The History of the 1390th Engineer Forestry Company During World War II

by

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THE HISTORY OF THE 1390th ENGINEER FORESTRY COMPANY
DURING WORLD WAR II

INTRODUCTION

The history of a forestry company has been written in the following pages with the purpose of presenting to forestry students an idea of what was done by foresters during the war. Not all personnel in these companies were foresters to start, but after completing two years of wood's work, most all men were capable loggers or millers.

The report is not written with a purpose to present statistics or personal feelings, but rather to present a general over-all picture of a war time forestry unit in action. The details of equipment, their faults and good qualities have been purposely omitted along with detailed organization of the unit, for there is available in the Oregon State College Forestry School Library a thesis written by Ralph De Moisey that well describes most of the faults of forestry equipment that were common to all using units.

With the above information in mind, the following pages are written.

HISTORIES OF FORESTRY COMPANIES

To most of the people of the United States, the great World War II was an experience that should now be forgotten, but to those who participated as a soldier, sailor, marine, or civilian producer, the times have been
so deeply, and in many cases, sorely imbedded, that memories both good and bad and bitter and happy will remain with us for life. Some experiences are not to be told, but there are some things that happened that will always be of interest to relate.

In this story of the development and operations of a forestry company in America and in Europe, it is not my desire to pass on an army tale, but to point out to those of you interested in forestry that such organizations existed and operated as mobile logging companies, sometimes more mobile than desirable; that lumber, piling, mine timbers, railroad ties and slabwood played a part in World War I and in World War II.

The writing and facts in the pages to come are from a personal experience witnessed by myself over a period of two years during which I served with the 1390th Engineer Forestry Company. Also, facts have been gathered from the 1389th, 1391st, and 1392nd Engineer Forestry Companies, all of which were assigned to the 796th Engineer Forestry Battalion for operations and supply. In reality, however, the companies were each self-sustaining, and during most of the war each company operated alone.

World War I

I have been able to gather very little information from the Engineer's Office in Washington D.C. on World War I companies in forestry, but in a letter from that office, it
has been stated that such companies did exist, and logging was carried on in much the same manner that existed those days in the woods of the eastern United States. Also mentioned was the 20th Engineer Regiment which served in France and controlled lumber production. Many men from the Forest Service and other forest industries made the nucleus of this unit.

World War II

In World War II there were twenty-four engineer forestry companies and three engineer forestry battalions. These units were dispersed throughout Africa, Europe, Australia, the Phillipines, China, Burma and to Alaska.

Strength and Composition

The size of all companies was the same, all being formed under the same Table of Organization. Full strength consisted of one hundred and fifty-five men. Among them were five officers who had some forestry education, mill or logging experience. There were milling foremen, timber cruisers, logging foremen, yard foremen, labor foremen, blacksmiths, carpenters, tallymen, lumber graders, lumber-jacks, mechanics, auto and heavy equipment operators, riggers, millhands, millwrights, sawmill machine operators, scalers, tool dressers, tractor operators, heavy and light truck drivers and woodworking machine operators.

There was for each company enough equipment to
operate a fair size lumbering operation. Each forestry unit had a minimum of the listed logging and milling equipment:

1—Portable sawmill—skid mounted
3—D-8 Caterpillar tractors with winches
3—Logging trucks—pole type
Blacksmith equipment
Carpenter equipment
Electric lighting equipment
6—Chain saws
Forestry sets—axes, saws, etc.
Welding equipment

But during operations many of the companies had as many as three sawmills and more than additional logging equipment to supply these mills under the most adverse conditions. Sometimes the equipment was far from conventional, but all types of logging and milling tools and machinery were welcomed.

Training

For a group training of these forestry companies the 796th Engineer Forestry Battalion will be used for a basis of information. It was this headquarters that acted as a liaison office between smaller units under its command and higher headquarters. It was purely administrative and had no part in production. The main function of the battalion upon activation of companies was to set up
training programs, both basic and technical, and to make sure that all phases of training were properly completed.

A battalion training program starts from activation with regular engineer soldiering. After eight to thirteen weeks of basic training, a technical program of logging and milling operations is set up. Each company is assigned its cutting and milling areas and cuts according to the battalion operation's officer, who as a civilian would be a Forestry Officer on a National Forest cutting. All tallies, production, and distribution of lumber were controlled by battalion headquarters. It was there also that paper details were expedited and filed.

