J. E. McCaffrey

GO SOUTH YOUNG MAN

An Interview Conducted by

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INTRODUCTION

Research and writing in the area of forest and conservation history have emphasized, at least until quite recent times, the relentless wave of national exploitation of the forests resources and the heroic effort of pioneer conservationists to roll back that wave. A more sophisticated scholarship has now assumed a place of leadership in this sector of our national history. The previous starkly drawn black-and-white picture is being redrawn with attention to details, motives, economic factors and the impacts of personalities that had been ignored or treated with very scant attention by earlier writers and the ardent advocates of particular points of view regarding natural resource policy.

The Forest History Society has been in the forefront of the effort to examine more closely the events, policies, economics, and developing trends of forest history. It began in the early 1950s one of the first major oral history programs which harnessed the talents of professional historians and the technology of electronic sound recording to gather in detail the memoirs of men and women who had been both prime movers in the forest-related community and articulate observers.

The Louis W. and Maud Hill Family Foundation and the Weyerhaeuser Family Foundation, both of Saint Paul, Minnesota, responded generously to my appeal for exploratory work in oral history, which led to my making scores of interviews with men and women well-known for their accomplishments in their own states or local communities but little heralded on the national scene. Some of these people were public foresters, some operators of lumber or paper companies, some trade association leaders, others loggers, muleskinners, secretaries, labor leaders, conservationists, housewives. Each had his or her own point of vantage looking at a long period of years during which they had lived and worked in the forests of this country.

Joseph E. McCaffrey, the respondent of this interview, was first interviewed on February 5, 1964, at the Hotel Piedmont in Atlanta, Georgia. We had met by prearrangement during meetings of the Southern Pulpwood Conservation Association, which was then celebrating its twenty-fifth year of life as an organization. Our first two-hour session proved of such value that I enjoined Mr. McCaffrey to spend several additional days talking with me concerning the history of American forestry. These additional interviews were made on February 6, 1964, in Atlanta and in March, 1965 at his home in Georgetown, South Carolina. What follows is the

transcript of those interviews which have now been carefully edited for errors of fact by both Mr. McCaffrey and myself.

Mr. McCaffrey retired on August 15, 1963 from his long-held position as vice president of International Paper Company and assistant general manager in charge of woodlands (Southern Kraft Division). In a professional career which spanned more than forty-five years, he achieved national and international recognition as a forester, forest engineer, and as a manager and consultant in the United States, Canada, the Balkans, Central America, and the Philippines.

Mr. McCaffrey served as an officer or director of almost every major forestry association in the United States, including the American Pulpwood Association, the American Forest Products Industries, Inc. , the American Forestry Association, and the Southern Pulpwood Conservation Association. During both the great world wars he served in the U.S. Corps of Engineers from which he retired with the rank of colonel.

Joe McCaffrey became first associated with International Paper Company in 1928 and within ten years had become general superintendent of wood procurement for the company's southern operations. Following his second tour of military duty between 1942 and 1946 he rejoined the company and was made division superintendent in Georgetown, South Carolina. In 1954 he went to Mobile, Alabama as assistant general manager of the Southern Kraft Division in charge of woodlands and was elected a vice president shortly thereafter.

As the woods boss of I. P.'s Southern Kraft Division, Mr. McCaffrey was responsible for the management of 4, 300, 000 acres of timberlands and for the annual procurement of more than five and one-half million cords of pulpwood for the Division's pulp and paper mills.

Among his many activities outside the regular duties of an industrial forester, Mr. McCaffrey served as an active member of the Society of American Foresters, the Society of American Military Engineers, and of the Advisory Committee to the President's Outdoor Recreational Resources Review Commission. He was one of the organizers of the Fifth World Forestry Congress held in Seattle, Washington, in 1960, and until recently remained active in the Natural Resources Committee of the U.S. Chamber of Commerce and the Forest Research Advisory Committee of the U.S. Forest Service.

The Boy Scouts of America honored him in 1963 with their coveted Silver Beaver Award in recognition of many years of service to that organization. Contributions of many kinds to civic enterprise in his own community, most notably the United Fund Campaign, have brought other deserved honors.

In this interview Joe McCaffrey speaks frankly of his profession and of the industry he served. He is not uncritical of them. He believes that only by the frankest kind of historical examination can either a profession or a great industry hope to preserve the places they have gained in the society.

Dr. Susan R. Schrepfer performed the important tasks of final editing of the manuscript for publication and composing the index. Mrs. Barbara Holman and Mrs. Paula Nielsen typed the manuscript, collated its pages, and handled all the other many details which go into the final processing of published oral history interviews.

The complete original rough draft of the interview is preserved in the collections of the Forest History Society along with the original tapes. A microfiche of this final draft of the work is available to scholars and particularly to libraries at modest cost. Bound, hardcover copies of this work may also be had through order directed to the Forest History Society, P.O. Box 1581, Santa Cruz, California 95060.

Elwood R. Maunder
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Elwood Rondeau Maunder was born April 11, 1917 in Bottineau, North Dakota. University of Minnesota, B.A. 1939; Washington University at St. Louis, M.A. (modern European history) 1947; London School of Economics and Political Science, 1948. He was a reporter and feature writer for Minneapolis newspapers, 1939-41, then served as a European Theater combat correspondent in the Coast Guard during World War II, and did public relations work for the Methodist Church, 1948-52. Since 1952 he has been secretary and executive director of the Forest History Society, Inc. , headquartered in Santa Cruz, California, and since 1957 editor of the quarterly Journal of Forest History. From 1964 to 1969, he was curator of forest history at Yale University's Sterling Memorial Library. Under his leadership the Forest History Society has been internationally effective in stimulating scholarly research and writing in the annals of forestry and natural resource conservation generally; 46 repositories and archival centers have been established in the United States and Canada at universities and libraries for collecting and preserving documents relating to forest history. As a writer and editor he has made significant contributions to this hitherto neglected aspect of history. In recognition of his services the Society of American Foresters elected him an honorary member in 1968. He is a charter member of the international Oral History Association of which he was one of the founders. He is also a member of the Agricultural History Society, the American Academy of Political and Social Science, the American Historical Association, the Organization of American Historians, the Society of American Archivists, and the American Forestry Association.*

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*Adapted from, Henry Clepper, ed. , Leaders of American Conservation (New York: The Ronald Press Company, 1971).

CHILDHOOD AND EDUCATION

MAUNDER: We're just going to talk in an informal way this afternoon, Mac, and we usually start these interviews off by asking the person being interviewed to tell us briefly about his origins, his parents, and family background. Where and when you were born?

MCCAFFREY: I was born on August 15, 1896,in Fulton, New York. Fulton is in Oswego County, on the south side of Lake Ontario. My mother's side was the Fairbanks family, which had settled in Massachusetts and moved over to the Finger Lakes region of New York. My father's folks came from Canada as part of the British Army that marched into the Oswego valley in 1745. Both families lived in the area around Oneida Lake, Oneida County, Oswego County, and Jefferson County, New York. My grandfather Fairbanks' grandfather fought in the Revolution and his father was in the War of 1812. I became fascinated with logging and sawmill operations

during several summer vacation trips to the Adirondacks with my folks. We saw sawmills that were still operating there, especially a couple of larger ones - Emporium Lumber Company and Oval [Wood] Dish.

MAUNDER: What did your father do for a living?

MCCAFFREY: My father was a plant superintendent for the American Woolen Company. They operated a very large plant at Fulton, New York.

MAUNDER: Had your family been involved in the wool business for any length of time?

MCCAFFREY: No. My father started as a young man, worked for forty-two years, and then retired. My grandfather Fairbanks's business was installing paper machinery and water wheels in paper mills. He was a mechanical engineer and spent a lot of time in that particular field working for the Dilts Machine Company.

MAUNDER: Do you remember anything about your boyhood and schooling in Fulton that had any influence at all on your later choice of career?

MCCAFFREY: Well, I always liked to hunt and fish, and I spent a lot of time in the woods. Early in my boyhood I decided I didn't want to work in a factory or an office; I wanted to be outside. I think that influenced me to take up

the profession of forestry. I was especially influenced by seeing some of the sawmills operating in the Adirondacks, in Canada, and in northern Pennsylvania. I thought that I would like someday to be manager of a large sawmill and to run a logging job. I succeeded in doing both before I retired.

MAUNDER: What did you do when you got out of high school? Did You go on the school right away, or did you work?

MCCAFFREY: No, I went on to school right away. My father thought I had the idea that forestry was something like the Boy Scouts. He suggested that I go to the New York State Ranger School, thinking that if I spent two years there I probably would be fed up with it. But that schooling just intensified my desire to pursue forestry.

MAUNDER: You must have been at the school about the same time Earl Porter was.

MCCAFFREY: Earl was two or three years behind me.

MAUNDER: Tell us about the ranger school as you remember it.

MCCAFFREY: It was operated by the New York State College of Forestry, at that time under the direction of Professor Gutches. In those early days it was possible to get a degree in forestry in a much shorter time than by going to the state college for four years. You could put in 1,200 hours of work a year

at the ranger school and receive credit toward a degree at the college. We got both practical and classroom work. This was really a marvelous course in some respects. Our class sessions usually took place in the morning. In the afternoon we'd do practical field work in forest mensuration, forest engineering, forest regulation and valuation, logging and lumbering, and other related subjects. We'd have the theory and then go out in the field with the necessary instruments and equipment.

MAUNDER: Who do you feel had the most influence on you in those years ?

MCCAFFREY: I think it was Professor Ed [Edward F.] McCarthy. He was a wonderful teacher and a fellow who insisted that you get everything he was trying to put over. Classes were small, and we had a lot of individual attention. Ed McCarthy had a great deal to do with influencing my career. Harry [P.] Brown, who taught wood technology, did also. He's the fellow who told me I ought to get away from home when I went to work. "If you hang around here you'll be young Joe McCaffrey all of your life, but if you get one thousand miles away you'll be Mr. McCaffrey." I asked him where he thought was the best place for a fellow to pursue a career of this kind. He said, "The southern pine region

will one day have most of the paper industry or a large portion of it. They've got the climate, rainfall, soil, and fast-growing pine. If I were you, I'd go South. " Which I did.

MAUNDER: Tell me a little bit about Harry Brown.

MCCAFFREY: Harry Brown was probably the best wood technologist in the country. He was involved in all aspects of the field. He was head of the department of wood technology at the New York State College of Forestry. He was really a wonderful teacher and a great fellow. I think Harry is probably considered one of the greatest and most capable wood technologists we've produced up to the present time. We have two or three young Ph.D.'s now who are pretty good, but Harry was really tops. He wrote several text books. He spent three or four years in India with Ralph Pearson, and they published two volumes about Indian woods. Some of these woods had never been identified before.

Dr. [William L.] Bray, then acting dean of the College of Forestry at Syracuse [State College of Forestry, Syracuse, New York], also made a profound impression on me. He said that someday, even if it seemed a long way off, forestry would be practiced in the United States. I didn't think it would ever be in my time.

Nelson [Courtland] Brown--he taught forest utilization--had quite an influence on my career, too. He was a vociferous fellow. He was a very young man then and was very interested in developing men for industry, especially the lumber industry.

MAUNDER: The forest industries weren't hiring many trained foresters at the time, were they?

MCCAFFREY: No, and the courses we had were probably designed with government forestry jobs in mind. We had silviculture, dendrology, wood technology, and all the usual courses that forest schools offer. In this two-year course we had a smattering of all the forestry subjects that were offered at the College of Forestry. We didn't have English, a foreign language, or analytical chemistry, but we had a fairly good course in physics. I would say the curriculum followed along the lines of logging engineering. In the early days of the Forest Service, road building, railroad building, and that type of thing essential areas of forestry work, and we had a lot of courses that dealt with these subjects in detail.

MAUNDER: Would you say that the majority of the young fellows in school with you were interested in getting a job with the Forest Service or some state agency?

MCCAFFREY: Well, a good many of them had ideas about going with the Forest Service, but the service was fairly small then. Quite a few became rangers and forest examiners. I was offered a job as a forest examiner. I think that half the students had the idea of working with industry and the other half with government. We had one course designed to prepare us for work in New York State. The state of New York had quite a large organization for those days, and quite a few boys went with the state. I preferred to go with a big sawmill outfit that was operating railroads and steam logging equipment.

MAUNDER: Have you kept in touch with many of the fellows in your class?

MCCAFFREY: Yes, I still exchange Christmas cards with a number of them. Some of them were lost in World War I and a few more in World War II, but I still hear from several of them.

MAUNDER: Who were your buddies while you were there?

MCCAFFREY: A fellow named [Michael] O'Brien who is principal of a high school on Long Island now. He was interested in woodworking

machinery and that type of thing. He got a degree in education and became a manual training teacher. There were several others who are still friends of mine. A boy named [William H.] Taft, who was later with the Forest Service, and a boy named [George R.] Schrader, who is now retired; he used to be supervisor of the Shasta National Forest. Another was inspector of forest reserves for the province of Saskatchewan. Another was a right-of-way superintendent for American Telephone and Telegraph. Some good friends of mine went on to earn a degree in forestry. Others started to work right away, but decided they didn't like forestry, so they got out and did something else.

MAUNDER: What would you have to say with regard to the usefulness of this kind of school in today's situation?

MCCAFFREY: Well, I've talked to Sam Dana about this recently. * He wrote a book** and headed up a committee on this problem of professional and subprofessional training. European

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* Samuel Trask Dana, Dean Emeritus, School of Natural Resources, University of Michigan, Ann Arbor, Michigan

**Samuel T. Dana and Evert W. Johnson, Forestry Education in America, Today and Tomorrow (Washington, D.C.: Society of American Foresters, 1963).

practice, you know, favors differentiating professional and subprofessional levels. I think that is one of the things that's going to take place in the United States. In the forestry organization I've been looking after for the last several years we had too many foresters with a bachelor's degree starting in a technician pool. Eventually we worked them into positions as unit foresters, district foresters, area superintendents, and so on, but most of them had to stay too long at this lower level. If a boy gets subprofessional training his goal is not quite so high, so he doesn't get as anxious about his future career as someone with a bachelor's degree. The ranger courses are now one - year, but a two-year course leading to an associate degree is also being offered. I believe that's been recommended by Sam. I haven't read his book yet, but I have talked to him a number of times about this.

MAUNDER: Would you say, Mac, that there are a lot of men in forestry who are impatient about progress up the line in their chosen field?

MCCAFFREY: Well, they are a little more impatient now than they were years ago; they want to move up faster now. There are some frustrated people, and it concerns me very much.

I'm especially concerned about brilliant fellows who have what it takes to go all the way up. Some of them get pretty impatient. In a few instances, I've lost men. They've pursued some other career and have been lost to the profession.

MAUNDER: Is this because you're not in a position to pull men out of line and leapfrog them over half-a-dozen men who may have seniority?

MCCAFFREY: We don't object to leapfrogging if a man has the qualifications. But we have a lot of good men, and it's hard to make a choice.

MAUNDER: Without creating a morale problem with the others?

MCCAFFREY: That's right. After the First World War, I planned to go back to school for my bachelor's degree, but I was offered a job at $150 per month, which was a lot more than most fellows were getting after they had gotten a degree. I remember my father was very much put out when I decided to accept the job instead of getting the additional hours I needed for my B.S.

LOGGING IN FRANCE: WORLD WAR I

MAUNDER: Let's go back to your departure from the ranger school and pick up the story at this point. When did you leave the ranger school?

MCCAFFREY: In June, 1916. I was offered a job with the Laurel River Logging Company, which was operating a band and resaw, white pine and hardwood mill in western North Carolina at Runyan in Madison County, just four miles east of Hot Springs. They were cutting virgin mountain hardwoods, and pine and hemlock at the higher elevations. Our logging was done both with skidders and horses. The logs were brought out of the mountains on logging railroads.

MAUNDER: How did you get the job with them?

MCCAFFREY: I got it through the school. The school usually kept in touch with the lumber companies that were looking for people. After talking with Harry Brown again, I went to work as a rod man in a survey party locating logging

railroad. It was really a chartered railroad, the Madison County Railroad. It ran through Runyan, where it joined the Southern, into Greene County, Tennessee, where the company had timberland.

At that time the government required that a valuation survey be made of all railroads in the country. The original survey records of this railroad had been lost – that is, the alignment maps and all the documentary materials that were needed to establish our claim as a chartered road. I had been working about three months when the chief of the party asked me if I could run a transit. I told him I had learned this at school. He checked a few readings, and I was transit man for quite a long while. I also ran levels and set grade stakes. Later, I worked with contractors measuring excavation and embankment. A short while later I Joined two other fellows in enlisting in the Twentieth Engineers (Forestry).

MAUNDER: Were your friends also working for the company?

MCCAFFREY: No, they were still going to the university. It was while visiting them that I decided to enlist. I went to Verne Rhoades and got one of the special assignment tickets he was passing out. At that time he was forest supervisor of the Pisgah National Forest in Asheville, North Carolina.

He told me the ticket would get me into the Twentieth Engineers when I enlisted. Somehow my two friends, Bob [Robert S.] Kennedy and George [A.] Turnbull, were sidetracked and didn't start out in the Twentieth, but I made the Twentieth as promised by Rhoades.

MAUNDER: At what rank were you enlisted?

MCCAFFREY: Private. Some other men did a little more bargaining when they went in. Some got direct commissions because they had experience. Others went to officer training schools where you had no commitment other than to take the course. If you passed, you were offered a commission; if you didn't pass, you just went home and waited until you were drafted.

MAUNDER: Did you go through the regular routine of training?

MCCAFFREY: Yes, we went through it all. It was really intensive training because it wasn't too long before they sent us overseas. That was in May, 1918.

MAUNDER: Did the Twentieth go all at one time?

MCCAFFREY: No. The Twentieth was organized into ten battalions with three letter companies and a headquarters company for each. There were 250 men in a company. The first outfit went overseas in the fall of 1917, as soon as the first battalion was ready, I guess. The Twentieth

Engineers was organized mostly of men who came out of the lumber and logging industry. We had sawyers, filers, and lumber graders, people who really understood the business.

MAUNDER: Who was your commanding officer?

MCCAFFREY: Major Peter [E.] Hinkley commanded our battalion. The commander of the Twenty-ninth Company was Jay Price, an engineer, not a forester, who later became the regional forester in Milwaukee. He had also been with Diamond Match Company in California. The first lieutenants were a chap named Laugerstrom and a fellow named Slack, who had been in the Spanish-American War. The second lieutenant was named Rust. Later, the Division of Construction and Forestry was organized. The Tenth, Twentieth, Forty-second, and Forty-third Engineers were all in that outfit under Colonel [William B.] Greeley. * Actually, Colonel Henry Graves commanded the Tenth--except for a time during training when it was commanded by a regular army officer, Colonel

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*See also, George T. Morgan, Jr. , ed. , "A Forester at War: Excerpts from Diaries of Colonel William B. Greeley, 1917-1919" Forest History, 4, nos. 3-4 (Winter 1961): 3-15.

Mitchell--and the Twentieth was commanded by Colonel Greeley.

M. [Mervin] A. Mattoon, who is retired from the Forest Service, and I worked under Captain [E.V.] Clark on acquisition of timber. Clark was from Texas; I think he had been with the Kirby Lumber Company. This work took us all over France, from the front right back to the coast. It also brought us into contact with Colonel Greeley and other staff officers at regimental headquarters.

MAUNDER: What was the attitude of French people toward you?

MCCAFFREY: Well, the people who owned the forests were wealthy people in practically every instance. They were quite helpful; it was a very enjoyable assignment. We were provided with plenty of entertainment while we were on these expeditions.

MAUNDER: I imagine that would make a colorful chapter in the life of J. E. McCaffrey.

MCCAFFREY: Mattoon and I had heard about one particular forest which was owned by a count, and one day we motorcycled up to the chateau through the rain and mud. We took turns, one in the sidecar for a while and the other riding the motorcycle, so we were pretty filthy-looking when we rapped on the door. A maid answered our knock, and we

asked to see the count. The maid asked us to have a seat in the reception room. While she was gone, we saw a tremendous oil painting of a very beautiful girl. Chick Mattoon wondered if this were the countess. In a few minutes we got a little note written in English saying that the count was an officer in the army and was in Morocco, but the countess would be glad to see us if we cared to talk to her. So we decided to see her.

MAUNDER: And she was every bit as beautiful as the picture?

MCCAFFREY: That's right. The next afternoon Mattoon and I were entertained at tea with a lot of ladies while all the Frenchmen were off fighting.

MAUNDER: It sounds like it wasn't all mud and guts over there for you. You had a few very interesting and delightful hours, I imagine.

MCCAFFREY: Well, we had a very pleasant time in the back country. It wasn't as good in the Vosges [France] . The regiment was cutting a lot of road plank to move our artillery over the boggy places.

MAUNDER: What did you encounter in the way of methods over there? How did you adapt American methods to that very different situation, and how did the French adapt themselves to you? Were there frictions?

We had an officer from the Centre du Bois, a forester in the French Engineers. He had worked in British Columbia, spoke English quite fluently, and he knew a lot about our methods of operating. We tried to adapt our logging practices as much as possible to the silvicultural procedures that had been in force there for three hundred or four hundred years. We cut the forests a little heavier than the French normally would have, but this was war; and we by no means destroyed the forests. Our fellows were pretty cooperative I think.

We had some nice mills that were designed to be set up as quickly as possible. They were more practical than the large production type of equipment used in World War I, because they were designed to take both large and small timber. The maritime pine in southern France was small stuff, and we used smaller equipment. For some of the bit hardwood that we were cutting--oak, beech, and some other species--we had larger outfits with top saws. We had a good outfit, and we established some remarkable production records. I remember going through the archives when I was ordered back to duty in World War II. They were originally going to give me a forestry battalion, but I was assigned to Engineer Intelligence Office, Chief of

Engineers, instead. Eventually, I commanded the 1002 nd Engineers Forestry Battalion, the only one in the southwest Pacific. I was always interested in being with troops rather than on a staff job because I'd have my own vehicles and a few other fringe benefits that a staff officer in a big headquarters didn't have. I went into the 20th U. S. Engineers archives because we had some staff people who were working on tables of organization and equipment who didn't know anything about logging and lumbering. I admit there's quite a difference between forests in France, where you have roads, and those in New Guinea or the Philippines.

We had some equipment not designed to cut the Dipterocarps in the Indo-Malayan region. The design was influenced by some people who were familiar with log beam sawmills in New England. The sawmill carriages weren't large or heavy enough, the axles weren't heavy enough, and the mills weren't equipped with top saws. We had a terrific time trying to convert these staff people to our way of thinking. They were convinced only later in the war when we had proved that this- equipment was inadequate.

MAUNDER: How long did that take?

MCCAFFREY: I think it was 1944 before we started getting the American type sawmill with a top saw and a carriage that would take the big logs of Philippine mahogany.

MAUNDER: What were you turning out with the inadequate machinery?

MCCAFFREY: I could best describe it as beavering these logs --chewing them off.

MAUNDER: You said you had some contact with Colonel [William B.] Greeley. Can you tell us wheat you remember about him?

MCCAFFREY: I always had a very high regard for Colonel Greeley. He was a real organizer, a real leader. He did a first-class job of seeing that we got what we needed. I think he was an inspiration to all the people who served under him. Colonel Greeley, in my opinion, was a great man one who understood both organization and people. He understood the importance of the mission which was assigned to the regiment, namely, to produce all of the timber and lumber required by the expeditionary forces in France. He knew that it was important to inspire leadership which would enable the regiment to accomplish its mission and he knew how to get the most out of the men. He did a marvelous job with the French in some of the knotty problems that arose over forests which have

been under strict silvicultural management for one hundred, two hundred, three hundred years.

MAUNDER: He was a diplomat, in other words, with these people?

MCCAFFREY: He was a diplomat, both with the French high command and with the men under him. He had that personal touch; he knew how to handle people.

MAUNDER: Did you ever see this firsthand?

MCCAFFREY: I can remember that on one occasion we had a requirement for piling, poles, mine props, and posts for barbed wire. This was a difficult assignment because it interfered with some of the management plans for the forests. Some of the French foresters were very much upset. But the colonel always had a way of convincing them of the need for the material and the importance of winning the war and getting their forests back in production. He really did a fine job. He was also very understanding about complaints from the battalion and company commanders. While he was a good soldier, he was not quite as G. I. as some of the regular establishment. He understood that lumberjacks weren't readily transferred from their native habitat to the army. Occasionally some of these lumberjacks would get a little unruly and cause some disturbance in a small town. I think the Colonel was inclined to be lenient

about punishing lumber jacks who were suddenly transformed into soldiers.

MAUNDER: Do you recall any specific incidents?

MCCAFFREY: I remember one time when there were some Canadians in the Canadian Forestry Corps nearby who hadn't been paid for a long time. We had just gotten paid, so we entertained them at a number of French cafes. Somebody in our outfit mentioned that he had never seen the Canadians mount guard, so they decided to put on a guard mount for us. Well, this was a small town and it got to be a pretty noisy affair. We were suddenly surrounded by M.P.s and we thought we were in for some real trouble. But I think the colonel got wind of this story and straightened it out some way or other so we were back in the good graces of the Canadians, the French, and the Military Police.

MAUNDER: If that was the worst thing that happened I would say you were a very well-behaved outfit.

MCCAFFREY: I don't think we had a reputation for being the best-behaved outfit in France, but I think we had a reputation for being the hardest workers. That's not to belittle the combat outfits, the engineering outfits building railroads and roads, and all the other branches of the service, but we

worked night and day to produce the requirements of the American Expeditionary Forces and the French. This Freed a great many ships to haul other supplies. Shipping, as you recall, was quite critical at that time, and these two regiments were organized to cut down on the requirements for lumber shipping.

MAUNDER: Do you think you learned anything in the process of all this activity?

MCCAFFREY: I learned a great deal more about real silviculture in France than in any other place that I've been. I've been to other places in Europe and other parts of the world, but in those sixteen months I had a opportunity to observe silviculture as practiced on both conifers and hardwoods. I got a clear picture of what had happened over the years. I think I actually got a better course in silviculture in France than I got in school. It was a wonderful experience.

MAUNDER: Do you suspect that a lot of the other men share this feeling? Did this have a long run impact on the course of American forestry and on forest industries?

MCCAFFREY: Cap [Inman F.] Eldredge and I used to talk about this quite a bit.

MAUNDER: Was it one of the beneficial results of the war?

MCCAFFREY: Yes, it really was. I think even the lumbermen who hadn't had any interest in forest management acquired that interest in France by observing the rules we had to follow in our cutting practices. Yet these rules were minimal by European standards.

MAUNDER: Still, the idea was planted in their minds?

MCCAFFREY: Very much so. I know it was planted in mine while working with this French officer. At every place we visited he was able to get management plans which showed what had happened over a long period of years. It was a wonderful education.

MAUNDER: Can you think of anything else that came out of those war years that had implications for you in your later life?

MCCAFFREY: I think I was impressed with forest management in Europe generally. I had a chance to see some in Germany after the war, when I was in the occupation army for about six weeks. What I saw and learned there was quite beneficial to me in later years.

MAUNDER: You applied that knowledge in your own work?

MCCAFFREY: I did in 1937 when the Southern Kraft Division of the International Paper Company decided to set up a real

woods organization to manage our lands, not just to acquire wood. I had to start from scratch and some of the things I had observed in the management of French forests, especially coniferous forests, proved beneficial. The company had acquired large areas of cutover land, some in various stages of reproduction, and some clearcut land needing planting. I had a pretty good idea of how to attack the problem.

The big word at that time was selective cutting. Later, we found that in many cases we could get more cellulose per acre with even-age management over a rotation of thirty to fifty years than we could by practicing successive selective cuts over a longer period. Most of our present management of coniferous species is designed now on even-age management of thirty to fifty years rotation with two or three thinnings and a final cut.

MAUNDER: Were these methods being practiced in France when you were there?

MCCAFFREY: Yes. I was able to see different methods applied under different circumstances. I got a lot of good ideas, and I still have a lot of notes I took over there.

MAUNDER: Are they kept in the form of field diaries?

MCCAFFREY: Just field notebooks. Now that I'm retired I'm in the

process of trying to dig all these out.

