

Tamás MÓGOR  
[tamas.mogor@hm.gov.hu](mailto:tamas.mogor@hm.gov.hu)

## THE DEVELOPMENT OF JTAC CAPABILITIES OF THE HUNGARIAN DEFENCE FORCES

### Abstract

*Since 2000, Hungary has achieved a number of capability milestones in Close Air Support (CAS). From initial tasks, performed by combat helicopters, under the direction of designated helicopter aircrew with experience of air -to-ground weaponry employment, to accomplishing CAS missions supported by JAS -39 EBS HU aircraft. From the 8th to 12th of December, members of the Joint Terminal Attack Control/Forward Air Control (JTAC/FAC) Unit at 86th Szolnok Helicopter Base, supplemented with controllers of Special Operations Battalion, successfully performed the actual Program review with accreditation performed by evaluators of United States Joint Staff and NATO AIRCOM. Accreditation sites were Budapest, Szolnok and Kecskemét.*

*Magyarország 2000 óta jelentős eredményeket ért el a közvetlen légi támogatási képesség kiépítésében. A kezdeti, harci helikopterekkel – levegő-föld fegyverzetalkalmazásban jártas kijelölt helikoptervezetők irányítása mellett – végrehajtott feladatoktól eljutottunk a JAS-39 EBS HU repülőgépekkel támogatott CAS feladatokig. Az MH 86. Szolnok Helikopter Bázison (MH 86. SZHB) lévő Előretolt Repülésirányító Csoport (ERICs) – kiegészülve az MH 34. Bercsényi László Különleges Műveleti Zászlóalj (MH 34. BLKMZ) katonáival – 2014. december 8 – 12 között sikeresen teljesítette az újabb Program felmérést, akkreditációt, melyet az Egyesült Államok Összhaderőnemi Parancsnokságának és a NATO Légierő Parancsnokságának az ellenőrei hajtottak végre. Az akkreditáció helyszínei Budapest, Szolnok és Kecskemét voltak.*

**Keywords:** Close Air Support (CAS), JTAC, FAC, Hungarian Air Force ~ közvetlen légi támogatás, JTAC, ERICs, Magyar Légierő

## INTRODUCTION

One of the responsibilities of the Hungarian Air Force is to provide aerial operations against ground forces and one specific mission set is Close Air Support (CAS). CAS is air action by fixed or rotary winged aircraft against hostile targets that are close to friendly forces, and which requires detailed integration of each air mission with fire and movement of these forces. Close Air Support must be integrated with the fire and maneuvers of supported forces. Execution requires joint force planning, continuous coordination and the control of the supporting aircraft. Joint planning and synchronized usage is done by the Air Operations Control Centre (AOCC), Air Liaison Officers (ALO), the Tactical Air Control Party (TACP), Joint Terminal Attack Controllers (JTACs) and Forward Air Controllers (FACs).

In light of the above the Hungarian JTAC/FAC Program was re-assessed and reviewed in Hungary between 08th and 12th of December 2014. The survey, assessment – was carried out a second time by a combined standardization team – examined the compliance of Hungarian procedures to US and NATO requirements. JFS ESC and FCS designated inspectors had to examine the compatibility of two basic documents – the Joint Force Close Air Support Memorandum of Agreement (JCAS MOA, hereinafter referred to as MOA) and Forward Attack Control NATO Doctrine (along with the existing NATO Standardization Agreement (NATO STANAG 3797 Ed. 6, hereinafter referred to as STANAG) – and Hungarian Joint Fire Support Program (hereinafter referred to as Program).

This was not the first time that the inspectors had visited Hungary. They visited us with various groups between 2008 and 2014 and, in accordance with the steps required by the MOA and STANAG, they assessed the status of the Program. In addition to such briefings, training events were also held which contributed to the creation and maintenance of a high level of Hungarian JTAC/FAC capability.

This article is very timely because in many ongoing operations around the world, Joint Terminal Attack Controllers/Forward Air Controllers are used during the execution of joint fire support to increase the efficiency of air-to-ground strikes. This tendency, in light of the events of earlier wars, will most likely be observed even more in future operations. Finally, it is anticipated that the new Program assessment/accreditation will be accomplished in 2017 which my study, incorporating the lessons learned of the past events, aims to assist.

