RUSSIAN ARMY AVIATION'S WAR IN SYRIA

With Russian intervention in Syria, the helicopter once again is playing a frontline role. ALEX MLADENOV looks at the Russian helicopter operations in the war in Syria

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On 31 September 2015 the Russian Air and Space Forces (RuASF) launched an air campaign over Syria. RuASF's Army Aviation has seen active participation with Hinds, Havocs, Hokums and Hips still engaged in Close Air Support (CAS) and Combat SAR (CSAR) missions. The Army Aviation operations have rarely been covered by the official Russian MoD sources which otherwise released plenty of information on the fast-jet strike operations conducted to the end of 2015. Only fragmented information was released in the beginning of the Russian war campaign Syria about the combat actions undertaken by the helicopter force, and later no information was being released by official channels. Finally in late March 2016 some video footage was provided by the Russian MoD's press center, showing the employment of anti-tank guided missiles (ATGMs) by the Mi-28Ns recorded during the battle for Palmyra as well as video footage of Mi-28Ns and Ka-52s engaged in low-level attack operations. In the aftermath of the well-publicized combat losses of helicopters in July and August 2016, the Russian MoD released some information about the nature of missions, which later proved to be far from true. This was done in an attempt to conceal the true extent of the Syrian helicopter operations but soon afterwards it appeared that this official information contradicted the available video footage of the shoot downs and the crash sites, as published on the internet mainly by the anti-Assad opposition groups.

SECRET DEPLOYMENTS

In mid-September 2015, a dozen of 12 Mi-24P Hind-F armored helicopter gunships, accompanied by four Mi-8AMTSh-V Hip assault transport Army Aviation helicopters were delivered by An-124 Russian Heavy-lift transports to Hmeimim air base – this is the Russian name of what is officially known as Basell as-Assad airport situated near the coastal city of Latakia in Syria. The deployed attack and assault transport helicopters belonged to the 562nd Air Base (Army Aviation), stationed at Novosibirsk-Tolmachevo airport in Western Siberia. The unit, assigned to Russian MoD's Central Military district, was re-designated in December 2015 as the 337th OVP (Independent Helicopter Regiment).

The Hind-Fs were typically employed in combat in a light configuration, armed with two 20-round B-8V20-A packs, each loaded with S-8 80mm rockets in addition to a full ammunition load of 470 rounds for the 30mm GSh-30K twin-barrel fixed cannon. The guided ordinance onboard was represented by two to four 9M114 Shturm-V or 9M120 Ataka-V anti-tank guided missiles (ATGMs) with radio-beam guidance, used in two versions. The first of these comets with a shaped-charge warhead for knocking out armored targets while the second is equipped with a blast-fragmentation warhead for use against soft targets and manpower on open.

There are many video footages uploaded on the internet – usually taken by the rebels on the ground in November and December 2015 –

LEFT: A pair of Ka-52s seen while attacking targets at the front line near Al-Qaryatayn on 1 April with 80mm rockets.

RIGHT: This still from a video footage shows a Russian Mi-8MTSh-V deployed to Syria, equipped with the L-370 Vitebsk integrated self-protection suite. (Russian MoD)

A Russian Army Aviation Mi-24P Hind-F seen at Hmeimim while prepared for a combat mission by ground crews.

showing the typical combat employment pattern of the Russian Hip-Fs rushed in CAS missions in the initial months of the war. The Mi-24Ps were mainly used to attack their pre-planned targets in four-ship formations, divided into two pairs. These usually initiated their long firing passes in a shallow dive at between 330-660ft (100-200m) above terrain. When in range, the Hind-Fs release one, two or even three salvoes of rockets and then continue flight towards the targets to engage them with the 30mm cannon. After a burst at point-blank ranges the helicopters exiting from the attack pass at very low level, often only 70-100ft (20-30m) above terrain in tight U-turn, with the pairs covering each other in the process. When turning away from the just-attacked targets at ultra-low level, the Mi-24Ps dispense salvoes of heat-emitting flares to avoid the threat of heat-seeking man-portable air defense systems (MANPADS) that may be launched side-on or tail-on. Another anti-MAPNPAS measure is to fly as low as possible when exiting form attack because, as a rule, MANPADS are not able to fire at air targets flying at 70-100ft (20-30m) altitude.

