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Standardization of Qualifications for NATO Helicopter Crews in Support of Land Operations



**Joint Air Power
Competence Centre**

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JOINT AIR POWER COMPETENCE CENTRE

FROM:

The Executive Director of the Joint Air Power Competence Centre (JAPCC)

SUBJECT:

Standardization of Qualifications for NATO Helicopter Crews
in Support of Land Operations

DISTRIBUTION:

All NATO Military and Civilian Structures, NATO Nations and Partnership
Cooperation Menu (PCM) Nations

In 2012 the JAPCC published the white paper 'Enhancing NATO's Operational Helicopter Capabilities'. This study identified several deficiencies and shortcomings and offered solutions to overcome the identified challenges. Some of the shortcomings were addressed by other NATO activities and JAPCC projects; however problems related to standardization of qualifications of helicopter crews are still to be resolved.

The NATO Helicopter Inter Service Working Group (HISWG) was tasked by the Military Committee Land Standardization Board (MCLSB) to develop a standardization document, ATP-90, which can be used to clarify the operational readiness and proficiency of deploying helicopter crews. This white paper will provide the custodian of ATP-90 with documentation that could be used to develop the NATO helicopter qualification standard.

This white paper provides information regarding qualification standardization for NATO crews in support of land operations which could improve interoperability and increase effectiveness of NATO helicopter operations. The use of a NATO qualification standard will enhance NATO commanders' knowledge and understanding of the capabilities of assigned helicopter crews, improve understanding of individual competencies, optimize interoperability and facilitate multinational helicopter force operations.

The final Chapter of this document is JAPCC's recommendation of minimum currency requirements for the different qualifications and competencies. It is important to note that this study is a recommendation and not a governing document.

We welcome your comments on our document or any future issues it identifies. Please feel free to contact my staff via email: contact@japcc.org.

Joachim Wundrak

Lieutenant General, DEU AF
Executive Director, JAPCC

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CHAPTER 1

Introduction

The Joint Air Power Competence Centre (JAPCC) conducted a study in 2012 examining the vertical lift capability of the majority of European NATO member states. The Study¹ identified deficiencies and shortcomings and offered possible solutions to overcome the identified challenges and improve this important capability. The findings of this study have been introduced to a variety of audiences and discussed through several activities. Some of the identified shortcomings and problem areas were addressed by other NATO activities and JAPCC projects (such as the Multinational Air Training Centre, Air Advisor Project², etc.). However, problems related to standardization of qualifications issues across the vertical lift community are still to be resolved.

As a result of a recommendation in the Study, the NATO Helicopter Inter Service Working Group (HISWG) was tasked by the Military Committee Land Standardization

Board (MCLSB) to develop a standardization document³ to specify the current operational readiness level of helicopter crews or units. This document will be referred to as ATP-90, with Germany designated as the custodian. The document will seek to provide NATO commanders in multinational operations or training events with better knowledge on the helicopter force readiness and the skill and proficiency levels they possess. This in turn, will aid them when making operational and tactical decisions.

1.1 Aim

The aim of this document is to provide information regarding qualification standardization for deploying NATO helicopter crews in support of land operations. This document also provides proposed guidance to NATO commanders as to the minimum level of training helicopter crews require prior to deployment for NATO operations. These standard, if implemented, should reduce the time required to develop and maintain an essential rotary wing capability, improve interoperability and increase the effectiveness of combined planning and mission execution.

1.2 Objectives

1.2.1 There are a variety of helicopter crew qualifications across the Alliance and a multitude of helicopter roles and missions. This fact makes it difficult for commanders from NATO helicopter units to select the best qualified crews to execute a mission. Training within NATO is a national responsibility and, as such, is described in national publications and executed in different ways. This fact results in a variety of training procedures being used across the Alliance to attain a specific qualification. The intent of this document is to propose a uniform method of demonstrating and recording the qualifications and proficiency of their helicopter crews so that commanders can make the best possible decision when employing rotary wing assets. This method will:

- Enhance NATO commanders' knowledge and understanding of the capabilities of assigned helicopter crews.
- Improve understanding of individual member state's competencies.
- Improve NATO commanders' ability to integrate available aviation capabilities.
- Optimize interoperability in helicopter operations during NATO-led land operations.
- Facilitate multinational helicopter force operations as opposed to operations conducted separated along national lines.
- Improve flight safety.
- Provide a minimum training requirements baseline for individual member states to use in enhancing their national training.

