NATO STANDARD

ATP-90

OPERATIONAL COMPETENCIES FOR HELICOPTER CREWS IN SUPPORT OF NATO-LED LAND OPERATIONS AND EXERCISES

Edition A Version 1

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NORTH ATLANTIC TREATY ORGANIZATION

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NATO LETTER OF PROMULGATION

7 February 2020

1. The enclosed Allied Tactical Publication ATP-90 Edition A, Version 1, OPERATIONAL COMPETENCIES FOR HELICOPTER CREWS IN SUPPORT OF NATO-LED LAND OPERATIONS AND EXERCISES, which has been approved by the nations in the MCLSB, is promulgated herewith. The agreement of nations to use this publication is recorded in STANAG 2621.

2. ATP-90, Edition A, Version 1, is effective upon receipt.

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Zoltán GULYÁS
Brigadier General, HUNAF
Director, NATO Standardization Office

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RECORD OF RESERVATIONS

CHAPTER	RECORD OF RESERVATION BY NATIONS
Note: The reservations listed on this page include only those that were recorded at time of promulgation and may not be complete. Refer to the NATO Standardization Document Database for the complete list of existing reservations.	

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RECORD OF SPECIFIC RESERVATIONS

[nation]	[detail of reservation]
DNK	The following tasks cannot be performed by Danish helicopter crews: • 2.2.1.1. Aerial Refueling: No Danish capability to perform Aerial Refueling. • 2.2.1.3. Aviation Delivered Ground Refuel: No Danish capability to perform Aviation Delivered Ground Refuel. • 2.2.5.2. Water Bucket: No Danish capability to perform firefighting via water bucket. • 2.2.6.2. Operations under CBRN conditions: No Danish capability to operate under CBRN conditions and no capability to perform CBRN RECCE.

Note: The reservations listed on this page include only those that were recorded at time of promulgation and may not be complete. Refer to the NATO Standardization Document Database for the complete list of existing reservations.

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1. CHAPTER 1 Introduction

There is a variety of helicopter crew qualifications across NATO and a multitude of helicopter types, roles and missions. The challenge faced by the manoeuver commander is to identify appropriate capabilities from assigned NATO helicopter units in order to support / execute specific missions.

The organization of helicopter training within NATO is the responsibility of individual member nations and is described within national publications and doctrine. As a result, the standard and delivery methods for training vary across member nations. The outcome of this is a variety of training procedures being used across NATO, which will all result in helicopter crews gaining similar, but not identical, flying qualifications.

1.1. Aim

The aim of ATP 90 is to define, articulate and standardize the minimum operational competencies required of helicopter crews to perform specific missions in support of NATO-led Land operations and exercises.

1.2. Objectives

The objectives of ATP 90 are:

- To provide a baseline standardization of helicopter crews competencies for and between member nations.
- To aid multi-national flight safety.
- To optimize interoperability of helicopter operations during multi-national NATO-led land operations and exercises.
- To enable combined/joint aviation forces to conduct operations together instead of separating along national lines.
- To provide a standardized format for reporting operational competencies to the receiving commander as depicted in Annex 3.

1.3. Scope

ATP 90 is concerned with standardizing the operational competencies of helicopter crews in NATO-led Land Operations and Exercises. It should be read in conjunction with ATP 49 - Use of Helicopters in Land Operations (Ref A), and MPP-02 - Helicopter Operations from Ships Other Than Aircraft Carriers (HOSTAC) (Ref B), MPP-02 Vol II, Multinational Through-Deck and Aircraft Carrier Cross-Deck Operations (MTACCOPS). For greater procedural detail, a cross reference of mission specific standards and STANAGs is provided at Annex 3.2.

This document is specific to helicopter crew’s operational competencies and does not cover the collective capability offered by units or roles.

1.4. Currency

Currency is a control measure used to provide an additional margin of safety based on exposure/frequency to a particular flying competency. Control measures may include the number of iterations performed within a given time period, time since the last iteration of the competency and/or the conditions under which the competency was last trained.

This document does not set currency levels; for the purposes of this ATP, crewmembers will be considered“current” for a particular competency when they meet the relevant national or NATO currency standard.