MAUNDER: This is great. Keep your personal paper, your diaries, your old pictures, your scrapbooks, your letter files. These are a very important part of the record of American forestry. We'd like to persuade fellows like you to eventually turn a body of material like that over to some good school library so that this record of forestry history, as revealed by the experiences of the members of the profession, can be used. If you feel that some of that material is of such a personal nature that it should be sealed for a period of years, that can be done without any trouble at all. It's just put aside, and ten, fifteen, or twenty years from now it is unlocked and made available. This is what the Forest History Society is trying to do. I appeal to you to be careful about throwing anything away. Try to keep it in as complete a form as you can with the idea of eventually depositing it someplace where you feel it will do some good.

MCCAFFREY: I've discovered it is bad business to throw away some things. They would have been quite useful if I had kept them.

MAUNDER: Was there any substantial difference between the forests in which you had been working during the later years of

the war in France and those that you saw in Germany after the armistice?

MCCAFFREY: There was practically no damage done to any forests in Germany because the fighting was all done on French and Belgian soil. In a few instances, the Germans had cut some of their forests a little heavier than they would have otherwise, but actually the were still fairly intact and in good shape.

MAUNDER: Despite the fact that they were blockaded and couldn't get materials from outside, they had not overcut their forests?

MCCAFFREY: No. They hadn't overcut their own forests, but they had overcut captured forest properties quite severely.

MAUNDER: When and where were you demobilized?

MCCAFFREY: I landed in Newport News, [Virginia], on July 4, 1919, and was separated form the service at Camp Upton, Long Island, about two weeks later.

LOGGING IN THE SOUTH: 1919 TO 1928

MAUNDER: Didn't you go back into the lumber business?

MCCAFFREY: W. B. Seabrook, sales manager of the Savannah River Lumber Company, served with me in the Twentieth Engineers. We became good friends. His company offered me a job as a logging engineer in Egypt, Georgia, and I took it within a month after being demobilized. We had a large logging camp which supplied two hundred and fifty thousand feet of logs a day to a sawmill at Port Wentworth, Georgia. The miss was equipped with two bands and a resaw and operated two shifts.

I worked on locating logging railroads and laying out skidder sets, both for ground and overhead rigs. Later I was made assistant logging superintendent and finally logging superintendent of that particular operation. That was from 1919 to 1922. At that time there weren't too many men interested in working in logging camps in the South.

There were no paved roads and communications were poor.

MAUNDER: This was really the backwoods.

MCCAFFREY: This was the backwoods, and a man really didn't have to have superior qualifications to get a job there. If he had the desire to work and demonstrated that he was willing to learn he could expect promotion pretty fast. As I recall, it wasn't very long after I'd been working as a logging engineer that the old logging superintendent took me on as his assistant.

MAUNDER: Who was your old logging superintendent?

MCCAFFREY: His name was James McCormick. He used to be general logging superintendent of the Standard Lumber Company in Florida. They operated three mills, as I remember. He had also worked at one time in the Black Hills. He was a very capable executive and taught me a great deal about organization. He believed in outlining a man's responsibilities, giving him enough authority to do the job, letting him alone, and just observing the results.

MAUNDER: Did you find that these were rules to be followed in later years?

MCCAFFREY: All through my career I have followed what that old man

taught me. He used to say, as my father did, "Remember, you're not too smart, but if you're smart enough to hire people who know what they 're doing and let them alone, the chances are you might be a success." I found that to be true. He taught me always to give credit where credit was deserved. Another thing this old man taught me was never to hesitate to show my superiors men who really performed. He said, "Some people think they should keep all the credit for themselves and keep other people in the background. But remember, the topside office wants to know who you've got behind you." One cardinal principle I've followed is always to have someone ready to take a man's place, including my own organization in depth.

MAUNDER: What kind of logging show were you running there?

MCCAFFREY: We had one four-line Clyde skidder working in pine country with a McGiffert loader, that's four skidding lines. We used a big Clyde skidder with a boom on each end, eight drums, and mules to pull the skidding lines out to the logs. If it was swampy, we made a rehaul so that we only had two lines working. We had a main line logging railroad carefully laid out to get all the timber that was supposed to be cut and delivered to the

mill from a given area. Our logging spurs turned off parallel to each other every quarter of a mile. This meant that we skidded 660 feet. All our logging operations were laid out with a backline between each spur. The machine would skid back to this dividing line when we were on the spur.

The logs were banked to the side of the railroad track; that is, they were all laid up parallel. This was done with what we call decking hooks and decking drums on the machine so that they could be readily loaded by a McGiffert loader. In this particular operation we had to move over twenty-eight miles of main line railroad with our own equipment, so the logs had to be cut no longer than thirty-two feet. We also had some tree rig skidders. They were machines which were mounted on wheels low to the ground, and they were used in catching odd lots back in corners where there wasn't sufficient timber to set up an overhead operation.

For overhead operations, which handled cypress, hardwood, and pine in the swamps, there were Clyde and Lidgerwood machines capable of skidding forty acres in one set. We laid out the operation the same as for pine. The logging engineer marked the rig tree at the

center of the forty-acre set and tail trees along dividing lines between spurs and adjoining sets. We skidded 660 feet up and down the track and, of course, 660 feet on either side. I remember it took 10,800 feet of cable on each of these machines. We had fourteen men in our skidding crew, including four or five in the rigging crew.

MAUNDER: You were clear cutting here, weren't you?

MCCAFFREY: Yes, we were.

MAUNDER: In what kind of shape did you leave the woods in an operation like that?

MCCAFFREY: From a present-day viewpoint or from a forester's standpoint it was terrible. However, having studied forestry, I found out one thing. This four-line Clyde machine skidding logs on the ground would really plow the ground well and make an excellent seed bed.

MAUNDER: Did this set it up for regeneration?

MCCAFFREY: Yes. There's a tract near Egypt, Georgia, now owned by Union Bag-Camp [Paper Corporation], that I skidded many years ago. It was a fair stand of longleaf timber for that country. It ran about ten thousand feet to the acre. There was a terrific seed crop that year, and seed was falling when we skidded there. As a result of exposing the mineral

soil there was a terrific catch of seed. I remember going back there years later and seeing a fully stocked stand, though longleaf is a rather difficult tree to regenerate as a rule. It has a lot of natural enemies and has a good seed year only about once every six or seven years. So, under certain circumstances skidding can be employed to prepare the soil for regeneration of the next crop. That doesn't apply to every species on every site, but on some it certainly does.

It is difficult to explain how the regeneration of a good many stands occurred. Some of our top people ask embarrassing questions about this. When I would tell them that we had to do certain things to get regeneration they would say, "How was this site regenerated? You weren't using any of these methods then." Unfortunately, we don't' know the history in each case, but I think that in many cases a combination of skidding and a heavy seed crop provides the explanation. Baldwin County, Alabama, is a big longleaf country. Cap Eldredge * and I and many others

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* See also Inman F. Eldredge, typed transcript of a tape-recorded interview by Elwood R. Maunder, Forest History Society (Santa Cruz, California, 1959).

used to go there and speculate how this large stand of longleaf ever got established, because we knew that two or three lumber companies had clearcut it. The land might have been prepared for a good seed crop by the logging operations, but the area is too large to have been logged all at one time. We don't know for sure what type of equipment was being used when it was logged. There are quite a few possibilities that we've explored, but we've never been able to say positively, "This is it."

MAUNDER: This is another example of where historical records would serve a useful purpose today. It's hard to impress upon people the practical side of preserving historical records.

MCCAFFREY: Mistaken ideas are developed from time to time, based on meager information. I remember when we used to think slash pine had to be planted on a wet site. That was because slash was not a fire-resistant tree and if a site was damp and wet it was less likely to burn. However, we now have slash pine growing all over. There are a lot of things still to be learned.

MAUNDER: Let's go back to that period after the war when you were in the lumber business down in Georgia. What were the conditions in which the lumber business operated at that time?

MCCAFFREY: I remember there were a great many sawmills. North Carolina was pretty well cut out at that time, but there were still a lot of mills operating in South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, and Texas. There were literally hundreds of miles of logging railroad. Main lines were graded and built with good structures; logging spurs were just thrown down. We had track-laying machines that had a standard task of picking up about half a mile of track and laying it back down again in a day. When the crew got that done they knocked off for the day.

In those days steam logging was highly mechanized, more so than it is now in the South. Except for some scattered team logging, logs were skidded to a railroad track, loaded on cars, and delivered to the mill. They were unloaded mechanically and taken up into the mill immediately. There was no handling of the material until it was pulled off the green chain on the lumber dollies or was stacked in kilns.

MAUNDER: In other words, from the cutting of the tree to the green chain it was all mechanized. Sounds like you were in the automation race early.

MCCAFFREY: That's right. Most of the loggers who developed the West

Coast equipment had come from the South. They designed various types of skidders and went through a period of evolution, finally developing skidding methods which suited the bigger West Coast timber and its rougher terrain. They discovered that they had to have bigger machinery and that they had to employ skidding equipment in different ways, such as yarding. But when I was there, practically the whole South was mechanized. Before my time it had been team logging with slip-tongue and balance carts, and they logged only what were referred to as ridges. These log carts were not adaptable for logging in swampy or wet terrain.

MAUNDER: Do you mean to say that only the accessible ridges were cut in the South prior to your time?

MCCAFFREY: That's right. About time I came along we were getting what was referred to as tough logging. But we actually delivered logs to the mill more cheaply with the equipment that was developed then, than we could have with the old team logging system of dropping logs at the track and then leading them on cars. We used fewer people, and there were no mules to feed. It was really mechanized logging.

MAUNDER: How did you recruit your labor?

MCCAFFREY: In those days there were a great many capable loggers, mostly colored, who were good skidder men, tong hookers, choker setters, levermen, loader men, and riggers. White men generally didn't care to do that tough work in a hot swamp and live in a log camp. Labor recruiting used to be quite a chore at times. Certain areas were known to be malaria-infested and were usually avoided by loggers. In Georgia, Alabama, South Carolina, Florida, and Mississippi, help-wanted ads were constantly being run in daily papers for skidding levermen, loader men, riggers, tong hookers, shop men, locomotive engineers, train crews, and various types of labor required for railroad building. These crews migrated from one place to another. Most of them were nomads in some respects. Sometimes they would stay a year or two and sometimes only a few months.

But they were well-trained men and performed in excellent fashion. In those days loggers didn't have supplies readily available as they have now because it was a backwoods operation and they didn't have paved roads or bridges. The blacksmith and machinist in the machine shop had to do practically

everything. Almost everything at that time was done by steam, so we had to have men who understood the repair and upkeep of steam engines. I recall that in my camp at Egypt, Georgia, we had about three hundred men. I would say we probably had no more than fifty white men altogether. Practically all the foremen were white. There were some machinists who were white and a white log sealer. We did have one or two colored sealers, and most of the levermen and riggers were colored. The whites were principally locomotive engineers, foremen, and technicians of one kind or another.

MAUNDER: They held the top jobs, in other words.

MCCAFFREY: Yes, and lived on what was referred to as “millionaires’ row" in the log camp.

MAUNDER: What did “millionaires’ row” consist of?

MCCAFFREY: It just meant the shacks they lived in were a little better and were built on a street or tow separate from that reserved for the Negroes.

MAUNDER: Did the rest of the crew live in bunkhouses?

MCCAFFREY: Most of the colored loggers in our camp bunked in camp cars which could be put together in combinations for those with families. We did have some bunkhouses for

the single men. We always had places for entertainment, commonly known as jukes. Crap shooting and playing skin were tolerated on Saturday night only, watched over by both colored and white deputies to be sure that no outsiders, known as ringers, came in. We maintained reasonable control over liquid refreshments and disturbances.

MAUNDER: How did you deal with outbreaks of violence?

MCCAFFREY: We had no particular problems regarding integration. Most of the trouble we had was between whites and whites or between Negroes and Negroes.

MAUNDER: That's what I mean. Didn't your men get into fights resulting in somebody getting cut up or killed? How did you exercise police power?

MCCAFFREY: We always had a man who looked after the quarters and was a sort of policeman. In those days he was a deputy sheriff and was called a quarter boss. He was always around and kept peace in the place. He might have ha a deputy or two. They usually put the fear of God in fellows who started to make trouble. If they saw anybody getting out of order they usually sent him to bed or got him out of circulation somehow. They used preventive measures, largely.

When people came to work we would ask them if they had a gun. If they did we'd take it, tag it, and give it back to them when they left. Once in a while men would sneak one through, but not often because they knew they'd be caught if they used it. We didn't have much trouble. Once in a while there would be an argument, not so much over gambling as over some female member of the community. Those were the killing scrapes, principally.

We used to try to keep sheriffs and their deputies from raiding our camps and arresting the help, especially when these sheriffs were getting paid on a fee basis. Sometimes the charges were trumped up and sometimes they weren't, but we just didn't like sheriffs coming into our camps. When we established a log camp we'd go to the sheriff and say, "We're going to set up a log camp and a sawmill here. We've got a quarter boss, and we'd like to have him deputized. If any of our fellows commit a crime outside the camp you come to us and we'll deliver him if you've got a real case." They always cooperated with us; we never had any trouble in that respect.

MAUNDER: Did you have a certain percentage of the crew who were hiding out from the law?

MCCAFFREY: Occasionally they'd ask us about some wanted individual, and we'd deliver him if they had a real case against him. We always went along with the law. We didn't try to run outlaw outfits to protect a bunch of fellows who were hiding out. But I suppose there were some who got drunk, got in fights or scrapes in town, or something of that kind. There was one blocksetter at the sawmill at Port Wentworth, Georgia, who had to be bailed out of jail every time he went to Savannah. We'd take his bail money out of his pay.

MAUNDER: How stable was your labor force? Did you have a great turnover?

MCCAFFREY: It wasn't stable by today's standards. In those days loggers and a good many of the sawmill people kept drifting around. Every time a new operation was set up there would be fantastic tales about its new equipment and quarters. In many instances this was propaganda put out in advance of a first-class recruitment program. It was common practice in those days to send out recruiters who would go to some log camp or mill quarters which was known to run a good show and therefore had good technical people. It was common for the labor force to rotate quite a bit.

MAUNDER: What would you do when you found a recruiter from another camp in your bailiwick?

MCCAFFREY: We used to see that he was escorted out of the log camp, gently, but firmly. He was told it might not be healthful to return.

MAUNDER: What about your own recruiters?

MCCAFFREY: Sometimes they were escorted out, too.

MAUNDER: Wasn't this a rather hazardous occupation for anybody to be in?

MCCAFFREY: Usually some colored fellow who was known to be a good logger would go and get a job. Then about payday he might go out through the woods with half a dozen men of the kind he was sent to get. It was hazardous because in some states there were laws against taking recruits over state lines. You could get a jail sentence out of it. Once, I remember, I was in the mountains of North Carolina and we needed a lot of people to help construct a railroad. The boss sent me down to the area of Charlotte and Greenville, South Carolina, with a colored fellow. I think we got about fifteen men. I had the money for the tickets and didn't know anything about this law. If it hadn't been for the conductor I'd probably have been in jail. He told me to pay for the tickets only as far as

the North Carolina line. When we got over the line I gave him the rest of the fare. This was in 1916 or 1917. Such laws are unconstitutional now. Although they took a dim view of taking labor from one state to another, you could do it within the state without any trouble.

MAUNDER: What was it like in the camps in those days? You were out in the backwoods. What did you do with your leisure time?

MCCAFFREY: We didn't have too much leisure time because the work trains that carried the skidder crews to the woods from the camp would leave about daylight and wouldn't get back until dark. Of course, there used to be a lot of poker, crap shooting, and fancy tales about logging performances or certain individuals and equipment. We used to do some hunting and fishing. Generally speaking, most of the relaxation was to leave on Saturday after lunch when the work week ended.

MAUNDER: Did you work Saturday morning?

MCCAFFREY: That's right. We'd take off to the nearest town after lunch if we could get there conveniently. We'd spend the weekend in town and get back to the job on Sunday night or by daylight Monday morning.

MAUNDER: What kind of entertainment did you have in town?

MCCAFFREY: Well, the usual type of movies, and there were a few places where you could dance. The colored loggers had their jukes. They still refer to jukes in the South. This comes from the log camps of the old days. It was quite a life, believe me.

MAUNDER: You look back on it with more than a little nostalgia?

MCCAFFREY: Right. I knew a lot of fine men in the log camps. They'd do most anything, give you the shirt off their backs. Might take your off, too, if they didn't think you needed it.

MAUNDER: You said that one of the recreations of the logging camp was telling tall tales. This is a tradition of long standing in American lumber history. In the North and West we have the Paul Bunyan tales. What equivalent folklore did you have in the southern logging camps?

MCCAFFREY: Well, we didn't have Paul Bunyan. Of course, we knew about him; he was well known by most logging folks. But there were always tales of certain individuals who had remarkable records for cutting logs or who were excellent skidder foremen or riggers. We delighted in telling of the time when we operated on a set with two million feet and stayed there for six weeks with an overhead rig and

wouldn't change trails more than twice a day. But that's not folklore; it's a fact made possible by a McGiffert loader at the camp I had at Egypt. Our task was to load twenty-five cars of logs every day from deck piles. Logs were piled along the railroad track and would just be flipped on the cars.

The McGiffert loader was a peculiar type of loader, a very clumsy looking affair – big legs with large metal shoes that sat down on the end of the ties. They'd let those shoes down, raising the loader's wheels. When the wheels were raised they'd back a whole empty log train under the loader. Once a car was loaded, they'd pull up to the next car.

The loading crew was composed of a loading leverman and two end-tong hookers. If it was a center-tong job, there was a hooker on the ground and a top loader on the car. They used to make an end hook for use with a bridle line. We'd put them right up on the car, and when the log was in place the boys would just jerk the line and pull the pin out. It was fast.

MAUNDER: Connected with each of these jobs were stories about the prowess of individuals who could do the job better than anyone else, I suppose.

MCCAFFREY: That's right. There seemed to be groups of men who followed certain kinds of machinery. Some were big Clyde men and some preferred Lidgerwood. They would tell, for example, what they could do with a four-line Clyde as against a four-line Lidgerwood, or a Clyde overhead rig as against a Lidgerwood overhead. They would get into great arguments over the merits of a particular outfit. There was always somebody who had had a great day when he took up and laid down more railroad than anybody else. Those are the stories that were heard in southern logging camps.

MAUNDER: Do you believe there was more pride in doing the job in those days than there is today?

MCCAFFREY: You bet! In those days most loggers took pride in their ability to cut logs. You had to cut a given amount, eight to ten thousand feet a day, to get work on a saw crew. The same was true of skidding and loading. Men took great pride in establishing a record or in fixing broken machinery. For instance, when they broke a cylinder head they'd take it to the blacksmith's shop and he'd have it ready to go pretty quickly. They had some great mechanics in those days; they could really do things.

All our tongs were made by hand. Our loggers wouldn't use tongs that we bought. Tongs are made out of heavy steel, sometimes flat with rounded edges, others octagonal. They had to be set just right. Most of the work was done by colored blacksmiths, although there were some white blacksmiths. Tong hookers were excellent cable splicers; they would put a rolling splice in a line and you couldn't find it.

MAUNDER: You don't seem to feel that this pride in work and high personal skill exist to the same extent today?

MCCAFFREY: I don't. Now when something breaks down they shut down until the machinist arrives to fix it. We kept a much larger stock of spare parts than they do today, because parts couldn't be delivered quickly then. There were always opportunities for initiative on the part of the mechanics and blacksmiths.

MAUNDER: Do you remember any other particular characters in this operation who stand out vividly in your mind?

MCCAFFREY: Well, I remember one colored blacksmith named Lonny Harrington. He was an excellent blacksmith who worked for us for a long time. After steam logging went out he worked as a patternmaker for Henry Ford on his plantation just below Savannah, which International Paper now owns.

He was an inventive type of man, always engaged in making things. I have a picture of him with Henry Ford, as a matter of fact, which I found the other day. There was a skidder foreman there named Lewis Smith, who just retired a short time ago. He worked for us in the fire control crew but had been a skidder foreman in the earlier days. He was a very capable fellow. There was also a short Negro, John Brown, who was a rigger.

The rigging crew was usually composed of five people: head rigger, tail rigger, and three helpers. Before a skidder moved in on the set the railroad crew had laid a spur track. The skidder sets were laid out in advance, rig trees marked, jump tracks constructed at the head tree where the skidder was to be cut out, the head and tail trees topped, and the skidding trail cleared out. Then the rigging crew hung the rigging. There were eight guy lines, 1.25 or 1.5 inches in diameter depending on the size of the machine, the size of the cylinders, and the horsepower. The guys were set around the tree at approximately 45 degree intervals if stumps were available for anchors.

The main cable was 1.5 inches in diameter and was actually an overhead cable which carried the skidding carriage to and from the woods. The main cable was

pulled out into the woods by what is called a grass line. This grass line was 3/8-inch line and had to be pulled out by hand, run through a snatch block and all the way back to the skidder. Then they'd couple this line to the main cable and pull the main cable out into the trail. They were also responsible for knocking out trees, tops, or debris that might be in this trail, because the skidding carriage ran on a tight line overhead.

There were three drums on the skidding part of this skidder: a skidding drum, a receding drum, and a slack line drum. The skidding line was 1,200 feet of ¾-inch cable, the receding line was 2,400 feet of ¾-inch cable, and the slack line was 1,200 feet of 3/8-inch cable. There was an interlocking device that kept the drums working together. The skidding carriage hauled to and from the woods in the skidding process. There were skidding blocks up the tree in every instance to guide these lines. The skidding carriage was built of ¾-inch boiler plate steel having two main sheaves, two receding sheaves, and one slack line sheave.

This was quite a layout – 10,800 feet of cable. While they were skidding one trail, the rigging crew would be getting all set for the next one. The head rigger would

get the next trail laced up in a hurry and get it going again. There was a head rigger at the head tree and a tail rigger at the tail tree. There were two or three different types of skidding and crews trained for different machines. All the loading was done off a guy line with a loading jack. You may have seen those out West.

It was really a fascinating operation to me. I liked to watch sawmill head rigs when I was running the sawmill. I liked to watch the boys who were good and fast and could really cut lumber. We had a lot of good men on the skidders in those days. It was an operation requiring great skill in timing. There was no swinging boom and the logs were hooked in the center, at or near the balance point. It took expert tong hookers and top leaders. Logging was dangerous in those days and is still classified as a dangerous occupation. It used to be a lot worse than it is now. We didn't have safety engineers at that time.

MAUNDER: To a certain extent the men themselves were more dare-devilish then, weren't they?

MCCAFFREY: Yes. They were more inclined to take chances. In fact, we used to preach about that quite a bit. But it was

really a highly skilled occupation.

MAUNDER: Did you have any medical help on the grounds to take care of casualties?

MCCAFFREY: Yes, we always had either a company doctor in our mill towns or in the camp, or a local doctor in a nearby town who could be called. We used to pay them a regular salary to take care of both colored and white. We paid for all the accidents. We had a medical fund to which everybody contributed about one dollar a week, and that took care of everything from colds to any other disease that you might have. That was the extent of the fringe benefits in those days.

MAUNDER: It sounds like socialized medicine to me, Mac.

MCCAFFREY: That's right.

MAUNDER: I used to wonder who had started that; now I know! Those were remarkable days in the history of logging in the South, there's no doubt about that.

MCCAFFREY: There were a great many mills. I know the Savannah River Lumber Company had four mills in Georgia—at Brunswick, Belfast, Darien, and Port Wentworth—and two in South Carolina—at Gilmania and Wiggins. We had a town, a pulp mill, and a sawmill at Port Wentworth.

MAUNDER: Were you supplying all these mills?

MCCAFFREY: We had a number of log camps. Each mill was a unit of its own. We had a pulp mill; it was my first experience with pulpwood, which in those days was somewhat a pain. Combining five-foot wood and saw-logs on the same operation seemed a degrading business for a logger. I can remember in later years running across some old boys who twitted me, "I heard you've gone to toothpick logging now."

In Georgetown, South Carolina, the Atlantic Coast Lumber Company at one time had the biggest mill in the United State. They cut five hundred thousand feet a day. At Charleston, South Carolina, the Tuxbury Lumber Company had a big mill, bands and resaw, and a gang. There was the North State Lumber Company, the big Salkehatchie Cypress Company at Varnville, South Carolina, and the W. M. Ritter Lumber Company, which had three mills in South Carolina. I bet I could name fifty just through that country, all quite large.

MAUNDER: Was this the big push, the finale of big lumbering in the South?

MCCAFFREY: It was the tail end of the cut in the South. They were really cutting it out, too. It was a big part of the economy then, of course. We'd cut and leave the tops

and then they'd burn the whole place. I've been referred to as a devastator, although I never set the woods on fire.

MAUNDER: After your stint in the woods as a logging boss, didn't you get into mill management?

MCCAFFREY: Yes, I did. I was selected to build a new hardwood mill for the Savannah River Lumber Company on the site of a burned-out pine mill at Port Wentworth, Georgia. We owned a considerable amount of virgin hardwood in the Savannah River swamps, both on the South Carolina and the Georgia sides. I was selected for this spot because I had worked at a hardwood mill in the North Carolina mountains. Most of the people with Savannah River Lumber were cypress or pine people. I was struck by lightning when given a job as manager of this particular mill. Ordinarily the managers came from the mill end of the business, but in this instance I was given the job. We had a mill designed to cut Hardwood, and I ran it from 1923 to 1928. My logging superintendent was Harry H. Flickinger.

MAUNDER: The same Flickinger who was killed recently?

MCCAFFREY: That's right.

MAUNDER: Did he go with you to International?

MCCAFFREY: Not right then, but I always intended to get him. He decided to go back to Yale to take some additional work. During the depression he went to the Southwest with the Forest Service as a CCC superintendent. Then he went up to Puget Sound with them. Eventually, when International was organizing a central woods department, I got him.

MAUNDER: Did he come out of Yale originally?

MCCAFFREY: No. He was at George Washington University for three years, I think, majoring in English. Then went to the Ranger School because he decided he wasn't interested in teaching English or writing. He was one forester who could write reports. Later he went to Yale and specialized in wood technology.

MAUNDER: Did he get a master's degree?

MCCAFFREY: I presume so, but I don't' know whether he was there as a special student or whether he got his master's. In any case, he was a good forester, a good operator, and an excellent businessman.

MAUNDER: Could you tell us more about that milling operation?

MCCAFFREY: We decided that we'd log with sternwheel pusher type tugs and barges because we had timber on both sides of the river. First we were going to put up a couple of

mills, one on each side of the river, but that involved a lot of railroad building. Employing barges to bring logs to the mill was unusual for our area. I made a study of two or three barge operations in Memphis before we went into this operation. We decided to look into the Anderson-Tully operation on the Mississippi. They had two or three mills and used several towboats and log barges. There were several other companies that operated in this manner with considerable success.

It was a very interesting operation, especially with a river that didn't have any controlled depth. There were no dams. In August, I've seen the river register "six feet and falling" one morning and "thirty-six feet and rising" the next. We had beautiful timber cut. We shipped a lot for export. There were several companies that bought from us to ship overseas.

We had to carry a terrific stock in those days because before you could put hardwood in the kiln it had to be at least ninety days old. We roofed these piles because hardwood has a tendency to warp. We had to have as many as nine stacking strips to the sixteen-foot pile.

I learned a lot about hardwoods and the furniture business. Our customers were mainly furniture manufacturers. We

shipped to several of the principal furniture manufacturing areas: High Point, North Carolina; Bassett, Virginia; the Grand Rapids area in Michigan; and Jamestown, New York.

MAUNDER: About what percentage of your mill production went into export trade?

MCCAFFREY: We used to ship some pine, scantlings as they were called, to South and Central America and to the West Indies. We shipped some cypress and hardwood overseas, too, but it was a relatively small amount. I don't suppose more than 10 percent of our lumber was exported, maybe not that much.

MAUNDER: What was the source of capitalization of the company?

MCCAFFREY: Savannah River Lumber Company was a successor to the Hilton-Dodge Lumber Corporation, a big lumber company shipping a tremendous amount of longleaf timber to Europe, South and Central America. In about 1915, Hilton-Dodge floated a bond issue to get money for plant expansion. But things didn't work out as they expected; they defaulted on the bond issue. Lee Higginson and Company, the international bankers who had floated the bonds, had never had a bond issue default, so they persuaded the bond holders to take stock in a new company, the Savannah River Lumber Company, in lieu of the bonds.

