

# AIR-TO-AIR WITH THE HUNGARIAN GRIPENS OF THE 59<sup>TH</sup> TFW «PUMAS»

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## MH59. Szentgyörgyi Dezső Repülőbázis, Kecskemét

The Hungarian air base Kecskemét AB currently is the home to the Hungarian Air Force's 59th Tactical Fighter Wing, consisting of three squadrons. The first is 1. Harcászati Repülőszázad (1st Tactical Fighter Squadron) which are flying the JAS39C and JAS39D *Gripens*. The second is Dongó Harcászati Kiképző Repülőszázad (Tactical Fighter Training Squadron), responsible for the initial tactical training for new *Gripen* pilots. The third squadron is 3. Szállító

Repülő Század (3rd Air Transport Squadron) and they are flying the A-319s and Falcon 7Xs.

In 2001, the Hungarian Air Force started the negotiations with the Swedish company SAAB for the leasing of twelve single-seat JAS39C and two dual-seat JAS39D *Gripens* to replace the aging Russian-made MiG-29 *Fulcrums*. The first delivery of the JAS39 *Gripen* was in 2006. The lease contract was for ten years and in 2016, extended for another ten years, until 2026.

At the end of 2016, the Hungarian Government launched the ambitious "Zrinyi 2026" modernization program and since then, much has changed within the Hungarian Air Force. Two A319s and two Falcon 7Xs were bought. At the beginning of 2018, the A319s and in August the first Falcon 7X were delivered. The second Falcon 7x followed in April 2019.

### 1. Harcászati Repülőszázad

The nickname of this squadron is *Puma*, currently operating twelve single-seat JAS39C and two dual-

seat JAS39D *Gripens*. In total, the squadron has 20 Gripen pilots. They fly about 100 hours a year in the aircraft itself and about 30 hours in the simulator. In the simulator, emergencies and new phases of tactical training are being practiced.

Since 2013, the Squadron commander is Lieutenant Colonel Sandor Kallo. After high school, he went to the military school followed by the military academy from 1993 until 1997. In 2002, after training on the L-39 *Albatros* he took part in the NATO Flying Training in Canada (NFTC) for Phase 3 and Phase 4 fighter

One of a total of twelve JAS39C single-seat fighter jets the Hungarian Air Force has leased until 2026.





training on the Hawk. After this, he flew the MiG-29 *Fulcrum* fighter aircraft. In 2007, he went to Sweden to qualify as a JAS39 *Gripen* pilot. In total, he flew 50 hours on the MiG-29 *Fulcrum* and about 1,000 hours on the JAS39 *Gripen*.

Dongó Harcászati Kiképző Repülőszázad

After the basic military training, which lasts two years, the basic flying training starts on the Zlin 143

and Zlin 242 training aircraft. Then, the student goes to the NFTC where they start flying in the Harvard II. After passing this, they fly the Hawk. The transition to the JAS39 *Gripen* and this training is in Satenas, Sweden. There, they learn basic aircraft handling. When they pass this training, they go back to Hungary to resume their operational training. During this training, they learn how to fly low level and provide Close Air Support (CAS) and get their Quick

Reaction Alert (QRA) qualification. This training also lasts around one year. During this training, the pilots are checked many times whether they are fit enough and also whether their medical status allows them to fly fighter aircraft.

For training at Kecskemét, there is only one simulator. If the *Gripens* are upgraded, then first, the simulator will be upgraded before the aircraft will receive this upgrade. For the tactical training, the pilots go to

Sweden because there are eight connected simulators available what makes it much easier to train tactical scenarios. The Hungarian pilots also train in Sweden with live ammunition for the guns and missiles during live firing exercises.

3. Szállító Repülő Század

The nickname of this squadron is *Camel*, currently operating two A319s and two Falcon 7Xs. The

- 1 Flight line at Kecskemét AB with five JAS39C *Gripen* single-seaters and one JAS39D *Gripen* two-seaters. **Photo István Kelecsényi**
- 2 JAS39C with an external fuel tank attached to the centerline pylon.
- 3 This photo was taken on 21 March 2006 when the first *Gripens* (three JAS39C and two JAS39D) arrived at Kecskemét AB. **Photo István Kelecsényi**





Falcon 7X



Airbus A319 Photo István Kelecsényi

squadron has two female pilots, one on the A319 and one on the Falcon 7X. The main tasks of this squadron are passenger transport and VIP flights. The Falcon 7X is used mainly for VIP flights and support flights, the larger A319 is used for troop transport and if necessary, for support and VIP flights.