## DOCTRINAL BACKGROUND, EVALUATION CRITERIAS

Before starting the program accreditation process, the following conditions must be met for the asking nation:

- With accession to the MOA and with inclusion the ATP 3.3.2.2 / STANAG the partner country accepts the basic requirements set out in the documents;
- Programme sustainability has to be corroborated with treaties, bilateral or multilateral agreements;
- The accreditation must be formally requested from the JFS ESC and from the Commander Allied Air Command (COM AIRCOM) Ramstein;
- The partner country has to have a regulation or handbook that describes the JTAC/FAC concept, sets out the various tasks, all of the requirements and the documentation necessary for the training;
- The partner country must have either her own accredited schoolhouse, or her designated JTAC/FAC had to pass a theoretical course of an accredited schoolhouse and had to obtain a qualified rating.

The standardization and continuous quality assessment offers the clients (MOA/STANAG members) and the capability providers (schools, training centers, military organizations) clear, coherent and continuous guidance. The level of training can be enhanced through exchange programs which envisage the exchange of capable, experienced instructors between schoolhouses. This has the added benefits of increasing transparency of the programs and creating competition.

The collaboration enhances the continuous development and clarification of basic doctrines, procedures, tactical tricks, and the intent of unification results, that the JTACs/FACs achieve a minimum level of training.

Based on the above the following areas will be assessed during the accreditation:

- Doctrinal, administrative, training, personnel background necessary for the Program, which consists of:
  - Training of instructors and candidates;
  - Manning and quality of JTAC/FAC positions;
  - Status of infrastructure;
- Quality support background;
- Training and simulation aids;
- Shootings, accomplished with real weapon systems, training events;
- Equipment;
- Compliance with safety regulations;
- Cooperation, training with CAS aircraft and helicopters;
- Application of new methods in JTAC/FAC training;
- Raising new issues that are important for the JTAC/FAC community.

The MOA also defines the factors and findings which could occur during Program accreditation and result in the inspectors not recommending accreditation of the Program. Suspension of the Program could be recommended if:

- The requesting country does not have trained JTAC/FAC instructors;
- The applied standards are not written in the relevant doctrines;
- The JTAC/FAC staff did not meet the minimum training requirements;
- During accreditation serious safety malpractice has been committed;
- JTAC/FAC staff are not able to show their participation on compulsory education and training events.

## **IN 2014 THE COMBINED ACCREDITATION TEAM MADE THE FOLLOWING ASSESSMENT**

### **Administration**

JTAC Program Regulation: The Hungarian national regulation provides clear guidance on JTAC training, certification, and qualification. It has been appropriately staffed and approved by their Ministry of Defense.

JTAC Training Process Phases:

- Phase I - Personnel Selection: Proper background, English knowledge and Pre-courses.
- Phase II - Initial Training: Academic/Simulation - USAFE AGOS; Practical, Live and Dry training - in Hungary.

- Phase III - Sustainment Training: Includes Spring and Fall continuation training (4 weeks), international exercises and training events.

JTAC Instructor Training Program: The Program is modelled after the USAF JTAC Instructor Training Program and meets MOA and NATO requirements.

JTAC and JTAC Instructor Evaluation Folder (Training Jackets): Training folder complied with the requirements of the MOA and ATP-3.3.2.2

Manning: Hungary currently maintains four JTAC Instructors and two JTAC Evaluators, which is sufficient to develop additional capability and sustain their current JTAC capability.

JTAC Production: Hungary has a total force requirement of 14 JTACs: Air Force (9), Special Operations Forces (5). Future capability is planned for 18 Air Force and 12 SOF JTACs.

Facilities (Szolnok):

Classroom: Sufficient to accommodate force structure; proximity to CAS capable range are good.

Audio Visual Equipment: Adequate to support a multimedia learning environment.

Billeting: JTACs are billeted in the local area.

Messing: Available.

Academics: Hungarian JTACs attend accredited JTAC/FAC schoolhouses.

Simulation/Training aids: Hungary does not currently have a JTAC/Fires simulator but is planning for a future acquisition. There is currently the ability to utilize the JAS-39 Gripen simulator for video downlink training.

Live events: Fixed wing (JAS-39) supported JT AC training.

Range Facilities: Veszprem and Varpalota are available to conduct the employment of a variety of air-surface and surface-surface weapons necessary to conduct live/dry/day/night integrated fires missions incorporating lasers and IR pointers. Airspace parameters are sufficient to present a variety of CAS profiles to JTACs for efficient training. Currently, laser guided munitions such as GBU-12 is not authorized in Varpalota due to footprint/safety issues.

Sorties (Day/Night): Assets were formally tasked to support the qualification training.

Equipment:

Communication: PRC-117F/G, PRC-152

Laser Target Designator (LTD): GLTD II and III

Infra-Red (IR) Pointer: IZLID 1000P

Night Vision Devices: PVS-14/15

Thermal Imager: See SPOT III (AN/PAS-21)

Laser Range Finder (LRF): VECTOR-21/PLRF-15C

Global Positioning System (GPS): PSN-13 DAGR

Remote Video Receiver: ROVER-V

Digital CAS Equipment: None

Safety: Qualified JTAC Instructors supervised all JTACs during dry terminal attack control.

