BEFORE THE INDIAN CLAIMS COMMISSION

THE PRAIRIE BAND OF THE POTTAWATOMIE TRIBE OF INDIANS, et al.,	)	Docket No. 15-C
HANNAHVILLE INDIAN COMMUNITY, et al.,	)	Docket No. 29-A
CITIZEN BAND OF POTAWATOMI INDIANS,	)	Docket No. 71
Plaintiffs,	)	
v.	)	
THE UNITED STATES OF AMERICA,	)	
Defendant.	)	

Decided: May 26, 1976

Appearances:

Robert S. Johnson, Attorney for Plaintiffs in Docket No. 15-C. Louis L. Rochmes was on the Brief.

Robert C. Bell, Jr., Attorney for Plaintiffs in Docket No. 29-A.

Jack Joseph, Attorney for Plaintiffs in Docket No. 71; Louis L. Rochmes was on the Brief.

Bernard M. Sisson, with whom was Assistant Attorney General Walter H. Johnson, Attorneys for the Defendant.

OPINION OF THE COMMISSION

Pierce, Commissioner, delivered the opinion of the Commission.

NOTE: Pages 129 and 130 of volume 38 were not used by the Commission.

NOTE: Pages 129 and 130 of volume 38 were not used by the Commission.

The Commission has held that the Potawatomi Tribe or Nation ceded to the United States its recognized title to Royce Area 187 in eastern Wisconsin and northeastern Illinois, a large part of Royce Area 160 in Wisconsin, and Royce Areas 188, 189, and 190 in southwestern Michigan,[1/] pursuant to the Treaty of September 26, 1833 (7 Stat. 431), and Articles Supplementary of September 27, 1833 (7 Stat. 442), effective February 21, 1835. Prairie Band of the Pottawatomie Tribe v. United States, 28 Ind. Cl. Comm. 454 (1972). The Commission has held also that the plaintiffs in Dockets 15-C, 29-A, and 71 are entitled to sue in a representative capacity for and on behalf of the Potawatomi Tribe or Nation. Id. In this proceeding, the Commission must determine the value of the ceded lands as of February 21, 1835, and the value of the consideration which the Potawatomis received therefor, including the fair market value, as of February 21, 1835, of the 5,000,000 acres of exchange land in western Iowa. Id. at 497 and 33 Ind. Cl. Comm. 394 (1974). The question of the consideration paid to the Potawatomis for the cession under the Treaty of September 26, 27, 1833, must be determined to find the amount that, under the Indian Claims Commission Act, 25 U.S.C. § 70a (1970), must be deducted as payment on the claim, and also to determine whether the consideration was unconscionable.

A valuation hearing in these dockets was held June 10 through June 14, 1974.

1/ The numbered areas are those shown on Royce's maps, 18th Annual Report of the Bureau of American Ethnology (Part 2), Indian Land Cessions (1896-97).

The defendant and the plaintiffs in Dockets 15-C and 71 have each requested leave to file a late exhibit. The defendant asks to file as its exhibit V-38 a General Accounting Office report dated December 29, 1952, on the Treaty of September 26, 1883, with the United Nation of Chippewa, Ottawa, and Pottawatomie Indians, prepared for use with seven dockets before the Commission including the three here involved. The defendant assumed that the report had been previously filed and believes that it is necessary for the Commission to adjudicate the consideration paid under the Treaty of September 26, 1833, and Articles Supplementary of September 27, 1833.

The plaintiffs in Dockets 15-C and 71 ask to file as their exhibit Y-55 a letter of June 29, 1818, from C. Vandeventer, Lewis Cass', Chief Clerk, which appears in American State Papers, Indian Affairs, Vol. [VI] II, pp. 175-176, and assertedly shows that obtaining a cession from Indian tribes involved bribing some influential members of the tribe.

Since the Commission may take judicial notice of these documents, we will permit them admission.

The lands to be valued herein include Royce Area 187 situated in northern Illinois and southeastern Wisconsin along the western shore of Lake Michigan, and also lands north of Area 187 in northeastern Wisconsin which are a part of Royce Area 160. The evaluation also includes nine sections of land in Royce Area 148 (see n. 5, infra) in northeastern Illinois and three tracts in southwestern Michigan, Royce Areas 188, 189, and 190. The Illinois and Wisconsin lands were ceded

to the United States under the Treaty of September 26, 1833, by the United Nation of Chippewa, Ottawa, and Potawatomi Indians, and the Michigan tracts were ceded on September 27, 1833, under Articles Supplementary to the Treaty of September 26, 1833, by the chiefs and head-men of the said United Nation residing upon the reservations situated in the Territory of Michigan south of the Grand River. 7 Stat. 431, 442. (See title opinion in subject dockets, 28 Ind. Cl. Comm. 454, 460-64 (1972).)

The Bureau of Land Management has determined and the parties accept the acreage of the tracts to be as follows:

Royce Areas 160 and 187 (Wisconsin and Illinois) 5,110,148

Royce Areas 188, 189, 190 (Michigan) 104,960

The nine sections in Area 148 are considered in findings under the caption, Further Treaty Consideration.

February 21, 1835, the proclamation date of the Treaty of September 26, 1833, and the Supplementary Articles thereto of September 27, 1833, is the date of valuation for the lands ceded under the treaty and supplementary articles. 28 Ind. Cl. Comm. 454, 497.

General Boundaries of Tracts to be Evaluated

The principal tract to be valued consists of two adjoining Royce Areas, namely, 187 in northeastern Illinois and southeastern Wisconsin, and most of Royce Area 160 in Wisconsin, immediately north of Area 187. The eastern boundary of the two areas is the shore of Lake Michigan extending from the present-day Evanston, Illinois, just north of Chicago, to the northernmost tip of the Door Peninsula between Green

Bay and Lake Michigan. The southern boundary is a line running west from Evanston about 87 miles to the east side of Rock River at approximately present-day Byron, near Rockford, Illinois. The western boundary extends from that point north along the Rock River, Lake Winnebago (excluding the shaded portion of Area 160 as shown on the map, appendix II, 28 Ind. Cl. Comm. 495), Green Bay, and interconnecting streams, northeastward to the tip of the Door Peninsula. Royce Areas 187 and 160 include all of Boone, McHenry, and Lake counties, and the northern portions of DeKalb, Kane, and Cook counties, the eastern portion of Winnebago County, and the northeastern corner of Ogle County in Illinois. In Wisconsin, the lands to be evaluated include all of Walworth, Kenosha, Racine, Waukesha, Milwaukee, Washington, Osaukee, Sheboygan, Manitowoc, Kewanee, and Door counties, and the eastern portion of Rock, Jefferson, Dodge, Fond du Lac, Calumet, and Brown counties. Royce Area 160 contains 1,611,982 acres plus 18,114 acres of islands. The land area of Royce 187 is 3,480,052 acres.

Royce Areas 188, 189, and 190, the three relatively small tracts in southwestern Michigan in parts of present-day St. Joseph, Kalamazoo, and Berrien counties, contain a total of 104,960 acres.

Population Movement and Settlement

The population of the United States was increasing by about 3% a year at the time of the evaluation. It more than tripled during the years 1810 to 1850. Illinois became a state in 1818, Michigan in 1837,

and Wisconsin in 1848. The greatest increases in settlement up to about 1830 in Illinois and Wisconsin occurred along the Ohio, the Mississippi, and the Missouri rivers. This settlement pattern was changed by the opening of the Erie Canal in 1825 which provided routes other than the Ohio River from the east to the Northwest Territory. After 1833, the population of Michigan, northeastern Illinois, and eastern Wisconsin expanded rapidly. The increase was made up mostly of settlers from the eastern United States who used the Great Lakes. Although pre-1830 population concentration in Illinois was in the southern and western portions of the state, close to the Ohio and Mississippi rivers, and the pre-1830 population of Wisconsin was concentrated in southwestern Wisconsin in the lead mining region, population in northeastern Illinois and southeastern Wisconsin increased greatly following the cession of the plaintiff's lands in 1833. The settlers came into subject lands after 1833 principally by way of the lakes from the northern and eastern states, some using a mixed land and water route--the Erie Canal to Buffalo, steamboat to Detroit, and from there, the Chicago road around the end of Lake Michigan and various trails into Illinois and Wisconsin.

National Conditions at the Time of Evaluation

During the early 1830's important industrial inventions were rapidly coming into use. Steamboats used the Great Lakes from Buffalo to Chicago and also the Ohio, Mississippi, and other rivers, thus

facilitating access to subject lands. Many settlers travelled by lake to Chicago and continued west by ox-team. Although in use in 1828, railroads were not built in the vicinity of these lands until after the evaluation date.

President Jackson's successful fight against renewal of the charter of the United States Bank was followed at first by prosperity with increases in property value and speculation in land and other investments. The national debt was extinguished in 1835 and remained virtually so for the next two years. On the evaluation date, February 21, 1835, the country was prospering. The great interest in internal improvements after the successful completion of the Erie Canal, the competition of eastern cities for materials which could be supplied by the west, increasing commodity prices, and the availability of credit, all stimulated the development of western lands. Land, more than other commodities, was speculated in during the inflationary years immediately preceding the panic of 1837. Twenty eight million acres of rich lands were placed on the market by the government in 1834 and 1835 in contrast to the average of two or three millions offered annually in the former years. In 1833 almost 4,000,000 acres of public land were sold, in 1835 over twelve million acres were sold for sixteen million dollars; in 1836, twenty million acres sold for fifty-four million dollars.

