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This newsletter has a Spanish version.

## Editorial

For all international analysts, the issue of Afghanistan is a burning topic. At TRIARIUS we are not oblivious to this reality and, for this reason, in this edition we dedicate two articles to the study of the conflict that is taking place in that country, and to the possibility that the Taliban will once again seize power, further destabilizing that region of the planet.

In the first analysis, Guadi Calvo reviews the latest events and presents us with different geopolitical elements that must be taken into account to understand the situation. Then, in his second article dedicated to this troubled country, he explains the internal situation in Afghanistan, and the consequences of the announced withdrawal of US troops, leaving that country on the verge of a bloody civil war.

We turn to Africa, where we review the situation in the secessionist Ethiopian province of Tigray. All kinds of abuses and violations of human rights are being committed there, in the face of the complicit silence of the international community. The Ethiopian government has an information blackout there, and does not allow access to the press or relief or humanitarian aid agencies. The crisis may deepen and produce even more deaths, internally displaced persons and refugees.

We close this edition, with a review referring to the use of the 105 mm towed howitzer. M-101, and its use by the Colombian Army.

Know to win!

*Douglas Hernández*

Editor



# TRIARY 096

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## TRIARIUS

A sovereign country must be able to produce all the food that its population needs, and also guarantee its national distribution at affordable prices. In this order of ideas, governments must take strategic actions to promote and protect agriculture, livestock, and the food industry. It is not enough to produce fruits, grains, vegetables, and fodder, or to have a lot of livestock available, it is necessary to have an infrastructure to add value to these raw materials. It is necessary to consolidate a system that considers the planting, care, harvest, storage, transportation, packaging, industrial processing, distribution and sale at affordable prices of everything produced, as well as the export of surpluses. In this way, it is possible to develop production chains, as well as strengthen complementary industrial sectors, thinking of reducing and eventually substituting all imports.

On the cover, ***Ecuadorian Soldiers*** on a public order mission. In this edition, the guest is the Army of Ecuador. See more information at the end of the magazine.

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Very special thanks to the international analysts who freely and disinterestedly have sent us their articles for this issue.

# Afghanistan, the announced catastrophe

By Guadi Calvo (Argentina)



*The President of Afghanistan, the anthropologist and economist Ashraf Ghani Ahmadzai .*

Since the Doha (Qatar) agreements were sealed, between the Trump administration and the Taliban, in February 2020, no one believed that they were facing a gentlemen's agreement, since that was nothing more than a safe conduct granted by the Taliban to the United States, so that they could withdraw with some dignity and not repeat the humiliating scenes of the fall of Saigon on April 30, 1975. (See Afghanistan: Agreement or Safe Conduct for Trump?).

The theory of the agreed "flight" was confirmed with the announcements made by President Joe Biden on April 14, the date on which he presented his withdrawal plan, which began on May 1 and will end well before April 11. September, as it had been established in April (See: Afghanistan, no time for peace). The rest is nothing more than the chronicle of a catastrophe foretold.

Like a collapsing dam, new cracks in the resistance that the Kabul government is trying to establish are revealed every day, and constant advances by Mullah

Haibatullah 's mujahideen are reported from every province. Akhundzada , at the same pace as the central government offices in the interior of the country, close and withdraw to Kabul, defenseless after the failures of President Ashraf Ghani's Afghan National Army (ENA). That day after day confirms new casualties among its men, it is estimated that since 2001, the local forces allied to the United States have had more than 65,000 dead, which could be many more since the commanders do not report many of these casualties, as well as desertions to continue receiving those salaries. While continuous battles are known, where numerous casualties occur among the Afghan forces, and the Taliban not only take more and more prisoners, but also seize huge amounts of weapons, communication equipment and transportation.

The massive disorder, which is being experienced these days in the interior of the country, is replicated even within the US forces, which have not yet decided what to do or with the Afghan collaborators, who

are begging to be granted asylum in the United States, along with their families. , which would represent a figure of more than 500 thousand souls, for fear of reprisals from the fundamentalists; nor with the nearly 18,000 contractors (mercenaries) of North American companies, who still operate in the country and do not really know what fate the Pentagon will give them, despite the fact that they have already reported that without their assistance, the security forces Afghans will not be able to keep their planes, helicopters and drones in the air, the only tools in which they surpass the Taliban. These indecisions not only refer to these two points, but also include the political and military commanders of the forces of the Resolute mission. Support (Decided Support) that came to include 36 NATO member states and partners of which today only thirteen remain, with a number that scratches 10,000 troops, since they are in full disbandment without succeeding in raising another facade or less credible to hide defeat. Last Friday the 18th, the North American

commanders planned to carry out the solemn ceremony at the Kabul headquarters of the Resolute Support and extemporaneously the event was cancelled, without explaining to any of the attendees the reasons for the interruption of such a "great" and confusing event, which generated more doubts and fears than annoyances. Since it is being seriously discussed given the levels of insecurity and the presumption, very true, of the immediate fall of Kabul as soon as the last North American soldier leaves Afghanistan.

Taking into account that the number of victims caused by the insurgency has skyrocketed, having increased between January and March compared to last year by 29%. In April the victims of terrorism had been 1,645, rising to 4,375 in May. These include Shia Hazaras, humanitarian workers, polio vaccinators, journalists, government and judicial officials. The current situation, and particularly the violence unleashed in Kabul, has put many embassies on alert, which could be forced to close.

To make matters worse, and adding even more drama to the situation, inside the US embassy that occupies a large complex in the safest area of the Afghan capital, which until it began in reply had hundreds of officials, today it is virtually paralyzed by the covid-19 outbreak among its employees, many of them already evacuated and others confined to their rooms.

### **crisis equals opportunity**

That that the Chinese ideogram that represents the term crisis, also represents the word opportunity, if true, could be applied so that the United States, after its failure in Afghanistan, having the opportunity to transfer several rival nations and neighbors of Afghanistan: China, Russia, Iran and Pakistan bear the heavy burden of dealing with the once again victorious Taliban.

