

# Lessons learned from the 21st century military operations in Gaza. EXPERIENCES FROM MILITARY OPERATIONS IN THE GAS AREA IN THE 21ST CENTURY

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DOŚWIADCZENIA Z OPERACJI WOJSKOWYCH PROWADZONYCH W STREFIE GAZY W XXI WIEKU

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*Geopolitical Review. Przegląd Geopolityczny*

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# Lessons learned from the 21st century military operations in Gaza. EXPERIENCES FROM MILITARY OPERATIONS IN THE GAS AREA IN THE 21ST CENTURY

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## Abstract

In the 21st century, the Gaza Strip is an area of military action by Hamas and the Palestinian Islamic Jihad against Israel. In response to the activity of Islamic groups, the Israeli armed forces conducted four major military operations. The aim of this study is to present this asymmetric conflict waged in an urbanized area and the new types of military technology used there, based on the experience of military operations carried out there. The advantage that Israel gained was due to, inter alia, on the use of intelligence and reconnaissance methods, as well as the use of software based on artificial intelligence. However, Israeli troops suffered severe human losses, which indicates that tactical and technological advantage does not always work in urban battles. Thanks to the preparation of underground installations and tunnels, Palestinians were able to neutralize the advantage of the Israeli troops by using ambushes, secret maneuvers with sub-units, exits to the rear of the Israeli troops, or the possibility of a quick escape. However, they lacked effectiveness in the fight against the ultra-modern Iron Dome anti-aircraft system or with armored vehicles. This contradicts opinions about the uselessness of armored weapons in urban battles. The

experience gathered in the described military operations should be used in future armed conflicts in urbanized Europe.

they strive to create their own independent state. The hatred initiated by the Jewish Aliyah 1, the uprising of Israel in 1948, and the wars lost by the Arabs, to this day maintains a constant tension between the Arab and Jewish peoples. After 1974, the fighting moved to Lebanon, where Israel's opponents were Palestinians and Hezbollah fighters. Since the 2006 Lebanon war in Lebanon, military action against Israel has been led mainly by Hamas and the Palestinian Islamic Jihad in the Gaza Strip. In response to the military activity of Islamic groups in Gaza, Israel's armed forces conducted four major military operations, codenamed:

- "Liquid Lead" - from December 27, 2008 to January 18, 2009;

- "Pillar of Defense" - on November 14-21, 2012; - "Protective Bank" - on August 8-26, 2014; - "Guardian of the Walls" - on 10-21 May in 2021. The most important military and political goals of the Israeli operations in the zone were to weaken Hamas and the Palestinian Islamic Jihad by destroying or reducing their military potential, eliminating top management, and discouraging the Palestinian people from fighting against Israel. Due to the unequal potential of the parties, military operations in the Gaza Strip are classified as asymmetric conflicts carried out in the urbanized zone, typical of the planned and ongoing military operations, such as in Ukraine. In these operations, new types of weapons were used that are likely or likely to affect the course and results of future conflicts.

The aim of this study is an attempt to characterize the key experiences of the above-mentioned military operations in the Gaza Strip and new types of military technology used in combat.

## **Gaza as an area of activity**

The Gaza Strip is a small territory of 360 square kilometers bordering Israel and Egypt along the shores of the Mediterranean Sea. Inhabited since the 15th century BCE, it was the arena of battles of various nations and empires, because it is located on the route connecting the Middle East and Europe with Africa. It is a flat, sandy and semi-arid area, elevated to 105m above sea level. There is no surface water there and the annual rainfall is about 300 mm, which makes it necessary to supply the inhabitants with water from artesian wells. Over 80% of the population lives in cities such as Gaza, Khan Junis and Rafah.

The official name of the Gaza Strip was given to this area in 1948. In 2021, the Zone was inhabited by 1.97 million people, which makes it one of the most densely populated areas on Earth. It is also one of the poorest and jobless places in the world. Unemployment here is close to 28% and the average per capita income was 6.2 thousand. \$ per year 2.

