

Harvey Fraser-Engineer Educator

Class of 1939

To understand the part Harvey R. Fraser played in the Battle of the Bulge, you have to know of Hitler's desperate plan.

In September, 1944, at a conference in his Wolf's Lair Head-quarters in East Prussia, Hitler addressed a handful of his top leaders. Before him lay maps of Luxembourg and Belgium. His hands trembled. "I have just made a decision," he said. "I am going to take Antwerp away from Eisenhower's men. To do this, we will smash through the rough country of the Ardennes." Then Hitler shouted, "The offensive! That's the way to win. We will strike just before Christmas. No one will be looking for an attack. Anyone who divulges part of this plan without my permission faces death."

Astonishment clouded the faces of Gen. Alfred Jodl, Chief of the Wehrmacht Operations Staff and Hitler's right-hand man, and Field Marshal Walther Model. Both had the courage to say they believed the plan too ambitious.

Hitler countered sharply, "We can win a quick victory, gain this port, then turn and crush the Russians."

Hitler was taking an immense gamble. If the battle failed, he would have expended thousands of soldiers and hundreds of planes and tanks that he needed to defend the fatherland, and Allied victory would be certain.

While Hitler was readying his secret smash, one of the Allied leaders who played a key part in opposing his armies, Lt. Col. Harvey Fraser, was in England. Fraser was unhappy. Although, in August, 1944, he had led a patrol of engineers through sniper, artillery, and machine-gun fire in order to secure information about the German-held port of Saint-Malo (between the Normandy and Brittany peninsulas), his present job confined him in the Services of Supply. He hated it.

In his typical direct style, Fraser went to see Gen. John R. Hardin, deputy chief engineer of Eisenhower's European Theater, and said, "General, it's getting so I'm ashamed to draw my pay. I want a job with the fighting forces."

General Hardin thought a moment, then said, "I think I can do something for you."

Orders came through placing Fraser in command of the 51st Engineer Combat Battalion - a thousand men operating sawmills along the Ourthe and Ambleve Rivers in Belgium. The lumber was needed for bridges and to improve dugouts for the coming winter. Fraser's engineers were stretched along a twenty-five mile line from Barvaux to Rochefort. One company, under a fearless and loyal Texan, Maj. Robert B. Yates, worked at Trois-Ponts.

But running a chain of sawmills was not Fraser's idea of fighting for his country. He jeeped to see Col. William Carter, engineer of the First Army, and exploded. "Cripes, Colonel! I want to fight, and you have me in the lumber business, the farthest engineer battalion from the front. I'm sick of the rear area. Can't you give me a fighting command?" (The date was December 12, 1944.)

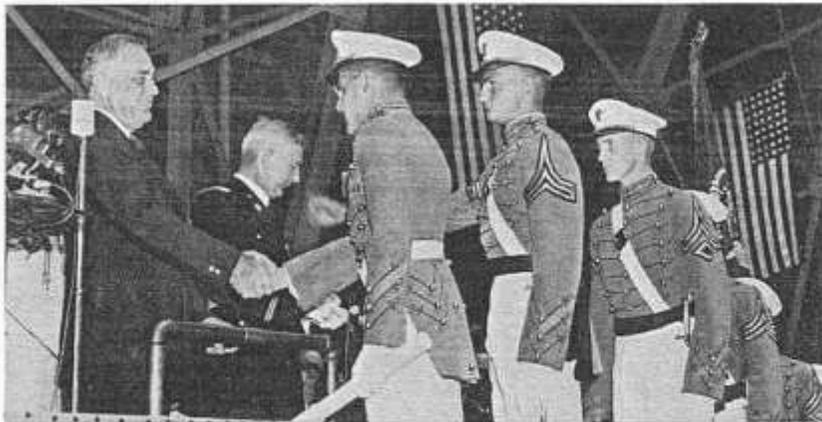
"You do a good job," Colonel Carter said, "and I'll move you to a more active place."

Four days later, the telephone in Colonel Fraser's headquarters, seven miles northeast of Rochefort, buzzed. An excited voice on the wire said, "All hell's breaking loose! The Germans are coming through. You guys had better quit sawing lumber and get ready to fight." Fraser immediately readied his men to face the onslaught.

Hitler's all-out drive was under way, in spite of fog, snow, sleet, bone-chilling rain, and more fog. No planes could fly, and this handicapped the Allies. Hitler had stacked the cards. Three German armies of twenty-five divisions were smashing through seventy miles of the Ardennes held by six American divisions.