The main weapon for area saturation is the 1980s-vintage S-8 rockets, usually launched from less than 4,920ft (1,500m) distance. The Mi-24P's 30mm forward-firing fixed cannon is known as a precise weapon releasing highly destructive 390g fragmentation/high-explosive and armor-piercing shells from 2,624 to 4,920ft (800 to 1,500m) distance. When used against manpower, the 30mm fragmentation/high-explosive shells create fragments that are lethal within a radius of about 10ft (3m).

Mi-24P gunships began to be used intensively for CAS missions in November 2015. A proportion of the dozen Hind-Fs at the war theatre are known to have operated for prolonged periods from two forward bases close to the main battle

LEFT: The Russian Mi-8AMTSh-Vs are used mainly for CSAR.

RIGHT: This is a still from a video footage widely distributed by the anti-Assad insurgents that shows the moment of the exposition of a BGM-71 TOW missile destroying the damaged Mi-8AMTSh-V on November 24, 2015.

The Hind-F force originally deployed to Syria in September 2015 was limited to day-only CAS operations and on-demand CSAR. Their typical weapon loads comprised of two packs with a total of 40 80mm rockets and four 9M120 Ataka-V ATGMs and ammunition for the forward-firing 30mm cannon.

zones, providing on-demand fire support to the advancing Syrian forces. The first of these is Shairat airfield near the big city of Homs, where four Hinds and a single Hip were deployed to support a push by Syrian troops against the city of Mhin, held by Desh (Islamic State) troops. This fact has been confirmed unintentionally by the Russian MoD – it happened during a briefing through an accidental release of an official map, depicting the forward deployment of a helicopter unit equipped with Hips and Hinds (together with a howitzer battery of the Russian Land Forces 120th Guards Artillery Brigade, equipped with six 152mm Msta-B towed howitzers, used to provide fire support) at Shairat. The second airfield hinted that has been actively used by the Russian helicopters for CAS operations is Tias, situated some 42nm (78km) away of Shairat. From this location the Mi-24Ps were used to provide on-demand CAS to the Syrian ground troops advancing towards the Daesh-held heritage town of Palmyra, which was finally liberated in the second half of March 2016.

IMPROVED HINDS RUSHED IN COMBAT

The RuASF's Army Aviation group operating in Syria was reinforced in December 2015 by four Mi-35M day/night-capable attack helicopters to reinforce the day-only Hind-F force. At least one of these enhanced Hinds was equipped with the Vitebsk integrated self-protection suite, but this particular aircraft was withdrawn from the theatre in mid-March, airlifted back to Russia by an An-124 heavilift transport. Later on, additional Mi-35Ms were deployed from Russia to Hmeimim and Shairat, all of these equipped with the Vitebsk suite. It incorporates ultraviolet missile approach warners and directional infrared jammers (with three emitting heads installed on the Mi-35M, two on the Ka-52 and three on Mi-8AMTSh-V), plus six UV-26M chaff/flare dispenser units ejecting PPI-26 26mm heat-emitting flares.

In addition to their attack capability, the four initial Mi-35Ms, equipped with the OPS-24 day/night targeting suite, which are believed to have been drawn from the 55th OVP, based at Korennovsk in the southern part of Russia, are particularly useful for the CSAR role during the night (when the Mi-2F is almost useless due to the lack of NVG-capability), escorting the night-capable Mi-8AMTSh-Vs. Later on, Mi-35Ms, belonging to the Dzhankoy-based 39th VAP (Helicopter Aviation Regiment), were also spotted operating in Syria.

