully.

In his now famous speech, Putin revealed some of these new weapons systems, although he did not say much about how they would be engaged (which is quite logical, since he was making a political speech, not a military-technical report). For those would be interested in this topic, you can check [here](#), [here](#), [here](#), [here](#), [here](#) and [here](#).

The recent Houthi drone and missile strike on the Saudi oil installations has shown to the world something which the Russians have known for several years: that even rather primitive drones can be a real threat. Sophisticated drones are a major threat to every military out there, though Russia has developed truly effective (including cost-effective, which is absolutely crucial, more

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about that later) anti-drone capabilities.

### First, lets look at the very low-cost end of the spectrum: drones

Let's begin with the primitive drones. These are devices which, according to one Russian military expert, roughly need a 486 CPU, about 1MB of RAM, 1GB of harddisk space and some (now extremely cheap) sensors to capture the signals from the US GPS, the Russian GLONASS or both (called "GNSS"). In fact, the "good terrorists" in Syria, financed, assisted and trained by the "Axis of Kindness" (USA/KSA/Israel) have been attacking the Russian base in Khmeimim with swarms of such drones for years. [According to the commander of the air defenses of Khmeimim](#), **over 120(!)** drones were shot down or disabled by Russian air defenses in just the last two years. Obviously, the Russians know something that some "Axis of Kindness" does not.

### The biggest problem: missile systems should not be used against drones

Some self-described "specialists" have wondered why Patriot missiles did not shoot down the Houthi drones. This is asking the wrong question because missiles are completely ineffective in engaging attacking drone swarms. And, for once, this is not about the poor performance of Patriot SAMs. Even Russian S-400s are the wrong systems to use on individual drones or drone swarms. Why? Because of the following characteristics of drones:

1. they are typically small, with a very special low profile, extremely light and made up of materials which minimally reflect radar signals;
2. they are very slow, which does not make it easier to shoot them down, but much harder, especially since most radars are designed to track and engage very fast targets (aircraft, ballistic missiles, etc.);
3. they can fly \*extremely\* low, which allows them to hide; even lower than cruise missiles flying [NOE](#) ;
4. they are extremely cheap, thus wasting multi-million dollar missiles on drones costing maybe 10-20 dollars (or even say, 30,000 dollars for the very high end) makes no sense whatsoever;
5. they can come in swarms with huge numbers; much larger than the number of missiles a battery can fire.

From the above, it is obvious how drones should be engaged: either with AA cannons or by EW systems.

[Sidebar: In theory, they could also be destroyed by lasers, but these would require a lot of power, thus engaging cheapo drones with them is possible, but not optimal]

It just so happens that the Russians have both, hence their success in Khmeimim.

One ideal anti-drone weapon would be the formidable [Pantsir](#) which combines multi-channel detection and tracking (optoelectronics, radar, IR, visual, third-party datalinks, etc.) and a powerful cannon. And, even better, the Pantsir also has powerful medium range missiles which can engage targets supporting the drone attack.

The other no less formidable anti-drone system would be the various Russian EW systems deployed in Syria.

Why are they so effective?

### Let's look at the major weaknesses of drones

First, drones are either remotely controlled, or have onboard navigation systems. Obviously, just like any signal, the remote signal can be jammed and since jammers are typically closer to the intended target than the remote control station, it is easier for it to produce a much stronger signal since the strength of a signal diminishes according to the so-called "[inverse square law](#)". Thus in terms of raw emission power, even a powerful transmitted far away is likely to lose to a smaller, weaker, signal if that one is closer to the drone (i.e. near the intended target along the likely axis of attack). Oh sure, in theory one could use all sorts of fancy techniques to try to avoid that (for example frequency-hopping, etc.) but these very quickly dramatically raise the weight and cost of the drone. You also need to consider that the stronger the signal from the drone, the bigger and heavier the onboard power cells need to be, and the heavier the drone is.

Second, some drones rely on either satellite signals (GPS/GLONASS) or inertial guidance. Problem #1: satellite signals can be spoofed. Problem #2 inertial guidance is either not that accurate or, again, heavier and more costly.