The overwhelming offensive by the mujahideen seems definitive, and could lead to Kabul falling in a short time and the whole country finding itself as it was before the

2001 invasion, but with a legitimized Taliban government in the face of the 39 million Afghans, after having defeated, in a twenty-year war, the most powerful war conglomerate in history: the United States together with NATO.

The colossal effort in lives and billions of dollars on the part of the West must somehow be justified in front of their peoples who have financed it, if they do not want the defeat to be even more resounding and for that if the crisis into an opportunity, which should undoubtedly be under evaluation by thinkers tank, which in the shadows govern these "democracies".

To this end, the US State Department is brazenly pressuring Pakistan, its former partner in the 1978-1990 anti-Soviet war, whose excellent relations were interrupted in 2011, so that Islamabad pressures the Taliban, believed to have close ties, to mitigate reprisals, and control their middle managers after taking power. Although, for his part, the Pakistani Prime Minister Imran Khan declared in early June that: "There is a lot of fear right now in Pakistan and I assure you that we are doing our best so that there is some kind of political agreement before the Americans leave" so that a lack of a political agreement in the neighboring country will have consequences throughout the region.

Pakistan, which has nearly 36,000 Wahhabi madrassas (Koranic schools), hotbeds of future terrorists, could be severely affected in three instances, if what all analysts believe finally happens; that the intensification of the war in Afghanistan will provoke new waves of refugees across its border, towards Pakistan, which is not in financial conditions to provide food and health care, to the wave of expelled people, which could comfortably exceed one million. At the same time, the alliance with China, which has invested so much in the country with the construction of the new Silk Road, could be affected. To overcome Islamabad's resistance, the United States has its best ally, India, which for years has extended its influence in Afghanistan, trying to enclose

Pakistan between two openly hostile north and south borders. At the same time as the local fundamentalist insurgency, it could be influenced by the success of the Taliban, on the other side of the border.

Although the southern Afghan border is not the only one that could feel threatened with fundamentalists once again ruling power from Kabul. To the north, Afghanistan has borders with Tajikistan, Turkmenistan, and Uzbekistan, three former Soviet republics, with which Russia, after years of disagreement, has once again played a strong political and commercial game, for which the Taliban, once again financed by Saudi Arabia and the United States, they could start generating some kind of activity in those three nations.

For its part, Iran, which has more than four million Afghan refugees near the border of almost a thousand kilometers, would have to increase its security levels, since, promoted by Washington or Israel, they could generate attacks within the Persian country.

On the eastern border, with Tajikistan and China, where extremist gangs, linked to separatism in the Chinese province of Xinjiang, move with some comfort, led by members of the Uyghur Muslim minority who seek the creation of an independent state known as East Turkestan, with actions by the Islamic Movement of Uzbekistan (IMU) and the Islamic Movement of East Turkestan (ETIM), which have generated a multitude of attacks and bombings, even doing so in Beijing, with the support of the Taliban, they could become active again and regain ground lost as of 2013, sowing instability in a region that is particularly unruly to US interests.

To all this melting pot of players in the region, we must add Turkey, which has increased its presence in Afghanistan, trying to expand its influence throughout the Islamic world of the Middle East and Central Asia. For what Biden's national security adviser, Jake Sullivan, reported last Thursday the 17th, Turkish President Tayyip Erdogan

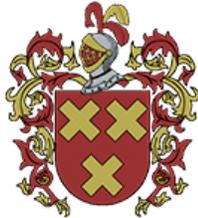
has promised, after talks with Biden, assistance plan. to the resistance to avoid the announced  
to assume the security of the Kabul that President Ghani and his catastrophe.  
airport, an essential point for any spectral army may establish, trying

Image Source:

<https://megacadena.com.py/wp-content/uploads/2021/08/afghanistan-1.jpg>

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# Ethiopia, no light at the end of the tunnel

By Guadi Calvo (Argentina)



*Rebel forces in Tigray province herd captured government troops into prison.*

The situation in Tigray, the rebel province in northern Ethiopia, which has been at war with the central government since last November, is extremely complex and confusing. In the initial process of the war, the overwhelming advance of the Defense Force The Ethiopian National Front (ENDF) snatched positions from the secessionists of the Tigray People's Liberation Front or TPLF (See: Ethiopia: From an ethnic war to a regional conflict), and everything seemed to be heading for a stalemate in the conflict, while the rebels They would only have to retreat to the mountains and from there opt for guerrilla tactics.

But, since April, the increase in the activities of the Tigray Defense Forces (TDF), the armed wing of the TPLF, began to be detected, which after the launch of Operation Alula , on June 25, forced the troops in a few days federal authorities to an urgent withdrawal from Mekelle , the regional capital, and from other urban centers such as Shire , Axum , Adwa and Adigrat , which took place on Monday the 29th.

On the 30th, fighting continues between the Tigray Defense Forces and the Eritrean Defense Forces (EDF), in the northwest of the rebel province, near Badme and Shiraro , two cities near the Eritrean border, which were subject of long-standing disputes between Addis Ababa and Asmara.

In this new situation, the war became a crossroads of statements that did not allow knowing the reality of the situation, since journalists are prohibited from accessing Tigray and telephone communications and networks are blocked, as well as electricity , so the military actions were not known, nor the fate of the seven million inhabitants of the rebel province, of whom it was known, until Operation Alula (by Ras Alula Aba Nega , a general and politician from Tigrey of the 19th century), the 5 million 200 thousand souls depended on the assistance of different NGOs and the United Nations. While 900 thousand of them are already in an extremely critical situation. The latest reports that had been received indicated that deaths from starvation were taking place.

Recent information revealed that the Tigray militias managed to take more than 6,000 men from the Ethiopian army as prisoners , who were transferred on foot to be housed in a prison located north of the regional capital. The "walk" through the streets of Mekelle , was carried out in the midst of the celebrations of thousands of residents.