MAUNDER: What happened to the Savannah River Lumber Company? They are no longer operating sawmills, are they?

MCCAFFREY: No, they haven't been for several years, but they have been growing trees and selling timber. They have been gradually selling their land. The paper companies have paid some fantastic prices for good timber-growing land close to their southern plants. By bidding up the price of land and timber, the pulp and paper industry has saved a lot of lumber concerns from disaster.

For example, the Allison Lumber Company sold out for a fantastic price to American Can. It was reported they got about $40 million for 126 thousand acres, the sawmill, town, and the lumber inventory. Of course, Allison had managed its land for sawlogs for a long time, and they still had quite a lot of timber on it. Many a sawmill outfit sold out to a paper company and made more money on the sale than it had made in manufacturing over its entire history. International Paper has bought quite a few of them. This trend in timberland ownership has been a tremendous lifesaver for a lot of sawmill people who were cut out and didn't have enough for a sustained operation.

MAUNDER: I don't recall that we ever got around to the critical event in your career with the Savannah River Lumber Company.

While you were with them you met and married your wife and started family life.

MCCAFFREY: My wife was a receptionist and telephone operator for the Savannah River Lumber Company. I met her while I was working with them. We were married in 1923 in Savannah.

MAUNDER: You met her rather early in your association with the company, then?

MCCAFFREY: Yes, I did. I went with the Savannah River Lumber Company \ in 1919, and spent my first three years with them out in log camps. I didn't meet my wife, except talking over the telephone, until 1922.

MAUNDER: Had you known her, apart from just hearing a voice on the telephone?

MCCAFFREY: I had met her once or twice when I came into the office for some conference or on other business.

MAUNDER: How many children do you have?

MCCAFFREY: I have one boy who's a cellulose chemist. He's a graduate of Marquette University and North Carolina State. My other boy's a Benedictine monk who just earned his Ph.D. in political science. He's a teacher at Belmont-Abbey College in North Carolina, a small liberal arts college with about one thousand students.

MAUNDER: You're getting good exposure to political theory, then?

MCCAFFREY: Yes. My son is a rather conservative individual who thinks that most of our foreign policy for the past several years has been pretty negative. He's quite a strong Republican.

MAUNDER: Is that in contrast to you? I suppose you've been a strong Southern Democrat all your life?

MCCAFFREY: No. I was born in northern New York. When Roosevelt had a big rally in Oswego County he had nineteen people. I've always voted Democratic in the South, because there's no one else to vote for except in national elections. I've always voted Republican in national elections.

MAUNDER: In other words, you're a political schizophrenic?

MCCAFFREY: That's right. I'm kind of a middle-of-the-roader. I always take a moderate viewpoint in most things. I might be a little right wing.

EARLY WORK WITH INTERNATIONAL PAPER COMPANY

MAUNDER: How did you happen to begin to work with I.P.? Who first approached you with the offer of a job?

MCCAFFREY: I was running this mill at Port Wentworth, and the company decided to take an order for four hundred million feet of hardwood to be used in the manufacture of automobile bodies. We took it at a price which I thought was entirely too low and would break the company. I had a serious disagreement with the top management over it, so I left.

MAUNDER: The top management at that time was whom?

MCCAFFREY: I. H. Fetty was president. He was formerly with Central Coal and Coke in Louisiana and Texas. I could see most of the bigger sawmills were rapidly cutting out at that time. There was strong evidence that the paper industry was going to be moving South, so I decided that I would go with some big paper company that was likely to move South. International had bought the old Louisiana Pulp and Paper Company, the Bastrop Pulp and Paper Company,

and I went to see John [H.] Hinman about a job. He promptly sent me to Canada, the north shore of the Gulf of St. Lawrence. That was not the direction I had expected to go in, but I got some good experience there.

MAUNDER: Did you know John Hinman personally before you applied for the job?

MCCAFFREY: No, I did not. We've been associated for a long time now. It's an association I've enjoyed very much.

MAUNDER: It was a conscious decision on your part to move out of the lumber game and into pulp and paper at that time? You saw this as the wave of the future as far as the industry was concerned?

MCCAFFREY: I mentioned that Harry Brown had predicted the South was going to be a great pulp and paper area. I think that influenced my decision.

MAUNDER: Could you already see this trend?

MCCAFFREY: I could see it because a few more mills were coming in and I thought the industry would expand. I knew that the country could grow timber because I'd been there long enough to observe it. I didn't hesitate to join a paper company. I decided there was going to be more future in that than in the sawmill business.

MAUNDER: So you got off a letter to John Hinman?

MCCAFFREY: I got off a letter, and he invited me to come and see him in New York. He had just been made woods manager for International Paper; he was not yet vice-president. He was made vice-president two or three months after I went to work for him, in May 1928. My specific assignment was as supervisor of wood handling plants and barking drums operated by the Woodlands Department. These plants were located in the provinces of Quebec and New Brunswick and the states of Maine and New York.

MAUNDER: They were scattered over that whole northeastern area?

MCCAFFREY: That's right.

MAUNDER: Was there any discussion on the nature of your initial assignment when you first approached Hinman?

MCCAFFREY: I think he hired me for this specific job because of my mechanical experience in logging and the handling of lumber. The job that he had in mind was really a materials handling job, that is, transferring wood from streams to barking drums and loading steamers. At the destination the process was reversed; we were unloading steamers and transferring wood to storage piles.

MAUNDER: In this instance your debarking drums were out there in the woods?

MCCAFFREY: The barking plants were located in Quebec Province, at

Gaspe, Pentecost and Batiscan, and Dalhousie, New Brunswick. Unloading plants were situated at Ogdensburg, New York, and Portland, Maine. We also had a barking plant and loading plant on White Bay in Newfoundland.

MAUNDER: These were all close, of course, to the areas where you were doing your cutting?

MCCAFFREY: Yes, these plants were located in areas where we had a large volume of timber which would be processed at the particular plant. For instance, at Pentecost we had 550 square miles of timber rights with two rivers serving the area. The principal river was the Pentecost River. The Riverin was a small one, but some wood was driven on that stream, too.

MAUNDER: Was the wood driven, then, from the woods down to the barking plant?

MCCAFFREY: The barking plants were always located on tide water because following barking the logs were loaded on ships for transportation to mills located in other places, such as Three Rivers [Trois Rivieres] or Quebec; Portland, Maine; and Ogdensburg, New York.

MAUNDER: You could economize by getting rid of the bark at the point of embarkation and cutting your load?

MCCAFFREY: That's right.

MAUNDER: This is quite contrary to anything that happens in the South. Your barkers are always at your mill sites, aren't they?

MCCAFFREY: Yes. But the transportation of wood by water complicated the operation from a cost standpoint. The company wasn't disposed to pay freight on a lot of bark which had a very low value for fuel. The fuel value of southern pine is something like eight thousand B.T.U.'s and much lower for spruce and balsam.

MAUNDER: Then your job was to see that all of these operations were functioning properly?

MCCAFFREY: That's right. We had plans at that time, just before the depression, to modernize these plants. For the most part, the plants were quite old.

MAUNDER: Who had this responsibility prior to your coming?

MCCAFFREY: It was really under a number of different people, but Mr. Hinman got the idea that the woods organization should consist of a man in charge of getting the wood out and driving it to the tide water. Then it's a semi-manufacturing process in taking the wood out of the water, removing the bark, and loading it on to ships for transportation to mills located at distant points.

MAUNDER: This had not been under woodlands management before you went on the job?

MCCAFFREY: This was a new organizational plan which was instituted by John Hinman. C.O. Brown was his assistant. The Forest Engineering Department was placed under the Woodlands manager and was headed by Julian Rothery. His assistant was H.E. Brickerhoff, who subsequently went to Canada with Mr. Hinman when he became president of Canadian International Paper Company. He later became the executive secretary of the American Pulpwood Association, a position which he held for many years. I might add that there were several foresters in that department in the New York office, and that the man in charge of our topographic drafting was Russell Wingate, who now heads the Council for Stream Pollution, a national organization supported by the paper industry.

MAUNDER: How would you compare your role as a forester in I.P. with that of other foresters who were operating in the northeast area?

MCCAFFREY: Forestry didn't enter the picture in the particular job that we're discussing, except where we might be concerned with forest fires. Everybody had to fight

fires when they were in the immediate area. International Paper's forestry department was concerned with exploration of timber properties that were acquired. They were also charged with preparing cutting plans. The Southern Kraft Corporation, a subsidiary at that time, operated separately from the New York office. The headquarters were in Mobile, Alabama.

MAUNDER: What about the setup among your competitors in the Northeast at that time? How did their organizations do this same job? Who were the people you remember in the same kind of work?

MCCAFFREY: Well, Ted [T.W.] Earle was woods manager for the St. Lawrence Pulp and Paper Company. He later became connected with North Carolina Pulp Company at Plymouth, North Carolina, and subsequently became vice-president and woods manager for Continental Can. I knew Ellwood Wilson, who was with Laurentide Paper Company at that time. There were a number of other people who were connected with St. Regis, for instance. Pete Hart was their woods manager at Godbout, Quebec.

MAUNDER: How much communication was there among the men in this field at that time?

MCCAFFREY: Communication was quite common because our problems were pretty much the same. Since there are no secrets in the woods, information was freely exchanged.

MAUNDER: Was it as freely exchanged at that time as it has been in recent years?

MCCAFFREY: I think so. Bert [E.] Claridge, now a vice president of Hammermill Paper Company, was running an operation for Hammermill at Matane, Quebec. I remember going there to see a flume operation and also going to the St. Regis operation at Godbout. We had visitors to our woodlands operations then and still do.

MAUNDER: Did you have regular annual meetings of associations in which you would compare notes and perhaps read papers?

MCCAFFREY: At that particular time the American Pulpwood Association had not yet been formed, but the woodlands section of the Canadian Pulp and Paper Association and the woodlands section of American Pulp and Paper Association were going concerns. Papers were presented, and technical discussions carried on much as was done at meetings of the Society of American Foresters or the Canadian Society of Forest Engineers.

MAUNDER: Did you regularly attend all of those meetings?

MCCAFFREY: In the earlier days I attended some of the meetings. Later on, when I was in a more important position, I attended regularly when policy or finances were being discussed.

MAUNDER: But in the years of your first employment in the Northeast you were not as much involved in association discussions? You were absorbed mainly in your job for the company?

MCCAFFREY: That's right.

MAUNDER: You knew Ellwood Wilson at this time. Can you tell us about his work and about Wilson as an individual?

MCCAFFREY: I knew Ellwood quite well. He was an engineer, but was sold on the practice of forestry and was one of the early advocates of forest management. It was difficult to convince top management of the usefulness of forest management in those days. I remember Dean Baker saying that forest management was not likely to come into widespread use until the economics dictated it. In other continuing operations, top management considered it worthwhile to spend some money on it.

MAUNDER: Who among the companies we've been talking about seemed to make the first breakthrough and got their top management to accept the idea?

MCCAFFREY: I think [Finch, Pruyn & Co.] at Glen Falls, New York, was one of the early ones. But most of the forester employed by paper and lumber companies in those days were concerned primarily with fire protection, forest engineering, cruising, and so on. Foresters were also engaged in locating roads and railroads.

MAUNDER: What were the other companies doing? There is some indication that Laurentide, for example, was in the forestry business rather early.

MCCAFFREY: I think that's right. That was Ellwood's influence. He was one of the early advocates. Others were interested, too. The Canadian provinces, especially the eastern ones, had a requirement that the owners of timber licenses submit a regeneration plan for approval by the province. Company foresters did most of the preparation of the plan, but they followed certain basic ground rules set up by the province. There was little known then of the silvicultural methods necessary for the regeneration of coniferous species in the Northeast. Some implemented partial cuts which resulted in wind-throws and loss of timber; others advocated clear cutting. I'm not sure that the problem has yet been resolved. However, it does appear that in most places in the

Northeast clear cutting is advocated when dealing with spruce and balsam.

MAUNDER: It's become the accepted silvicultural method.

MCCAFFREY: Yes. It's been a good many years since I have engaged in work in that area, but I've been attending meetings in the area over a period of years and that's my impression.

MAUNDER: Who would you credit with being the real front-runners in the development of industrial forestry in that area?

MCCAFFREY: It's hard to say. I think a great many of the woods managers and some of their subordinates who were foresters were interested in the practice of forestry. But it was difficult to sell to top management in those days.

MAUNDER: But some of them did crack the line eventually. Who were they? Who were the first to break through the opposition of their managers and get actual forestry programs?

MCCAFFREY: It's only very recently that some of these programs have been put into effect and in many places, even now, there's not too much intensive forest management being carried on in the Northeast. There's probably more being done in Canada because most of the timber-

land is owned by the government. Of course, intensive management includes a great many things. A lot of the provinces have made attempts to control insects and diseases, including the spraying of tremendous areas for the control of budworm. I think Vernon [E.] Johnson, vice-president and woods manager of Canadian International Paper Company, had a lot to do with this particular phase of forest management. Other companies joined in the venture, along with the provinces and some help from the Dominion. In the northeastern states it was carried on in a similar manner—companies banded together and got help from several states and the Forest Service.

MAUNDER: Would you say that the leadership came out of I.P.'s staff?

MCCAFFREY: I'm not sure about this, but the early budworm invasion caused terrific destruction, especially in 1916, and there was no control measure other than salvaging the timber. I'm quite sure that I.P. was a leader in setting up the original spraying operations in Canada.

MAUNDER: As early as 1916?

MCCAFFREY: No, not that early. I would suggest that you check this out with Vernon Johnson, who was running the woods operation for International Paper in Canada at the time

of the initial project, I think in the 1940s.

MAUNDER: What I'm trying to get at is your recollections of your first days in forestry.

MCCAFFREY: Well, forestry wasn't practiced much in those days.

MAUNDER: In the 1920s?

MCCAFFREY: That's right. It wasn't much practiced in the 1930s, and there isn't much in the North now. They're just getting to it there. For instance, we don't really have an intensive forest management program on I.P.'s lands in the Northeast. We're doing more than we formerly did, but nothing to compare with what goes on in the South. One reason is that timber grows much faster in the South, so the results of forest management can be seen in a short time and the income is available much sooner than it would be in the Northeast.

Forestry Practice: North and South

MAUNDER: Could you draw some comparisons between the practice of forestry in eastern Canada and northeaster United States, on the one hand, and that which developed in your time in the South?

MCCAFFREY: I believe that in the Northeast, white pine was originally

cut, followed by hardwoods, beech, birch, and maple. Pulpwood consumption was confined entirely to conifers, in the beginning spruce and later balsam. In the South, the pine timber was cut originally, followed by hardwoods. But where fire protection was provided, reseeding took place from the few trees that were left. There were great areas burnt over continually that later had to be planted, but generally speaking, there was more reproduction of coniferous species in the South than in the North. Hardwood was not used for pulp to any great extent in either region until recently, but in the North the original stands of coniferous species were replaced mostly by hardwood. I think that's one of the fundamental differences.

MAUNDER: Of course, there were land areas in the Northeast that did continue to be coniferous forests long after the white pine era had passed. Why did the forestry practice in that area develop differently than it did in the South?

MCCAFFREY: In the North, after the original sawlog operations, spruce was considered the most desirable species and was removed for pulp. Only later did balsam get into the picture and then, comparatively recently, hardwood. In the South we originally used pine for making kraft pulp, but subsequently, especially because of the number of grades

of paper, both pine and hardwood were used.

But there was a great difference in the length of time it took to reproduce a crop of timber in the Northeast and Canada versus the South. It might take sixty or eighty years in the North, while a crop in the South could be reproduced under intensive management much sooner. In fact, we now make thinnings quite readily from plantations that are just fifteen to twenty years old. That is not possible in the North. In other words, forest management is practiced only when it pays. In the South, since the rotation could be shorter, there was no question that we'd get an early return. But we had a major problem in the South that we didn't have in the North.

MAUNDER: You had greater fire risk in the South?

MCCAFFREY: The risk was just as great in the North, but people there had been taught that fires on forest properties were extremely dangerous. This followed such disasters as the Cloquet fire in Minnesota and the Long Lake West fire in New York State. There were others that were very bad. In the South, properties owned by individuals and by companies were burned every spring to provide green water grass for cattle. It took a good many years to overcome that, but we did.

MAUNDER: In other words, it's your feeling that the development of forestry in the South came about because of the obvious advantage here that it paid off in a shorter length of time?

MCCAFFREY: There's one significant thing that has to be borne in mind. In the South we had coniferous trees that were for the most part prolific seeders. The rainfall and the climate were good for growing timber, as against a climate in the North that would grow timber but took a much longer period. In the North we didn't have the same fire protection problem that we had in the South, and still have to a certain extent. However, our losses now in the South are really small compared with thirty years ago.

MAUNDER: Returning to your work in the late 1920s in the North, can you give me some idea of your working routine on that job? For example, what did your work consist of during an average week?

MCCAFFREY: Some of the work I was doing was with engineers, planning improvements in the existing plants, that is wood, barking, and unloading plants, planning the barking of wood delivered to tidewater at each of these points. This had to be done in connection with the

traffic department, in order to schedule ships for the removal of the wood from those points to the mills where we wanted to put it in storage.

MAUNDER: I'd like to get a more graphic picture from you of the kind of routine you had on the job at that time. Take us on a tour with you, if you will. What would have been a typical excursion from New York around the various operations that you were responsible for supervising? We'll let you fill it out as you can recall it.

MCCAFFREY: Well, I was one of Mr. Hinman's staff members. He was really responsible for the entire operation. Usually I went out on the inspection trips, reported, and suggested such action as I considered necessary, sometimes to Mr. Hinman and sometimes to the local superintendent on the grounds.

MAUNDER: Did these trips usually start out with a conference with your boss in New York?

MCCAFFREY: No. Sometimes he might have a few special points that he wanted to discuss, but ordinarily I'd leave New York, go to Montreal and catch a train, say to Chatham, New Brunswick, then to Dalhousie, New Brunswick, and proceed on to Gaspe, P.Q. We had not built a paper mill at Dalhousie at the time I was working in that area,

and we loaded some wood there for our Three Rivers mill. We also had a sawmill operation there handled by the local supervisor, with problems that could perhaps be discussed in New York. Possibly I could discuss improvements and make recommendations to both the people on the ground and to Mr. Hinman in New York. I would probably proceed to Gaspe and look over that operation loading ships for Three Rivers, Quebec, with pulpwood. It was pretty much the same at each one of these places.

MAUNDER: Would you spend a day or two with each one of them?

MCCAFFREY: Sometimes a day or two; sometimes a week. Pentecost, on the north shore of the Gulf of St. Lawrence, had to be reached by boat or dog team in the winter. There were schooners that went across from Matane, a distance of about fifty or sixty miles, and coastwise steamers operated by the Clark Steamship Company on the north and south shores of the St. Lawrence River and the Gulf of St. Lawrence. They had weekly service in the summertime, sometimes semi-weekly. At Pentecost we had an operation much the same as the others, although we had 550 square miles of timber land there and were planning, prior to the depression, to build a new wood handling plant. This was

not actually built until several years later.

MAUNDER: You were then constantly reviewing with the men on the ground what their needs were and acting as a liaison between them and the company management in New York to obtain what was necessary and to get the show going in a more efficient way.

MCCAFFREY: That's right. We had plants were wood was discharged from ships in Portland, Maine, and Ogdensburg, New York, and shipped to mills in New York and Maine. This was a reversal of the process of loading. The ships were unloaded at Three Rivers, P.Q., and were discharged directly into the pile. At Portland we had some unloading towers and wood was loaded into cars to be transported to mills in Maine.

MAUNDER: How was this liaison maintained prior to your coming on the job?

MCCAFFREY: It was handled, I think, partly from New York and from Montreal; I'm not sure. When I got there it was under Mr. Hinman's supervision and I took my instructions from him.

MAUNDER: Prior to this had Mr. Hinman been doing essentially the same job that you did?

MCCAFFREY: No, Mr. Hinman came to New York a little bit before I

did to be woods manager for the whole company. He had previously been resident manager at North Stratford, New Hampshire, where the company owned timberlands and lands in Maine, Vermont, and New York, and where he'd been operating pulpwood jobs for a good many years.

MAUNDER: Well, how did these men make known their needs prior to the installation of a regular supervisory system such as you represented?

MCCAFFREY: Well, I guess it was done by someone from Montreal, but I'm really not familiar with who did fill that spot. This may have been a job created by Mr. Hinman which he considered essential. That's more likely.

MAUNDER: Was it part of your job to prepare annual budgetary requests for each one of these operations?

MCCAFFREY: Yes, we had to have a budget for expenses and a budget for capital funds. Actually, this job had nothing to do with forestry as such.

MAUNDER: It was mainly a procurement job? It was the maintaining of the flow of raw material?

MCCAFFREY: That's right.

MAUNDER: And what provoked your being put into this job? Was it a rising demand from your mills in the Northeast for raw materials so that they could raise the amount that was

moving?

MCCAFFREY: No, I don't think so. I think the main reason that Mr. Hinman hired me for that particular job was that I had been working in the South, running highly mechanized logging operations and sawmill operations, and he thought this experience would be helpful in the operation of these wood handling plants.

MAUNDER: What do you remember most form this time of your service in the company? What memories stand out most vividly?

MCCAFFREY: Well, I don't know of anything in particular. Of course, I had an opportunity to see a very large forest territory, to observe the forest growth in Newfoundland, the northeastern states, Quebec, and New Brunswick. I learned a whole lot about operating in that particular area. I saw forestry being practiced, as opposed to the theories that we had in school. I think I was impressed mostly with what a tremendous forested area there is in the Maritime provinces, Quebec, Ontario, and Maine.

MAUNDER: How long were you usually out on these trips?

MCCAFFREY: Sometimes it would be a month. It might be a short trip if there was some immediate problem to be handled. There was not set schedule.

MAUNDER: Have you any idea how many miles you covered in a year?

MCCAFFREY: It's pretty hard to say, but I would think that it was probably twenty-five or thirty thousand miles.

MAUNDER: Did you have any assignments from Mr. Hinman other than those that took you up into this northeast area?

MCCAFFREY: Well, because of my previous experience in the South, I was called in on some problems in connection with a power license we owned in South Carolina, now known as the Santee River flowage and hydro installation. Also, there was some talk of making soft board from slabs, and I conducted some of our people around to sawmills I was acquainted with in the South that had a large number of excess slabs which were then being burned. That's about all. I used to answer a few questions that were asked of me because of my experience in the South, but I had nothing to do with the actual production of wood in the South or in forest management at that time.

MAUNDER: These initial years with the company have you a direct contact with top management, did it not?

MCCAFFREY: Yes. I learned a lot about the corporate structure of the company in the main office.

MAUNDER: Your experience in these years gave you a good many insights regarding the manner of communicating with the

top level?

MCCAFFREY: Yes, I think so. I made a lot of friends there and in Canada, many of whom I still have.

MAUNDER: What did you learn in this period about this matter of communication with other foresters, the public, and government agencies that you had to deal with?

MCCAFFREY: I didn't come in contact with any Canadian or United States government agencies in this particular job. I knew about the forest management plans we had, the cutting plans we had to submit in Canada, and I knew about the fire protection plans in the Northeast, but in my job at that time I had no part in any of this. But I was able to observe all the things that were going on and to pick up useful information.

MAUNDER: Who were some of the people you were closely associated with at that time?

MCCAFFREY: C. O. Brown, Mr. Hinman, Lawrence [J.] Kugelman, who came to work in the office at the time, Roy Hendricks, Julian [E.] Rothery, H. E. Brickerhoff, and Russell Wingate. Of course, I was in contact with our contract department in New York constantly. That about covers the company personnel.

MAUNDER: Do you recall anything about these people that you most

vividly remember from those early days with the company?

MCCAFFREY: I was impressed with Mr. Hinman's personality and drive. I always enjoyed working with him because I felt free to discuss our problems in an open fashion so we could arrive at a real solution. I never felt that he was a difficult man to talk to. C.O. Brown was a very fine fellow to work with, as were Julian Rothery and Brickerhoff. Vernon Johnson was a fellow with a fine personality and was very capable, later to become board chairman of Canadian International Paper Company.

Europe: Special Survey

MAUNDER: Now about this time, about 1929, you were asked to conduct a special study abroad by James D. Lacey and Company. Did they borrow you from I. P.?

MCCAFFREY: Yes, for three months in the latter part of 1929.

MAUNDER: Was this a common thing at that time?

MCCAFFREY: No, I think that Ernest [A.] Sterling, who was head of Lacey's New York office, was acquainted with Mr. Hinman (we had bought some properties through Lacey and Company), who told me I might take this trip.

MAUNDER; Where did this take you?

MCCAFFREY: The study was in Yugoslavia, but it took me to England, France, Italy, Austria, and what used to be Montenegro. Following World War I, Yugoslavia was one of the countries formed by the League of Nations. It was called the Kingdom of the Croats, Serbs, and Slovenes. There was a lot of forested land in the area that had been under management for three or four hundred years in the old Austrian provinces of Bosnia, Croatia, and Herzegovina. There was quite a bit of forest land in the eastern part of Montenegro. James D. Lacey and Company had been asked to make a report on the operations of the Adria Timber Company and the feasibility of a new operation in Montenegro. I visited their plants in Bosnia and Herzegovina and their main office in Zagreb.

The question of financing the operation was the principal reason for the trip and the report necessarily covered the timber resources and the physical plant; that is, sawmills, logging operations, railroads, and sales. I spent about three months going over this operation, Including about a month in Montenegro, where the terrain was extremely rough. It was very difficult, and the method employed for bringing logs from the forest to the tidewater on the Gulf of Kotor was an

aerial tramway twenty-six kilometers in length. It was a very efficient operation designed by some German engineers. It landed logs on a sawmill deck, as I remember, two to four a minute. It seemed to be satisfactory, but rather expensive to build because the difference in elevation between the sawmill at the Gulf of Kotor and the timber property was one to two thousand meters. It was a very interesting operation.

I had an opportunity to see forests that had been under regulation in Bosnia and Herzegovina for many years. The old Austrian foresters had carefully managed these lands. I was able to observe not only the operating methods, but also the silvicultural methods employed in the reproduction of hard-woods, especially oak. There was some beautiful oak in Bosnia and Herzegovina.

In Montenegro the principal stand was very lovely beech and fir. All their calculations were in cubic meters, but converting it to our board feet the stands would probably average twenty-five thousand feet an acre. A large part of that country, though, is completely bare. The Dalmatian fold along the Adriatic Sea is all limestone. It's absolutely bare, just gray rocks. I was told the reason was that when the Turks were in southern Europe, the natives would hide

in the mountains and then come down and raid the Turks in the villages. The Turks would set the forest afire to run them out. Because of the rough terrain, the soil washed away; consequently, there was no forest growth following these destructive fires. I don't know whether this is absolutely true or not, but a German forester who accompanied me on this trip told me that.

MAUNDER: Was he acting in a consulting capacity?

MCCAFFREY: He was sent along to answer any questions that I might ask. He was a consulting forester named Dr. Vodera. He was a civil engineer and a forester from Vienna, one of the first in that area to use photographs for mapping terrain. At the time it wasn't being done from planes, but from high vantage points. There was a lot of distortion in pictures taken this way, but he had developed some means of overcoming this. I think some of that work probably led to subsequent developments using aerial photography in forestry work.

MAUNDER: What do you feel you learned from this trip that was most useful to you when you got back?

MCCAFFREY: I saw the use of an inclined plane in some of that rough country, which was something I used later. But my observation of the old Austrian forests was one of the

main things that impressed me. It showed me that it pays to manage forests.

MAUNDER: This tended to reinforce what you had learned during World War II in France?

MCCAFFREY: That's right. And I learned a lot about classification of logs, because timber in that country is not plentiful and the method of manufacture is not as wasteful as our own. I was impressed with the utilization employed on these operations.

MAUNDER: And your report to James D. Lacey and Company essentially said what?

MCCAFFREY: Well, I thought that the new operations were feasible and that with certain changes this new operation they were undertaking in Montenegro would be sound. The other plants were very sound. I don't remember the exact working of my final report, but with certain limitations, insistence on certain things being done, it would be worthwhile.