Fraser recalled: "I hardly got the message when here came Americans, jillions of 'em, running hell-bent on the muddy roads with flocks of civilians. These people all had one idea-to put as much distance between themselves and the oncoming Germans as possible. I got out on the roads with my officers and tried to turn these soldiers around. It was impossible. I doubted if the English Channel could stop 'em. It was a panic. Unbelievable! Half-crazy people tearing to the rear. Several fellows slowed down a minute, and all they could talk of was Colonel Skorzeny, a real bogeyman, one of Hitler's most daring colonels. His exploits terrorized people. These guys gibbered, 'Colonel Skorzeny's leading the attack. He's right behind us.' Then they took off with the herd."

After the panic, for four terrible days, Fraser's fighting engineers held a barrier line along the Ourthe River and at Trois-Ponts. Colonel Fraser himself scouted across the Ourthe into the German lines to find out what he was up against. He streaked up and down his long line, moving men here and there, making the Germans think they were up against a larger force, a trick employed by Stonewall Jackson. The Department of the Army history, recording this extraordinary stand, calls Fraser's battalion "ubiquitous." Indeed his men seemed to be everywhere at the same time.



President Roosevelt awarding diplomas to the 1939 graduating class of the U.S. Military Academy. To the right of the President is Lt. Col. C. H. Danielson, Adjutant of the Academy. Cadet Harvey Fraser is second in line (wearing lieutenant's chevrons). *Acme Photo*

Colonel Fraser skillfully employed his engineering equipment. At one place he directed a bulldozer operator to dig a trench. The dozer cut up fifty yards

of earth, then struck a mine. Two of Fraser's men ran to the operator, who lay stretched on the ground, stunned. They shook him and asked, "Are you dead?" "Hell, no!" the man replied. "Well then," Fraser said, "run catch that dozer, because it's headed for the German lines." The operator caught the bulldozer, finished his trench, then drove his machine to the First Aid Station, where a medic removed seventeen iron fragments from his body. Fraser recommended the driver for the Silver Star medal, and blazed when higher headquarters cut it to a lower-ranking award.

On the third day of the Battle of the Bulge, Fraser went to a house to collect his thoughts and to study a map to see if he could determine what the Germans might do next. He heard a noise and opened the door and, in his words, was "looking straight into the muzzle of the biggest gun I ever saw-on a German tank ten feet from the door. A GI working in our headquarters saw the tank and yelled, 'For God's sake, Colonel! Close that door!' I think he thought the door was armor plate. Fortunately the tank was buttoned up [the hatch was clamped down], and the driver didn't see us. I forgot my map study for a while."

The epic four-day fight of the thousand men of Fraser's 51st Combat Engineers against tremendous numbers helped stop Hitler's drive by upsetting his timetable in the greatest pitched battle on the Western Front in the Second World War. By January 31, 1945, the Battle of the Bulge had ended, with disastrous results for the Germans. Hitler had failed to take into account American tenacity such as that displayed by Fraser's men.

After the war, German Army and corps commanders called the stand of Colonel Fraser's fighting engineers "a feat of arms." The battalion received a Presidential Unit Citation. The stand along the Ourthe and the Ambleve is an example of what a determined leader can do.

When the Allies resumed the offensive, Colonel Fraser led his battalion on. At the Roer River, the men built bridges in spite of a swift current and enemy mortar fire; at Remagen, on the Rhine, they constructed-in fast water-a floating bridge 1,100 feet long.