The defeat in 1832 of the Sac and Fox in the Black Hawk War gave prominence to the Rock River Valley in northern Illinois and southeastern Wisconsin, to the prairies, and the "oak openings" in this area, and to the forests in northern Wisconsin. After the cession of subject lands in 1833, Indian land claims were extinguished and the lands were surveyed and offered for sale.

As noted above, the advent of the steamer on the Great Lakes and the completion of the Erie Canal offered greatly improved means of travel to subject lands for settlers from eastern states. In the early 1830's many easterners moved west in hopes of finding better opportunities and of improving their means of making a living. Prosperous business conditions in the east stimulated new immigrants and others to move west in their search for lands.

In anticipating the development of the lands in Royce Area 187, the Commissioner of the General Land Office in 1830 described them as perhaps not excelled by any other tract of country of equal extent in the United States considering the advantages of local position, fertility of soil, healthfulness of climate, and mineral resources. The Commissioner observed that deepening the inlet of the harbor of Chicago would spur the development of the town.

In the era of prosperity after 1833, real estate was the center of much speculative investment. An estimate in a Wisconsin newspaper

stated that real estate investment for the ten years between 1825 and 1835 paid a 20 to 30 per cent return per annum. At the Green Bay land office eight million acres of land out of the thirteen million sold in 1835 were said to have gone to speculators.

Quite extreme speculation centered around the townsites of Chicago and Milwaukee.

> . . . In 1833 Chicago was a mere frontier post; by 1836 it was the fastest growing 'metropolis' of all Christendom. Speculators were running steamboat excursions to this town and on to Milwaukee. It seemed as though almost all of northeastern Illinois was laid out in towns -- on paper. One site which was actually destined to become a great city, could boast but one humble dwelling, yet the lots on that site were commanding $1,000 to $2,500 each . . .
> [From Robbins, Our Landed Heritage - The Public Domain - New York, 1950, Pls. Ex. H-238, Dkt. 29-A.]

Sales of public lands in Wisconsin increased by 253% in the first nine months of 1836 over such sales in 1835.

PHYSICAL CHARACTERISTICS

Climate.

The Michigan, Illinois, and Wisconsin lands being valued are in the north central part of the United States, having a generally temperate climate with distinct seasonal variations typical of this area. The annual precipitation is about 30 to 33 inches, much of which occurs as rainfall during the crop-growing season from April to October.

Northern Wisconsin is somewhat cooler, with a shorter growing season than the other tracts here involved, but all have at least a 160-day frost free growing season which is sufficient for many grain crops. Average summer temperatures range from 66° to 75° and average winter temperatures from 26° to 20.6°.

Land Types

Of the 5,110,148 acres in Royce Areas 187 and 160, about 3,945,000 are generally described as prairie-hardwood and 1,166,000 in the portion of Area 160 north of Sheboygan, Wisconsin, are part of the woodlands of the Great Lakes region and are often designated "the pinery" or "timber-pinery." Sheboygan is close to the southern boundary of the country's northern forest area according to the United States Forest Service's classification of forest areas of the continental United States. The portion of Wisconsin south of Sheboygan is part of the central hardwood forest which extends south into northern Illinois and also includes the Michigan tracts here under consideration.

From Sheboygan north, the portion of Area 160 in subject tract contained thick stands of timber including white pine valuable for lumbering. This gave rise to the name "the pinery" for the northern part of Area 160. Further south in Wisconsin and northern Illinois, stands of woods were interspersed with open prairie lands. The soils of these lands were more favorable to growing agricultural crops than were

the soils of the timber lands further north. Much of the soil in Area 187 was classified as excellent or first rate by surveyors who frequently noted that prairie lands were broken by "oak openings". These were level to gently rolling areas in Michigan, Illinois, and Wisconsin, which were park-like, with widely scattered oaks, no undergrowth of young trees or brush, and the surface of which were covered with grass. Burr oak openings differed from regular oak openings in that the surface was level and the oaks so evenly spaced that they resembled a planted orchard. Oak openings were regarded as evidence that the land was exceptionally good for cultivation.

Survey notes containing township summaries were available for many of the townships in Royce Areas 160 and 187. These include mention of some swamp and wet land associated with the timbered northern part of the tract and with lakes. Of the timbered lands, oak, beech, sugar, and maple were predominant in the southern part of Royce Areas 160 and 187, and hemlock and pine in the northern part.

Stone for construction material was remarked on by surveyors in a number of township summaries. Mill sites were noted in 21 township summaries.

The entire area was well supplied with streams, rivers, and lakes.

No township summaries were available for about one-third of the townships in Areas 160 and 187.

Soil

The soil in subject tract north of Milwaukee contains red clay deposits with some sand and clay. Limestone bedrock and deposits are also present. Where burr oak openings existed, the soil was loam to sandy loam. The soil associated with white oak openings had more clay.

In Racine County, glacial drift of about 20 feet covers red clay beds. In the southern portions of the area, the black to brown prairie loams, similar to Illinois soils, are noted. The predominant soils from the Illinois state line north to the Milwaukee River and Lake Winnebago are the Miami-Bellefontaine association and the Bellefontaine-Rodman Association, the former being more productive than the latter.

The prairie soils are the basis for the cornbelt and are the most productive soils known. These are found in northern Illinois and southeastern Wisconsin, mainly in Area 187.

The soils of the Door Peninsula and southwestern Michigan are called Podzols and may be grey to brown. In some areas these soils are forested. On the Door Peninsula and in southwestern Michigan the land is used for general farming, truck crops, dairying and orchards; peaches and apples are grown in Michigan and cherries in Door County.

Preferred Locations

Settlers in the midwest in 1835 preferred locations that combined timber, prairie, and water. All settlers needed timber for their

cabins and other farm buildings, for rail fences, for fuel, and like uses. Settlers who found a combination of grassland, timber, and surface water could build their houses near water, graze livestock, use cleared or prairie land for growing crops, and have lumber available for construction, fuel, and similar purposes.

Lumber

In the early years of the Wisconsin lumber industry, commercial operations from the lands here involved were limited to pine, preferably white pine, although Norway and other pines were also taken. Hardwoods were not logged. Pine was cut from Royce Area 160 from the Sheboygan River north to the tip of the Door Peninsula and supplied mills which began operating on or near the shore of Lake Michigan in the Green Bay area from the early 1800's and from the Sheboygan area beginning in 1833 and increasingly from 1834-35 and thereafter. Lumber was floated along the water courses to Lake Michigan or the Mississippi for markets in Chicago and western points where the demand for it was strong. Commercial lumbering operations from the pinery on subject tract were not undertaken on a large scale until several years after the evaluation date. Pine from the subject tract was exhausted in about 40 years after the lands were first opened for sale. Lumber was reportedly shipped for sale in Chicago from the Green Bay area from and after 1834.

The market for white pine quickly developed. In February 1834, the Green Bay Intelligencer, a newspaper which began publication in 1833, commented on the availability of white and yellow pine. According to the paper, there were seven sawmills in the county and two under construction. Local pine prices were $10 to $12 per thousand board-feet. In Chicago pine prices were from $25 to $35 per thousand board-feet which prices more than covered freight costs. A schooner was being built at the time for shipping lumber. In May of 1835 the Intelligencer printed complaints that pine lumber was becoming scarce locally because all the best was shipped to Chicago, Mackinaw or elsewhere. During these years, newspapers carried advertisements for the delivery of lumber to places of industry such as a mill and a wharf in Green Bay and to Chicago. The potential for the development of a strong lumber industry based on fine white pine in most of Royce Area 160 was established on the evaluation date and a well-informed purchaser would have been aware of the potential and of the market for Green Bay lumber in the Chicago area which began to develop shortly before the evaluation date.

In 1834, the United States opened two land offices in Wisconsin, one at Mineral Point west of subject lands, and the other at Green Bay. Entries were not possible through the Green Bay office until the spring of 1835. At that time, a rush of settlers competed in filing for lands, chiefly for locations near the lake shore, such as Milwaukee, Racine, Sheboygan, Kenosha, and Maintowoc. Lands west of the lake in Milwaukee, Kenosha, and Racine counties were also settled rapidly in 1835. Settlers

and speculators bought 878,014 acres of Wisconsin land before the end of 1836. Although neither the land nor the timber was open to sale until after survey, and subject lands in Wisconsin were surveyed between 1834 and 1839, it appears that the War Department, without express statutory authority, issued permits to log from Indian lands in Wisconsin after 1830. With or without such permission, lumbermen reportedly carried on timber operations from these lands from about 1810, although these were not carried on as ordinary business operations until about 1837.

Because of the large profits being made in the lumber industry in New York in the 1830's, and the favorable business climate generally, eastern speculators considered Wisconsin timberlands a good investment. The record herein indicates that large amounts of Wisconsin pine lands were purchased by nonresidents, including persons from New York, Chicago, Boston, Detroit, and Philadelphia. With the panic of 1837, much of the speculation in Wisconsin lands ended, but the lumber industry continued to grow because of a large unmet demand for timber in the Mississippi River valley.