THE 1390th ENGINEER FORESTRY COMPANY

For a detailed report on forestry activities in the army, I have chosen the 1390th Engineer Forestry Company with which I was quite familiar over a period of two years. I was assigned to the unit during its basic training period, and remained with it for nine months after the war in Europe was brought to a close.

Activation

Long before the major fighting took place, the War Department realized the great necessity of lumber to be needed in the invasion and occupation of Europe and Japan, so in 1943 many forestry companies were activated. It was on the tenth of December, 1943, that the 1390th Engineer Forestry Company was born with a cadre of loggers
and millers from the Northwest and South. Soon, all types of men from barbers to bartenders were being converted to soldiers, and in short time to loggers or millers.

**Basic Training**

Basic training passed rapidly and the then known "Sawdust Commandos" were swiftly rounding into an organization under the sun of Louisiana's Camp Clayborne. After passing this cycle, the 1390th Engineers were shipped from Alexandria, Louisiana across the Great Northern Railroad to Medford, Oregon. Here was to be the main location for logging and milling.

**Technical Training**

It was during May, June, and July 1944 that technical training began some thirty miles from Camp White, Oregon. The company was moved to Dead Indian Creek near Fish Lake where the portable logging company set up in pyramidal tents and began its era of destruction. It was there that we logged and milled with one hundred and fifty men for six weeks prior to overseas shipment. However, many of these one hundred and fifty men were taken as truck drivers, clerks, cooks and company overhead.

For logging operations there were forty men available. For milling operations, fifty men were used on two shifts with men being rotated daily and weekly from job to job so that all positions were familiar to as many
operators as possible. During later operations this rotation proved the training time spent on it well worth while, for almost every mill man was later to be in charge of a small sawmill.

**Equipment and Operation**

In the company operation and equipment pool there was a Corinth model "C" sawmill capable of cutting 1200 board feet per hour. There were three tractors: one Allis Chalmers H. D. 14, one Caterpillar D-8, and one Caterpillar R-4. Most of the time in the woods was spent repairing the worn out tractors that the army had purchased somewhere unknown.

Training originally started with power saws and single bit axes, but soon the use of power saws was prohibited, not because they weren't satisfactory, but it was too easy for the men to run machinery instead of doing the pushing and pulling themselves. This was a typical army setup. Later, double bit axes were received.

A blacksmith shop was erected in a tent, a filer's shack was thrown hastily together, and tools were kept in their designated places. Around the mill were constructed various things to speed production and make work easier.

Logging in the woods was 100% Caterpillar. The land was quite flat, and the summer sun dried the soil enough to permit tractor logging. Also, the cut from the forests
was of fairly small trees: Lowland White Fir (Abies grandis), a few small Douglas-fir and Ponderosa Pine, and White Fir (Abies concolor).

Many devices were used for skidding the logs to the landings. One tractor was equipped with an arch, for the other two tractors there were pans and sleds made. Many days, logging was carried on with no time saving devices—just the winch or drawbar. Everything done was purely experimental, and we later found that many of our experiments proved helpful in future field expedients, for it was one time in a million that parts and supplies were available.

Putting the mill together for the first time was quite like a mechano set with at least one-third of the major parts missing and two-thirds of the nuts, bolts, and screws and other small parts nowhere to be found. So, after using the welding torch and all the nearby salvage yards of Medford and Ashland, the mill was capable of running. It was fine experience which we again found to be of much value, for each time we moved while overseas we became more proficient in setting our mechano mill into operation.

Overseas Shipment

England

As in most other units, training found its end, and soon from New York's Camp Shanks we headed for England.
From August 24, 1944, to September 14, 1944, the unit was busy gathering sawmills, tractors, trucks, etc. from all the Engineer Depots in Scotland, England and Wales.

France--Paris

On September 15 we were on the European Continent ready for operations; however, our first move was to Paris, which had just been liberated a short time. On September 28, two sawmills were in operation in captured German Depots in Paris with our first job to edge 800,000 board feet of captured German Oak. For this operation, the entire depot was used. There were cranes to lift the timber which had been sawed and piled with spacers between cuts to season. We had a miniature railroad to transport the slabs to the mill. The slabs were moved from the flat cars and placed on the carriage, from the carriage through the headsaw to the rolls, from the rolls back to the flat cars, and then away to be loaded for necessary shipments. All edgings were used for fuel wood, which to other than forestry companies was always a scarce item.

