



POLISH ARMED FORCES MILITARY ENGINEERING CHALLENGES AND OPPORTUNITIES



**SENIOR STAFF OFFICER
GENCOM MILENG DIRECTORATE**

Lt Col (OF-4) Tomasz CZEKIRDA (POL Army)
t.czekirda@ron.mil.pl
 **+48 501 412 466**

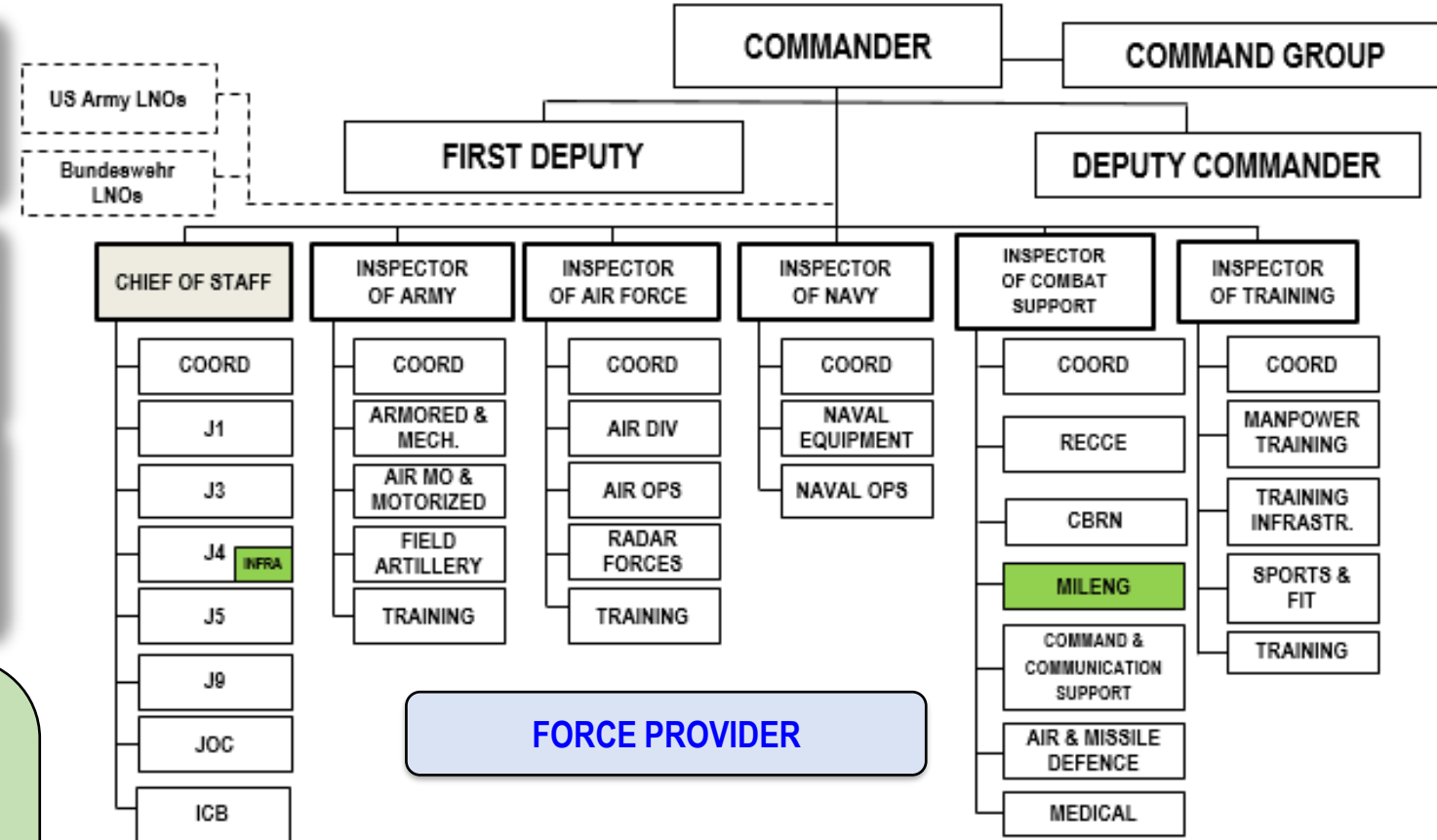


GENERAL COMMAND OF THE POLISH ARMED FORCES

MILITARY ENGINEERING DIRECTORATE



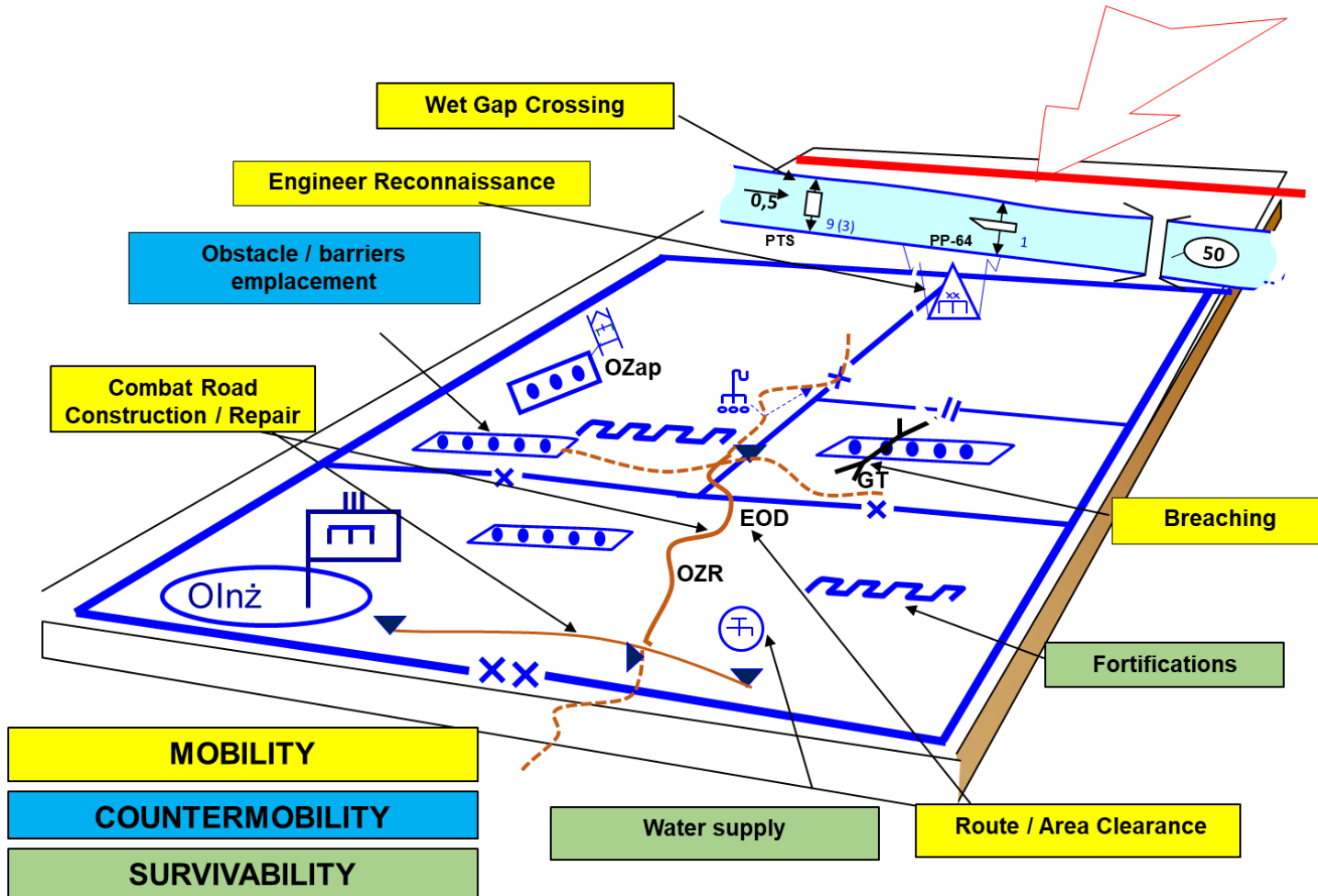
GENERAL COMMAND OF THE POLISH ARMED FORCES STRUCTURE & MISSION



- General Commander of Polish Armed Forces vision & objectives:**
- development of combat power for land, air, navy, special forces in order to strengthen the deterrence policy
 - building capabilities for effective defence
 - increasing the manpower
 - implementation of new combat systems
 - shaping new organizational culture



BUILDING POLISH ARMED FORCES MILENG CAPABILITIES AND DETERRENCE POSTURE



Organic engineer formation at Bde, Div, Corps

- Rear Area of Operation**
- Support to FoM
 - Establishing conditions for NATO troops deployment
 - Shaping physical environment

- Close Area of Operation**
- Execution of combat support
 - Reserve for LCC
 - Mobility and countermobility tasks at most dangerous enemy avenue of approach
 - Execution of combat support at Division level



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Russian Federation complex system of engineering barriers



The system of Russian engineering barriers consists of barriers and battle positions with a fire system (Surowikin line), that is a strongly fortified defense line. Minefields are most often mixed minefields consisting of anti-personnel mines, anti-tank mines, booby traps, IEDs, UXO and signal mines.