Transportation

Overland travel was difficult, slow, and hazardous. Many early roads followed buffalo and Indian trails. Bad weather often left them impassable for wagons or coaches. A stage covered from 60 to 75 miles a day in good weather. Wagons were much slower.

A military road between Chicago and Detroit was begun in 1825. It followed the Fort Dearborn-Detroit trail along the shore of Lake Michigan, branched off at St. Joseph, Michigan, and continued east to Detroit. In 1832 there was stage coach service between Detroit and Niles, Michigan, and by 1833, stages continued all the way to Chicago. The trip took approximately six days. North of Chicago, the military road to Green Bay, surveyed in 1833, followed an Indian trail which had two branches near Chicago and two branches also near Milwaukee. Overland travel between Chicago and Green Bay required five days. About 1832, a stage coach line operated between Chicago and Ottawa, Illinois. Coach lines increased in and from the vicinity of Chicago during 1833 and 1834 as did freight transportation by wagons. A permanent mail route between Chicago and St. Louis was in operation by January 1, 1834. Early in 1836, a number of inhabitants of Rock County, (present-day Janesville), Wisconsin, sent a petition to Congress requesting that a post route be immediately established between Lake Michigan and the Mississippi. The petition remarked that a road from Racine to the Janesville site on the Rock River had been surveyed, and requested that such a road, continuing on to Cassville on the Mississippi, be built. A mail route from Racine to Cassville was approved in the Act of July 2, 1836 (5 Stat. 106-7).

Shipping

In 1831, schooners and other vessels began arriving in Chicago regularly. During 1834, hundreds of persons arrived at Chicago by boat,

steamers made weekly trips between Buffalo and Chicago, and many vessels carried passengers and freight from St. Joseph and other points on the east side of Lake Michigan across to Chicago on the western shore of the lake. Prior to the opening of the Erie Canal, freight shipped to the West from the East Coast was ordinarily sent by way of the Ohio River and the Mississippi. From and after 1833, much of this freight was sent to Chicago and shipped or otherwise sent from there west as the shipping distance might be shortened this way. About 120 vessels arrived at Chicago in 1833, and by 1835, 12 to 14 vessels a week, most carrying merchandise for Chicago, used the harbor there. In addition to Chicago, almost every river mouth along the western shore of Lake Michigan, e.g. Kenosha, Racine, Milwaukee, Sheboygan, Manitowoc, and Green Bay in Wisconsin, was used for shipping and passenger traffic.

There was also shipping on the Mississippi, which carried some passenger traffic by way of Rock River, along the western boundary of Area 187, to points such as Janesville in Rock County, Wisconsin, until about 1835.

The Illinois-Michigan canal, connecting the waters of Lake Michigan by way of the Chicago and Kankakee rivers with the Illinois River which empties into the Mississippi, established an inland connection by water between the Atlantic Ocean and the Gulf of Mexico. The canal, located just south of subject tract, was authorized but not yet constructed on the evaluation date. Its influence on shipping in the Chicago area was considered important as early as 1833.

Site Values, Townsites

In addition to timber values and soil values which enhanced subject lands, their location added special and unique value. Situated in the north central part of the country, bordering or immediately accessible to the Great Lakes water routes, the Erie Canal, and the Atlantic Coast, the lands are also accessible to the Mississippi River and to points west, as well as to the Gulf Coast, indirectly by way of the Chicago, Kankakee, and Fox rivers, and directly by the Rock and Illinois rivers which flow into the Mississippi. In terms of access to transportation routes and commercial markets in the country, even in 1835, when Chicago was just beginning to grow rapidly, the advantages of subject tracts were apparent. The Illinois and Wisconsin lands extended along the western shore of Lake Michigan and were bounded on the west by a tributary of the Mississippi, the Rock River, one of a number of rivers within subject tract which are within the Mississippi River watershed. Thus, products could be shipped north or east by way of the Great Lakes and the Erie Canal, and to the south or west by way of the Mississippi River routes. Similarly, subject lands were accessible to settlers using existing water routes, or combination land and water routes from any direction.

Early Land Sales in Chicago

The southeastern corner of Royce Area 187 is approximately at present-day Evanston, Illinois, the point at which the western shore of Lake Michigan borders the northern tier of townships in Cook County, just

south of Lake County, Illinois. Evanston is adjacent to Chicago and a part of the metropolitan area. From the earliest days of the fur trade, the strategic location of the Chicago region, between the Green Bay-Wisconsin trail and the St. Joseph-Kankakee trail, made it a great thoroughfare. At least one of the trails between Green Bay and Chicago was known from the days of Marquette. And, as already noted, a primary factor in the Chicago region's continued prominence stems from its advantageous location as a point of transfer and exchange between the Great Lakes and the Mississippi waterways.

Beginning in the early spring of 1833, Chicago and the northern part of Illinois grew rapidly, Chicago increasing from a population of approximately 8 to about 1,500 in 1834, and about 3,300 a year later. The first town lots of Chicago were sold at auction in 1830. The lots measured 80 by 180 feet and cost from forty to sixty dollars. School section 16, a square mile which included a small part of present-day downtown Chicago, was sold by public auction which took place October 20th-24th, 1833. The section was divided into lots of about four acres, all but four of which were sold at an average price of $6.72 an acre. The land was sold mostly on credit of one to three years at 10% interest.

Early in the spring of 1834, settlers from all parts of the East began to pour into the Chicago area to obtain lands, including those to be offered for sale following the Potawatomi cession under the Treaty of September 26 and 27, 1833. By the middle of May, the price of land in

Chicago and vicinity increased rapidly, encouraging land speculation. In 1835, Cook County had a population of almost 10,000, and town lots in Chicago were selling at very high prices. For example, an 80' x 150' water front lot which sold for $3,500 in 1834 sold 15 months later for $15,000. Early in the spring of 1835, an 80-acre unimproved tract sold for $62.50 an acre, although not located in a particularly desirable area. The land was resold at $1,000 an acre within three or four months. The growth and development of Chicago stimulated the settlement and demand for land in nearby northern Illinois in Area 187.

In 1835, Chicago provided a number of industries and services. A branch of the state chartered bank was opened in December. Coaches were running to St. Louis in five days (only daylight travel). Two newspapers were established as were two soap and candle factories. An 1835 census reported that Chicago's population was 3279 residents, and it contained 44 drygoods, hardware, and grocery stores, two book stores, four druggists, two jewelers and silversmiths, two tin and copper factories, two printing offices, one steam sawmill, two breweries, one iron foundry, four warehousing and forwarding houses, eight taverns, one lottery office, one bank, five churches, seven schools, 22 lawyers, 14 physicians, a lyceum, and a reading room.

Milwaukee

From 1795 and thereafter, traders maintained posts at the site of Milwaukee about midway between Green Bay and Chicago on Lake Michigan.

Three rivers flow into the lake at Milwaukee, which made its potentialities as a harbor and port city evident from early times. One trader, Solomon Juneau, had worked in the Milwaukee area since 1818. Somewhat later, two others started separate settlements close by. The three separate communities eventually became present-day Milwaukee. Part of the village of Milwaukee was surveyed in 1834 and plotted in 1835.

In April 1834, several New Yorkers began building a sawmill on the first rapid, about three miles above the mouth of the Milwaukee River. A second mill, closer to the mouth of the river was built in 1835. A store was opened in 1834, at which time, before the evaluation date for subject lands, there were also two trading posts, two warehouses (for furs and skins) and five residences.

The lands around the juncture of the Menomonee and the Milwaukee rivers were claimed before the lands were offered for sale in July of 1835. When the lands were then offered, three persons were able to buy the entire area of about four sections (2,560 acres) by using preemptive and floating rights, with which they could purchase the land for $1.25 an acre. These lands were resold for up to $600 for a quarter acre lot. All of Milwaukee County, not just the townsite of Milwaukee, was sold rapidly when it was offered in 1835. Some contemporaneous writers thought that Milwaukee might outstrip Chicago as a commercial city. Several months earlier, on the evaluation date, the demand for land in the area of Milwaukee townsite was so strong that some experts valued town lots at $125 to $250 per acre.

Sawmills, stores and individual businesses were started as settlers moved into the area in increasing numbers. By 1836, the population of Milwaukee County was 2,893, nearly one-half of whom lived within the city of Milwaukee.

The plaintiffs in Docket 29-A submitted copies of Milwaukee County land records showing transactions for September 1835 through June 1836 recorded in the deed books of the county which are the official real estate records of Milwaukee County. The records showed 478 transactions in all, for which a price per acre could be determined, involving 23,504.6 acres. The price per acre of these 478 transactions was $45.52, evidencing a market value per acre far above the $1.25 minimum price at which public land was sold by the United States. By 1837, a city lot in what is now Port Washington, just north of Milwaukee, sold for $300, equivalent to $1,800 per acre. However, after the depression of 1837, Port Washington was almost deserted until 1842.

Green Bay

On February 19, 1834, the Green Bay Intelligencer, printed a short description of Navarino situated within the Green Bay settlement area. A town plat of Navarino was located and surveyed in 1829 at which time there was only one log house owned by Mr. Daniel Whitney on the town plat. Mr. Whitney at once began to build a wharf, ware-house, stores, and dwelling houses. Early saw mills in the area furnishing lumber for local use were built in 1809, 1814, and thereafter.