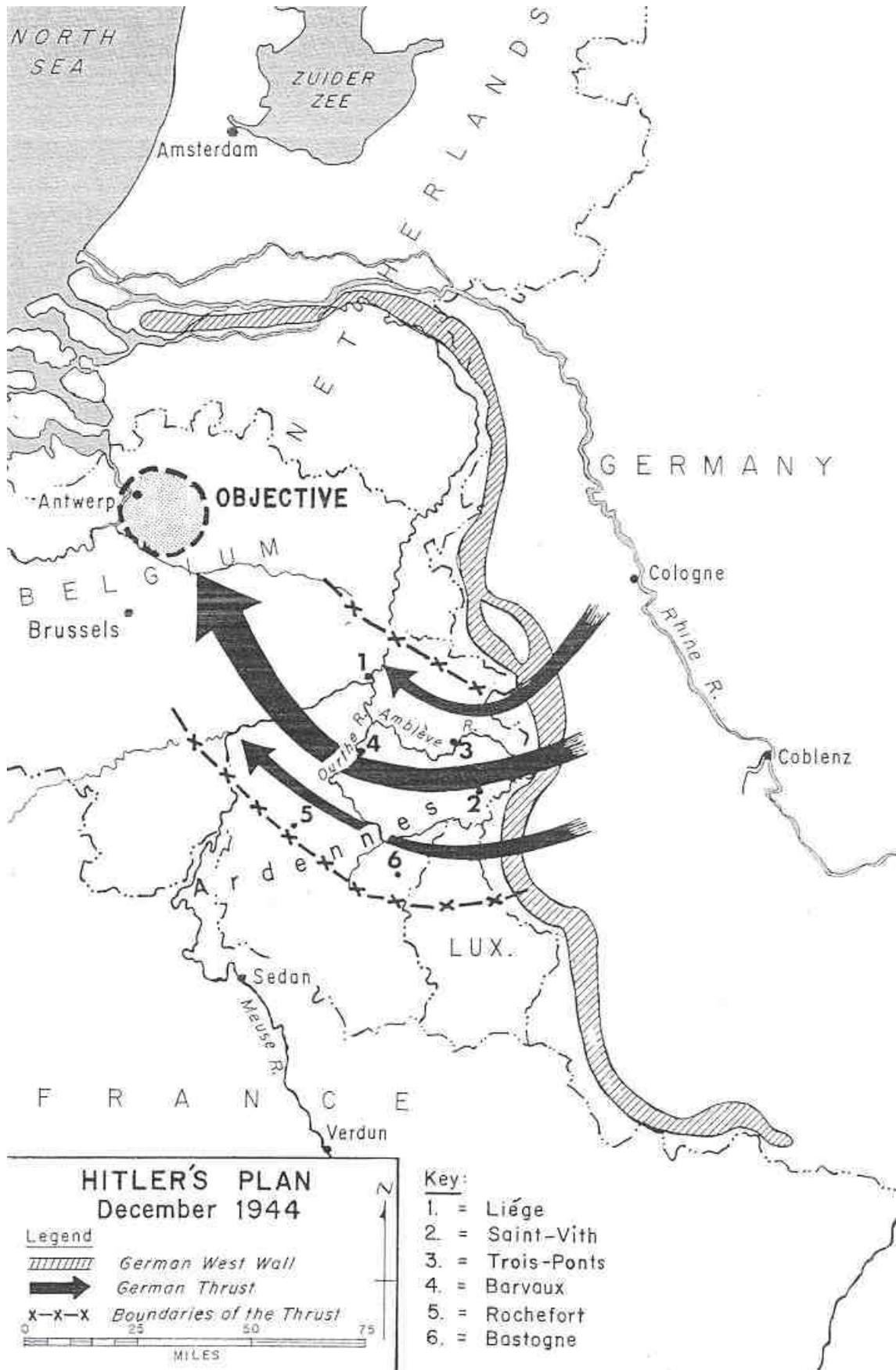
At the Danube River, at Ingolstadt, fifty miles south of Nuremberg, Germany, Colonel Fraser again received the order, "Construct a bridge."

The river was 440 feet wide, and the Germans who were lodged in a five-story building, held the far shore. The engineers soon found that when they moved their boats and other bridge equipment to the river's edge, they immediately drew enemy fire. Fraser protested to the commander of the infantry division for which his battalion was constructing the bridge, pointing out that many engineers would die unless a bridgehead was first secured on the far bank. The general, excited and obstinate, remained adamant. He needed the bridge.

When Fraser ordered the work to start, at 11:00 P.M., in wind and rain, his men were apprehensive because of the enemy across the water.

The minute the Germans discovered the engineers at work, star shells illuminated the rain clouds, the pontoons, and the men building the floating bridge. The Danube looked like brown clay in the flowering glare.

The engineers were too close to the enemy to be supported by artillery. His men manned .50 caliber machine guns, and Fraser directed the guns of an armored carrier to fire at the Germans in the building.



Volley of bullets cracked at the bridge workers. Then the deep thunder of heavy artillery began, the shells, bursting everywhere, showering the men with iron fragments. The red flashes, accompanied by the unearthly noise, made the whole scene seem eerie, as if the engineers were trying to bridge the ghastly River Styx. The Danube has seen more battles than any other river, but perhaps none was more one-sided than the struggle of the 51st Engineers. When the German fire built up, with the bridge only forty feet into the river, many of the engineers sprinted for the safety of foxholes. The work stopped.

Fraser had once written: "The leader never asks his men to do anything that he would not, or could not, do himself." So now he walked alone to the end of the bridge. Bullets cracked into the treads around him. Ricochets whined and zipped in all directions. Splinters from balk and plank rained on him. "I told myself," Fraser said, "'You're a West Point graduate. Act like one!' I felt I was building my last bridge, and I didn't have time to pray."