1.3 Scope

1.3.1 This document is designed to work on two levels: firstly, to provide some basis among NATO nations for the standardization of helicopter crew qualifications. To accomplish this aim, this document will provide reference guidance to national-level staffs, establishing guiding principles for the HQ of a Force Component regarding standardization the qualifications for rotary wing aircrews assigned to land forces. Secondly, the Qualification Matrix at Annex A is designed to provide a tactical-level reference to accompany deploying helicopter units in order to provide the supported Commander with a clear and standardized view of the deploying crews' qualifications, currency, and capabilities. As such, this Matrix is designed to be filled out only when a helicopter crew deployment occurs, not as a routine matter of staff work nor as part of any force planning or generation functions. The scope of this document is generic in nature, as qualification and training are national responsibilities.

1.3.2 Chapter V contains JAPCC's recommendations for minimum currency requirements for various qualifications as well as minimum iterations that should be performed annually during Continuation Training to ensure proficiency. Again, it is important to note that this is a recommendation and not a governing document.

1. JAPCC, 'Enhancing NATO's Operational Helicopter Capabilities', Apr. 2012.

2. JAPCC, 'Improving NATO Support to Future Air Advisor Operations', Apr. 2014.

3. MCLSB, NSA(ARMY)0446(2013)1/HIS Minimum Core Competence Levels and Proficiency of Skills for Helicopter Crew for NATO Land Operations – Allocation of Study Number and Detailed Tasking, Mar. 2013.



CHAPTER 11

Definitions

2.1 Qualification

2.1.1 A crewmember receives a ‘qualification’ after passing an examination or completing an official course during which the individual demonstrated the knowledge, skill and aptitude required to safely and effectively complete the task within their approved national standards. For helicopter crews, multiple qualifications can often be acquired within one specific course or training session. For example during a specific initial mission qualification course, Night Vision Goggles (NVGs), Low Level Flight, Gunnery, and Forward Arming/Refuelling Point (FARP) qualifications could be part of the syllabus and could be acquired upon graduation of this course. Conversely, in another nation, these qualifications could require completing separate mission qualification training programs. For this reason, this document lists crew competencies separately.

2.1.1.1 Not all nations require qualifications for some of the competencies listed in this document and therefore do not have an examination or course listed.

This can be seen through the ‘Not Nationally Required’ (NNR) annotation in the Qualification Matrix (Annex A).

2.2 Currency

An individual is considered ‘Current’ when they have flown a mission within a specified period of time. Since currency requirements vary between nations, this document will accept nationally mandated currencies. In the Qualification Matrix (Annex A), nations should provide a response if their crews are current according to their national regulations.

2.3 Proficiency

2.3.1 A crew member is considered to be ‘proficient’ when he or she, first, is deemed qualified per national guidelines, and second, is current and skilled. It is essential for commanders to know which specific missions assigned helicopter crews are proficient in. The Qualification Matrix of this document aids commanders in obtaining and tracking this information.

2.3.2 Crew and unit qualification. This document is specific to helicopter crews and will not cover unit or roles.

CHAPTER III

Training and Readiness

3.1 Helicopter Flight Training

Across the Alliance, helicopter flight training is normally organized into separate phases. This chapter will describe the different training phases and associated qualifications. The second part of this chapter will describe helicopter combat readiness levels.

3.1.1 Initial Qualification Training (IQT) provides aircrews with the basic training necessary to initially qualify in flying duties of a specific airframe (e.g. UH-1, Mi-17) without regard to accomplishing specific missions. Upon completion of IQT, the aircrew member attains the Basic Aircraft Qualification (BAQ) status. BAQ is a prerequisite for all follow-on training.

Basic Aircraft Qualification (BAQ) is the aircrew status identifier of an individual who has satisfactorily completed IQT and possesses the basic skills necessary to fly the unit aircraft. BAQ crewmembers are normally authorized to fly transition manoeuvres (take-offs, approaches and landings), instruments, supervised EPs and non-tactical missions.

Helicopter Training Progression	
IQT	Basic Aircraft Qualification (BAQ)
MQT	Basic Mission Capable (BMC)
CT	Continuation Training (CT)

3.1.2 Mission Qualification Training (MQT) is the advanced aircrew training necessary to qualify in flying duties that are required to execute the unit's mission. Normally, after aircrew complete BAQ, they will receive MQT before flying tactical missions in the unit. MQT can be comprised of comprehensive training programmes that, when completed, qualify the crewmember in several competencies (e.g. MQT for an air assault unit). MQT can also be a specific qualification course for a single qualification, (e.g.

mountain flying). After completing the unit's required MQT, the crewmember becomes Basic Mission Capable (BMC).