Along with the seizure of Mekelle and other strategic positions, the TPLF commanders reported that the fight will continue until the total withdrawal of the central government forces and the Eritrea Defense Forces (EDF), accused of multiple massacres against the civilian population, and allies since the beginning of the operations to the federal forces of Addis Ababa.

For his part, Prime Minister Abiy Ahmed had decreed a unilateral ceasefire on Monday the 28th, while ordering the withdrawal of his troops, since according to the commanders of the Ethiopian National Defense Force (ENDF) the Tigray area it had ceased to be the "center of gravity of the conflicts"

and the withdrawn troops will be transferred to another part of the country. Surely alerted to the growing tension with Sudan and Egypt regarding the final stages of the filling of the Great Ethiopian Renaissance Dam, on the Blue Nile, built with Chinese assistance and funds and which threatens to reduce the flow of the Nile's waters. Ahmed, who refuses to admit defeat, also attributed his withdrawal to the need to establish a humanitarian operation in the region and give farmers the opportunity to start planting crops, vital to supply the needs of the already extremely compromised region.

The end of the occupation (or defeat?) in Tigrey can also be attributed to the strong international campaign against Abiy Ahmed, accused that his troops have committed innumerable human rights violations. It is important to remember that in 2019 Ahmed was awarded the Nobel Peace Prize for ending the long conflict with Eritrea.

It is precisely the good relations between Ahmed and Eritrean President Isaias Afwerki, which the Eritrea Defense Forces (EDF), have been able to participate in the conflict. Since the Tigray militias have been historical enemies of Eritrea, which shares a border of more than 900 kilometers, which was the scene of the war waged between 1998 and 2000 that left more than 80,000 dead.

In addition to the information and communication blockade in which Tigray finds itself, it also does not have drinking water, food, or access to medical care. It has also been denounced that the occupation troops, before their withdrawal, have emptied the

banks, looted more than 5,000 homes and have murdered more than 400 civilians, while they have carried out mass rapes, burned grain warehouses, in addition to robbing and killing thousands of head of cattle.

The TPLF, an ethnic-based party, has dominated Ethiopian politics for nearly thirty years, displaced in 2018 by the appearance of the current Prime Minister, who not only disarmed the power structure that the tigers had installed in the most sensitive areas of the national government, but also within the army. There are approximately 17,000 soldiers from Tigrey, who were arrested at the time and are still in prison to this day.

### **Uncertainty and hunger**

From now on, military and humanitarian political uncertainty will be the elements that dominate not only the situation in Tigray, but also in the rest of the country, since some other regions that make up Ethiopia, such as Amhara, threaten to split.

The central government, which continues to commit serious human rights violations, such as the bombing of the Togoga market about thirty kilometers northwest of Mekelle, on June 22, which left 64 dead and 180 injured. After the "incident", federal security forces would have blocked the routes to the place of the attack, preventing the access of medical and rescue teams. There are also multiple accusations that the Prime Minister's troops are using white phosphorous in their air strikes.

Addis Ababa, faced with the onslaught of the rebels, announced

that, if the ceasefire is not respected, it could return its troops to the conflict areas. Other sources indicate that the central government's strategy would be to break the resistance, blocking supplies of food and medicine. Since Tigray now faces not only food shortages, but also the return of the more than two million people displaced since the beginning of the conflict, many of them refugees in Sudan, from where they are being pressured to leave the camps; In addition, they will have to resolve the health care of the wounded, sick and victims of violence, while the rainy season is getting worse, which will cause, as usual, significant floods. The Ethiopian refugee camps in Um-Rakuba and Tunaydbah (Sudan) last Wednesday 30 were destroyed by floods, leaving more than 16 thousand people adrift. The current situation of instability could reproduce the effects of the 1984 famine in Tigray, where more than a million people died.

The United States, without a doubt, is no stranger to this whole crisis, and its apparent distancing, in that beyond President Biden's threat to block financial aid packages to Ethiopia, perhaps with more intention than to pressure Abiy Ahmed, be it to dislodge China, which is playing strong in large sectors of Africa, with very strong investments and is one of the fundamental legs for the construction of the much-discussed "Renaissance Dam". So it would not be strange that Washington is using Cairo and Khartoum to supply the Tigray rebels with weapons and technical assistance. Which would add even more darkness to the long tunnel that crosses Ethiopia.

Image Source:

<https://dailynewsegypt.com/2021/07/06/ethiopia-blinken-calls-for-withdrawal-of-eritrean-amhara-forces-from-tigray/>



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# Afghanistan, from the war on terror to civil war

By Guadi Calvo (Argentina)



*The Americans withdraw from Afghanistan, defeated. Leaving that country on the verge of collapse.*

The evidence makes it very clear that the flight of the United States and its NATO partners from Afghanistan leaves the Central Asian country on the verge of a new civil war that, although it is not expected to be prolonged, is extremely bloody, between the Taliban and the Kabul government, since there are many accounts that the mujahideen have to collect from thousands of collaborators, whom they classify as puppets, and put the head of the current president Ashraf Ghani, as their main objective .

The Afghan political and government structure, not only of Ghani, but also of his predecessor Hamid Karzai (2001 to 2014), is considered one of the most corrupt in the world; having been described by the World Bank as "one of the worst governed and most corrupt

countries on Earth", while Transparency International places it as the seventh most corrupt country on the planet and the United Nations as one with the lowest in human development. What makes the country ungovernable, if it does not have the full support of the United States, now in full retreat.

The devastating offensive launched by the men of Mullah Haibatullah Akhundzada, since May 1, the date on which, according to the Doha (Qatar) agreements, closed on February 29, 2020, between the fundamentalists and the Trump administration; the United States would have completed the total withdrawal of its forces. Date that President Joe Biden unilaterally extended until September 11, which is corroding the fictitious power of the Afghan National Army, (ENA) a force that

Washington trained and armed by investing hundreds of millions of dollars and that now barely manages to sustain itself in any of their positions.