The area of the Gaza Strip was under Israeli occupation from the Six-Day War of 1967 to 2005, being part of the so-called Occupied Territories (Gaza, East Jerusalem, Golan Heights, and West Bank). In 1987, unforeseen by any of the parties to the conflict, a spontaneous uprising of people broke out in Gaza and in the West Bank, known as the Intifada (the so-called Stone Revolution). The riots began with a demonstration by people at a funeral in Gaza for victims of an accident caused by an Israeli military vehicle. The outrage of the population by throwing stones and bottles of gasoline at Israeli soldiers quickly led to a strong reaction from the Israeli government, which directed the army to fight the riots. On November 15, 1988, the Palestinian National Council proclaimed in Algiers the independence of the Palestinian State (the so-called Algerian declaration). The situation of the Palestinians was made worse by the relinquishment of claims to the West Bank by King Hussein of Jordan in 1988, as they had received support from Jordan by then. Most of them had Jordanian passports, and Hussein's decision deprived them of their nationality (in the West Bank) (Schulze 2010, p. 106).

In 2005, Ariel Sharon's withdrawal plan from the Gaza Strip was carried out. Military installations and tens of thousands of Jewish settlers from 21 settlements to new places, located mainly in the Negev desert, were evacuated. The withdrawal was part of the Israeli-Palestinian peace process. However, Israel retained full control of the Gaza Strip's borders, its coastal waters, 2nd CIA, The World Factbook, Gaza Strip, <https://www.cia.gov/the-worldfactbook/countries/gaza-strip/>, accessed 03/16/2022 . (Domeracki, 2018, p. 51). After the outbreak of the so-called In the Arab Spring of 2011, Hamas bought weapons and equipment from the Libyan military, including ammunition with chemical warheads. It is estimated that Palestinian fighters could also receive mustard gas and gas missiles with a gas affecting the nervous system (Izak, 2014, pp. 201, 210).

## **The military potential of the Israel Defense Forces (IDF)**

Israel's armed forces suffered significant losses in manpower and equipment in the politically and militarily lost conflict with the Shi'ite Hezbollah in Lebanon (2006 July War). The experience gained during this conflict was used to apply new fighting methods and improve the previously used ones. The EBO (Effects Based Operations) strategy known from Lebanon was abandoned, and new combat rules were developed based on old, proven patterns. The Teffen 2012 five-year development plan for the Israeli Defense Forces, introduced after the war, provided for an increase in the maneuverability of the land forces, based on modern tanks equipped with self-defense systems (Merkava Mk IV) and heavy armored personnel carriers (Achzarit, Namer), attack helicopters (Apache, Cobra), BSL and aviation, which was to significantly increase its precision attack capabilities. The artillery of the land forces was constantly modernized. The plan also envisaged achieving an intelligence advantage. Training efforts in the field of offensive and defense as well as urban combat have been significantly increased. The units were equipped with very modern and

efficient weapons, which were presented during subsequent military operations (Paździorek, 2018, pp. 201-202).

In 2022, Israel ranks 18th out of 140 countries included in the Global Firepower Annual Review. According to this source, the IDF is on active duty 170,000. soldiers, and the mobilization reserve is 465 thousand. people. IDF has 1.9 thousand. tanks, 8 thousand. armored vehicles, 650 self-propelled artillery, 300 towed artillery, 48 self-propelled rocket launchers. The Israeli aviation has 270 combat aircraft, including the hard-to-detect F-35, F-15, F-16, and 48 attack helicopters, mainly the latest AH-64 Apache variants. The Navy has 67 ships of various classes, including 7 corvettes, 5 submarines probably equipped with cruise missiles and 45 patrol ships. According to many sources, Israel is equipped with nuclear weapons, and the number of charges is estimated at a minimum of 100, which makes the country a regional power, guarantees strategic advantage and guarantees survival in a hostile environment 7.

