

The U.S. Army Class 1500 Fire Truck



Class 1500 USA 14A276

Beginning in 1954 the Army Corps of Engineers had begun development of the Class 1500 Crash Truck to meet the challenges associated with new type of weapons, Redstone missile installations and the increased use of aircraft at Army Airfields, but it wasn't until 1959 that the truck went into production. Manufactured by the Walter Motor Truck Company, Model MF, 136 were built at \$69,630 each. It was constructed with an all-aluminum frame which was integral with giving a very rigid construction. The 4x4 vehicle was powered by a rear mounted, LeRoi, 8-cylinder, 300 hp. gasoline engine driving all 4 wheels through a torque converter and 3 speed transmission and could travel at low speed while pumping at full capacity through a special pump transmission. Fully loaded the truck had a top speed of 60 mph and could accelerate from 0 to 50 mph in 60 seconds. It measured 28 ft in length, was 8 ft. wide and 12 ft. at the highest point on the turret.

The completely enclosed, heated cab could hold 6 fire fighters and protection of all equipment was provided in enclosed and heated compartments. Two 150 foot, 1 inch booster lines were mounted on hose reels in compartments on each side of the body. The truck was equipped with a Hale two stage 1,500 gpm centrifugal pump, mounted midship on the chassis with the pump panel located on the right side of the vehicle and carried 950 gallons of water and 200 gallons of foam. A remote controlled turret nozzle designed by the Engineer Research and Development Laboratories was located on the roof of the truck cab and a 20,000 pound winch with 300 feet of 5/8 inch cable was mounted on the forward vehicle frame with operation controls located in the cab. A 20 foot extension and 16 foot A frame ladder along with 4, 5 in hard tubes were carried above the engine compartment between the two hose beds. The hose beds held 1,000 feet of 2 ½ and 150 feet of 1 ½ inch hose. Tires were flotation type military size 16-00 x 25.

Originally intended to be assigned to missile bases, early on in deployment the Ordnance Center at Redstone Arsenal decided the Class 1500 could not fight the kinds of fire that would result if a Redstone Missile exploded. The trucks were returned to the Corps of Engineers to be used for other purposes. A number were assigned to Army depots and airfields, but by the early 1960s most were declared excess. A number were purchased by airports country wide and the rest offered to the Air Force.

Below information found and presented to congress in regards to the Air Force declining the Class 1500 fire trucks.

Department Of Defense Appropriations 1963

Army Class 1500 Crash Truck

Extract

General Senter. During the past year the Army has available 136 Class 1500 fire trucks to support the Army missile program. This equipment were made available for the Air Force during the past year. The Air Force was unable to use this equipment for the extensive modifications which would have to be made to the fire trucks to bring them up to meet our requirements. The fire trucks which belonged to the Army had been in storage for some time, and would require considerable upgrading.

Mr. Ford. Could you tell us General, what modifications were necessary, how much they would have cost, and why, even with those modifications, they were not up to standard.

General Senter. I do not have with me the complete breakdown, but a study was made by the GAO had called these vehicles to our attention.

Mr. Ford. Are your requirement for aircraft or missiles?

General Senter. These were offered to us for use in fulfilling our requirements for aircraft. They were actually developed for the Army missile use.

Mr. Ford. Would you put in the record the specific reasons why they would not meet your requirements?

The information requested follows.