According to some sources, as of May 1, the insurgency controlled 73 districts, having now increased that number to 137, while continuous progress is being reported by the insurgency and the abandonment of their posts by both the military and the regional governments, leaving the civilian population left to their own devices or at the whim of the mujahideen. From January to May 2021, the fighting has forced more than 191,000 people to abandon their homes.

Despite the fact that with their "train and assist" strategy with which the Americans have come to form a conglomerate of nearly

600,000 native troops, made up of, according to official figures, the Afghanistan National Security Forces (ANSF) about 350 thousand men and the ENA with more than 220 thousand. The figures are absolutely random since the Afghan commanders do not accurately report casualties or desertions, in order to continue receiving the pay of the "absent". Already in April 2017, the SIGAR (Special Inspector General for Afghanistan Reconstructor) had reported that "neither the United States nor its Afghan allies know how many Afghan soldiers and police actually exist, how many are actually available for duty or in an operational capacity." That same year, Major General Richard Kaiser had to remove more than 30,000 of those ghost soldiers from the workforce; that just two years later there were 42,000, out of a force of 177,000 troops at the time. Therefore, at present neither Washington nor Kabul know the true number of how many troops they have with operational capabilities.

While the United States tries to cover up its defeat, as an agreed withdrawal, Kabul begins to experience the debacle, since every day it receives reports about the fall of military posts, villages and even surrounding provincial capitals, it is estimated that between six and eight of these cities would be close to falling into the hands of the insurgency.

So, Defense Minister Bismillah Mohammadi, appointed on the 19th, has urged civilians to arm themselves and come to support the security forces overwhelmed by the Taliban onslaught. In the last week, Afghan takfirists have seized some twenty districts, while laying siege to another eighty. In the province of Khunduz, a key gateway to the northern border, armed civilians, responding to the call of

Minister Mohammadi, have had to back up regular troops to prevent the fall of the city of Khunduz, the sixth largest city in the country with 350 thousand inhabitants and capital of that province.

The emergence of these civil militias, which seem to revive the fearsome brigades known as Arbakis (protectors), responsible for countless deaths and torture, which operated in the country until 1996, undoubtedly adds a new element to the critical situation of the country on the brink of a civil war, since former political rivals, warlords and former leaders of ethnic militias who have unfinished business both with Kabul and with the fundamentalists, will claim their share when it comes to discussing power. If they survive the advance of the mujahideen, who bring old scores to these ethnic leaders, such as the Dasht. Laili massacre, when no fewer than 500 Taliban died of suffocation and heat, inside sealed containers, in December 2001, when more than 4 thousand were transferred from the city of Khunduz to Shibarghan prison, in the northwest of the country. Responsibility for the transfer rested with the then commander of the Northern Alliance, General Jurabek .

### **Biden or how to wash your hands**

As the country falls apart, the military outposts barely manage to resist anything before falling under the control of the insurgents. Afghan security forces demoralized and poorly paid, to save lives hand over weapons, communication keys, vehicles and everything they could have at hand. As happened last week at the border post in the town of Shir Khan Bandar, next to Tajikistan and fifty kilometers from the city of Khunduz. Both customs employees, policemen and soldiers after surrendering and handing over their supplies, went to the Tajik side.

According to the Tajik agents, there would have been about 140 Afghan officials who crossed the border after the insurgent attack.

With that bad taste in his soul, if he has one, President Ashraf Ghani, who at this point lacks any political leadership, in what is a drowning blow, traveled to Washington, together with his ally and archenemy Abdullah-Abdullah, somewhat as well as a vice president, whose official name is Executive Director of the Government, in a desperate attempt to show some unity, in front of President Biden, with whom they met last Friday the 25th, in addition to meeting with members of Congress and the CIA, in order to continue supporting the Afghan security forces after the withdrawal of US troops and to prevent the imminent fall of Kabul, some analysts estimate that without US support the Afghan capital will fall within a year.

President Biden listened to the lament of the Afghans, as if he did not know the situation and sentenced: "the Afghans are going to have to decide their future." To then promise continued support for the country, despite the fact that its troops are already ready to finalize their withdrawal, even before September 11. Ensuring that the partnership between the United States and Afghanistan will continue. And as if they were talking about the climate, Biden reaffirmed, in a masterful handwashing: "Afghans must decide what they want" and as if they were speaking to him in Sanskrit, he added: "The senseless violence has to stop. It will be very difficult". Somehow agreeing with the Taliban, who had described the visit as "useless."

Without even mentioning the stalled intra-Afghan talks in Qatar, which have not been possible to restart and which for Washington represented its winning card, to

leave the country in order. The Taliban knows that, once the United States withdraws, the route to Kabul will be absolutely clear for the mullahs , they know that they have everything to win in the civil war that is beginning. Since everyone for Biden to back down, so for the

Image Source:

<https://e00-expansion.uecdn.es/assets/multimedia/imagenes/2021/08/30/16303601331241.jpg>



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# The M-101 Howitzer and its use in the Colombian Army

By Douglas Hernandez (Colombia)



*M-101A1 105mm towed howitzer . of American origin, at the service of the Colombian National Army.*

During the First World War (1914-1918), the Army of the United States of America did not have a nationally designed howitzer to equip its field artillery units, in such a way that it depended on France, a country that supplied it with a cannon. 75mm \_ of general use, called *Canon 75 mm modèle 1897* to equip the Expeditionary Force that fought in Europe. In the spring of 1918, its manufacture was authorized by the United States, with some examples remaining in service until 1942.

Army officers was formed, which was called the Westerveldt Commission (or Board), after the last name of the man in charge. This group of experts had the mission of analyzing the state of the art of the artillery of its time and making recommendations on the future medium artillery piece for the US Army. The final report determined -among other things- that the desired caliber should be increased from 75 to 105 mm, to obtain a greater range and, in addition, to increase the weight of the grenade and consequently its destructive power. Because of this recommendation the Westerveldt Commission is also called the Gauge Commission.

