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# DEFENCE TURKEY



**GENDARMERIE AVIATION  
DEPARTMENT CELEBRATES  
55<sup>TH</sup> ANNIVERSARY**

**JANDARMA HAVACILIK  
BAŞKANLIĞI 55 YAŞINDA**

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**GENDARMERIE AVIATION  
SPECIAL ISSUE**







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**As Gendarmerie Aviation Department,**

**We Stand Unwaveringly by Our**

**Nation and Are Ever Ready to Assist!"**

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Gendarmerie Aviation, which is preparing to celebrate its 55th anniversary, is today an important element of the Gendarmerie General Command. While Gendarmerie Aviation is considered as a separate force multiplier in the calculation of combat effectiveness, on the other hand, with the help of its experience gained within the scope of the Counter-Terrorism Operations (CTO), it plays a crucial role in the recovery process in the aftermath of natural disasters such as wildfires, earthquakes, and floods.

Established in Diyarbakır in 1968 under the name of the "Light Helicopter Company" for unit transportation, public security, reconnaissance and surveillance, and the evacuation of patients and wounded, the Gendarmerie Aviation Department has conducted over 500,000 flight hours to date and holds a prominent place within the Gendarmerie General Command. In this regard, we conducted a comprehensive interview with Major General Ali DOĞAN, Chief of the Gendarmerie Aviation Department, to get first-hand up-to-date information about its primary roles, missions, vision, ongoing modernization efforts, views on UAVs, its place in the Gendarmerie Units around the world, as well as its performance and contributions following the Kahramanmaraş earthquakes. The interview was held on July 31, 2023, at the Gendarmerie Aviation Command Headquarters located at the Martyr General Eşref BİTLİS Barracks in Güvercinlik, Ankara. This exclusive interview sheds light on the current status and achievements of Gendarmerie Aviation.



**Defence Turkey: While Gendarmerie Aviation is an important element of the Gendarmerie General Command, it is also considered as a separate force multiplier in the calculation of combat effectiveness. What can you say about the role, duties, and vision of the Gendarmerie Aviation Department within the Gendarmerie General Command?**

**Major General Ali DOĞAN:** First and foremost, I would like to express my heartfelt gratitude for collaborating with us on this project. It is indeed a distinct pleasure for us to present ourselves to the Turkish nation through this special issue on the 55th anniversary of the Gendarmerie Aviation

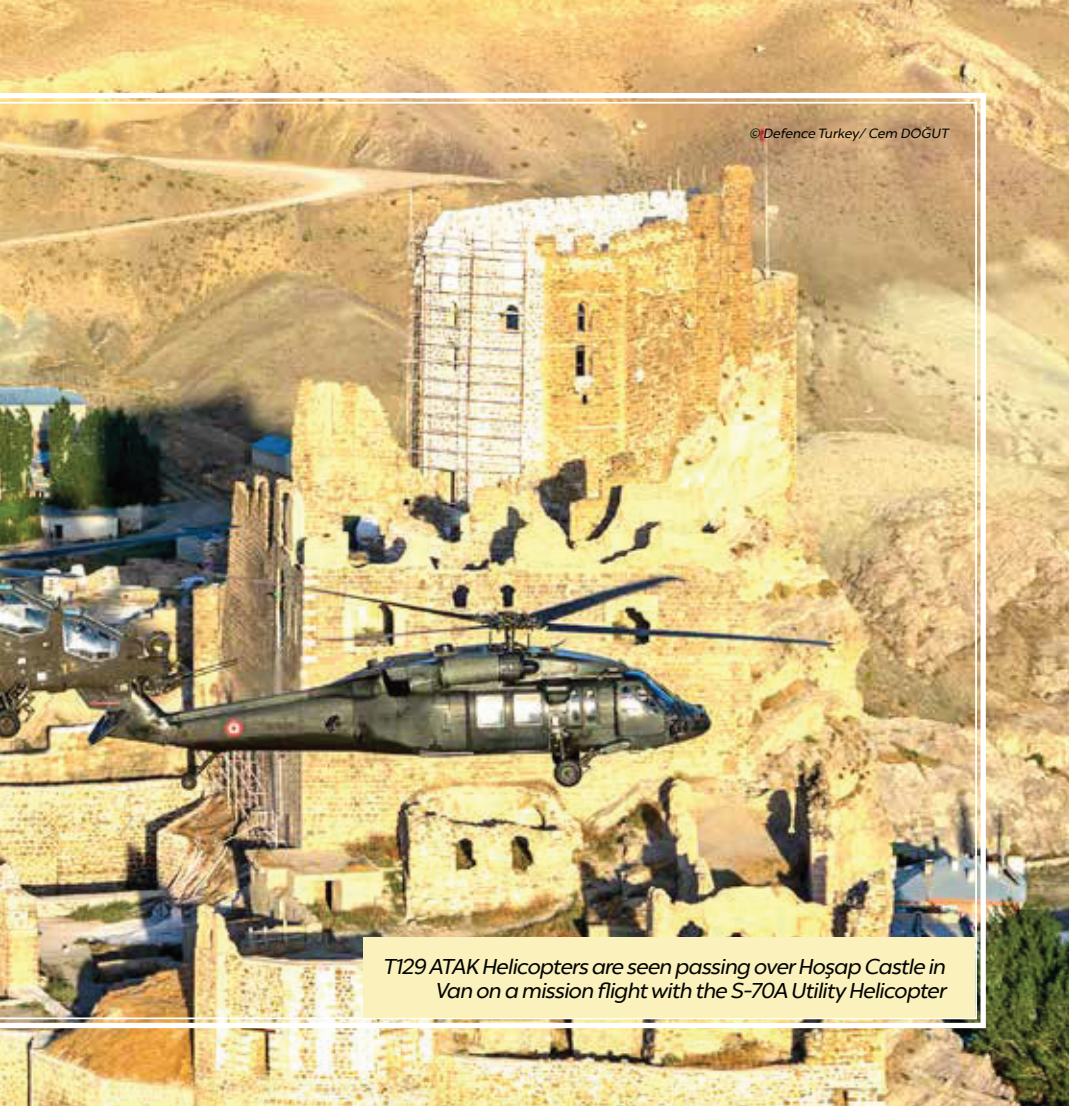
Department, as well as to be featured in Defence Turkey, a national aerospace and defence magazine. We also extend our gratitude to you for granting us this opportunity.