Some very expensive and advanced cruise missiles use TERCOM, terrain contour matching, but that is too expensive for light and cheap drones (such advanced cruise missiles and their launchers is what the S-3/400s were designed to engage, and that at least makes sense financially). There are even more fancy and extremely expensive cruise missile guidance

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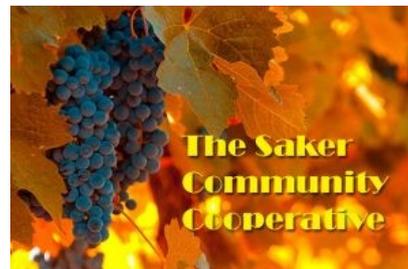
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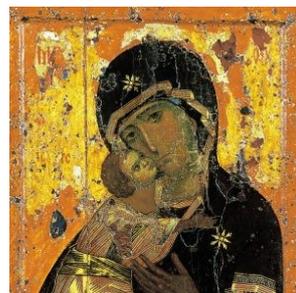
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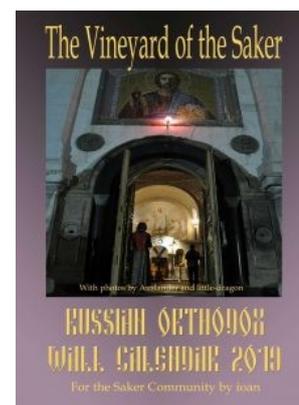
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## BOOKSHELF

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technologies out there, but these are simply not applicable to weapons like drones with their biggest advantage being simple technology and low costs.

The truth is that even a non-tech guy like me could build a drone ordering all the parts from online stores such as Amazon, AliBaba, Banggood and tons of others and build pretty effective drones to, say, drop a hand grenade or some other explosive on an enemy position. Somebody with an engineering background could easily build the kind of drones the "good terrorists" have used against the Russians in Syria. A country, even a poor one and devastated by a genocidal war, like Yemen, could very easily build the kind of drones used by the Houthis, especially with Iranian and Hezbollah help (the latter two have already successfully taken remote control of US and Israeli drones respectively).

Finally, I can promise you that right now, in countries like the DPRK, China, Russia, Iran, Iraq, Syria, Yemen, Venezuela, Cuba, etc, there are teams of engineers working on the development of very low cost drones just like there are teams of military analysts developing new tactics of engagement.

This is, I submit, is the first not-so-noticed (yet) kinda-revolution in military affairs.

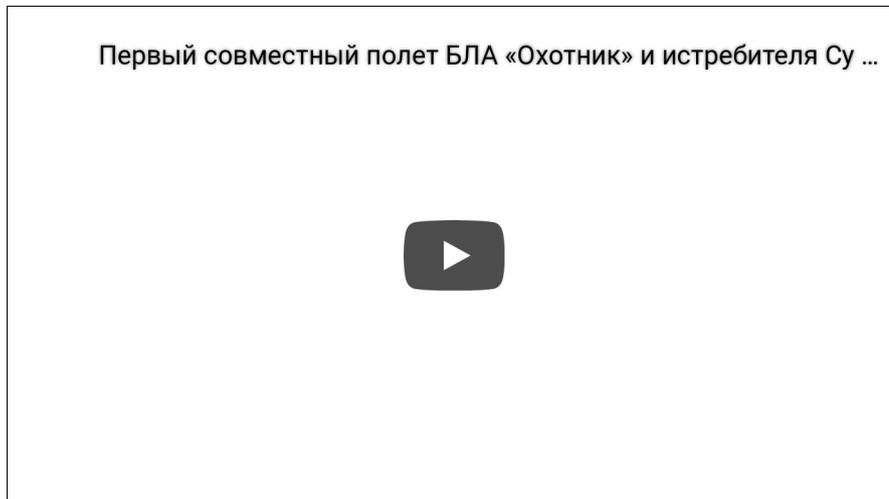
**Second, lets look at the very high end: 5th+ generation aircraft and 5-6th generation UAVs**

While some in India have declared (for political reasons and to please the USA) that the Su-57 was not "really" a 5th generation aircraft (on the pretext that the first ones were deployed with 4th gen engines and because the Su-57 did not have the same kind of all-aspect RCS which the F-22 has), in Russia and China the debate is now whether the Su-57 is really only a 5th generation aircraft or really a 5th+ or even 6th generation one. Why?

For one thing, rumors coming out of the Sukhoi KB and the Russian military is that the pilot in the Su-57 is really an "option", meaning that the Su-57 was designed from the start to operate without any pilot at all. My personal belief is that the Su-57 has an extremely modular design which currently does require a human pilot and that the first batch of S-57s will probably not fly all alone, but that the capability to remove the human pilot to be replaced by a number of advanced systems has been built-in, and that the Russians will deploy pilot-less Su-57's in the future.