The Westerveldt Commission was established on December 11, 1918 in France, and functioned until May 1919, conducting a review of the lessons learned during World War I regarding the use of artillery, and making recommendations on future policies that should advance the Armed Forces of the United States, in relation to its development. Specifically, the mission of the Westerveldt Commission was: "To carry out a study of the armament, the calibers and types of material, the types and proportions of ammunition, and the methods of transporting artillery to be assigned to a field army."

The Commission was made up of seven officers and an auxiliary staff, their first work meeting was in January 1919 and, in their analyses, they questioned their Italian, British, and French counterparts, it is also noteworthy

that they studied German artillery pieces. To do this, they gathered all kinds of artillery material and subjected it to a tactical evaluation. While, to obtain an evaluation of a technical nature, the artillery pieces were packed and sent to Aberdeen Proving Ground in Maryland for detailed examination and intensive testing by military engineers.

In its final report, presented in May 1919, the Westervelt commission recommended the commissioning of 105 and 155 mm howitzers. , which led years later to the design, mass production and commissioning of the 105 mm Howitzer M2A1.

Designs for the new weapon began in 1919, but development of the howitzer suffered constant delays, due on the one hand to the financial crisis of the 1920s and early 1930s, and on the other hand to the growing isolationism of the United States. , which caused that only 20 years later, in 1939, when tensions in the Far East, but above all in Europe, made the High Command of the United States understand the urgency of starting to produce a new cannon to equip its troops, or inevitably they could be seen fighting in a short time, with the same 75 mm cannons of French origin, which were still active. This led to designs for the national weapon rapidly advancing, entering production in 1940, under the name of the M2A1 105mm Howitzer. The main production center for the new weapon was the Rock Island Arsenal.



*Colombian Army M-101 howitzers towed by Israeli M-462 Abir trucks.*

The weapon was used in all theaters of operations in which US troops participated, with very good results. The M2A1 105mm howitzer. it could fire 13 types of ammunition, giving it extraordinary tactical flexibility. It was installed in different types of gun carriages, including an armored tracked vehicle, giving rise to a self-propelled weapon called Priest, whose batteries accompanied the armored and mechanized units in their rapid advances.

Initial prototypes gave rise to the 105mm howitzer M1920. on the M1920 gun carriage. The new piece was standardized in December 1927 and was called the 105 mm Howitzer M1, on gun carriage M1. This gun carriage was designed to be towed by horses. The US Army wanted to replace the 75mm howitzers. that equipped their regiments with field artillery, however, this purpose failed to materialize due to various inconveniences, discarding the idea in 1929 (year of "the great depression"). In 1933 only 14 M1 howitzers had been manufactured.

Engineers continued to work on improving the weapon, and developed a different breech block that improved its performance, the new version being called the 105mm Howitzer M2, on gun carriage M1. Of this new version, 48 pieces were manufactured in 1939. In this same year, the M2 gun carriage was developed, designed to be towed by vehicles. This new gun carriage was standardized in 1940. It is worth noting that this was one of the first howitzers designed to be towed by vehicles. vehicles and not by horses. The Second World War (1939-1945) had already broken out, and although the United States stated that it wanted to stay out of it, it was also making preparations. Among them, in March 1940 the closing ring of the M2 howitzer was modified, before it began its serial production, calling this new version Howitzer M2A1 105 mm., on gun carriage M2.

By the standards of the time, the gun was heavy for a 105mm., but that was because it was designed to be strong and durable, in this way, both the tube and the gun carriage would better resist the wear and tear of intensive use. The tube has a useful life of 20,000 shots.

In 1942 the M2A1 Howitzer on M2 gun carriage began to be mass-produced, following the entry of the US into the war due to the Japanese attack on Pearl Harbor on December 7, 1941.

This howitzer equipped artillery units of both the US Army and the US Marine Corps, participating in all theaters of operations against the Axis forces, with satisfactory results. Beyond its tour of duty in World War II, this howitzer remained in service long enough to contribute to the American effort in the Korean War (1950-1953) and the Vietnam War (1955-1975). It is operated by a crew of 8 servants, and can be towed by a medium truck, without affecting its center of gravity.

In 1962, the United States Army changed the designation of artillery weapons by, among other things, renaming the M2A1 howitzer the M101A1.

The M101A1 has been retired from the US military, although it continues to serve in many other countries. By the end of World War II, 8,536 M101A1 105mm towed howitzers had been manufactured and post-war production continued at Rock Island Arsenal until 1953, by which time 10,202 pieces of this weapon had been built. In the end, they were operated by nearly 70 countries around the world, which undoubtedly makes them one of the most successful artillery weapons in history. Colombia is one of those users, where it is still in service.



*The 105mm grenades are manufactured by the Colombian company Indumil.*

The 105mm M101A1 light howitzer, towed, can be defined as a general purpose, light field artillery weapon, which can be used for direct fire or indirect fire. The barrel consists of a tube assembly, a breech ring, and a lock ring. The barrel is mounted on the recoil sled assembly. The firing mechanism is of the continuous pull (self-cocking) type that is activated by pulling on a safety rope. The barrel is single-charge, air-cooled, and uses semi-fixed ammunition. The gun carriage is of the single-axle, split-track type. The legs or arrows split on site, but come together and lock during travel. A drawbar is provided to secure to a main engine. The gun carriage consists of a balancer, shield, lifting mechanism, cradle, gear, lifting arches, cross mechanism, upper carriage, wheels and legs or arrows. The recoil mechanism is a constant hydro-pneumatic type damper that decreases the recoil energy gradually and thus prevents violent movement of the gun or carriage. It is installed in the cradle of the car.

Like other towed artillery pieces of the 20th century, the M101 has four main components or assemblies, namely the barrel assembly, chamber, gun carriage, and trailer. Since it was designed, peculiar features such as the shield and a short barrel remained unchanged for many years. An important innovation of the M101 howitzer is that its final version was designed to be pulled by trucks and not by horses. Its hydro-pneumatic recoil system placed above the barrel was also distinctive. The weapon operated in a variety of weather conditions and kept up with technological advances long after it entered service.