*According to the observations above, the Combined Standardization Team recommended continued accreditation for the Hungarian JTAC Training program and the program should be reviewed again within the next three years.*

As a result of the observations, the Combined Standardization Team made a recommendation regarding English language proficiency: STANAG 3797 requires "proficiency in the English language to the equivalent of NATO STANAG 6001 Level 3" (chapter I, para 1. 1.2) The JTAC MOA requires JTAC proficiency at Level 3 for listening,

speaking and reading, and Level 2+ for writing. JTAC-Instructors require Level 3 proficiency in all four areas. HUN authorities have to confirm that national C I level corresponds to SLP 3 IAW STANAG 6001 and that all four areas (Listening, Speaking, Reading, Writing) are tested during examination.

There are some issues were identified in the 2012 initial accreditation and are still valid, however there is a planned way ahead to address all JAS-39 issues within the next two years:

- Hungarian JAS-39 aircraft do not use Night Vision Goggles (NVGs), therefore Hungarian JTACs rely on U.S. and other nations to conduct night training with IR Pointers and NVGs. Based on available resources and priorities, the ability to provide NVG capability to JAS-39 has to be investigated;
- Hungarian JAS-39 Litening III targeting pods are not configured to provide video downlink (VDL), therefore Hungarian JTACs rely on U.S. and other nations to conduct VDL training. Based on available resources and priorities, the ability to provide VDL capability to JAS-39 targeting pods has to be investigated;
- Hungarian JAS-39 lacks the less expensive training ordnance (e.g. BDU-33) to conduct CAS training. Having training ordnance will facilitate more controls with weapons be more cost effective, and allow the engagement of targets at closer range. Based on available resources and priorities, the ability to provide training ordnance for JAS-39 has to be investigated.

Prior to the review, Hungarian JTAC Regulation was reviewed and recommendations were made to meet the requirements of NATO STANAG 3797. This included recommending that evaluations and upgrade training be accomplished by dual accredited personnel to ensure that requirement of the MOA and applicable STANAGs are met. The recommendations were added and the updated regulation was signed.

Hungary does not recognize Laser Operator (LO) specialization for personnel to designate targets with a ground Laser Target Designator (LTD). Current ATP 3.3.2.2. requires all personnel utilizing LTDs for target designation to have LO specialization as described in chapter I, para 1.4.c. and chapter 5 of this document. If HUN does not wish to have this specialization, they must make a reservation to ATP and STANAG 3797. It should be noted that the next version of the ATP will eliminate the LO requirement.

To use helicopters for CAS missions HDF has to consider the way ahead to a future attack helicopter capability and – as a temporary workaround – recommend exploring the feasibility of using Mi-8/17s as CAS platforms.

## **SHORT HISTORY OF HDF JTAC CAPABILITY**

In 2000: Training for CAS procedures was started by the HDF 87th Bakony Combat Helicopter Regiment. During the first period, Mi-24 helicopter pilots were assigned to control the actions of aircraft.

In 2006: HUN JTAC Unit was established as a subunit of HDF 86th Szolnok Helicopter Base – under the command of Base Commander. Specialized Forward Air Controller training was held by MI-24 experts of HDF 86th Szolnok Helicopter Base at 2008. The HDF has offered two TACPs as elements of Battalion Combat Teams.

In 2007 – HUN JTAC unit accomplished first basic national JTAC training, and from October 2009 with signing of JCAS MOA became possible to send two JTAC candidates to the US for “top off” training. They were the first Hungarian qualified JTACs.

Due to their qualification since 2009 HUN JTACs/FACs<sup>1</sup> deployed to Afghanistan, and accomplished the following missions in PRTs, OMLTs and ODAs:

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<sup>1</sup> Regular and SOF JTACs/FACs

2009 – 2012 ISAF Provincial Reconstruction Team (Baghlan, Pol-e Khumri), SOF TF-10, Hungarian Special Operations Task Unit (FOB Airborne, Wardak);

2012 – 2014 ISAF Operational Mentor and Liaison Team (Baghlan, Khelagay), ISAF SOF TF-10, Hungarian Special Operations Contingent (FOB Joyce, Kunar and FOB Fenty, Nangarhar);

2013 - ISAF Military Advisor Team (Camp Spann - Marmal) ISAF SOF TF;

2014 - 2015 Resolute Support SOF, Hungarian Special Operations Contingent (Camp Marmal, Mazar E Sharif).

