

TAERO - A MANNED-UNMANNED HIGH MOBILITY VEHICLE FOR AIRDOP

This vehicle was developed by a consortium of companies: Auto Podlasie, AP Solutions, Stekop S.A and The Military Institute Of Armoured And Automotive Technology. This is **unmanned version of AERO** vehicle, design and developed mainly for the airborne forces.



**AWARDED THE DEFENDER AWARD
DURING XXXI MSPO IN KIELCE.**



TAERO

Description

The **TAERO** is specifically designed for public roads and off-road operated in manned mode (with a driver). Depending on the combat situation, military and non-military threats, the vehicle can be reconfigured into unmanned mode withing 5 minutes.

Unmanned mode allows to carry out the following tasks:

- ▶ remote-controlled driving of a vehicle by an operator;
- ▶ following the route saved during the manned or remote control mode;
- ▶ autonomous waypoint navigation;
- ▶ shuttle driving between designated points;
- ▶ multiple vehicles moving together as a swarm;
- ▶ driving in a tandem with an armoured vehicle - a mobile control station;
- ▶ reconnaissance and observation missions using additional equipment like an observation head;
- ▶ using electric drive for silent operation.



AERO



TAERO - a manned-unmanned high mobility vehicle for airdop

Contact deitals:

Auto Podlasie Sp. z o.o.

14 Terespolska
Siedlce, 08110 Poland

☎ 22 120 17 20

✉ kontakt@aproduct.pl

🌐 www.grupaaautopodlasie.pl
www.aero4x4.com

Contact person:

Piotr Lasek

Constructor

☎ +48 604 796 824

✉ piotr.lasek@toyota-siedlce.com.pl

The vehicle was equipped with a central processing unit containing the necessary IT infrastructure, a precise GPS including Inertial Navigation System (IMU), situation awareness sensors and mechatronic drives adopted to manage factory fitted mechanisms of the platform. The system is equipped with a security module that authorizes access allowing management of the vehicle and its resources, and a set of high-data rate radio systems that enables the transmission of control and vision signals with minimal delays. Architecture enables integration with additional modules, e.g. observation head, weapon systems, threat detection systems.

The vehicle is equipped with a **dual drive**: diesel (main) and electric (supportive) for silent operation.

TAERO - MANNED-UNMANNED MODE, DUAL DRIVE

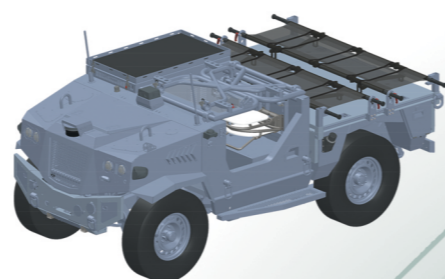
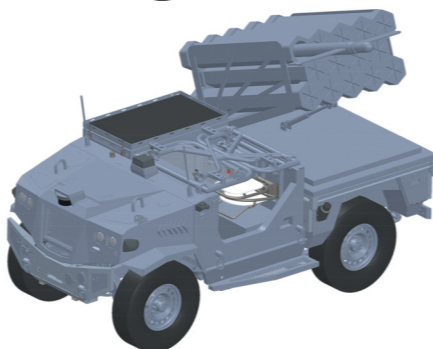
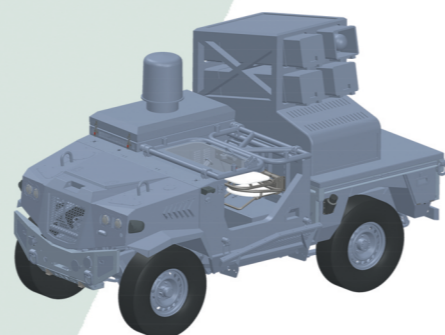


Vehicle is adapted to:

- ▶ airdrop on the PDS platform;
- ▶ transport on board aircrafts;
- ▶ road, rail and sea transport;
- ▶ sling under a helicopter;
- ▶ transport of cargo on a loading platform with the possibility of self-loading;
- ▶ towing trailers or anti-mine trawls.

Modular structure of the cargo space as well as on-board power supply with high efficiency enabling the use of the **TAREO** as:

- ▶ engineering and chemical reconnaissance vehicle;
- ▶ platform for reconnaissance equipment;
- ▶ base for remotely controlled weaponized modules;
- ▶ platform for anti-tank rocket launchers;
- ▶ deployment system for an unmanned aerial vehicle;
- ▶ carriers for drone destruction systems;
- ▶ medical evacuation vehicle;
- ▶ passive tracking using 2 vehicles with observation head;
- ▶ resistance to interference and operation in extraordinary situations;
- ▶ possibility of remote or manual self-destruction;
- ▶ possibility of switching to manual driving mode;
- ▶ possibility of using the vehicle as an energy bank;
- ▶ can be used as a mobile generator set;
- ▶ possibility of driving after damage of tires.



TECHNICAL DATA

Dimensions and weight	
Length:	3600 mm
Width:	2100 mm
Height:	2100 (1550) mm (without mirrors and antennas)
Engine, driveline and equipment	
Diesel engine power:	96 kW (130kM)
Range (Diesel mode):	up to 400 km
Powe of electric motor:	50 kW
Range (Electric mode):	do 30 km
Battery capacity:	30 kWh
Energy recovery system	Yes
Maximal speed:	up to 100 km/h (suggestion 50km/h)
Drive:	4WD part time drive
Differential lockers:	Front and rear
Curb weight:	2800 kg
Capacity:	1000 kg
The operational range of radio:	5 km
Transmission encryption:	AES 256
Navigation system	GNS + INS
Vision system resolution:	Thermal camera - 640 x 480 px
	Day camera - 1920 x 1080 px
	Side cameras - 2Mpx

TAERO
TAERO presented in manned configuration