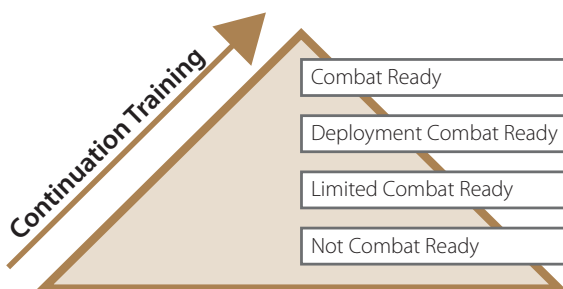
Basic Mission Capable (BMC) is the aircrew status identifier of an individual who has satisfactorily completed MQT and is familiarized in all, and may be qualified in some or all, of the unit missions.

3.1.3 Continuation Training (CT) is training to maintain and/or improve a crewmember's ability to perform the unit missions. CT should consist of two aspects. The first involves training in the basic flying skills necessary to ensure the safe operation of the aircraft. The second consists of specific mission-related training required to accomplish the unit assigned missions. The NATO Allied Command Operations (ACO) Forces Standards (AFS) Vol. III¹ states a minimum flight hour requirement but it is essential for helicopter crews that the CT program not only covers the required flight hours but also covers all currencies that are necessary to execute the units' mission. Nations should therefore not only track flight hours but also keep records on crews' specific qualifications and currencies. Substituting actual flight hours with simulation should only be accomplished when the simulator device used for mission training is high fidelity and provides realistic quality flight simulation (FAA/JAA Full Flight Simulation Category C or D or equivalent).

3.2 Helicopter Crew Readiness Status

Readiness status is a term which indicates the overall level of training of a crewmember. The readiness status indicates what portion of the unit assigned tasks and missions a crewmember is able to perform. Therefore, this status determines the crewmember's readiness for operational deployment.

3.2.1 Combat Ready (CR). CR aircrew are qualified to carry out all combat missions assigned to their unit. CR status is obtained after successfully completing the IQT as well as completing the required MQT. CR status is sustained by remaining current in all unit tasks and missions.



Helicopter Readiness Progression.

3.2.2 Deployment Combat Ready (DCR). A DCR crewmember has successfully completed the IQT and the required MQTs but is current only on the assigned tasks and missions for a specific deployment. For example, a crewmember that has not completed MQT mountain training may be deployable when the operation will be conducted in non-mountainous terrain.

3.2.3 Limited Combat Ready (LCR). An LCR crewmember has successfully completed the IQT and parts of the MQT, is current on some tasks and missions, but is not able to meet the requirements for CR and DCR. LCR crewmembers are not deployable.

3.2.4 Not Combat Ready (NCR). A NCR crewmember is not qualified for CR, DCR or LCR.

3.2.5 This document is specific only to helicopter crews and will not cover unit readiness. NATO Headquarters and unit readiness parameters are described in AFS Vol. III². The Readiness Categories used by nations to declare unit readiness to NATO will allow commanders time to complete the required unit preparatory training.

1. ACO FORCES STANDARDS, Vol. III, STANDARDS FOR AIR FORCES, 6 May 2013.

2. Ibid.



CHAPTER IV

Qualifications Matrix

The Qualification Matrix (Annex A) provides a standardized format for the sending unit commander to document the qualifications and proficiency of their helicopter aircrews and provide the receiving commander a clearly recognisable form. The Qualification Matrix is intended to reflect the actual qualifications, competencies and proficiency of the helicopter crews at the current moment. The matrix is to be used by helicopter unit commanders and is not intended to be used in NATO force planning or force generation. By using this standard format, the receiving helicopter commander will better understand the capabilities of the helicopter crews assigned to him, which will optimize interoperability and allow him to better integrate all available aviation capabilities. The Qualification Matrix is divided into four parts: General Qualifications, Crew Competencies, Mission Types and Additional information. Specific individual qualifications, such as loadmaster, gunner, instructor, examiner, etc., are not covered in this document.

4.1 Qualifications

In this overview, the command/leadership qualifications are limited to those functions needed to plan, command and execute multi-ship helicopter operations.

4.1.1 Section Lead (SL). The aircrew member designated by a competent authority as capable of commanding two or three aircraft (defined as a section) and being responsible for their safe operation.

4.1.2 Flight Lead (FL). The aircrew member designated by a competent authority as capable of leading two or three sections of aircraft (defined as a flight).

4.1.3 Air Mission Commander (AMC). The AMC is an experienced and qualified crewmember that is in command of all air assets involved in an operation. The AMC is responsible for the conduct and accomplishment of the air mission. An AMC should be appointed whenever more than six aircraft are involved in an operation.