#### Maintenance

The JAS39 *Gripen* aircraft are overhauled every 50 and 200 flight hours. This maintenance is done at Kecskemét AB. Major maintenance, which is done every 800 hours, is carried out by SAAB in Sweden. Also, the technicians receive their training in Sweden. Minor maintenance on the A319s and Falcon 7Xs is also done at Kecskemét AB. The two Falcon 7x are sent to the Dassault Maintenance Center located in Le Bourget, France every 12 months for necessary aircraft inspections and major maintenance.

#### Quick Reaction Alert (QRA)

The Hungarian Air Force has 365 days a year 24 hours a day JAS39 *Gripens* on QRA stand-by. This QRA stand-by is not only for Hungary itself but also for Slovenia and periodically the Baltic States (Estonia, Latvia, and Lithuania). When an airplane has communication problems or there is no flight plan filed, the QRA is scrambled to intercept the airplane

and to communicate with the pilot of the aircraft to see if everything is alright. If not, they force the plane to land. In 2022, the Hungarian Air Force will send four JAS39 *Gripens* to Siauliai, Lithuania for air policing tasks above the Baltic states. This deployment will last four months. In 2019, the Hungarian Air Force already deployed fighter jets to the Baltic States for air policing tasks. They were scrambled many times and came up close to Russian fighters, transport, and VIP flights like Su-24, Su-27, Su-30, Il-38, Il-22, and Tu-160s. The QRA in the Baltic States is similar to the one in Hungary. In the Baltic States, the pilots wear dry suits. In case of an emergency and when the pilot is in the water, these dry suits make it possible for the pilots to survive in the cold water for two hours.

#### Future

Under the "Zrinyi 2026" modernization program, also two Embraer multi-mission KC-390s with air-to-air refueling (AAR) capability were bought in November 2020. Those aircraft should be delivered to the Camel squadron in 2023. Another part of this modernization program is to buy training aircraft. Candidates are the Aero L-39NG and Embraer Super Tucano. There is a need for more transport and VIP aircraft but it is currently unclear whether the Hungarian Air Force will invest in this.

The JAS39 *Gripens* are currently being upgraded and

are leased until 2026. With the upcoming end-date of the lease contract, the HuAF has chosen to update thirteen JAS39s instead of leasing new-build JAS39E Next Generation *Gripens*.

Except for one dual *Gripen*, Hungary will upgrade twelve JAS39C and one JAS39D to the newest MS20 Block 2 standard, which is also the most recent version of the *Gripen* C and D variants used by the Flygvapnet (Swedish Air Force). One of the dual-seat *Gripens*, serial 44, is ex Swedish AF and is already MS20 Block 2 standard. This fighter was delivered on 1 July 2016 as a replacement for the one that crashed.

The MS20 Block 2 upgrade significantly improves the aircraft's combat and communication capabilities by boosting Link 16 (NATO Data Link) functionality and updating voice communication to the most recent NATO secure communication standard. It also offers a wide variety of weapons that can be installed on the aircraft, including GBU-49 air-to-ground laser-guided bombs, IRIS-T infrared within visual range (WVR) air-to-air missile, and Meteor long-range radar-guided BVRAAM that outperforms other missiles. The radar will be updated to the PS-05/A Mk 4 that improves sensor capability, extending the air-to-air target tracking range and performance. The latest Identification Friend or Foe (IFF) NATO Mode 5 will also improve the identification of coalition aircraft.

Hungarian Defence Force Inspector Major General

Nandor Kilian stated: "Thanks to the modernization of the *Gripen* aircraft, the operational capabilities of the Hungarian Air Force will be significantly increased. Our staff has appreciated close and fruitful cooperation with the Swedish side on this specific modernization project as well as the cooperation during the fifteen years that we have operated *Gripen* aircraft".

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