1.5. Helicopter Flight Training

Across NATO, helicopter flight training is normally phased into the following progressive stages of training:

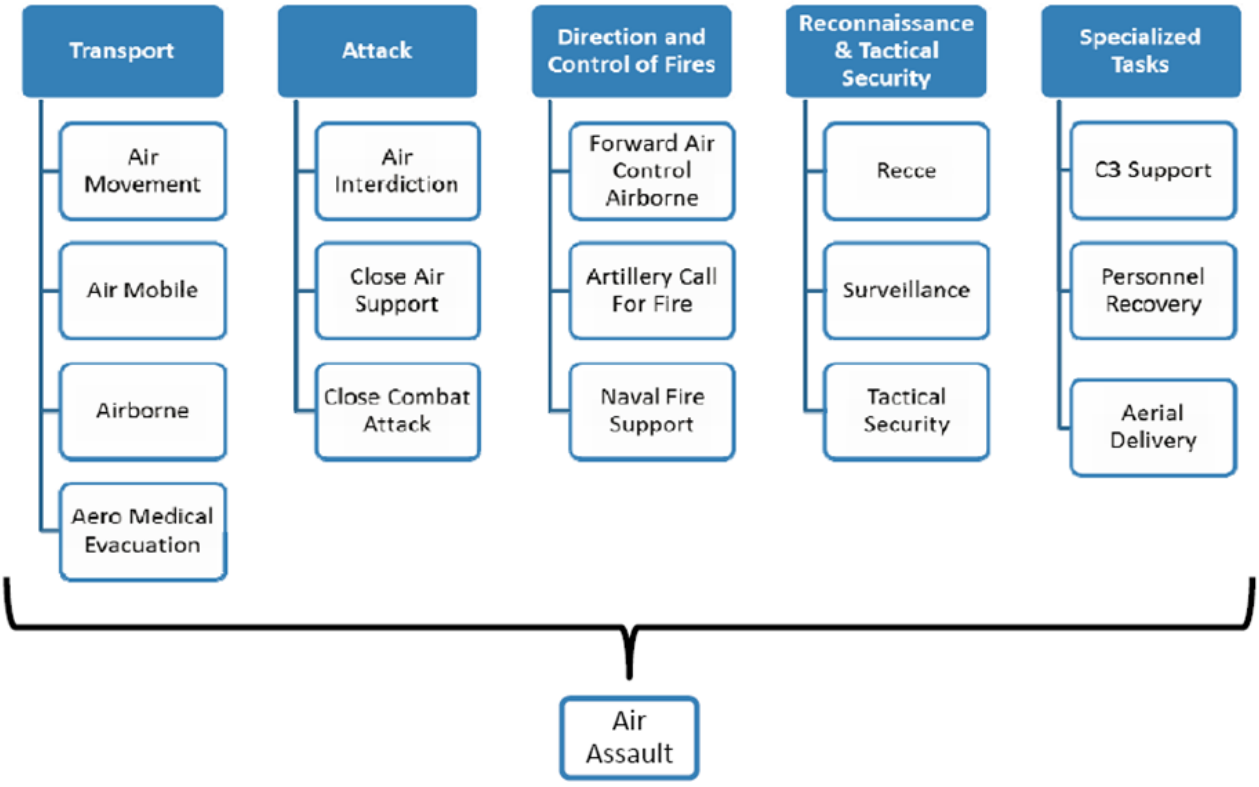
Initial Qualification Training (IQT)**.** This provides individual helicopter aircrew with the competencies necessary to safely operate a specific helicopter type / mark / version and does not include any tactical mission elements.

Mission Qualification Training (MQT). This provides individual helicopter crews with the advanced competencies that are required to execute specific missions and tasks. These operational crew competencies are described in more detail in Section 2.2.

Continuation Training (CT). This can be considered as the third stage of training and is effectively ongoing, it ensures that all trained helicopter aircrew / crews remain current and become more proficient in both basic flying techniques and specific mission competencies, ultimately resulting in safer helicopter operations.

2. CHAPTER 2 Mission Types

The versatility of helicopters enables them to undertake a variety of roles and missions. Helicopters provide a number of roles to the Component or Force Commander and each role is enabled by a subset of tasks/missions.



Helicopter missions (with the exception of Firefighting) are described and explained in further detail in Ref A and associated STANAGs as detailed in Annex 3.2.

Fire fighting

Fire Fighting is currently not mentioned in Ref A, but is included as a relevant mission in ATP 90 with the following definition: in case of an emergency some nations' helicopters, equipped with specialized firefighting equipment (e.g. an external water bucket or 'Bambi Bucket') and trained crews, are capable of fighting/extinguishing fires from the air.