*Prototype with servomechanisms for the automation of the part pointing process. Artillery School.*

It should be noted that the M101 somewhat influenced the development of self-propelled artillery, being selected to be the primary armament of the M7 Priest. Also, along with the 155mm howitzer M114, it helped lay the groundwork for helicopter-borne operations, sling-carrying artillery weapons and ammunition, to support unit movement in increasingly dynamic modern warfare.

The weapon fired semi-fixed ammunition, with the 105mm Case M14 cartridge. The propelling charge consisted of a base charge and six increments, making up seven charges from 1 (smallest) to 7 (largest). The use of M1 HE ammunitions prepared for the M3 105 mm howitzer (same projectile and cartridge, but different propellant charge) was authorized. The HEAT M67 ammunition was also used, which was originally designed as a fixed round, with an M14 Type II cartridge. It was later changed to semi-fixed type with the standard cartridge, but with non-adjustable propelling charge. For blank ammunition, the shorter M15 cartridge with a black powder charge was used.

The M101 uses a horizontal breech block with a percussion firing system. To achieve constant stability (thereby aiding accuracy), the recoil system was mounted above and below the short barrel section. Elevation ranges from -5 degrees to +66 degrees, with a 46-degree run.

The range of the M1 shell was 12,325 yards, while the M548 shell had a range of up to 15,965 yards. With this weapon you can reach a rate of fire of 10 shots per minute, going down to 3 shots per minute in sustained fire. Although its range is moderate, and its rate of fire decreases from 10 rpm to only 3 rpm in sustained fire, it has in its favor a useful life of 20,000 shots, and the availability of significant quantities of spare parts to extract from them. spare.

It uses standard NATO ammunition, including High Explosive (HE) grenades, as well as a High- Explosive Squash Head (HESH) round that can penetrate 102mm. (4") of armor at 1,500 meters (1,640 yards). There are

different types of fuses that allow you to decide the type of detonation of the grenade, for example, there are fuses for impact detonation, others for aerial detonation, and others with delayed detonation.



*The M-101 of the Colombian Army are in perfect condition.*

In Canada, they used the M2A1 until 1997, calling it Howitzer C1. In '97 the guns were modernized to extend their service life. Among the changes made are a longer barrel (33 calibers), the installation of a muzzle brake, the reinforcement of the arrows, and the elimination of the fins of the shield. With these modifications its general performance was improved, reaching a range of 18 kilometers with extended range ammunition, calling the new version Howitzer C3. It is used by reserve units of the Canadian Armed Forces. These weapons are used for avalanche prevention, both in Canada and by the US Forest Service. With them, controlled avalanches are generated, avoiding the excessive accumulation of snow in critical places, where a tragedy could occur.

### **Characteristics**

Type: Howitzer.

Caliber: 105/22mm.

Country of origin: USA.

Manufacturer: Rock Island Arsenal.

Production: from 1941 to 1953.

Length: 19.5 feet (5.94 meters).

Barrel length: 22.5 calibers.

Width: 7.25 feet (2.21 meters).

Height: 5.66 feet (1.73 meters).

Howitzer weight: 4,980 pounds (2,260 kilograms).

Projectile weight: 14.9 - 15.1 kg.

Initial speed: 472 m/s.

Ammunition: High explosive (HE), antipersonnel, smoke and illuminants.

Maximum effective range: 6.99 miles (11.27 kilometers).

Fire Rates:

Maximum: 10 shots per minute.

Sustained: 3 shots per minute.

Unit replacement cost: \$196,341

Elevation Range: - 5 to + 65 degrees.

Traverse Range: +- 22.75 degrees.

Mobility: 6x6 truck with pinzote hook (trailer).

### **Versions:**

- M2A1: Original production model introduced during World War II.
- M101: Postwar designation for the M2A1.
- M101A1: Improved version, introduced in 1964. Has a modified carriage with a different shield.
- C1: Canadian designation for the M2A1.

- C2: Improved Canadian version of the C1. Between 1995 and 1997, Canada upgraded 96 of its C1 towed howitzers to the C2 standard. These are used by reserve units.
- C3: Canadian version of the C1 with a longer 33 caliber barrels. This howitzer has an extended fire range.
- M7 Priest – Self-propelled artillery combining an M101 with the hull and chassis of an M3 Lee medium tank.
- EVO-105 - Self-propelled artillery system developed by Samsung Techwin that mounts an M101 cannon assembly, recoil system and breech on the platform of a Kia 6x6 military truck.



*The author of this review, with the Colombian prototype of the M-101 automated howitzer with servomechanisms.*

### **The M-101A2 towed howitzer in Colombia**

On page 804 of a document titled Foreign Relations, 1944, Volume VII. There is a communication from the Secretary of State addressed to the US Ambassador in Colombia, dated 26FEB1944 indicating that a material had been approved for delivery to Colombia (from the Channel Zone ), it is noted that it is part of what Colombia had previously requested to equip a force of 4,760 soldiers that would constitute a force for the surveillance of the Atlantic coast. Such request had the endorsement of the United States Military Mission in Colombia. Among the material approved, there are 20 cannons of 75 mm , which for the time (1944) could well be a US-made *75mm Field Gun M1897 on M2 Carriage* .

According to an official document from the United States of America, dated 1960, called Latin America and The United States Army Assistance, in 1959 Colombia had 92 Czechoslovak pieces, 13 Swiss pieces, and 88 pieces from the United States, for a total of 193 artillery weapons. The Czechoslovak pieces are the three models of Skoda guns (47, 75 and 90 mm.); Swiss parts are 20mm Oerlikon guns. of which there are copies in the Military Museum in Bogotá; and the US pieces are the M2 105mm howitzers. In addition, -according to the same document cited above-, at that time the Colombian Army had 118 mortars of US origin, 12 light tanks, and 50 light armored vehicles (without specifying the models).