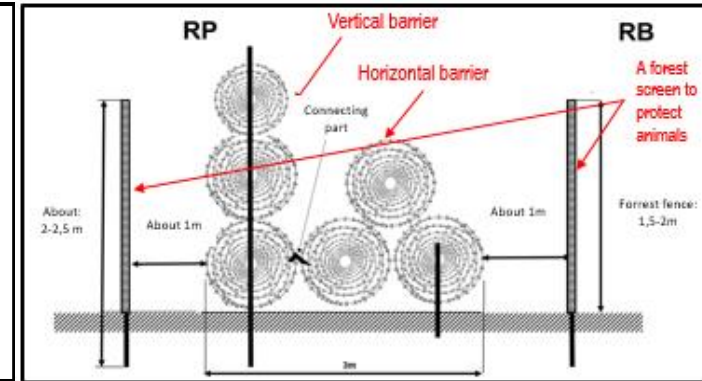
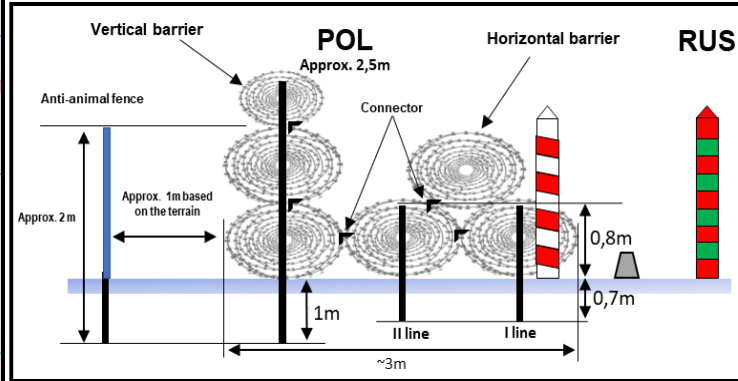
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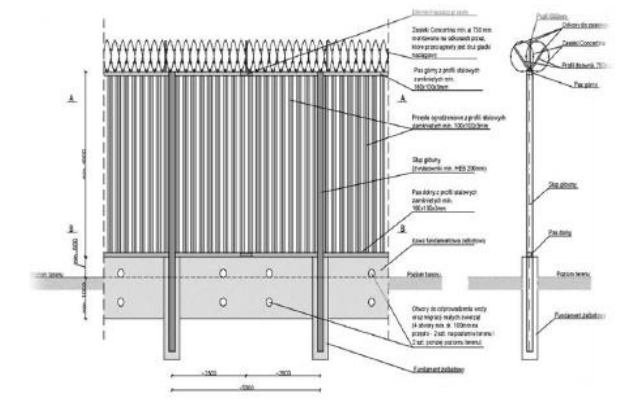


ENGINEERING SUPPORT TO SECURE THE BORDERS AGAINST HYBRID THREAT

I stage: Engineer Integrated Barrier



II stage: Permanent Barrier



Peacetime prepared barriers
(Baltic Defence Line) ?





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Training support to Ukrainian Sappers



MISSION

- Save lives with highest quality training possible
- Build **multinational** relationships
- Maximize **initiative** and instruction at lowest levels

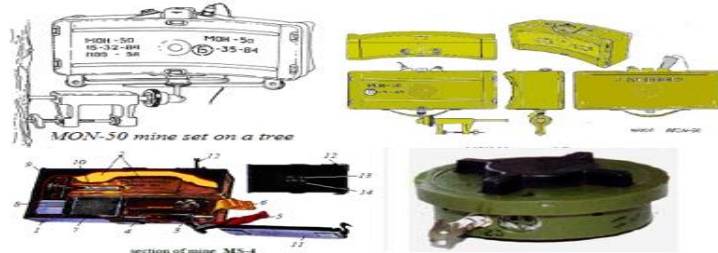
Training outcomes:

- Multinational support & Coordination (UE mission)
- Flexibility and adaptivity to UKR needs
- Training quality
- International interest
- Building multinational relationships

14 x editions of basic sapper training

Nearly 1300 soldiers from AFU trained in **CAMP SAPPER**

Wide spectrum of mines used by Russia Federation troops



Sapper-instructor training

Prepare and execute the training in order make UKR personnel ready to perform the role as Instructor-Sapper and/or Trainer-Assistant during basic sapper-soldier training.