[Sidebar: this 3rd, 4th, 5th and now even 6th generation business is a little too fuzzy for my taste, so I rather avoid these categories and I don't see a point in dwelling on them. What is important is what weapons systems can do, not how we define them, especially for a non-technical article like this one]

In the meantime, the Russians have for the first time shown this:



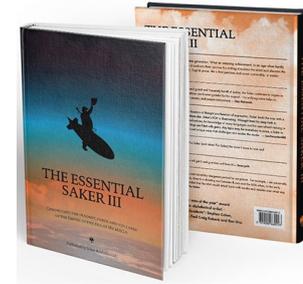
What you are seeing here is the following:

A Su-57 flies together with the new long range Russian strike drone: the **Heavy Strike UAV S-70 Hunter** and here is what the Russian MoD has recently revealed about this drone:

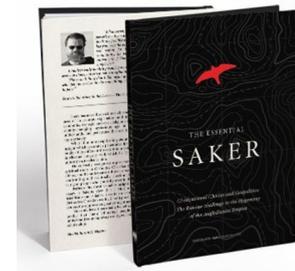
- Range: 6,000km (3,700 miles)
- Ceiling: 18,000m (60,000 feet)
- Max speed: 1,400km/h (1,000mph)
- Max load: 6,000kg (12,000lbs)

Furthermore, Russian experts are now saying that this UAV can fly alone, or in a swarm, or in a joint flight with a manned Su-57. I also believe that in the future, one Su-57 will probably control several such heavy strike drones.

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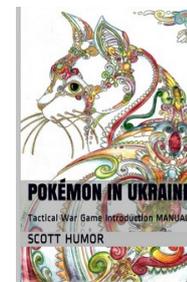
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[Sidebar: flag-waving patriots will immediately declare that the S-70 is a copy of the B-2. In appearance that is quite true. But consider this: the max speed of the B-2 is, according to Wikipedia, 900km/h (560 mph). Compare that with the 1,400km/h (1,000mph) and realize that a flying wing design and a **supersonic** flying wing design at completely different platforms (the supersonic stresses require a completely different structural design)]

What can a Su-57 do when flying together with the S-70?

Well, for one thing since the S-70 has a lower RCS than the Su-57 (this according to Russian sources) the Su-57 uses the S-70 as a long range hostile air defense penetrator tasked with collecting signals intelligence and relaying those back to the Su-57. But that is not all. The Su-57 can also use the S-70 to attack ground targets (including SEAD) and even execute air-to-air attacks. Here the formidable speed and huge 6 tons max load of the S-70 offer truly formidable capabilities, including the deployment of heavy Russian air-to-air, air-to-ground and air-to-ship capabilities.

[Sidebar: some Russian analysts have speculated that in order to operate with the S-70 the Su-57 has to be modified into a two-seater with a [WSO](#) operating the S-70 from the back seat. Well, nobody knows yet, this is all top secret right now, but I think that this idea clashes with the Sukhoi philosophy of maximally reduce the workload of the pilot. True, the formidable MiG-31 has a WSO, even the new MiG-31BM, but the design philosophy at the MiG bureau is often very different from what the folks at Sukhoi develop and, besides, 4 decades stand between the MiG-31 and the Su-57. My personal guess is that the operations of the S-70 will be mostly full automated and even distributed along the network connecting all integrated air and ground based air defense systems. If an engineer reads these lines, I would appreciate any comments or corrections! After all, this is just my best guess]

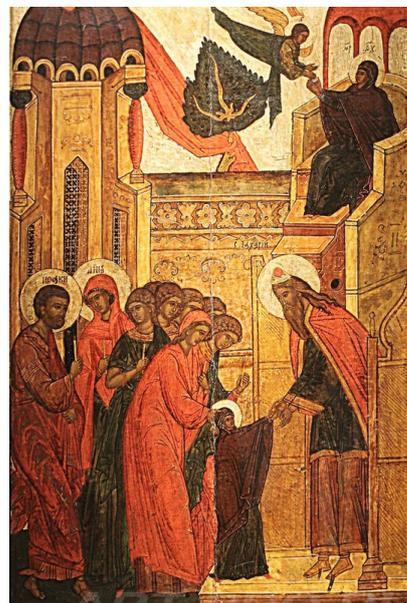
The usual gang of trolls will probably object that the Russian computer/chip industry is so far behind the supposedly much superior western solid-state electronics that this is all nonsense; there was a human sitting inside the S-70; this thing don't fly; the Su-57 is a 4th gen aircraft much inferior to the amazingly superb F-22/F-35; and all the rest of it. Especially for them, I want to remind everybody that Russia was the first country to deploy airborne phased array radars on her MiG-31s which, to boot, were capable of exchanging targeting data by encrypted datalinks with FOUR (!) other aircraft maintaining EM silence (while using their optoelectronics and relaying that data back). Furthermore, these MiG-31s could also exchange data with airborne (AWACS) and ground-based (SAMs) radars. And that was in the early 1980s, almost 40 years ago!