The day/night-capable Mi-35Ms deployed to Syria were observed in active operation operating off Hmeimim and Shairat airfields. They typical armament comprised of a pair of B-8V20-A rocket packs, each loaded with 20 rockets in addition to four 9M120 Ataka-V radio beam-guided ATGMs, useful for knocking out small-size hardened targets up to 3.1nm (5.8km) distance. The Mi-35M

ATGM ATTACKS ON VIDEO FOOTAGE

The Russian MoD released video footage of several ATGM engagements by the Mi-28N in March 2016. The material shows two attacks on moving and non-moving targets performed during the battle for Palmyra. The first one involves an Ataka-V launch from a distance of 2nm (3.8km) and altitude of 2,300ft (700m), in a shallow dive, at a speed of 119kt (220km/h) – the flight and targeting data can be read at the display switched in targeting mode, with the video recorded for post-mission analysis. The TV channel of the OPS-28N targeting system was used at the maximum zoom mode (12x), with monochromatic picture. The target tracking was performed in the automatic mode, without any involvement of the Mi-28N's weapons system operator (WSO). Target selected for destruction in this attack was a non-moving BMP-1 infantry fighting vehicle (IFV), with missile flight time accounting for some ten seconds and a good hit.

The second attack demonstrated in the same video footage was targeted against a Daesh firing position set in a small house. The missile was unleashed from a distance of 2.5nm (4.7km), at an altitude of 374ft (114m) and speed of 85kt (158km/h); missile flight time was 13 seconds.

It is noteworthy that in both Ataka-V launches in benign conditions (daylight, non-moving targets, no anti-aircraft fire from the ground or smoke screens to obscure the targets) there were temporary breaks of the automated target tracking. This happened soon after launch – presumably due to the influence of the missile plume and smoke trial. A second or two later the auto-tracking resumed and the system demonstrated stable operation for guiding the missile, flying at supersonic speed, until impact.

The second series of video footage showing ATGM launches were much more dramatic, targeted against both moving and non-moving targets and with mixed results. The first launch in the attack saw a Mi-28N targeting two non-moving Daesh trucks on a road. The first Ataka-V missile was unleashed at a range of 3nm (5.5km), at altitude of about 4,760ft (1,450m), while the speed was 109kt (203km/h) and missile flight time amounted to 17 seconds. The hit created a cloud of dust and smoke, but when it disappeared seven seconds later, it turned out that the missile has missed with a small margin, as the truck was intact and suddenly moved forward. The second missile launch in the same attack pass at the other truck, still not moving at the moment of the launch, was at a range of 2.2nm (4.1km), with a missile flight time of 11 seconds. It also scored a bad hit as the guidance in the terminal phase was instable and as a result the impact point was next to target, without causing any damage. The third missile engagement in the same attack was targeted at another (third) motor vehicle, moving at a high speed in a direction almost perpendicular to the helicopter's heading. This time the target tracking was made in the manual mode by the WSO all the time, and the missile launch took place at a 2.6nm (4.8km) distance. The WSO had an unstable target track abut then he stabilized and maintained target tracking with a high accuracy until impact. The flight time was 14 seconds and the range in the moment of impact was 2.2nm (4.1km). This time the Ataka-V missile managed to score a good hit and effectively destroy the vehicle.

is also armed with a turret-mounted twin-barrel GSh-23L 23mm cannon in the nose.

HAVOC AND HOKUM IN WAR THEATRE

The first photos of Mi-28N Havoc new-generation attack helicopter operating out of Hemimim were spotted flying around the base on 15 March 2016. Close-up photos of Mi-28Ns taken during familiarization and training flight soon after the deployment close to the city of Latakia, showing these attack helicopters wearing there-digit serials associated with the fleet of the 16th BAA (Army Aviation Brigade) stationed at Zernograd. The deployed Mi-28Ns were seen in action during the battle for Palmyra in late March, seen attacking ground targets with both 80mm rockets, cannons and ATGMs, employing exactly the same tactics as seen previously for the Hind-Fs. It has been revealed that 26 March was the first day when Mi-28Ns were rushed in combat to attack Daesh positions, providing CAS for the Syrian ground troops advancing towards Palmyra.

