

A detailed illustration of a military helicopter, shown from a side profile, flying towards the right. The helicopter is rendered in a light blue color with a dark blue outline, set against a dark blue background. The main rotor and tail rotor are clearly visible.

***New challenges of present & future
military activities
- Polish helicopter sector's answer***

Mieczysław Majewski – President ,CEO of Polish Aviation Works „PZL-Świdnik” S.A.

New threats & new challenges

- ”
- ∅ Military operations shall take form of armed interventions.
 - ∅ Intervention operations shall be the main activity form of the Polish Armed Forces.
 - ∅ The Land Forces shall become a qualitatively new army formation of a high mobility and manoeuvrability.
 - ∅ Stabilisation forces shall be the largest, in terms of the manpower, set of the armed forces.
 - ∅ Stabilisation forces shall monitor observance of the economic embargos, separate parties to a conflict, monitor ceasefire and neutralise forces trying to destabilise the process of political, social and economic stabilisation. ”



from Vision of the Polish Armed Forces 2030

- ”
- ∅ ESDP operations will be expeditionary, multinational and multi-instrument, directed at achieving security and stability more than “victory” ”

from the Long-Term Vision report published by the European Defence Agency in October 2006



New threats & new challenges

- Poland participates in the most of NATO operations: in Afghanistan (ISAF), Kosovo (KFOR), Iraq (training mission NTM-I), in the Mediterranean Sea (Active Endeavour) and in others including anti-terrorist actions as well as support human help actions.
- The nature of potential activities and conflict regions needs great mobility troops. Helicopter is the best key to reach it.
- The experiences from previous and existing military operations drive helicopters' modernization and create develop of new one.