The truth is that the Soviet armed forces deployed plenty of network-centric systems long before the West, especially in the Soviet Air Force and Navy (while the Soviet Ground-Forces pioneered the use of so-called RSC "[reconnaissance-strike complexes](#)" which were the nightmare of NATO during the Cold War). Nowadays, all we need to do is parse the NATO whining about Russian Anti Access/Area Denial (A2/AD) capabilities to see that the Russians are still pioneering advanced military-technical capabilities which the West can only dream of.

#### Now let's revisit some of the recent criticisms of the Su-57

So what about the fact that the Su-57 does not have all-around very low [RCS](#)? *What if* the Su-57 was never intended to spearhead the penetration of advanced and integrated air defense systems? *What if* from day 1 the Sukhoi designers were warned by their colleagues at [Almaz-Antey](#), [Novator](#), [KRET](#) or even the good folks at the [OSNAZ \(SIGINT\)](#) and the [6th Directorate of the GRU](#) that "stealth" is vastly over-rated? *What if* it was clear to the Russians from day 1 that a low frontal-RCS did not compromise other capabilities as much as a quasi-total reliance on all-aspect low-RCS never to be detected in the first place?

The crucial thing to keep in mind is that **new technological capabilities also generate new tactics**. By the way, western analysts understand that, hence the new network-centric capabilities of the F-35. This is especially true since the F-35 will be a pathetic dogfighter whereas the Su-57 might well be the most capable one out there: did you know that the Su-57 has several radars besides the main one, that they cover different bands and that they give the Su-57 a 360 degree vision of the battlefield, even without using the signals from the S-70, AWACS or ground based SAM radars?). And in terms of maneuverability, I will just show this and rest my case:



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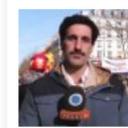
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#### Lastly, the case of the invisible missile container :-)

Remember the [Kalibr cruise-missile](#) recently seen in the war in Syria. Did you know that it can be shot from a typical commercial container, like the ones you will find on trucks, trains or ships? Check out this excellent video which explains this:

### Club-K Container Missile System 2013



Just remember that the Kalibr has a range of anywhere between 50km to 4,000km and that it can carry a nuclear warhead. How hard would it be for Russia to deploy these cruise missiles right off the US coast in regular container ships? Or just keep a few containers in Cuba or Venezuela? This is a system which is so undetectable that the Russians could deploy it off the coast of Australia to hit the NSA station in Alice Springs if they wanted, and nobody would even see it coming. In fact, the Russians could deploy such a system on any civilian merchant ship, sailing under any imaginable flag, and station it not only anywhere off the US coastline, but even in a US port since most containers are never examined anyways (and when they are, it is typically for drugs or contraband). Once we realize this, all the stupid scaremongering about Russian subs off the coast of Florida become plain silly, don't they?

Now let's look at some very interesting recent footage from the recent maneuvers in Russia:

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Here is what the person who posted that (Max Fisher, [here](#) is his YT channel) video wrote about this coastal defense system, explaining it very well:

*For the first time, during the tactical exercises of the tactical group of the Northern Fleet, carrying combat duty on the island of Kotelny, the coastal missile system "Bastion" was used. The BRK was successful in firing a supersonic Onyx anti-ship cruise missile at a sea target located over 60 kilometers in the Laptev Sea, which confirmed its readiness to effectively carry out combat duty in the Arctic and perform tasks to protect the island zone and the Russian coast. Onyx is a universal anti-ship cruise missile. It is designed to combat surface naval groups and single ships in the face of strong fire and electronic countermeasures. On the basis of the rocket, there are two seemingly absolutely identical export options: the Russian Yakhont and the Indian BrahMos, but with significantly reduced combat characteristics. These vehicles are capable of starting from under water: they have a flight speed of 750 meters per second and carry the crushing high-explosive warhead with a weight of half a ton. The range of their flight is more than 600 kilometers. Previously, Rubezh BRK was used as the main coastal missile system of the tactical group of the Northern Fleet. At the end of August, he successfully hit two targets "Termit" missiles installed in the Laptev Sea at a distance of more than 50 kilometers from the coast.*

Now let me ask you this: how hard would you think it would be for Russia to develop a container size version coastal defense system using the technologies used in the Bastion/Yakhont/BrahMos missile systems? Since the AngloZionists have now reneged on The Intermediate-Range Nuclear Forces Treaty, the Russians have \*already\* developed a land-based version of their Kalibr missile which is ready to deploy as soon as the US deploys any such missile in Europe.