Basic sapper-soldier training

Training executed in 3 blocks:

- explosive works,
- mines and minefields laying and breaching,
- identification, neutralization and engineer reconnaissance.

To fully support UKR Basic Sapper Training (dummy/mock-up) mines, fuses are required:

- Fuzes: MUV-3, MUV-4, VPF, NM-71
- Mines: MON-50, MON-90, MON-200, MC-3, MC-4, ML-7, MZU, MZU-2, TM-57, TMK-2, TM-83, PMN, PMN-2, PMN-3, PMN-4, PTM-1, PTM-3, POM-2, PFM-1, PFM-1S



Usually days of Ukrainian sappers

Fundamentals Rotation		Main Topics Rotation 3 Weeks							FTX	
Arrival	3-Day Rotation	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	2 Days	Departure
1 Platoon (40 PAX)	Safety and Intro to Explosives	Complex Firing Circuits	Attack Metal & Wood	Attack Concrete	Attack Equipment	Attack Structures	Demolitions Exercise	Welfare	Field Training Exercise	Departure
2 Platoon (40 PAX)	Search Drills	Theory of Mines	Explosive Threat Indicators and Intro to Mines	AT Minefield Laying and Clearance	Employ Hook & Line Kits	Engineer Recce	Obstacle Breaching			
3 Platoon (40 PAX)	Explosive Ordnance Recce	Theory of IEDs and Booby-traps, EOR	Neutralize IEDs & Booby-Traps	Building Search	Defensive Position Search	General Engineer Search	Medical Training			