MAUNDER: Did you ever have any other assignments from James D. Lacey?

MCCAFFREY: No, I was just borrowed. Mr. Hinman was kind enough to let me go because it was a nice trip.

MAUNDER: Did you take your wife with you on the trip?

MCCAFFREY: No. She was pregnant at the time.

MAUNDER: You came back that same year to your job at I. P.?

MCCAFFREY: Shortly after that things were pretty rough in the depression, and I went with Consolidated Land Company, which was a big outfit owned by Baker Fentress.

DEPRESSION YEARS

MAUNDER: That reminds me that the paper industry had a rather early recovery from the depression. It seems to me that the pulp and paper industry hit new highs of production and expansion in 1935 and 1936 when the rest of American industry was, for the most part, only beginning to get back on its feet.

MCCAFFREY: The expansion of the paper industry in the South started in the early 1930s and was especially great from 1935 on. There originally were something like twenty-three mills. Now there are eighty-three and more in the process of being built. The paper industry did recover faster than other industries, I think. Some folks might not like this statement, but the Southern Kraft Corporation really contributed to I.P.'s financial position at that time. Kraft liner board and kraft paper kept I.P. from going broke when the stock was down to seventy-five cents a share.

MAUNDER: The kraft paper industry has suffered, along with other

areas of the paper industry, from certain destructive practices during its history and has sought from time to time to free itself from these. Certainly overproduction has been one of these practices. In the early thirties some pulp mills were unable to sell a good part of their pulp production, so they installed paper-making machines and went into making paper, even though there wasn't a demand at the time for the paper product they were turning out. This cause further troubles in the industry and caused a lot of mills to go out of business. Am I right?

MCCAFFREY: The industry got in bad financial shape by overbuilding following World War I. Newsprint went from $135 a ton to $32, I think, and since nobody was making it for less than $50 they were operating at a loss. When the depression came along, this was the toughest situation, and one of the things that saved us was the development of kraft paper and liner board, which were being used faster than we could make it. That was the period when fiber boxes came into the market in a big way.

MAUNDER: When you get into these binds, where production exceeds demand, you have merchandising problems that bring about situations in which unfair sales practices creep in. How

was this problem solved during the depression? The industry seems to have grappled with this more earnestly at that time.

MCCAFFREY: I'm not a salesman, and having been connected with woods operations most of the time I'm not too familiar with all the sales problems and solutions, but I know that we've had some very competitive situations because of this overproduction. It's not good for the industry or the stockholders.

MAUNDER: Well, during the depression prices were filed under a paper industry code. Buyers were then unable to persuade manufacturers to reduce prices since they were filed with an executive authority. To have monkeyed around would have put them in a bind with the law. Perhaps it was this development that brought about a change in companies' attitudes toward their own business and that of their competitors. Companies began to realize that their own success was, to some extent at least, wrapped up in the general health of the industry, not purely a matter of cutthroat competition.

MCCAFFREY: You're referring, I suppose, to the NRA codes. I think it's pretty well conceded now that they were a help in getting us out of the woods, but I'm still a big believer

in private enterprise despite the fact that some people have used very poor judgment in expansions.

MAUNDER: This period of economic change forced us all into a recognition of certain weaknesses in our system that we set about to remedy. I think we learned something from that period that has made our system a stronger, more stable free enterprise system in many respects than it was prior to the depression.

MCCAFFREY: I think that's true. Now most of the companies employ economists to study these problems and try to avoid falling off the cliff, so to speak.

Consolidated Land Company

MAUNDER: You said things were tough at I.P. during the depression. Were they letting people go at that stage? Were you one of these?

MCCAFFREY: Well, they didn't discharge me, but I was afraid because of the way things were going. Things were really pretty tough. As you probably know, most of the paper companies were in a pretty bad financial fix. They were forced to reduce personnel to a bare minimum.

MAUNDER: At this time, then, you sought employment with Baker

Fentress?

MCCAFFREY: Yes, with Consolidated Land Company, a Baker Fentress concern. They owned two million acres of land.

MAUNDER: In Florida?

MCCAFFREY: Most of it was in south Florida. Some lands had been sold, and they had to take them back. Turpentine operations were in bad shape. Consolidated had financed a great many turpentine operators who went broke so they had to foreclose on these mortgages. We had land and all sorts of problems. In most instances, people had made a terrific effort to stay with it, thinking things were going to get better, and some of these properties were in pretty bad shape from the standpoint of future operations. You might say they gutted them, trying to make it.

MAUNDER: Who employed you in Baker Fentress?

MCCAFFREY: The former vice-president of the Savannah River Lumber Company. He was also a vice-president of Consolidated and was in charge of all their timberland operations. He hired me as his assistant.

MAUNDER: What did that job put out to doing?

MCCAFFREY: I had to check up on operations for which Baker Fentress

had sold bond issues to see that no timber had been cut which hadn't been released from the mortgage. I had some timber estimates made and even made some myself. I also had to check on cutting operations where lumber companies were cutting timber owned or controlled by us. In some instances, new bond issues were being considered and I had to prepare reports.

MAUNDER: Was there a tendency for these companies that were under great stress to cut lands?

MCCAFFREY: Everybody was having an extremely difficult time. Sometimes there were contracts that weren't lived up to. But they were doing the best they could. I don't think there was any particular effort to do anything wrong. They always figured they could probably catch up sooner or later.

MAUNDER: This was in strict violation of the bond mortgage contract, wasn't it?

MCCAFFREY: Sometimes the company felt that we should put some of these folks in receivership. I felt that we shouldn't but should let them continue to operate. The timber had been overestimated in the first place because Florida timber, especially south Florida timber, had a low site index and therefore had a taper that was much

greater than pine in Georgia, Alabama, and Mississippi. Most of the cruisers who had made the estimates were old-timers and were using volume tables which were not applicable to the particular timber in question. I don't think there was anything crooked about this. It was simply that they weren't grounded in forest mensuration.

MAUNDER: So the owners were faced with a situation where they really had less timber than they thought they had. How did you get over this hurdle with your management?

MCCAFFREY: I think in all cases they let them continue to operate, on the theory that this depression might end fairly soon, prices would increase, and possibly they would come out all right. I think the operators and some of the bond holders sustained some loss, though.

MAUNDER: Did any of the bond holders every question this?

MCCAFFREY: No. I finally explained what the conditions actually were and the companies continued operating.

MAUNDER: On the feeling that they'd better get what they could?

MCCAFFREY: That's right.

MAUNDER: How long did this work last?

MCCAFFREY: Well, I worked with them until 1935. I made a trip to British Honduras, where Consolidated had a concession of pine timber on the coastal plain that they had

originally purchased for a turpentine operation. This concession was expanding, and they sent me there to see whether or not it was feasible to operate for saw timber. It was largely heart; there was very little sapwood. Although it was a turpentine pine, because of the large amount of heart, the production of turpentine was so low that it wasn't feasible. In other words, there weren't enough units per crop to justify an operation, so they thought they might possibly make a sawmill operation. I couldn't see that it would be feasible, and I recommended against it. I spent about three months there looking it over.

MAUNDER: Can you remember any other jobs that you were put on?

MCCAFFREY: No, just the routine that I previously mentioned. I had to see that the operators cut all the timber they were required to under the contract.

MAUNDER: This experience must have brought you into closer contact with Florida state officials.

MCCAFFREY: Yes. I knew the Florida Forest Service well because we had some of our lands under state forest fire protection. Consolidated, being a naval stores concern, always believed in burning the woods. They usually raked around the trees that were being turpentined in order to keep fire from ruining the

turpentine faces, but they did keep their land, or part of it, under protection. We leased a lot of our lands to cattle ranchers. South Florida was never a good timber country, especially from the standpoint of being a good growing country. The hard pan was pretty close to the surface, and the trees had a low site index and an extremely sharp taper. There was a lot of cattle being grazed on open ranges.

I saw the start of the development of the cattle ranchers as soon as the dipping law came into effect and the cattle had to be fenced. The cattlemen had to pay to lease the land which they hadn't had to do under the open range law. Dealing with the leasing of land to these people, I learned a lot about the cattle business. They immediately began to think about improving the range and owning their own land. They've improved the range and now have a pretty substantial cattle industry in Florida. As a matter of fact, it contributes a great deal to the economy of the state. They brought in better cattle and bred up the herds to the old Spanish stock that was there, and it developed into a real business.

MAUNDER: You came to know a number of men in the field of forestry during your years in Florida. Harry [Lee] Baker was one, I think.

MCCAFFREY: Yes. Harry Baker was state forester. [Clinton] Hux Coulter was

assistant state forester in charge of management. He's now the state forester in Florida. Earl Porter was assistant state forester in charge of fire protection. I had known him before that, when he was with Brooks-Scanlon. Later I hired him to work for International.

The state foresters had a difficult time trying to sell people on fire protection. I think Harry Baker started a planting operations [sic] on a very small scale, just an acre or five acres here and there. I think I had the effect of selling a lot of people on the practice of forestry who had given it no thought until they actually planted some trees and they saw them grow. A man will protect something that he's planted or put some labor into. He might have had the same thing from natural reproduction if he'd kept the fire out, but he didn't realize it. But after having planted it, he began to realize that he was getting the same thing for nothing by keeping out fires. I think in the early days Hux Coulter was in charge of that operation for a time.

He was also the naval stores consultant for the Florida Forest Service, and they did a great job with turpentine operators, especially in the days of the fire still, by improving their methods. Of course, fire stills eventually

passed out of the picture and steam stills came in, but they had a really progressive program for that time.

MAUNDER: You were working in Florida in the thirties. These were hard times, the low days of the depression. You saw these men and companies at close range at a difficult time in their history. What do you remember most vividly about them?

MCCAFFREY: I think that Brooks-Scanlon, for instance, was a well-managed company that was staffed with capable people. They had good timber holdings, and they were able to continue operations even in the face of the adversities of the time. The Burton Forest Cypress Company likewise had a capable group of men. They had the largest cypress operation in that part of the world, and I remember some of the men were outstanding. I think Mark Hitchcock, who was superintendent of Brooks-Scanlon and who was, incidentally, a half-brother of Earl Porter, was one of the outstanding logging superintendents in that part of the country. He developed a good many methods that were applicable to that particular area.

MAUNDER: What, for example, did he develop?

MCCAFFREY: The country was covered with pine timber and had cypress

ponds pretty well scattered all over it. At one time, Brooks-Scanlon had a joint logging operation. They had what were known as pine sites and cypress sites. As I remember, they had been building separate railroads for pine and cypress operations. They then figured it would be cheaper to have one railroad built into the territory to use for the logging of both cypress and pine.

MAUNDER: What qualities did the survivors of this great depression in that area have that those who did not survive lacked? What would you say were the critical factors in weathering this storm?

MCCAFFREY: My own observation is that, of course, some of these folks were better off financially than others and were able to weather the storm by trimming their sales, so to speak, and turning to a limited operation, holding the nucleus of their forest personnel together. Others who had heavy bond issues just couldn't carry on. Some of them worked out arrangements with the bond holders to declare a moratorium. They just cased operations. They didn't liquidate the timber at a rapid rate just to pay off some bond mortgages. It was the sensible thing, I think, from both the standpoint of the bond holders and the operators. This was not done in every instance, however.

MAUNDER: How well did you know Henry [J.] Malsberger at this time?

MCCAFFREY: I knew Henry quite well. He was assistant state forester in charge of public relations and later state forester. He did a very fine job which led to his being hired by the Southern Pulpwood Conservation Association (SPCA). Henry had had experience with the W. C. Sherman Lumber Company. The particular operation was knows as the St. Andrews Bay Lumber Company. He worked at Okeechobee, Florida, in a town known as Sherman. Henry operated their dry kilns. Then he became district forester for the Florida Forest Service and then assistant state forester.

Southern State Forestry: Development

MAUNDER: You were on the ground to see the development of state forestry in Florida, weren't you?

MCCAFFREY: Not only Florida, but also in Georgia, South Carolina, Mississippi, Louisiana, and Arkansas. I saw state forestry develop from organizations that had appropriations of $15 to $40 thousand a year to organizations that had $2 to $3 million.

MAUNDER: There was not even development across the South, was there? Some states moved a lot faster than others.

MCCAFFREY: Texas had a state forestry department quite early. [E.D.] Sieke [Siecke] was the chief forester there. [J.S.] Holmes, the North Carolina state forester, had been there for quite some time; he was a very capable old gentleman. Colonel [Page S.] Bunker was the state forester of Alabama and was succeeded by his assistant, Brooks Toler, and later by Jake Stauffer, who is still state forester. Charley [A.] Gillett[e] became state forester of Arkansas with no organization or appropriation. In order to qualify for CCC help during the depression, there had to be a state forestry department. Charley was extension forester at the time and was appointed state forester with no appropriation.

MAUNDER: So the state would qualify for federal money?

MCCAFFREY: No, for CCC camps. The forest industries in Arkansas, including International Paper Company, turned over their fire protection organizations—towers and a few forester who were engaged in fire protection—to Charley. They contributed enough money to run the organization until the next meeting of the legislature. So Charley was a state forester with no state funds. Louisiana used to be pretty heavily involved in politics and changes in administration --this occurred in some other states, too—which

brought about some trouble in connection with forest fires. In some instances, the ones who were thrown out would set fires to embarrass the people who succeeded them. In Mississippi, Fred [B.] Merrill was the first forester, I believe, and had a very modest budget. This was true everywhere. I think Harry [Lee] Baker in Florida had only $20 thousand. Before Frank [D.] Heyward was hired as the first manager-forester of the SPCA he had worked for the Southern Forest Experiment Station and was state forester of Georgia. There had been a couple of state foresters before him. B. [Burley] M. Lufburrow was the first one. All of these fellows were operating on a shoestring.

The man who really put forestry on the map in Georgia was Herman [E.] Talmadge. The appropriations in Georgia had increased, but not to the point of being sufficient for the forester to really do the job. This was one of the planks in Herman's platform when he was elected governor and he raised the appropriation from $100 thousand or $200 thousand to more than $1 million.

MAUNDER: He was a governor who was always very much interested in satisfying the needs of the people in the country, wasn't he?

MCCAFFREY: Yes, he understood forestry and still does. He's a great

friend of forestry. We can always depend on him in Congress. He did a fine job in Georgia. In South Carolina, Henry [H.] Tryon [Trion], I think, was the first state forester. He had been a professor at the New York State College of Forestry at Syracuse. I think H.A. Smith was the next state forester.

They had a very small appropriations [sic], but all the forest industries, especially the paper industry and the progressive turpentine and sawmill people, kept plugging for increases in appropriations. I remember quite well when the appropriation in South Carolina was very small, we gradually got increases. We used to go to every legislature to plug for money for the state forester for fire protection and for other things that he should have been doing and would have been capable of doing if he had had the money. Charles [H.] Flory, incidentally, took H.A. Smith's place, and John [C.] Witherspoon, who is now with SPCA, was assistant state forester in charge of public relations. John did a very fine job.

I've watched these state organizations grow in all the states. I think the state foresters in the South have really done a remarkable job with the money they've had. You can see some of the effects of this in the pamphlet,

"Miracle in the Southern Forests," that was published by SPCA on what has happened in twenty-five years to the forest situation in the South. That is really some performance. When we started we had 120 billion cubic feet. We consumed 147 billion in the next twenty-five years and ended up with 130 billion at the end. It didn't come out of the atmosphere. It had to come out of the ground.

MAUNDER: What, from your observation of those times, were the critical factors that propelled the states to take action rather than to just talk about the problem?

MCCAFFREY: Well, I think the U.S. Forest Service deserves considerable credit in connection with this. They were buying some forests under the Week's Law [1911] and putting them under management, and people who observed forest land under management couldn't help but see the results. The State and Private Forestry Division of the regional office in Atlanta, under the direction of [Charley F.] Evans, did a remarkable job in helping state forester and timberland owners to get some recognition. They did a fine job with industry and other people. Of course, the division had a great deal to do with the CCC program, and this also focused a lot of attention on forestry—building roads and planting trees. A good many of those plantations are

presently being harvested and have been for some time.

There are always some progressive people in the lumber and turpentine industries, but the one industry that really made the practice of forest management possible in the South was the paper industry. It expanded rapidly and provided market for worked-out turpentine timber, for thinnings, and for small timber. That really set off the practice of forestry in the southern pine region. I think that's admitted by everybody who knows the circumstances. The paper industry owns twenty-four or twenty-five million acres of land now and is providing raw material for sawmills, plywood plants, and other forest industries. So I personally think, not just because I was connected with it, that the practice of forest management in the South was made possible by expansion of the pulp and paper industry. I think that's agreed on by all foresters.

MAUNDER: The depression helped to focus attention on some of these problems, and we began to grapple with them in a direct way. This got publicity, and I suppose eventually it began to implant in the public mind a greater willingness to see a large measure of state support.

MCCAFFREY: Of course, any industry that uses close to $600 million worth of wood a year, as the paper industry does now, is

contributing a terrific amount of money to the economy of the country. This goes back to that basic premise I mentioned before in this interview, that the practice of forest management is possible when it pays. It certainly has paid with the advent of the paper industry.

MAUNDER: What impact do you think the legislation of the period, such as the Lumber Code, had on this?

MCCAFFREY: There was a threat of legislation that I think would have killed progress if it had been passed at that time. Now regulation has come about voluntarily because of the economics, which is the way things like that should come about. Regulations should not just be put into force because somebody thinks we should grow trees whether we can sell them or not. Of course, there are certain other things to be considered—erosion control, watershed protection, and game management. But I think forest management that comes about voluntarily is really helpful to the country.

The individuals who are potent—there are enough of them growing timber and selling it in the market—should be able to influence the legislators in their districts. There are a lot of U.S. senators who are strong supporters of forestry: Senator [John C.] Stennis of Mississippi, Herman

[E.] Talmadge, Senator [Russell B.] Long, and others.

MAUNDER: What part did John H. Bankhead [II] play in it?

MCCAFFREY: I don't think Bankhead did as good a job as Talmadge and Stennis have done, and he went about it differently, too. I think he contributed a lot, though.

MAUNDER: You were saying a few minutes ago that the U.S. Forest Service deserves a lot of credit for what it did in giving recognition to the state foresters. What form did this recognition take?

MCCAFFREY: I can remember quite well that when some of these states were after more money, Charley Evans made certain studies and appeared personally before legislative committees in several states to help.

MAUNDER: To support the arguments of the state foresters?

MCCAFFREY: That's right. Occasionally there have been, as there always will be, differences of opinion between state and federal agencies and industry, but everybody's worked pretty well together in connection with this forestry movement in the South.

MAUNDER: What role would you say the forest schools played in all this?

MCCAFFREY: The forest schools have, of course, contributed a great deal. On the other hand, the fact that forestry has

become important in the economy of the country has resulted in the forest schools getting real appropriations. Now they have some real schools. We had a pretty weak situation in regard to forest schools forty or forty-five years ago in this area. Many schools now in existence were not at that time. There was some forestry taught in schools of agriculture, but no degrees in forestry were granted.

MAUNDER: But by the 1930s there was a larger number of professionally trained men at work in this area and that larger number was finding means of articulating its demands to the public.

MCCAFFREY: Yes. Southern forestry was helped by more than one outfit. For instance, the SPCA was getting attention from everybody. Of course, there are more foresters in the southern area than there are in any other region of the country and that number has been constantly growing.

MAUNDER: Do you think the trade journal people had any important part in all this?

MCCAFFREY: Yes. Stanley [F.] Horn and his outfit have always cooperated with industry and the state and federal governments in selling forestry. There were others, too, the Southern Lumber Journal, Ben Wand's publication, did the same. These publications have helped a great deal.

MAUNDER: To what extent do you feel people whom we normally don't

associate strictly with the forest industries or forestry influenced this change? I wonder, for example, to what extent the banker have had some influence on this.

MCCAFFREY: In the beginning they were sort of lukewarm. This was a crop that was going to take too long to grow, and the demand was not great, so they were slow to realize the potential. With the advent of the paper industry in the South, large amounts of money were being spent for wood, for construction, and for payrolls. It didn't take bankers long to decide this was something they should be supporting. They've even gone to the extent of buying planting machines and lending them to farmers in some cases. They realize now that timber is a big crop.

MAUNDER: How long was it before they began to realize this? Were they loath [sic] to recognize it?

MCCAFFREY: Well, a little bit in the beginning, but they've been gradually catching on as the industry has expanded. There is another group of people, too—the merchants. For example, there were a lot of little towns that were all flat as a result of the lumber and turpentine industries moving out. Then as paper mills moved in, the economic situation improved, and all of a sudden they were struck by the lightning of multimillion dollar plants paying

salaries and wages higher than existing industries. The merchants saw the importance of growing timber. They promoted timber festivals all over the South put on by local merchants to stress the importance of growing timber.

MAUNDER: How early would you say this sort of thing began?

MCCAFFREY: I think the first ones were instituted in the late 1930s. Later, after World War II, they really got going. When Charley Gillett[e] was state forester, the Arkansas Forestry Commission used to have forest fairs in different Parts of the Arkansas pine region. Waycross, Georgia, had an annual forest festival. These helped to sell the importance of fire control and proper cutting.

Florida State Forest Service

MAUNDER: Let's go back again to pick up at a point in your own career. You stayed with Consolidated Land Company until when?

MCCAFFREY: I was with them until 1935 when I went to work with the state forest service as an industrial forester.

MAUNDER: What brought about your change from Baker Fentress to the state?

MCCAFFREY: It was a matter of salary. I'd had my pay reduced on

several occasions. It didn't look as if it was going to be increased, so I decided to get out.

MAUNDER: Who made you the offer? Harry Lee Baker?

MCCAFFREY: Yes. I think he made the offer two or three times before I'd accept it.

MAUNDER: Do you remember what the difference was between your former salary and what you got in the State Forestry Association?

MCCAFFREY: I'd been reduced from $416 a month to $150 during the depression, and I went to work with the state for $2600 a year.

MAUNDER: What kind of job did you do for the State Forestry Association?

MCCAFFREY: I was working on trade promotion in the use of wood and on utilization problems. I was a liaison, you might way, between the Forest Products Laboratory and the forest industries utilizing some of the later developments of the Forest Products Lab.

MAUNDER: Did this take you up to Madison quite frequently?

MCCAFFREY: I was there two or three different times, and some of their people came down to Tallahassee.

MAUNDER: What specifically did you with on with them?

MCCAFFREY: One of the things we were trying to develop at that time

was better manufacture by small mills. They were butchering the timber pretty badly. The lumber was miscut. The Forest Service had a section at Madison headed by a fellow named [C.J.] Telford, a sawmill specialist who developed a lot of improvements and tried to sell them to sawmills.

Another thing was trade promotion. We had lumbermen shipping wood in railroad cars that were all steel; condensation was ruining the lumber. We kept putting head on the railroads to line the cars with wood. There were a number of things of that nature that we worked on. As I remember, there were also developments in machinery. We made it a point to investigate new machinery and to sell the idea to operators in order to improve manufacture. Logging methods were antiquated. Tractor logging wasn't used quite as much as it is now; many were still using mules.

MAUNDER: Wasn't it hard to get people to convert to expensive methods and new equipment at that time?

MCCAFFREY: We had quite a hard time trying to sell people on using tractors rather than having a bunch of mules and men.

MAUNDER: How did you go about this selling job? Was it on a personal, man-to-man basis?

MCCAFFREY: That's right. We visited individual mills and talked to

the managers and their subordinates. We made time studies for them in some instances on what could be done theoretically. Some of these methods were adopted because of the studies we made.

MAUNDER: How did you make these studies? Were there certain mills that had already installed such equipment?

MCCAFFREY: Sometimes, and some of the tractor sales people would put them in on a temporary basis.

MAUNDER: They would let the equipment be used on trial?

MCCAFFREY: That's right. They did some studies, too. They'd furnish an operator and show what the machine could do.

MAUNDER: In other words, you did quite a lot of your work with manufacturers, didn't you? And I suppose you had a good deal to say at meetings of various trade associations, too.

MCCAFFREY: Yes. Of course, that was confined to Florida state organizations. We weren't selling these ideas in other places.

MAUNDER: You didn't try to do it on a regional basis?

MCCAFFREY: Well, you couldn't fir into that scheme of things well with Florida's appropriation.

MAUNDER: Were any substantial number of people whom you addressed on these matters convinced to make changes, or was it

just that they were able to make them at the time?

MCCAFFREY: Some were able to make them and did. Some were able and didn't, so it's pretty hard to say.

MAUNDER: Was the evidence of success on the part of those who did make the changes so noticeable that the others quickly followed?

MCCAFFREY: I think so. I remember an instance or two where the logging railroads hadn't been located to the best advantage, and my previous experience helped me. It was Harry Baker's idea to try to win the support of the forest industries by assisting them in every way he could. He had this turpentine still improvement program that was really important, and he did a good job. Hux Coulter headed it up and did a really good job.

MAUNDER: I've got an interview with Hux Coulter that goes into that.* You were in this job for a relatively short time?

MCCAFFREY: Yes, about a year and a half. Then I went back with I.P. in 1937.

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*Clinton H. Coulter, typed transcript of tape-recorded interview by Elwood R. Maunder, Forest History Society, (Santa Cruz, California, 1958).

INTERNATIONAL PAPER COMPANY

SOUTHERN KRAFT DIVISION: 1937 – 1963

MAUNDER: How did this offer come to you?

MCCAFFREY: International Paper decided to sell sawlogs from their timber properties in Arkansas and Louisiana that had been acquired from lumber companies that had cut out and moved away. They had been holding a lot of land in Arkansas and Louisiana for several years. The land had been protected from fire, but no cutting had been done except when the procurement boys occasionally ran short of wood. A considerable body of saw timber existed on the company's properties at the time and the officials had decided to sell all the timber down to a diameter limit of twelve inches on the stump. They thought I could do this job. Major [J.H.] Friend was then vice-president and general manager of the Southern Kraft Corporation. He decided, after exploring the job to be done, that I had the necessary qualifications, and I know he checked it out with John Hinman. That's how I went back to work with I.P.

The first thing I did was to set up land records and survey boundary lines. I felt that paper mills were expensive investments and we ought to institute a forestry program that would keep our land continually productive. We adopted a partial cutting method that was then talked of by a lot of foresters, including state and federal foresters. It was selective cutting, but it was later found not to be the best method in many cases in the South.

MAUNDER: How soon after your re-employment did you suggest this?

MCCAFFREY: I looked over the whole situation and saw that we didn't have adequate land records. I proceeded to have them set up and, in the meantime, made a cursory examination of the properties because I had not worked in this area before. I arrived at this conclusion and discussed it with Major Friend, my immediate superior. He left things to me, and I was able to operate in what I thought to be the best interests of the company. After the operation had continued for some time we made an inspection trip or two, and Major Friend felt the policy was sound.

I might say that at that time there was considerable heat put on by both state and federal governments to regulate cutting of

timber. Most of this regulation was directed at paper companies because the sawmill and turpentine industries had an idea that we were going to cut everything and leave a vast prairie. They seemed to overlook the fact that paper mills cost several million dollars and that we couldn't go in and cut and move out. Our officials were able to convince them that the paper industry in the North had made a mistake. There were paper mills there that cut all the available nearby timber pretty thoroughly and consequently the freight on their wood requirements was beginning to be a serious item of cost. In many instances these mills had to fade out of the picture. It wasn't too hard to make the sawmill and turpentine industries see that forest management in the South was a different proposition, that we had timber which would grow rapidly, and that what we needed to do was to acquire land for our mills and to practice forestry on an intensive basis.

MAUNDER: Were there any earlier examples of this policy being put into practice by other mills or companies in the South?

MCCAFFREY: Crossett had an integrated operation which was somewhat different than ours, in that they were operating a sawmill, a paper mill, and treating plant. I thought some of the things they were doing were good from our standpoint, but

others were not. That was mainly because our situations were different. Of course, forest management by any company has to fit into their scheme of doing business and the products they're making.

MAUNDER: Can you back up just a little from this point and explain for us I.P.'s reasoning in acquiring these lands? When did this policy take shape and how did it develop?

