

TWO of the Army-ordered Alcos head a train of supplies for Russia at Shazan, Iran, on October 16, 1943. Lead unit 8031 now works near Pueblo, Colo.

## ARMY ALCOS IN WAR AND PEACE—1

# The diesel that was drafted

*How an idea from the Rock Island triumphed in Iran and won the hearts of the Russians*



### RICHARD M. GLADULICH

**I** IF you have visited the National Railroad Museum at Green Bay, Wis., or the Tennessee Valley Railroad Museum at Chattanooga, Tenn., recently, perhaps you noticed a homely looking Army diesel among the steam locomotives on display. Do not dismiss these units as just another road-switcher, though, for old 8651 at Green Bay, and 8677 and three Air Force sisters at TVRM, represent a class of locomotives with a remarkable history that has not been fully told.

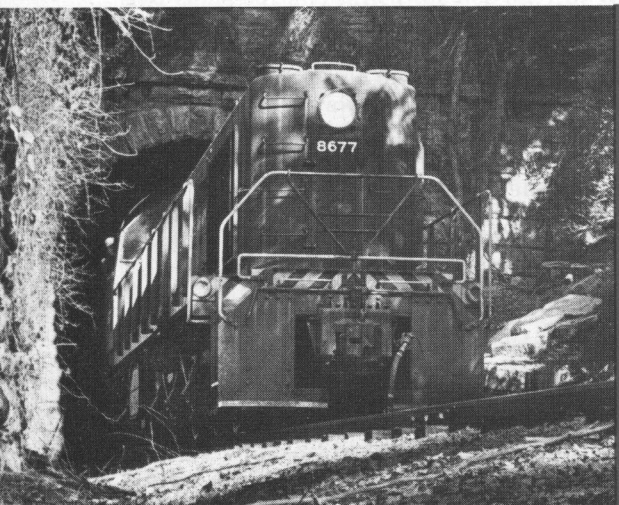
To begin, we must go back to August 1940 and John Farrington, president of the Rock Island. He was intrigued with

the diesel locomotive and the role it could play in cutting costs through increased operating efficiency. His enthusiasm, however, was tempered by a belief that there was a need, as yet unfulfilled, for a diesel unit which had the flexibility of a yard goat but also was capable of handling mainline assignments.

To satisfy a good customer from steam days, American Locomotive Company came forth with a proposal designed to transform Farrington's idea into reality. Alco modified its stock 1000-h.p. yard unit by lengthening the frame 8½ feet, adding a short hood behind the cab, and substituting a longer-wheelbase (9-foot, 4-inch) road truck—a General Steel Cast-

ings swing-bolster, drop-equalizer type design—for the hard-riding Blunt trucks then in use under Alco switchers.

At about the same time, another carrier approached Alco with a similar request. J. A. Streyer, president of the Atlanta & St. Andrews Bay, was interested in obtaining a locomotive capable of multiple-unit operation to permit easier handling of tonnage over a 1.5 per cent, 13-mile grade on the Bay Line at Ridgetop, Fla. This location was an operational bottleneck because all trains required helper locomotives in both directions. After learning that Alco already had on the drawing board a diesel meeting his requirements, Streyer joined Farrington in ordering



John W. Coniglio.



Richard S. Short.



U.S. Army.

two for his railroad. The first of these locomotives reported delivered was one to the Bay Line for final road tests in early March 1941. Within weeks, the unit had proved itself to the satisfaction of Alco test engineers, who then authorized shipment of the other three. The four were Rock Island 747-748 and Bay Line 901-902.

Before long, several other railroads had taken notice of the great potential in this new "roadswitcher" concept of motive power. By the end of 1941, U.S. Steel's Tennessee Coal, Iron & Railroad Co.; New York, Susquehanna & Western; and the Milwaukee Road all had installed these locomotives, and Rock Island and Bay Line each had returned to Alco for three more units.

The success of this 1000 h.p. road-switcher—to which Alco a decade later applied the designation RS1—also attracted the attention of several other carriers, and they made plans to order the unit for delivery in 1942.

However, as World War II spread across Europe and Asia, materials needed for Americans to build diesel locomotives became increasingly scarce and subject to rationing by the Office of War Production. In order to conserve critical materials, orders went out in early 1942 limiting Alco to production of units of 1000 h.p. or less, with road-unit production allocated to General Motors. For a time, RS1 production went into limbo while Alco busied itself with building steam

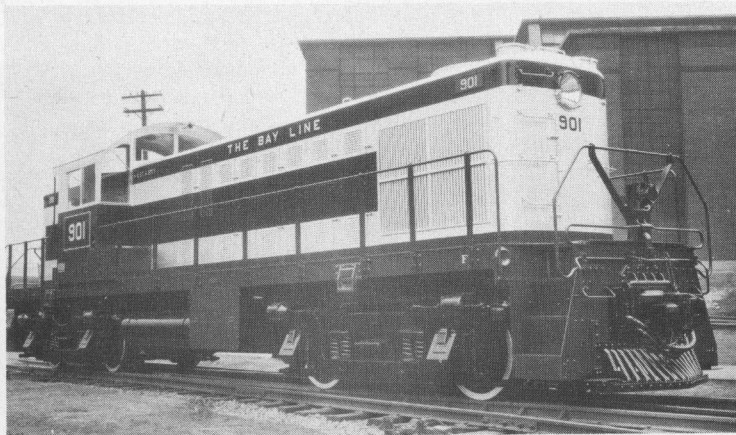
locomotives and tanks for the war effort. However, a strategic battle was destined to change this and push the little RS1 back into prominence.

ON June 22, 1941, Hitler renounced his treaty of friendship with Stalin and attacked Russia. Within months, German soldiers had pushed deep into Russia, and by September 1942, they had established a foothold on the banks of the Volga River and commenced to attack the city of Stalingrad. Alarmed by this, the allies joined forces to prevent the great Russian manufacturing center from falling to the Axis. Unfortunately, the situation posed difficult logistic problems, since German and Japanese submarine activity had ef-

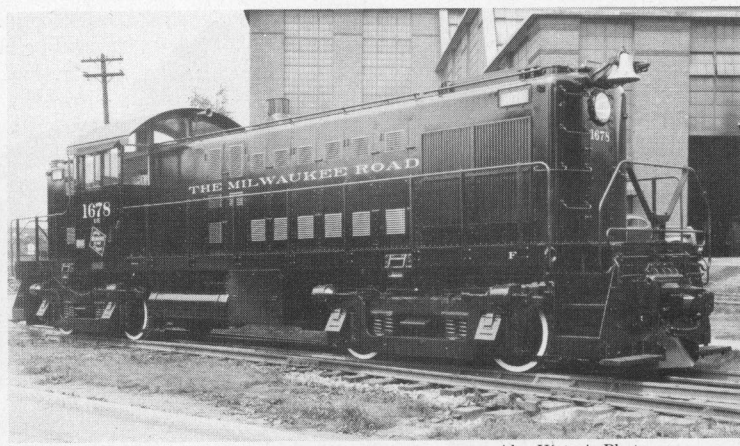


Ken Kirschling.

NO MATTER what the fate of most of the Alcos, some already are preserved in rail museums. Tennessee Valley Railroad Museum near Chattanooga has four, including 8677 (far left, emerging from Missionary Ridge tunnel). No. 8651, which saw duty at Fort Eustis, Va. (center left, on an Armed Forces Day special in 1956), was donated to the National Railroad Museum in Green Bay, Wis., in 1977. A C&NW unit (left) pushed it in.



GE photo; TRAINS collection.



Alco Historic Photos.



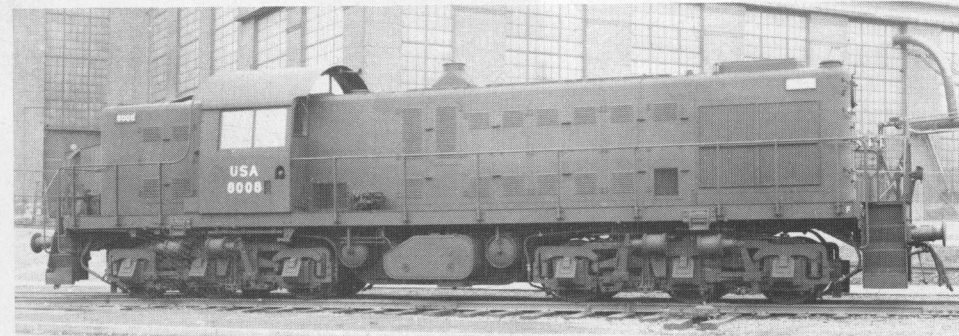
Alco Historic Photos.



Alco Historic Photos.



Alco Historic Photos.