The fact is that Russia has perfected an entire family of ballistic and cruise missiles which can be completely hidden from detection and which can be deployed literally anywhere on the planet. Even with nuclear warheads.

This capability completely changes all the previous US deterrence/containment strategies (which are still halfway stuck in the Cold War and halfway stuck with low-intensity/counter-insurgency operations like what they have been doing (with no success whatsoever!) in Afghanistan, Iraq, Syria, Yemen, Libya and in Latin America and Africa).

In the light of the above, what do you make of the steady flow of NATO ships deployed in the Black Sea to "deter" Russia? If you find it completely suicidal, I agree. In fact, all these ships are doing is allowing the Russians to train their crews on the "real thing". But should it ever come to a shooting war, the life span of any and every NATO ship in the Black Sea would be measured in minutes. Literally!

Now lets think of Iran. As I said many, many times, Russia will not enter a full-scale war against the combined powers of the "Axis of Kindness" on behalf of Iran (or any other country on the planet). But Russia very much might get seriously fed up with the "Axis of Kindness" and sell Iran any missile the Iranians would be willing to acquire. In the past I have often written that the real sign that Iran is about to be attacked would not be the presence of USN ships in the Strait of Hormuz or along the Iranian coast, but the opposite: a flushing out of all ships from the Strait itself and a careful repositioning of the bulk of the USN ships inside sea and land based US air defenses "umbrella" available at that moment. I can only imagine the nightmare for CENTCOM if Iran begins to acquire even a small number of Bastions or Kalibers or Yakhont or BrahMos missiles :-)

#### **Conclusion: the "Axis of Kindness" countries are in big, big trouble!**

The US and Israel have tremendous technological capabilities, and in normal times US specialists could gradually deploy systems capable of countering the kind of capabilities (not only necessarily Russian ones) we now see deployed in various areas of operations. And there sure is enough money, considering that the US alone spends more on the "promotion of kindness" than the rest of the planet combined! So what is the problem?

Simple, the US Congress, which might well be the most corrupt parliament on the planet, is in the business of:

1. Hysterically flag-waving and declaring any naysayers "un-American"
2. Making billions for the US ruling *nomenklatura*

Thus, to admit that the "shining city on the hill" and its "best armed forces in history" are rapidly falling behind foes which the US propaganda has described as "primitive" and "inferior" for decades is quite literally **\*unthinkable\*** for US politicians. After all, the US public might wonder why all these multi-billion dollar toys the US MIC has been producing in the last decades have not yielded a single success, never-mind a meaningful victory! Trump in his campaign tried to make

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that point. He was instantly attacked by the Dems for not supporting the “best military in history” and he quickly changed his tune. Now even the weapons the US does not even have yet are better than those already being tested and, possibly, deployed by Russia.

This “feel good” approach to military issues is very nice, warm and fuzzy. But it sure does not make it possible to even identify present, or even less so, future dangers.

Then, of course, there is the issue of money. The US, in its short history, has deployed some absolutely world class weapons systems in technologies. My personal favorites: the Willys MBm, also known as a Jeep, and the superb F-16. But there are many, many more. The problem with these, at least from the point of view of the US *nomenklatura*, is that they were designed for warfare, for the many and very different real-world battlefields out there. They were never designed to enrich the already fantastically rich!

Hence the country which produced the Jeep now mostly produces massive hulks of metal which drive like crap, which constantly break, but which give the narcissistic and baseball *cum* sunglasses hat wearing left-lane male drivers a delightful feeling of macho superiority. And, of course, the country which created and deployed the formidable, yet economic, F-16 in the thousands (well over 4000 I think) now produces the F-35 (good thing that the US colonies like Poland or Japan are willing to buy them to please their beloved Uncle Shmuel).

From the point of view of the US *nomenklatura*, the F-35 is a stunning, amazing, success, not a high-tech flying brick! The costs of this system are not the proof of the incompetence of US engineers, or the cluelessness of US military analysts. Rather, these costs are proof of the combined effects of infinite greed and self-worship of the US ruling class.