From about the first part of 1833, settlers began building in the town and by February 1834, though a small part of the whole settlement at Green Bay, Navarino contained three wharves, thirty buildings completed, and several others started. When first offered, lots sold at from $20 to $100. By February 1834, they were worth from $40 to $500. Nearly all the waterfront lots and those near the lake had been sold in 1834. Town lots were ordinarily considerably less than an acre in size.

The article on Navarino in the February 1834 issue of the Green Bay Intelligencer observed that materials for building in Navarino were ample. Good pine lumber could be purchased locally at $10 to $12 per thousand board-feet, brick at $5.50 per M; lime at 87 1/2 cents per barrel, and stone at 75 cents per perch.

The settlement and growth of other towns bordering Lake Michigan such as Racine, Kenosha, Sheboygan, and Manitowoc were rapid. Speculation in the lands of Sheboygan and Manitowoc, largely by non-settlers, resulted in extraordinarily high land prices in those towns between 1835 and 1837. (See finding nos. 42-44.)

The Commission has found that the highest and best use of most of the land was for resale for farming in relatively small tracts of about 160 acres. The forested lands in northern Wisconsin were additionally valuable because of their potential for commercial timber use. The townsite areas were uniquely valuable as port cities

along Lake Michigan's western shore and as sites close to the center of two of the country's largest waterways, namely, the Great Lakes and the Mississippi River. The quantity of land covered by newly developing townsites in 1835 was relatively very small of course. However, the special value because of the location which these sites had, and still have, in relation to the country's population and markets is so favorable as to require particular notice in any discussion of the highest and best use of subject lands.

Evaluation and Appraisal Reports

We turn now to the appraisal and land evaluation reports in evidence. The plaintiffs in Docket 29-A submitted two separate appraisal and evaluation reports, one for Royce Areas 160 and 187 and the other for the Michigan tracts. The plaintiffs in Docket 15-C submitted a comprehensive appraisal study as did the defendant. In addition, the plaintiffs in Dockets 15-C and 71 also submitted a timber valuation study on the timber in the pinery in Royce Area 160. The conclusions of these reports and studies differ greatly. The defendant's appraiser concluded that the fair market value of subject lands on February 21, 1835, was $3,185,450.00.

The fair market value of these lands on the evaluation date according to the expert witnesses for the plaintiffs in Docket 29-A was approximately $20,056,000.00.

The evaluation studies by the plaintiffs' experts in Dockets 15-C and 71 concluded that the fair market value of the ceded lands on February 21, 1835, was $25,577,597.00.

We shall summarize here the evaluation studies and appraisal reports supporting these valuations. The studies are described in more detail in our findings.

The plaintiff in Docket 29-A submitted a study prepared for this proceeding entitled, "An Appraisal of Certain Lands in Eastern Wisconsin and Northeastern Illinois as of February 21, 1835", prepared by George Banzhaf & Co., a forest resources consulting firm in Milwaukee. Richard C. Winslow, principal author of the study, is a forest consultant with the Banzhaf firm. He testified at the subject hearing on the value of the Wisconsin and Illinois lands herein.

In appraising the ceded lands as of February 21, 1835, the features which Mr. Winslow regarded as particularly important were the location of the land in relation to waterways or land transportation routes, timber and mineral resources of the land, the suitability of the land for farming, and the extent to which the land had been developed through capital investments thereon. Mr. Winslow considered access to navigable waters as being particularly important. Rivers not only provided a transportation route but also often furnished a source of water power. Mr. Winslow listed the rivers, briefly described in finding no, 51, as contributing exceptional value to the lands adjacent to them. The lands bordering the rivers in the areas listed to a depth of one-half mile on both sides were considered of particular value, except for the Rock River, only the east side of which was within subject tract.

Milwaukee and Port Cities

Mr. Winslow observed that although an appraiser in February of 1835 could not have known the actual results of the sales several months later, he obviously would have been aware of the potential long-term value and attractiveness of property located at the mouths of important rivers. The report therefore placed exceptional values on the four sections of land falling near the mouth of the Root River in Racine County, the Sauk River in Ozaukee County, the Sheboygan River in Sheboygan County, the Twin Rivers and Manitowoc River in Manitowoc County, and the Kewaunee River in Kewaunee County.

On the evaluation date, lands in the vicinity of Milwaukee had a special value. Its location made it a natural port city. Mr. Winslow emphasized that lands near the juncture of the Milwaukee and the Menomonee Rivers in what is now the city of Milwaukee had real value in 1835 for land speculators. Lots had been surveyed, capital invested, and plans made for the development of four sections (2,560 acres) at the juncture of the rivers in what became the central portion of the city of Milwaukee. As noted above, three speculators controlled these four sections. Before the end of July 1835, when small amounts of land east and west of the Milwaukee River were first offered for sale, all lands within two miles of the prospective village had been claimed, apparently by persons with floating and preemptive rights to purchase land. This forced the purchase of these lands from speculators or promoters at constantly increasing prices. The anticipation that Milwaukee would grow was a factor in maintaining high land prices in the area.

Descriptions of land sales from the Green Bay Land Office in 1835 refer to buyers who looked for bargains in future village sites. Mr. Winslow quotes the following observations from an historian of the times (Smith, History of Wisconsin, Vol. I, 418-19 (W. F. Thompson, ed. 1973)).

> . . . Groups of purchasers were ready when the sale opened to pounce upon tracts that would become valuable as lake ports, water-power sites, transportation arteries. Township 15 North, Range 23 East, lying in present Sheboygan County was promptly taken up by various small co-operating purchasers, mainly from Green Bay. For the highly prized sections at the river's mouth site of the present Sheboygan, sold on November 27, 1835, the same group admitted at advanced prices a few outsiders from Milwaukee and Chicago. . . . Occasionally patents were never applied for and the lands reverted to the government. But for the prized Lake Michigan village sites, patents were issued and some of the lots were held at speculators' prices for years. A township twenty-five miles to the north, in which the future Manitowoc was located, was similarly a virtual Green Bay monopoly, in which land office register William B. Slaughter and receiver S. W. Beall figured prominently. The sites of Fond du Lac, Neenah-Menasha, Janesville, Beloit, and numerous other attractive locations for future municipalities were entered late in 1835, in the fever heat of speculation.

In discussing the demand of settlers for agricultural lands on the Illinois and Wisconsin tracts here under consideration, Mr. Winslow observed that there was a great amount of public land available and unsold at the minimum price of $1.25 an acre which tended to depress land values. He confirmed the testimony of other witnesses that oak openings or savannahs were regarded as particularly valuable for farming, and were more desirable to settlers than the open prairie. He valued oak openings separately from prairie lands.

The timberlands located in Royce Area 160 were another component of value of subject tracts. Timber was abundant in the southern areas but it was used primarily for local purposes. Parts of the pinery furnished as much as a million and a half board feet per forty-acre tract, almost forty thousand feet of pine per acre. Others yielded only a thousand to thirty-five hundred board feet to the acre. Mr. Winslow believed that the average for the region was probably 5 to 6 thousand board-feet per acre and perhaps more. On the appraisal date in February 1835, little commercial development had taken place, but from 1834 and on, surveyors' notes recognized that the lands in Royce Area 160 north of Sheboygan were potentially valuable for lumbering, with many references to pine suitable for lumber, and streams offering excellent mill sites. Sawmills were established at Sheboygan, Manitowoc, and Two Rivers between 1833 and 1837.

In concluding that subject lands in eastern Wisconsin and northeastern Illinois had a fair market value of $19,116,048.00 in February 1835, Mr. Winslow divided the tracts into nine categories each of which he valued as follows:

Classification	Acreage	Value Per Acre	Total Value
Milwaukee Development	2,560	$250.00	$ 640,000.00
Milwaukee Area	2,560	125.00	320,000.00
Potential Port Cities	10,240	100.00	1,024,000.00
Other Cities	5,120	26.00	133,120.00
River Corridors	160,704	13.00	2,089,152.00
Pinery Acreage	582,861	10.00	5,828,610.00
Oak Openings	726,810	5.00	3,634,050.00
Prairie	570,392	1.50	855,588.00
Other Lands	3,061,019	1.50	4,591,528.00
TOTAL	5,122,266		$19,116,048.00

The plaintiffs in Docket 29-A also submitted a study by Dr. Helen Tanner entitled, Historical Report - Land Evaluation, Royce 188, 189, 190, in southwestern Michigan. Her report is a history of southwestern Michigan with an emphasis on factors affecting the economic development of the region up to 1850. The focus is on the portions of St. Joseph's, Berrien, and Kalamazoo counties, Michigan, in which Royce Areas 188, 189, and 190 were located. (Royce Areas 188 and 190 are shown on Royce's map 1 of Michigan and Area 189 is shown on Royce's map 2 of Michigan.) Under the Articles Supplementary of September 27, 1833 (7 Stat. 442), the plaintiffs ceded their lands in Michigan which comprise these tracts. Preparations in 1825 to survey the road between Detroit and Chicago, which had long been an Indian trail between these points, was a stimulus to the settlement and development of southwestern Michigan. The Erie Canal was also opened in 1825 providing a direct route between the seaboard and the subject tracts. The improved transportation from the east coast into southwest Michigan and the treaties ceding Indian lands in the area brought about a rapid population increase in the southern portion of Michigan during the 1830's. The population growth was confined almost entirely to the southern part of Michigan's lower peninsula. According to Dr. Tanner, in 1834, the population of southwestern Michigan, including the counties where Royce Areas 188, 189, and 190 were situated, was over 11,000 and increasing. She estimated that probably fewer than 200 Potawatomis remained in the region at the time.