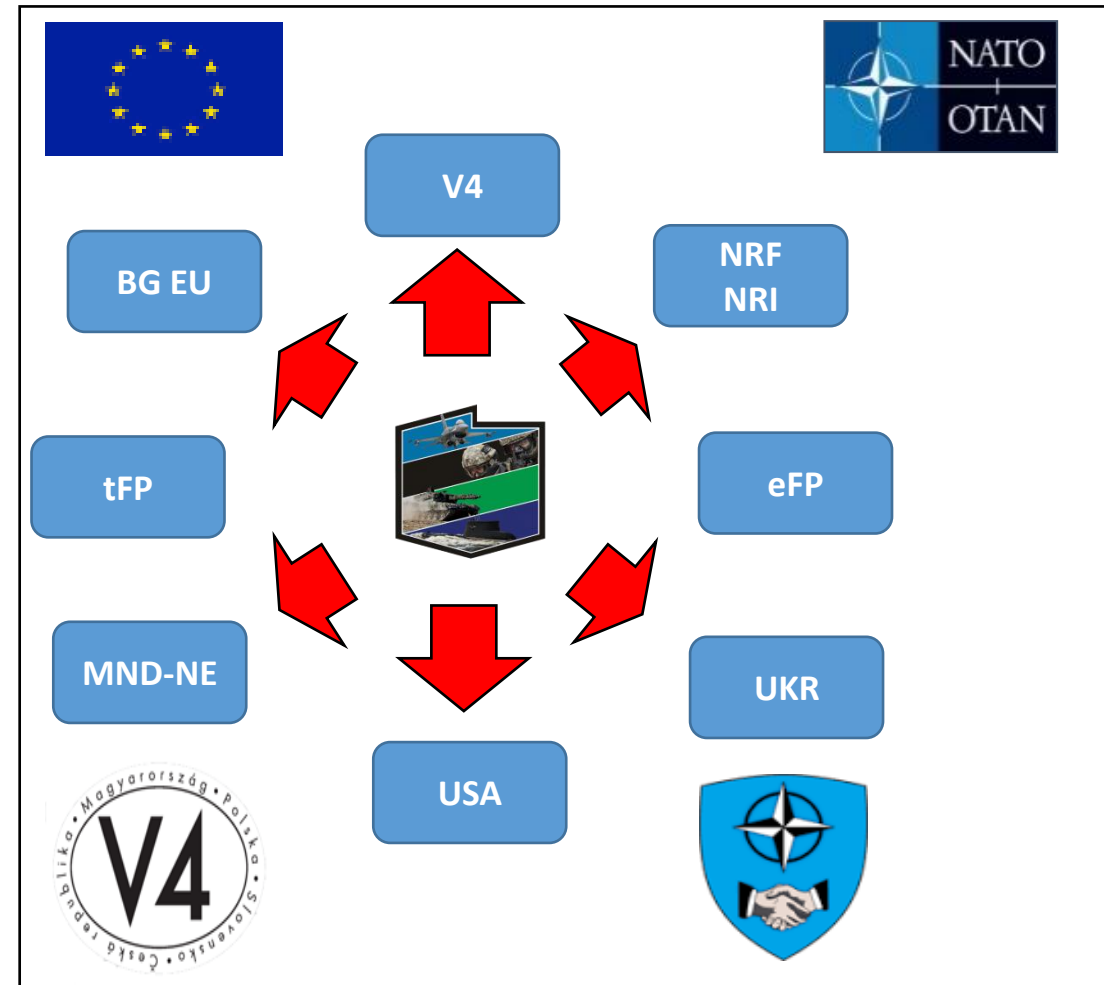




GENCOM MILENG DIRECTORATE TREX STRATEGY PRINCIPLES

PAF MILENG COOPERATION PRINCIPLES:

- Bolstering close and effective MILENG TREX cooperation with allies and partners.
- Maintain open doors for all bilateral, multinational initiatives aiming to leverage MILENG.**
- Seek opportunities for enhancement of MILENG interoperability at company and battalion level. Interoperability starts from the ground.
- Focus on bilateral & multinational developments of MILENG traditional roles and functions (mobility, counter mobility, etc.).
- Actively contribute to initiatives aiming to enhance national & NATO MILENG capabilities (e.g. USA-POL, GBR-POL, DEU-POL Staff Talks and the others.).
- Continue close multinational TREX cooperation.



EX ANACONDA-23

LARGE SCALE GROUP EXERCISES 24
(NATO&US)

EX DRAGON-24
EX EURETEX-24

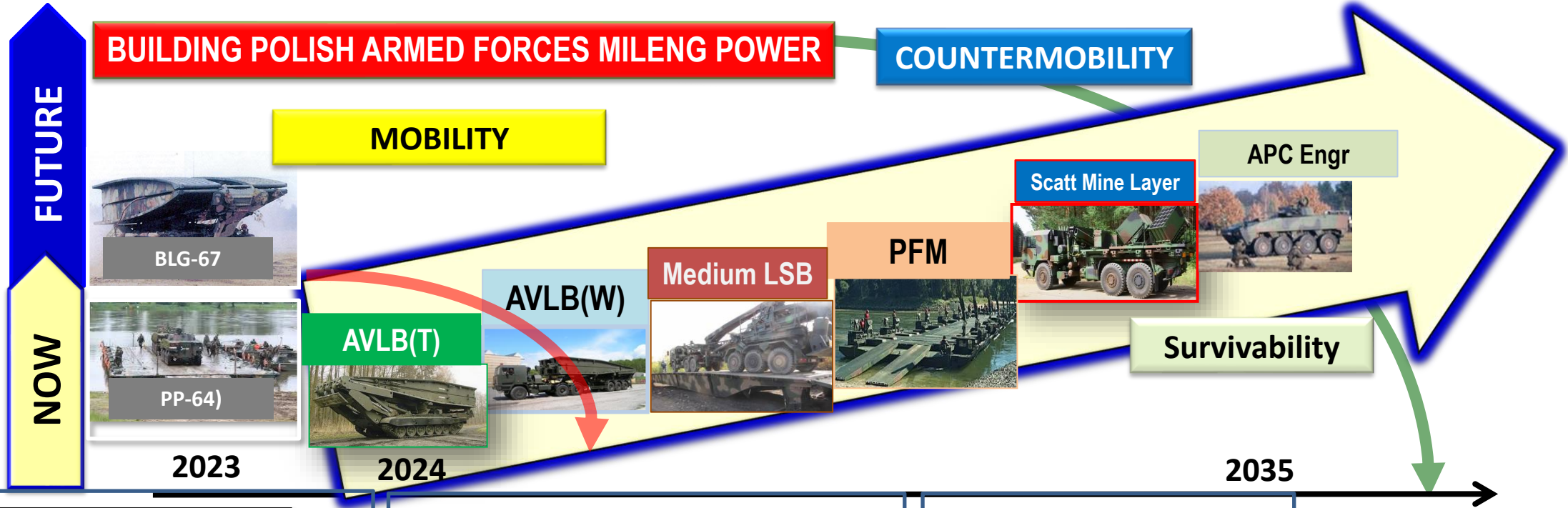


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GENERATIONAL REPLACEMENT AND KEY MODERNIZATION PRIORITIES FOR PAF MILENG



K2 Black Panther Programme Engineer Package ongoing



MBT ABRAMS Programme for Sappers



MRAP Programme for Sappers



Hasty building of infrastructure - New capability for troops and equipment



30m x 25m x 10.2m SHELL
+ Insulation
+ Openings
+ Flooring:



20m x 26m x 8m SHELL:



25m x 10.2m x 5m SHELL
+ Insulation
+ Openings
+ Flooring:



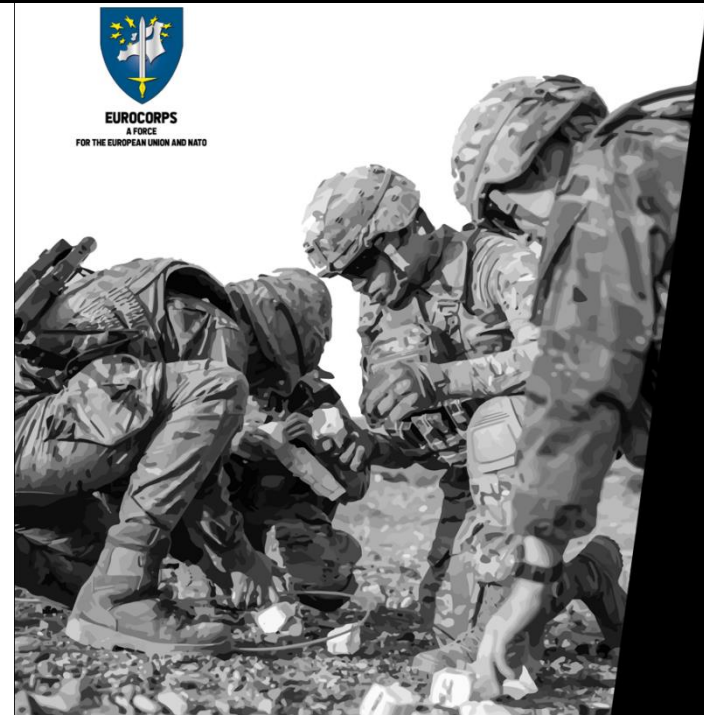
EURETEX-24 INDUSTRY DAY

Networking military and industry at tactical level (tools & boots on the ground)

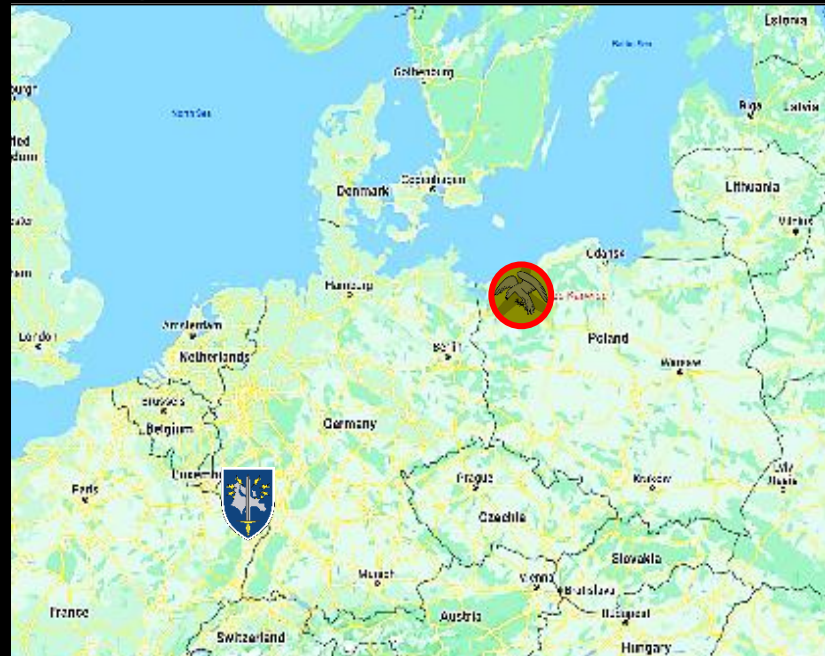


Combat Training Centre Drawsko Pomorskie POLAND

18 JUN 2024



MILITARY ENGINEERS
EXPLOSIVES ORDNANCE DISPOSAL
CHEMICAL BIOLOGICAL RADIOLOGICAL NUCLEAR
MILITARY GEOGRAPHY
METEOROLOGY AND OCEANOGRAPHY



- 13 nations
- More than 1200 soldiers
- Sappers, EOD, GEO, K9, METOC, CBRN, CBRN EOD, DIVERS, Infantry,
- Coy level exercise
- Industry welcome to bring their products and assets and play vital role in the TREX,
- Details to be coordinated with EUROPCRPS and GENCOM POCs.