The Ka-52 attack helicopters were spotted in Syria for the first time on 15 March 2016 in still partially disassembled state – this tends to indicate that the helicopter had just been offloaded from an An-124 Russian transport aircraft. The serial numbers of the initial three two-seat Hokums spotted so far (claimed to be Red 77, 78 and 79) reveals that these are brand-new machines, assigned to the 55th OVP in Korennovsk. On 19 March 19 a lone Ka-52 was observed in low-level flight over the coastal line in the city of Latakia – most likely it was an aircrew local familiarization training mission. It was revealed that a total of

In the beginning, the Russian Mi-8AMTSh-Vs lacked the Vitebsk-8 integrated self-protection suites. This Hip is seen resting at its pad at Hmeimim air base during the beginning of the Soviet intervention in October 2015.

four Ka-52s have been deployed and these saw their first combat sorties flown on 1 April, with a combat load of four 9M120-1 Ataka-1 ATGMS, two 20-round rocket packs and full complement of rounds for the trainable 2A42 30mm cannon. The baptism in fire for the Hokum took place during the battle for Al-Qaryatayn, an important town near Palmyra that was recaptured by the Syrian government forces from Daesh on April 3. The Ka-52s were seen on video footage in shallow dive attacks firing 80mm rockets from B-8M20-A packs. In addition, during the battle of Al-Qaryatayn these were also reported to have fired some 9M120-1 Ataka-1 ATGMs as well.

The Ka-52s in Syria are reported to have been armed with Ataka-1 missiles in two versions – the first of these (9M120-1) comes equipped with a shaped-charge warhead for knocking out armored targets, while the second (9M120-1F-1) sports a fragmentation/blast warhead. There were no armored targets justifying the use of the Ataka-1's anti-armor derivative, so only missiles with fragmentation/high-explosive warhead were used in anger, together with S-8FP 80mm rockets. This version of the well-known 80mm folding-fin rocket is fitted with a powerful fragmentation/high-explosive warhead. Video footage shows that the rocket attacks were carried out from close range to the targets, with S-8FPs fired from about 660ft (200m) above terrain, at a slant range of about 4,920ft (1,500m).

The Ka-52s are also equipped with the L-370 Vitebsk integrated self-protection suite to counter heat-seeking MANPADS.

On 31 March 2015, the Russian attack helicopters employed in the large-scale battle for Al-Qaryatayn operating out of Shairat, numbered 12, including four Ka-52s, three Mi-28Ns, four Mi-24P/35Ms and one Mi-8AMTSh-V used for CSAR. In addition, four more Mi-24P/35Ms were spotted at Tias, as shown on satellite images that have been released by Airbus Defence and Space.

FIRST LOSS

The first Russian helicopter in Syria loss was a Mi-8AMTSh-V (serial Red 252). It was shot down by anti-Assad insurgents on 24 November 2015. Together with another Mi-8AMTSh-V and a single Mi-24P tasked to provide top cover, the ill-fated machine was launched from Hmeimim air base in a Combat SAR (CSAR) mission. It turned out to be long and rather intense one, and eventually failed to locate and rescue the two-man crew of the RuASF Su-24M downed earlier the same day by a Turkish Air Force F-16 fighter.

The CSAR mission was initiated in a broad daylight, with the three helicopters circling for an extended time at low level over insurgent-held territory next to the border in Turkey. Flying in the dangerous zone infested with small arms, both Mi-8AMTSh-Vs rushed in the CSAR operation, were hit by numerous small-caliber bullets causing damage. One of the Hops suffered from a serious damage inflicted on its hydraulic system and the crew had nothing to do but to attempt a forced landing. The crew and the rescue survived the emergency in a forest area and escape without casualties. They were eventually rescued by Syrian Special Forces team operating in the area, behind the front lines. The same team later on managed to recover the Su-24M navigator-operator, Capt Konstantin Murakhin, but the pilot, Maj Oleg Peshkov was killed by small arms fire

Armorers seen installing an 9M114 Shturm-V ATGM on the Mi-24P at Hmeimim.

by the anti-Assad insurgents while descending on parachute.