The Michigan tracts which were ceded contained good to very good agricultural lands which were linked by transportation facilities to Detroit

and Chicago. The best of the ceded lands were in Royce Area 190. Some of these were offered for sale as seminary (school) land at $20 an acre, though the price was later reduced to $12, then $6 an acre, and if still unsold, it could be bought at 10 shillings or $2.50 per acre under the preemption act. Saw-mills and grist mills were built and operated on some of this land from and after 1836. Dr. Tanner found that contemporary writers valued lands like those in Area 190 at $10 per acre. She emphasized that the relatively high value of Berrien County lands was shown by state tax assessments (representing perhaps one-half of the market value) in comparison with the assessed value of Kalamazoo and St. Joseph County lands. Dr. Tanner found that Area 190 lands had a higher per-acre market value than did the lands in Royce Areas 188 and 189. In 1836, according to Dr. Tanner's report, the average assessed value per acre of land in Berrien County where Royce Area 190 is situated was $4.27, for Kalamazoo County where a part of Royce 189 was located, $2.90, and for St. Joseph's County where the rest of Royce Area 189 and all of Royce 188 were located, $1.80. Dr. Tanner concluded, on the basis of agricultural potential of the land, closeness to transportation, and evidence of market value indicated by the assessed per-acre value of the land in the counties where the Michigan tracts are situated, that the per-acre value of lands in Areas 188 and 189 was $8 or $9 per acre and in Area 190 was $10.

A study entitled "Timber Descriptions and Lumber Volumes and Values", dated June 1974, by Dr. Lawrence Rakestraw, Professor of History and

Lecturer in Forestry at Michigan Technological University, was offered by the plaintiffs in Dockets 15-C and 71. The study attempted to determine the volume of the merchantable white pine within the northern portion of subject lands, designated as the pinery, to find how many board feet of lumber this would make, and to describe the economic data which were relevant in considering the profit-making possibilities of the white pine industry in the area as of 1835.

The land was surveyed in 1835. Notes of survey were used to determine the volume of merchantable white pine in the portion of Royce Area 160 north of Sheboygan, that being the area identified as the pinery by Dr. Rakestraw. According to the Rakestraw study, trees in the natural state form definite communities which are standard throughout a given area. Dr. Rakestraw used as an example forests in northern Wisconsin and Upper Michigan as to which he testified that if hemlock, maple, and basswood are present, the forests will almost always also include about 500 board feet of white pine per acre. Data from the survey notes of the pinery lands were extracted to prepare type maps which were used with census data to determine the volume of useable white pine saw timber on this land.

Dr. Rakestraw's study concluded that a total volume of 7,399,296,950 BF (plus or minus 15%) of useable white pine saw timber was on the pinery in northern Royce Area 160 here involved. The total white pine volume would be closer to 15 billion than 7.4 billion board feet, but the loss which occurred when sawing the timber into lumber approximated 50%. Dr. Rakestraw

allowed 25% in additional losses from damage in transportation and similar causes with a resulting 5.55 billion board feet net at the mill.

Lumbermen began coming to the Green Bay area in Door County about the time the land was surveyed in 1834-1835, at which time land in the area was usually sold at the Land Office at Mineral Point for $1.25 an acre. However, large quantities of timber were cut and taken without purchase of the land. Logging mills in the area were early located at Sheboygan River, Manitowoc, Two Rivers, and Kewaunee. These mill sites were in heavy stands of pine timber. Pine could be hauled directly to the mill, and Dr. Rakestraw estimated that the costs of logging, producing, and merchandising would not exceed $5.25 to $6.00 per thousand board-feet. Depending on quality, prices ranged from $8.00 per thousand board-feet for common to $16 for first clear. Given a production cost of $4 to $6 per thousand board-feet, Dr. Rakestraw observed that the profit margin of the entrepreneur was enormous.

Dr. Rakestraw testified at the hearing that in his report he listed three lumber mills in Royce Area 160 in 1835, but there were probably more. In his opinion the timber was not being produced exclusively for local use. Some lumber was reportedly shipped to Chicago, where white pine sold at $25 to $35 per M. from as early as 1832, continuing through the evaluation date and thereafter. (Timber was also shipped to Chicago from the St. Joseph's River area which was closer than Area 160 to Chicago.)

Chicago was a boom town, a growing lake port in 1835, but its rapid population increase started at about the evaluation date. (By 1840 prices in Chicago had changed--1840 prices for pine, retail, were clear, per M, $18-20; merchantable, $12-$14.) "Clear" lumber was without defects, without knots and without pit seams, wind shake, or other defects. "Merchantable" would have some knots but no defects which would affect the strength of the lumber. Chicago dealers were grading their lumber by 1840. Green Bay lumber commanded premium prices, above that of Kalamazoo, St. Joe, and Grand River.

An informed purchaser of timber land in 1835 would be aware of the fine quality of the timber in Royce Area 160 in estimating how much he was willing to pay for the lands.

The plaintiffs in Dockets 15-C and 71 presented as their overall appraisal study the report of a lengthy, well-documented valuation study of subject tracts by Dr. Roger K. Chisholm who analyzed, summarized, and presented the data in the record from the viewpoint and background of an economic historian. He has served as an expert witness before the Indian Claims Commission in a number of previous cases.

Various factors affecting economic conditions and land prices on the evaluation date including population, money supply and availability, exports, income, and government expenditures were discussed in Dr. Chisholm's appraisal report. These are set forth in our findings and will be only briefly summarized here.

The United States went through an economic panic and recession in 1833, and a depression in 1834, but business revived in late 1834 and economic recovery was accompanied by a rapid rise in commodity prices, a great surge in land sales, and a foreign trade boom in 1835. Business activity was stimulated by such enterprises as the beginning of railroad construction and internal waterway projects, and the increase of public and private funds in many kinds of transportation improvements and facilities.

The public debt was wiped out (retired) during the years 1831-1835, i.e. the Federal Government ran a budget surplus. From the latter part of 1834 through the years 1835 and 1836, the country's economy was prosperous. The population of the country was increasing during the years before and after the evaluation date. With the growth of the population and settlement of the country, an expanding money supply and an increasing number of banks providing banking services facilitated sales of land along with many other activities which were part of the expanding economic and commercial development. Production from farms increased, exports expanded, income increased. Speculation in land including the public lands was active. All previous records of public land sales were broken in 1835 when 12.6 million acres of public lands were sold.

Not long after the evaluation date, land prices in the Illinois portion of subject tract ranged from $1.25 to $5.00 an acre for unimproved tracts without timber, and tracts with timber sold for three or four times as much. Higher prices were reported by contemporary observers for lands in and near Chicago, and near Navarino, Green Bay, Manitowoc, Sheboygan, Milwaukee, and Racine, in Wisconsin. Much of Dr. Chisholm's analysis of land values in the subject tracts is based upon detailed consideration of a large amount of sales data. Data on sales of lands within subject tract and of adjacent lands in Michigan similar to subject lands were used to indicate changes in the price of lands between 1830 and 1835. The data considered included abbreviated abstracts of deeds showing the following information for each deed: date, seller, buyer, consideration, consideration per acre, legal description, acreage, section, township, range, county, book and page of recording, and, if available, assessed value, assessed value per acre, and improvements if any were shown. Dr. Chisholm excluded from the sales considered transactions indicating a forced sale (e.g. sheriff's sale), sales in which the last name of the seller and the buyer were the same (as these might indicate a close family relationship), and transactions in which no consideration was shown. He also tried to eliminate all but the first sale of each tract, and did not use sales of lands known and platted as town lots. The individual sales transactions are identified in appendices to Dr. Chisholm's report showing, among other things, who bought and sold the land, dates of the deed, the recording date, the consideration, acreage, and description.

Plaintiff's exhibit W 99 (Dockets 15-C and 71) is an affidavit by W. D. Davis, an appraiser, inter alia, and one of the principal partners of Appraisal Associates of Kansas City, Missouri, stating:

> That under his direct supervision, abbreviated abstracts of deeds and samplings of mortgages were taken in the following counties and states for the periods shown:

COUNTY	STATE	DATES
Kenosha	Wisconsin	1843 through 1865
Racine	"	1836 " 1865
Washington	"	1839 " 1865
Ozaukee	"	1836 " 1865
Winnebago & Brown, etc.	"	1837 " 1865
McHenry	Illinois	1839 " 1865
Lake	"	1840 " 1865
Jo Daviess	"	1828 " 1838

The affidavit stated further that 29,959 abbreviated abstracts of deeds were listed in this material.