These official documents give an account of Colombia's military cooperation relationship with the United States of America, and at the same time clarify that the 88 M101A1 howitzers were already in Colombia in 1959,

rejecting some sources that indicate that they were acquired in 1967. American howitzers came to replace Skoda parts of Czechoslovakian origin. They were assigned to the Artillery Battalions of the Colombian Army, together with the Brand AM50 120mm mortars. of French origin. With the 88 pieces of the M101A1 howitzer, 22 batteries of 4 pieces or 14 batteries of 6 pieces could be made up. The M101A1 fires 105mm High Explosive (HE) semi-fixed ammunition and has a range of 11,270 m (12,330 yd), making it suitable for supporting infantry in their regular warfare operations, or for supporting troops in an anti-subversive campaign, like the ones that have been carried out in Colombia.

Currently the artillery units of the Colombian National Army are equipped with 155 mm Howitzers. SBT, of Spanish origin; 105mm howitzers. LG1 MkIII of French origin; 105mm howitzers. L119 of English origin; and the 105mm howitzer. M101A1 of American origin, the latter being the oldest in service. There is a prototype of a self-propelled weapon, called "Joya" (surname of a prominent officer, now deceased), which uses the LG1 MkIII howitzer, it is expected that at least one battery will be manufactured.

In 2013, the Artillery School developed a command and control system, which was called CASFA, an acronym for Systematized Calculation of Artillery Fires, which allows ballistic calculations to be carried out and shooting data to be obtained for 105 mm caliber weapons. and 120mm., replacing the manual CDT, minimizing the possible failures in the manual calculation and the consequent collateral damage due to such failures. The "General Carlos Julio Gil Colorado" Artillery School, of the Colombian Army, currently has a Mobile Artillery Simulator (MAS), with which personnel are trained efficiently, saving ammunition.

The great durability of the 105 mm M101A1 howitzers is no joke, the pieces in service in the Colombian Army are in good condition and fully operational. Although there are now lighter weapons, with better features and equipped with electronic devices, the M101 can still "hit hard". For this reason, it would not be desirable for them to leave the service without first having a good supply of more modern weapons, which is difficult given the history of Colombian military purchases. The viable recommendation would be to modernize the 88 pieces to a standard similar to what was done with the weapons of Canada and Chile, which lengthened the useful life of their howitzers, and improved their general characteristics.

There is a doctrine of the use of this weaponry, forming batteries of 4 pieces, which can be mobilized in slings, along with their ammunition, to support irregular warfare helicopter operations. In this way, they can provide powerful and precise fire support to airmobile operations. An innovative proposal would be to modernize these parts and assign a battery to each Helicopter Battalion, forming forces for rapid deployment and immediate employment, which, being dispersed throughout the country, could intervene anywhere to support ground operations.

Additionally, the remainder -also modernized- can be assigned to the Marine Corps of the Colombian National Navy, which currently lacks organic artillery units. Three batteries of 6 pieces of 105 mm howitzers M101A1, can support an Amphibious Brigade in its operations once landed. In addition, it can be equipped with some coastal defense units, which could open artillery fire against the beachheads of the enemy that tries to land on our things.

The M101A1 105mm howitzer. on gun carriage M2, still has a long way to go in Colombia.

Image Source:  
[www.militaryforces.org](http://www.militaryforces.org)

### **Douglas Hernandez**

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# World Anti-Terrorist Forces

*Audentes Fortuna iuvat*



Republic of Ecuador

## **Ecuadorian Army**

The Ecuadorian Army, also called the Ecuadorian Land Force, is the most important branch of the country's armed forces, both for being the most numerous and for being the one with the greatest capacity and operational competence. At the head of the Army of Ecuador is the Commander General of the Army, who obeys the authority of the head of the Joint Command of the Armed Forces, the Ministry of National Defense and the Commander-in-Chief of the Armed Forces, the Constitutional President of the Republic.

The Army of Ecuador has an approximate number of 44,000 members, for reasons of national security it has not been possible to have access to official information. Military Service in Ecuador is no longer mandatory. In 85% of the conscripts (both volunteers and those drawn) are sent to the ranks of the Army. The Eloy Alfaro Military High School, located in Quito, is in charge of training Officers and graduates an average of 100 Second Lieutenants annually, as well as the ESFORSE (Army Soldiers Training School "Vencedores del Cenepa"), located in Ambato, is in charge of training the troop personnel.

Already in 1989, the Army had around 40,000 troops, nearly four times the combined strength of the Ecuadorian Navy and Air Force. In 2003, it was structured into four independent Army Divisions that encompassed around 25 Infantry Battalions. These battalions were implemented in Brigades that were not consecutively numbered, but had odd numbers in the series 1 to 27. All Brigades also had Special Forces, Military Engineers, and at least one communications and logistics support company. Starting in 2008, the Ecuadorian Armed Forces entered a reform process to maximize their joint capacity. This process implies the creation of operational commands similar to those of the US There are 4 joint operational commands that are distributed geographically.

### **Leadership**

Army General is the highest rank in the Ecuadorian Army. Usually, the Chief of Staff of the Army is also the General of the Army, and it is common for this general to also hold the position of Chief of the Joint Chiefs of Staff.

## "COUNTRY I"

From 2009 to 2011, a restructuring was carried out within the Ecuadorian Armed Forces under the name "PATRIA I". Improving the structure, equipment and military operations within Ecuadorian territory. Ecuadorian territory has also been divided into five "Joint Task Force Zones" or "Joint Task Forces", four in mainland Ecuador, the fifth being maritime territory (including the Galapagos Islands). Changes related to the structure and deployment of troops as of 2010 are not available because the Ecuadorian Armed Forces keep such information restricted.