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4.2 Crew Competencies

This paragraph provides short descriptions of the competencies listed in Annex A;

- *Advanced Aircraft Handling*: manoeuvres to familiarize a crewmember with the aerodynamic and performance characteristics of the aircraft.
- *Air Combat Manoeuvring*: manoeuvres to engage/counter air threats.
- *Aviation Delivered Ground Refuel*: on-ground refuelling operations from another helicopter or aircraft.
- *Aerial Refuelling*: air to air refuelling operations.
- *Brownout Operations*: take-off and landing in a reduced visibility environment caused by sand and/or dust.
- *CBRN*: operation of helicopters while wearing CBRN protective gear.
- *Contour Flying*: conducting flight at 200 feet and below following the earth's contours with relatively constant airspeed and varying altitude.
- *Deck Landing*: landing performed on board different ships categories/classes (including single spot, multi spots and aircraft carriers).
- *Evasive Manoeuvring*: manoeuvres to avoid and evade air or ground threats.
- *Forward Arming/Refuelling Point (FARP)*: safely performing normal or rapid refuelling and/or rearming in the forward area (IAW STANAG 2946).
- *Firefighting Operations*: using external water bucket (e.g. Bambi Bucket) to fight fires.
- *Formation Flying*: two or more aircraft travelling and manoeuvring together under command of an SL, FL or AMC.
- *Fast Rope*: rapid insertion of troops by descending on a thick rope designed for this purpose.
- *Hoisting*: raising and/or lowering personnel or materiel from the helicopter by hoist.
- *IFR*: flying under Instrument Flight Rules.
- *Low Level Flight*: flying at or below 200 feet AGL.
- *Mountain Flight*: flying and operating in terrain with changes in elevation that exceed 900 metres within a distance of 10 NM.
- *Nap of the Earth Flying*: flying as close to the earth's surface as vegetation and obstacles permit where speed and altitude are subordinate to staying masked.
- *Night Vision Goggles*: flight during periods of darkness where crewmembers wear NVGs for situational orientation and awareness.

- *Rappel/Abseil*: descending from a hovering helicopter by a controlled descent using a rope and friction device designed for this purpose.
- *Rope Ladder*: descending or ascending from a hovering helicopter using a rope ladder.
- *Sling Load*: helicopter external cargo transport.
- *Special Purpose Insertion/Extraction (SPIE)*: inserting and extracting troops from an area by helicopter by using a SPIE system.
- *Urban Operations*: operations planned and conducted on, or against objectives within, a topographical complex and its adjacent natural terrain, where man-made construction or the density of population are the dominant features.
- *Under Wire/Bridge Flight*: flight underneath wire's and/or bridges.
- *Weapons Training*: qualification on the helicopter specific weapons systems.
- *Whiteout Operations*: take-off and landing in a reduced visibility environment caused by snow.

4.3 Missions Types

Helicopter missions are organized into the five roles of helicopter operations as described in the ATP-49G. The five roles are: **Transport; Attack; Direction and Control of Fires; Reconnaissance and Tactical Security;** and, **Specialized Tasks.**

4.3.1 When performing missions in the **Transport** role, aircrew can be proficient in the following types of missions:

- *Helicopter Insertion and Extraction*: defined as the insertion and/or extraction of personnel in a tactical environment with rotors turning.
- *Para Drops*: the dropping of personnel and/or material from helicopters using parachutes.
- *Aeromedical Evacuation*: the loading, unloading and movement of patients under medical supervision with trained personnel and appropriate equipment, with engines running.



4.3.2 Helicopters in the **Attack** role can perform the following missions:

- *Air Interdiction*: deep, hasty and deliberate attacks where fire and manoeuvre with friendly ground forces is not required.
- *Close Air Support*: attacks of targets which require detailed integration of the air assets. When Forward Air Controller (FAC)/ Joint Terminal Attack Controller (JTAC) provide target guidance, NATO CAS procedures¹ should be used.
- *Close Combat Attack*: attack of targets which require coordination with ground forces but where no qualified FAC/JTAC is available. Ground forces are encouraged to use the CCA format in ATP-49.
- *Joint Air Attack Team*: coordinated attack with fixed wing aircraft and/or Unmanned Aircraft System (UAS) normally supported by artillery fires or naval surface fire support.
- *Sniper Platform*: a mission where a sniper engages a target from a utility helicopter.