## Experiences from Operation "Liquid Lead"

Operation Cast Lead began on December 27, 2008. Palestinian Hamas launched military operations by firing Qassam and Grad missiles, officially indicating that the attack was caused by the dire economic and social situation of the Gaza population. Hamas activities supported the Palestinian Islamic Jihad and the People's Front for the Liberation of Palestine (Mroczkowski, 2014, p. 222). The goal of the Israeli armed forces was to completely contain or limit rocket and mortar firing across Israel, weaken Hamas leadership by liquidating or arresting as many fighters as possible, and preventing or limiting arms smuggling using hundreds of tunnels dug under the Egyptian-Israeli border (*ibid.*, pp. 47-48), as well as by removing transit channels and isolating the Gaza Strip.

The command of the Gaza Division from the Southern Command was responsible for the operation. The division was a territorial unit with two full-time brigades. Its command has already gained a lot of experience during the activities in Gaza during the occupation of the Zone and Palestinian uprisings. During Operation Liquid Lead, four additional brigades were assigned to the Division (35th Parachute Brigade, Golani Brigade, 84th Givati Brigade, 401st Track of Iron Brigade). If necessary, a few more IDF reserve brigades could be placed under the operational control of the Division. The aviation assigned an aviation guidance officer to each brigade, thus allowing the brigade commander to control the activities of the air force. The brigades had their own combat helicopter and unmanned aerial vehicle (UAV) units, as well as the possibility of using strike aviation on call from the battlefield. Air resources were concentrated in a small space, which allowed for excellent air-ground coordination and provided overwhelming firepower to the leading units, even platoon-level sub-units (Paździorek, *op. Cit.*, 204).

During the military operations, UAVs equipped with observation systems that could transfer data in real time (online) to command systems were used on a large scale. These agents had the ability to stay in the air for many hours. The use of light APCs on the M113 chassis was avoided, mainly the heavy 44-ton TO Achzarit 8, interacting with Merkava tanks. A few more heavy Namer armored personnel carriers (weighing more than 60 tons, built on the chassis of the Merkava Mk IV tank), adapted to combat in urban areas, were put into use. They were equipped with mortars or 12.7 mm remotely controlled machine guns, two 7.62 mm machine guns and automatic smoke grenade launchers. Their characteristic feature, compared to the vehicles of other countries, is the lack of a cannon (usually 25/30/45 or 73mm caliber cannons are used in infantry fighting vehicles) and any anti-tank guided missiles (Mroczkowski, op. Cit.,).

Heavy armored Caterpillar CAT D9 ("Doobi") bulldozers were used to clear the passages in populated neighborhoods, demolishing light houses by breaching walls. Israel has been accused of using phosphorus and uranium charges, killing civilians, abusing armed force (Israeli rules for the use of weapons mandate, after warning, fire at stone throwers as they may use a grenade), firing at Palestinian health vehicles, thereby killing over a dozen medical staff (ibid., p. 49).

The aim was to minimize own losses, inevitable in combat in urban areas, especially in infantry units, which avoided moving along roads, streets and squares, entering rooms through doors, breaking through buildings through breaches in the walls of buildings. In addition, this way the fire of sharpshooters, mines, improvised charges and others was avoided. The perfect cooperation of the land forces with artillery, aviation and reconnaissance allowed for firing at targets several seconds after the start of fire. Intelligence also contributed to the success of the IDF troops, as they had, unlike the Second Lebanon War, full intelligence data updated almost in real time. Hence, it was so easy to eliminate the Hamas leadership, mark military targets or indicate objects important for destruction. Devices for intercepting calls via cell phones and satellite phones, as well as developed personal intelligence played an important role here (Paździorek, op.cit., Hamas leadership in Gaza used the so-called "doctrine of sacrifice" (also known as doctrine ") as a politically important means of fighting against Israel. Therefore, inhabited buildings, offices of international organizations (UNRWA, UN), mosques (weapons warehouses) were deliberately used to conduct combat and launch missiles, knowing that where the fire is fired, which in turn causes losses among the civilian population, and this in turn allows again to accuse the Israeli army of killing innocent people, destroying religious centers, etc. own rocket capabilities (on average 29 rockets were fired daily), which they were able to achieve targets in the southern settlements and cities of Israel (Fig. 1). The Qassam brigades were not broken, therefore Hamas presented its actions as its own success (Lachowski, 2012, p. 5).