Alco Historic Photos.

**THE DRAFTEES:** Thirteen RS1's, the entire population of America's first true road-switcher as of mid-1942, were taken by the Army and refitted for duty in Iran. All owning roads gave up units willingly and received replacements. Blue-and-silver A&StAB 901 was one of two on the road that pioneered M.U. road-switchers. Black Milwaukee 1678 became Army 8002, then an Alaska cab unit. RI 747 now works at Pueblo, Colo. NYS&W 231 became a Navy unit. The fate of USS (TCI) 600, which was converted to Army 8008 (bottom), is unknown.

fectively sealed off all practical water routes into Russia. However, there did exist one sure land route—through Persia, better known as Iran.

Threading this wasteland of mountains and deserts was a 685-mile railway linking the capital city of Tehran with the Caspian Sea on the north and the Persian Gulf on the south. Built during the 1920's and 1930's by an international consortium of British, American, and German contractors for Shah Reza Pahlavi, this railway was an ideal route for transporting war materiel to the beleaguered Soviets. However, before supplies could be moved over the Trans-Iranian Railway, the British and Russians were forced to invade Iran and demand the abdication of the pro-Axis Shah Pahlavi on charges of harboring Nazi agents. By installing his young son, Shah Mohammed Reza Pahlavi (the same one deposed recently by Ayatollah Khomeini), on the "Peacock" throne, the allies were assured of a ruler who was free of Fascist influence. The British Transportation Service then arranged to take over operation of the railway from the Persian Gulf ports of Bandar Shahpour and Khorramshahr to Tehran, while the Russians assumed control of the line from Tehran to the Caspian Sea port of Bandar Shah.

Although the line was well-engineered, it was not designed for the traffic demanded of it by the needs of war. Before long, it became a serious bottleneck as more and more critically

needed supplies piled up at the southern termini on the Persian Gulf.

The reasons for this situation become apparent when one examines the conditions under which the railway had to operate. In its 685 miles, the line traversed 225 unventilated tunnels and had 25-degree curves and steep grades. It encountered vast deserts with daylight temperatures of 120 degrees as well as 7000-foot-elevation mountain ranges where the thermometer would tumble to 40 degrees below zero or colder. To make matters worse, the tiny British and German steam locomotives in use were old and hopelessly inadequate for the speedy movement of supplies.

Alarmed by the rapidly deteriorating situation in Iran, the British and Russians hastily arranged for an Allied Conference; it was held in Cairo, Egypt, during summer 1942. Also in attendance was an American delegation headed by W. Averill Harriman, then U.S. Ambassador to the Soviet Union. Harriman conveyed an offer by President Franklin D. Roosevelt to have the American Military Railroad Service take over rail operations in Iran from the British for the purpose of speeding the delivery of American war supplies to Russia. Prime Minister Winston Churchill immediately accepted this offer, and American forces assumed control of the railway's operation on January 1, 1943.

Prior to the Cairo conference, Harriman had made an inspection trip over the Trans-Iranian line to determine first-hand what would be needed to turn the railway into an efficient military supply line. One of his conclusions was that because of the tremendous heat and many lengthy tunnels, the use of diesel locomotives was a necessity. He then turned to his long-time friend and business associate, William J. Jeffers, for help in securing the locomotives. Jeffers was president of the Union Pacific, a railroad which had been among the early users of diesel power. He was aware of the growing success of the RS1 owing to its ability to lug tonnage over secondary branch lines, and he felt that the unit would be ideal for service in Iran. On behalf of the Government, he then approached Alco with a request to modify the road-switcher for the conditions existing on the Trans-Iranian.

The most serious problem was the need to reduce its axle loading to less than 20 tons in deference to the light rail and bridges on the line. After study, Alco engineers were able to solve this by fabricating and installing a pair of three-axle, three-motor trucks, which not only brought axle loadings down but provided an additional pair of traction motors. Because of tight clearances in tunnels, it was also necessary to modify the cab by sharp-



Conrail.

## About the author

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ening the taper of its roof. Other changes resulted in the relocation of the underbody fuel tanks to provide better clearance for the new trucks, and the installation of European-type buffers and couplers.

The Government, pleased with Alco's solution, ordered the immediate construction of 57 units for the war effort. To expedite fulfillment, Alco and the Office of Defense Transportation persuaded the five roads already owning the road-switchers to give them up, with the promise that they would be replaced in kind as soon as civilian production could be resumed. By mid-November 1942, all 13 of these units had been rounded up and shipped to the Alco plant at Schenectady, N.Y., where they were modified for the journey to the Persian Gulf. By January 1943, these requisitioned units, now with the C-C truck arrangement and numbered U.S. Army 8000-8012, were ready for shipment along with their 44 newly constructed sisters, 8013-8056. They were rushed to ports of embarkation, loaded aboard waiting military transport ships, and moved to Iran. (Replacement RS1's went to Bay Line, Susquehanna, Milwaukee, and Rock Island in April and May 1943. TCI was patient for its second pair until October 1946.)

By March 1943, all 57 units were hard at work ferrying war supplies between the Persian Gulf and a new dock facility at Bandar Shah on the Caspian Sea. To keep the fleet in peak operating condition, Alco sponsored the establishment of the 762nd Diesel-Electric Shop Battalion, located at Ahwaz. To ensure that the battalion was adequately staffed, more than half of its personnel were recruited into the Army from the ranks of Alco and General Electric. Leadership of the unit was then left in the hands of Maj. William C. Rodgers, a reserve Army officer and a long-time Alco design engineer.

During their 30 months of operating in Iran, the "RSD1's" (as diesel nomenclature later adopted would have designated them) consistently lived up to

the expectations of both the Army and Alco. Operating on a light-duty railway under trying physical conditions, they soon earned the nickname "Iron Camels" because of their ability to withstand both scorching heat and biting cold.

The RSD1's usually were assigned two to a train. This permitted the operation of 2500-ton consists over the flat desert stretches; in the mountains, trains usually were limited to 1500 tons. On occasion when extra-heavy trains had to be moved, one of the Alcos would be teamed up with a War Department 2-8-2 [see "Built for Battle," page 20, December 1964 TRAINS]. Experience had shown that under certain conditions, this combination could move a consist at greater speed than a pair of diesels in multiple and produce more tractive effort than doubleheaded steam power.

At one time or another, many of the units figured in unusual incidents unique to Iranian railroading. One of the most vexing problems early in the war was the continual attacks on the trains by roving bands of Lur and Bakhtiari nomads. Bent on looting food, arms, and liquor bound for Russia, these camel-riding desert warriors would attack the moving trains with rifles, knives, spears, and even slingshots—all with deadly accuracy. After this harassment reached epidemic proportions, previously unarmed GI train crews were finally permitted to carry weapons. The raids, however, continued, with resulting shootouts reminiscent of American wild-west horse operas.

Just as deadly, though, were the numerous acts of sabotage by Nazi collaborators and sympathizers loyal to the former Shah. Incidents of track obstructions, missing rails, runaway equipment, and unexplained explosions all took their toll on men and rolling stock. If all this weren't enough, GI train crews also had to contend with battle-hardened Russian soldiers detailed to guard the railway. Although fraternizing between Americans and Russians was officially discouraged,



U.S. Army.

NINE Alcos are visible at the 762nd Railway Shop Battalion's facility at Ahwaz, Iran, on March 31, 1945. In deference to desert heat, the Alcos' roof hatches and hood doors are kept off.

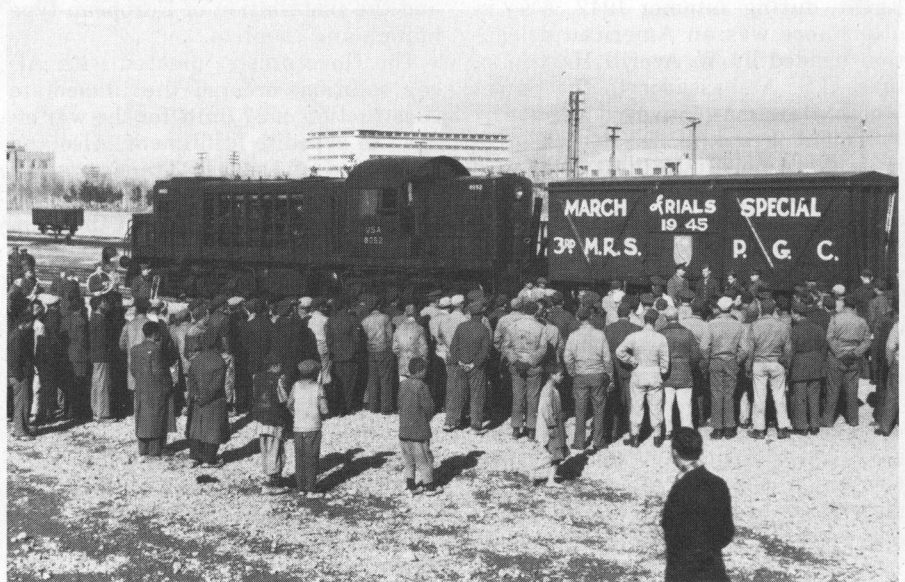


Dale Crum.