4.3.3 The role **Direction and Control of Fires** include the following missions:

- *Forward Air Control Airborne*: a mission where a trained and qualified aviation officer exercises control from the helicopter and provides terminal attack control for CAS missions.
- *Artillery Call For Fire*: the direction and control of artillery fires IAW the procedures outlined in ATP-49G.
- *Naval Fire Support*: the direction and control of naval fires IAW the procedures outlined in ATP-49G.

4.3.4 Helicopters in the role **Reconnaissance and Tactical Security** can perform the following missions:

- *Reconnaissance*: mission focused on the timely and accurate gathering and reporting of information. Reports should be provided IAW the ATP-49G TAM.
- *Surveillance*: the systematic observation of a specific area or objective using different observation profiles.



- *Tactical Security*: missions which gather information and provide protection, screen guard covering force and area security. These missions include reconnaissance, threat reporting and action against threats.
- *Convoy Escort*: protecting a ground convoy during movement.
- *Aerial Escort*: protecting a helicopter formation during transition.

4.3.5 The **Specialized Task** roles can include the following missions:

- *Aerial Recovery*: the recovery of downed helicopters.
- *Aerial Delivery*: use of helicopters to deliver items or personnel; matrix should reflect what specific aerial delivery techniques have been trained, e.g. delivery of smoke, pamphlets, mines etc.
- *Airborne Command and Control*: use of the helicopter's communication equipment and unique situational awareness (SA) to conduct C2 of a ground unit during a tactical operation.
- *Firefighting Operations*: use of an external water bucket (e.g. Bambi Bucket) to fight fires.
- *Personnel Recovery (PR)*: conduct of a PR mission including the use of PR checklists and procedures from the Bi-SC JPR JOG.
- *Air Assault*: the planning and execution of an Air Assault operation with at least transport, attack and command and reconnaissance capabilities included in one operation.

4.4 Additional Information

4.4.1 The last part of the matrix is used to inform the receiving commander of national weather limitations for day, night, and NVGs/Night Vision Devices (NVDs) operations as well the specific limitations for Multi-ship and Multi-type operations.

4.4.2 The National Caveats section is used to inform commanders of limitations that could impact helicopter operations (e.g. national ROE's or limitations in mixing formations).

4.4.3 Finally, in the last block, nations can describe additional national qualifications which are not covered in the matrix.

4.5 Completing the Matrix

The total number of crews available that are current and qualified for the missions should be entered into the matrix. Next, annotate if the crews are qualified to conduct these missions under day, night, NVDs/NVGs and in multi-ship formations and/or multi-type formations. The last part of the matrix is used to document the proficiency of the crews with the total number of missions flown in the last 3, 6 and 12 months. See Annex B for an example of a filled in Matrix.

1. AJP 3.3.2.1, TACTICS, TECHNIQUES AND PROCEDURES FOR CLOSE AIR SUPPORT AND AIR INTERDICTION, Jun. 1999.



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CHAPTER V

JAPCC Recommended Currency Requirements

5.1 Currency Requirements

Setting currency requirements is a challenging task and is, at this time, a national responsibility within NATO. Currency requirements for helicopter crews depend on the individual skills, training received and experience. In this chapter, the JAPCC suggests guidelines for minimum experience requirements and recommends minimum annual iterations of all

qualifications and competencies to remain current. These recommendations are the result of consulting several experienced helicopter operators from across NATO and studying nations' currency documents. The currency column provides currency period and if, in this period, an aircrew member has not accomplished the specific task successfully, he/she is not considered to be current. If crewmembers are not current for a given task, additional training should be accomplished to regain currency before executing the required tasks in an operational environment. How this additional training is accomplished is left up to the nations and could be by performing the task in the aircraft under the supervision of an instructor, in a simulator or by other means.

5.2 Flight Crew Currency

Qualifications	Minimum Experience	Minimum Annual Iterations	Currency
Section Lead (SL)	500 Hrs	8	90 days
Flight Lead (FL)	600 Hrs	4	6 months
Air Mission Commander (AMC)	700 Hrs 150 Hrs on Type	1	12 months



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5.3 Crew Competencies Currency