MCCAFFREY: The lands that we owned at the time I went to work in Camden, Arkansas, were not acquired originally by the International Paper Company, but by the Bastrop Pulp and Paper Company and the Louisiana Pulp and Paper Company. Richard [J.] Cullen built the Bastrop mill and subsequently sold it to the I.P. then he went across town and built the Louisiana mill. In both instances the bankers insisted he have some timber when arranging financing. He bought some cutover timberlands, which turned out to be a very good deal over a period of years.

Later, I.P. was interested in acquiring land because they knew that the consumption of paper was bound to increase with the population. We've always felt that some land was necessary. John Hinman had a great deal to do with influencing the company to acquire timber properties, because he believed in acquiring lands to protect our

investment. I give him a great deal of credit for the acquisition program that we've had in effect for the last twenty-five years in the South.

MAUNDER: Was he the architect of that policy?

MCCAFFREY: Yes. Major Friend believed in owning timberland, too, but Mr. Hinman was up at the front and knew more about it than Major Friend.

MAUNDER: He began this in what year in the South?

MCCAFFREY: In the late 1930s. He didn't have much to do with it then, but he was consulting. Cullen used to consult him on timber matters. He actively took part after World War II, at which time we really set out on an aggressive acquisition program.

MAUNDER: But I.P.'s initial move into the South came at the point of buying an established plant and land associated with that plant? Cullen, in a sense, was the forerunner regarding all this. He had seen the potential there and had started to build some companies.

MCCAFFREY: He sold plant and timber to I.P., and when I.P. bought Louisiana Pulp and Paper Company, they bought Cullen along with it. I.P. organized the Southern Kraft Corporation, of which Cullen was president.

MAUNDER: So it was a combination of Hinman and Cullen, in a sense?

MCCAFFREY: Major Friend had a lot to do with it, and Erling Ries had a great deal to do with the construction of these plants. He was the engineer who really built them.

MAUNDER: Were those four men then working together as a team?

MCCAFFREY: I'd say Cullen and Major Friend. Hinman got into the act a little bit later, after he came back from Canada, where he was president of Canadian International Paper Company. He was Cullen's right-hand man and became president of I.P. when Cullen became board chairman. But I would say that Cullen, Major Friend, Erling Ries, and John Hinman were the men who did the big job for us.

MAUNDER: What responsibility did forester have in making these acquisitions?

MCCAFFREY: In the earlier days they just made the appraisals and applied the unit value from the best information they could gather. This sometimes was altered by the top side. But in later years the foresters pretty well set the price.

MAUNDER: They influenced policy?

MCCAFFREY: Not only the management policy, but the acquisition policy and the price, too. Naturally, it had to be approved by top management, by the board. But in later years the judgment of the forester had a great

deal to do with the policy. As a matter of fact, I think in many cases action was initiated in the field. We were a big outfit and were expanding, and we wanted a timber supply that was close by. Therefore, we kept our eye out for anything that looked good.

MAUNDER: At what point in time did this more aggressive policy of forest land acquisition begin?

MCCAFFREY: Well, I think it started when Major Friend decided we should have a central woodlands office at the division headquarters in Mobile and Mr. Hinman became president of International Paper Company.

MAUNDER: That was in what year?

MCCAFFREY: That was in the fall of 1938, under the Southern Kraft Corporation. From then on, that influence began to increase drastically.

MAUNDER: At that point, who was deciding how much land was actually needed to support this operation?

MCCAFFREY: We were making studies from time to time based on the requirements, projected requirements, land ownership patterns, and competition. We expected competition moving in from other forest industries as well as the paper industry.

MAUNDER: These were the criteria by which you judged your

immediate and long-range forest land purchase needs?

MCCAFFREY: Yes. At one time we figured we didn't need to grow more than a very small percentage of our requirements. That's been increased from time to time, though not at the same rate in all areas. For instance, on the East Coast there are a large number of mills and competition is intense, so we have nearly a million acres of land for the Georgetown mill.

MAUNDER: Will this protect you against shortages in supply from other sources that you might run up against in the face of competition from other mills?

MCCAFFREY: If the demand for wood reaches a point greater than the ability of the immediate area to produce at decent cost, action is indicated. We made these studies all the time. With the information put out by the forest experiment stations on inventory, growth, and drain, we're able to arrive at the answers pretty well. We have always cooperated with the U.S. Forest Survey.

Organizational Structure

MAUNDER: After the company went into the South in a big way and acquired considerable land, didn't it move into a period in which it had to protect that land against fire

and develop a public relations program?

MCCAFFREY: We had to develop a management program. That was very important. When we decided to have a central woods organization in Mobile for the Southern Kraft Corporation, all forestry operations were directed from that office. We had had woods managers in various parts of the country, but at that time we had a wood procurement organization separate from forestry land management. That was not because of necessity, but in order to fir existing woodsmen who had been with the company for a long time into the organization. Most of the wood procurement people were not foresters, but we didn't feel like throwing out men who had been with our company for a good many years.

That parallel setup didn't develop men broadly. They ought to know both functions, and within a consolidated type of organization you can actually operate in a given situation with fewer men. You also eliminate the possibility of confusion, bickering, and dissention in the organization. I personally think there needs to be one boss at the top. He's got to have men who are specialists in different fields working for him. That leads to team play between manufacturing and woodlands, and it also brings about team play between timber growing and harvesting.

I changed that setup when I went back to Mobile from Georgetown in 1954. We made a study of the situation and decided to combine both functions because then nearly all of our superintendents were foresters. So we set up an organization dividing the area of our ten mills into five woodlands regions, each headed by a regional manager who is responsible for both wood procurement and forest management. We decentralized the organization. This reorganization raised the status of the manager considerably, giving him leeway to operate within certain limitations. We just set the policy and had fiscal control at Mobile.

In addition to the regional manager, each region has a regional forester, an operations superintendent, technical staff members, and fiscal control. The region is broken down into areas, then into districts, and then into units. A unit is usually the size of a township, 36 thousand acres, but can vary depending on the local situation. It might vary all the way from 25 to 45 thousand acres, depending on the ownership pattern.

MAUNDER: Is a unit broken down into even smaller cutting areas?

MCCAFFREY: Our unit foresters are something like rangers in a national forest. In other words, this man manages his unit. He is

given this area to manage intensively, and he's supposed to furnish a certain number of cords of wood annually, if it fits into the management scheme for his unit. He cuts some portion of it from our property and buys the rest from local people. The cutting is based on our continuous forest inventory; well, at the present time not so much on a continuous forest inventory as on stand description which the unit forester has made of the property under his direct supervision.

MAUNDER: How does he make this inventory? Does he make a regular check?

MCCAFFREY: He makes it on the ground. He deals with the inventory, the growth, and the drain. He has the age classes set up and has his property divided up into cutting cycles. He's aiming toward a certain amount from this unit all the time until he reaches the maximum. In the meantime, he's buying the part of the requirements that he's not able to furnish from the property under his supervision.

MAUNDER: This policy dates from what year?

MCCAFFREY: Let's see. We made the study in the latter part of 1955. We set up a team to make a study of changes that should be made. We hired an outside business consultant, Remington-Rand, not because of their knowledge of our

particular industry or of forestry operations, but as having dealt with large complex reorganizations. They knew a whole lot of things that we thought would be beneficial, and it turned out they were. Following the study, we made a recommendation to the top side, it was approved, and we started this new setup in the latter part of 1956.

Five or six years later another team with another outside consultant made another study to see whether we had accomplished what we wanted to and whether there were any adjustments that we should make in the light of experience. We let the fellows on the ground have some say-so. The team would go into the field and talk to everybody at different levels—the regional manager and his staff, the area superintendent, the district forester, the unit forester—to see whether or not improvements could be made. We had made some studies on our own before this, but after this one we made consolidations and improvements.

MAUNDER: Do you remember when you first came back to I.P. whether you had any strong feelings or preferences for one scheme or organizational structure over another? Or were you looking around and seeing how this was being done in other

paper companies to get leads?

MCCAFFREY: Well, I've always tried to keep track of how other companies manage their woodlands, not only paper companies, but lumber companies and others. Of course, I have traveled around in the past through other countries and to other places.

MAUNDER: Were the organizational patterns of some of the other companies in the South impressive to you at this time? Did they influence your judgment or your planning for an organizational revamping of the I.P. structure?

MCCAFFREY: There may have been a few instances, but for the most part I think we developed it ourselves.

MAUNDER: It was your wrestling with a problem and working out your own solution?

MCCAFFREY: Well, we were in a team. Of course, there were certain things that we knew about other operations that we probably used, at least they may have influenced some of our decisions in regard to our own organization, but I think ours was set up pretty much on our own. This team with our consultant went all around to our operations to see for themselves. All branches of our outfit were represented, our fiscal branch, too. Our present controller was there, Harry Walcott. We had a forester who was also an

industrial engineer. His training was worth something, too.

MAUNDER: Who was that?

MCCAFFREY: John [C.] Meadows [Jr.]. He has a Ph.D. now. We tried to get a representative group. We didn't want any preconceived notions. We went out and really made a study to see what our people thought. After we put the reorganization into effect, we had some people who didn't like it. With the procurement and the forest management operations separated, we had about seventeen managers in the South. We consolidated this under five managers. As a result of that we took on two additional paper machines at Mobile, the new mill and Pine Bluff [Arkansas], and added about a million and a half acres of land. All of this was done with about two hundred fewer people. We are developing people in all phases of our work now. The other way they were confined more or less to either procurement or forest management. You might say we had had two corporations operating out there.

MAUNDER: The left hand didn't know what the right hand was doing?

MCCAFFREY: That's right. "I don't work for him and he doesn't work for me" was the attitude. I've always been a great believer that one man can run two or three jobs, but two or three men can't run one.

MAUNDER: Has that organizational pattern undergone any substantial

change in recent years?

MCCAFFREY: No. There was actually very little change made at the time of the last study. Of course, I've recommended that things change and that a study be made from time to time. We should look at ourselves along with an outsider, so that we don't settle back and get too complacent because things seem to be moving along all right. I think you eventually get in a rut if you don't keep looking at yourself and have somebody from outside looking with you.

MAUNDER: What forestry consultant did you take into this?

MCCAFFREY: None. The outsiders we had were business management consultants, people who had set up organizations for other industries—Arthur Anderson, Remington-Rand, and others. I remember speaking to Dr. Hertz, one of the chaps on this team. He said he'd never seen such a complex organization deployed over such a tremendous territory. He said the nearest thing he'd seen to it was the Halliburton Oil Company which operates in all major oil fields.

MAUNDER: Do you feel that I.P.'s needs were altogether different than those of other pulp and paper companies?

MCCAFFREY: The spread is a factor. A single mill organized with a woods manager would operate pretty much as we do here in Georgetown. There would be a manager, and he'd be the

manager on the ground, period. He wouldn't be concerned with more than one mill as some of our regional managers are. There are some other companies that have copied our form of organization. Maybe not in toto [sic], but they're much the same principle.

MAUNDER: Do you see any disadvantages to your system? Usually with any system there are clear-cut advantages and there are some disadvantages. What disadvantages have you seen in your own structure?

MCCAFFREY: Well, I haven't seen them. There are some people who think that we delegate too much authority to local people. But if you're going to develop people, that's one way to do it. You delegate authority to a man and he's able to hire the people he wants to run the job within the policy established by management. When he runs the job and has the freedom to do it, he's impressed with one fact, in my opinion. He knows he's responsible, that he can't pass the buck to somebody else. He makes good or he doesn't. Decentralization is needed when an organization is deployed all over 1500 miles. The men need to have some freedom of action.

MAUNDER: How have staff services out of the headquarters and line services out of the field been divided?

MCCAFFREY: Our central woods organization at the division headquarters is run by a woodlands manager. He reports directly to the vice-president who is in charge of all the woods operations including, in our case, the wood preserving division and minerals. The division office is concerned with broad policies as to procurement, forest management, and fiscal control. It also has certain staff members, such as a minerals manager. He's the fellow who knows how to deal with oil companies interested in drilling or leasing land. He works as a staff member with the regional woods manager because the latter doesn't know all the jargon and the details of making up these leases.

The regional manager's staff also has men who are concerned with studying the forest resources, wood supply, forest engineering, forest management, and keeping up to date on the forest situation in regard to inventory, growth, drain, and land ownership in each region. These studies go on constantly, furnishing the individual regional manager with full information on conditions in his area, as reflected by the forest survey. Of course, the survey is public information. Anybody can compile it, but it takes people with the know-how to do it.

MAUNDER: Local situations don't influence the staff and line setup

that you have in your company? Your follows a standard pattern wherever the company is?

MCCAFFREY: Yes, in the Southern Kraft Division. I hope it will continue to do that, because you can't have two or three people running any one job. We have a broad pattern out there, and the regional manager is the manager. He's not a fellow who's carrying messages from some staff member in the main office to people in the field. He's responsible; the responsibility is pinned to that one fellow.

MAUNDER: None of this is dependent on, or determined by, the individual preferences and experiences of those in command? It's a pattern imposed all around the country, wherever you have land?

MCCAFFREY: Since we reorganized in 1955 it's followed this pattern. Before that we did have some examples of what you've just mentioned. But they're not good.

MAUNDER: You mean your buyers?

MCCAFFREY: Our wood buyers and the men who managed our lands. We immediately set about to change the image of our company in the eyes of local authorities, and we have tried to hire foresters who could sell themselves and our company. I've had several letters complimenting our men. Senator Stennis wrote me a letter about one of our foresters in

Mississippi. He said, "Here's a boy from Pennsylvania who came down here and is now part of the community." He told me how much help this forester had been to the people in this area in managing their timberlands. I think the fact that our woodlands department operates on the basis of getting along with people and employing men who are tolerant of others has a lot to do with our success.

MAUNDER: How responsive is top management to letters of this kind? I don't mean only letters that come from men of recognized public stature, such as Senator Stennis, but also from more lowly levels of the population. What is the reaction to letters which point to a man in your employ who is doing a good job at the community level?

MCCAFFREY: Some people pay absolutely no attention to such letters, but others do. I always insisted that our people answer every letter. Even if it's in longhand and in poor English, we'll answer it. If some individual whose land borders ours has some gripe, I have insisted that our people go and see the man. We maintain a file on every man similar to a "201 file" [an officer's file in the army] with everything that he does in it. If he has letters of commendation they're in his file with his rating and history. We

rate our people regularly. We have some people who pay a great deal of attention to that, though others don't.

MAUNDER: How did your rating system work out? Was it a satisfactory one to you from every angle?

MCCAFFREY: I'd say it [sic] as satisfactory as any rating system can be. Of course, some personality factors always get into the picture even though you try to avoid it. I think that it's been fairly satisfactory.

MAUNDER: Are you using a form of your own making or a rating form provided by a management consultant?

MCCAFFREY: It was provided by management consultants and tailored to our particular needs.

MAUNDER: Are these ratings strictly private?

MCCAFFREY: The man who is being rated has a opportunity to discuss the rating with the superior who rated him. I think that gives our people a chance to better themselves. The rating is also reviewed by the next man above, who can change it one way or another. The idea of this is to see if there are any personality clashes involved.

MAUNDER: Do you find that people tended to leave the company if they got bad or mediocre ratings?

MCCAFFREY: I remember only one man who thought that he'd been given an unfair rating. He seemed to be a fellow who had

difficulty getting along with others. This rating rather irritated him and he left. Since then he's left two other places, so I think we weren't too far wrong.

MAUNDER: Was your woodlands department ever responsible for settling any land tax affairs of the company?

MCCAFFREY: The woodlands department, not only keeps the records, but pays the taxes, too. They handle any problems that have to be taken to the boards of equalization. Sometimes they have to holler for legal help, but generally speaking our boys have done an excellent job with local people. I might add that our fellows living on the ground become part of the community. They know what's going on. The people know them and know what they're doing. This is important. Living on land is important if you're going to manage the land. A distant owner has three strikes against him even if he's got a good man out there, but if he doesn't have somebody on the spot, he's really in bad shape.

MAUNDER: This is particularly true of a big operation, isn't it, because there's a natural tendency to fear the big corporation taking over too much?

MCCAFFREY: Well, I think this comes down from the feudal days when there was a dislike created for large landowners. I think

it's come down through the ages. Great landowners are something to be feared.

MAUNDER: A major development in this century that you've certainly witnessed is the tremendous move in the direction of capital concentration. Great companies seem to be more efficient managers of natural resources than the multitude of little companies that operated in the early days. You've been part of the largest single forest products company in the world, I believe. Is there any one company larger in capital wealth or total assets than International Paper Company?

MCCAFFREY: It's the thirty-eighth-largest* corporation in the country, and I would say it's been the larges in paper and forest products.

MAUNDER: What's been the key to the development of this great company though purchase of, and consolidation with, many other companies and purchase of forest land?

MCCAFFREY: International Paper was originally started in 1898 by consolidation of a group of smaller companies. For the most part, it grew by building rather than merging. It is only recently that we've entered into mergers, primarily

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*Editor's note: In 1969 I.P. was the forty-third-largest corporation.

with Long Bell and Lord Baltimore Press. I think one of the things that made our company grow is that we diversified in the field of paper manufacturing. In the earlier days we were concerned with just newsprint. The thing that really started us building was the manufacture of kraft pulp and liner board. Using a fourdrinier machine rather than a cylinder machine made the manufacturing cost much less and had a great deal to do with the development of fiber boxes.

Now we have gone through a transition. In the South we used to just make tons of kraft paper and liner board, but now we made all kinds of paper and pulp. We are now in the converting field in a big way. We are even making newsprint in the South, though they said it would never be done. It's a little more expensive to make it down here, but we're close enough to some of the markets where we have a freight advantage.

MAUNDER: Do you bracket the whole range of papers in your company?

MCCAFFREY: We make everything now except tissues, and we once had one of the best tissue products in the country. I don't think we knew how to sell the product; that's why we didn't pursue it. We sold out to Kimberly-Clark. We now make tissue in Canada.

MAUNDER: Who do you see as being the real genius behind this great

development? Who are the men who have been the real masterminds putting it all together?

MCCAFFREY: Some of our present officials, John Hinman, for example, had a lot to do with the building of our company. I think the one thing that really made us grow was the fact that we were the biggest producer of the kraft paper and liner board developed by R. J. Cullen.

MAUNDER: Would you say that, despite the high cost of building the kraft addition to I.P., it gave the company as a whole a grand opportunity to expand even further?

MCCAFFREY: Very definitely, especially in the converting field, fiber boxes, milk cartons, bags, food packaging, et cetera.

Land Acquisition

MAUNDER: In order to justify and protect costly capital investments in mills, the pulp and paper industry has had to acquire large land holdings in the South. The industry came into this region late, however, and the task of acquiring this land was one of major importance. Can you spell out the role the company foresters played in the acquisition of this land?

MCCAFFREY: In the early days they were employed mostly in timber

cruising and working up estimates of timber supported on a given tract of land and placing an evaluation on it based on local markets or prices. Later on, as foresters became entirely responsible for the management of land, they did the actual acquisition with approval from the top side, our board of directors making the money available to purchase it. Of course, the policy decision as to whether or not we required a lot of lands had to rest with top management, but their decisions were influenced through foresters on the ground by the forest resources and the land ownership pattern.

Part of the land ownership pattern was competition, not just from our own industry, but from any other forest industry. It might be a sawmill or a private outfit, or just some other land acquisition program of flowages or military installations. For instance, we've lost a couple of hundred thousand acres of land to flowages, the Atomic Energy Commission, a NASA project, the water supply for Jackson, Mississippi, and military installations—cantonments and artillery ranges.

MAUNDER: When you've lost these, have you been able to acquire other lands in exchange or have you just lost them outright?

MCCAFFREY: In some instances we just lost them outright. In some instances when these projects were discontinued the land

was declared surplus by the government, but that was rather unusual. The land was put on the market for competitive bid, even though it was supporting an industry in a town. For instance, at Camden, Arkansas, we had some twenty-six or twenty-eight thousand acres taken from us by the Department of the Navy to build a plant for the manufacture of rockets and a testing range. They took this land away from us, and when it was declared surplus we ad to bid against a lot of people. We ended up paying them about 3.5 times what they paid us for it in the beginning. Of course, there was some growth, but there was also a rocket range, about a mile wide and eight miles long, that was clear cut. We did have the right to acquire lands of a similar character with the money we received.

MAUNDER: Land owned by the government?

MCCAFFREY: No. Owned by other people. For a given time it would be tax free. In other words, the money we received form the government could be reinvested without taxes. This sounds very good, but in reality it's very difficult to replace big tracts of land, especially under the smoke stacks of a given mill.

MAUNDER: Or in suitable economic blocks.

MCCAFFREY: With the freight range and so forth. For instance, at

Camden we were surrounded by Crossett and several large sawmills, and when we lost this piece we couldn't go out and reinvest this money in land because these people didn't want to dispose of their land. This creates some serious problems for land managers, and it's going to create more in the future. These interstate highways cut a big swath. The average interchange takes up about sixty acres. When you drive along you can see them pretty frequently. There's a movement of land to other uses, and it's bound to increase. We're going to have more people and more uses for land, but less land. That's the way it's going to shape up, I think.

MAUNDER: Much of the land that you bought was in pretty bad shape when you got it, but there were some stands of trees that came with this land. I wonder if you can recall some of the better acquisitions that you made in the early days?

MCCAFFREY: We didn't get much that was in good condition in the early days. It was mostly land that had been cutover by lumber companies that had moved to other parts of the United States.

MAUNDER: You bought the better stuff later on when you bought out established companies?

MCCAFFREY: We bought some that were in fair shape from companies that

acquired lands they subsequently found were not needed. But the majority of our lands were cutover and burned. We were able to acquire some land quite well stocked.

MAUNDER: Were you came into possession of land that had good sawlog timber on it I suppose you had to pay high prices.

MCCAFFREY: We had to pay the going price. In any evaluation we had to give consideration to the timber in different categories, such as poles and piling, sawlogs, pulpwood, two- and four-inch trees, reproduction, the ability of the soil to grow trees, the site index. All this is taken into consideration when land is acquired, especially now. We're much more careful about the land we buy than we used to be.

MAUNDER: How did you decide what disposition to make of good saw-timber tracts that came along?

MCCAFFREY: We've always sold other forest products to other forest industries if we had them on our property and they weren't needed for pulpwood. We sell other forest products when we don't need them for our own use, especially when we can get more cubic feet in exchange.

MAUNDER: So, by and large, you sold these saw-timber tracts to other people or sold the logs from them?

MCCAFFREY: We sold marked timber.

MAUNDER: Marked timber? You don't have your own crews log it and

then sell the logs? You sell a contract to cut a certain amount?

MCCAFFREY: We make timber sales similar to the way the Forest Service does. We have contracts with people for various volumes. We make them from as low as 250 or 500 thousand feet up to 80 or 100 million feet, but the timber's all marked for cutting by our foresters.

Mechanization

MAUNDER: Will you explain why pulp and paper companies never employ their own logging crew as lumber companies do?

MCCAFFREY: Generally speaking, there aren't many lumber companies in the South that run their own show; most of it's done by contract. The days when the lumber industry in the South ran its own show were when we had highly mechanized steam and railroad logging. We didn't have roads, and the railroad was the method of getting the logs to the mill. The cutting was done by hand, but from there on it was skidded with various types of skidders, loaded with different types of loaders, and hauled to the mill by a logging railroad. Then, as the bigger mills passed on and the smaller mills came into the picture,

they were operating small volumes where the railroads were not economically feasible. In the meantime, roads were built by the states and counties and there was a transition from the old type of logging into what we have now. There are a great many companies now that do not run their own logging show. They contract the delivery of logs form their own woods and timberlands to the mills.

MAUNDER: There is a cost factor here, too, isn't there? I mean, it is cheaper to operate this way. You get wood for your pulp at a lower rate.

MCCAFFREY: Well, that's subject to a lot of debate right now. That might have been so in the past.

MAUNDER: Do you expect to see a change then?

MCCAFFREY: I sure do, in the first place because of the paper industry's method of getting wood through wood shippers, independent producers of wood. They ship to two or three different companies and employ some wood producers who work with them, but this type of labor tends to fluctuate with economic conditions. What I'm saying is that supply is becoming less dependable, and I believe that we'll have more mechanization in the future.

MAUNDER: And these machines will be run by your own people?

MCCAFFREY: Yes, in some instances. In some they'll probably be run

by high-class "gyppos." I'd say that's what we're coming to. I think that there are changes in the labor situation on the horizon. I might add that as inflation has taken effect we have been constantly raising the price of wood and sawlogs, and many of these contractors do not employ the best methods in every instance. Of course, they don't do any experimenting on their own. What I'm trying to say is that we keep raising the price and continue a lot of inefficient operations.

At the present time the cost has increased to the point where we have to be thinking not about adding to it, but about decreasing it by some means or other. I think that's under consideration right now by many companies and manufacturers. The power saw is an example of one method of mechanization. Our mechanical handling of wood at wood yards is another. There are a number of experiments going on at the moment by different outfits to develop machinery for harvesting pulpwood under various conditions—swamp, mountains, hills, and so on.

MAUNDER: This is something that your company is working on?

MCCAFFREY: Beloit Iron Works has been manufacturing paper machines. Now they're exploring the possibilities of developing mechanical methods for the harvesting of pulpwood. Logging,

whether it's pulpwood or saw logs, involves two things—materials handling and transportation. And 26 to 30 million cords of wood in the South at 2.5 tons to the cord is a lot of tonnage to be handling by hand.

MAUNDER: And an awful lot of that pulpwood is still stacked by hand, isn't it?

MCCAFFREY: Put on trucks by hand, yes. I don't know of any similar tonnage being wrestled by hand in any other industry. If we are going to stay in business I think we have to develop a better way, or somebody else is going to develop a substitute for paper at a cheaper price. I think top management is beginning to realize that.

MAUNDER: What's this going to do to the people who are doing manual jobs in the woods? Are you going to create a new army of unemployed with automation, as has happened in the Appalachian coal region?

MCCAFFREY: That's possible. However, we've lost a lot of rural population in the South to manufacturing, and the South is rapidly becoming an industrial area.

MAUNDER: As people become less and less inclined to do heavy manual work?

MCCAFFREY: That's right. They may do it to keep from starving if the wages are good, but if they can get a better job or better

working conditions they'll take less money. Even farming is highly mechanized now. We used to have farms measured by the number of horses and mules: ten-horse farms, fifty-horse farms, and so on. Now the marginal farmers are out of the picture and the big farms are on good soil and are highly mechanized. Even cotton is picked automatically. As people become better educated they don't want to do back-breaking work. I'm not sure how seriously the country would be affected by the mechanization of pulpwood, but there are a lot of people employed in the production of it now although we've already partially mechanized.

MAUNDER: Well, Mac, you've been a part of a real revolution in technology in your industry. You've seen the pulp and paper industry move from machines that were definitely slower and narrower, and in the woods you've seen a real revolution in transportation methods and in machinery for harvesting logs. I'd like you to comment on this technological revolution.

MCCAFFREY: I first became associated with the paper industry when I was with Savannah River Lumber Company. We furnished 120 cords of wood a day to a small pulp mill, the Atlantic Paper and Pulp Company, and a subsidiary. This was

comparatively easy because we cut most of the timber from our own land and brought it into the mill with a logging railroad. As the paper industry began to expand, wood was delivered to the railroad by animals, loaded in cars, and shipped to the mills or delivered directly to the mills by animal transportation. In those earlier days we just didn't have paved roads in the South. County roads were poor, and the state roads that were in existence were built with sand, clay, or gravel. The region was still trying to recover from the effects of The War Between the States. As our industry began to expand we started using trucks and building some roads. About the time of the depression, road building really got a big push.

MAUNDER: What was the source of this push? Was it federal programs of road building and public works?

MCCAFFREY: Yes. Also, the states began to realize that if they wanted to develop industrially they had to have roads. There were no bridges over most of the big rivers. There were a great many ferries, but this tended to keep industry from coming in. Most of the states began to realize this and began to build roads. Of course, the federal aid program helped. As our industry expanded we began to use some larger trucks and we built a lot of roads in our own timberlands.

The counties and states began to build farm-to-market roads. As a result, our roads are now just as good as, or superior to, those of northern states. The South got more roads for its money, I always thought, than any other section of the United States, especially just after the depression.

MAUNDER: Why was that?

MCCAFFREY: I think the fact that the depression slowed down all types of construction made lots of contractors available who wanted to do something, even on a very close margin.