RESULTS of the Alco that had stalled on a grade between Andimesk and Doroud, Iran, during the summer of 1944.

## Iran: 1944-1945

BELOW: Its Iran tour over, 8014 is loaded aboard ship at Khorramshahr in May 1945. Next work for the 1000 h.p. C-C will be on the Tonopah & Goldfield in Nevada. Alco now is preserved at TVRM.

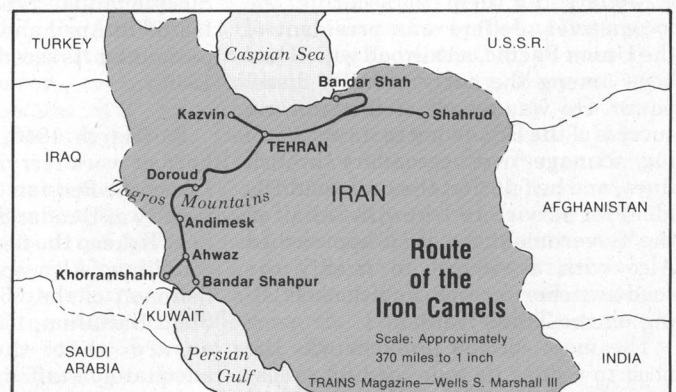


U.S. Army.

TRAIN of 3rd Military Railroad Service to raise funds to fight polio, at Tehran, will tour Persian Gulf Command.



U.S. Army.



there were more than a few altercations between GI railroaders and Soviet guards who, more often than not, were well-fueled with vodka. One such incident nearly ended in tragedy when a drunken Soviet soldier shot up the electrical cabinet of an RSD1 with a machine gun after becoming angered

by an order from the GI engineer to leave the cab.

The original assignment for many of the RSD1's was a tunnel-plagued, 47-mile stretch through the Zagros Mountains in southern Iran. Steam operations had turned the tunnels into blinding infernos of steam and poison-

ous gases where temperatures often reached 180 degrees, but this, of course, had ended when the diesels arrived. On this segment, perhaps the most unusual incident occurred involving the RSD1's. During the extremely hot summer of 1944, a GI crew and their RSD1 began to climb the grade from



Collection of Brian Griebenow.



Collection of Richard M. Gladulich.

**WAR VETERANS:** Upon arrival from overseas, Alcos went to Fort Holabird, Md., for overhaul. Left, 8677 (now at TVRM) shows condition in 1946. Right, 8003 in 1945 at Eddystone, Pa., where many were offloaded at Baldwin's pier. Both have AAR couplers added.

Andimesk to Doroud. Both the engineer and fireman had been on duty for more than 18 hours and were physically exhausted. Perhaps owing to the extreme heat, they eventually fell asleep. Because the RSD1's were not equipped with deadman's pedals, the train kept moving slowly upgrade. Without warning, the diesel lost its footing and the wheels began to slip—but the crewmen were not awakened by the noise of the wheel-slip alarm. Unable to move forward, the unit just ground away at the rails until its wheels ate away the running surface completely, firmly imbedding itself in the base of the rails. When the crew awoke, they were startled to find their diesel frozen to the tracks!

Almost miraculously, despite the grueling duty they performed, all 57 RSD1 units survived their service in Iran. In early June 1945, the last of American troops departed Iran and turned the railway back to the Iranian Government for civilian operation. Apparently the military felt that the RSD1 fleet was too valuable to be left behind as war surplus, for all units were shipped home—as were the men of the Persian Gulf Command who had operated them.

UPON arrival in the United States during July 1945, all 57 Alcos were dispatched to Baltimore, Md., where each unit received a thorough overhaul at the Fort Holabird Military Railroad Shop. The Army had no immediate need for so many locomotives, so most of the RSD1's were sent to the New Cumberland Army Depot near Harrisburg, Pa., where they were placed in storage under plastic-coated burlap "cocoon" which afforded protection from the elements.

Three units, 8014-8016, were not placed in storage. Instead, they were shipped to Mina, Nev., for service on the Tonopah & Goldfield. Diesels were necessary on this legendary Nevada carrier because Government boiler inspectors had condemned the line's last operable steam locomotive. The T&G,



Millard Brown; collection of Harre W. Demoro.

**IT looks like Iran but isn't—8016 bobs across the Nevada desert in 1945 with a mixed train on the Tonopah & Goldfield. Three Army Alcos worked T&G until its end.**

## Alco's draftees

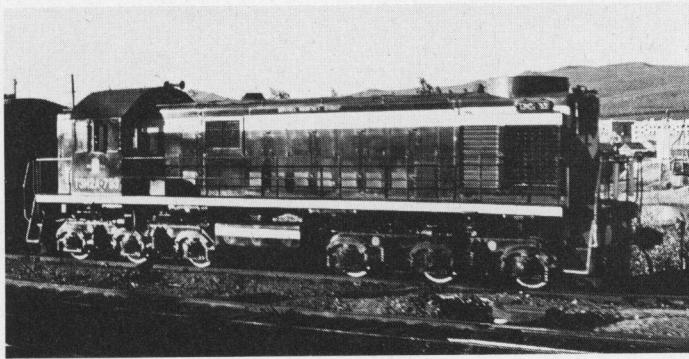
| Army Nos. | History  |
|-----------|--|
| 8000-8012 | Built in 1941-1942 for U.S. railroads as RS1's, requisitioned by Army and converted to RSD1's in 1942 for service in Iran, returned to U.S. in 1945. |
| 8013-8056 | Built in 1942-1943 for Army for service in Iran, returned to U.S. in 1945.   |
| 8600-8629 | Built in 1944 for Army at Russia's request, renumbered Nos. Da20-1—Da20-30 upon entering Russian service.  |
| 8630-8640 | Built in 1944 for Russia, lost at sea en route in October 1944, would have been Nos. Da20-31—Da20-41.  |
| 8641-8648 | Built in 1944 for Russia, renumbered Nos. Da20-42—Da20-49.   |
| 8649      | Built in 1944 for Russia, lost at sea, would have been No. Da20-50.  |
| 8650-8679 | Built in 1945 for Army for service in Europe, returned to U.S. in 1946.  |
| 8680-8699 | Built in 1945 for Russia, renumbered Da20-51—Da20-70.  |

## U.S. vs. USSR, basic specifications

| Model                        | E-1645, E-1646 (RS 1)   | TE-1                 |
|------------------------------|-------------------------|----------------------|
| Builder                      | American Locomotive Co. | Transmasch Works     |
| Years Produced               | 1942-1944*              | 1947-1950            |
| Tractive effort (Continuous) | 29,500 lbs.             | Unknown              |
| Engine model                 | 539                     | D-50                 |
| Engine output                | 1000 h.p. at 740 rpm    | 1000 h.p. at 740 rpm |
| Type                         | 4-stroke                | 4-stroke             |
| Cylinder specs (in.)         | 12½x13                  | 12½x13               |
| Cylinders                    | Six turbocharged        | Six turbocharged     |
| Total weight                 | 230,000 lbs.            | 272,500 lbs.         |
| Length                       | 54' 11½"                | 55' 5"               |
| Maximum speed                | 70 mph                  | 58 mph               |
| Wheel diameter (in.)         | 40                      | 41¼                  |
| Fuel capacity                | 800 gal.*               | Unknown              |
| Wheel arrangement            | C-C                     | Co-Co                |

\*Military production only.

Sources: *Extra 2200 South*; *Railway Age*, January 31, 1942; *Sampson Low's World Railways*, 1961-1962.



John S. Ingles.

**RUSSIA'S** direct RSD1 copy was TEM1 class (right, No. 140 "Moscow Pioneer"). Among hundreds in later models is TEM2A class No. 793 (above) at Chita, on Trans-Siberian line, August 1, 1977.



J. N. Westwood.

which had been sold in October 1942 to a Seattle scrap dealer for dismantling, had been forced to remain in operation by the War Production Board to serve a strategic Army Air Force field at Tonopah in the Nevada desert. This was one of a chain of military installations along the Pacific coast established to repulse a feared Japanese invasion of the U.S. mainland—which, remember, was a real possibility early in the war.