Belgium--Raeren

About November 4, 1944, wood was necessary in the First and Ninth Armies fighting at Aachen, Germany, so the loggers were moved to within four or five miles of the front lines into Raeren, Belgium, where lumber and piling could be produced. Two mills were set up within German artillery range, and soon logs were milled into
lumber under watchful eyes.

During this operation the Belgian rains had set in, and the woods were very wet. As a result, our tractors were almost useless. Nearby loggers were contracted to log with horses, and in a month some 600,000 board feet of logs were pulled out by the flesh mudders. In addition, some one thousand piling were felled for the Ninth Army. All timber cut was Norway Spruce and Scotch Pine.

Delivery of produced materials was sometimes very difficult. On most occasions, lumber was picked up at the mill yard by using units; however, it was necessary for the forestry companies to deliver poles and piling, as pole type logging trucks were the most efficient carriers. Some hauls were as long as one hundred miles, and it was not uncommon to send a convoy of ten Diamond "T" logging trucks, loaded with ten to fifteen piles apiece and up to one hundred and five feet long, on a two hundred mile trip. Piling was needed in river crossings, and so regardless of price or time, piling was provided.

Operations around Raeren, Belgium and Aachen, Germany were sharply brought to a stop about December, 1944, when our unit gave way to the 23rd Corp of the First Army. Some high rank decided to move the loggers from the woods so that troops of the 23rd Corp might return to a place for a rest. All operations ceased immediately, and about December 11, we located in the St. Hubert Forest of Belgium,
just twelve miles north of Bastogne.

Belgium--St. Hubert

The Forest of St. Hubert was one of Europe's finest. It contained almost pure stands of beech and spruce. Both of these species were to be used as bridge timbers, so extra large cants were necessary for strength.

It was cold and snow was on the ground when the mill erection began. Tractors could be used, but in deep snow operations we again planned on horse logging. The logs were not so big that they could not be horse skidded, particularly on icy surfaces. Sometimes teams of two, three, or four horses were pulling in line one behind another when heavy hardwoods, particularly beech, were being skidded.

Operations were just getting under way with two sawmills ready to go about the 19th of December, 1944. At that time the German Armies started their Bastogne offensive, and our company was alerted in the town of Houmont, Belgium, just nine miles north of Bastogne. We were ordered to remove all necessary operating parts and prepare the mills for demolition. On the following morning all organizations within the nearby area were to withdraw for about twenty miles to the west, but at 7:30 P.M. on the evening of the 19th, an enveloping Panzer Division north of Bastogne required that our men and equipment move out before the designated time. We tried to salvage as much equipment as possible. Our
Caterpillar tractors were run on their tracks about forty miles. All available equipment was taken, but mills and heavy logging equipment were lost. It was interesting logging.

Belgium--Phillipville

Our next job was to produce more lumber immediately with no sawmills, so procurement of five civilian mills immediately took place near Phillipville, Belgium. With army supervision on these very small mills, almost 600,000 board feet were cut in twenty-five days. This meant a daily cut of twenty-four to twenty-five thousand feet, or five thousand feet per mill. This production on some mills was double that of what they had ever before produced. Much dissention with mill owners was met over increased production, as they had to work too hard and too fast.

Belgium--Chimay

Soon again, on January 15, 1945, three army mills were set up in the Forest of Chimay in southwest Belgium. It was here that a cutting record was set for one month's operation. From January 24 to February 28 a total of 1,059,759 board feet was cut. The average cut per day was about 10,000 board feet per mill. The mills here were set up in a large pasture in series so that all trucks could bring logs to one central location; thus, keeping excess mileage to a minimum.

It might have been better at times to move all mills
to individual sites in the woods, but this was impossible because of transportation shortages for personnel, so it was almost always necessary to erect the mills in towns near billets. In addition, we had many civilians working at all times, and by being in town our transportation problem for them was solved.