2.1. Crew Competencies Matrix

The Crew Competencies - Mission Types Matrix (Annex 3.1) provides a crosswalk between specific Missions and the Operational Crew Competencies.

2.2. Operational Crew Competencies

Operational Crew Competencies are those competencies (over and above the basic competencies required to operate a helicopter) which are needed to execute specific missions.

This section provides a brief description /definition of the competencies listed in the Annex 3.1 “Crew Competencies - Mission Types Matrix”.

2.2.1. Refueling Related Competencies

2.2.1.1. Aerial Refueling

The Aerial Refueling competency can be used during missions to improve the range of the operating helicopters through the provision of airborne refuel. The necessary helicopter crew requirements and the procedures are defined in the ATP 3.3.4.2 Chapter 3 Air-to-Air Refueling.

2.2.1.2. Rapid Refueling

Rapid Refueling (also known as Hot Refueling) requires the competency to receive fuel, following the appropriate related procedures with one or more engines operating.

2.2.1.3. Aviation Delivered Ground Refuel

Aviation Delivered Ground Refueling is the competency to deliver fuel to ground vehicles or other aviation platforms via internally carried tanks or from the helicopter fuel system.

2.2.2. Evasive Manoeuvres

Evasive Manoeuvres may be required by crews to execute missions in a non-permissive / hostile environment. The intention of Evasive Manoeuvres is to evade, engage or counter threats.

There are three different kinds of threats helicopter crews can be trained to evade/engage/counter:

- Fixed-wing fighter aircraft.
- Attack or armed Helicopters.
- Small Arms Fire (SAF) and Ground Based Air Defence (GBAD).

The competencies required to enable helicopter crews to conduct manoeuvres to evade/engage/counter threats are:

- Knowledge of target acquisition, target identification and target engagement.

- Knowledge of the weapon systems specifications/limitations and Tactics, Techniques and Procedures (TTPs) employed by the different threats.
- Knowledge and application of the Evasive Manoeuvres section of Ref A.
- Knowledge, practice and use of own threat-based TTPs.

2.2.3. Formation Flight

Formation flight allows the effective employment of two or more helicopters to accomplish a mission. The benefits of formation flights include mutual support, threat detection, control, mass, flexibility, and unity of effort. Maneuverability is a prime consideration as is the requirement for a clear delineation of responsibilities amongst aircraft that is crucial to a successful mission involving formation flight. The competency for formation flying is dependent on the size and composition of the formation (Formation flight is further detailed in Ref A):

- **Section**
  A Section is defined as a formation of up to three helicopters.
- **Flight**
  A flight is defined as a formation of up to three sections.

2.2.4. Terrain Flight

Flight close to the earth's surface during which airspeed and height/altitude are adapted to the contours and cover of the ground in order to avoid enemy detection and fire.

Terrain flight includes appropriate tactical application of low-level, contour, and Nap of the Earth (NOE) flying competencies as appropriate, diminishing the enemy's capability to acquire, track, and engage helicopters. Terrain flight is further detailed in ATP 49.

2.2.5. External Loads

2.2.5.1. Underslung Loads

Helicopters can provide crucial capabilities for tactical commanders through the delivery of material as external underslung loads.

Crews flying helicopters with underslung load capability should be competent to lift loads by day and/or night in a tactical scenario. Depending on the capability of the helicopter, it will be limited in its flying speed and maneuverability when carrying an underslung load.

Further details and required information for both helicopter crews and ground handlers regarding the use of Helicopter Underslung Load Equipment (HUSLE) is found in STANAG 2445.

2.2.5.2. Water Bucket

To support Fire Fighting Operations helicopters can employ water buckets as underslung loads. Helicopters are fitted with specialist equipment and individual crew training is required to use water buckets to extinguish fires effectively. Crew competencies required include knowledge of altitude, speed, approach direction, wind speed and direction as well as knowledge about firefighting in order to successfully deploy the water bucket.

2.2.6. Environmental Flight

2.2.6.1. Degraded Visual Environment (DVE) Operations

DVE is defined as reduced visibility of potentially varying degree, wherein Situational Awareness (SA) and helicopter control cannot be maintained as comprehensively as they are in normal Visual Meteorological Conditions (VMC) and may be lost. DVE can be caused by dust or sand (brownout), snow (whiteout), rain, fog, smoke, salt spray or any element that degrades the use of visual cues. DVE can be experienced in all modes of flight, day and night.