Although the three units arrived on the T&G two weeks after VJ Day, they were nevertheless needed, since the airfield still required daily fuel and supply deliveries by rail. On the Tonopah & Goldfield, these diesels were subjected to adverse conditions even worse than those in Iran. Inadequate maintenance of track, with rail as light as 50 pounds per yard, necessitated a speed limit of 15 mph. Even at this speed, derailments reportedly were almost a daily occurrence. Maintenance on the Alcos was likewise minimal at best, since the T&G shop forces' only other experience with internal-combustion motive power had been with a pair of cantankerous Brill-Westinghouse gasoline-powered "doodlebugs." Despite all, the three Alcos still managed to perform their duties in a creditable manner.

As military activity wound down, the Army saw no need to keep the Alcos on lease to the T&G and requested their return in February 1946. On July 3, T&G sent two back. On August 28, the Army asked for the last one by October 1, and following its departure, the T&G had to be embargoed and shut down as it had no money to repair or replace any steam locomotives.

WHILE serving in Iran, the RSD1 had gained another admirer: the Soviet Government. Impressed by the units' durability and performance, the Soviets requested that the United States assign 70 of these locomotives to the war-ravaged rail lines of Russia under the Lend-Lease program. The War Department approved the request and immediately ordered the Army to

arrange for priority delivery from Alco.

The first 12 units were finished in early October 1944 and shipped later that month. They never arrived at their intended destination, however, for the transport ship which carried them fell victim to a U-boat and, with its locomotive cargo, sank near the Russian port of Murmansk. However, the other 58 did make the voyage successfully and were placed in service. These units initially carried U.S. Army Nos. 8600-8649 and 8680-8699. Upon arrival in Russia, the Soviets obliterated the Army markings and numbers, substituting standard Russian lettering and the number series Da20-1—Da20-70.

In early 1945, just after these 70 units were built for Russia, Alco built for the Army 30 additional RSD1's, 8650-8679, for service in Europe. Regrettably, little information has come to light on the exact type of service they performed during their short stay overseas. It is known that they served

in both France and Belgium during late 1945 and were transported home in January and February 1946. Interestingly, these locomotives were brought back to the United States on the same ships that delivered the famous Liberation class 1-4-1R Mikados to the French National Railways [page 36, March 1979 TRAINS].

Like the 57 Trans-Iranian RSD1's several months previous, each of these 30 European veteran diesels received a complete overhaul at Fort Holabird before being stored at New Cumberland.

The Russians, meanwhile, were anxious to obtain additional RSD1's because the 58 already on hand had proven their worth. By 1946, however, cold-war tensions between East and West had escalated to the point where further deliveries were politically out of the question.

The Soviets, unwilling to allow this setback to deprive them of a chance to begin a major dieselization program, ordered their Transmasch Locomotive Works to build an exact copy of the RSD1. This locomotive, classified TE-1, was powered by a type D-50 four-stroke, six-cylinder engine that developed 1000 h.p. at 740 rpm. A close comparison between the military RSD1 and the TE-1 copy reveals that their specifications are virtually identical with the exception of the cab, which for some unknown reason is an exact duplicate of the one found on the domestic RS1. Even the unique fabricated six-wheel truck is faithfully copied in every detail. This prototype proved to be so successful that eventually several hundred TE-1's were built between 1947 and 1950, when production apparently ceased.

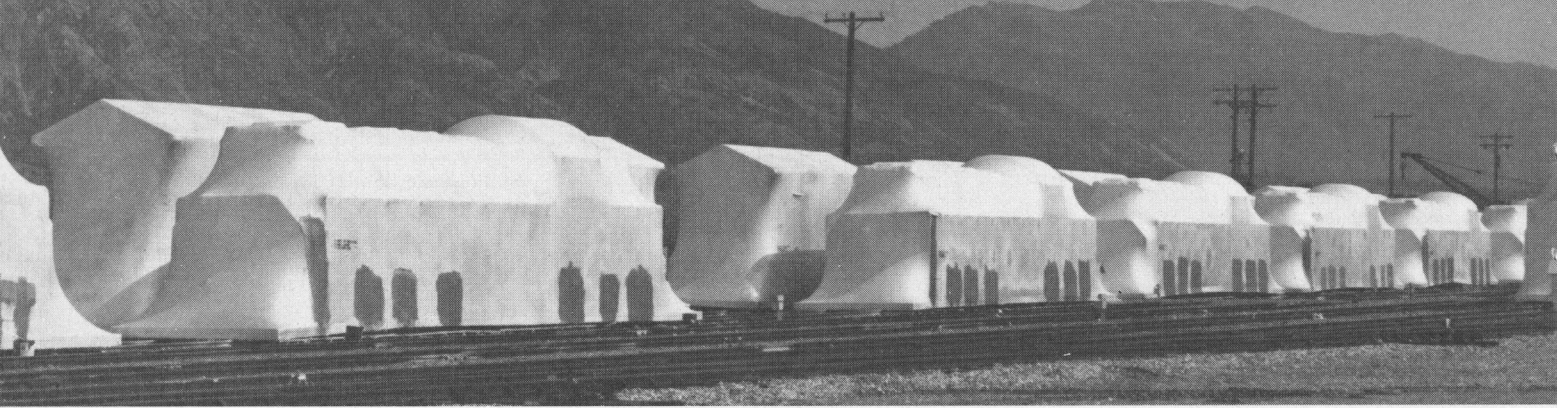
About 1958, the Soviets built a similar unit, classified TEM-1, intended for switching and transfer service, but with a tapered cab. Through the 1960's, they followed this with large production runs of road-switchers of classes TEM-2 and TEM-2A, which have the straight-sided cab. On all models, the cab sits closer to the end than on Alco's versions. I



Collection of Brian Griebenow.

## Next month

**REHABILITATED** at Fort Holabird, Md., RSD1 8042 sits on a dock in Portland, Ore., in February 1949, awaiting shipment to Alaska. Join us in April TRAINS for the conclusion of the Army Alco RSD1 story, with the Alaskan experience, other assignments in the United States, and a complete roster of all Alco RSD1 returning draftees.



# Repatriated, reconditioned, and

*How the returned RSD1's performed from Fairbanks to Florida*

**RICHARD M. GLADULICH**

BY 1947, most of the 87 Alco six-motor RS1 diesel road-switchers that had served overseas for the U.S. Army during and after World War II had been placed in storage, mostly at New Cumberland, Pa. Within months, however, these diesels (now termed "RSD1's" by virtue of diesel nomenclature later adopted) caught the attention of John Patrick Johnson, who in January 1946 had become general manager of the woebegone Alaska Railroad, managed by the Department of the Interior.

A man of action, Johnson embarked upon a controversial 80-million-dollar overhaul of the ARR after convincing Congress that rehabilitation was the only alternative to outright abandon-

ment. Part of this upgrading was a plan to virtually dieselize the line with 36 of the idled RSD1's. Having served in Iran as an officer with the Military Railroad Service, Johnson was quite familiar with the Alcos' rugged durability and their outstanding performance records. Mindful that conditions in Alaska were not unlike those in the Iranian mountains, he wasted no time in requesting the units from the Army under provisions of Public Law 478, which gave Government agencies first priority in obtaining surplus military hardware, for merely the cost of transportation and any unexpired depreciation. (Also, ARR had on hand two standard RS1's, Nos. 1000-1001, its first diesels, built for use on the war-inspired branch with two long tunnels to the new port of Whittier and placed in service June 15, 1944.)

Relatively short on money but long on imagination, Johnson contracted with International Railway Car and Equipment Manufacturing Company of Kenton, O. (the firm now well-known for caboose-building), to shroud two of the RSD1's for use on ARR's new streamlined passenger train, the *AuRoRa*. Nos. 1050A&B went into service October 16, 1947, and the *AuRoRa* debuted two days later. The transformation of these two road-switchers into an "A" unit and a "B" unit enabled the *AuRoRa* to somewhat resemble the streamlined diesel-powered trains then being delivered to carriers in the 48 states. The streamlining of the diesels also enabled any crewman seeking access to the engine compartment to do so out of the cold.

Subsequently, 15 other Alcos were similarly shrouded, utilizing carbodies



Joe McMillan.

BY 1957, when this pair of Alcos posed at Anchorage shop, Alaska had more shrouded versions left than straight ones.



W. A. R. Edgecomb.

ON Anchorage freight in March 1948, Alaska 1050A&B (still with C-C trucks) wait for passenger train to clear Whittier.





COCOONED Alcos in storage near Ogden, Utah, in September 1974, and 8009 immediately after unwrapping for shipment to the Pueblo test track. Both photos, Brian Griebenow.