The primary mission of the Gendarmerie Aviation is to provide aviation support necessary for the execution of law enforcement and security services entrusted to the Gendarmerie General Command by legislation. The uninterrupted continuation of the tasks of the Aviation Department Units and their ability to perform their duties in all weather conditions hold paramount importance. Our Gendarmerie Aviation units, with their full complement of aircraft and personnel, are an integral part of the

Gendarmerie General Command. They provide aerial support to all units of our Gendarmerie as needed, in locations and times required, for counter-terrorism operations, disaster relief efforts, as well as public safety and security duties. While staying abreast of all technological advancements worldwide, our department aims to enhance Gendarmerie's aviation capacity by further modernizing it. This includes acquiring new aircraft, training aviation personnel, effectively upgrading and equipping existing aircraft, and staying up to date with the most efficient equipment.

**Defence Turkey: Which aircraft and systems does the Gendarmerie Aviation**





*T129 ATAK Helicopters are seen passing over Hoşap Castle in Van on a mission flight with the S-70A Utility Helicopter*

**Department, which assumes significant roles in national security and defence, currently operate in its inventory? Can we also get your opinions on the aircraft that are planned to be procured in the upcoming period?**

**Major General Ali DOĞAN:** Efforts are ongoing to ensure the effective continuity of aerial support in all tasks executed by the Gendarmerie General Command.

a) To primarily support aerial traffic enforcement tasks of the Gendarmerie General Command, three gyrocopters have been added to our inventory. With common features with aircraft and helicopters, these ultra-light aerial

vehicles can take off and land on short runways and carry payloads of up to 250 kg. Notably, the gyrocopters are exclusively operated by the Gendarmerie General Command.

b) To fulfill the requirement for a medium transport/utility helicopter with low maintenance/operating costs, high maneuverability, carrying capacity, secure communication, and high-precision navigation systems, T-70 Helicopters have been produced and assembled at the TUSAŞ facilities. The initial delivery of these helicopters has been made to the Gendarmerie General Command.

c) To provide day and night air support capabilities during the Counter-

Terrorism Operations of the Gendarmerie General Command, such as close air support (CAS), armed reconnaissance, aerial assault operations, and protection of SAR (Search & Rescue) helicopters, T129 ATAK Helicopters, produced at TUSAŞ facilities, have been added to our inventory.

d) To address the Gendarmerie General Command's requirement for a light transport/utility helicopter, we aim to contribute to the Indigenous Helicopter Program carried out by TUSAŞ and to include the T625 GÖKBAY Helicopter, the first domestic and national helicopter produced by Türkiye, into the inventory of the Gendarmerie General Command.