For purposes of this ATP, the DVE flying competency refers to the aircrew ability to approach, hover, land, and takeoff in helicopter induced brownout and whiteout conditions. It does not cover the remainder of the detail within the definition i.e. the authorization allowing helicopters to fly in environmental low visibility conditions which are below VFR minima and outside IFR applicability.

2.2.6.2. Operations under CBRN conditions

When helicopters cannot avoid CBRN contamination, or are under direct attack, crews must take appropriate actions to survive. CBRN competent crews should understand and practice individual and collective protection.

- The first CBRN competency is to operate with protective measures under CBRN conditions to mitigate the effects of CBRN contamination and continue with the mission.

- The second CBRN competency is to execute CBRN RECCE missions including Detection and Reporting.

2.2.6.3. Mountainous Terrain Flight

A mountainous area is an area of changing terrain profile where changes in terrain elevation exceed 3000 ft (900 m) within a distance of 10 NM. There are two different competencies for mountainous terrain flight:

- Tactical mountain transit

The competency to tactically transit through mountainous regions (i.e. using valleys / features within the mountains and not just transiting over the top or around the mountainous region).

- Mountainous feature landings

The competency to safely approach, land , take-off and depart to and from a variety of mountainous features; pinnacles, ridges, valleys and bowls by day and/or night.

Additionally, for helicopter crews to operate in mountainous terrain, crew competencies required include training and knowledge in power management and the effects of degraded performance. This includes the challenges of terrain and environmental factors such as high altitude characteristics of air, severe updrafts and downdrafts along with varying wind conditions.

Mountainous terrain flight / operations are further described in ATP-49.

2.2.6.4. Operational Environment Special Competencies

There are specific competencies required of helicopter crews when operating in the following environments:

- **Over Water**
  Defined as extended flight over water outside the autorotational distance of the helicopter from land. For helicopter crews to perform overwater flight, crew competencies required include additional training and knowledge e.g. sea survival training, underwater escape training.

- **Desert**
  The desert environment introduces a number of challenges to helicopter operations such as blowing sand / dirt, risk of brownout, dust storms and high temperatures. Helicopter crews need the competency of brownout landings / take offs (See para 2.2.6.1: DVE Operations) and knowledge of the unpredictable weather changes and phenomena in a desert environment as well as survival training in desert environment.

- **Arctic/cold weather**
  Missions in Arctic/cold weather are characterized by low temperatures and freezing conditions. Challenges to helicopter operations include the risk of whiteout and flight in icing conditions. Helicopter crews need the competency of whiteout landings / take offs (See para 2.2.6.1: DVE Operations), differences in flying above and below the tree line, identification of hazards to aviation and knowledge of the unpredictable weather changes and phenomena in an artic environment as well as survival training in artic environment.

- **Urban**
  The urban environment varies from dense 3rd world conurbations to shanty towns to modern 1st world high-rise cities, each of which introduce challenges to helicopter operations. –Competencies include the ability to operate in confined spaces, conduct hoisting/winching, use of troop insertion and extraction systems (TIES), use of spot maps, use of urban grid system, building numbering and floor/window labelling and knowledge of threat and enemy tactics. Knowledge and application of the specific urban detail contained within Ref A is also key.

- **Jungle**
  Missions in jungle environment are characterized by high temperature, high humidity, and flight over uniform tree canopy that has little topographic relief. Helicopter crews need competencies to conduct precise navigation, select Landing zones and operate in confined spaces, conduct hoisting/winching and the use of TIES and need additional survival training in Jungle environment.

2.2.6.5. Instrument Flight Conditions

Under given circumstances missions may have to be executed in Instrument Meteorological Conditions (IMC). IMC is an aviation flight category that describes weather conditions that require pilots to fly primarily by reference to instruments. There are two different competencies for instrument flight conditions:

- **IMC Flight following Instrument Flight Rules (IFR)**
  IFR certified helicopter crews must have the competency to perform flights in IMC following IFR.
- **IMC Flight not following Instrument Flight Rules (IFR)**
  The competency for crews to execute Missions in IMC while intentionally not following IFR.

2.2.6.6. Aided Night Flight

Aided flight during periods of darkness where crewmembers use a thermal or image intensifying device/system to amplify heat (e.g. FLIR) or ambient light energy (e.g. NVD) to gain visual situational orientation and awareness of their surroundings.