MAUNDER: But this was true all over the country, not just here.

MCCAFFREY: But I think there were more miles of road built in the South than in any other areas of the country at that time.

MAUNDER: Was the modest cost of road building here due to the differences in the cost of labor and the less difficult terrain?

MCCAFFREY: Yes, labor was much cheaper and road construction much easier. We didn't have frost problems. Road building really started our industry off in expansion. The transportation of pulpwood is a tremendous logistical problem in the South, but most of the timberlands were readily accessible without the great expenditures of industry-built roads that were required in other regions.

This was especially true because of the farm-to-market roads which reached into the back country. They opened up thousands of acres to exploitation by conventional trucks. We didn't have any special equipment.

MAUNDER: The coming of truck logging in pulpwood on a large scale was of real importance in the growth of the large pulp and paper industry?

MCCAFFREY: That's right. I might say that our industry was rather slow in getting around to mechanized methods. In recent years, of course, the development of power saws and the use of mechanized loading—transferring whole loads of wood from trucks to cars by split slings—have increased the efficiency of these operations. I think there are now over six hundred mechanized woodyards in the South where wood can be brought and sold to the wood dealers for shipment to paper mills. They are markets similar to the tobacco markets and cotton markets.

MAUNDER: What did you do as a representative of the I.P. woodlands department to promote legislation and appropriations in the thirties which would bring more roads to areas where you were concerned?

MCCAFFREY: All of the forest industries, but especially the paper industry, were anxious to have roads. We encouraged it just as we

encouraged the appropriations for fire control. We didn't operate any particular lobbies, but dealt with the county and state authorities. I think one of the most important things we did was to give rights-of-way through our property without charge.

MAUNDER: But the impetus for getting this job done came from government planner, not from the industry in the depression years?

MCCAFFREY: Yes, but I think that's only partly true.

Advancement Opportunities

MAUNDER: Do you feel you have been able to give your forestry men a real opportunity to grow in their jobs under your system combining procurement and forest management?

MCCAFFREY: I think so, al the way from unit forester on up, because of the extent of a man's operation. He has so much wood to get, he has his land to manage, he can make timber sales up to a certain amount, and do a number of other things on his own. He has to send his report to the regional manager's office through the district and area offices. The reports are compiled by areas. This system develops these men in more than one field. They are

concerned with operations, forest management, money, business, and cost.

MAUNDER: What has been the effect of this policy on keeping your young blood?

MCCAFFREY: I think it's been good; we don't lose very many. There's an occasional one who can get a better job than we can offer him at the time, and in that case we don't try to handcuff him. I think there are seven or eight woods managers now with other companies that came from the I.P. organization.

MAUNDER: Does your system provide rapid enough opportunity for advancement?

MCCAFFREY: Our system provides this opportunity because we've got five regions to work in, while a company with a single mill or two doesn't. I do have the feeling, though, that we should have foresters who are better trained in some areas, such as industrial psychology, labor relations, and so on. Then there is this semi-professional grade, the junior college degree.

MAUNDER: That's two years? Technician status?

MCCAFFREY: Yes, that's right.

MAUNDER: They have a limited intellectual capacity.

MCCAFFREY: Well, it may not always be that; maybe there was some

reason they couldn't go on. Anyway, they've got an associate degree which permits them to do a lot of things. I imagine that out of that group some might bob up occasionally who've got something on the ball. Maybe he didn't get to go on for some good reason.

MAUNDER: Has your policy been to give such men the opportunity to go on? Do you feel they have any ability?

MCCAFFREY: They may have it and we don't care how they got it.

MAUNDER: You push them ahead?

MCCAFFREY: If a man knows what he's doing, I don't believe in holding him back. We've got a regional manager who's got a Bachelor of Science in chemistry. He got out of school during the depression and couldn't get a job. He finally went to work for the Forest Service and did a lot of studying on his own. He's just as much a forester as any fellow we've got, but technically he's not a forester. We've got one fellow who didn't finish college because of a family situation, but he's studied and he knows it. We don't hold them back for that reason; I don't think we should. There are some fellows who don't feel that way, but I think it depends on the individual's capabilities and knowledge, no matter how he acquired it. Of course, I'm proud of the fact that we had an organization with 331

foresters in it when I left. They were not all working strictly as foresters, some were managers, superintendents, and so on. Of course, they were dealing with forestry matters all the time.

MAUNDER: And they were professional foresters?

MCCAFFREY: Yes. Mr. Hinman didn't know whether these professional foresters were going to be practical or not. I never felt that way. I figured that if they weren't practical, we could make them practical. We weren't married to them, so if they didn't want to go on, that would be it. I think Sam Dana's book recommends a policy that is good as far as education is concerned.*

MAUNDER: To what extent do the men at various levels in the company organization have opportunities to bring their own creative ability to bear on problems? How much responsibility are they given for planning and executing their work?

MCCAFFREY: Responsibility varies at different levels of management. As I said, we have our organization broken into regions, areas, districts, and units. The area superintendent has great responsibility for his area. He's the fellow who projects what he has to sell from our properties and what he has to buy. He's assigned quotas to procure in

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*Samuel T. Dana, Forest and Range Policy: Its Development in the United States, McGraw-Hill, Inc., New York, 1956.

his area. They are part of a master plan. If a million cords are required for a given mill, this is assigned on the basis of the forest resources in the areas, the competition that exists, the amount of land we own, and so on. The area superintendents order the wood, manage the land, and sell the timber that's to be cut. An area man can sell a considerable amount of timber without the prior approval of the regional office. He has to report what he's done, though. He has to have the sale marked and to have all the records in connection with it, but he runs the job.

The district man has certain liberties to do the same thing, but in lesser volume and amounts of money; likewise, the unit forester. The regional manger would be in on a big sale, say 10 million feet to be cut over two years. An even bigger sale—for example, we sold Arthur Temple 80 million feet over a period of four years—would have to be approved by the woodlands manager. There are limitations at each level.

Our people have great liberty to conduct their business, but they have to do so within the prescribed pattern. We don't have great central control in a region, with every move dictated by the regional manager or his staff. I always like to compare it with a military setup. The division does a lot of planning, but the

fighting's done by the battalions. The battalion commander is really doing the work. I compare an area superintendent with a battalion commander. He may not always like what he's assigned to do, but he can do it however he pleases, within certain broad limitations.

Regional Management

MAUNDER: Well, you go on from the phase of organization to the development and improvement phase, then into the production and regulation phase, and then the continuous yield phase. And these phases overlap. Would you have any comments about these various phases and the development of your company's operation?

MCCAFFREY: Well, there are several things that have affected the policy and increased the intensity of management. Of course, a jump directly from a "cut and get out" policy to an intensive forest management policy is just too big a step. We had to go through a period of evolution, and in some cases, I guess, revolution. We were influenced in this by increases in the demand for paper and wood and by the increased competition. There were many things that affected the progress of forest management and

increased it in intensity. I think it will be increased more.

In our organization we had to consider both area control and volume control. We have ten mills and have set up five geographical regions for handling the woods operations. Now we use 5.5 million cords of wood annually, and we have about 4.35 million acres of land under intensive management. The Georgetown Region is concerned with procuring wood fro the Georgetown mill and growing a quantity sufficient to keep the mill in operation, and with purchases which vary percentage-wise, depending on competition and the loss of land to other projects.

The Panama City (Florida) Region operates similarly. The Mobile (or Gulf) Region is concerned with the area around the Mobile and Moss Point, Mississippi, mills. The Delta Region is concerned with the area, wood supply, and forest mange-ment in the area around the Louisiana, Bastrop, and Natchez mills. The headquarters are in Natchez. The fifth region is that we call the Western Region. It's concerned with the area around the Pine Bluff, Camden, and Springhill mills. This is the biggest area we have. They're concerned with the procurement of about 1.75 million cords of wood annually

and they manage just about 1.75 million acres of land.

MAUNDER: Can you go back over the other areas and indicate what their needs are and how much land they manage, because I don't think you covered that with each of the others?

MCCAFFREY: The Georgetown mill has at the present time about 950 acres of land. Their wood requirements are about 950 thousand cords annually. The Panama City Region, as far as I know—there have been some changes since I retired—now is using about 600 thousand cords. I've forgotten the exact status of land at the moment. It's about 500 thousand acres. The Gulf Region has to supply a little over 500 thousand cords and they have about 600 thousand acres of land.

MAUNDER: A million cords between two mills?

MCCAFFREY: A little over a million. I don't remember exactly; they've changed the requirements by changing grades of paper that they make. The Delta Region has to put in about 1.5 million cords of wood. They're responsible for that much, but they've only got about 350 thousand acres. They don't have as much land as the others. There are shipments made from one region to another, too.

MAUNDER: I was going to ask you what happens in the Delta Region.

MCCAFFREY: Well, they don't have quite as much competition in that area,

for one thing, and we're using different species. We're using more hardwood over there and probably will require additional lands. But we're able to ship a lot of our wood requirements from the adjoining Western Region. That is done between regional managers. That is, the manager of the Delta Region would say to the manger of the Western Region, "I need 500 thousand cords of wood a year delivered to certain mills." This is done because of freight structures; not all of it is from a timber standpoint. What I'm trying to point out is that there's more than just area and volume control. There are some logistical problems that enter into this. For instance, the majority of timber in the Western Region is earmarked for the three mills located there, but if there's a very cheap freight rate to the Delta Region the wood could be shipped there.

MAUNDER: And is that indeed the case? A lot of the land that belongs under the management of the Western Region is actually geographically well situated to supply the Delta Region.

MCCAFFREY: That's right. Principally because of freight structure. Otherwise we might have to cut out some of that land and put it in the Delta Region. Some tree species occur in a region, are not needed there, and are shipped elsewhere.

A lot of people think that producing wood is a simple operation, but it's very complex. Volume and area control are two of the principal considerations. The freight rate is also very important.

MAUNDER: Does that freight consideration enter in as dramatically in some of these other areas?

MCCAFFREY: No. You might say for instance, that Georgetown in isolated. We could ship wood form the Panama City Region if we got in a sweat. But the freight rate would be prohibitive. The manager here wouldn't resort to getting wood from there unless he was in a very serious fix. Of course, we've developed water transportation at Georgetown because it is located on the intercoastal waterway. We deliver wood to Mobile also by water, but on a much smaller scale.

There are many things to be considered in the logging plans and much depends on the forest resources in the area, the competition transportation systems, and the ownership pattern. Now there are some areas in the South where there is an excess wood growth versus drain. It looks like a good place to locate until you make a study of the ownership pattern. For instance, I can sit here and count up a few million acres in Arkansas all owned by great big outfits. Dierks Forests, Inc., for instance, with

about one million acres, Georgia Pacific, Potlatch, Ozan Lumber Co., and Olin Mathieson. You look at the resources in that area and it looks pretty good. But if you used the Forest Survey without land ownership pattern and decided on a mill location you might find yourself in serious trouble. There might be a big excess of growth versus drain at the moment, but if it's all owned by competitors you're surely not going to get any of it. Or they might let you have it for a time at a price, and then when they expanded they might cut it off. So that's who studies have to be made taking all of these things into consideration. Operational research utilizing computers is coming in very fast. We made studies before I retired, using computers, for inventory control.

MAUNDER: Will these studies influence management decisions in terms of buying policies very substantially?

MCCAFFREY: Very much so.

Research

MAUNDER: What would you have to say, Mac, about your company's measures to get your land into maximum production?

MCCAFFREY: Generally speaking, the land is quite productive. We're

gradually increasing the intensity of management, but there are many areas that still need restocking by silvicultural methods and planting.

MAUNDER: Are you shifting your opinion on that matter?

MCCAFFREY: No. There are so many things that affect natural reproduction. For instance, you might have a wonderful seed year, as we did in this area in 1954. we had seed germinating all over; in areas we'd cut to seed trees, the seedlings were already up—very small, but up. Then we had a long period of drought and lost a large percentage of the seedlings. We didn't have such a promising year for the next year or two.

Our research establishment is working on regeneration by means of direct seeding. We're making a lot of progress in that field and, of course, in our tree improvement program, through the use of seed production areas. Our genetics experiments are coming out very nicely. I think in a few years we'll have a big improvement in the trees we're growing.

Of course, in former years we just took seed wherever we could get it. The same was true for seedlings. The nurseries weren't able to produce all that people wanted. Consequently, they weren't particular about the type of stock. Now when we get superior seed, we want seedlings

grown to specifications that are established by our experiment station. Some of the seed that we got in the past might have come from some wolf tree out in the middle of a field or from trees of poor form.

MAUNDER: What have you learned in regard to I.P.'s costs of site preparation, planting, and timber stand improvement?

MCCAFFREY: Site preparation immediately following cutting is expensive, but not as expensive as if you put it off and let the area grow up into jungle. The cost of site preparation and planting varies greatly, depending on the conditions at the time you do it and many other things. It can be a very costly operation.

MAUNDER: What do you figure the costs of site preparation are? I know they range greatly from site to site, but what is the range? Where is it less expensive, and where is it more expensive?

MCCAFFREY: I'm going to answer this very generally because this is an Internal Revenue question. There are certain areas that are very fertile, with good growing land. If cut over and left they will become jungle a lot quicker than areas where the soil isn't so good, because the land is more productive. The same thing applies to the crop you can get. On better soil you're going to get a higher yield than you will on poor

land. It varies; it's pretty hard to put down in dollars and cents. It also depends on the methods employed. In many places they burn right after cutting if they're going to plant.

MAUNDER: Sometimes you'll burn it twice?

MCCAFFREY: That's right. Then the pales weevil gets in the act. Sometimes we have to wait a year before planting to control this insect.

MAUNDER: Sometimes, I suppose, you have to follow a burn with poisoning your hardwood outcrop.

MCCAFFREY: Yes, we've done that, too. We don't like the word poison very much; it's misinterpreted by the public.

MAUNDER: But that's what it is.

MCCAFFREY: Many chemicals we use are quite toxic, similar to those used in farming operations.

MAUNDER: I'm just talking about killing off the undesirable hardwood.

MCCAFFREY: We use chemicals; some are toxic and some aren't. we have to be very careful about spraying to control insects and fungi. Studies are being made by the Forest Service and industry to develop chemicals that are safe. Incidentally, the U.S. Forest Service has a fine research establishment. I was quite well aware of the work of the forest products laboratories in the southern and southeastern stations, but since I've been on the Forest Service Research

Advisory Committee and have been to other stations, I've become acquainted with the personnel and the type of work they're doing. I have great respect for [Verne L.] Les Harper and his boys; they've done a really good job.

MAUNDER: Is I.P. expending as much in the areas of intensive management and site preparation as some other companies?

MCCAFFREY: I think we're expending proportionately as much, and maybe more. Of course, one of the things that you have to think about in this connection is the need. Some companies have to spend more because they didn't start soon enough. Some of our own regions are in bad shape compared with other regions.

MAUNDER: In other words, your pattern differs from one area of the total operation to another?

MCCAFFREY: That's not brought about just because somebody opposed it. A set of conditions prevailed that brought some of this about. I think that the money our company spends for research is well spent. We confine ourselves to applied research and leave the fundamental research to the Forest Service and universities, which have all the related sciences available. A good many of these problems require more than one or two or three sciences; maybe a whole team is required. I think generally companies are better off

to deal in applied research. We want to deal in applied research so our station can supervise in the field. We don't actually allow them to go out in the region and run things, but if we're going to make a change based on some research that's already been pretty well proven, it has to be put into operation through our own research establishment. The local field organization will then follow instructions. Generally speaking, I think companies are better off to stick to that policy.

We're doing a little fundamental work, such as the hereditability study with our own cellulose laboratory. It's the only one going on in the U.S. It's being carried out in cooperation with the National Science Foundation and North Carolina State College in Raleigh and at Yale University in New Haven. We're doing it because nobody else was undertaking it.

MAUNDER: This is the one that Francois Mergen is working on at Yale?

MCCAFFREY: That's right. We also have some cooperative projects where a number of forest industries together with universities are attempting to find insect and pest control methods that can be applied at reasonable cost and will get satisfactory results. We have a number of graduate students working on grants made to universities in all these fields.

MAUNDER: You are doing a considerable amount of research, then?

MCCAFFREY: Very much so, although we've got some very important people in our industry who are living in the past. The way I see it, if we don't keep advancing we're out of business; polyethylene, plastics, and other substitutes will take over. I'm not as optimistic as some people who think that we have the market captured. We've got to increase and improve our production. I wouldn't be surprised if in the future we cut down trees with a ray, or airlift chips to the mill.

We are working on a genetics program to improve the type of tree we're growing. We want trees that will grow more rapidly, produce more cellulose per acre, and have other superior physical properties. This is considered fantastic by some leaders in our industry, but look at what geneticists have done for corn and cotton. We have people working on control of insects and diseases that have destroyed a lot of timber in the past. I think if our industry is going to survive and prosper we have to have a research program that's second to none. It definitely isn't now, regardless of what some may say. What our industry spends on research is insignificant compared with some competing industries.

MAUNDER: This industry has never been research motivated to any great extent, has it?

MCCAFFREY: The Institute of Paper Chemistry is an efficient outfit, but it's located at a small college and they don't have all the related sciences needed for research in forest genetics and other related fields. It takes a lot of people who are not just geneticists.

MAUNDER: You need cross-fertilization of many disciplines?

MCCAFFREY: These other disciplines are extremely important, but it's only lately that the Institute of Paper Chemistry got a few biologists and biochemists. We don't' know what we have out there in the woodpiles; there's no telling what value molds and fungi have. I think there is a tremendous area to be explored.

MAUNDER: You think there are resources that you haven't begun to realize?

MCCAFFREY: That's right. I've always thought that our research should be cut loose form manufacturing and be put into a separate department headed by an official trained in research. An operating man is not a researcher, he just doesn't know how to think like one. He's fixed with preconceived ideas; a researcher is not.

MAUNDER: Researchers have to be free to dream out their own way.

MCCAFFREY: That's right. A researcher is not going to be inhibited by a lot of notions he acquired when he ran a mill two years ago.

MAUNDER: Do you see any hopeful signs of top management moving in this direction?

MCCAFFREY: Yes, but at a rather slow pace. Our whole industry doesn't spend as much as Monsanto or DuPont on research.

MAUNDER: Do you suppose they will wait until they get struck by lightning of a negative nature from some other industry before they do this?

MCCAFFREY: I hope not. I think it's hopeful because we have lost some markets to substitutes and that's shaken them up a little.

MAUNDER: What has I.P. done in research in the field of forest pathology, or is this an area that you leave to outside agencies?

MCCAFFREY: I've already given you a copy of an attachment to the 1964 annual report which answers that question. But I might say the director of our experimental forest, which was organized and established in 1955, is a forester, a forest pathologist, and a microbiologist. On his staff is Dr. [Roy W.] Stonecypher, who is a forest geneticist. There is a forester who is a wildlife biologist, an entomologist

who deals with insects and disease, and a soils man who deals with problems of timber growth on different soil sites, especially where the site index is relatively low. It's impossible to buy a big piece of forest land in which all parts are equally desirable. Our job is to get the most out of every acre, so our experimental forest deals primarily with applied research in the control of insects and disease, with our tree improvement program, with the specifications for planting stock, with forest engineering, and with many other areas of forestry management. Timber harvesting is also being studied.

MAUNDER: Are there other companies which take a different view in this matter of research?

MCCAFFREY: I think on the West Coast Weyerhauser is probably doing as much on research as we are. I don't know for sure because I've been retired for a year and a half.

MAUNDER: Is there any company in the South that is doing more fundamental research?

MCCAFFREY: Most of the works managers are pretty well agreed that they ought to stick to the applied research angle, and some companies don't have any forest research at all. They just figure they'll use what's published.

MAUNDER: What do you think of Riegel [Paper Company] draining

swamp area in North Carolina?

MCCAFFREY: I think they've done a marvelous job of rehabilitation on a lot of land that was shin deep in water.

MAUNDER: I.P. owns some land of a similar nature, doesn't it?

MCCAFFREY: We own some adjacent to that, but not so deep in water as they are. We have some in South Carolina. We have some studies with Duke University on the possibility of reclaiming the swamp areas that are quite prevalent in the eastern coastal area, especially along the North and South Carolina coast. These are big areas in some Instances, and they're primarily high swamplands with no drainage. We've had some cooperative ventures with other companies on this. One thing that's a little different in the manufacture of paper is that forests are there for everybody to see, so combined we can save a lot of money and accomplish a lot more for the industry. I don't think there's any doubt about that. We also cooperate with other forest industries in such efforts.

Information Exchange Among Foresters

MAUNDER: Professor Walter [H.] Meyer of Yale University wrote an article in 1960 that was published in the Journal of Forestry, [58, no. 3],

entitled “Impressions of Industrial Forestry in the Southeastern United States.” I wonder if you might have a few comments on some of the things that Professor Meyer has to say. You’ve had a chance to study the first paragraph of Professor Meyer’s statement regarding the exchange of information among foresters on what is happening in industrial forestry. I wonder if you would care to comment on it?

MCCAFFREY: I believe that Professor Meyer’s statement is substantially correct. Most of the foresters who have been working with private industry in the South have been concerned with day to day problems and actually haven’t had time to do very much writing. Professor Meyer knows that we started out in a modest way with relatively few forester, and as I previously stated, industrial forestry first got its start when the paper industry came South. The industry made possible intensive forest management.

MAUNDER: There had been some forestry practiced by a few lumber companies before that, of course.

MCCAFFREY: Yes, but it was pretty sketchy. The advent of the paper industry in the South and its rapid expansion forced the paper companies to develop a really intensive forest management program. Not very much was known about

silvicultural methods, about harvesting methods, about disease and insect pests. These men were forced into an intensive management program without too much text-book knowledge or proven information. As a case in point, thirty years ago selective cutting was supposed to be the proper silvicultural method, but we found out that even-aged stands fit our picture much better. It was then believed that the length of rotation ought to be eighty or one-hundred years. Most of the foresters had been taught that long rotation was the order of the day. Most of the companies now have rotations of about thirty to fifty years --some less than that, depending on soil.

MAUNDER: Isn't it true, Mac, that attitudes regarding the ideal growing and maturing period of trees have changed largely because in the beginning the emphasis was on lumbering and they were thinking in terms of lumber crops rather than of pulpwood?

MCCAFFREY: That's right, I don't think more than two or three lumber companies were practicing forestry in the South. Most lumbermen believed that it was going to take too long to grow another crop, and as long as they could move to other available property they did. People came from Maine, Michigan, and Pennsylvania into the South and some of the

people that were in the South went West, including Long Bell, Kirby, and Central Coal and Coke. There were a few like the Crossett and Fordyce lumber companies, and some family-owned companies – like the Alger Sullivan Lumber Company, the Allison Lumber Company, the T.R. Miller Mill Company, the Swift Hunter Lumber Company, and the W.T. Smith Lumber Company -- that practiced forestry on a limited scale and gradually intensified their methods when they began to see results. Dr. Austin Cary was a great influence in selling forestry to these people.

MAUNDER: A few minutes ago we were talking about this matter of keeping informed of what others are doing in the field of industrial forestry. How have you, personally, kept informed over the last thirty or forty years on what's been going on in other men's wood yards?

MCCAFFREY: We've exchanged information on the ground with other woodsmen, paper companies, lumber companies, and turpentine outfits. Of course, we worked with the Southern Forest Experiment Station, the Southeastern Station, and state foresters. Most of the development in forest management has come about through cooperation with these agencies, but the proving ground has been

largely in industry. The national forests are still managing their land on longer rotations. They're thinking about high-grade sawmill timber and plywood. They have changed their thinking in some places.

It must be understood that forestry is not an exact science. The silvicultural and forest-management methods of foresters in Europe are based on operations extending over 300 or 400 years, so they know very well what works and what doesn't.

Regeneration of stands is one of our problems, particularly because of fire. We had a terrible problem with fire protection because the woods were burned annually by farmers who needed early spring grass for their cattle. February and March when the winds were high and the humidity low was a good time to burn. We fought this for a long time. All forest industries probably spent millions of dollars on fire protection – on education, equipment, and radios. For instance, in the South, International Paper Company has around 180 radio station bases and well over 600 mobile stations for fire protection and management. This is duplicated by other companies all over the South.

MAUNDER: You say you learned about what other people were doing

"on the ground." Do you mean you made regular trips to see what they were doing on their own acres?

MCCAFFREY: We had area meetings through the SPCA and all these problems were discussed. We had technical committees of the American Pulpwood Association (APA), and papers were delivered by different members of the profession. We also have the Forest Farmers Association. There hasn't been any real effort, as Dr. Meyer points out, to document everything in great detail. That's a subject that can be pursued by somebody who has a yen for that type of work.

MAUNDER: It looks as if we're going to have to make a serious effort to persuade the people who have that documentation in their control to do something about preserving it before the housekeepers say this is something we can do without and throw it away.

MCCAFFREY: That's probably true. Most of the information is in scattered form in the offices of woodlands departments of both the lumber and the paper industry. It really needs to be compiled by a professional who knows what he's doing. There are a few books that have been put together on loblolly pine and various practices, but it's still a field that can be developed to a much greater extent

than it is at present.

MAUNDER: Have you made it a point over the years to make personal visits to the operations of other companies to see what they're doing?

MCCAFFREY: Yes, and we've had many visitors to our properties as as well. We've exchanged information on a number of subjects: fire control, forest insects, and disease, for example. The pamphlet that I gave you this afternoon is fairly well documented. Of course, we're really in the early stages of this tree improvement. We've reached the point now where we have developed seed-production areas. These are areas selected for good healthy trees at the right age to produce seed prolifically; also these are areas that can be isolated, and other trees removed.

MAUNDER: So you don't get the wrong pollination?

MCCAFFREY: No, it has nothing to do with pollination. The other trees are removed simply to facilitate the collection of seeds. We're doing the best we can until such time as our genetics program is definitely proven. The genetics program is comparatively new. While it looks pretty good, we only have a few years' experience. By the time we get through rotation a lot of things can happen, so these genetics programs are joint projects. For instance, several companies

contributed money for a project at the University of Florida on slash pine, at North Carolina State on loblolly and pond pine, and at Texas A&M—in conjunction with the Texas forest service—on long-leaf pine. The companies put up the money, and the programs are operated by the institutions.

MAUNDER: I get the impression from what you've said that you personally have depended for information more upon these cooperative efforts with other companies than upon your own investigation of the situation in other companies' forested lands.

MCCAFFREY: Well, I wouldn't want to give the impression that they are much further advanced than we are, because we were leaders in this program from the beginning; but I don't want us pinning roses on ourselves. It didn't take long before everybody was in the act, so we exchanged information and had a lot of discussion at SAF section meetings. Meetings were a means of our keeping informed of what others were doing—an alternative to actually visiting their sites—and a means, in general, of disseminating information.

Most of the information has been gathered and held by the American Pulpwood Association, the SPCA, the Forest

Farmer's Association, and the Society of American Foresters. It is at meetings of these associations that papers on various topics in forest management are discussed. Whenever a given situation changes to the extent that the methods being employed are no longer on the track, changes in the methods are made. I would say that the industrial forester has made a great contribution to the methods presently thought correct. I don't think, however, that anybody is in a position to say exactly what are the best methods to use in industrial forestry, state forestry, and federal forestry. We've got to find that out during the next 75 or 100 years.

MAUNDER: You think it's going to take that long?

MCCAFFREY: Not quite that long; you might say 50 years. I'd like to think that. I recall a Dr. [Carl A.] Schenck saying once that what was considered a mistake 200 years ago turned out to be the correct thing to do.

There are secrets in the woods. Everything in the woods is seen by everyone, and professional forestry has been very liberal in sharing information. For example, at the present time there are around 25 million acres of forest land owned by paper companies.

Naturally, many of these properties adjoin one another. District forester, unit forester, and other staff members of one company observe adjoining lands. They discuss things, probably right on the ground, maybe in a beer joint outside on the road. I think foresters, generally speaking, don't try to conceal any information, and they're careful in most cases to say that this is the best information they have at the present time. In the earlier days there was a tendency to be dogmatic, but they've learned the hard way that you'd better not say that, if you do thus and so, this is the result you're going to get.

MAUNDER: To what extent do you encourage your foresters to write and to publish what they write?

MCCAFFREY: We'd like to have them do that; but most of them are pressed for time, and many are not inclined to be writers.