e) The Gendarmerie General Command continues its efforts for the procurement of the HÜRKUŞ-C Next Generation Light Attack/ Reconnaissance Aircraft to support the domestic and national development of the project, to possess the capability to independently meet the need for close air support provided by the Turkish Air Force, to increase effectiveness in Counter-Terrorism Operations, and to meet the need for a rapid and effective aerial CAS platform.

f) Procurement efforts for the Initial Training Aircraft Project continue to address the increased pilot demand by introducing new aircraft. The project aims to provide initial pilot training for all pilot candidates and standardization, instrument card control, and emergency training for existing aircraft pilots.

**DefenceTurkey: How does Gendarmerie Aviation prepare itself for the battlefield environment of the future in terms of personnel training? Could you inform our readers about the ongoing pilot and technician training programs within this scope?**

**Major General Ali DOĞAN:** Training is one of the most crucial aspects for a pilot, a technician, and all units within the aviation sector. Training a pilot or technician is not merely a course; it's an educational endeavor. Obtaining a pilot's certificate requires a minimum of 52 weeks of training. Both globally and in Türkiye, the shortage of





of the first three helicopters produced under the project. It will be a source of great pride for us to fly these helicopters, which are entirely domestically produced.

**Defence Turkey:** Sir, as you mentioned earlier, the Gendarmerie General Command serves 93% of Türkiye's land area and 30% of its population. Hence, the responsibilities of the Gendarmerie Aviation are extensive, and consequently, there is a need for numerous aerial vehicles. In recent months, a small rotary-wing Gyrocopter with Gendarmerie colors was seen in Ankara's skies, bringing public attention to the newly acquired

**Gyrocopters. Subsequently, they were exhibited at Teknofest Istanbul and IDEF '23 Fairs at the Gendarmerie Aviation booth. Compared to larger platforms, these aircraft have significantly lower acquisition, flight, and maintenance costs. What are the fundamental factors underlying the decision to procure these Gyrocopters, and what can you share about their usage concept within the Gendarmerie Aviation and your experience and impressions on Gyrocopters since their introduction?**

**Major General Ali DOĞAN:** Let me put it this way: In late 1988, S-70 Helicopters were delivered to the Gendarmerie General

Command for the first time in Türkiye. Until that date, counter-terrorism efforts in Eastern and Southeastern Anatolia were carried out using AB-205/UH-1H Helicopters, which had been in service since the 1974 Cyprus Peace Operation. In 1994, Mi-17 Helicopters were added to our inventory. The aircraft in our inventory were primarily used for counter-terrorism operations regarding flight hours. However, particularly over the last 6-7 years, due to events like floods in Sinop, Bartın, Rize, and Düzce provinces, as well as wildfires in various regions of the country, including Antalya province, we accelerated the acquisition of new equipment for our aircraft to enhance our effectiveness in

disaster response. In 2017, we initiated a project to equip our helicopters with new capabilities, with the goal of increasing our effectiveness in natural disaster response. We focused on acquiring rescue hoists for our aircraft and aimed to equip most of our helicopters with hoists, an indispensable tool and a crucial component of search and rescue operations. Today, in the Gendarmerie Aviation inventory, we have 6 Sikorsky and 5 Mi-17 Helicopters equipped with rescue hoists. We went from having zero systems of this kind to having 11 systems in our inventory. This August, we will procure 3 more hoist systems. The GÖKBAY Helicopters we will acquire will also be equipped with hoist systems. Another



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important payload is the EO/IR camera systems. If you are conducting a search and rescue operation, whether it's related to natural disasters, personnel rescue, mountain climbers lost in mountainous areas, or citizens lost in rural regions, you must utilize helicopters equipped with EO/IR cameras (FLIR) for these operations. Thermal cameras are used for search and rescue operations during both day and night flights.

At the same time, for the past four years, we have been conducting aerial traffic control operations. When we examined the 13 different tasks that the Gendarmerie's helicopters were capable of, we embarked on the idea



AutoGyro Cavalon Gyrocopter on traffic control mission

of performing these tasks with a more cost-effective and simpler aircraft. This is because the flight and maintenance costs of S-70 and Mi-17 Helicopters are quite high. These helicopters are large, and the equipment they carry is naturally expensive.