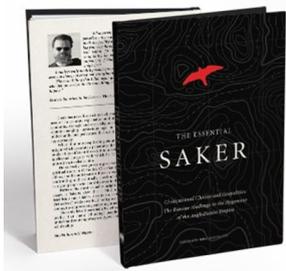
Sadly, one of the best ways to learn the important lessons, is by means of a painful or catastrophic defeat. The Russia of today would not have been possible without the horrors of the “democratic rule” of Eltsin in the 1990s. Think of it: during the first Chechen war, the Russians had a hard time even finding one complete combat capable regiment and they had to use “combined battalions” (сводный батальон) instead. This will probably also happen to the USA.

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14 COMMENTS



Patrick Donnelly on October 02, 2019 · at 2:27 am EST/EDT

Joined up thinking detected in Russian .mil!

Good article

Due to their nature, we never see underwater drones? Call them large intelligent torpedoes fired from underwater concrete emplacements?

Still think the window for USA is narrowing all the time as .mils realise the potential of the tsunami bomb. Coastal cities are almost unique to 5 eyes alliance.

Djakarta "move" may be far inland on Kalimantan?

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Anaam on October 02, 2019 · at 2:37 am EST/EDT

Excellent article, very informative.

I will point out that the BrahMos's range has been extended to 800Km (tested just this week), the lack of range in previous BrahMos varieties was due to legal restrictions, (the MCTR which restricted range to under 300 miles), since Russia got India included into this treaty organization, the range of the BrahMos has been rapidly extended.

A land based battery has also been developed, as well as a mountain hopping version and an air launched version (which acts as a very destructive long range air to ground missile).

The Su-57 project was cancelled/criticized by India not for technical reasons or any justifiable complaints or concerns about the Su-57 RCS, it was due to commercial reasons. The Indians contend that Russia reneged on the requirement of technology transfer v(expecting India to take on 50% of the development costs, but only agreeing to Tech Transfer of only 20% of components and no commitment to provide the source code for the all computing elements (this was the deal breaker). Having the source code would allow India the ability to adapt different missiles and radars to future variants and to confirm no backdoors into a networked war platform.

With respect to Tech Transfer, (TT) India had a bad experience with Russia with over the Su-30MKI. Although, where many of revolutionary ideas that went into that platform, came from the Indian engineers and Indian Airforce personnel (Su-30MKI later was reincarnated in Russia as the Su-30SM), Russia dragged its feet on TT for



years and the current situation is that those “manufactured” in India are just assembled from knock down kits. Russia is no saint when it comes to honouring commercial deals, witness how they screwed Iran over a promised S-300 that they did not deliver (due to Israeli & western pressure) until a decade later.

Indians nitpicking on RCS and other technical criticisms are just a cover excuse they gave for the break down of the deal for commercial/political reasons. These criticisms of Su-57 on technical grounds are often without merit nor heartfelt, they are political in origin.

[Reply](#)



der einzige on October 02, 2019 · at 6:25 am EST/EDT

For us ordinary people it only means that it will be very difficult to fight these new weapons. It doesn't matter if it is the USrAel, Russrael or Chinrael NWO is coming. Through Western policy, people will accept it with open hands from the East.

Chabad – ordinary fascism

<https://www.youtube.com/watch?v=dDg40zMGtA0>

maybe Saker will translate this film for you in the break in promoting Chabad Trump, Chabad Putin and Kissinger Xi

Referring to yesterday's show of strength in China

The mainstream are framing the rise of China as a competitor to the US in the same terms as they did the Cold War with the Soviet Union. And, just as the Cold War was a charade facilitated by lend lease and technology transfers, so, too, is the New Cold War facilitated by technology transfers to China that are framed as “IP theft.” James Corbett joins Jim Goddard on This Week in Money to set the record straight on how the Clash of Civilizations 2.0 is being used to justify domestic clampdowns, social credit surveillance, and military build up. – The Corbett Report

The China Deception

<https://www.youtube.com/watch?v=SnbLrDgkFfw>

[Reply](#)



Sourpuss on October 02, 2019 · at 7:26 am EST/EDT

Drones, used as a massed assault, are an unknown, to my mind, because of the “asynchronous warfare” aspect: an attack where the sky is literally darkened by drones, with countless thousands at once. Random bombing, although not strategic, remains a tool of total warfare; and, because it will not be proven that the “mothership” drone guidance is crackable, until a massed assault occurs, we remain in the laboratory; and, that massed drones can strike, effectively unhindered, with high precision, must remain a likelihood, because, the means of computer communication, is not limited to any one method; and such an assertion would be more than academic, especially since, jamming can't be effective against the “unknown”. A direct “line-of-sight” communication, remains viable, especially since a swarm may have a command structure of individual units, with every tenth, or fiftieth, drone commanding its own group; which allows for a “disposable” concentration of technology; the soldier drones can still have a default, without added software. Line-of-sight communication technology, isn't defeatable, especially with multiple, grouped layers, of electronic “eyes”; this scenario gives so many possibilities, especially with the discrete nature of drones, and the “build-to-suit” aspect of this technology; as for a relay structure, the variables remain immense. I can think of no possible effective counter.