The wiry figure of the leader stood illuminated in the fearful display of sound and light. To the enemy he seemed a target they must knock down. To his men he looked ten feet tall. They could not leave him there alone. They ran into the fire and went back to work, with Fraser actively directing the construction.

About the time the bridge was completed, United States infantrymen paddled across the river in assault boats and captured 220 German soldiers in the building and nearby foxholes. Then for three hours, Fraser directed the traffic coming over the bridge.

After the Battle of the Bulge, the stand of Harvey Fraser's engineers had received publicity. Medals and honors had come through. There was no recognition at the Danube except in the hearts of the men. But Fraser himself knew that this was his finest hour.

Twenty-four years later, I flew west to talk with Fraser, who had become President of South Dakota School of Mines and Technology. I thought back to Fraser's West Point professor days following World War II. I remembered how, in the spring, after work, this warmhearted educator would hurry across Doubleday Baseball Field and step into the Army dugout. Cadet players would brighten when they saw Colonel Fraser on the bench. He'd say, "Blackgrove, I wish you and Boice wouldn't strike out so damned much. Hell's fire! Last Saturday you two guys stirred such a breeze with your bats you gave me pneumonia." Everybody would laugh. Actually Blackgrove and Boice struck out seldom, and often enjoyed good days at the bat. But Fraser's way of teasing raised people's spirits.

His way of talking has always intrigued me. He can vary the tone of his language like a good trumpet player can change the tune of a cornet: One moment he is eloquent like a polished diplomat, the next he will join in the earthy talk of a baseball locker room.

No one takes offense at Fraser's swearing. Like the "royal Irish oaths" of old Sgt. Marty Maher, it is a natural part of his makeup. Less obvious than his swearing is his modesty. I knew him ten years before I learned of his key part in the Battle of the Bulge, and ten more before I heard of his stand on the Danube. About his appointment as Tech's President, he said, "I saw no need to new-broom. Tech has enjoyed a fine reputation for over one hundred years. But I did do all I could to get an expansion plan started.

"I love athletics, and anyone could see improvements were called for at Tech. When I arrived, we had lost twenty-one out of twenty-two basketball games, and the fans were hanging the coach in effigy. You may have the best of everything, but if the morale is poor, what have you got? An unhappy outfit. I believe in keeping a school's spirit high. This means harmony all the way up to the Board of Regents and the State Legislature. It's as essential as rope at a roundup."

To obtain an inside slant on Dr. Fraser's work, I talked to his secretary, Mrs. Bonnie E. Conklin. The Greeks gave us the saying, "No man is a hero to his close subordinates." Mrs. Conklin, perceptive mother of four sons, belies this idea of the ancient Greeks.

"Work?" she said. "I've never seen anything like this dedicated, enthusiastic man for grinding it out. He arrives on the campus at six thirty in the morning to breakfast with the students. He takes time to say hello to the cooks. Then he strides across the campus in his cowboy hat and chats a minute with the policeman and the yard workers. By the time I arrive at work, a little before eight, his 'out' basket is overflowing. The rest of the day is like being a little off center of the eye of a hurricane. I like it ' even when I have to phone several people at the end of the day to find out where he left his cowboy hat".

When I left Mrs. Conklin, I entered the offices of the Alumni Association to meet its Executive Secretary, Guy March. I found him as straightforward as Mrs. Conklin. He leaned across his desk and said in a half-shout, "You want me to tell you about Dr. Fraser? I'll tell you about Dr. Fraser. HE HAS A WONDERFUL WIFE!

"I think Jean Fraser worries occasionally," Mr. March continued. "Take the time last year when we played Black Hills State College on a football trip away. After the game a riot exploded. When President Fraser heard, he rushed to the trouble. By the time he arrived, one group of students carried baseball bats, and two of our boys sat in the jug without bail. Dr. Fraser calmed down the rioters, got a lawyer, and hoisted the two boys out of jail. You can see why the students adopted him.

"When he came here in 1965 to serve a year as Dean of Engineering, people said, 'A retired general? Why, he'll find a rocking chair.' Dr. Fraser hasn't found that chair yet. The kids here love him."

I witnessed his active concern after a night football game on Hardrocker Field when Tech plunged to defeat. When the final whistle sounded, Fraser tugged his cowboy hat over his piercing eyes and stamped through the crowd to the Tech dressing room. He hated to go because he hates to lose, but he was making the hike to thank the Tech players for their effort.

The day after the football game, President Fraser drove me north to Deadwood over the former Sidney-Black Hills stage-coach route, now a modern highway. "These Black Hills," Fraser said, "get a hold on you. I love them."