Search and Rescue Operations consist of two main parts: search and rescue. The time you spend during an aerial search can be almost ten times longer than the time you allocate for the rescue phase. For instance, you may spend 10 hours searching from the air, and then it takes only 45 minutes to perform the actual rescue using a helicopter. Therefore, the rescue phase is relatively short. We thought, let's split the search and rescue mission into two parts and start with the aerial search. The search part involves not only searching for accident victims but also searching for drug cultivation areas,

human traffickers engaged in illegal immigration, immigrants themselves, tracking criminals from the air and locating them, providing aerial security for VIPs, and ensuring the security of natural gas and oil pipelines from the air, among many other tasks. We needed a cost-effective aerial vehicle capable of performing these tasks and transmitting images from the air. We examined every flying vehicle that could meet these criteria. We discovered a small rotary-winged aircraft, a gyrocopter, which has amassed over 3 million flight hours and is used by more than 3,000 different users worldwide. We started examining the Gyrocopter about 2,5 years ago. This aircraft is used for recreational purposes in Türkiye and many parts of the world. We engaged with the representatives of this aircraft in Türkiye. After concluding our investigations, we procured

these aircraft in February 2023. Initially, we acquired three aircraft and examined them. Before this, we conducted field studies with different vehicles but hadn't actively flown them. We trained Gyrocopter pilots from our existing fixed-wing and helicopter pilots using these three aircraft. Currently, we have over 16 Gyrocopter pilots and more than 28 Gyrocopter technicians. Our adaptation training is completed, and I proudly announce that we opened our first Adaptation Course at the Gendarmerie Aviation School and trained 6 pilots. We conducted our first traffic flights during the Eid al-Adha holiday in June this year. Since that day, we have also begun operations in the areas I mentioned earlier. The Gyrocopter was designed according to our specifications. The manufacturer outfitted the platform with various equipment according to our requests. Riot control is one of our important





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mission areas. In this context, we installed a high-decibel megaphone on the aircraft. Flying at an altitude of approximately 500 meters, people on the ground can easily hear your voice. Additionally, we added sirens with different tones. This also exerts pressure on people on the ground and draws attention. The aircraft has autopilot and navigation systems. So far, we have completed over 1,000 hours of flight with the Gyrocopter.

The cost of acquiring this aircraft is nearly 1/200th of the cost of acquiring a helicopter. The hourly flight cost is also around 1/200th of that of a helicopter. Therefore, it's very cost-effective. Responding to the "how" question can be a bit unclear in people's minds because they may not know the upper limit. While the hourly flight cost of a helicopter averages between US\$3,500 and

US\$4,000, the Gyrocopter's cost is around US\$35. A helicopter can stay in the air for a maximum of 2,5 hours, whereas this aircraft can remain airborne for 4 to 6 hours, depending on the weather conditions. This is significant to us because endurance (flight duration) is one of the most important advantages of an aircraft. Additionally, we fly with a single pilot along with a Payload Operator, also known as a Camera Operator, or depending on the nature of the mission, these personnel can change. Helicopters must be flown with two certified pilots, whereas a Gyrocopter requires only one pilot. Thus, you can fly two different Gyrocopters with two pilots. In this regard, there are many advantages. It can easily ascend up to 12,000 feet. It has an average cruising speed of 80 knots, and its wind resistance limits are

quite high. This is the biggest advantage compared to UAVs. It can take off in crosswinds of up to 25 knots and headwinds of up to 40 knots. UH-1H Helicopters can't take off under these conditions, but the Gyrocopter can. Currently, all three of our Gyrocopters are flying actively. We plan to acquire an additional 5 Gyrocopters within this year. This will bring our total Gyrocopter count to 8. We will also consider optional additional purchases. It only takes 10 hours for airplane pilots and 15 hours for helicopter pilots to become certified Gyrocopter pilots. They already have a pilot background. To fly a Gyrocopter, you obtain an Ultralight Pilot License. The ability to transport the Gyrocopter by road to the desired location independently of weather conditions is also a significant aspect.

**Defence Turkey: Could you elaborate on your goals and expectations for the future of Turkish Gendarmerie Aviation? You have closely followed technological advancements in this process that began with the Gyrocopter and have invested considerable effort in acquiring new capabilities. With various types and models of manned and unmanned fixed-wing and rotary-wing aircraft currently in the inventory of Turkish Gendarmerie Aviation, is there a need for new types of aerial vehicles in the upcoming period? Do you plan to establish new fleets in different regions of the country alongside these new acquisitions?**

**Major General Ali DOĞAN:** The primary mission of Gendarmerie Aviation has historically been focused on counter-terrorism efforts and ensuring public safety



done. The first three will be heavier compared to the rest, and the subsequent ones will be lighter.