Dr. Chisholm and an assistant collected a similar body of data from counties in Michigan and Indiana regarded as having lands like those in the subject tract and also because of their proximity to Royce Areas 188, 189 and 190. The counties, states and dates covered are:

COUNTY	STATE	DATES
Allegan	Michigan	1835 through 1836
Berrien	"	1831 " 1834
Cass	"	1830 " 1835
LaPorte	Indiana	1831 " 1835
Ottawa	Michigan	1834 " 1836

The data were collected according to the conditions for including sales in the first sample, e.g. that transactions involving only nominal

consideration ($1.00 and other good and valuable considerations) were not recorded, and forced sales, sales in which the last name of the seller and buyer were the same, and sales of town lots and tracts for which it was not possible to determine the acreage were also excluded.

The Michigan and Indiana lands were chosen for comparability data because their soil, climate, and other characteristics were similar to subject tracts, because they were located close to Lake Michigan, were recently settled, were close to the lands here being evaluated, and some settlers on their way to subject tracts would have crossed the lands on which comparability data were taken and would be familiar with the market for lands of this type. Hundreds of sales transactions were considered in making the study. These represented parcels of land actually sold ranging in size from only a few acres to almost 2,000 acres in one instance. Dr. Chisholm believed that the sales were representative of the lands in subject tracts. Prairie and timber lands occur in the sample. Lands near lakes and rivers as well as those at a distance from large bodies of water are included as are tracts adjacent to as well as distant from townsites. The data for land sales in Michigan and Indiana are summarized in our findings. Dr. Chisholm's data show that in 1834, prices had more than doubled since 1830, and in 1835, they were almost three times the 1830 level. Dr. Chisholm computed for the counties included in the study a weighted average of the median values for which the lands were sold. The values were weighted by the number of acres

actually sold. The weighted average of the median sale value of lands in the transactions summarized in Table 22, as modified by Table A (see finding no. 51c) was approximately $3.59 per acre.

Market sales of land in Royce Areas 160 and 187 were not recorded between 1830 and 1835 but sales in these areas which were recorded between 1836 and 1841 are included in his analysis. Dr. Chisholm believed that both the level and trend in sales prices after 1836 should be approximately the same for the Illinois-Wisconsin lands as for the Michigan-Indiana lands. For each of the Wisconsin and Illinois counties considered (Milwaukee, Washington, Ozaukee, Brown, and Racine, in Wisconsin, and Lake County, Illinois), the mean and median sale prices over the 1836-41 period are summarized. The equivalent 1835 price is also shown as an aid in comparing the data for different years. Dr. Chisholm found that the data on Wisconsin and Illinois sales showed that the trend of prices in each case continued upward through 1837, that from 1837 to 1840 there was a decline in land prices, and recovery began in 1841.

Dr. Chisholm apparently considered that the sales data collected were the best available source for determining a representative sales price, and assumed that knowledge of actual sales prices for similar and nearby land would be used by prospective purchasers to decide what to offer for the subject tract. Analysis of actual sales in the subject tract indicated the continuing trend of prices once the land reached the market.

The defendant objected to certain typographical and arithmetical mistakes in Dr. Chisholm's summary tables and to the inclusion in his data of a number of sales transactions which were back to back sales, duplicate recordings, and some which contained apparently inaccurate land descriptions. The defendant objected also that Dr. Chisholm had not put into evidence the work sheets from which his summary tables were constructed.

On the basis of the defendant's criticism, Dr. Chisholm recalculated the mean and median prices after eliminating inaccurately described tracts, eliminating also duplicate and partial duplicate sales, and confining the transactions used to the first sale of the tracts. On July 29, 1974, the plaintiffs' counsel in Dockets 15-C and 71 submitted 244 pages of Dr. Chisholm's computations, work sheets, and summaries showing the computation of the mean value per acre as the data were defined in his testimony at the hearing, the computation of the mean value per acre as the data were redefined, the computation of the median value per acre as the data were defined in his testimony at the hearing, and the median value per acre as the data were redefined. In explaining that reconsideration of the sales data to meet the defendant's objections provided no basis for modifying his conclusions in the appraisal report, Dr. Chisholm commented on and summarized the results of his recalculations with the observation that the changes in the data and the results from the correction of errors and redefining the sample were small, and, on balance, offsetting so that

he found no reason to change the conclusion. The details of the changes and the basis for his conclusion are set forth in our findings.

We have carefully examined Dr. Chisholm's worksheets and related material submitted on July 29, 1974, and conclude that the changes resulting from the elimination of listings objected to by the defendant were insufficient to warrant modification of Dr. Chisholm's conclusions as to the level and trend of prices shown by the sales data considered in his appraisal report.

Dr. Chisholm determined the value of the Michigan lands here involved, which were prairie and prairie-hardwood lands, by using the weighted average of the median sale value, $3.50 per acre, from his summary of Michigan and Indiana sales transactions between 1830 and 1835. The improvement cost for prairie-type lands of 83 cents (for cabins, fencing, and breaking) was divided in half, to 42 cents, based on what Dr. Chisholm regarded as the very conservative estimate that one-half of the lands contained improvements. (See Finding 51 c.) Since the average value of the improvements being sold was 42 cents an acre, the fair market value of subject land in southwestern Michigan, Royce Areas 188, 189, and 190, would be $3.59 less 42 cents, or $3.17 per acre. Dr. Chisholm used $3.15 as the per acre value in determining that the total value for the three tracts containing 104,960 acres was $330,624.

On the west side of Lake Michigan, the Wisconsin and Illinois lands were divided into two parts for valuation. (1) The lands which were

predominantly prairie with hardwood groves, referred to as prairie, included all of Royce Area 187, and the part of Royce Area 160 situated south of the Sheboygan River. For the prairie areas, the value of improvement costs was 83 cents. Again using one-half as an estimate of the amount of land which was improved, the value would be $3.59 less 42 cents or $3.17 per acre. The figure of $3.15 was used as an approximate per-acre value of this land, a price which Dr. Chisholm found was consistent with the data in Table 23. The acreage of this portion of prairie-hardwood was 3,944,542. Dr. Chisholm found that its total value on the evaluation date was $12,425,307.

(2) The lands of the pinery north of the Sheboygan River were covered by stands of white pine and other trees. In timbered areas, the value of a cabin was 18 cents per acre and the value of clearing was $1.87, a total of $2.05 per acre for the value of improvements. Deducting the value of improvements from $3.59, the per-acre value of comparable lands, cleared farm lands would have a per-acre value of $1.54. However, as the value of the land in the pinery was enhanced by the white pine, Dr. Chisholm explained his method of calculating the amount of that enhancement.

In evaluating the timber lands in the pinery, i.e., the lands in Area 160 from Sheboygan north to the tip of the Door Peninsula, Dr. Chisholm relied on Dr. Rakestraw's study which we summarized previously. Dr. Chisholm pointed out that saw mills began operating along the western

shores of Lake Michigan in 1835 and that lumber was reportedly shipped to Chicago from the Green Bay area as early as 1834. After the Indians ceded their title to the United States, prospective lumbermen were expected to wait until the land had been surveyed before cutting the timber. However, after 1830, it was apparently possible to obtain permits from the War Department to cut lumber, but commonly timber was simply cut from the lands without authority, in trespass. Surveyors of the northern portion of much of Area 160 mentioned the fine stands of pine, and noted that a sawmill was in operation north of Sheboygan. Many eastern investors were attracted to the Wisconsin pinery by advertisements in eastern papers. Thousands of acres of Wisconsin land were taken up by easterners and other nonresidents between 1834 and 1839. On the evaluation date, entries in Wisconsin could be made only through the Mineral Point Land Office. Lands were offered through the Green Bay office in the summer of 1835. Lands in the pinery here involved were among the first to be surveyed in Wisconsin. By 1839, commercial lumber operations in the pinery had expanded and the business of supplying lumber to Chicago began to assume magnitude.

In accordance with Dr. Rakestraw's study on the timber in subject pinery, Dr. Chisholm assumed that there were 5,500 board feet of white pine per acre in the stand and that white pine sold in Green Bay at an average of $10.80 per thousand board feet (but the price in Chicago in 1835 was more than twice as high). Dr. Chisholm estimated the gross

value of the white pine at $11 per thousand board feet or $60.50 per acre ($11 times 5.5). The value by which the pine was found to enhance the land was then determined after having calculated the net value per acre of that enhancement at $9.51, as explained in finding No. 51c. Dr. Chisholm added the $9.51 to the farming value per acre of the cleared land, resulting in a total per acre value of $11.05. Dr. Chisholm concluded that the pinery land, enhanced by the pine was worth $11.00 an acre, and that the total value of the pinery was $12,821,666.

In summarizing his appraisal, Dr. Chisholm mentioned briefly some of the general considerations affecting his conclusions. Among these were the fact that on the evaluation date the population of the United States was growing, that this increased the demand for land and for the products of the land, and that settlers were moving into subject tracts at a rapid rate. These and other factors discussed above, particularly the specific conclusions stemming from the study of sales data and timber values were the primary considerations entering into Dr. Chisholm's appraisal of subject areas at $25,577,597, or an average value of $4.51 per acre. The total is arrived at as shown below in Table 25 from his appraisal report.