Operation "Liquid Lead" resulted in a huge number of deaths and injuries, mostly among

the civilian population. During the fighting, from 1,387 to 1,417 people (including 410 children, 100 women) were killed, 5,285 Palestinians were injured. The losses on the Israeli side confirm the large asymmetry: 10 soldiers and 3 civilians (Niedziela, 2012, p. 112). The conduct of Operation Liquid Lead did not solve any of Israel's security problems. The structures of Hamas and the PIJ in Gaza were not significantly weakened either. On the other hand, the Israeli state was condemned for unprecedented attacks on civilians and non-military targets, perpetrating war crimes and excessive use of force (Mroczkowski, op. Cit.,).

## Fig. 1. The range of Hamas rocket fire in 2008-2014

Source: Global Security,

<http://www.globalsecurity.org/military/world/para/hamasqassam.htm>, accessed 03/23/2022.

## Experiences from Operation "Pillar of Defense"

The Israeli Defense Forces launched Operation Pillar of Defense on November 14, 2012. The most important goal of the operation was to destroy the missile infrastructure belonging to the terrorist organizations in Gaza and to restore the effectiveness of the deterrence strategy. The first attacks dismantled Ahmed al-Jabari, one of the most important leaders of the military wing of Hamas and the creator of many terrorist operations, responsible for most of Hamas' military operations from the Gaza Strip against Israel over the previous 10 years. During the eight days of Operation Pillar of Defense, 1,500 rockets and missiles were fired on Israel. According to Israeli sources, nearly 500 Tamir missiles from the new Iron Dome anti-aircraft / missile defense system fired from 5 launchers, shot down 421 Palestinian missiles. Hamas' ties with Iran were confirmed by the use of a small number of Fajr-3 and Fajr-5 missiles (with an operating range of up to 75 km) (Piotrowski, 2013, p. 1). During this operation, no ground attack was made against Palestinian fighters. However, sub-units of land forces brigades occupying positions around the Gaza Strip reported the effective use of the latest ASOP Trophy / Aspro-A (ASOP -Active Vehicle Protection System), which in several cases effectively protected tanks with them against fire at 11 ATGMs (Cohen et al., 2017 ).

The parties to the conflict did not gain much from Operation Pillar of Defense, but each announced their victory. Hamas and the Palestinian community suffered greater material losses than Israel. Prime Minister Netanyahu also considered himself a winner, but in reality the IDF only violated the command system and infrastructure of Palestinian paramilitary organizations, and instead strengthened support for Hamas in the Gaza Strip. Israeli forces have destroyed some 140 Palestinian trafficking and smuggling tunnels, 26 arms factories, and 19 Hamas command points. 30 senior commanders of this organization were also eliminated. About 160-170 Palestinians (55 fighters) and 6 Israelis (including 2 soldiers) died

as a result of the fighting. The wounded statistics show that approximately 900 Palestinians and 240 Jews were injured 12.

Israel triumphed militarily, but political issues were more complex. Hamas again received a lot of logistical support from Egypt and Iran, which was very dangerous for Israel. Meanwhile, the IDF was again condemned for attacking civilians and non-military targets, committing war crimes.

## Experience from Operation "Protective Shore"

On July 8, 2014, another IDF military operation began, codenamed Protective Edge. In the first phase of the fight, aviation and artillery were leading. The land operation was launched on July 17 after many days of continuous rocket fire and attempts to close the tunnels used to invade Israel. The main objective of the operation was to destroy Hamas infrastructure, rocket dumps and tunnels that could not be destroyed by air strikes. They were used mainly for smuggling weapons, displacing subunits in secret, and ambushing IDF forces. By August 4, the IDF had suffered significant losses - 66 soldiers killed and 3 civilians killed. There was also a sharp increase in the Palestinian death toll, estimated to be eight times greater than before the land invasion. The fights most severe and painful for the Palestinian side in Gaza took place on the night of 15/16 July. Humanitarian organizations report 2,133 Palestinian fatalities, at least 75% of whom were fighters 13.