**Senior Colonel Arif HAKERLER:** There will be a weight difference of about 250 kg between them. Therefore, the first three will be designated T625J, and the rest will be T625. The lifting capacity of the subsequent helicopters will be slightly higher. We also provide significant support for the T-70, especially in the recent certification processes.

**Defence Turkey: As part of the Gyrocopter Procurement Project, a contract was signed between the Defense Industry Agency (SSB) and Sky Olympos Company on August 9, 2022. Three Cavalon Sentinel Gyrocopters from the German company AutoGyro were delivered in a ceremony on January 31, 2023. Could you tell us more about the Gyrocopter Procurement Project? Is there any consideration for additional acquisitions?**



İbrahim SÜNNETÇİ & Gendarmerie Pilot Senior Colonel Arif HAKERLER

**Senior Colonel Arif HAKERLER:** Primarily, in line with the orders and directives of our esteemed Minister of Interior and the Commander of the Gendarmerie General, traffic surveillance flights were initiated four years ago. These operations, which accumulate up to 500 flight hours annually, are conducted using helicopters such as the S-70 and Mi-17. Given the limited number of aircraft and the priority use of these helicopters in other missions and flight costs, the Aviation Department started to explore alternative solutions.

As a result of the efforts of our R&D Department, we became acquainted with Gyrocopters, which are more commonly used in recreational flying. Using rotating blades for lift and a rear-mounted piston-powered gasoline engine for propulsion, we decided that Gyrocopters could fulfill this role. We quickly integrated this system into our inventory, not only incorporating the electro-optical capabilities that a few of our helicopters possess but also enabling the transmission of these images to our personnel on the ground.

Subsequently, by coordinating with our units, we explored other potential areas of utilization. We expanded the inventory of Gyrocopters by adding tasks such as public safety, search and rescue, reconnaissance, surveillance, border security, wildfire monitoring, and illicit crop monitoring.

With many more projects, we remain committed to enhancing our operational effectiveness with the approach I mentioned earlier.

Defence Turkey: Thank you for sparing your time for our readers ■



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## “The Project to Equip the Mi-17 Helicopters with NVG Flight Capability Is Expected to Save Approximately US\$7.5 Million”

We present our comprehensive interview with Gendarmerie Pilot Colonel Ruhi YÜKSEL, the Commander of the Support Group at the Gendarmerie Aviation Department, discussing the maintenance and repair capabilities of the Gendarmerie Aviation Department, ongoing maintenance activities for the existing aircraft in the inventory, and on the Çelik Kanatlar Hangar (of which an official inauguration ceremony was held on March 31, 2022 helicopter aerobatic team), Turkey's largest reinforced concrete hangar that can hold 18 aircraft at the same time.

**Defence Turkey: Can we begin our interview by getting information about the organizational structure of the Support Group Command and the services it provides to the units of the Gendarmerie Aviation Department?**

**Colonel Ruhi YÜKSEL:** Within the structure of the Support Group Command, there are the Group Headquarters, Maintenance Command, Depot Command, and Support Battalion Command. The Support Group Command is responsible for the aircraft maintenance, spare parts procurement, and logistical activities of the Gendarmerie Aviation Department. Additionally, the service and guard platoons under the Support Companies carry out the management and guard duties of all buildings and facilities under the department.

Furthermore, the Support Group Command is responsible for managing significant procurement and supply activities that need to be coordinated from the headquarters for the units stationed in different provinces under the Gendarmerie Aviation Department. The large-scale material and spare parts storage activities required by the Depot Command are also carried out by the Support Group Command. All financial transactions related to these procurement and supply activities are also handled by our group command.

The education and training activities carried out by the Gendarmerie Aviation School Command include the daily and phased maintenance of the AB-205 (UH-1) Helicopters, which serve as the basic training helicopters for pilots and technicians. These maintenance tasks are conducted by the Maintenance





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Command to ensure uninterrupted flight training for pilots and technicians, along with the provision of classrooms and training materials. Additionally, technician assignments for flight execution, accompanied by flight instructors, are managed by the Support Group Command. As of today, maintenance activities are conducted to keep up seven helicopters flight-ready on a daily basis. Pre-planned training flights are scheduled to depart at 09:00 in the morning, with the return typically around 11:45. If no malfunctions occur during or after the flight, the helicopter is refueled and positioned in the helicopter parking area, ready for the next flight. In the event of any malfunction or issue identified by the pilots during the flight or by technicians during



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post-flight checks, the relevant maintenance team promptly intervenes, regardless of working hours, to swiftly diagnose and rectify the issue. Once the problem is resolved, the helicopter is prepared for flight again. In the afternoon, flights resume around 13:30, and after the pilots shut down the engines around 16:30, end-of-day maintenance and checks are performed by technicians, as authorized. If any malfunctions are identified, they are addressed promptly, and the helicopters are positioned in the park hangar, ready

for the next flight, without delay or adherence to standard working hours.