- 1st "North" or Joint Task Force No. 1 "North", (HQ Ibarra).
- 2nd "West" or Joint Task Force No. 2 "Guayas", (HQ Guayaquil).
- 3rd "South" or Joint Task Force No. 3 "Cuenca", (HQ Cuenca).
- 4th "Central" or Joint Task Force No. 4 "Central", (Quito Headquarters).
- 5th "Maritime" or Joint Task Force No. 5 "Sea and Galapagos", (HQ?).



## Specialties

Specialty badges reflect US practice.

- Infantry (Badge: crossed 1895 Mauser rifles).
- Armored Cavalry (Badge: M3 Sherman with crossed lances).
- Artillery (Badge: Crossed cannons of the Spanish era).
- Military Engineers (Badge: Castle).
- Signals (Badge: crossed signal flags and a torch).
- Military Aviation (Badge: wing and propeller).
- Logistics (Badge: Sword and Blade).
- Transportation (Badge: Wheel).
- Armaments (Badge: Grenade).

## Special Forces

- The Ninth Brigade of Special Forces "PATRIA", is made up of paratroopers, specialized as Commandos, Operative Free Jumpers, Mountain Warfare, Frogmen, Snipers and Dog Guides.
- The School of Special Forces.
- The GEK-9 is an independent operational body that transforms soldiers into future Commandos .
- The Counterterrorism unit "GEO" (Special Operations Group), formed in 1985, was trained by the Navy Seal of the United States and the SAS and maintains the highest standards.
- The 17th, 19th and 21st Jungle Brigades, trained and experienced in jungle warfare.
- The Jungle Warfare Special Operations Battalion No. 60 Iwia Battalion, made up of indigenous warriors recruited from local tribes, such as the Shuar, Záparo , Kichwa and Achuar.

- The Iwia Jungle Warfare and Counterinsurgency school is in Coca in the Oriente.
- Special boat detachments called river rats or river riflemen. Three Battalions with a strength of 550 men, equipped with forty "Vector" and "Phantom" tactical fast patrol boats . They undergo a three-week training at the Special Forces center in Coca. In addition, the United States provides training and assistance.

### Equipment of the Ecuadorian Army



#### **Armored vehicles**

108 AMX-13: France  
 27 Panhard AML H60/90: France  
 22 ERC-90 Sagaie : France  
 50 EE-09 Cascavel : Brazil  
 10 EE-3 Jararaca : Brazil  
 32 EE-11 Urutu : Brazil  
 80 AMX-VCI: France  
 20 M113: United States  
 3 BTR-3U Ukraine  
 15 BMR: Spain  
 10 UR-416: Germany  
 10 BTR-60: USSR

#### **Utility Military Vehicles**

500 Humvee: United States. Some fitted with Spike, MAPATS, and HJ-8 anti-tank missiles. In February 2013, the defense ministry handed over 107 vehicles of this class to the army, to reinforce operations on the border with Colombia.  
 130 Agrale Marrua : Brazil. Transport and reconnaissance variants.  
 180 AIL Storm: Israel. Utility vehicles  
 200 CUCVII: United States. Vehicles equipped with AA systems  
 100 Chevrolet Silverado: United States. Vehicles equipped with AA systems  
 180 Unimog: Germany. Equipped with MBDA Mistral missiles.  
 180 M-939: United States. 6x6 truck  
 M-35: United States. 6x6 truck  
 Hino Motors: Japan. Transport truck

### **Artillery**

12 MK F3: France. 155mm self-propelled howitzer  
M114: United States. 155 mm towed howitzer  
M198: United States. 155 mm towed howitzer  
M101: United States. 105 mm towed howitzer  
M2A1: United States. 105 mm towed howitzer  
OTO Melara Model 56: Italy. 105 mm towed howitzer  
RM-70: Czechoslovakia. 122mm self-propelled multiple rocket launcher system  
BM-21: USSR. 122mm self-propelled multiple rocket launcher system .  
Soltam M-66: Israel. 160mm heavy mortar  
M-30: United States. 107mm towed heavy mortar  
M-1: United States. 81mm mortar  
M-29: United States. 81mm mortar

### **Anti tank weapons**

Spike : Israel. 170mm laser guided missile, some units are mounted on Humvee vehicles.  
MAPATS: Israel. 155mm laser guided missile, some units are mounted on Humvee vehicles.  
HJ-8: Chinese. 155mm laser guided missile.  
MILAN. 125mm Laser Guided Missile.  
Euromissile HOT- 150 mm missile mounted on Gazelle helicopters.  
M-67 recoilless rifle: United States. 90mm anti-tank gun  
M-40 recoilless rifle: United States. 105mm anti-tank gun  
Installation C-90; Spain. 90mm anti-tank gun  
M72 LAW: United States. 66 mm armor-piercing gun  
RPG-7: USSR. 40 mm armor-piercing gun

### **antiaircraft**

Tubular

22 Shilka ZSU-23-4: USSR. 4 x 23 mm anti-aircraft system purchased from Nicaragua in 1997.21  
50 M163 Vulcans: United States. 20mm self-propelled anti-aircraft system  
30 M167 Vulcans: United States. Towed 20mm anti-aircraft system  
30 Oerlikon GDF: Switzerland. 2 x 35mm AA system.  
Type 85: USSR; China. 23mm AA autocannon  
Bofors 40mm: Sweden. 40mm autocannon, L/60 and L/70  
M45 Quadmount: United States. 4 x 50 automatic gun, modernized with new systems, Some are mounted on Unimog trucks and Chevrolet Silverado pickups.



AA missiles

18 SA-8 Gecko: Soviet Union. 200mm self-propelled system  
25 MIM-72 Chaparral United States. mobile missile launch system  
MBDA Mistral: European Union. 90mm MANPADS system, Some are mounted on Unimog trucks .  
Blowpipe: UK. 76mm MANPADS system.  
HN-5A: People's Republic of China. 72mm MANPADS system.  
9K32 Strela-2: Soviet Union. 72mm MANPADS system.  
9K38 Igla : Soviet Union. 72mm MANPADS system.

REPUBLIC OF ECUADOR





# TRIARIUS

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