From 5 to 19 August, fire was suspended several times to provide humanitarian aid to the victims of the attacks. On August 18, 2014, the Israeli security agency Shin Bet reported that it had carried out a major operation in the West Bank in the past two months, during which 93 Hamas fighters were arrested. Cells led by the organization's headquarters in Turkey were broken. Palestinian militias fired nearly 4.5 thousand. rockets (90 a day) and 1.7 thousand. mortar shells. According to Israeli sources, most of them were intercepted by the latest version of the Iron Dome system. On August 26, Israel and Hamas (also other groups in Gaza) agreed to a long-term ceasefire. Israel has also agreed to open border crossing points to facilitate the flow of humanitarian aid.

The heavy armored personnel carriers TO Namer and Achzarit, which did not have cannons and ATGMs, were used in combat in urban areas. During this operation, the Trophy / Aspro-Az self-defense systems mounted on Merkava Mk IV tanks were used en masse. During the combat use of vehicles equipped with this system, the infantry insurance was abandoned, because the fired charges that destroy the attacking anti-tank missiles also killed people on the tank-attacking missile line. The use of the system, and above all its effectiveness, changed the tactics of Hamas - anti-tank sections of fighters began to "hunt" for lighter combat vehicles. It seems that these actions resulted in the necessity to install active protection also on armored personnel carriers. The use of armored personnel carriers



(TO) on the American M-113 chassis, which was incapable of protecting soldiers against anti-tank fire, was also abandoned. According to the United Nations, in the last days of the military offensive, new ways of fighting were observed, including bombing of multi-story buildings inhabited by hundreds of people.

## Experience from Operation "Guardian of the Walls"

Another conflict in the Gaza Strip began on May 10, 2021 with an effective missile fire on areas of Ashkelon by Hamas militants, and ended on May 21 of this year with a ceasefire traditionally negotiated by the Egyptian government. The main goals of the IDF are to destroy the military infrastructure and the manpower of Hamas and Palestinian Islamic Jihad. Before the start of hostilities, Israeli sources estimated that Hamas and PIJ had around 13,000-15,000 rockets, most of them locally produced Qassam type. Palestinian troops, in an attempt to block the operation of the Iron Dome system, fired rockets at an unprecedented rate, in many cases firing dozens of them simultaneously at the same target from various firing positions in the Zone. Attempts to fire also included the Tel Aviv agglomeration, especially in the first week of hostilities. In total, 4.3 thousand were fired missiles (of which more than 600 fell in Gaza), which in the eleven days of the conflict meant an average of about 390 launches a day. The Iron Dome missiles shot down most of the Palestinian mortars, rockets and armed unmanned aerial vehicles (including drones) fired at Israel.

Hamas has made extensive use of underground installations as shelters, and has also deployed militants operating rocket launchers, mortars and ATGMs. According to Israeli sources, Palestinian anti-tank guided missile operations only once caused losses, hitting an Israeli vehicle. A novelty was the repeated use by Hamas of 30 kg explosive unmanned drones to destroy Israeli gas installations and ships. These drones were successfully decommissioned by the Israeli Navy 14.

Another significant novelty used during the operation was the use by IDF of artificial intelligence (AI-Artificial Intelligence), based on software commonly available on the civil market, which was adapted to military needs. This software used data on the enemy's forces and means, possible directions and time of the attack collected thanks to electromagnetic reconnaissance (SIGINT -Signals Intelligence), visual observation (VISINT -Visual Intelligence), personal sources of special services (HUMINT-Human Intelligence) or imaging in as part of geospatial intelligence (GEOINT -Geospatial Intelligence). Thanks to the collected data, the ability to quickly combine and analyze them, it was possible to quickly set targets for attacks for aviation, combat helicopters, UAVs, combat drones and artillery of various types 15. More than 240 Palestinians were killed during the operation, including 25 senior Hamas commanders and 12 Israelis.