The critical point here is the uninterrupted execution of maintenance. In other words, the concept of working hours does not apply. If necessary, maintenance activities can continue through the night until morning because it is of utmost importance that these helicopters are operational for the next day. This continuity ensures both the integrity of training courses and the seamless completion of training activities as planned.

What I am describing refers to daily flight and maintenance activities. Additionally, there are cases where significant malfunctions occur that cannot be rectified quickly or require higher-level maintenance authorization. In such instances, the relevant aircraft is taken to the Central Maintenance Hangar, where specialized technicians with expertise in the field intervene. After necessary interventions, once the aircraft is ready for flight, the maintenance officer presents it to the instructor and student pilots after a proficiency flight conducted by pilots.



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Mi-17 Helicopter and B-350 MAISR Aircraft in Maintenance and Repair Hangar



The fuel tanker is waiting to refuel the AB-205 Helicopter

All these maintenance activities are carried out with great dedication and strict adherence to maximum safety protocols. Otherwise, the slightest negligence or failure to comply with safety rules could result in significant material and human losses.

While our main principle is zero error and maximum safety, we also have a fire brigade team capable of responding to accidents and fires that could occur within our unit or neighboring units. Additionally, we have a rescue vehicle and personnel within the Support Group Command to handle potential accidents, ensuring prompt response and casualty recovery activities in case of accidents or emergencies, all while maintaining the highest level of safety standards.

Our fire brigade team responds to fires that could occur in neighboring units or within administrative boundaries. Comprised of professional firefighters and expert enlisted personnel, our fire brigade operates on a shift basis, providing 24-hour coverage.

The maintenance and sustainment activities for our newly acquired Gyrocopters are carried out by our own technicians. Additionally, since Gyrocopters operate on regular gasoline and our existing tankers cannot be used for refueling due to incompatibility, we have efficiently addressed this challenge by procuring two fuel tankers, each with a capacity of 1,000 liters. This self-reliant solution has proven to be the most cost-effective way to address the refueling issue. The

use of regular gasoline for Gyrocopters significantly reduces flight costs, making operational expenses incredibly economical. While the hourly flight cost for a helicopter is approximately US\$3,000, for a Gyrocopter, this cost reduces to around US\$35.

As a result of these economic advantages, Gyrocopters have been actively employed in aerial traffic control and law enforcement tasks and are expected to be utilized for many years to come. Currently, our inventory includes 3 Gyrocopters, which have collectively accumulated 750 flight hours, with 200 hours dedicated to traffic and road control flights. Throughout this period, the Gendarmerie Aviation Maintenance Personnel have performed 6 maintenance checks,

each lasting 100 hours, on the Gyrocopters. The cost of each maintenance check is estimated at 300 Euros. Two Gyrocopters are stationed at the Ankara Gendarmerie Aviation Group, while one is assigned to the Aydın Gendarmerie Fleet Command.

**Defence Turkey:** Could you inform us about the total flight hours of the King Air B-350 Gendarmerie MAISR (Manned Airborne, Intelligence, Surveillance and Reconnaissance) Aircraft, Citation C680 Sovereign, and Gyrocopter aircraft in the inventory of the Gendarmerie Aviation Department, as well as the maintenance activities conducted on these aircraft?

**Colonel Ruhi YÜKSEL:** Until 2016, there were no fixed-wing aircraft in the Gendarmerie Aviation Department's inventory. The first three King Air B-350 turboprop aircraft joined the ranks of the aviation department in 2016. Initially procured through service contracts, these aircraft were employed to meet the aerial reconnaissance and surveillance needs of the Gendarmerie General Command. After the initial 3-year service contract, the aircraft were officially integrated into the Gendarmerie General Command's inventory. Until then, the aviation department did not even have a single aircraft technician. However, with the commencement of the second service contract signed with TUSAŞ, technician training became a crucial aspect. Immediate technician training began, and over the course of the ongoing



Gyrocopter with tail number J-103 taxis on the runway, while an S-70i Utility Helicopter is approaching for landing