Always we had interesting timber sales when dealing with Belgian Foresters. War or no war, I can say that all foreign governments capitalized as greatly as possible on the United States. Even though large timbers were greatly needed to support heavy army loads, it was the aim of some foreign governments to make a thinning with American forestry companies. Foresters representing Belgian interests would mark all poor grade trees, small and knotty and conky they were. Then we were supposed to log over about five acres for two small trees. The situation was adverse to say the least.

Finally, a Belgian forester lost his Royal Hatchet for a few days, and in this time several hundred thousand feet of nice size trees began falling. To this date, the cruisers are still complaining, but a million foot quota was reached.

In the scale of a tree, the Americans also paid for much more than the merchantable part of the logs. In addition to a regular log scale, the tops and limbs were measured to almost the leaves. In those countries all logging debris, of which there is little or none, is sold
for fire wood. therefore, we paid for the debris even though we seldom had use for it.

Slab disposal around most mills is always a problem. This is particularly true in portable sawmills where a burner could not be constructed very cheaply, and could not be moved from place to place very conveniently. However, this problem never confronted us.

By constructing a small fence to the end of the rolls, a continuous line of civilians could be kept carrying away each piece of slabwood as it came out of the mill. All town's people welcomed the chance to stand in line for free wood. In many cases fights were started over a large piece of slabwood.

Short roads were sometimes necessary to build. Approaches for mills, landings, and even a few cat skid roads had to be graveled. For this construction, foreign civilians were usually contracted to do the labor, while American machinery did the heavy moving. This applied wherever labor was available. It is true that rocks were sometimes lodged in logs on gravel skid roads, but careful watch was maintained before the logs were rolled into the headsaw.

Germany—Zweifall

From the Forest of Chimay the company was moved to the Hurtgen Forest of Germany, just a few miles southeast of Aachen. It was while located there that the great Rhine River crossing was being planned. It was in this
preparation that forestry companies were given a big job.

When the German armies retreated across the Rhine River, they demolished all bridges except the Remagen, just south of Bonn, Germany. This bridge was left somewhat intact, but it was greatly weakened from artillery fire and aerial bombings. So, our first job was to supply piling, decking, stringers, caps and treadway for this bridge. Logging trucks were sent about one hundred and twenty miles loaded with piling to be unloaded on the banks of the Rhine. From this point the piling was driven and the bridge repaired by engineer combat battalions.

In a little over a month's stay in Zweifall the company cut and delivered 3,742 piling averaging fifty to eighty feet in length. Some spruce were long enough for one hundred and five foot piling to be cut from. The absolute minimum was a six inch top, so these piles would have to be well braced at that height.

Much of the piling cut from the Hurtgen Forest was delivered to Wessel, Germany near the Ninth Army bridge crossings. It was there that an Engineer Depot was established in which early bridge preparations were made.

While in Zweifall, lumber was produced with two Corinth sawmills in conjunction with a German civilian mill. The civilian mill was a steam operated gang saw which was used by us as a gang resaw for cants being produced from the Army mills. The German mill could resaw only about 50% of the cants produced, but even
this amount speeded the production line.

Logging in the Hurtgen Forest was both difficult and dangerous. Late winter rains and early spring thaws made the country very wet and far from what anyone might call a winter show.

To start the operation, the cruiser had a difficult time finding a tree that was merchantable. This was a result of heavy breakage from bombings and artillery fire. As far as the eye could see in some directions, a tree could not be found that had foliage or leaves on it. The forest was denuded of all existing and future growth.

And then came the fallers and buckers with power saws, only to discover that finding a place to cut was a major task. Almost every tree was hit with shrapnel, and in many cases it was difficult to see any trace or scar left from the bruise. So, when the fallers and buckers would cut, they were almost certain to hit some steel—and that they did. Saws were broken, and at all times they were kept very dull. As a result, the fillers in this location were overworked.

Mud kept two tractors busy pulling each other out of holes, so skidding was difficult. In addition, there were many hazards. Occasionally a buried mine would be found, a grenade was not uncommon to be seen, and there were thousands of rounds of both German and American ammunition to run over with every turn. It was a fortunate
thing that no one was seriously hurt during this period.

