

Palletized Load System (PLS) and PLS Extended Service Program (ESP)

INVESTMENT COMPONENT

Modernization

Recapitalization

Maintenance

MISSION

Supports combat units by performing cross-country movement of configured loads of ammunition and other classes of supply loaded on flat racks or in containers.

DESCRIPTION

The base Palletized Load System (PLS) consists of the PLS truck, the PLS trailer, and demountable flat racks. The PLS is a 10x10, ten-wheel-drive, multi-drive truck with 16.5-ton capacity. It provides the timely delivery of unit equipment, a high tonnage of ammunition, and International Organization for Standardization (ISO) containers/shelters. It also carries all classes of supplies to units and weapon systems as far forward in the maneuver battalion area as the tactical situation allows. The PLS truck is equipped with an integral onboard load handling system that provides self-loading and unloading capability of flat racks, container roll-in/out platforms and 20-foot ISO containers.

There are two PLS truck variants: 1.) the basic PLS truck (M1075), and 2.) the PLS truck with materiel handling crane (M1074). The system also includes: the optional PLS trailer (M1076), a truck-mounted container handling unit for transporting 20-foot ISO containers; the M3/M3A1 container roll-in/out platform; and the M1/M1077A1 flat racks. The PLS trailer also has a matching payload capacity to the PLS truck of 16.5 tons.

The new PLSA1 truck model was fielded in 2011. It incorporates: independent front suspension, a new Caterpillar C-15 engine, the Allison 4500SP 6-speed transmission, J-1939 data-bus, and a cab that is common with the Heavy Expanded Mobility Tactical Truck A4 long-term armor strategy compliant cab.

The PLS Extended Service Program (ESP) is a recapitalization (RECAP) program that converts high-mileage base PLS trucks to zero miles/zero hours and to the current A1 production truck configurations. The base PLS trucks are disassembled and rebuilt with improved technology such as

an electronically controlled engine, electronic transmission, air ride seats, four-point seatbelts, bolt-together wheels, increased corrosion protection, enhanced electrical package, and independent front suspension on the PLSA1 truck.

SYSTEM INTERDEPENDENCIES

None

PROGRAM STATUS

- **Current:** To date, fielded approximately 6,000 PLS trucks and 13,000 PLS trailers

PROJECTED ACTIVITIES

- **FY10:** PLSA1 type classification/materiel release
- **FY11:** PLSA1 first unit equipped
- **FY12:** PLSA0 RECAP begins
- **FY13:** PLSA1 New production ends

ACQUISITION PHASE

Technology Development

Engineering & Manufacturing Development

Production & Deployment

Operations & Support



Palletized Load System (PLS) and PLS Extended Service Program (ESP)

FOREIGN MILITARY SALES

Turkey, Israel, Jordan

CONTRACTORS

Prime:

Oshkosh Corp. (Oshkosh, WI)

Engine:

Detroit Diesel (Emporia, KS; Redford, MI)

Caterpillar C-15 (Peoria, IL)

Transmission:

Allison Transmission (Indianapolis, IN)

Tires:

Michelin (Greenville, SC)

	PLS	PLSA1
ENGINE	DDC 8V92 - 500 horsepower	CAT C-15 - 600 hp @ 2100 RPM
TRANSMISSION	Allison CLT-755 - 5-Speed	Allison HD 4500 - 6-Speed
TRANSFER CASE	Oshkosh 55,000 - 2-Speed	New Oshkosh - 2-Speed
AXLES FRONT: TANDEM	Rockwell SVI 5MR/Planetary Hub	Oshkosh TAK-4 with AxleTech carrier with differential lock and planetary wheelends
AXLES: REAR TRIDEM	Rockwell SVI 5MR	AxleTech carrier with differential lock and planetary wheel ends
SUSPENSION - AXLES #1 & #2	Hendrickson RT-340 - Walking Beam	Oshkosh TAK 4 Steel Spring
SUSPENSION - AXLE #3	Hendrickson-Turner Air Ride	Hendrickson-Turner Air Ride
SUSPENSION - AXLES #4 & #5	Hendrickson RT-400 - Walking Beam	Hendrickson RT-400 - Walking Beam
WHEEL ENDS	Rockwell	Rockwell
CONTROL ARMS	N/A	Standard MTRV on Front Tandem
STEERING GEARS - FRONT	492 Master/M110 Slave	M110 Master/M110 Slave
STEERING GEARS - REAR	492	M110
FRAME RAILS	14-inch	14-inch
CAB	PLS	LTAS Compliant Common Cab
RADIATOR	Roof Mount	Side Mount
MUFFLER	PLS	New
AIR CLEANER	United Air	United Air
LHS	Multilift MK V	Multilift MK V
CRANE	Grove	Grove
TIRES	Michelin 16.00 R20 XZLT	Michelin 16.00 R20 XZLT
SPARE TIRE	1 - Side Mounted	1 - Roof Mounted
CTI	CM Automotive	Dana
AIR COMPRESSOR	1400 Bendix	922 Bendix
STARTER	Prestolite	Prestolite
ALTERNATOR	12/24V	260 Amp Niehoff