Crew Competencies	Abbreviations	Currency
Advanced Aircraft Handling	AAH	12 months
Aerial Refuelling	AR	6 months
Air Combat Manoeuvring	ACM	12 months
Aviation Delivered Ground Refuel	ADGF	24 months
Brownout Operations	BRO	180 days
Chemical, Biological, Radiological and Nuclear	CBRN	24 months
Contour Flying	CON	180 days
Deck Landing ¹	DL	90/180 days
Evasive Manoeuvring	EVM	12 months
Fast Rope	FR	12 months
Fire Fighting	FIFI	12 months
Formation Flying	FF	12 months
Forward Arming/Refuelling Point	FARP	24 months
Hoisting	HOI	90 days
Instrument Flight Rules	IFR	45 days
Low Level	LL	180 days
Mountain Flight	MF	24 months
Nap of the Earth	NOE	180 days
Night Vision Goggles	NVG	90 days
Rappel/Abseil	RAP	12 months
Rope Ladder	RL	12 months
Sling Load	SLL	12 months
Special Purpose Insertion/Extraction ²	SPIE	90 days
Under Wire/Under Bridge Flight	UWB	12 months
Urban Operation	UOP	24 months
Weapon Training	WT	12 months
Whiteout Operations	WHO	12 months

1. Deck landing currency according to: APP-2 Vol. 1 Chapter 2 Section V – HOSTAC CROSS-OPERATING STANDARDS AND TRAINING.

2. Qualification on SPIE also incorporates Fast Rope qualification.

5.4 Mission Types Currency

Mission Types	Abbreviations	Annual CT/Iterations
Aeromedical Evacuation	AE	2
Helicopter Insertion Extraction	HIE	2
Para Drops	PD	1
Air Interdiction	AI	2
Close Air Support	CAS	2
Close Combat Attack	CCA	4
Joint Air Attack Team	JAAT	0
Sniper Platform	SNP	1
Forward Air Control (Airborne)	FAC(A)	3
Artillery Call for Fire	ACFF	1
Naval Fire Support	NFS	0
Reconnaissance	RECCE	1
Surveillance	SUR	0
Tactical Security	TS	1
Convoy Escort	CE	1
Aerial Escort	AE	1
Aerial Recovery	ARY	0
Aerial Delivery	ARD	1
Airborne Command and Control	AC2	1
Fire Fighting	FF	2
Personnel Recovery	PR	2
Air Assault	AASLT	1

ANNEX A

Qualification Matrix

Qualifications	Abbreviation	Qualified	Current	Day	Night	NV
Section Lead	SL					
Flight Lead	FL					
Air Mission Commander	AMC					
Crew Competencies						
Advanced Aircraft Handling	AAH					
Aerial Refuelling	AR					
Air Combat Manoeuvring	ACM					
Aviation Delivered Ground Refuel	ADGF					
Brownout Operations	BRO					
Chemical, Biological, Radiological and Nuclear	CBRN					
Contour Flying	CON					
Deck Landing	DL					
Evasive Manoeuvring	EVM					
Fast Rope	FR					
Fire Fighting	FIFI					
Formation Flying	FF					
Forward Arming/Refuelling Point	FARP					
Hoisting	HOI					
Instrument Flight Rules	IFR					
Low Level	LL					
Mountain Flight	MF					
Nap of the Earth	NOE					
Night Vision Goggles	NVG					
Rappel/Abseil	RAP					
Rope Ladder	RL					
Sling Load	SLL					
Special Purpose Insertion/Extraction	SPIE					
Under Wire/Under Bridge Flight	UWB					
Urban Operation	UOP					
Weapon Training	WT					
Whiteout Operations	WHO					



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Mission Types	Abbreviation	Qualified	Current	Day	Night	NV
Aeromedical Evacuation	AE					
Helicopter Insertion Extraction	HIE					
Para Drops	PD					
Air Interdiction	AI					
Close Air Support	CAS					
Close Combat Attack	CCA					
Joint Air Attack Team	JAAT					
Sniper Platform	SNP					
Forward Air Control (Airborne)	FAC(A)					
Artillery Call for Fire	ACFF					
Naval Fire Support	NFS					
Reconnaissance	RECCE					
Surveillance	SUR					
Tactical Security	TS					
Convoy Escort	CE					
Aerial Escort	AE					
Aerial Recovery	ARY					
Aerial Delivery	ARD					
Airborne Command and Control	AC2					
Fire Fighting	FF					
Personnel Recovery	PR					
Air Assault	AASLT					
Additional						
National Weather Limitations	Day			Night		
Additional Qualifications						

National Caveats



Click to Enlarge Table

V/D/NVG	Multi Ship	Multi Type	Proficiency	Last 3 months	1-6 months	1-12 months

--	--	--	--	--	--	--

	NVG/NVD	Multiship	Multi Type			

	Unit:	Date:
	Commander:	
	Signature:	