MAUNDER: Are there any rewards that foresters receive if they <u>do</u> write?

MCCAFFREY: No, I'm afraid not. Maybe that's one field we haven't explored as much as we should have. We do keep certain records on what has been accomplished employing certain methods, but most foresters are reluctant to

publish anything until they are certain that it is correct. They are hesitant to publish information that may be taken apart by somebody who probably doesn't know any more about it than they do.

MAUNDER: They are very conservative about making written claims for anything they're doing.

MCCAFFREY: That's right, but they'll discuss it with people on the ground.

MAUNDER: In other words, there's a lot of give-and-take in these meetings and, to some extent, in visiting each other on the ground, but not as much writing as it might be desirable to have?

MCCAFFREY: That's right. I think graduate schools that have men working on a master's degree or a PhD could contribute something here. A thesis could be done documenting certain information that would be of value. Of course, there is some of this being done now, but there are probably not as many graduate students in this profession as there are in others, even though the number is increasing rapidly. For instance, in our organization we have 331 foresters: 32 men with master's degrees and three with PhD's.

Growth of Industry's Acceptance of Forestry

MAUNDER: Would you agree that one measure, if not the only or the best measure, of forestry is the number of foresters employed by a company? Let's take I.P.'s history in this regard, for example. Can you give us some idea of how I.P.'s acceptance of forestry ahs been revealed by its record of employment of foresters, going back to the early times and noting how these increases have come?

MCCAFFREY: Well, I think that is definitely a good indicator of what's happened because no company is disposed to hire a lot of foresters—at considerable salary and travel expense—just to say they hired some foresters. It's got to pay, and the top side has to be convinced that there might be a shortage of wood if something isn't done about it.

The paper industry really made this possible. I've said this before but I'll repeat that we provided a market for worked-out turpentine timber and thinnings, and this tided us over when we were getting started on a planting program on natural regeneration. But I feel certain that all of this came about because it paid to practice forest management.

In other words, it's very important to have a wood supply close to your mill. The old system of cutting out and reaching further out had proven disastrous for the paper industry in the Northeast, the Lake States, and other places. The top executives in industry became convinced that trees could be grown as a crop in the South. In fact, some people were oversold by foresters. We used to hear stories about growing a tree to a merchantable size in 15 years. You can do that on some sites, but you can't do it on a million acres; they won't all be the same.

MAUNDER: How did the growth of forestry take place? How many professionally trained men were there in the company when you joined it?

MCCAFFREY: From about 1935 on, all paper companies began to hire foresters. When I came with the Southern Kraft Division in 1936 or 1937 they had two or three foresters, most of whom were not engaged in the actual practice of forestry but were timber cruisers. As more of the industry moved into the South, more foresters were employed because more land that was cutover and left—or burned following cutting—had to be reforested. The last publication by the Forest Service, Timber Trends, shows

that we now have timber in excess of requirements and will have for the next two or three decades or more. There may be some trouble in the future because of land erosion or the development of new uses, if the forest products industry continues to grow at the projected rate. In other words, more intensive management will have to come into the picture.

MAUNDER: What do you consider the average area per forester in I.P. now?

MCCAFFREY: Everybody knows what a township is—approximately 36 thousand acres—and that's what we aim for. If we own 40 thousand acres, we don't draw a line and say, "We're only going to take 36 thousand, and we're going to put somebody else on the other nine." Guidelines have to be used with some judgment.

MAUNDER: The company's idea as to what is adequate professional management has changed considerably over the years. You started out with a much greater average than you have now, didn't you?

MCCAFFREY: Yes. As management was intensified, we naturally had to have more people. We had fewer mills in 1936 or '37 and fewer foresters, but now we have a higher proportion of foresters per acre of land.

MAUNDER: Did you ever rely to any extent on drawing comparisons with what other companies were doing in order to support your argument with management? Do you remember any specific instances of this?

MCCAFFREY: Well, I don't remember specifically. I do know that from time to time we pointed out what other people were doing and thought was good business, and I know a lot of other people who pointed to us and said we had too many men.

MAUNDER: At what point in I.P.'s history did forestry achieve a place of equal importance with wood procurement?

MCCAFFREY: I think when we organized the Central Woodlands Department in Mobile in 1938 it was the first time that we really started in the direction of intensive management --not only in the growing of timber, but also in harvesting. Some of the old boys—ex-loggers and superintendents—were just concerned with getting wood, and some of the finer points of harvesting, freight rates for instance, were not given sufficient consideration.

MAUNDER: You would peg that date as the time when forestry got a position equal in rank and autonomy to other organizational units?

MCCAFFREY: No, that was when we began heading in the right direction. I'd say that equal rank came later, when our industry

expanded to the point where top management began to get worried about wood supplies and what competition was doing in the acquisition and management of land. I'm speaking about the whole industry now, not any particular company, because this was going on in most companies. Around 1950, paper companies began to appoint woods managers to positions of great responsibility; a great many of them were elected corporate officials.

MAUNDER: In other words, you didn't have the same stature as people in manufacturing or sales until about the fifties?

MCCAFFREY: That's right. Then it became obvious that wood was a big item of cost. Now it's about 65 percent of the cost of a ton of pulp.

MAUNDER: What was the forestry unit in the company originally called?

MCCAFFREY: They had all kinds of titles that didn't always mean the same thing. In other words, "district forester" in one place might be quite a responsible job and in another it might not be.

MAUNDER: These terms don't have the same meaning in each company?

MCCAFFREY: It makes a lot of difference whether a company has 10 mills or only one or two.

MAUNDER: When did it become the woodlands division?

MCCAFFREY: We don't have a woodlands division, as such, in our setup. A lot of people call it the woodlands division, but what we actually have is the Northeast Division, the Long-Bell Division, the Southern Kraft Division, et cetera, and within each of these divisions we have a woodlands department. In our opinion, this is essential, although there are some woods people who would like to see a separate organization managing the woods.

I've always believed that if you're going to have a division similar to our Southern Kraft Division, the manager of that division has to have administrators, engineers, a manufacturing man, a financial man, and a woods man. They have to work together as a team, not go their separate ways. This team play is very important in our business. We have to change grades, and woods problems come up because of competition. These things have to be constantly studied by this management team, in our case by the Southern Kraft Division. Whenever a new mill is under consideration, everybody is in the act; traffic, woodlands, manufacturing, fiscal—the whole works has to be in the picture. Expansions have to be handled in the same fashion.

MAUNDER: When was the woodlands department set up?

MCCAFFREY: It was set up under a woodlands manager in 1938. Prior to that time, woodlands was under the mill manager in some cases and under the mill agent in others.

MAUNDER: There was no real organizational pattern?

MCCAFFREY: No. That's not said with the idea of being critical. When there were only a few mills and there wasn't any competition it wasn't too much of a problem.

MAUNDER: How would you compare the progress that I.P. has made in its history in this particular area with that of some of the other companies in the field?

MCCAFFREY: I think we pretty well lead the field, with the exception of Crossett and Urania [Lumber Co. Ltd.]. The Great Southern Lumber Company had planted a lot of trees, but real forest management didn't start to move until the late thirties. I think I.P. had a lot to do with getting the show on the road.

MAUNDER: We were talking about company organization, and you had a couple of things that you wanted to add.

MCCAFFREY: I think one thing that should be pointed out is that in the beginning the woodlands department, especially in the Southern Kraft Division, generally reported to more than one individual—to the main office in New

York as well as to the local division manager on the ground. Subsequently this was changed because of the necessity for team play that I just mentioned. I think that's an important point.

MAUNDER: Were there some serious examples in which this whole system broke down?

MCCAFFREY: We didn't have any serious breakdown, but it became evident as we expanded that we had to work together as a team rather than have separate departments reporting to different men. In other words, there has to be one boss on the job; that's essential. In the beginning we did organize the woodlands department along different lines than present organization. Some of this was brought about by the great expansion of our own business and that of the whole industry. Problems were created that we hadn't had when we were isolated, and this necessitated continual study of the forest resources in the area and their ownership. We continually make studies in the light of our own company expansions and those of the paper industry and of other forest industries. For instance, right now sheeting plywood is moving into the South. The drain on the forest for saw timber possibly will decrease because of

this, but certainly the market for plywood is going to increase. We have staff people in the field who are constantly studying this. We keep track of the forest resources and the land ownership patterns. Any radical changes in either of them may bring about some changes in our management and procurement plans.

MAUNDER: Perhaps I'm again covering some of the things we've been talking about, but would you agree that in the early years in your career foresters in the industry were primarily concerned with cruising and procurement? Other land and forestry activities that have since become more important were of rather secondary consideration at that time.

MCCAFFREY: In my earlier days there was practically no forestry practiced. We were concerned with cruising, acquisition, and forest and logging engineering.

MAUNDER: It was fire protection that gave the forester his first strong foothold, wasn't it?

MCCAFFREY: That's right. He understood the methods that were necessary to protect the forest and had plans for the protection of certain areas. Of course, once they got on-the-ground forester in every company, they tried to sell

their folks on eventually getting their properties into sustained yield. It had to come about if we were going to stay in business.

MAUNDER: But fire have the forester his first real reason for being, as far as the industry was concerned?

MCCAFFREY: That, and the need for men who understood how to make evaluations for acquisition purposes.

MAUNDER: How did you see top management's response to the achievements of foresters in fire protection?

MCCAFFREY: Generally speaking, the paper industry had migrated from the North where fire protection was given a lot of attention even in the early days because of disastrous fires like Cloquet. They'd found out the hard way in some instances, and they made the necessary money available to protect the forest.

MAUNDER: To what extent have your procurement people been trained as foresters?

MCCAFFREY: At the present time all our superintendents are foresters.

MAUNDER: You have other people who are in wildlife management?

MCCAFFREY: Yes. We have a public relations problem with our neighbors, so we're carrying out some experiments in our experimental forest in Bainbridge, Georgia, and with

several states on game management. We think that this is going to contribute a considerable amount of income in the future. In other words, we'll try to work out methods of raising game and letting people hunt on our land.

MAUNDER: But having them pay for it?

MCCAFFREY: Yes, because we propose to do certain things to improve the hunting. We think that this particular area could contribute to the cost of forest management.

MAUNDER: You're killing two birds with one stone. You're solving a difficult public relations problems and also building income.

MCCAFFREY: Yes. Why should we spend a lot of money to improve the game situation and then let people hunt for nothing? We've had some experiments conducted in the field, and, much to my amazement, people are perfectly willing to pay for hunting privileges, especially where there is going to be good hunting. For instance, quail hunting is improved by planting Lespedeza bicolor, and there are certain legumes that quail like to eat. We've had problems with reservoirs that suddenly become good duck hunting areas. People flocked in to the point that we were afraid someone would get shot. We had to have

somebody who understands this game management business to say how it should be controlled. The same is true of fishing and turkey hunting.

I was on the advisory council to the ORRRC [Outdoor Recreation Resources Review Commission], and they came up with a comprehensive report. If it's followed, I think, it will be a success. We got into that business early. We have acquired lakes, streams and some beach front with our timber properties. We've built quite a few roadside parks and have put in launching ramps where we have lakes, streams and reservoirs. I think all those things are very beneficial; they create a favorable image.

MAUNDER: Have you been in this long enough to have made any appraisals as to whether or not people are more careful with fire when they have paid?

MCCAFFREY: We tried to sell people on the idea that burning in the woods isn't absolutely necessary to raise quail. We do a certain amount of control burning for silvicultural purposes, and this fits into the scheme well. We've been planting fire lines with feed that entices game and also keeps the fire lines green and reduces the

fire hazards. We're working on this now. We haven't any answers yet, because the program hasn't been under way long.

Changes in Logging and Reforestation Methods

MAUNDER: You've seen a lot of changes in the methods of logging and reforestation over the last 50 years. Can you tell us something about how you've seen these methods change, especially in tracts of mixed-age trees? Here we get into the matter of the changeover from selective logging to that of clearcutting.

MCCAFFREY: The virgin stand was pretty well clearcut, but a few residual trees—those that were crooked or whose growth had been stifled, et cetera—were left. This land would then have to be regenerated, especially when cutting had been followed by fire, but the species of the residual trees weren't always desirable at the time. For instance, original cuts in the South were longleaf and short leaf; they left slash and loblolly [pine]. So, in some original stands these other species were left. (They were subsequently logged). It was a partial cut, so to speak, because these species were not found

on exactly the same sites as the long leaf and short leaf. Loblolly, slash, and pond pine were generally found in branches and wetter areas. This presented a different logging problem, one which required special skidders unlike those used for logging drier sites. Some second-growth stands were regenerated by natural reseeding, not by planting, usually because conditions were favorable to timber regeneration at the time; for instance, you might have a big seed year, fewer fires, the right rainfall, and so on. These second-growth stands were later cut into pulpwood—although it was scarcely so efficient 25 or 30 years ago as it is now—was developed because cutting small volumes and thinnings proved more practical. Before the advent of thinning, clearcutting these stands was common practice. Then they had to have a mobile outfit to do a successful logging job.

MAUNDER: You've seen them move away from dependence on natural regeneration to a larger dependence on aerial seeding or planting, haven't you?

MCCAFFREY: Well, although we like to regenerate naturally if we can, for various reasons it's not always practiced. For

instance, following a clearcut, some good stands may be established, but then we may have a fire or a drought as we did in 1954 and 1955. A lot of stands that were well on the way to being naturally regenerated were lost. Subsequently, they were planted.

We like to do plant, if possible, by direct Seeding, as is being done in the West with Douglas-fir and other species. We're spending a lot of money in our experimental forest to develop methods. We also have the problem of enemies of seed, so we have to use systemics or some other method to keep the birds from eating seed. Even foresters eat seed occasionally, if they're hungry enough. On the whole, though, even-age management is in the picture right now—clearcut and plant.

MAUNDER: Mac, can you indicate what percentage of the present mill consumption is coming from company-owned lands? Has this percentage changed much over the years?

MCCAFFREY: I think about 25 years ago we got 2 percent. The problem then was to regenerate the property that we purchased. That 2 percent was in the form of worked-out turpentine timber that might be on properties acquired, or some small patches of timber that needed thinning.

As we put our land under intensive management, of course, the volume increased. The increase was very slow at first, but now we're getting close to 25 or 30 percent for the whole South and in some areas we get as much as 40 or 50 percent.

MAUNDER: Taken over the whole southern area, about 20 percent?

MCCAFFREY: Yes, that's about what the whole industry in the South is running. This is likely to increase as all these lands become fully productive and reach sustained yield. It takes a while to reach sustained yield; you don't do it simply by writing it down on a piece of paper.

MAUNDER: Have you got any prophetic words to offer us as to when the South may reach that sustained yield?

MCCAFFREY: I know there are certain tracts of land owned by the paper industry and other forest industries that are presently on sustained yield. But on the 200 million acres in the southern pine regions we certainly haven't reached sustained yield. If we had, we'd have a lot more volume than we do at the moment. But, as I pointed out earlier, the survey that has recently come out, Timber Trends, shows that we're growing more timber than is being consumed now, and it looks like we will be in that situation for the next two or three

decades.

If consumption continues to increase, we might be in trouble. Intensive management was practiced in the South because it paid to do it. I don't think the whole South is going to be on sustained yield until the economics dictate it, and this may be two or three decades more.

MAUNDER: To what do you attribute this phenomenal turn of events in the balance of use and growth in the wood resources of the South? You've obviously got what you already mentioned, an awakened industry with a new spirit of enlightened self-interest and a new policy of good management and public education. You also have a new set-up in the South as far as state programs of forestry with a higher measure of fire control and a greater degree of public education to overcome some of the factors which caused depletion of the forest resources in earlier years.

MCCAFFREY: In the early 1930s there was more timber destroyed by fire and insects than was being used by the entire industry. But developments in the paper industry, --such as liner board, paper-fiber cartons, and the increases in the per capita consumption, caused the

paper industry to expand.

In most of the northern areas property had been cut with no thought for regeneration, but the southern pine region happens to have the rainfall, soil, and timber species that lend themselves, given proper silvicultural treatment, to natural reproduction. Of course, where land was burned and cut clean, it finally became necessary, in many cases, to plant.

One of the biggest problems we had was fire control. This was a major difficulty for over 25 years because people had been in the habit of burning every spring to get grass for cattle. Also, they had the idea that burning was necessary to dispose of the ticks and rattlesnakes. But with the increasing demand for pulpwood and the expansion of education by federal, state, and industrial organizations, people began to realize that they were burning money. The results have been phenomenal in recent years. I never expected to be practicing forestry in my time. In the early days it just wasn't considered worthwhile. The paper industry is the thing that set it off. It provided the market and made the practice of forest management not only possible, but also imperative.

MAUNDER: I can see this. At the same time, from a historian's point of view, I see other factors that might have been involved in this tremendous regeneration of forest resources. One of them, it seems to me, might possibly be the fact that there had been a rather heavy cut in this area by the lumber industry for some years preceding the depression. The resurgent growth of new timber was of that age where growth was rapid and was putting on noticeable gain. Wouldn't that be a factor, too?

MCCAFFREY: I think so. The very first thing we did was provide a market for millions of cords of worked-out turpentine timber that was considered absolutely worthless and precluded any new crop. I can recall being out thinning timber with 'Old Man Mizell' on the Austin Cary Forest near the University of Florida. He said he wished that we had a market for these thinnings, even if we just broke even for the expense. The paper industry used this worked-out turpentine timber and these thinnings, as well as timber that had been left by sawmills and residual trees that weren't satisfactory for lumber. The paper industry made the practice of forest management possible and built a tremendous

industry in the South. It employs 90 thousand in the paper mills. Pulpwood is now a bigger crop than cotton. Cotton is about 99.6 or 99.7 percent cellulose. We can manufacture the same cellulose from trees more cheaply than you can grow cotton and without subsidies.

MAUNDER: Cotton used to be grown on a tremendous acreage that is now growing trees. That land was, to a considerable extent, in poor cotton production. The early 1930s and the depression knocked the pins out from under those cotton farmers in lots of cases, did it not?

MCCAFFREY: Yes. In the first place, there was a lot of land cleared for farming that wasn't suitable for farming. This resulted in the topsoil's being washed away on some of these marginal farms. A lot of those abandoned farms are forest now; but they should have been kept as forest in the first place. What I'm trying to say is we didn't have any land use policy established by either government or industry. There was really no sound planning.

MAUNDER: But the force of economic events got the low-grade cotton land out of cotton production and back into trees during the depression.

MCCAFFREY: Where it should have stayed.

MAUNDER: This transition contributed to the rapid increase in the

supply of timber in the South, and is contributing materially to it now.

MCCAFFREY: Yes, and there's another thing. The South is rapidly becoming industrialized. When I first came South in 1916 there wasn't much industry. There were some cotton mills, the steel industry in Birmingham, and lumber and turpentine stills, but it was generally an agricultural economy. Now it's rapidly becoming a manufacturing region. Timber has taken over what used to be poor cotton land and is providing the means for the paper industry to continue expansion.

MAUNDER: Tobacco, one of the other major agricultural products here, is under a real threat. What's going to happen if the demand for this crop is substantially cut?

MCCAFFREY: Generally speaking, the soil that produces tobacco is good soil and will produce other crops. It will produce timber. I would say that most of the tobacco land has a site index of 70 or 90 feet, which is good.

Personally, I don't think too many people are going to quit smoking. Most of the people who are smoking now are continuous smokers. One fellow told me the other day, "Each year there are 50 thousand people killed and 4 million injured in automobiles." Then he

gave me the annual figures on how many cases of lung cancer are attributed to smoking, and said "I'm going to keep smoking and driving, but the chances of getting killed in an automobile accident are greater." I think what will happen is that they'll start working on the youngsters as they did when I was young. Alcohol and tobacco are two things we started learning about in the lower grades of grammar school.

MAUNDER: Your feeling, then, is that there isn't any real likelihood that a material amount of land in the South now given over to tobacco production is likely to follow the course of cotton land and become land for increased growing of timber crops?

MCCAFFREY: There may be some reduction in later years, but I feel sure that with the tobacco industry—as big as it is, and with the importance of tobacco farming to the economy of certain states—is going to spend some money to see if it can't come up with a solution to the health problem.

MAUNDER: Do you remember at what point you decided to improve your existing growing stock by the used of girdling, chemical treatment, and spraying?

MCCAFFREY: We did eliminate some undesirable hardwood species by

girdling, and some were eliminated for the production of pine as research began. At the present time we have an experimental forest at Bainbridge, Georgia. Out research establishment works with our mills, developing new grades of pulp and paper and employing different species of wood for different pulps.

MAUNDER: When did you decide to accept the idea of prescribed burnings? Weren't you involved in that?

MCCAFFREY: In the beginning we opposed it, and we opposed it longer than most companies, probably because we'd spent hundreds of thousands of dollars teaching people that they shouldn't burn the woods. Then, even when we became convinced that prescribed burning could be used as a silvicultural tool, we were very slow to put it into operation. We were afraid these people who had been burning would decide that we'd finally come around to their way of thinking. This took some education; we had to educate the public to what we were doing. As a matter of fact, anything you do in the woods is observed by your neighbors, whether they're other industrial forest owners or small ones. People are suspicious about moves. If they don't' know what you're doing and why, they're going to attempt to find out from somebody. Often they get the

wrong information, or they may pick an explanation right out of the blue. So anytime you make any move in the woods, it's best to say, "Here's what we're doing. It looks different from what we've been doing. Here's why."

I remember when the forest industries first started forestry programs. Loggers opposed them, but a lot of other land owners reached our conclusions on their own. If this was good business for the company, it was probably good business for them. This wasn't true of everybody, but I've heard several small owners make this statement.

MAUNDER: As the man in the forestry department of I.P., what convinced you that these timber-stand improvement actions were worthwhile?

MCCAFFREY: We took the position that land was becoming more expensive and to have part of it idle because it was growing undesirable species was poor business. We were paying taxes on it, we were paying to administer it, and we were protecting it from fire, whether it was growing something useful or not. We decided that it was just as important to have full production on our land as it was to have full production on a paper machine.

You've got certain fixed costs, and if you're not growing all you can on a property under given conditions you're not realizing what you should.

MAUNDER: Has your company gone in for wholesale conversion of superior or culled stands by complete removal, intensive site preparation, and planting?

MCCAFFREY: Yes. We carry on the site preparation before we plant. At the end of a rotation we cut everything. We burn it off and plant it after a year or two. That delay is caused by pales weevil, which follows fire, but if it isn't planted relatively soon a jungle of undesirable, intolerant species comes in. Then you've got an expensive job of removal before you can plant. However, with the new Taylor front-end plow, we are able to plant mechanically a lot more efficiently than we could previously.

MAUNDER: Who developed that?

MCCAFFREY: The Taylor Machine Works in Mississippi. It's a small concern. They came out and talked to our people and other companies' foresters, found out what the problems were, and developed it.

MAUNDER: When did I.P. first set up its tests of control burning

and with what results?

MCCAFFREY: In the 1950s we started following the educational program I spoke of. We didn't start this as if we had something up our sleeve. We went out and said, "Fire is in the picture for the control of brown spot and for other reason, but this control burning has to be done under favorable meteorological conditions when we know what the wind and humidity are going to be." We had to explain the difference in conditions. We didn't do any control burning when we were going to have a 30-know wind and a relative humidity of 15; everything would have exploded at the slightest spark.

This was one reason for fires in the past. A man could burn cotton stalks when the relative humidity was 98 and the wind was quiet; they would burn and everything would be fine. On another day the wind velocity might be the same, but maybe the humidity would be 15 or 16, so that any spark would go up like gunpowder. They couldn't understand how a fire got away from them, so we had to do some educational work. Our foresters, working with the experiment station, had to develop "fire risk days" based on these meteorological conditions.

MAUNDER: And what results did you get from your early tests? Did they convince you?

MCCAFFREY: We were pretty well convinced before we started, but we did it on an experimental basis at the beginning. We didn't know what losses might be incurred if a fire got away. Occasionally we'd have reports that indicated favorable weather, but at the burning operation we might have a sudden change. There are some risks, naturally. We've singed some trees to the extent of defoliating them.

MAUNDER: But, generally speaking, you found this a good technique?

MCCAFFREY: It's a good management tool.

MAUNDER: When did I.P. establish its first tree nursery, and how has this venture succeeded?

MCCAFFREY: We don't have any nurseries except at our experimental forest, and that is strictly in connection with tree improvement and genetics. We have some seed production areas, but we prefer to furnish the seed to the state nursery and contract with them to grow trees to our specifications rather than try to do it ourselves. One of the reasons for that is we're

deployed over a tremendous area and the environment of the seed is important. There are quite a few industrial nurseries that were started because the states weren't able to furnish the requirements. The demand for seedlings, especially following the development of mechanical planting, became so great that the states didn't have the capacity to provide them. Some companies, usually those with mills in the same area, started to develop nurseries of their own, but I think most of them now prefer to have their seedlings grown by state nurseries. We want to keep state nurseries in business because we want other landowners to buy seedlings and get the trees planted in the right environment. The state organizations are capable; they know what they're doing.

Procurement Procedure

MAUNDER: Will you give us some background information on the history of procurement procedure in I.P.?

MCCAFFREY: I think the history of procurement is pretty much the same in I.P. as in other companies. Our foresters do not always have sufficient wood from our won properties

to fill the quota that's assigned to them, so they place orders for wood through their regional or area offices. There are a great many independent businessmen throughout the South who have been furnishing wood, sawlogs, poles, and other forest products to the forest industries. These independent shippers may be supplying several different paper companies. Some of them conduct a tremendous business amounting to hundreds of thousands of dollars a year.

MAUNDER: How do you go about procuring pulp from your own land? Does the method vary from unit to unit? What innovations has I.P. made in the system of procurement?

MCCAFFREY: There's not too much variation. We sell forest products to other forest industries. They don't use all of the tree. Possibly they'll cut it into chips, and we'll buy the chips; or they'll cut shat they don't want into pulpwood and sell it back to the mill at a delivered price.

We haven't had any particular innovations. We've got to encourage further mechanization so that we can reduce the manpower required to produce a cord of wood. The whole industry is working on that principally through the American Pulpwood Association technical

committees, which are organized on a regional basis.

MAUNDER: I think you said earlier that you'd made great progress in overcoming public relations problems with the sawmill operators by selling them logs from your land. You've also built good will with the small landowner by buying his pulp and offering him free assistance and guidance in managing his woodlot. What do you anticipate happening to these bank accounts of good will if you gradually use more of your own forest resources and sell fewer sawlogs to the sawmills?

MCCAFFREY: That's a possibility. But in whatever manner we regenerate timber stands by planting strictly for pulpwood after clearcutting, we're going to grow some trees that are suitable for sawlogs; and in some cases we exchange sawlogs from our own lands for pulpwood from lumber company lands. So I don't see problems in the immediate future. I know quite a few sawmill people who make huge investments in sawmills without owning a stick of timber.

MAUNDER: They feel secure making these investments?

MCCAFFREY: I think they do, otherwise they wouldn't invest. The

whole paper industry follows this practice of selling other forest products from their lands. It not only contributes to our income, but also there are many sawmills which would go out of business if they had to buy land in sufficient quantity to grow their requirements. The cost of acquiring the land strictly for sawlogs right now would be prohibitive. In other words, if you started out under present-day conditions, at present-day prices, to acquire enough land to run a mill that cut 20-million feet a year, you'd have a terrific investment in land and a big expense in forest management. Of course, where the land is owned by a lumber company they can, and do , sell us pulpwood from their land. But most of the people practicing forestry in the sawmill business bought land at a cheap price or inherited it. They haven't had to buck the present market. As a matter of fact, I know some creosote people who acquired land when they were scared that there wasn't going to be available timber, and now they're selling. In fact, we bought some.

MAUNDER: Then there's not too much worry about the source of sawlogs for the existing lumber mills. But what will happen to the woodlot owner who has to get his tax

money or his son's education money by selling pulpwood when a larger percentage of industry's needs are supplied by its own land? Isn't this going to cause a cutback in his sales to you?

MCCAFFREY: You can project a lot of theories in connection with this question, but now, for instance, there are several paper mills moving into Alabama that don't own a stick of timber. There are quite a few mills around the country that don't own any land.

MAUNDER: So there's new demand coming in all the time?