# reassigned

supplied by Puget Sound Bridge and Dredge Company of Seattle. A fire on January 15, 1951, that destroyed the ARR's 30-year-old machine shop and coach shed in Anchorage claimed all the road's mechanical records, so the details of the reconfiguring of the 17 Alcos have become an unconfirmed subject for diesel-locomotive historians. It is now believed that the seven Alcos which become "A" units were done at Seattle and the other eight, which became "B" units, by the ARR in Anchorage. The reconfiguring entailed replacing the cabs and hoods with newly fabricated metal and also consigned the Alco-designed Army six-wheel truck to scrap in favor of the standard four-wheel truck as utilized under domestic RS1's. At some point, possibly in early 1950 when most of the Puget Sound units were put in service, Nos. 1050A&B were also retrucked as B-B's (and renumbered 1050-1051).

Esthetically, the shrouded locomotives were a nightmare that only

somewhat resembled the streamlined Alco FA1, but their flashy blue-and-yellow paint scheme was a redeeming feature. Their 19 unshrouded sisters also received these colors, and 5 of these also were retrucked as B-B's.

These Army hand-me-downs were gradually put in service through 1951, but in November 1956, eight of the RSD1's whose trucks had not been replaced were returned to the Army. By this time the Alaska Railroad was operating new 1500 h.p. F7's and FP7's from EMD as well as ex-Army GP7's, which made some of the 1000 h.p. Alcos surplus. Shipped back to the states, these eight units again were overhauled and placed in storage under cocoons at the Ogden (Utah) Defense Depot, adjacent to Hill Air Force Base.

The other 28 RSD1's on the Alaska Railroad served into the 1960's, being stored and eventually retired as the ARR received more new, higher-horsepower EMD's. Twenty-one of the Alcos were retired during 1963-1965, and the remaining seven during 1970-1972.

AFTER their initial postwar storage at New Cumberland in 1945 and 1946,

many of the RSD1's which did not go to Alaska were gradually plucked from their cocoons and put back in service. By the late 1950's, many had found permanent homes at military or civilian Government installations throughout the country.

An unusual common-carrier assignment for three of them occurred in late 1955, when 8661, 8669, and 8674 were pulled from mothballs at New Cumberland and leased to the New York, New Haven & Hartford. In August 1955, the entire eastern seaboard had been struck by two destructive hurricanes, Connie and Diane. The New England states were particularly hard hit, and the New Haven was the railroad affected the most. Many miles of its Shore Line were washed out; strategic bridges were damaged; and large sections of electric catenary were mangled. Moreover, many NH diesel and electric locomotives were unserviceable owing to water damage, so the three RSD1's joined 34 other military diesels of various types to assist the road in resuming normal operations.

Working out of Cedar Hill yard near New Haven, Conn., all three RSD1's were utilized in both switching and



Alaska Railroad photo; TRAINS collection.

**FIRST** shrouded Alco cab is "trucked" at Whittier dock upon Alaska arrival.

## Alaska takes three dozen, please

| Army No. | 1st ARR No. | 2nd ARR No. | New configuration | Army No. | 1st ARR No. | 2nd ARR No. | New configuration |
|----------|-------------|-------------|-------------------|----------|-------------|-------------|-------------------|
| 8038     | 1002        | 1055        | RFB               | 8049     | 1027        |             | RS1               |
| 8041     | 1010        |             |                   | 8019     | 1028        |             | RS1               |
| 8051     | 1011        | 1075        | RFB               | 8020     | 1029        |             |                   |
| 8043     | 1012        | 1077        | RFB               | 8023     | 1030        |             |                   |
| 8044     | 1013        |             |                   | 8005     | 1031        |             | RS1               |
| 8045     | 1014        |             | RS1               | 8024     | 1032        |             |                   |
| 8035     | 1015        | 1065        | RFB               | 8039     | 1033        |             |                   |
| 8026     | 1016        | 1067        | RFB               | 8011     | 1034        |             |                   |
| 8664     | 1017        |             | RS1               | 8013     | 1035        |             |                   |
| 8048     | 1018        |             |                   | 8650     | 1036        |             |                   |
| 8053     | (1019)      | 1078        | RFA               | 8004     | 1041        |             |                   |
| 8055     | (1020)      | 1052        | RFA               | 8006     | 1042        |             |                   |
| 8002     | (1021)      | 1054        | RFA               | 8003     | 1043        |             |                   |
| 8047     | (1022)      | 1070        | RFA               | 8040     | 1050A       | 1050        | RFA               |
| 8052     | (1023)      | 1072        | RFA               | 8054     | 1050B       | 1051        | RFB               |
| 8036     | (1024)      | 1074        | RFA               | 8001     | 1085        | 1057        | RFB               |
| 8046     | (1025)      | 1076        | RFA               | 8056     | 1087        | 1069        | RFB               |
| 8042     | 1026        |             |                   | 8021     | 1089        | 1053        | RFB               |

**Notes:** Numbers in parentheses represent numbers assigned, but not applied, to units. RFA, RFB were ARR classes for reconfigured cab (A) and booster (B) units. All were retrucked to B-B upon reconfiguration except 1050A, 1050B, which were retrucked after unknown period of time in service. RS1 signifies retrucking to B-B; slanted-side cabs were not changed. Nos. 1032-1043 returned to Army 11/56; others retired by ARR.



W. A. R. Edgecomb.



H. L. Goldsmith.

ONE of three Army Alco RS's loaned to New Haven after storms, 8661 works at Cedar Hill Yard in February 1956.

TRAIN No. 4, bound for Anchorage, is ready to leave Whittier behind blue-and-yellow C-C RS1 1011 in March 1948.

local freight service. They were returned to the Army in March 1956, and at least one of them went on to another career, with the Tennessee Valley Authority.

At least a dozen RSD1's are known to have become Air Force property through the years, and Eglin Air Force Base near Pensacola, Fla., was home to several of them. Included, ironically, was 8012, which had begun its career on the Atlanta & St. Andrews Bay, a mere 50 miles to the east, before being drafted in 1942. This Iranian veteran continued to work at Eglin until early 1974, when it was sold to a Birmingham, Ala., dealer for scrap. By 1976, the Eglin rail operations were mostly shut down, and four other RSD1's remained in storage there until 1978, when they went to the museum at Chattanooga.

The Navy also inherited RSD1's—at least six of them—and used them at several locations. One was the ammunition depot at Earle, N.J., where two of the Iranian units, 8007 and 8033, shuttled back and forth on a little-known 15-mile double-track railroad which connects the depot, west of Asbury Park, with the Leonardo Ammunition Pier, which extends into Sandy Hook Bay north of Red Bank. As the Vietnam War escalated in the mid-1960's, traffic on this line increased dramatically, and both RSD1's were utilized round the clock, lugging long ammunition trains across the New Jersey countryside.

Another pair of RSD1's saw many years of common-carrier service, although they continued to be owned by, and lettered for, the Army. In March 1945, the 8676 and 8679 were sent to the Cape Fear Railways, a privately owned 11-mile common carrier serving Fort Bragg and Pope Air Force Base, N.C., near Fayetteville. The units put in 30 years of service on the Cape Fear, being overhauled periodically at the

Atlantic Coast Line shop in Rocky Mount but otherwise never leaving the property. In 1975, the 8676 was stored and then retired, and sister 8679 met the same fate in 1977; replacements were other military Alco diesels, an S2, S1, and MRS1. The line now has quit.

Of the entire RSD1 fleet, only two units are known to have been sold to nongovernment users for continued service. After a short stint as a switcher at the U.S. Federal Prison in Atlanta, 8655 was sold in 1958 to U.S. Pipe & Foundry in Birmingham, Ala. Renumbered 39, this locomotive initially worked on U.S. Pipe's 26-mile private rail line connecting a company-owned coal mine with the main plant in north Birmingham. Known locally as the Mary Lee Railroad, this former Frisco branch was operated mostly by a fleet of Baldwin switchers. No. 39 was equipped with an air throttle so it could M.U. with the Baldwins, but this arrangement was not satisfactory owing to the RSD1's light axle loadings, which caused it to loaf while the heavier Baldwins did most of the work. As a result, in 1963 the RSD1 was reassigned to a daily supply train of coke and pig iron between the main plant in north Birmingham and U.S. Pipe's City Furnace facility downtown, a run operating on Central of Georgia by trackage rights. Working alone, the 39 spent the next seven years on this run. Just before City Furnace was closed in 1970, the RSD1 was withdrawn from service and set aside because U.S. Pipe's trackage had given to derauling the six-wheel trucks frequently. The Alco was stored at U.S. Pipe's shop until 1972, when it was cut up for scrap.