ANNEX B

Example of Filled-in Qualification Matrix

Qualifications

Start by filling in the Qualification section. First, list the total number of crews that are qualified, then the number of crews that are current according national regulations. Next, annotate if the crews are qualified to conduct these missions under day, night, NVDs/ NVGs and in multi-ship formations and/or multi-type formations. The last three columns of the matrix are used to document the proficiency of the crews with the total number of missions flown in the last 3, 6 and 12 months. The example below shows an aeromedical evacuation unit with 15 pilots. In this example the unit has 4 Section Leads that are qualified and current in day, night (NVD) and multi ship operations. The section leads of this unit are not qualified to be the section lead of a multi-type formation. There are two qualified and current Flight Leads that are qualified to lead multi-type formations and this unit has one qualified and current Air Mission Commander. The example also shows that the section leads flew 7 missions as section lead in the last year of which 3 occurred in the last 3 months and 5 occurred in the last 6 months.

Crew Competencies

The following example of the completed crew competencies matrix shows that the same unit has 7 crews that are all qualified and current in AAH, ACM, BRO and CON. With respect to CBRN operations, the nation has no requirement for qualification but seven crew

are capable of flying CBRN missions under day, or night (using NVD/NVG) conditions in multi-ship or multi-type formations. The matrix also shows that AAH is not flown in formations in this unit and that Brown Out operations are performed in multi-ship formations but not multi-type formations. For the receiving commander, this indicates that this unit is trained to land in brown out conditions with multi ship formations. Also the helicopters of this unit, should not be mixed with other types of helicopters when the mission requires a brown out landing.

Mission Types

To provide the receiving commander with a clear picture of the capabilities of the helicopter crews deploying, the sending commander should complete the mission type section of the matrix. In the example below, the unit has 7 crews that are qualified and current in AE and HIE. The unit also has 4 crews qualified in Para Drops of which only three crews are current at this time. This unit is also qualified and current in SNP but the matrix shows that this mission can only be done during day.

Additional

In the last section of the matrix labelled 'Additional', the sending commanders should state the national weather limitations for day, night and NVG/NVD operations and, if required, weather limitations for multi-ship and multi-type formations. There is room for additional qualifications that are not covered in the matrix and a block to highlight any national caveats that could restrict operations. Finally the sending commander should date and sign the matrix before providing it to the receiving commander.

Qualifications	Qualified	Current	Day	Night	NVD/NVG	Multi Ship	Multi Type	Proficiency	Last 3 months	1-6 months	1-12 months
Section Lead (SL)	4	4	x	x	x	x			3	5	7
Flight Lead (FL)	2	2	x	x	x	x	x		3	4	4
Air Mission Commander (AMC)	1	1	x	x	x	x	x			1	2

Qualifications.

Crew Competencies	Qualified	Current	Day	Night	NVD/NVG	Multi Ship	Multi Type	Proficiency	Last 3 months	1-6 months	1-12 months
Advanced Aircraft Handling (AAH)	7	7	x	x	x				2	4	6
Aerial Refuelling (AR)											
Air Combat Manoeuvring (ACM)	7	7	x	x	x	x			1	3	4
Aviation Delivered Ground Refuel (ADGF)											
Brownout Operations (BRO)	7	7	x	x	x	x			2	4	4
Chemical, Biological, Radiological and Nuclear (CBRN)	NNR	7	x	x	x	x	x				
Contour Flying	7	7	x	x	x	x	x		3	4	5

Crew Competencies.

Mission Types	Qualified	Current	Day	Night	NVD/NVG	Multi Ship	Multi Type	Proficiency	Last 3 months	1-6 months	1-12 months
Aeromedical Evacuation (AE)	7	7	x	x	x	x			3	5	6
Helicopter Insertion Extraction (HIE)	7	7	x	x	x	x	x		1	2	2
Para Drops (PD)	4	3	x	x	x	x					2
Sniper Platform (SNP)	4	2	x			x	x		1	2	2

Mission Types.

ANNEX C

Acronyms and Abbreviations

AAH	Advanced Aircraft Handling
AASLT	Air Assault
AC2	Airborne Command and Control
ACFF	Artillery Call for Fire
ACM	Air Combat Manoeuvring
ACO	(Allied Command Operations
ADGF	Aviation Delivered Ground Refuel
AE	Aeromedical Evacuation
AFS	ACO Forces Standards
AGL	Above Ground Level
AI	Air Interdiction
AMC	Air Mission Commander
AR	Aerial Refuelling
ARD	Aerial Delivery
ARY	Aerial Recovery
BAQ	Basic Aircraft Qualification
BMC	Basic Mission Capable
BRO	Brownout Operations
C2	Command and Control
CAS	Close Air Support