As we drove into the foothills, Fraser talked of his beginnings in Illinois at the bottom of the Depression. "My dad was the station agent at the railroad, and the railroad canned him. I couldn't ask the Old Man for money, so I went to work when I was ten, driving horses hitched to the hayrake, plowing corn, threshing, and cleaning windmills-forty to fifty feet high."

"Windmills?" I asked.

"In those days the farmlands were dotted with 'em. I'd climb up with rags and an oilcan and clean them for five bucks. In the winter I carried papers. When I grew bigger, I got a job on the railroad as a gandy dancer [a railroad section hand or track laborer], ten hours a day at thirty-three cents an hour. Imagine the damned pay! You know the song? 'And the gandy dancers dance on the ceiling, and they dance on the wall.' There wasn't any dancing. This was hard labor."

The man who influenced Fraser was Congressman John C. McKenzie. He believed young Fraser had a knack for speaking and encouraged him to make every talk he could.

"And," Fraser said, "when Mr. McKenzie found I could write and cipher, he headed me toward the Naval Academy, but I didn't want to go there. I'd seen a movie about West Point three times and kept asking about the Academy. He told me about the graduates' integrity and honesty, and about the free education. This especially appealed to me. But when I graduated from high school, there was no appointment. So I took all the money I had saved, and all I could scrape together, and studied at the University of Illinois for a year. I worked hard slinging hash three hours a day. I was taking a full load of engineering subjects and running cross-country. Always I kept thinking about West Point, Congressman McKenzie had hung up his hat, but he finally got me the appointment."

When Fraser of Illinois walked through the sally port at West Point, he found cadet life "a hell of a shock. But the next morning when I woke up, I said to my roommate, 'Man! This is some place! Music before breakfast!'"

Fraser's roommate, a former GI, roared. "You dumbbell, this is reveille! That's not music. Those are the fifes, bugles, and drums of the Hell Cats. We have to be dressed and in ranks in ten minutes."

Harvey Fraser wondered why he had ever left the University of Illinois, and he wrote home complaining. Back came a letter from his father - "If you don't like it, come on home."

Fraser said, "I saw seven hundred and fifty other plebes taking it okay, and I never was a quitter. I became interested in running the mile on Coach Leo Novak's track team. And I also enjoyed cross-country. In October, with the bills ablaze and colored leaves covering the trails, it was like running in a magic garden."

With academics under way, Fraser showed he was a top-notch student except in French. He received fewer demerits than the average cadet. His record shows the following reports.

Dust under his bed.

Section marcher, allowing talking and laughing in his section when they were supposed to be at attention.

Talking in ranks.

Clothing on floor during noon meal.

Spot on cuff of trousers at formation in area.

Visiting during call to quarters, 9:30 P.M.

Eleven years after he graduated, Fraser, then a colonel, returned to West Point as associate professor in the Department of Mechanics, and in three more years was appointed professor. He continued his education, earning a Ph.D. in Theoretical and Applied Mechanics at the University of Illinois, and later studied at the Von Karman Institute in Brussels, from which he graduated with distinction.

Cadets who studied under Colonel Fraser, both those at the top and those at the bottom of the classes, remember his dynamic classroom teaching with respect and affection. He gave one un- forgettable lecture, "The Hot Body." At its start he said, "Heat can be transferred from any material, even from a block of ice." To prove it, he had two attendants roll into the lecture hall a wheeled table supporting a three-hundred-pound cake of ice surmounted by a frying pan.

"Now," said Colonel Fraser, "there's enough heat in this ice to cook a meal." He placed a few strips of bacon in the pan and, by some magic, the aroma and hiss of frying bacon filled the air. He held up an egg and asked, "Is there anyone in this room who doesn't believe this is a real egg?" Always some cadet took the bait, and Colonel Fraser tossed him the egg - then, amid the laughter, passed a wet towel so the cadet could clean his uniform.

Colonel Fraser found time to stay interested in cadet athletics. His voice at basketball and baseball games sounded like a junior foghorn on the Maine coast. Once a Superintendent sent him a letter suggesting that he lay off the officials. He did for one game. But Fraser yelled in such a way that he did not build resentment. At the last baseball game he attended at West Point, just before he retired in 1965 as a brigadier general to go to Tech, the baseball umpires heard he was leaving and that he had been promoted. At game time, Umpire-in-Chief Van Hook walked to the backstop behind home plate. He poked through the wire two stars he had cut out of cardboard and had plastered with silver paint.

"Where's General Fraser?" Van Hook called. Several in the grandstand shouted, "He's not here yet."

"Tell him," Van Hook said, "these stars are from his friends, the baseball umpires." It was a gesture typical of the affection all West Point people held for the engineer educator whose spirit still permeates the Military Academy.