- Combat Training Centre Drawsko Pomorskie, DPTA, POLAND
- 18 JUN 2024, static display 10.00 - 13.00

To get an invitation please forward the request to:

t.czekirda@ron.mil.pl
ENG@EUROCORPS.ORG

- EURETEX - exercise lead by HQ EUROCORPS, designed to prepare military engineers for their role in multinational environment by sharing experience, best practices, tactics-techniques and procedures.



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2021



TOTAL
311 278

Demining tasks	
Number of personnel	365
EOD Patrols	46
Notification numbers	8 877
ERW (EO) disposal	311 278
Number of kilometers	1 542 9884 km
Explosives used	9 813,1 kg

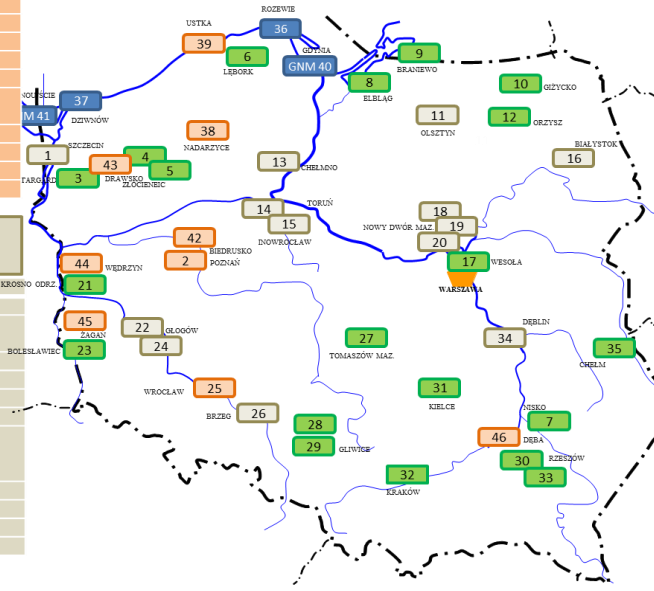
TRAINING INSPECTORATE (10)

Nr	Dyslokacja
PS 2	CSWL POZNAŃ
PS 25	CSWICH WROCLAW
PS 31	CPdMZ KIELCE
PS 38	21. CPL NADARZYCE
PS 39	CPSP USTKA
PS 42	CSWL POZNAŃ (BIEDRUSKO)
PS 43	CSWL DRAWSKO
PS 44	OSP WL WĘDRZYN
PS 45	OSP WL ŻAGAŃ
PS 46	OSP WL DĘBA

COMBAT SUPPORT INSPECTORATE (13)

Nr	Location
PS 1	5. pinż SZCZECIN
PS 11	9. pr LIDZBARK WARMIŃSKI/OLSZTYN
PS 13	3. bdm CHELMNO
PS 14	2. pinż INOWROCLAW
PS 15	2. pinż INOWROCLAW
PS 16	18. pr BIALYSTOK
PS 18	2. psap NOWY DWÓR MAZOWIECKI
PS 19	MAZOWIECKI
PS 20	
PS 22	4. binż GLOGÓW
PS 24	4. binż GLOGÓW
PS 26	1. psap BRZEG
PS 34	1. bdm DĘBLIN

Sapper Patrols Land Forces – 44 Sapper Patrols Navy – 2



NAVY INSPECTORATE (4)

Nr	Location
PS 36	43. bsap ROZEWIE
PS 37	8. bsap DZIWNÓW
GNM	12. dTR ŚWINOUJŚCIE
GNM	13. dTR GDYNIA

LAND FORCES INSPECTORATE (19)

Nr	Location
PS 3	2. bsap STARGARD
PS 4	2. BZ ZŁOCIEŃCIEC
PS 5	2. BZ ZŁOCIEŃCIEC
PS 6	1. bz LĘBORK
PS 7	16. bsap NISKO
PS 8	2. dplot ELBLĄG
PS 9	9. BPanc BRANIEWO
PS 10	15. BZ GIŻYCKO
PS 12	15. bsap ORZYSZ
PS 17	1. BPanc WARSZAWA-WESOLA
PS 21	5. bsap KROSNO ODRZAŃSKIE
PS 23	23. pa BOLESŁAWIEC
PS 27	25. bdow TOMASZÓW MAZOWIECKI
PS 28	6. bpd GLIWICE
PS 29	6. bpd GLIWICE
PS 30	21. bdow RZESZÓW
PS 32	16. bpd KRAKÓW
PS 33	21. bdow RZESZÓW
PS 35	19. bz CHELM