Acres, Per Acre Value, and Total Market Value of Tracts, 1835

Area	Acres	Per Acre Value	Total
R.A. 188, 189 & 190	104,960	$3.15	$330,624
Prairie-Hardwood	3,944,542	3.15	12,425,307
Timber-Pinery	1,165,606	11.00	12,821,666
Totals	5,215,108		$25,577,597

The prairie areas include all of Royce Area 187 which contains 3,480,052 acres. The area between the southern boundary of Royce Area 160 and the Sheboygan River was computed from the surveyors' plats as 464,490 acres. The pinery is all of the 1,630,096 acres making up the mainland and islands of Royce Area 160 less the 464,490 acres south of the Sheboygan River, or 1,165,606 acres.

Dr. William G. Murray, who has written a number of appraisal reports for use before the Commission, prepared the defendant's appraisal report herein. Dr. Murray valued the 5,110,148 acres in Royce Areas 160 and 187 at $3,070,000 or about $.60 an acre. He found that Royce Areas 188, 189, and 190 in Michigan containing 104,960 acres had a total value of $115,500, a per-acre value of $1.10.

Turning first to the Wisconsin and Illinois lands in Royce Areas 160 and 187, Dr. Murray pointed out that different types of land were involved, varying from the timbered northern Wisconsin lands to the fertile prairie lands of northern Illinois and the commercially important Chicago area with water frontage and fine harbor facilities extending along the western shore of Lake Michigan. Dr. Murray emphasized that the northern part of Illinois was not settled as early as the southern portion of the State and that during the 1820's, settlers migrated west into Missouri rather than into northern Illinois and Wisconsin.

Dr. Murray relied on survey notes for descriptions of the physical characteristics of Royce Areas 160 and 187. He found that the soils ranged

from excellent or first rate (about 25%) to second rate (about 25%) and some poor soils. The latter type occurred mostly in the northern part of Area 160 where the timber was heavy. The topography of the lands ranged from level to gently rolling or rolling.

Survey notes showed further that Areas 160 and 187 were well watered. In addition to fine rivers, streams and lakes, there were a good many springs, and, as has been previously mentioned, the western shore of Lake Michigan borders Areas 160 and 187 on the east, extending south from the islands off the northern tip of Door County, Wisconsin, to the northern edge of Chicago at what is now Evanston, Illinois. The survey notes frequently mentioned stone and limestone as construction material used by and available to settlers in plentiful quantities. The surveyors also noted many millsites in these areas. They were in demand on the evaluation date for grist mills to grind corn and wheat and for sawmills for lumber.

The survey notes indicated that there was good, commercial quality white pine timber in northern Wisconsin, e.g. in the area of Sheboygan.

From his study of public land sales, Dr. Murray concluded that it would take a relatively long time, as long as twenty years, to resell the large tract, Royce Areas 160 and 187, in small units to settlers. He also concluded that heavily timbered areas were much less attractive to settlers than were prairie lands with timbered areas close by. The market demand for lumber, according to Dr. Murray, was to supply local

needs which were limited. He concluded that such local needs did not stimulate a demand to purchase the heavily timbered lands for sale at $1.25 an acre. He found no special value for the heavily timbered Wisconsin lands from Sheboygan north known as the pinery, largely on the ground that there was no immediate market for the lumber.

Dr. Murray recognized that the growth in population of Chicago from 1833 on through the evaluation date, the rapid expansion of Chicago as a commercial and marketing center, and the increased traffic on Lake Michigan stimulated the settlement and demand for lands nearby in Royce Areas 187 and 160. However, he limited to 50,000 acres the amount of land in subject tracts which he described as choice sites having a value of $5.00 an acre, and to 150,000 acres the amount of land having a good location with a value of $2.25 per acre.

Dr. Murray concluded that the highest and best use for the lands in Royce Areas 160 and 187 was for farming. He chose as comparison areas lands in Michigan and in central to southern Illinois and Missouri in considering the development and demand for land on February 21, 1835, in Wisconsin and Illinois. The comparison lands included lands in the Sangamon River area, Illinois, near Springfield, and the Illinois River area, near Peoria.

In reaching his conclusion that the fair market value of the 5,110,148 acres in Royce Areas 160 and 187 on February 21, 1835, was $3,070,000 or about $.60 an acre, Dr. Murray divided the lands into the eight classes as shown in finding no. 51d.

On the basis of his study of survey information, of public land sales in nearby areas, of reference materials and other relevant information, Dr. Murray concluded that Royce Areas 188, 189, and 190 in southwestern Michigan, had a value of $115,500, an average of $1.10 an acre for the 104,960 acres on February 21, 1835. In the process of appraising the three tracts, Dr. Murray divided the lands into five classes. The names, acreages, and prices for each of these classes are shown in finding no. 51d.

As noted at the outset of our discussion of the appraisal reports, the parties are far apart in their valuation of subject lands. The defendant found that subject tracts in Wisconsin and Illinois were worth a total of $3,070,000, or about $.60 an acre on February 21, 1835. On the same date, the three Michigan tracts, Royce Areas 188, 189, and 190 had a fair market value of $115,450, or about $1.10 an acre, according to the defendant. The total value of subject lands as found by the defendant's appraiser was $3,185,450.

Dr. Chisholm's appraisal for the plaintiffs in Dockets 15-C and 71 valued subject lands at $25,577,597, the per-acre prices being $3.15 for the prairie-hardwood areas and the three southwestern Michigan tracts, and $11.00 per acre for the timber-pinery lands, with an average per-acre value of about $4.51.

The plaintiffs in Docket 29-A submitted a report which valued the Michigan tracts, Royce Areas 188 and 189, at $8.50 an acre for a total

of $625,000, and Royce Area 190 at $10 an acre, for a total of $313,600, amounting to $939,200 for the three Michigan tracts.

The plaintiffs in Docket 29-A also submitted an appraisal report by the George Banzhaf & Co. which found that the value of Royce Areas 160 and 187 was $19,116,048.00 on the evaluation date, or about $3.82 per acre.

The total appraised value of the ceded lands, as urged by the plaintiffs in Docket 29-A is approximately $20,056,000.00.

Only a few of the factors which resulted in so great a range in the appraised values of subject lands will be mentioned here. We note that Dr. Tanner's study contained useful historical data about the three small Michigan tracts. Mr. Winslow's appraisal of the Area 160 and 187 lands emphasized, properly, we believe, the location and site values of portions of subject lands in addition to their value for timber and agricultural development.

Turning to the arguments of the parties on the appraisal reports, the defendant objected to Dr. Chisholm's selection of sales data on the ground that both the data on the subject tracts and the comparable data gave disproportionate weight to choice values in Milwaukee, lands near Chicago, and other highly desirable locations. However, Dr. Chisholm did not consider sales of known or platted town lots in his sales data. Other information in the record about the sale of lands along the western shore of Lake Michigan in northern Illinois and southern Wisconsin, and of the sale of the southwestern Michigan tracts emphasizes that these

lands had particular value because of their location in relation to both the Great Lakes and the Mississippi River transportation routes, in addition to the fact that their fertility, timber values, and other characteristics made them attractive to many settlers and potential purchasers. We conclude that the demand by settlers and other buyers for lands within subject areas shown in the prices reported in Dr. Chisholm's sales data was a genuine indication and expression of market value.

The evaluation date in this case is earlier by several years than the dates when most of the lands were first offered for sale. The very earliest sales of these tracts which are relied on by the plaintiffs presumably give greater weight to the sale prices of the most accessible, and what were then regarded as the most desirable, lands in the tracts. This tends to minimize the fact that the entire tract, not just its most desirable areas, must be valued as of February 21, 1835. The remoteness of some of the lands here involved, the undesirability of the heavily timbered lands for farming, and the abundance of good agricultural land available in other parts of the country, tended to lower the market value of portions of subject tracts. These were factors which the plaintiffs' expert witnesses tended to disregard. (As explained in our findings on the Iowa exchange tract, we have not discounted the value of the 187 and 160 areas on account of size because the effect of such a discount would be canceled by a similar discount for size in determining the fair market value of the Iowa exchange tract.)

We consider next the extent to which improvements affected the value of the lands. In estimating the cost of improvements to be deducted from the sales price of lands, Dr. Chisholm used improvement costs which varied with the type of land involved. Thus $3.50 an acre was allowed for the cost of breaking, fencing and other improvements on cleared prairie lands used for agricultural purposes.

In Royce Area 160, the value of clearing and fencing timber lands was $1.87 an acre. The cost for clearing the subject lands south of the Sheboygan River was $.65 an acre. Substantial evidence indicates that, ordinarily, at least 20 man days per acre were required to clear prairie land, and if a person did nothing else for 365 days, the amount of land that could be cleared was limited.

The steel plow had not yet been invented in 1835, and the lack of farm machinery and of labor restricted the quantity of prairie land which could be cleared and other improvements which could be added to those which could be done by an ordinary entryman and his family. Accordingly, the defendant's objections to Dr. Chisholm's determination of the value of improvements (which assumed that one-half of the tracts in the sales data sample were improved) are not convincing. The defendant's contention, that Dr. Chisholm should have recognized that the cost for improvements varied with the size of the tract purchased, disregards the fact that in 1835 farm machinery had not yet been invented and the labor supply was insufficient to quickly clear or add other improvements to frontier lands.