At about the same time 39 was dismantled, sister RSD1 8656, which had been Air Force property, was sold to United Cement Company division of Texas Industries at Artesia, Miss. Re-

numbered 1776 and painted in an appropriate red, white, and blue Bicentennial scheme, it switched within a cement processing plant where photography is forbidden. This devotion to security was responsible for an unusual modification.

Several years ago, 1776's Westinghouse air compressor wore out unexpectedly, leaving the locomotive disabled. The cement plant's master mechanic called Birmingham Rail and Locomotive, a used-locomotive dealer, for help. BR&L's Tom Lawson, a well-known rail historian and photographer, had on hand an identical serviceable Westinghouse compressor, which he offered to the cement plant in return for permission to photograph 1776 in its new Bicentennial paint scheme. The master mechanic agreed to the arrangement, so Lawson set out for Mississippi with the hard-to-obtain air compressor in his truck. Upon his arrival, the compressor was unloaded and 1776 spotted for its portrait. Before any photos could be taken, however, another plant official came out of the office, proclaiming that all photography was forbidden. Justifiably offended, Lawson promptly reclaimed his compressor and departed, forcing the United Cement people to rig a gasoline-powered Schramm compressor (a smaller type, usually seen mounted on highway trailers) as best they could on the Alco's front platform.

ONE quasi-governmental agency which has become a heavy user of the RSD1's is the Tennessee Valley Authority, the public utility with numerous electric-power plants in Kentucky, Tennessee, and Alabama. TVA got its first RSD1, No. 25, the former 8657, in the mid-1960's for the plant at Gallatin, Tenn., near Nashville (also home of TVA's FM H16-66 "Baby Train Master" No. 24). In addition to TVA's power-plant spur, an L&N branch to

Hartsville, Tenn., diverged from the main at Gallatin—a branch which, owing to light rail restrictions, was home to L&N's last GE 70-ton diesel.

This situation resulted in an RSD1 frequently becoming a Class 1 locomotive, for when the 70-tonner was unavailable, L&N would borrow TVA 25 for the branch, since the RSD1 was the only diesel in the vicinity which had both sufficient horsepower and light axle loadings to be the GE's backup. The branch has since been abandoned, and the L&N unit sold to a firm in New Jersey.

In the past decade, TVA has acquired 18 more RSD1's, some of which are in service, some not, and some of which have been renumbered, some not (see "Second Section").

TVA is headquartered in Knoxville, Tenn., which also was the site of an interesting RSD1 sidelight, which TRAINS Managing Editor Dave Ingles related. In December 1965, RSD1 8659 showed up at L&N's Knoxville yard for shipment across town to a scrapper. It was painted solid black, but on the cab were the initials USAEC, standing for the Atomic Energy Commission, which had, of course, developed the super-secret plant at nearby Oak Ridge in the 1940's. Visible on the hood also were—shockingly—the letters and emblem for Southern Railway. Apparently to protect the secrecy of Oak Ridge, this RSD1, in service there, had had Southern markings as a cover.

ANOTHER recent heavy user of the RSD1's has been the Federal Railroad Administration, an arm of the Department of Transportation. During 1974, FRA completed work on a new part of the Transportation Test Center near Pueblo, Colo. In need of locomotives to power test trains over a specially constructed railroad designed to test track components, Test Center Director Jack Stauffer arranged for the acquisition of 13 surplus RSD1's stored

at Ogden. Eager to obtain these units for the lowest cost possible, Stauffer arranged for a unique trade with the military. A few months earlier, the Military Traffic Service Command of the Army had become concerned over the condition of its fleet of DODX freight cars, particularly those used for transporting radioactive material. Anxious to avoid a public outcry in the event a DODX car carrying nuclear cargo was involved in a derailment, the Army agreed to trade 13 RSD1's to FRA in exchange for a \$220,000 stability study covering each type of freight car in the DODX fleet.

Because many of the RSD1's had been stored for as long as 20 years, FRA technicians sent to inspect them found it necessary to strip three of the units for parts in order to restore the other 10 to operating condition. Despite their advancing age and long storage, most of the Alcos were found to be in good shape even though some components needed replacement. Reportedly, one unit was in such excellent condition that upon removal of its cocoon, technicians were able to turn over the engine using batteries installed over 20 years earlier!

After their arrival at the Test Center, it was noticed that the RSD1's old friction-type bearings would overheat at speeds above 35 mph. Also, technicians had become dubious of initial test results, since the light axle loadings of the RSD1 were not typical of most American locomotives, which were heavier four-axle units. Accordingly, the old Alcos were bumped from this service by a group of EMD F units leased from the Santa Fe. The Test Center then used the Alcos as switchers and work-train power.

Two of the RSD's, 8003 and 8670, developed terminal mechanical problems which precluded their use as operable locomotives. Rather than just condemn them for scrap, FRA made use of both units as part of a test crash program

then under way. FRA had been asked to test several theories regarding the effects of a collision between a highway vehicle and a locomotive moving at moderate speed. FRA set up a series of four tests utilizing a stationary automobile which would be rammed by a locomotive moving at 50 mph. Not willing to risk damage to one of the eight still-functioning RSD1's, technicians patched up 8670 so it could operate temporarily. In order to conduct the tests in safety, 8670 also was fitted with a device that allowed it to be operated remotely from a highway trailer 500 feet from the collision site.

Following these tests in February 1974, FRA embarked upon another program designed to confirm computer-generated data on the crash-worthiness of locomotives and cabooses. Accordingly, the Test Center set up a series of nine test crashes between two MU'ed RSD1's and a standing train of loaded hopper cars (donated by Santa Fe) and a caboose (by Missouri Pacific).

Each test had a different impact speed, which ranged from 3 to 30 mph and was designed to indicate whether the collision effect matched a computer-generated mathematical model. For this program, 8670 was joined by 8003, which was to be the lead unit.

The first seven collisions had a negligible effect on the equipment, and the next-to-last test, run at 18 mph, resulted in only minor damage to the locomotives; the caboose, however, was forced off its trucks and shoved forward with such an impact that one end telescoped over the rear of the last loaded hopper car. The final collision, at 30 mph, caused the caboose to collapse, roll into a ball, and turn over upon impact. This allowed 8003 to contact the rear hopper car, forcing it as well as both locomotives off the rails, causing severe damage to 8003's cab, short hood, and traction motors. To prevent an accidental fire, both locomotives

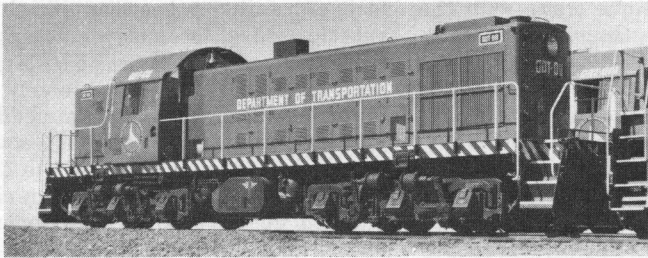


U.S. DOT: John Proffitt.



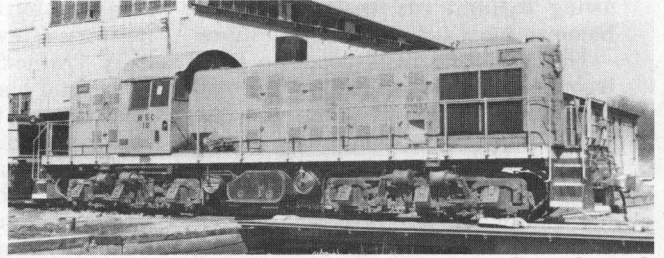
Harre W. Demoro.

**TEST CRASH** of 8003 and 8670, with train, into standing freight cars at 30 mph at FRA Pueblo Test Center on May 30, 1975 (left), ended the two Alcos' careers. Scene at center's shop (right) March 1, 1976, would not be same today, for DOT's Alcos are bright red.



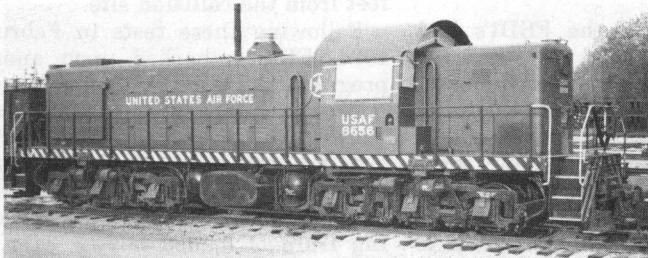
Robert R. Harmen.