Soon after the emergency landing the insurgents got close to the abandoned Hip and destroyed it with a guided missile fired by a BGM-71 TOW system. This action has been demonstrated in a video footage uploaded on the internet. Interestingly, in March 2016 the Syrian forces reported that they have eventually managed to capture the ATGM crew which was highlighted the video footage showing the destroying the Russian Mi-8AMTSh-V on 24 November. The other Hip involved in the CSAR effort also sustained numerous small arms hits but eventually managed to remain airborne and eventually returned to the base, with one of the naval infantrymen on board killed by a bullet fired by the insurgents.

LOSSES CONTINUE TO MOUNT

One Mi-28N, with a crew drawn from the 487th OVP from Budennovsk in the southern part of Russia, was lost in an accident on April 12, just after midnight. During a mission on NVGs, the helicopter was reported to have collided with terrain near the city of Homs; both crew members were killed upon impact with the ground. The

Russian MoD claimed that the Havoc loss has not been related to enemy fire and the primary cause is pilot disorientation, eventually leading to controlled flight into terrain.

On 8 July 2016, a Mi-35M was brought down in Homs province during a CAS mission. Initially the Russian MoD denied the loss, and then released info that the Mi-25 helicopter belonged to the Syrian military but was with a Russian crew abroad. Eventually, Daesh published on the web a video footage with the shoot down showing that it was a Mi-35M, easily distinguished by its shortened wings compared to the baseline Mi-24/25. The helicopter was in a shallow dive attack, unleashing rockets and shortly after the last salvo it took a hit in the tail from an unidentified weapon. The out of control machine began rotating around the vertical axis and then collided with the ground. The crew was instantly killed upon impact. It turned out that the crew commander, Col. Rafyagat Habibulin, Commanding Officer of the Korennovsk-based 55th OVP, who was among the most experienced and decorated Army Aviation fliers, and who had very rich combat experience. A living legend, he had 3,000-plus flight hours under his belt, most of them in combat conditions in the troubled North Caucasus region of Russia since 1993. The CAS mission was flown in an effort to support the Syrian ground troops to repulse a Daesh attack, and the video footage showed that the ill-fated Mi-35M was the leader, with the wingman being a Mi-24P.

On 14 May Deash reported destroying four attack helicopters and 20 trucks on the T4 (Tias) air base. Then, on 24 May, military news agency Stratfor released satellite imagery, in partnership with AllSource Analysis, showing that the T4 air base was severely damaged by a Daesh. The imagery was dated 14 and 17 May. The losses, seen on imagery dated 17 May, included four Mi-24 attack helicopters destroyed, with their remains scattered on the apron. The Russian MoD denied that the loss involved RuASF helicopters, but the issue is still open as there is no clarity about the identity of the burned Hind remains shown at the Stratfor-released imagery – these could be either Russian or Syrian ones.

The next confirmed loss (and so far the last one by the time this article had been completed) was Mi-8AMTSh-V tactical transport helicopter (serial 212). It was gunned down on 1 August in northern Syria, killing all five people on-board, after apparently being shot down by rebels. The helicopter was returning from a flight to supply humanitarian aid in the city of Aleppo, heading for Hmeimim air base. There was video footage from the crash site in desert area. The ill-fated Mi-8AMTSh-V flew without escort of attack helicopters and took a hit from a non-identified anti-aircraft weapon while overflying a territory controlled by the anti-Assad forces. Three crew members and two officers from Russia's Reconciliation Center were killed upon impact according to a statement by the Russian MoD. The crash site is located near the city of Saraqeb in Idlib province which is roughly mid-way between Aleppo and the Russian air force base at Hmeimim. ❖