MCCAFFREY: That's right. Frankly, I think it's stupid for a mill to come into an area and not own <u>some</u> land. I think in most cases bankers don't want to lend any money on that basis. But I <u>do</u> think that the land owners will be able to sell their product.

There are some areas where there's a surplus or excess of pulpwood over present demand and land owners are concerned. I don't like to use the word <u>surplus</u>, but there's more available than is being used at the moment. But you cant' introduce a new paper industry into an area where there is a deficit, so I don't think these people need be concerned. These areas of favorable balance between growth and drain

are most likely to get the next expansions.

MAUNDER: What about the balance in species? You said that in your lifetime there has been a tendency to emphasize the regeneration and growth of pine and to eliminate the hardwood. Now you're finding that hardwood serves a purpose. Is there any danger that this trend may produce a hardwood-poor forest? Are you shifting your position on this?

MCCAFFREY: Research finally convinced the manufacturing people that hardwoods have desirable characteristics for certain grades of pulp and paper.

It's true that in the beginning they wanted only conifers, which they referred to as softwood. At one time they thought nothing but spruce would do; then they used some balsam, and then some pine—jack pine in the North. They used hardwood for certain periods, but research to see what actually could be done with hardwoods hadn't been pushed by the paper industry.

Then there came a demand for a product—with a better printing surface and the other characteristics people wanted in paper. For some grades of paper, hardwood fibers combined with

coniferous fibers made a better product. In some instances, hardwood can be used alone.

I think economics get into this in a big way. We were growing pine, which is more expensive to bleach than hardwood. Hardwood costs less at present; that encouraged more experimentation with hardwood and pine combinations and with hardwood alone. But if hardwood reaches a point where it becomes too expensive, there will be a trend back to a greater use of pine.

We have always advocated to our manufacturing department that we should develop grades of pulp and paper that would utilize the species growing naturally in the local forests. If it's a hardwood site, we ought to grow hardwood; if it's a pine site, we ought to grow pine. We want to hear our consumption to what the forest produces. I think that's now the thinking of foresters in every company.

Community Role

MAUNDER: I.P. has been a very successful company from the standpoint of growth and profit. At the same time it

also seems endowed with some sense of its role in the total development of the South, almost as if it has some sense of history which goes beyond its successful operation as a business organization.

MCCAFFREY: Yes, I think so. While everything we've done has not been entirely altruistic, we have felt that small landowners could provide a portion of our requirements so that we didn't have to own a lot of land. This would provide constant incomes to these people, provide employment, and contribute to the economy of the South. At the same time all these people use our products. I think we have a fairly good reputation with people, generally.

MAUNDER: Do you feel that company policy is considered not only in the light of the company's best interests, but also with some examination of the long term implications for the rest of the community?

MCCAFFREY: Yes. I would say that the majority of our people feel that way. There are those who don't go along with some of the things we're doing, but I'm glad that I was able to do these things without any restrictions. I might have had a few arguments with John Hinman, occasionally, but he went along with our program of

building roadside parks, boat launching ramps, and so on. I think it's extremely important. When we are held in high regard by our neighbors, our job is a lot easier and it's better for everybody concerned --the communities, the company, the employees, and the stockholders.

MAUNDER: We're witnessing a rather tremendous movement how in the direction of granting 19 million American Negroes a greater measure of civil rights. Where does this fit into the picture?

MCCAFFREY: Our company has always employed Negroes, and we have Negroes in some pretty important spots in our organization. Even when I was in the lumber industry we used to have some Negro foremen.

MAUNDER: Not all the Negroes involved in this major bit of legislation live here in the South, but a very large percentage of them do. I wonder if you believe there's any likelihood that the pulp and paper industry may see this legislation as a trend and choose to align itself with the trend rather than against it?

MCCAFFREY: I think that our industry is going to go along with it. We have a written policy in regard to this matter. We have Negro foremen, and we're advancing them

as they're able to take on responsibility. We just don't happen to have any Negro foresters at the moment. I believe there are less than a dozen of them in the country.

MAUNDER: As far as the employment is concerned, I don't think there's any question. The question is the public accommodations matter.

MCCAFFREY: I don't think that our industry is going to fight that program very much. I'm pretty certain they won't. I don't think it would be good business. I'm pretty well convinced that our industry is going to look at this thing in a reasonable way, but I think some of this will take a bit of time. There may be some incidents here and there, but I don't think it will be too bad.

MAUNDER: You said that you felt your company had made some very substantial contributions to the development and encouragement of forestry schools.

MCCAFFREY: I think our company and our industry as a whole have. We've tried our best to get appropriations in several states to provide proper staff and plant and the schools of forestry. Our company and the industry as a whole made possible the school of pulp and paper technology

at North Carolina State College. This pulp and paper course is sponsored by the college of forestry, engineering and liberal arts. It's under the direction of Dr. Richard J. Preston form Minnesota, and is one of the best forestry schools in the country. He has a marvelous staff and has been able to convince the legislature to provide a fine pulp and paper laboratory with a paper machine and pulping equipment. I think that Auburn and Georgia now have good forest schools. Al [Allyn M.] Herrick's done a good job at Georgia. We've tried to assist these forestry schools. We don't believe there should be too many, but they should all have high standards. There's a tendency to have too many schools. Industry can only absorb so many foresters.

Another thing our company and others have done is raise the salaries of foresters to the level of engineers' salaries. We don't see any particular reason why chemists or engineers are any more important in this show that foresters. I never did go along with the thinking of some of our industry that forester should be the lowest-paid group. We've had many battles about that in our company. Top woodsmen used to simply have the title "woods manager," but now the

majority of them are officials of their companies. We have a little stature now, so we can influence some topside thinking about long-range planning and policy.

Forest Surveys

MAUNDER: I.P. employs a system of continuous forest inventory, right? How does this work out and how do you apply the information that you draw from it?

MCCAFFREY: Our continuous forest inventory (CFI) is based on our total holdings of 4,300,000 acres of land in nine states. Obviously, it cannot be correct within a narrow margin, such as 1 or 2 percent. We think that the CFI is essential to the broad management policy. But, in addition, we use a stand description made on the ground for areas where the margin of error might be greater than the established limits. A 4 or 5 percent error on the total wouldn't matter, but if it were 20 or 30 percent on certain specific areas you might have a serious problem. It's like the Forest Survey information. The Forest Service made the Forest Survey based on whole regions like the southern pine

region. The original Survey was mad eon parallel strips 10 miles apart with plots taken every 10 chains. I think the mathematicians figured that the results would be correct to plus or minus 5 percent for the whole area. But certainly that wouldn't apply to part of a country or a township in a lot of instances. We had a hard time persuading the Forest Service to publish the Survey of the South by states and counties. The original Survey was presented by states and by units within the states which involved several counties. They were reluctant to narrow that down to a county, where a considerable error might be present. But we persuaded them that where we recognized the possibility of error it was up to us to check it on the ground. Now we get the figures that we want by state and county, but we have to use some judgment in the application of those figures. Some people, especially chambers of commerce and other people who want to entice new forest industry into an area, may not always interpret this information exactly as it should be.

The Forest Service has done a wonderful job with this Forest Survey, and it's one of the most useful things that forest research by the federal government has ever

done. It's used constantly by all forest industries and by other people as well. As a matter of fact, this information is so important that industry ahs contributed men and funds to keep it current when Congress didn't appropriate enough money to do it. To be useful, the Survey has to be kept up to date, and the money for re-survey was kept at the same level for a considerable period of time. The forest industries were always plugging for an increase and finally got it. But our company and many others contributed men to compile the data to keep the Survey current. The situation in an area can change given enough time. We like to have the Survey brought up to date every five to eight years, but some of it went ten years or longer.

MAUNDER: What percentage of the manpower that made the Survey here in the South was put there by industry?

MCCAFFREY: Originally it was all done by the Forest Service. We put the heat on those boys to keep it really current, but they didn't have the money and couldn't do it. We contributed some men, and in some cases states contributed men and funds, and we kept it current. The South is in better condition with regard to inventory,

growth, and drain than any other part of the United States. Our industry, through SPCA, reports the drain to the Survey yearly by state and county. We code the data and keep it on our wood settlement sheets, then compile it and send it to SPCA annually. You've probably seen these statements put out by the Forest Service and the forest experiment stations in conjunction with the Southern Pulpwood Conservation Association. We always contend that we pay taxes and therefore shouldn't have to furnish any men or funds to pay for information to be used by the public.

MAUNDER: Isn't there also, perhaps, a tendency to ask whether or not the involvement of your own people in making this Survey might tend to slant the data a little bit in your favor?

MCCAFFREY: There's not a chance in the world, because our men do only the compiling of field data. The analysis is done by the Forest Service computers, and what we do in the field would not affect the results. I don't think there's any danger. Our working relations with the two forest experiment stations are excellent and always have been. We have a high regard for the men who are employed at those stations.

INDUSTRIAL AND PROFESSIONAL ASSOCIATIONS

Southern Pulpwood Conservation Association

MAUNDER: I want to go back to your relations with the Southern Pulpwood Conservation Association. You were involved in that organization from its very beginning, and for two years, 1962 and 1963, you were president of the organization. What was your most rewarding activity as president of the SPCA?

MCCAFFREY: SPCA gave me a lot of satisfaction because when we decided to organize it—in 1939-1941—the forest industries were under attack for overcutting and not restocking the land of small owners. The paper industry in particular was about to be regulated by both federal and state governments. We were under attack by the press, the lumber industry, and the turpentine industry. We decided to organize this association and for the first time in history, as far as I know, an industry organization was sponsored with the sole idea of promoting better forest practices in the South

on the land of others.

The association had nothing to do with the management of company-owned lands; they were being well taken care of. We adopted a policy of informing the public what we were doing, but we never told them we were doing something we weren't. Consequently, over the years the association has grown to be highly respected by the general public, by public agencies, and by the press. They always feel the information they get from us can be depended on.

We've accomplished a great deal during this period of time. I remember quite well that 25 years ago the Forest Survey showed a total inventory in the southern pine region of 200 million acres of forest land and 120 billion cubic feet of wood. In the next 25 years the forest industries used 148 billion cubic feet, but the Forest Survey showed and inventory of 130 billion cubic feet at the end of the same period. In addition to increasing the inventory by 10 billion cubic feet, we had to grow the 147 billion which we consumed. I think the industry, with the help of public agencies, probably did the best job that any

forest products industry has ever done. Consequently, we have an excellent reputation as far as conservation is concerned.

MAUNDER: Do those figures you just cited take into account the changes in the methodology of measurement between 1935 and 1960? We learned a great deal bout measuring volumes.

MCCAFFREY: The measurements employed by the Forest Service in the Forest Surveys were substantially the same, although there may have been a few improvements in computer methods. The original survey was done on computers employed by the Forest Service.

MAUNDER: Haven't more recent Surveys been more comprehensive and accurate than those early ones?

MCCAFFREY: I don't think that affects this result. I'll tell you why. This Survey was directed by [Inman F.] Cap Eldredge and made by people on the ground. The lines were run ten miles apart with sample plots every ten chains, so it was well covered. This basic plan is still followed; they employ aerial methods now, but they're checked with ground plots so that the margin of error is relatively minor. If you have a copy of the leaflet, you'll notice that the annual rate of growth in cubic feet in

1935 was 5.2 per cent; in 1960, it was 7 per cent. That shows growth is being increased.

MAUNDER: That increase in growth is largely because of intensive management?

MCCAFFREY: Better forest practices were established by reason of the fact that the paper industry came into the South and was providing a market for wood. When you get a market for something, you can sell it.

MAUNDER: In other words, you're getting the same results in the wood-using area that you had in agricultural products—corn, wheat, and cotton?

MCCAFFREY: We haven't quite matched corn and cotton; the geneticists in those areas have done some wonderful things. One of our objectives is to keep ahead, to grow enough wood so that other products don't take over our markets.

When we first organized SPCA, it was suspected that it would be just a front organization to cover up some of the problems in the woods; that has since been proven wrong. I think the organization is probably more respected by the general public than any other forest products organization in the country.

MAUNDER: As one of the pioneers in the association and manager

of the Southern Kraft Division of I.P., did you feel that your company was being maligned?

MCCAFFREY: That's right. I told Major Friend, who was our vice-president and general manager, that since we had more mills than anybody else in the South if we really went to town on this conservation problem the rest of the industry was bound to follow. We were the first ones to hire conservation foresters who had no responsibility for any wood procurement or management of company timberland. They worked solely with other landowners, with school groups, and with service clubs, selling the idea that the southern pine region had a great potential as a wood-producing area.

MAUNDER: Had you started that practice before the SPCA came into being?

MCCAFFREY: No, we had not. We were only managing our own lands at that time.

MAUNDER: But you didn't feel that I.P. was guilty of the things that were being charged by others at the time?

MCCAFFREY: Only in this respect: we had no foresters, except a very few engaged in fire protection on our own lands. We had a lot of old-time logging superintendents who were supplying our mills with wood. These old boys were

just interested in wood supplies. They passed out wood orders and weren't too particular where they got the wood. There was no thought of regenerating another stand. We had a difficult time with our own people when we adopted this new program. I was a pretty unpopular character when we undertook this program in our own company.

MAUNDER: How did you sell the idea of supporting SPCA to the company?

MCCAFFREY: I think the main reason the company supported it was because there was a threat of federal and state regulation. There wasn't too much trouble in selling it. The main problem was selling the performance idea, getting through to the top side that we couldn't organize an outfit just to give some lip service; we had to perform.

We put a conservation forester in each state. He had timber markers who marked timber for small landowners, timber to be used for sawlogs or poles or pulpwood. We advocated forest management on a basis that would pay the landowner the greatest amount of money for his particular crop.

MAUNDER: These foresters were hired as part of the SPCA staff?

MCCAFFREY: No. Our conservation foresters and staff were hired by the company. Of course, SPCA had area foresters engaged in the same work, but they only marked timber for demonstration purposes. We provided marking services to landowners who were interested in continuing to manage their forests for timber crops.

MAUNDER: You had to educate from within, too, did you not? Not all of the membership was as enlightened as I.P. in the beginning.

MCCAFFREY: They might have been a little hesitant to spend the money at the time, but as soon as we got into the picture this caught on pretty rapidly. We were all in the same boat and it was sinking.

MAUNDER: Do you know of any other companies that might have been even more progressive than yours in this direction?

MCCAFFREY: I don't think there were any. There were some just as progressive, though. I think West Virginia, Champion, Union Bag, and Gaylord were really carrying the ball.

MAUNDER: Who took the initiative in organizing the SPCA?

MCCAFFREY: The American Pulpwood Association. APA didn't deal with regional affairs, but its members were very

conscious of the bad publicity we were getting and of the threat of regulation. Within APA, Bill Goode, who was then executive secretary, and some of the members and directors discussed the matter. In the winter of 1937 and 1938 a meeting was held in New Orleans to discuss the problem with members of the industry, state forestry organizations, and the U.S. Forest Service. It was decided to form an association in the South that would deal entirely with the problems of educating landowners to better forest practices. The members of the association agreed to adopt certain minimum cutting rules. In other words, they wouldn't allocate wood orders to a woods shipper unless he agreed to cut timber in compliance with these minimum standards which were adopted at several area meetings in different parts of the South.

Meetings were called by the industry; but representatives of the Forest Service, the extension service, and the state organizations were all present.

MAUNDER: Usually in any new organization there are one or two individuals who are the real push behind the thing. Who were they in SPCA?

MCCAFFREY: In the beginning, C.O. Brown of I.P., Charles Luke of

West Virginia [Pulp and Paper Company], Walter J. Damtoft of Champion, and Jim Allen of Union Bag gave it a big push.* Allen was the first president of the SPCA.

MAUNDER: Where did Frank Heyward fit into all this?*

MCCAFFREY: When we decided to organize the association we had to have someone to run it. First we offered the job to Cap Eldredge.* He said that he would very much like to take it, but he had many years of retirement credit built up in the Forest Service. He said, "I'm flattered by the offer, but in a few years you're going to be practicing forestry intensively because your industry's investing so much money in plants you will be forced to do so. Somewhere along the way there will be a drop in the market, and everybody will be practicing forestry and they'll say, 'what the hell are we paying this fellow $10 thousand a year for?'"

When Cap decided not to take this job—although he worked with us, attending all the meetings, and was a real inspiration—we decided on Frank D. Heyward, who was then state forester of Georgia. He had been a U.S. Forest Service soils research man at the Lake City station. We offered him this job, and he was really flabbergasted; but he thought it was a challenge

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*Walter J. Damtoft, Inman F. Eldredge, Frank Heyward, typed transcripts of tape-recorded interviews by Elwood R. Maunder in 1959. Forest History Society, Santa Cruz.

and took it. We didn't have much money to start with, so we took over the office—complete with furniture—of the Schenley whiskey people in Atlanta. I remember the first day I went to see Frank in Atlanta. He had given me the number of the office, and when I got there it had "Schenley's Liquors" on the door. (All foresters were good customers).

MAUNDER: What were companies contributing to the pot at that time?

MCCAFFREY: We were putting in just about as much as we are now --one cent a cord. Of course, we had only 3 million cords then, whereas now we have 26 million. As the industry's consumption has increased we've kept the budget within one cent a cord.

We've always been very careful not to have SPCA dominated by big companies. In the earlier days three or four I.P. men were directors, but we put a stop to that. We didn't want the association to give the impression it was being dominated by three or four large companies.

MAUNDER: Frank left SPCA after several years. What brought about this change?

MCCAFFREY: I think he was offered a better job with Gaylord. Also,

he had acquired some timberland of his own which he wanted to manage. He has some 8 or 10 thousand acres of very fine timberland in Georgia, surrounded by paper mill customers. He's in a very enviable position.

Fourdrinier Kraft Board Institute

MAUNDER: Is there anything more that you could add to this record with regard to some of the other organizations you belong to that have been working in the area of industrial forestry or public education?

MCCAFFREY: I used to be chairman of the Wood Conservation Committee of the Fourdrinier Kraftboard Institute. FKI is a nationwide association of mills engaged in making fourdrinier board. The majority of board is made in the South, but there are some West Coast people in the FKI, too. The Wood Conservation Committee deals with wood supply, woodlands problems, and conservation in general. The present chairman is Paul M. Dunn; he was preceded by Tad [Thomas J.] Dunn of Union Bag, who himself followed Vertrees Young of Crown Zellerbach as chairman.

MAUNDER: What brought FKI into being? What special function does it serve?

MCCAFFREY: The purpose of FKI is to assist members in technical aspects of board manufacture. One of the first things to prompt the formation of this group was the problem of designing cartons of the proper strength for certain types of packaging and suitable for railroad shipments. The cartons had to be designed to preclude damage to the product being shipped, but could not be overdesigned. In the earlier days when liner board first came on the market for use in corrugated cartons, there was competition from wooden boxes and other types of packaging. There is still competition from polyethylene and plastics. FKI is an effort on the part of board manufacturers to keep old markets and develop new ones—banana and citrus fruit boxes, for example.

MAUNDER: Were and by whom is FKI's research done?

MCCAFFREY: The Institute of Paper Chemistry has done some; and I think Battelle Memorial Institute has, too.

MAUNDER: Does FKI have any staff or research group of its own?

MCCAFFREY: No. they have an office on Park Avenue in New York City. They keep up with production and consumption

not only of kraft board, but also of board made from straw and bagasse.

MAUNDER: Do they have an executive secretary?

MCCAFFREY: There's a president, [A.] Rodney Boren.

MAUNDER: Does FKI tie in at all with the complex of associations surrounding the American Pulp and Paper Association (APPA)?

MCCAFFREY: No. Although a great many members of FKI are also members of APPA, FKI is just another association in the paper industry.

MAUNDER: Well, is this the principal auxiliary trade association representing the board manufacturers, or is there a paperboard manufacturers' association also?

MCCAFFREY: There is a paperboard manufacturers' association. FKI deals more with the technical aspects. It has nothing to do with legislative matters or anything of that nature.

MAUNDER: What do you deal with in a committee such as the Wood Conservation Committee?

MCCAFFREY: We deal with wood supplies and technology. For instance, we have discussed methods of mechanized pulpwood logging. There has been a presentation by the American Pulpwood Association's logging engineer

and some members of the group who were engaged in developing new equipment.

MAUNDER: After you get a new idea, test it out, and find it has useful applications in your company's situation, do you sell the idea to the rest of the industry through a committee like this?

MCCAFFREY: Not particularly. Individual companies have different ideas about how they'd like to develop packaging.

MAUNDER: What I'm talking about now is more specifically the technology that relates to wood conservation.

MCCAFFREY: FKI was responsible for getting some $20 thousand last year to study insects and diseases that have caused considerable damage, especially in southwest Texas and southern Louisiana. We've also worked with the Forest Service on developing survey methods. The Forest Service does the job, but we tell them what information is helpful to the forest industries.

MAUNDER: When you deal with a specific problem of technological review and research that you feel is an industry problem, how do you harness the organization to get the job done?

MCCAFFREY: We promote group effort, as we did in the case of this insect and disease business. FKI called the attention of the boards of directors to the benefits which could be

obtained, and as a result we were able to get the $20 thousand for the project.

MAUNDER: How was this money raised?

MCCAFFREY: By subscription from the different companies.

MAUNDER: Is that based on some scale?

MCCAFFREY: No, we were glad to accept any amount. We even received contributions from one or two landowners and lumber companies who were interested.

American Pulpwood Association

MAUNDER: Will you tell us something about your experiences with APA?

MCCAFFREY: I was a director of APA for a long time, and I was president from 1950 to 1952.

Certainly APA has been a boon to the industry. It has done a great deal to promote better methods of harvesting timber; it has helped secure additional funds for the Survey and for fire protection; and it has dealt with legislative matters beneficial to the industry, working to get such legislation passed. SPCA doesn't deal with politics in any way whatever. APA does, and is registered as a lobby. In my opinion,

we've been quite successful in informing legislators of the good and the bad aspects of certain legislation.

MAUNDER: To what specific instances do you refer?

MCCAFFREY: When the Fair Labor Standards Act was passed, we had a lot to do with getting the forestry exemption through Congress.* We were also able to explain the importance of an exemption for winter hauling, and as a result we have a 54-hour week set up for it.**

MAUNDER: What do you think of the lobbying activities of APA?

MCCAFFREY: Well, as president, of course, I had quite a lot to do with them. Then as director I sat in on a lot of the meetings with legislative and other committees. I think the APA has proved very helpful to the paper industry and to other forest industries as well. Some of the things that we've been able to get through Congress permitted people to add to their incomes.

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* Woods workers employed by operators employing fewer than twelve men are exempt from the provisions of the act. Forestry operations, such as planting and some cultural work, are also exempt.

** Winter hauling in the North is done while there is snow.

For example, we have a problem in the South. Between the plating and the harvest seasons people add to their incomes, and to the economy as well, by doing part-time forestry work. In the tobacco region, people who have been producing pulpwood and other forest products will simply up and quit at harvest time because tobacco is a crop that has to be harvested just as soon as it reaches maturity. Naturally, wood production in the area goes down. That used to be the case with cotton, too.

I think APA has done a good job of apprising Congress of many such situations. We put out manpower surveys both before and after the war. When I was president, just prior to Korea, we had a great increase in the number of men required because of the expansion of the industry. With the Korean War, our requirements for steel, tractors, trucks, and tires increased. We made manpower surveys and worked with the Defense Department to keep them up to date.

MAUNDER: Did the industry get caught short in World War II?

MCCAFFREY: Yes, they were in serious shape. I wasn't involved because I was in the army, but I've heard the boys talk about what a terrible time they had trying to get trucks,

tires, gasoline, and steel.

MAUNDER: Did this teach them a lesson?

MCCAFFREY: Yes. There were other ways that the APA has helped keep members of Congress informed of the need for appropriations for fire and pest controls. APA had a great deal to do with developing the use of sawmill residuals as chips.

MAUNDER: You've certainly been concerned with more recent controversial legislation. What about the legislation which revolves around the civil rights matter?

MCCAFFREY: We haven't gotten mixed up in that at all, but we opposed the wilderness bill because we don't think it's right to lock up 65 million acres for just one use. APA has also had a lot to do with informing the public about the importance of our industry. A great many people don't know that the paper industry is the fifth largest in the nation and is classified as an essential industry by the Defense Department. A large part of our wartime production was used by the Defense Department.

The other association that I think has done a fine job is the American Forest Products Industries, which takes in all forest products industries. I've been

associated with AFPI* a long time, and I think it has made a great contribution in informing the public about the importance of the forest industries and what they've done to regenerate our one replaceable natural resource. The forest products industry is strictly educational at the national level.

MAUNDER: You said that at the beginning of the tree farm program there was a certain amount of lip service paid to the idea, but that this changed as time went on.

MCCAFFREY: After the program was launched by AFPI, it took a little while to get the show on the road properly. Just owning a piece of land, paying taxes on it, and erecting a tree farm sign means nothing; you have to be practicing certain minimum essentials of forest management. I think AFPI has interested many small landowners in becoming tree farmers and the programs (i.e., "Keep Green") that have dealt with the various states on the importance of forestry to a particular area have been good, too.

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*AFPI has been known as the American Forest Institute (AFI) since 1968.

Society of American Foresters

MAUNDER: All the organizations that you've mentioned up to now, Mac, have been industry organizations. Have you Belonged to any other organizations from which you derived a real measure of satisfaction?

MCCAFFREY: Yes. I've been a member of the Society of American Foresters for many years, and I'm also a member of the Society of [American] Military Engineers and the Alabama Academy of Science.

MAUNDER: How does SAF figure in this change in the South? Don't you have strong sections of SAF here?

MCCAFFREY: Yes, I think we probably have the biggest sections in the country. We have the Appalachians, the Southeastern, and the Ozark sections. They are very strong and active sections, with a lot of influence on state, federal, and industry policies. We have such large sections here that they've broken down further, into more local groups. These local groups discuss problems of local areas. I attended a meeting of the Coastal Carolina chapter in Georgetown the other night. That is a very strong, progressive group. Three or four

paper companies, a national forest, a state organization, and the Soil Conservation Service are represented. I think SAF has provided a forum where public and industry foresters can discuss professional problems in an intelligent fashion. This is beneficial not only to industry, but to public agencies and the general public as well.

IN RETROSPECT

MAUNDER: Who do you think are the three or four men who have been real giants in the forest industries and in forestry in your lifetime? Who do you think of as being the one who stands out?

MCCAFFREY: I think in the South Austin Cary had a lot to do with convincing industry of the importance of forest management. I worked with Dr. Cary in various places and I knew him quite well. He didn't try to shove things down the industry's throat. Not too long ago I was talking to Edward Leigh McMillan, president of the T. R. Miller Mill Company, about Dr. Cary. McMillan was telling me that in the early days he didn't think much of forest management, but now his grandson is a forestry graduate of North Carolina State College. T. R. Miller's has been a progressive outfit, and it was Dr. Cary who sold forestry to them.

I think John Hinman has contributed a lot, too. I've disagreed with some of his theories, but I think he would often take a position to find out whether I was convinced or not. Sometimes he would say, "This is what we're going to do," and I didn't agree. I would say, "Okay, you've decided against what I've suggested, but I'll do my best to carry out your orders. I still don't agree with you, but I'll do the best I can." He always hated to have me say that and usually came around to my way of thinking.

MAUNDER: Now that you've reached the age of retirement and can look back over your career, how do you feel about what you've achieved in the pulp and paper industry? Did you realize most of the dreams that you had for yourself as a young man? Did you go beyond what you ever thought you might accomplish in your work?

MCCAFFREY: I think probably I've gone beyond what I had set as a goal when I started. When I got out of school I thought I'd like to run a big sawmill plant with a sawmill town and a logging operation. I thought if I ever reached that point I'd be thoroughly satisfied. I didn't realize that the old growth of timber was going

to be cut out quite so fast. I had to change to the paper industry, which was something entirely new to me, and I met a number of frustrations along the line. Being on the ground and having a pretty good knowledge of the timber situation in the South, I was lightning-struck when the big expansion took place. I don't think it was because of any particular ability I had. I just happened to be in the right place at the right time. As a result of that I got further along than I expected to. I certainly never expected to be an officer of International Paper Company, managing 4.5 million acres of land, practicing intensive forest management, and producing 5.5 million cords of wood each year.