[Reply](#)



Sourpuss on October 02, 2019 · at 7:57 am EST/EDT

Drones that are independently/internally guided, in a total warfare scenario, are likely as well; especially since total warfare is essentially mass murder: so, this could involve incendiaries, anti-personnel weapons, or various banned weapons, all aimed indiscreetly. Once the effective quantity, of successful individual attacks, becomes a secondary factor, the primary factor of targeting, is no longer as critical; this scenario takes on an ominous and threatening aspect with the continued escalation of total warfare in modern times.



Reply



Yeah, Right on October 02, 2019 · at 8:17 am EST/EDT

With respect to Kalibr missiles mounted in standard containers, all that would be required is some means of tossing the empty container overboard after the missile is fired and the possibilities are, honestly, mind-boggling.

There are container ships currently in service that can hold 20,000-plus containers.

Imagine a container ship loaded with 10,000 to 20,000 containers, each one holding a Kalibr missile.

Fire a salvo of, well, let's say twenty Kalibr missiles.

Toss the empty containers over the side.

Fire another salvo of 20 missiles.

Toss those containers over the side.

Fire another salvo.

Rinse, repeat.

Rinse, repeat.

And keep repeating until tens of thousands of Kalibr's have totally destroyed your war-making potential.

Every airbase wiped out.

Every bunker splattered.

Every communications array taken down.

Every ship in port sunk.

Every weapons depot reduced to rubble.

And all done by a single, solitary container ship.

Reply



Anonymous on October 02, 2019 · at 11:48 am EST/EDT

you just wait when the chinese have their own version of kalibre in their dongfengs. they already have the vlccs plying the oceans and your idea is very much doable 20,000 containers? it will be outmoded in the years to come. expect double the capacity. that will be the ultimate nightmare of pentagon! and the stupidest thing pompeo did was to finger iran. he is now encouraging small american bullied countries to buy drones/missiles from iran. why? they got the clue from pompeo.

Reply



gT on October 02, 2019 · at 8:44 am EST/EDT

Agreed, excellent article from the Saker. Interesting how Russia now has so many weapon systems which it doesn't really need. The Su-57 is unnecessary, because the new S-70 hunter drone can probably be controlled from the old MiG-31 with a WSO or the superb Su-34, while the latest Su-30 and Su-35 variants can handle the dogfights adequately.

Likewise the T-14 mbt's are unnecessary, because the latest T-90, T-80 and T-72 variants can handle anything on the conventional battlefield. Add in the BMPT "Terminator" to that and Russia is undefeatable in land warfare.

Then Russia has a plethora of unmatched anti-aircraft weapon systems, and adds to that ever newer and better anti-aircraft weapon systems all the time.

The only benefit of the Su-57, T-14 and BMPT "Terminator" on Armata is, apart from the fact that they are unmatched currently, that they can be fully automated with AI's for wars of the 22'nd century. Maybe Russia should now start with getting a handle on the ET's, else Russia's armaments engineers are going to get bored.

Reply



Anonymous on October 02, 2019 · at 9:02 am EST/EDT

The AngloZionists only need one class of effective weapons system: WME – Weapons of Mass Extermination. When they find themselves no longer able to extract global natural resources by training, arming and ordering the uneducated and



ignorant classes to subdue and kill the poorest and weakest countries, they will likely initiate a global extermination campaign to wipe out "the global herd" while relaxing within their "bunkers." Those who doubt this are invited to make a driving tour along the mountains between Pennsylvania and Virginia and look for little white signs that read "AT&T-No Trespassing." There is more than just a "data center" under that rock.

Reply



headrick on October 02, 2019 · at 9:09 am EST/EDT

Flying in formation or in conjunction with supersonic S-70 stealth drones will allow heavy weight arms and radars without any need for finding ways to fit this stuff into a single conformal weapons bay like the F35 does. Maybe some drones can be even fuel drones which only carry range extending fuel for the controlling SU 35. Drones might even refuel drones so the whole formation might be 1/3 fuel drones. Maybe this is not a reasonable thing to do if the mission can be accomplished with just a few S-70's not a whole formation of them. I wonder how secure com is handled between S-70 and SU-35?