## Summary

The Israeli army, joining the Gaza Strip in the 21st century, changed the strategy of conducting military operations: the training and command system for land forces was improved, new types of weapons were introduced, e.g. an effective system of countering missiles and missiles, self-defense systems of armored vehicles, massively using UAVs, drones, precision weapons or in the latest artificial intelligence operation supporting commanders in making decisions.

Merkava IV tanks and heavy Namer and Achzarit armored personnel carriers with ASOPs were used in combat in the Gaza Strip. They proved to be effective in combat in built-up areas, which contradicts opinions about the uselessness of armored weapons in urban combat, or about the decline of the role of tanks in the 21st century. It turned out to be extremely important to recognize the location of the Palestinian militants' fortifications and defensive posts thanks to the use of various intelligence sources and the support of software based on artificial intelligence. Modern methods allowed for firing at Palestinian targets several seconds after their detection.

For Israel, the tunnel systems excavated under the border fortifications are a very serious threat. Hamas officials say hundreds of kilometers have already been prepared and that work is ongoing. Using the tunnels, Palestinian fighters made numerous incursions into Israel. As early as 2006, the tunnel was used to kidnap the Israeli soldier Gilad Shalit. Undoubtedly, Hamas and PIJ use Hezbollah's experience from the wars in Lebanon (Lotarski, 2021). Thanks to underground installations, Palestinians, following the example of Hezbollah in Lebanon, were able to neutralize the advantage of Israeli troops by using ambushes, secret maneuvers with sub-units, exit to the rear of the IDF troops or the possibility of a quick escape. Due to the large-scale expansion of tunnels by Hamas, the Israeli government is forced to spend tens of millions of dollars on developing effective technologies to detect and destroy them. In subsequent operations, the number of missiles fired by Hamas and PIJ increased: during the operation in 2021, 4.3 thousand missiles were fired. rockets (of which more than 600 fell in Gaza), an average of around 390 per day. For comparison, during the "Liquid Lead" operation, on average, only 29 missiles were fired a day, in 2012 it was already 187. Most of the Hamas missiles used in the operations are locally produced Qassam and Iranian Fajr missiles. The range of Palestinian missiles was also significantly increasing from a distance of several kilometers to 150, covering most of Israel's territory with fire. These possibilities made it necessary to improve the Israeli warning system against missile attacks, mass expansion of shelters for civilians and increasing the number of anti-aircraft units.

It should be emphasized that IDF, despite its huge quantitative and qualitative advantage, suffered heavy human losses during short land operations in 2008 and 2014. The anticipated inevitable loss of ground troops was one of the reasons for the abandonment of land operations in Operation 2021, as Israel's tactical and technological advantage does not work

in urban combat. The Iron Dome anti-aircraft system, used for the first time in 2012, turned out to be extremely valuable and effective. By 2021, he had shot down over 2.5 thousand targets, achieving an efficiency of 90%, fighting mainly mortar shells, rockets of various types, UAV, having the ability to simultaneously engage several dozen targets. He is currently playing a very important role in the military actions against Palestinian fighters and the Lebanese Hezbollah. Due to its effectiveness, in 2019 it was purchased by the US troops to defend important military facilities.

It should be noted that the Tamir rockets of the Iron Dome system are not cheap, their cost currently oscillates between 50 and 100 thousand USD. Therefore, in an attempt to lower the costs of using the system, in February 2022 the Israeli government made public plans to use combat lasers developed by Elbit and Rafael within the next year, which would significantly reduce Israel's air and missile defense costs.

Undoubtedly, in individual operations, the IDF has achieved enormous advantages in all military aspects. Hamas and PIJ troops showed that they were not able to undertake an equivalent conventional fight, however, they could fight for many days with an opponent that is many times larger, inflicting losses on him in the urbanized area. However, they lacked effectiveness in the fight against the ultra-modern Iron Dome anti-aircraft system or ASOP systems of armored vehicles.