## PERSONNEL AND TRAINING

According to the current organization HUN JTAC Unit consists of 18 personnel: Commander (OF-3), Supply NCO (OR-7) 8 JTACs (OF-2) 4 Signal operators (OR-6), 4 Drivers (OR-4). In order to improve the capability of HUN JTAC Unit the next staffs have been planned for the future: Commander, Deputy Commander, SGT Major, 2 Assistant NCOs, 3 JTAC-I/Es, 4 JTAC/ALOs, 8 JTACs, 4 ROMADs<sup>2</sup> (all together 24 personnel).

The Concept of Training is for JTAC/FAC officers to meet the requirements determined in NATO STANAG/JTAC MOA – HUN JTAC Program.

The following HUN JTAC/FAC training steps were completed:

– 2006 - 2008:

- English language courses (STANAG 6001 Level 3)
- FAC basic training in HU (based on ATP 3.3.2.1 (A))
- Foreign training courses:
  - NLAGOS<sup>3</sup>: Air Ground Operation Orientation Course
  - USAFE AGOS<sup>4</sup>: CAS orientation course in Croatia
  - French - German AGOS: FAC academic training
  - IMET<sup>5</sup>: Infantry officer course, Airborne, Ranger

– 2009 - 2014:

- Foreign training courses:
  - USAFE AGOS: Joint Firepower Course, JTAC Qualification Course
  - USMC EWTGLANT<sup>6</sup>: TACP Course
  - Grayling Air Gunnery Range: Top-off training

Actual Concept of Training:

A. Warrior Preparation Phase

1. Recruit from Military Academy
2. Basic Infantry Officer Course

B. General JTAC Training

1. National JTAC Pre-Course
2. JTAC Certification Process
  - a) JTAC Qualification Course

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<sup>2</sup> Radio Operator, Maintainer And Driver

<sup>3</sup> Netherlands Air-to-Ground Operations School

<sup>4</sup> United States Air-to-Ground Operations School

<sup>5</sup> International Military Education and Training

<sup>6</sup> United States Marine Corps Expeditionary Warfare Training Group, Atlantic

## b) National Certification Training

### 3. Continuation Training

#### C. JTAC-I Upgrade Process

## CONCLUSIONS

The Joint Terminal Attack Control is the single real joint area of warfare, which, with continuous processing of battlefield experiences, is the most dynamic battle impact. Its effects – mainly friendly fires causing war casualties – are the most sensitive issues concerning the media and the public opinion. This is the reason why it is very important that Hungary incorporates lessons learned from real operations to continuously develop the Hungarian JTAC capability to ensure that it remains modern and credible.

In the last 6-8 years the Hungarian air-ground capability has evolved considerably thanks to the commitment and motivation of its personnel, and thanks to the continuous support of staffs level of commands. We have to owe much to the United States Office of Defence Cooperation in Budapest for the procurement, training, exchange of experience and the organization and running of events.

The Hungarian JTAC/FAC ability can only be maintained in the long term with the development of a suitable career model, ensuring the replacement of staff. For the national defence and allied missions necessary to keep at constant level the capabilities of JTAC/FAC personnel, and furthermore – according to combat experience – should be improved.

The JAS-39 has a very capable mission debrief system which provides a complete playback of the entire CAS mission with full cockpit display, audio and targeting pod recording to facilitate debrief of both aircrew and JTACs. This can be demonstrated to the team as a standard practice following CAS missions. The Hungarian Air Force has designated pilots and flying hours from the JAS-39 to aid in JTAC training. Furthermore, the cooperation and integration between the flying squadron and the conventional and SOF JTAC teams is vital.

Hungary still lacks a JTAC simulation system. Simulation could be used to train to rotary and fixed wing CAS procedures as well as providing for additional JTAC proficiency training at any time. Due to the high cost of aircraft and helicopter operations simulators are increasingly being used, which are connected to a network, and those are able to make practice the real mission execution, without actual fuel consumption and involving other resources. These reasons support, that acquisition of an accreditable simulator is essential.

All in all the latest Combined Standardization Team Report on the Hungarian Joint Terminal Attack Controller (JTAC) Program Review highlighted the solid foundations of the Program and emphasized the quality indicators over quantitative indicators.

Hungary has to continue the regional cooperation as well with delegation JTAC-I for SVN National JTAC courses, and would be beneficial to send and receive JTACs during Czech and Hungarian air weeks. In order to reduce the catering, travelling, training and accommodation costs with bartel procedure within CEDC countries (AUT, CZE, CRO, SLO, SVK) is preferable.

With the review of these experiences, and by adopting an innovative and progressive approach, this capability can be accredited next year again, which will also cement good relations between NATO member countries.

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