Reply



Mr. P on October 02, 2019 · at 9:19 am EST/EDT

As a boy scout we had adult combat vets from WW2 for leaders... One of these men, a 2nd Lt in the Infantry of US was stationed pre-D-Day not far from London. The nazi cruise missile V1 flew over frequently, for a period, he said. And they would shoot at these with small arms...occasionally they hit one. These were fairly fast missiles – about 450 MPH. While modern similar machines are smarter smaller and probably cheaper (more numerous) and better directed – they seem to be similarly vulnerable to small arms fire.

The modern missile "drone" or "cruise" would, one expects, be a good target for what in my ignorance seems practical ... very big shotguns... with audio and broad-band radar target acquisition and some 17 years old kids to load and supervise.

By the way, as to radar tracking, I see that the Germans claim to have tracked F35 by passive radar as the pair flew out...searchterm> "f35 tracked passive radar"

It has become perfectly obvious that Empire needs to 1) make a deal, and 2) restructure so as to survive without plunder.

At some point it shall do these two things, or dissolve and open itself thereby to occupation and forced restructure.

Reply



zagadka on October 02, 2019 · at 11:22 am EST/EDT

Very interesting. But I am honestly not very optimistic about the current state of Russian weapons development. I think that Russia is unfortunately lagging behind in a few very important areas, which are:

- drone development,
- artificial intelligence

Drones are the weapons of the future, and I think they will rely more on artificial intelligence in the future, to prevent the issues with radio transmissions described in this article. A drone that is NOT remotely controlled, but just flies independently is a lot harder to combat.

Please see this video (it's in Russian) about mini drones and AI, it starts at around 1:35. They give a demonstration about how these mini drones can be deployed, in swarms for example from an airplane. These mini drones have a small explosive device, lethal to humans if it explodes near a human head.

<https://www.youtube.com/watch?v=njW1Kyail80>

The video is about how Russia is indeed lagging behind the US and also Iran. About Iran I don't know, but about the US, yes. I think this type of technology is a lot more efficient than nuclear weapons as it can be used to kill half of the city somewhere and leaving everything else intact.

What do you guys think?



Reply



Anonius on October 02, 2019 · at 1:24 pm EST/EDT

S, excellent article. I think you, for fun, could have said "best armed forces in human history". Now back to the article. Just this morning I read an article, where writer claimed that German Radar manufacturer said that they had no problem tracking two F-35 for more than 150km, before they landed at Berlin Show and stayed on the ground. Hmm, I wonder why.

My take on the "invisibility" is "it does not work" but it helps if you disable opponent's scanning devices, or at least some of them particularly the satellites (communication and otherwise). Airplanes such as F-35 would be dead in the water if they can't talk to Internet. This is why Soviets believed in simplicity.

A totally agree with your take on the idiotic "generation numbering" which is intended to maim the "idiot's brain" into thinking that "oh this is higher number therefore better. Simple real life exercises proved that F-16 beat the \$it out of F-35 every time. Now, it is my understanding that Russians are calling 6-th generation planes: "pilotless airplanes", which could be flown at extreme speeds, which otherwise would "zombiefy the pilot – read unconscious". It is also my understanding that Russian 6th-gen will have pilot's seat and controls, just in case. I say to that: "Smart thinking". In my mind, MIG-31 seems to be a very good proto-plane for this application, and I am not saying that SU-57 could not be spruced up to that level.

Reply



Amerikanski on October 02, 2019 · at 1:47 pm EST/EDT

Addressing the issue of 'backward' Russian electronics, I can attest that the capabilities of '80s and '90s era microelectronics were never fully explored. I worked with a few examples. There was always a push toward more complexity, and rarely/never an effort to optimize what was already working.

Now, our modern oh-point-oh-oh-something-micron processors can do amazing things. They are being put to work to recognize faces, fingerprints, and voices, and for self-driving vehicles (ha!). Amazingly, they can run all that fuzzy logic 'intelligence' stuff, and spit out answers in real time. Billions of transistors, clocked in excess of a GHz.

But, even if Russia is a couple generations behind the latest silicon geometry, there is plenty of processing power available in a 100 MHz DSP, especially for things like flying and navigation. Those technologies have been mature for decades. If Russian engineers have been working on signal processing instead of abstraction layers, they are probably pretty good at it by now.

Reply

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ABOUT THE EDITOR

The European Saker In his own words:



"I am a 'legal alien' currently living in the Imperial Homeland"

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