Aided Night Flight can create new limitations and restrictions due to degradation of visual acuity, lack of depth perception, reduction of visual cues, narrow field of view, monochrome display and difficulties in perceiving relative motion. Competent crews will be familiar with and able to safely operate within these limitations.

2.2.7. Deck Landing

On occasions, there may be a requirement for helicopter crews unfamiliar with the maritime environment to operate from the deck of a ship. If so, guidance, competencies and training required should be in accordance with Ref B and Ref C.

2.2.8. Troop Insertion/Extraction

While the most expeditious and safest way to insert or extract personnel is usually by landing the helicopter, the environment may not always allow a safe landing. Urban environments, forested / jungle areas, highly sloped terrain, obstructions such as wires, poles, or antennas and over-water operations can make a landing unsafe, or not possible; If this is the case, the use of troop Insertion and extraction systems (TIES) are required. The following TIES methods, requiring specific competencies can be employed:

2.2.8.1. Confined Area

Confined area landings (CAL) are landings to a site with restricted access due to location, size, and/or existing obstacles that affect the approach path, glide slope, and/or aircraft sequencing. Mission planning should take those physical and environmental constraints into account when briefing execution details.
Prior to conducting CALs, the landing site should be evaluated. Some factors to consider are location, size, shape, micro-topography, surface, wind effects, power available vs. power required, and climb-out options.

2.2.8.2. Special Patrol Infiltration/Exfiltration System (SPIES)

The practice of using a system with one end attached to the helicopter's anchor point and the other end attached to personnel on the surface. Personnel can be inserted or extracted from a confined area. Types of SPIE competencies include the use of rope, escape platform, ladder or other means.

2.2.8.3. HELO casting

Deploying personnel/equipment into water from a helicopter operating at very low height in the hover/slow forward flight.

2.2.8.4. Fast Rope Rappel (FRR)/Abseil

Deploying personnel/equipment from a hover using fast ropes/rappelling lines into the objective area.

2.2.8.5. Rope Ladder

Rope ladders are used for inserting/extracting personnel when the helicopter is required to hover at a height that is too high to jump, but low enough so that the rope ladder will reach the surface. When inserting/extracting more than two personnel, the use of a rope ladder is usually faster than hoisting.

2.2.8.6. Para Drops

Para dropping is deploying personnel into an objective area from the air by parachute, there are two different deploying methods requiring specific competencies:

- **Automatic opening**
  Where the chute of the paratrooper automatically opens upon exit from the aircraft and requires specific flying competencies to enable.
- **Freefall**
  Where the paratrooper exits the aircraft by freefall prior to manually opening their chute and requires different specific flying competencies to enable.

2.2.8.7. Hoisting/Winching

From the hover, using a hoist to lower and retrieve personnel, stretcher or equipment.

2.2.9. Aerial Gunnery

Aerial Gunnery competency is the ability to engage a target using the helicopter organic weapons systems. Competent crews will be trained in the use of the helicopter's weapons and the procedures for the appropriate delivery of ordinance specific to the mission.

Mission Types	Operational Competencies																																
	Refueling related			Evasive Manoeuvring			Formation Flying		Terrain Flight			External Load		Environmental Flight											Insertion / Extraction techniques								
	Aerial Refueling	Rapid Refueling	Aviation Delivered Ground Refuel	fixed-wing	helicopter	surface based	Section	Flight	Low-Level Flying	Contour Flying	Nap of the Earth (NOE)	Underslung Loads	Water bucket	DVE White Out	DVE Brown Out	Operations under CBRN conditions	CBRN Detection and Reporting	Mountainous Tactical Transit	Operating in Mountainous Terrain	Operational Environment	IMC following IFR	IMC not following IFR	Aided Night Flight	Deck Landing	SPIES	HELO-casting	Fast Rope Rappel (FRR) / Abseil	Rope Ladder	Para Drops - Automatic	Para Drops - Freefall	Hoisting	Aerial Gunnery	Remarks
Transport																																	
Air Movement		D				E	E	D	E			D									D	D	D									D	
Air Mobile		D				E	E	D	E			D									D	D	D									D	
Airborne		D				E	E	D	E												D	D	D						E	E		D	
Aeromedical Evacuation		D				E			E												D	D	D										
Attack																																	
Air Interdiction		D				E	E	D	E	E	E										D	D	E									E	
Close Air Support		D				E	E	D	E	E	E										D	D	E									E	JTAC-procedure training
Close Combat Attack		D				E	E	D	E	E	E										D	D	E									E	CCA Procedure knowledge
Direction and Control of Fires																																	
Forward Air Control (Airborne)		D				E	D		E	E	E												E										Special qualification for Direction and control of fires
Artillery Call Fire		D				E	D		E	E	E												E										Special qualification for Direction and control of fires
Naval Fire Support		D				E	D		E	E	E									D			E										Special qualification for Direction and control of fires
Reconnaissance and Tactical Security																																	
Reconnaissance (RECCE)		D				E	E		E	E	E												E									E	
Surveillance		D				E	E		E	E	E												E										
Tactical Security		D				E	E		E	E	E												E									E	JTAC-procedure training
Specialized Tasks																																	
C3 Support																																	
Airborne Command and Control		D		D	D	E			D	D	D												E										
Command and Control Support		D		D	D	E			E	E	E												E										
Relay		D		D	D	E																	E										
Personal Recovery																																	
CR		D		D	D	E	E		E	E	E										D		E		D		D	D			D	D	
CSAR	D	D		D	D	E	E		E	E	E										~~D~~		E		D		D	D			E	E	
NAR		D				E	E																										
SAR		D																													E		
Aerial Delivery		D				E			E													D	E										
Fire Fighting		D											E									D											