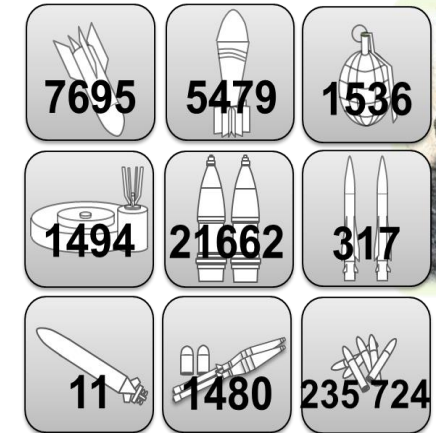
2022



TOTAL
257 753

Demining tasks	
Number of personnel	417
EOD Patrols	46
Notification numbers	7129
ERW (EO) disposal	257 753 pcs
Number of kilometers	1 542 984 km
Explosives used	9 813,1 kg

2023



TOTAL
373 479

EOD tasks	
Number of personnel	495
EOD Patrols	46
Notification numbers	6 899
Number of kilometers	1 434 607 km



GENERAL COMMAND OF THE POLISH ARMED FORCES



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GENCOM MILENG SUPPORT TO DISASTER RELIEF OPERATION 2019 / Warsaw

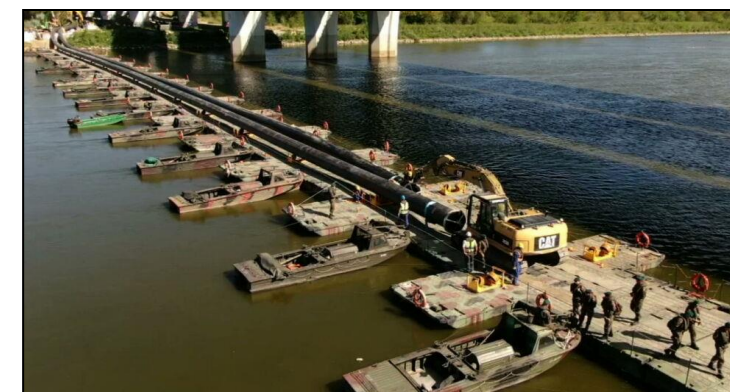
Background

On August 30 (2019), the Masovian Local Authorities requested the MOD for the support to the public administration to cope with the uncontrolled discharge of waste to the Vistula river in the city of Warsaw. MILENG TF were requested to build a floating bridge as a temporary foundation for pipes connecting the damaged sewage collector with the sewage treatment plant.



TIMELINE	
Recce	291000AUG19
Deployment	NLT 292000AUG19
Task order	300900AUG19
Task completed	031030SEP19
Pipe installation	NLT 071500SEP19
Sewage pumping	091000SEP19

	ENG Task Force		Total
	2nd ENG regiment	2nd SAPPER Regiment	
Military boat	13	2	15
Military vehicle	27	18	45
Pontoon bridge	86	18	104
Engineers	55	25	80





GENERAL COMMAND OF THE POLISH ARMED FORCES



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GENCOM MILENG SUPPORT TO DISASTER RELIEF OPERATION 2023 / ETF SLOVENIA

Background

As a result of heavy flooding, more than 200 bridges has been damaged. Authorities from Republic of Slovenia requested international disaster relief aid operation. Poland quickly responded with deployment of engineer troops equipped with Polish bridge type DMS-65* and heavy equipment.

GENCOM MILENG Directorate coordinated with SVN counterparts building two bridges at Mezica and Gornij Grad.

TIMELINE

SVN request for support	8 Aug 2023
Recce	10-14 Aug 2023
GENCOM FRAGO	17 Aug 2023
Deployment of Advance Party	19 Aug 2023
Deployment of main body	22 Aug 2023
Task completion	First bridge constructed at MEZICA at 31Aug 2023 Second bridge in Gornij Grad under construction

Engineer Task Force (ETF) Slovenia

Unit	2 nd GS Engineer Regiment Inowroclaw
Military equipment	25 pc
Logistic bride type DMS-65	51 m
Engineers	47 PAX



* DMS-65 has been taken from National Strategic Reserve after decision of Prime Minister



KEY TAKEAWAYS

- ❑ **FUNDAMENTAL ROLE OF MILENG. THE COMBAT ENGINEERING & LOGISTICS BECOME MORE IMPORTANT FOR MANEUVER FORCES**
- ❑ **INTEROPERABILITY STARTS FROM THE GROUND**
- ❑ **UKR LESSONS AND IMPACT ON MILENG**
- ❑ **CLOSE MILENG COOPERATION AS A KEY AND CRUCIAL FACTOR FOR THE FUTURE**





THANK YOU
FOR YOUR ATTENTION