When the logs were delivered to the mills, they were carefully checked for metal deposits. To do this, a mine detector was used. If shrapnel was lodged in the log, it was usually detected. However, on one day, the head-saw of one Corinth mill was changed twenty-two times because of shrapnel. This, of course, was an exceptionally bad day, but it was not the least bit uncommon to change the head-saw from ten to twelve times in a ten hour shift.

With all these difficulties and adverse logging and milling conditions, the company was able to produce 840 thousand feet of lumber in about thirty-five days. This averaged about twelve thousand feet per mill per day.

Germany—Immenhausen

About April 20, 1945, just a few days after the Rhine River crossings, we again moved east. Across the Rhine went sawmills and logging equipment, and continued to Immenhausen, Germany, some one hundred and fifty-nine miles east of the river, and about half way between Bonn and Berlin. The town was only a few miles north of the large city of Kassel. It was there that operations took place in some fine Spruce and Scotch Pine stands. Logging was fairly easy, and two army mills and seven German civilian sawmills were kept quite busy.

All types of logging and milling were practiced. There were some six hundred German civilians working for the forestry company at one time. There were loggers of
all types. Some used horses, some oxen, and the rest worked around American machinery. There were high wheels, skids, sleds and wagons. There were chain saws, buck saws, hand saws, drag saws and regular falling and bucking saws. There were mostly single bitted axes that looked like hatchets.

Loads were made by cross haul, booms, lines and spreader bars, 'A' frames, and gin poles. Power for loading was supplied by winches, oxen, cows, horses and man.

The mills used were powered by gas, diesel, and steam with all German mills using the gang saw method of cutting.

It was an interesting sight to see so many things going on and so many different ways of logging being displayed, but the call for lumber was great, and anything that looked like a board could be used.

Our first supply of lumber from Immenhausen went to an occupational Air Corp Group located only a few miles from us. It was necessary to rebuild damaged hangers and repair billets for soldiers, so a large order of 500,000 board feet was filled with high priority. Many short orders from higher headquarters were also filled intermittently.

It was about this time that the war ended and celebrating for a couple of days was permitted, but immediately thereafter, more and more lumber was demanded.
It was in a little over a month that 1,500,000 feet of lumber was produced, and every board foot was greatly needed.

Early in June, 1945, after the European war had ended, a shipment of one hundred freight cars of lumber was made from the mill sight. An average of eight to nine thousand board feet per car was maximum, but at that it tallied almost a million feet.

Soon after June 1st, 1945, the 1390th Engineer Forestry Company was told to turn in all equipment and prepare for immediate Pacific shipment. It was then that we prepared for cutting Phillipine Mahogany, but when about to board the Japan-bound freighter, the war ended, and no more wood was produced by this forestry company.

**Civilian Pay**

It might be of interest to relate the pay established by local governments for mill and woods work in foreign countries. In France, almost all jobs were paid seven to ten francs per hour. This amounted to fifteen of twenty cents. In Belgium, the wages were about the same as in France.

Horses and drivers were also hired with the pay ranging from thirty to thirty-five cents per hour.

Oats were very scarce in Belgium and France. The Germans had purchased or stolen all that were available for feeding their animals. So, to work horses, the army
furnished fifteen pounds of oats per horse per day—this food was usually given to farmers who furnished their stock. When this information was received by the civilians, there was no difficulty in procuring horses to work.

It was the policy of the Americans, also, to pay German labor for work done. This money was eventually to come from the War Debt, so no monetary cost was imposed upon American taxpayers.

German pay was fifty-five pfennigs per hour, or about five and one-half cents. Much work was done at little cost. For six hundred German civilian employees who at one time worked for the unit, an average day's payroll for ten hours amounted to three hundred and thirty dollars, or fifty-five cents per man per day. This was cheap logging and milling even though not too much lumber was produced.

Conclusion

In all phases of overseas operations, the 1390th Engineer Forestry Company cut 5,396,296 board feet of mixed hardwoods and softwoods. Some 4,752 piling were cut and delivered to strategic points for bridge work. From these materials were built bridges, hospitals, hangers, quarters for soldiers and all other things constructed from wood. Multiply these figures by four and a good idea of what four small forestry companies did to ease the lumber shortage throughout Europe will be seen. These units did
a lot of work, and even though they were strictly non-combat, the forestry companies did their part.