Legend:
E - Essential
D - Desireable
Blank - Condition based

Operational Competencies							
Competency		**STANAG**	**Date**	**Custodian**	**Standard**	**Currency**	**Remarks**
Refueling related	Aerial Refueling	3971 / ATP-56B, 7207 / ATP-3.3.4 ATP-3.3.4.2 ATP-3.3.4.2, AAR-SRD-2	22 APR 13 22 APR 13 18 NOV 13 19 FEB 16	MCASB AARWG MCASB AARWG MCASB AARWG MCASB AARWG	1 Wet (minimum transfer 200kg/500lbs) (Day/Night) 1 Dry (minimum of 1-min of dry contact) (Day/Night)	180-days (Day / Night) Recurrency: 270-days from the date of currency lapse	Provides Doctrine, C2 and Planning Considerations CH 2 HAAR, CH3 Tilt Rotor AAR Provides Certification and Currency Standards
	Rapid Refueling						
	Aviation Delivered Ground Refuel				Training according to national requirement	Currency according to national requirement	Crew Members need to be trained in the use of the equipment and the procedures to deliver fuel.
Combat Maneuvering	Against Fixed-Wing				Training according to national requirement	Currency according to national requirement	Crew Members trained to execute Aerial Combat Manoeuvres (ACM) to counter fixed-wing threats.
	Against Rotary-Wing				Training according to national requirement	Currency according to national requirement	Crew Members trained to execute Aerial Combat Manoeuvres (ACM) to counter Rotary-wing threats.
	Surface Based	2999 / ATP-49	03 MAR 16	MCLSB HISWG	Trained multi-ship / multi-type response addressed during mission planning		Terminology for different types of Evasive Manoeuvres (EVM) are described in ATP-49, 5.3.9.1
Formation Flying	Section	2999 / ATP-49	03 MAR 16	MCLSB HISWG			The different types of Helicopter Tactical Formation Flying are described in ATP-49, 5.2
	Flight	2999 / ATP-49	03 MAR 16	MCLSB HISWG			The different types of Helicopter Tactical Formation Flying are described in ATP-49, 5.2
Terrain Flight	Low Level Flying	2999 / ATP-49	03 MAR 16	MCLSB HISWG	200-ft or less		METT-TC Dependent
	Contour Flying	2999 / ATP-49	03 MAR 16	MCLSB HISWG			METT-TC Dependent
	Nap of the Earth (NOE)	2999 / ATP-49	03 MAR 16	MCLSB HISWG	As close to surface as vegetation and obstacles permit		METT-TC Dependent
External Load	Underslung Loads	2999 / ATP-49 2445 3542 2286 2970	03 MAR 16 28 FEB 11	MCLSB HISWG HISWG HUSLE			
	Water Bucket	ATP 90 2.2.6			Training according to national requirement	Currency according to national requirement	Crew Members need to be trained in the use of the equipment and execution of the procedures.
	DVE White Out	ATP 90 2.2.7					Referred to in the ATP-49 as either a "brown out" or a "white out" based upon the environmental operating conditions