Mi-24W helicopter upgrading



Infrared jamming station - ADROS

Internal and external lights adapted for NVG



VOR/TAC ILS

Intercom System ZSL

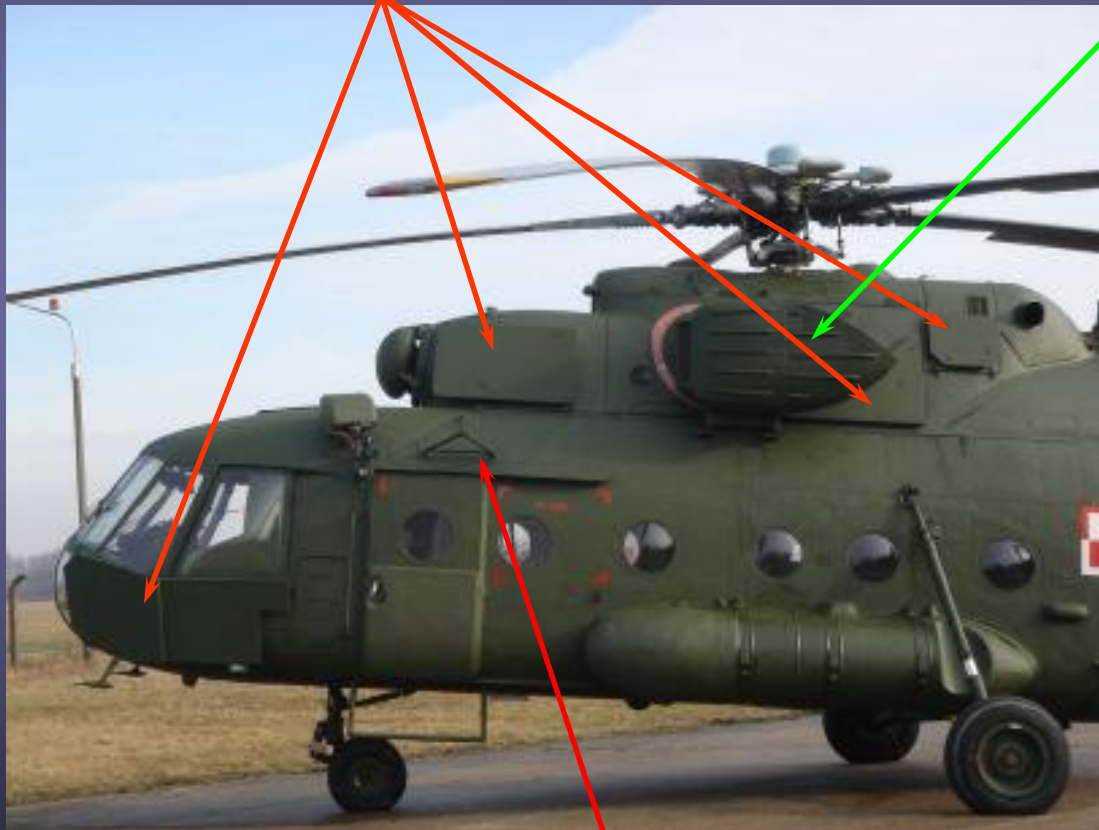
GPS Garmin



Mi-17-1V helicopter - armour

External armour –
Power unit, pilot cabin

Exhaust gas's
disperses



External stand
for soldiers landing

Armour transport
cabin



Adaptation Mi-8 helicopter to SAR configuration

HF, VHF and UHF
Transceivers

Intercom
KMA 210

GPS
Garmin

VOR/TAC/ILS
system

Search direction finder
DF-430F



SX-16

FLIR
System

Additional
step

Hoist with
Lucas system

Rescue
equipment



Mi-17 AE helicopter upgrading



Rescue equipment

Oxygen system



Air conditioning



Power supply
230V/50Hz 12VDC

Stretchers fix frames

Life rescue equipment



Programme GLUSZEC

FLIR head

Hoist with Lucas system 270 kg

Infrared jamming station

Antennas



Turret gun with 12,7mm WKM-B

Enforced pylons for UPK-23 and NATO standard armament

Chaff /flares disperser



Programme Sokol II / SW-5



SW-5 helicopter concept



Programme Sokol II / SW-5

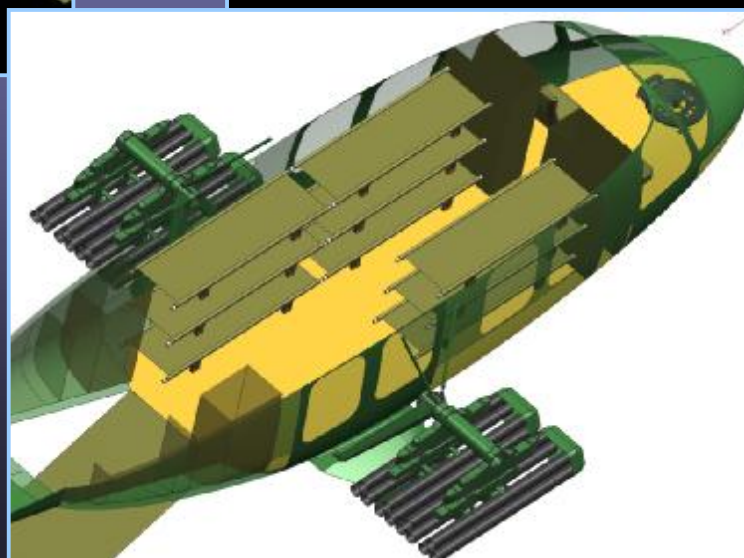


- ü Take off mass 7000 -7500 kg
- ü Payload mass 2800÷3000kg
- ü 2 +14 soldiers fully equipped
- ü Max. speed > 300 km/h
- ü Max. range: 1000 km
- ü Transport / Medevac versions

SW-5 helicopter concept – military versions



Programme Sokol II / SW-5



Transport
&
Medevac
versions



SW-4 Programme – Training and liaison version



SW-4 Programme Training and liaison version



Main modifications

- ü radio and navigation equipment modification
- ü in training version, introduction additional helicopter`s flight control instruments (for instructor) and panel for imitation of damages and failures
- ü adaptation for flights with NVG
- ü equipment for flights simulation IFR



**THANK YOU
FOR
YOUR ATTENTION !!!**