CBRN	Chemical Biological Radiological Nuclear
CCA	Close Combat Attack
CE	Convoy Escort
CON	Contour Flying
CR	Combat Ready
CT	Continuation Training
DCR	Deployment Combat Ready
DL	Deck Landing
EVM	Evasive Manoeuvring
FAC(A)	Forward Air Control (Airborne)
FAC	Forward Air Control
FARP	Forward Arming/Refuelling Point
FF	Formation Flying
FIFI	Fire Fighting
FL	Flight Lead
FR	Fast Rope
HIE	Helicopter Insertion/Extraction
HISWG	Helicopter Inter Service Working Group
HOI	Hoisting
IAW	In Accordance With
IFR	Instrument Flight Rules
IQT	Initial Qualification Training

JAAT	Joint Air Attack Team	PR	Personnel Recovery
JTAC	Joint Terminal Attack Controller	RAP	Rappel/Abseil
LCR	Limited Combat Ready	RECCE	Reconnaissance
LL	Low Level	RL	Rope Ladder
MCLSB	Military Committee Land Standardization Board	ROEs	Rules of Engagement
MF	Mountain Flight	SA	Situational Awareness
MQT	Mission Qualification Training	SL	Section Lead
NATO	North Atlantic Treaty Organization	SLL	Sling Load
NCR	Not Combat Ready	SNP	Sniper Platform
NFS	Naval Fire Support	SPIE	Special Purpose Insertion/Extraction
NM	Nautical Mile	STANAG	Standardization Agreement
NNR	Not Nationally Required	SUR	Surveillance
NOE	Nap of the Earth	TS	Tactical Security
NVDs	Night Vision Devices	UAS	Unmanned Aircraft System
NVGs	Night Vision Goggles	UOP	Urban Operation
PCM	Partnership Cooperation Menu	UWB	Under Wire/Under Bridge Flight
PD	Para Drops	WHO	Whiteout Operations
		WT	Weapon Training



Joint Air Power Competence Centre

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The content of the following tables is identical with the ones previously placed and facilitates readability and printing only.

ANNEX A

Qualification Matrix

Qualifications	Abbreviation	Qualified	Current	Day	Night	NVD/NVG	Multi Ship	Multi Type	Proficiency	Last 3 months	1-6 months	1-12 months
Section Lead	SL											
Flight Lead	FL											
Air Mission Commander	AMC											
Crew Competencies												
Advanced Aircraft Handling	AAH											
Aerial Refuelling	AR											
Air Combat Manoeuvring	ACM											
Aviation Delivered Ground Refuel	ADGF											
Brownout Operations	BRO											
Chemical, Biological, Radiological and Nuclear	CBRN											
Contour Flying	CON											
Deck Landing	DL											
Evasive Manoeuvring	EVM											
Fast Rope	FR											
Fire Fighting	FIFI											
Formation Flying	FF											
Forward Arming/Refuelling Point	FARP											
Hoisting	HOI											
Instrument Flight Rules	IFR											
Low Level	LL											
Mountain Flight	MF											
Nap of the Earth	NOE											
Night Vision Goggles	NVG											
Rappel/Abseil	RAP											
Rope Ladder	RL											
Sling Load	SLL											
Special Purpose Insertion/Extraction	SPIE											
Under Wire/Under Bridge Flight	UWB											
Urban Operation	UOP											
Weapon Training	WT											
Whiteout Operations	WHO											

Mission Types	Abbreviation	Qualified	Current	Day	Night	NVD/NVG	Multi Ship	Multi Type	Proficiency	Last 3 months	1-6 months	1-12 months
Aeromedical Evacuation	AE											
Helicopter Insertion Extraction	HIE											
Para Drops	PD											
Air Interdiction	AI											
Close Air Support	CAS											
Close Combat Attack	CCA											
Joint Air Attack Team	JAAT											
Sniper Platform	SNP											
Forward Air Control (Airborne)	FAC(A)											
Artillery Call for Fire	ACFF											
Naval Fire Support	NFS											
Reconnaissance	RECCE											
Surveillance	SUR											
Tactical Security	TS											
Convoy Escort	CE											
Aerial Escort	AE											
Aerial Recovery	ARY											
Aerial Delivery	ARD											
Airborne Command and Control	AC2											
Fire Fighting	FF											
Personnel Recovery	PR											
Air Assault	AASLT											
Additional												
National Weather Limitations	Day			Night			NVG/NVD		Multiship		Multi Type	
Additional Qualifications												
National Caveats							Unit:			Date:		
							Commander:					
							Signature:					