Operational Competencies							
Competency		**STANAG**	**Date**	**Custodian**	**Standard**	**Currency**	**Remarks**
Environmental Flight	DVE Brown Out	ATP 90 2.2.7					Referred to in the ATP-49 as either a "brown out" or a "white out" based upon the environmental operating conditions
	Ops Under CBRN Conditions	2999 / ATP-49 2920 / ATP 3.8.1 Vol III 3497	03 MAR 16 05 APR 11 11 JAN 10	MCLSB HISWG MCJSB JCBRND MCASB AMDWG	Outline sylabus for Initial and Continuation Training	As specified by National Aircrew Training Programs	Training standards include using protective clothing and decontamination procedures of personnel and equipment
	CBRN RECCE						
	Mountainous Tactical Transit	2999 / ATP-49	03 MAR 16	MCLSB HISWG	I/A/W ATP-49 5.4.18		Mountainous flight occurs when terrain elevation exceeds 900m (3000ft) within a distance of 10NM.
	Operating in Mountainous Terrain	2999 / ATP-49	03 MAR 16	MCLSB HISWG	I/A/W ATP-49 5.4.18		Mountainous flight occurs when terrain elevation exceeds 900m (3000ft) within a distance of 10NM.
	Overwater Flight	ATP 90 2.2.11 MPP-02 Edition (G) Version (3)			Training according to national requirement	Currency according to national requirement	Crew Members need to be trained in water survival and the use of the survival equipment
	IMC following IFR	ICAO, FAR, etc.					Crews need to have an IFR Rating according to international Standards
	IMC not following IFR				Training according to national requirement	Currency according to national requirement	Crews need to be capable to execution Missions in instrumental meteorological conditions.
	Aided Night Flight				Training according to national requirement	Currency according to national requirement	
Insertion/Extraction	Deck Landing	MPP-02 Edition (G) Version (3)	04 JAN 16	MCMSB	Minimum Approaches and Landings: 8 Day, 8 Night, 4 NVD	180-days with minimum Approaches and Landings: 4 Day, 4 Night, 4 NVD	
	SPIES	MPP-02.3.10		HOSTAC	Training according to national requirement	Currency according to national requirement	MPP describes criteria for equipment and procedures. Crew Members need to be trained in the use of the equipment and execution of the procedures.
	HELO-casting				Training according to national requirement	Currency according to national requirement	Crew Members need to be trained in the execution of HELO-casting
	Rappel/ Abseil	1444		HOSTAC	Training according to national requirement	Currency according to national requirement	STANAG describes criteria for equipment and procedures. Crew Members need to be trained in the use of the equipment and execution of the procedures.
	Fast-Rope Insertion/ Extraction System (FRIES)	1444		HOSTAC	Training according to national requirement	Currency according to national requirement	STANAG describes criteria for equipment and procedures. Crew Members need to be trained in the use of the equipment and execution of the procedures.
	Para Drops - automatic	7190		MCASB	Training according to national requirement	Currency according to national requirement	STANAG describes criteria for equipment and procedures. Crew Members need to be trained in the use of the equipment and execution of the procedures.
	Para Drops - freefaller	7190		MCASB	Training according to national requirement	Currency according to national requirement	STANAG describes criteria for equipment and procedures. Crew Members need to be trained in the use of the equipment and execution of the procedures.
	Hoisting				Training according to national requirement	Currency according to national requirement	Crew Members need to be trained in the execution of Hoisting
	Aerial Gunnery				Training according to national requirement	Currency according to national requirement	Crew Members need to be trained in the use of the weapons and procedures to engage a target for attack or self-defence.

Operational Competencies Check List - Completed Example

1. This Annex to ATP-90 shows an example of a completed operational competencies check list, it provides a basis for how the table should be completed. The completed form should be accompanied by a statement from each nation declaring the number of aircraft and crews that they are bringing to the operation / exercise.