**RED 011 at Pueblo was built as RI 747, served in Alaska.**



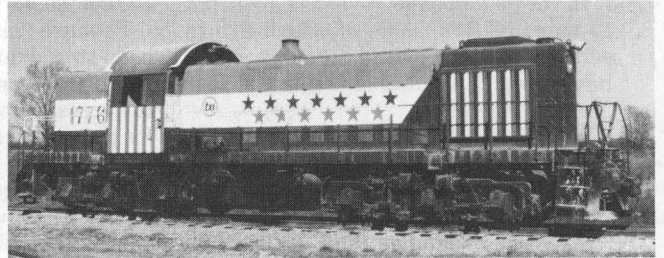
Thomas Lawson Jr.

**EX-Bay Line 903 was lettered for scrapper Hickory Steel.**



Don Dover.

**BLUE paint on 8656 (at Cincinnati in 1969) would go . . .**



John C. Benson.

**. . . for Bicentennial hues (recorded outside Artesia plant).**

# At ages 34 and 37, still 'holding up

## Army No.

### Former No., Known history and disposition

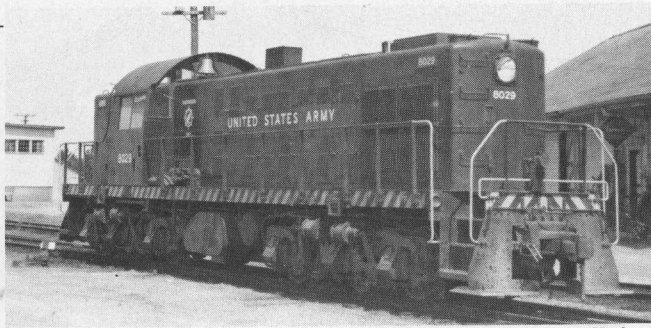
- 8000 (NYSW 231) To Navy 65-00575, Hawthorne, Nev., 1/71, later Concord, Calif.; sold to Pan American Engineering for scrap 8/76, but resold to Texas Industries, Midlothian, Tex., active.
- 8001 (NYSW 233) To Alaska 1085, rebuilt to B unit 1057 in 12/49, retired 5/65.
- 8002 (MILW 1878) To Alaska, rebuilt as A unit 1054 in 12/49, retired 12/64.
- 8003 (MILW 1879) To Alaska 1043 in 7/51, returned to Army 11/56; to DOT 8003, Pueblo 9/74, destroyed in test crash 5/30/75.
- 8004 (RI 747) To Alaska 1041 in 7/51, returned to Army 11/56; to DOT 011, Pueblo 9/74, active.
- 8005 (RI 748) To Alaska 1031 in 8/50, later retracted B-B, retired 6/64.
- 8006 (RI 749) To Alaska 1042 in 7/51, returned to Army 11/56; to TVA 8006, Muscle Shoals, Ala., active.
- 8007 (RI 746) To Air Force 8007, 3/69; to Navy 65-00532, Earle, N.J.
- 8008 (TCI 600) No record after return from Iran in 1945.
- 8009 (TCI 601) To DOT 012, Pueblo 9/74, active.
- 8010 (ASAB 901) To Air Force 8010, 4/67; to Navy 65-00512, McAlester, Okla.
- 8011 (ASAB 902) To Alaska 1034 in 6/51, returned to Army 11/56; to DOT 013, Pueblo 9/74, active.
- 8012 (ASAB 903) To Air Force 8012, Eglin AFB, Fla.; sold to Birmingham Rail & Locomotive in 1972, resold to Hickory Steel for scrap 2/74.
- 8013 To Alaska 1035 in 7/51, returned to Army 11/56; to TVA 43, Kingston, Tenn., active.
- 8014 Leased to Tonopah & Goldfield 9/45-7/46; to Air Force 8014, Eglin AFB, Fla.; to TVRM 8/78.
- 8015 Leased to Tonopah & Goldfield 9/45-7/46; stored at Ogden, Utah, 9/75.
- 8016 Leased to Tonopah & Goldfield 9/45-10/46; to DOT 014, Pueblo 9/74, active.
- 8017 Stored at Ogden, Utah, 9/76.
- 8018 To DOT 015, Pueblo 9/74, active.
- 8019 To Alaska 1028 in 8/50, later retracted B-B, retired 12/64.
- 8020 To Alaska 1029 in 8/50, retired 12/64.
- 8021 To Alaska 1089, rebuilt to B unit 1053 in 9/50, retired 5/65.
- 8022 To TVA 8022, Stevenson, Ala.; to Muscle Shoals, Ala., 6/76; stored, Decatur, Ala., 5/79.
- 8023 To Alaska 1030 in 8/50, retired 12/64.
- 8024 To Alaska 1032 in 3/51, returned to Army 11/56; to TVA 39, Grahamville, Ky., 5/75, active.
- 8025 To DOT 016, Pueblo 9/74, active.
- 8026 To Alaska 1016 in 1/49, rebuilt to B unit 1067 in 1/50, retired 5/65.
- 8027 To DOT 017, Pueblo 9/74, active.
- 8028 To TVA 40, Grahamville, Ky., 2/75, active.
- 8029 Assigned Fort Benning, Ga.; transferred to Navy 65-00525, McAlester, Okla., 9/68.
- 8030 To TVA 8030, Gallatin, Tenn., active.
- 8031 To DOT 018, Pueblo 9/74, active.
- 8032 To TVA 41, Kingston, Tenn., active.
- 8033 To Air Force 8033, Eglin AFB, Fla., 6/55; to Navy 65-00533, Earle, N.J., 3/69; seen in transit, Allentown, Pa., 8/76.
- 8034 Stored at Ogden, Utah, 9/76.
- 8035 To Alaska 1015 in 4/48, rebuilt to B unit 1065 in 12/49, retired 4/72.
- 8036 To Alaska, rebuilt as A unit 1074 in 12/49, retired 6/66.
- 8037 Assigned Fort Benning, Ga., circa 1952; scrapped by General Electric Service Center, Pittsburgh, Pa., in 1966.
- 8038 To Alaska 1002 in 6/49, rebuilt to B unit 1055 in 1/50, retired 10/65.
- 8039 To Alaska 1033 in 3/51, returned to Army 11/56; to TVA 38, Stevenson, Ala., 5/75, active.
- 8040 To Alaska, rebuilt as A unit 1050A in 10/47, later retracted B-B and renumbered 1050, retired 1/63.
- 8041 To Alaska 1010 in 3/47, retired 5/65.
- 8042 To Alaska 1026 in 2/49, retired 12/71.
- 8043 To Alaska 1012 in 7/47, rebuilt to B unit 1077 in 1/50, retired 5/65.
- 8044 To Alaska 1013 in 9/47, retired 5/65.
- 8045 To Alaska 1014 in 10/47, later retracted B-B, retired 12/64.
- 8046 To Alaska, rebuilt as A unit 1076 in 1/50, retired 4/70.
- 8047 To Alaska, rebuilt as A unit 1070 in 12/49, retired 4/70.
- 8048 To Alaska 1018 in 8/49, retired 10/64.
- 8049 To Alaska 1027 in 2/49, later retracted B-B, rebuilt to slug No. MATE 1 in 1972, active.
- 8050 To Air Force 8050, Columbus Army Depot, Columbus, O., 6/67; later at Waterville, Me., in transit in Ohio, 3/75.
- 8051 To Alaska 1011 in 4/47, rebuilt to B unit 1075 in 12/49, retired 6/64.
- 8052 To Alaska, rebuilt as A unit 1072 in 1/50, retired 5/72.
- 8053 To Alaska, rebuilt as A unit 1078 in 1/50, retired 5/72.