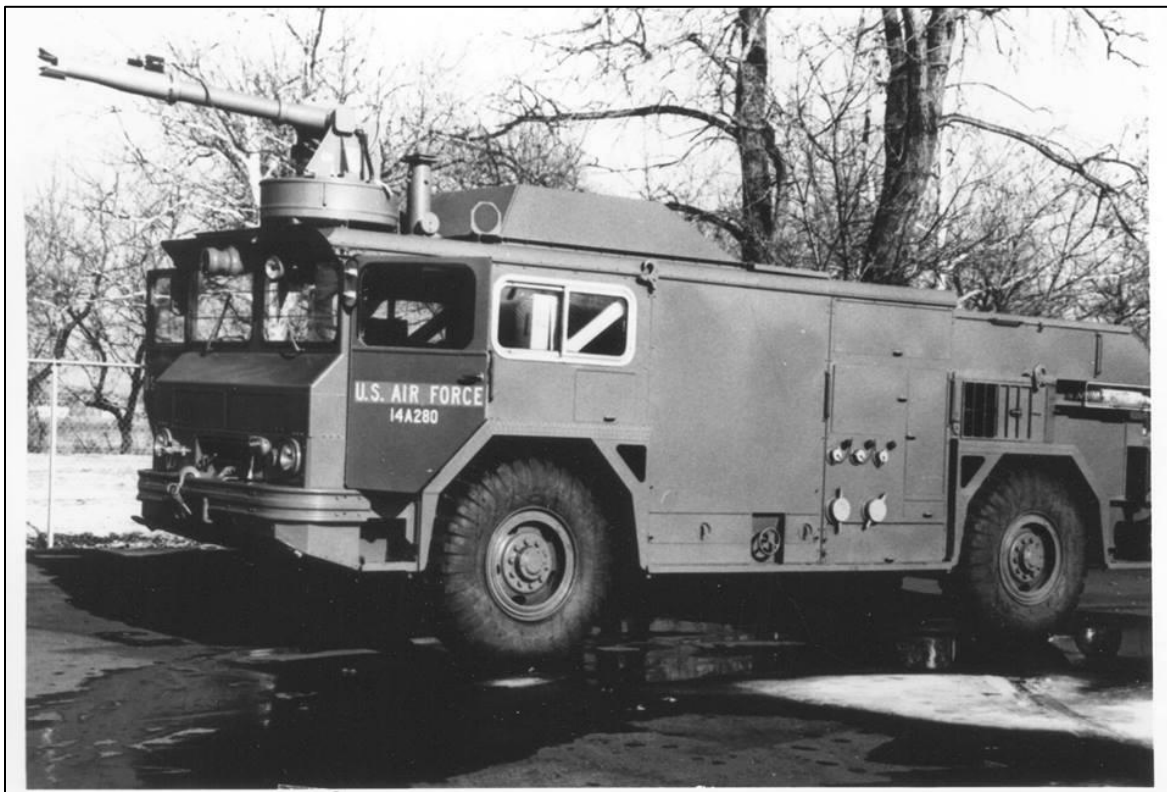
ARMY FIRETRUCK			
The Army class 1500 firetruck would have required the following modification per vehicle.			
Item	Material	Labor	Total
Modify brakes.....	\$1,700	\$1,300	\$3,000
Ground sweep nozzles.....	291	144	435
Safety accessories.....	165	96	261
Hose reel—change from vertical to horizontal.....	494	45	539
Hand nozzles.....	270	-----	270
Modify hose compartment.....	10	45	55
Relocate battery compartment.....	10	240	250
Relocate heater.....	10	240	250
Exhaust guard.....	25	6	31
Turret foam nozzles.....	5,590	48	5,638
Foam proportioner.....	1,500	192	1,692
Total.....	10,065	2,356	12,421
Add:			
Burden 100 percent of materiel and labor costs.....			12,421
General administrative expenses.....			2,484
Profit.....			2,788
Total modification cost of vehicle.....			30,069

The Army fire truck modified in accordance with the above, would not meet the required standards of the Air Force. The acceleration rate and mobility of the Army fire truck is inadequate due to the fact that it has a 4 by 4 drive as opposed to the Air Force requirement for a 6 by 6 or 8 by 8 drive. Since rescuing individuals from crashed aircraft is the primary purpose of crash rescue vehicles, rapid acceleration and ability to operate on unimproved surfaces is essential. It was determined that the Army rescue could not be modified to increase speed fire truck, its design makes it necessary for crewman to exit in front of the turret operator, thus restricting the operation of the turret. Cab modifications was not considered because it would require a major design of the vehicle. Further, even with the extensive modification outlined above, the vehicle could not be maneuvered at the scene of fire without interrupting the flow of the suppression agent.

In line with this extensive modernization of the Class 1500 fire truck, the Air Force considered the modernization of the Type O-11A crash fire truck. It was found that this modernization could be accomplished at a cost of only \$14,000 as compared to \$30,000 per Class 1500 vehicle. Further, the modernization of the O-11A crash fire truck will provide the Air Force with equipment which is more nearly meets the Air Force standards.

In Summary, The Army Class 1500 fire truck was not procured as a crash, rescue vehicle. It was not designed for the Air Force use in saving multimillion aircraft or the lives of the crews.

End



U.S. Army Class 1500 airfield crash truck undergoing testing by Air Force 1962.

Fire Apparatus Journal Magazine collection.

Background Material on Economic Aspects of Military Procurement And Supply

88th Congress, January 1963 to January 1965, 1st Session

Index No. 138

B-146714, May 16, 1962

Review of Development and Management of Selected Aircraft Crash Trucks in the Department of Defense.

Since 1965 the three military departments spent a total of about 1.6 million to spend in developing aircraft crash trucks for use with medium and small aircraft or missile support, with considerable duplication of development efforts and costs.

At the time of our review, the Air Force and Navy were planning through 1963 in procuring their separately developed aircraft crash trucks for use with medium-size aircraft, although the Army had similar vehicles, the Class 1500 costing about \$9.4 million, excess to Army needs. Many of the excess Class 1500 vehicles were unused, but the Army was attempting to utilize these large vehicles, costing about \$70,000 each, by assigning them to activities normally using smaller aircraft crash trucks costing about \$14,000 each.

We recommended that the Secretary of Defense take positive measures to assure close surveillance and control by his office of the programs of the three departments. Unless this is done, in all probably each service will continue to independently develop aircraft crash fire equipment as being unique to its own needs even though the vehicles developed are for support of categories of equipment common to the other departments.

We found the Class 1500 fire trucks, now in excess to Army needs, were procured in quantity without adequate pretesting that could have disclosed (1) the impracticability of accomplishing the purpose for which the vehicles were procured and (2) the need for numerous costly changes in the vehicle that occurred during volume production. Although many specification and design changes, costing over \$500,000, were made during production, the vehicles delivered required further changes, costing more than \$360,000, to remove limitations on their usefulness.



14A258 pictured at a Redstone missile battery in Germany