Nation: **Example-Nation**

Competency		# of Qualified Crews	# of Current Crews	Day	Night	NVD/NVG	Remarks / National Limitations
Refueling related	Aerial Refueling						
	Rapid Refueling						
	Aviation Delivered Ground Refuel						
Evasive Maneuvering	Against Fixed Wing						
	Against Rotary-Wing						
	Surface Based						
Formation Flying	Section						
	Flight						
Terrain Flight	Low Level Flying						
	Contour Flying						
	Nap of the Earth (NOE)						

External Load	Underslung Loads						
	Water Bucket						
Environmental Flight	DVE White Out						
	DVE Brown Out						
	Ops Under CBRN Conditions						
	CBRN RECCE						
	Mountainous Tactical Transit						
	Operating in Mountainous Terrain						
	Overwater Flight						
	IMC following IFR						
	IMC not following IFR						
	Aided Night Flight						

Insertion/Extraction	Deck Landing						
	SPIES						
	HELO-casting						
	Rappel/ Abseil						
	Fast-Rope Insertion/ Extraction System (FRIES)						
	Para Drops - automatic						
	Para Drops - freefaller						
	Hoisting						
	Aerial Gunnery						
Additional Competencies							

Limitations (e.g. weather, light, crewday, etc.)

Operational Competencies Check List - Completed Example

1. This Annex to ATP-90 shows an example of a completed operational competencies check list, it provides a basis for how the table should be completed. The completed form should be accompanied by a statement from each nation declaring the number of aircraft and crews that they are bringing to the operation / exercise.

Nation: **Example-Nation**

Competency		# of Qualified Crews	# of Current Crews	Day	Night	NVD/NVG	Remarks / National Limitations
Refueling related	Aerial Refueling	0	0	0	0	0	Helicopter not capable of aerial refuelling
	Rapid Refueling						
	Aviation Delivered Ground Refuel	0	0	0	0	0	Helicopter can receive fuel but are unable to provide fuel for others.
Evasive Maneuvering	Against Fixed-Wing	2	2	2	2	2	
	Against Rotary-Wing	0	0	0	0	0	
	Surface Based	4	4	4	4	4	
Formation Flying	Section	4	4	4	4	4	Trained to minimum separation distance of 2 rotor spans by day and 4 rotor spans by night / NVG.
	Flight	4	4	4	4	4	Trained to minimum separation distance of 2 rotor spans by day and 4 rotor spans by night / NVG.
Terrain Flight	Low Level Flying	4	4	4	4	4	
	Contour Flying	4	4	4	4	4	
	Nap of the Earth (NOE)	4	4	4	4	4	Minimum height for night / NVG operations 50ft AGL

External Load	Underslung Loads	4	4	4	4	4	
	Water Bucket	0	0	0	0	0	helicopter no equiped with water bucket
Environmental Flight	DVE White Out	3	3	3	0	3	Crews qualified for night DVE must use NVD. 1 crew requires to conduct 4 hours of training after which they will be qualified and current to conduct day and night DVE.
	DVE Brown Out	3	3	3	0	3	Crews qualified for night DVE must use NVD. 1 crew requires to conduct 4 hours of training after which they will be qualified and current to conduct day and night DVE.
	Ops Under CBRN Conditions	4	4	4	4	4	Crews are qualified to fly in CBRN but we do not have any COLPRO equipment and are reliant upon the host nation to provide this.
	CBRN RECCE						
	Mountainous Tactical Transit						
	Operating in Mountainous Terrain	4	4	4	4	4	helicopter are limited to maximum Density Altitude of 10,000ft.
	Overwater Flight	4	4	4	4	4	
	IMC following IFR	4	4	4	4	4	
	IMC not following IFR	4	4	4	4	4	
	Aided Night Flight	4	4	4	4	4	

Insertion/Extraction	Deck Landing	2	2	2	2	0	
	SPIES	4	4	4	4	4	
	HELO-casting	0	0	0	0	0	
	Rappel/ Abseil	4	4	4	4	4	
	Fast-Rope Insertion/ Extraction System (FRIES)	4	4	4	4	4	
	Para Drops - automatic	4	4	4	4	4	
	Para Drops - freefaller	4	4	4	4	4	
	Hoisting	3	3	3	3	3	All crews are qualified but one helicopter has an unserviceable hoist.
	Aerial Gunnery	0	0	0	0	0	helicopter fitted with a GPMP for self-defence only.
Additional Competencies							

Limitations (e.g. weather, light, crewday, etc.)

Nation X has 4 operational crews available for the period of Operation Y.
For day operations crews are limited to weather of minimum cloud base 300ft and visibility 1500m. Crew duty is limited to 8 hours flying.
For night operations (including NVG) crews are limited to minimum cloud base 500ft and visibility 3000m. Crew duty is limited to 4 hours flying during a period of darkness.
Minimum light levels that crew can fly over the land at night is 10 millilux.
Crews require 10 hours uninterupted rest after flying ceases.

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