## Army No.

### Former No., Known history and disposition

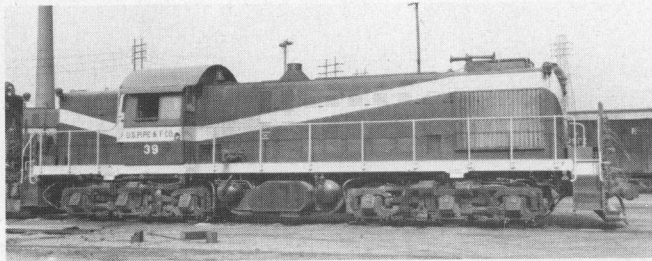
- 8054 To Alaska, rebuilt as B unit 1050B in 10/47, later retracted B-B and renumbered 1051, retired 12/64.
- 8055 To Alaska, rebuilt as A unit 1052 in 12/49, retired 11/65.
- 8056 To Alaska, rebuilt to B unit 1052 in 12/49, retired 1/63.
- 8055 Assigned Fort Eustis, Va.; to Alaska 1036 in 7/51, returned to Army 11/56; to TVA 36, Stevenson, Ala., 5/75, active.
- 8051 Assigned Fort Eustis, Va., 8/55-6/58; transferred to 757th Transportation Battalion, Milwaukee, Wis., in 1973; donated to National Railroad Museum, Green Bay, Wis., 2/77.
- 8052 To TVA 8652, Knoxville, Tenn.; transferred to Daisy, Tenn., active.
- 8053 Assigned Fort Dix, N.J., circa 1958; sold to Erman Corp., Turner, Kans., 12/72, for scrap; stored.
- 8054 No record following shipment to Europe in 1945.
- 8055 To Federal Prisons 1450, Atlanta, Ga.; to U.S. Pipe and Foundry 39, Birmingham, Ala., in 1957, stored in 1970, scrapped 2/73.
- 8056 To Air Force 8656, Wright-Patterson AFB, O., then Eglin AFB, Fla.; to United Cement Co. 1776, Artesia, Miss., circa 1972, active.
- 8057 Assigned Fort Eustis, Va., circa 1960; to TVA 25, Gallatin, Tenn.; to Widow's Creek, Ala., stored 2/75.
- 8058 To TVA 8658, Spring City, Tenn., active.
- 8059 To Atomic Energy Commission 8659, Oak Ridge, Tenn., circa 1946, also lettered Southern 8659 at one time; sold for scrap, 1966.
- 8060 To Air Force 8660, stored at New Cumberland, Pa., by 2/73; to Streigel, Baltimore, Md., stored 6/78.
- 8061 Leased to New Haven 10/55-3/56; later stored at Anniston Ordnance Depot, Ala.; scrapped at Coldwater, Ala., 7/76.
- 8062 To Air Force 8662, Eglin AFB, Fla.; to TVRM 8/78.
- 8063 To TVA 33, Stevenson, Ala., active.
- 8064 To Alaska 1017 in 6/49, later retracted B-B, retired 7/65.
- 8065 To TVA 34, Stevenson, Ala., active.
- 8066 To Air Force 8666; to Navy 65-00515, McAlester, Okla., 8/67.
- 8067 To Air Force, Eglin AFB, Fla.; sold to Industrial Maintenance Service, Hammond, Ind., scrapped 1970.
- 8068 To TVA 8668, Daisy, Tenn., 9/72, active.
- 8069 Leased to New Haven, 10/55-3/56; assigned Anniston Ordnance Depot, Ala., 7/72; later transferred to Air Force, Eglin AFB, Fla.; to TVRM 8/78.
- 8070 To DOT 8670, Pueblo 9/74, destroyed in test crash 5/30/75.
- 8071 To Air Force 8671, Griffiss AFB, Rome, N.Y.; to Eglin AFB, Fla., 9/68; sold to Birmingham Rail and Locomotive for scrap in 1972, scrapped 11/73.
- 8072 At Red River Army Depot, Defense, Tex., circa 1950; to TVA 37, Stevenson, Ala., 5/75, active.
- 8073 To Air Force 8673, scrapped at Ogden, Utah, 5/74.
- 8074 Assigned Fort Eustis, Va., circa 1952; leased to New Haven 10/55-3/56; to TVA 35, Stevenson, Ala., active.
- 8075 Assigned Fort Benning, Ga., 1945; after 1961 to TVA 31, Grahamville, Ky., active.
- 8076 Leased to Cape Fear Railways, Fort Bragg, N.C., 3/45, retired 9/75.
- 8077 To Anniston Ordnance Depot, Ala., 10/72; later transferred to Air Force, Eglin AFB, Fla.; to TVRM 8/78.
- 8078 To TVA 42, Kingston, Tenn., active.
- 8079 Leased to Cape Fear Railways, Fort Bragg, N.C., 3/45, retired 12/77.

**Notes:** Key to abbreviations: AFB, Air Force Base; ASAB, Atlanta & St. Andrews Bay; DOT, United States Department of Transportation (Federal Railroad Administration); MILW, Milwaukee Road; NYSW, New York, Susquehanna & Western; RI, Rock Island; TCI, Tennessee Coal, Iron & Railroad (United States Steel); TVA, Tennessee Valley Authority; TVRM, Tennessee Valley Railroad Museum, Chattanooga, Tenn.  
 Alaska Railroad: All units reconfigured to A or B units were retracted to B-B at time of rebuilding. ARR classed A units RFA, B units RFB. ARR initial dates are when unit was put in service; retirement dates are official—some units were in storage before and/or after dates given.  
 DOT: Units officially transferred 9/74; some moved to Pueblo later. Some units lettered for FRA. All units renumbered to three-digit series in 1977.  
 TVRM: Units may not all be operational.  
 Sources: Alaska Railroad; Kenneth M. Ardingher; Birmingham Rail and Locomotive (Thomas Lawson); P. Allen Copeland; Kenneth L. Douglas; H. L. Goldsmith; L. Norman Herbert; Pacific News Magazine; Railroads of Nevada, Vol. 1 (Howell-North 1962); The Alaska Railroad (Ken Wray's Print Shop 1964); The Short Line Magazine; TRAINS; Extra 2200 South Magazine. Roster accurate as of December 15, 1979.—R.M.G., J.D.I.



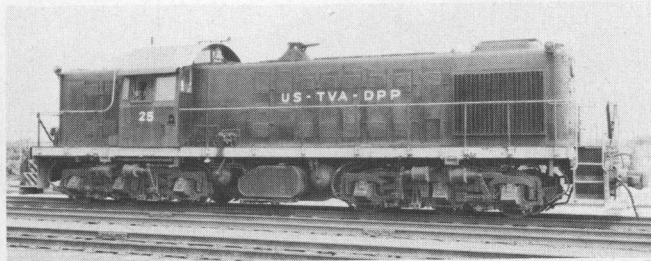
L. Norman Herbert.

AT Fort Benning, Ga., in June 1961, 8029 went to the Navy.



Thomas Lawson Jr.

BLUE U.S. Pipe 39 served with Baldwins on the Mary Lee.



Thomas Lawson Jr.

TVA Division of Power Production 25 also worked for L&N.



TRAINS Collection.

NEVER on Southern's roster, 8659 was an Oak Ridge secret.

splendidly”



Thomas Lawson Jr.

EGLIN AFB near Pensacola, Fla., was an RSD1 repository.



U.S. Army.

CAPE FEAR, North Carolina common carrier, had two RSD's.

carried a load of water dyed to resemble fuel. Since 8003 and 8670 were inoperable, it was necessary to use a remote-controlled pusher unit, sister RSD1 8031, which was cut off the test train just before impact.

Following an examination of the wreckage by FRA technicians, 8003 was cut up for scrap and 8670 was towed to the Test Center's diesel shop. At last report, it was being used as a parts supply for the eight remaining RSD1's, most of which now sport the Department of Transportation's bright red-and-white paint scheme.

BEFORE closing the RSD1 story, it should be noted that two of the locomotives managed to disappear. To date, no record has been found of the disposition of 8008 and 8654 following their initial overseas assignments. Although 8008 is known to have returned from Iran in 1945, its subsequent history remains a

mystery. The whereabouts of 8654 presents an even greater puzzle, for no record of it has ever turned up following its departure from the Alco plant in February 1945.

Of all the tributes paid to the RSD1, perhaps the most fitting was from Col. J. A. Appleton, World War II Chief of the Railroad Division, U.S. Army Transportation Corps, and General Manager of the New York Zone, Pennsylvania Railroad, in civilian life. Writing in a 1943 issue of *Railway Age*, Col. Appleton stated that the military RS1 had far exceeded the Army's expectations and would do the same for civilian railroads once peace returned. He summed up their accomplishments by noting, "They're taking every kind of punishment imaginable, and they're holding up splendidly." Considering that the military had ordered a variety of diesel and steam locomotives for wartime use overseas, it is a genuine

tribute to Alco and its RSD1 product that an important military personage would single them out for praise in a railroad trade publication.

Without a doubt, old 8651, 8677 and their approximately two dozen sister locomotives still in existence have much to be proud of. **I**

#### ACKNOWLEDGMENTS

To P. Allen Copeland, Don Dover, Howard Goldsmith, Brian Griebenow, David H. Hamley, and particularly, John F. Kirkland, for supplying much information. To the photographers, noted by their credit lines, for sharing their collections. To civilian employees of the U.S. Army Audiovisual Activity at the Pentagon in Washington, D.C., for their assistance in locating photographs from Army Signal Corps archives. To many fellow Conrail employees, for offering to share their wartime Iranian railroad experiences, particularly Jack B. Stauffer of the Rehabilitation Planning and Mechanical Department, and the late Lee A. Bivens of the Systems Department. Bivens, formerly a Public Information officer for the Military Railroad Service in Iran, related many anecdotes concerning wartime operations of the Trans-Iranian Railway. The author deeply regrets that Lee's passing in 1978 prevented him from seeing the story in print.