The armed conflicts in Gaza have cost the lives of thousands of people. Operations "Liquid Lead" and "Protective Shore" are highly controversial due to the highest number of casualties among civilians. They were commented on, incl. accusing the parties to the conflict of war crimes and genocide. Israel's representatives and sympathizers pointed out that Hamas was also responsible, which not only urged Palestinians to refrain from evacuation before possible shelling, but also deliberately used civilians as "human shields". Similarly, civilian buildings were used for military purposes. Israel has invoked the right to self-defense against missile attacks from the Zone in response to the allegations.

It is also worth emphasizing that the IDF uses mainly military equipment manufactured in Israel in the land forces. This has a decisive influence on the security of the country and the development of own technical thought. The experience gained in the described military operations should undoubtedly be used in armed conflicts in urbanized Europe.

## References

Rumley, G., Zilber, N., A Military Assessment of the Israel-Hamas Conflict, The Washington Institute, <https://www.washingtoninstitute.org/policy-analysis/military-assessment-israel-hamas-conflict>, dostę: 18.03.2022.

Raubo, J., Synergia wywiadu i wojska czyli izraelska operacja Guardian of the Walls, <https://defence24.pl/sily-zbrojne/synergia-wywiadu-i-wojska-czyli-izraelska-operacja-guardian-of-the-walls-komentarz>, dostęp: 18.03.2022; CYBERDEFENCE24, Izraelskie bombardowanie celów Hamasu. AI mówiła „kiedy i gdzie”, <https://cyberdefence24.pl/armia-i-sluzby/izraelskie-bombardowanie-celow-hamasu-ai-mowila-kiedy-i-gdzie>, dostęp: 18.03.2022

Literatura Belica, B., 2018. Relacje saudyjsko-irańskie i układ sił na Bliskim Wschodzie, *Przegląd Geopolityczny*, 24, s. 101-111.

Cohen, R.S., Johnson, D.E., Thaler, D.E., Allen, B., Bartels, E.M., Cahill, J., Efron, S., 2017. From Cast Lead to Protective Edge: Lessons From Israel's Wars in Gaza. RAND Corporation, Santa Monica, Calif.

Domeracki, K., 2018. Hezbollah i jego wpływ na bezpieczeństwo międzynarodowe, Wydawnictwo Difin, Warszawa.

Izak, K., 2014. Leksykon organizacji i ruchów islamistycznych, Warszawa. Jarząbek, J., 2012. Palestyńczycy na drodze do niepodległości. Rozwój, przemiany i kryzys ruchu narodowego, Warszawa.

Lachowski, Z., 2012. Konflikt izraelsko-palestyński, *Tygodnik BBN* Nr 112.

Lotarski, P., 2021. Rozwój komponentu militarnego Hezbollah w XXI wieku w kontekście konfliktu libańsko-izraelskiego, *Przegląd Geopolityczny*, nr 36, s. 80-97.

Michalczuk, K., 2021. Aktywność dżihadystów po Arabskiej Wiośnie, *Przegląd Geopolityczny*, 37, s. 121-131.

Mroczkowski, K., 2014. Płynny Ołów. Izraelska operacja wojskowa w Strefie Gazy 2008-2009, Zabrze – Tarnowskie Góry.

Niedziela, S., 2012. Konflikty i napięcia w świecie arabskim, Warszawa. Paździorek, P., 2018. Asymetryczny i hybrydowy charakter konfliktów izraelsko-arabskich na początku XXI wieku, Warszawa.

Piotrowski, M.A., 2013. Izraelski system obrony antybalistycznej i przeciwrakietowej – architektura i doświadczenia operacyjne, *Biuletyn PISM* nr 13.

Plebaniak, P., 2019. Wojna jako nieporozumienie koncepcyjne. Rozważania o rozliczalności, maskowaniu oddziaływania i asabijja, *Przegląd Geopolityczny*, 27, s. 9-31.

Schulze, K.E., 2010. Konflikt arabsko-izraelski, Wydawnictwo Naukowe PWN, Warszawa.