Experts in other proceedings before the Commission have indicated that improvements (such as cabins and fencing) amount to only a small percentage (considerably less than one-half) of the value of lands being evaluated as of February 1839. Finding no. 25, Iowa Tribe v. United States, Docket 153, 22 Ind. Cl. Comm. 385, 403-04 (1970). In Sac and Fox Tribe v. United States, 167 Ct. Cl. 710 (1964), rev'g Docket 220, 11 Ind. Cl. Comm. 578 (1962), the Court accepted expert calculation that improvements constituted a small percentage of the value of lands and evidence that lack of adequate tools, implements, and horses made for flimsy improvements of little monetary value. Considering the evaluation date of 1835, Dr. Chisholm's adjustment for improvements seems to us more than adequate in view of the nominal nature and value of many of the improvements at that time on newly opened lands.

Dr. Chisholm's stress on the energetic business and trading activities about the evaluation date, his conclusions based on abundant sales data showing an active demand for the land when it was offered for sale, his sense of the vigorous growth in population and development of the Chicago-Milwaukee and Sheboygan-Green Bay areas, reflected matters which would be important to an informed buyer in determining how much he would pay for the land. The plaintiffs' witnesses stressed that in addition to valuable timber and soil resources, subject tracts contained outstanding townsites along the western shore of Lake Michigan, many mill sites, and other river front acreage valuable for industrial, commercial, and transportation

purposes, all of which were more valuable because their situation made them easily accessible to both the Great Lakes and the Mississippi River shipping routes.[2/]

The defendant argues that Dr. Chisholm's method of valuation of the pinery lands is a stumpage method which has been held by the courts and this Commission an improper way of valuing timber lands. According to plaintiff's counsel in Dockets 15-C and 71, Dr. Chisholm's valuation of the pinery lands was not a stumpage method since he first valued the pinery lands without considering the special value of the white pine. Evidence of the quality, quantity, and price of the marketable white pine was offered and used to show the enhancement of the value of the lands in the pinery by the white pine. However, the Commission has heretofore refused to accept a simple addition of stumpage value in determining the amount by which land values are enhanced by timber or comparable resources.[3/] Considering the risks involved in the lumber industry, and considering that much of the timber could be acquired without purchasing the land, even though the acquisition was illegal,

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2/ The defendant objected to the fact that none of the plaintiffs' experts who prepared valuation reports are real estate appraisers or members of a society of real estate appraisers. In previous cases, the Commission has rejected similar arguments that documentary evidence relating to land values was incompetent to prove values without the accompanying opinion of an expert appraiser. The Commission has pointed out that the opinions of expert appraisers are one sort of evidence which the Commission weighs along with documentary facts and other evidence in reaching its conclusions on land values. Miami Tribe v. United States, Docket 256, 14 Ind. Cl. Comm. 375, 448 (1964).

3/ In Pueblo de Zia v. United States, Docket 137, 24 Ind. Cl. Comm. 270 (1970), the Commission rejected estimates of fair market value of timber land involving simple addition of timber value, grazing value, and watershed value, holding that the fair market value required evaluation of the land as a whole..

it seems doubtful that a purchaser who wanted to acquire the timber as well as the land would pay almost nine times as much for the pinery lands as the $1.25 for which the United States offered to sell it. (We observe parenthetically in this connection that the Commission has found that some of the northern portion of the pinery land here involved had a fair market value of 80 cents an acre as of June 25, 1832. Emigrant New York Indians v. United States, Docket 75, 11 Ind. Cl. Comm. 336, 357 (1962), aff'd, 177 Ct. Cl. 263 (1966)). In our opinion, Dr. Chisholm's determination resulted in a higher per-acre value of the pinery land than the facts warranted.

Conversely, we find that the defendant's failure to find any enhancement of the pinery lands by reason of the potential value of the timber resulted in substantially underestimating the value of these lands. We have found that a demand for Green Bay lumber was developing in Chicago and other rapidly growing areas nearby contrary to the assumptions of the defendant's appraiser. Additional considerations which affect our conclusion about the enhancement value of the timber in the northern Wisconsin lands are that the economic outlook on the evaluation date encouraged speculation in land and in timber lands, and the population in the potential market area, Chicago, was expanding at a rapid rate. See Red Lake Band v. United States, Docket 18-E, 20 Ind. Cl. Comm. 137 (1968).

There is substantial evidence that Dr. Murray underestimated the market for lumber on the evaluation date and the rapidity with which the market in the Chicago area would develop. Lumber supplies for the

eastern market were becoming depleted. Eastern investors and others bought large quantities of Wisconsin land apparently in part because the potential commercial value of the timber seemed a good investment. An informed buyer would have been aware that the demand for lumber would increase with the growth and development of the midwestern portions of the country. In 1835, a purchaser of subject tracts would have known of the excellent quality of timber in the Green Bay area as compared with available lumber from areas further east. Moreover, the fact that lumber from the pinery in Area 160 could be shipped on Lake Michigan to Chicago and from there to midwestern, eastern, southern or western markets markedly enhanced the potential commercial value of the timbered portions of Royce Area 160 and to a lesser degree the timber lands in Royce Area 187.

Dr. Murray stressed the fact that up to 1830, the direction of the population movement from the east coming by way of the Ohio River to the mid-west was north on the Mississippi to the Missouri River and then west on the Missouri River toward Kansas City, rather than north into northern Illinois and southern Wisconsin (except for the lead mining settlements near Galena in northwestern Illinois and southwestern Wisconsin). However, this trend changed after the completion of the Erie Canal and the Indian cession of subject lands. After 1833, Chicago grew rapidly, as did Milwaukee, Racine, Kenosha, and other towns in subject tracts. Dr. Murray's appraisal overlooked this marked change in settlement and population growth in the Chicago-Milwaukee area after 1833 and the rapid settlement of the southern portions of Area 187 and the

eastern portion of Area 160. Dr. Murray's failure to take account of the change in settlement patterns in the area of subject tracts shortly before and continuing after the evaluation date results in an underestimate of the demand for the northeastern Illinois and eastern Wisconsin lands here involved for both agricultural and commercial uses and development.

Dr. Murray's selection of lands in central Illinois and southwestern Michigan as comparison lands for the 160 and 187 tract resulted in his comparison of the demand for good prairie land with equally good or better prairie land in the immediate area of the Great Lakes and the timbered to heavily timbered areas further north in eastern Wisconsin. None of the lands which Dr. Murray chose as comparison lands were really adequate comparison for the Chicago area or for the Racine, Milwaukee, Sheboygan, Manitowoc areas. Each of the towns just named became important port cities or towns along the western shore of Lake Michigan. Their location on what became, after the completion of the Erie Canal in 1825, a principal waterway from the Great Lakes to the Atlantic Ocean, gave them great superiority, because of their accessibility to markets and population centers, over lands not so situated. Dr. Murray failed to note the advantages of much of subject land over the comparison lands. This is one factor which may have entered into what, in our opinion, was his underestimation of values of northeastern Illinois and southeastern Wisconsin lands. By reason of closeness to the rapidly growing commercial and marketing centers of Chicago and Milwaukee, in addition to their values as unusually good farm or timber lands, many of the lands in the

160 and 187 tract had advantages which would make them much more attractive to buyers than the comparison lands on which Dr. Murray relied.

A prospective purchaser knew of the pressure of settlers to move into subject lands. For a number of years the United States had been trying to persuade the Chippewas, Ottawas, and Potawatomis to cede their Wisconsin, Illinois, and Michigan lands. A prospective informed purchaser knew of the great demand for white pine lumber in developing communities in the eastern areas of the country, and knew also of the rapid rate at which commercial lumber in forests east of subject tracts was being depleted. He could estimate from the rate at which Chicago and Milwaukee were growing that large amounts of commercial pine might well be in demand in these and other developing population centers in subject tract within a relatively few years. He knew that eastern lumber suppliers had selected sites for saw mills. They had begun building saw mills and selecting areas from which lumber was to be first cut a year and more before the evaluation date.[4/]

In Kickapoo Tribe v. United States, Docket 316-A, 23 Ind. Cl. Comm. 189, 195 (1970), the Commission held that, although relatively comparable lands sold for from $.99 cents to $1.28 per acre, the land there involved had a $2.26 per-acre value as it was favorably located with respect to impending population movements, transportation facilities, and prospective

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4/ In the opinion of an historian of the lumber industry, pine from the Green Bay-Sheboygan area was marketed before that from West Virginia forests because of the accessibility of the Green Bay-Sheboygan pinery to transportation routes and markets.

rail lines. It was well suited for agriculture and would have attracted prospective buyers as of the valuation date.

In Ottawa Tribe v. United States, Docket 304, 25 Ind. Cl. Comm. 1 (1971), the Commission valued more than 28,000 acres of land at $8.52 an acre as of 1833, where the land was located on a river entrance to Lake Erie on the route used by new settlers from the northeast seeking lands in Ohio and eastern Indiana. Two townsites were established near subject lands as of the valuation date. Although access routes to the tracts from the east were poor, a canal and related improvements were planned. Additionally, the year was regarded as a very favorable year for land speculators. The Commission observed in this case that an inflationary trend and speculation in land values, trends advantageous to sellers, were to be taken into consideration in determining fair market value. (Id. at 6.)

As in the two cases just cited, certain portions of the tracts here being evaluated were much more valuable than $1.25 an acre, the price at which they were sold by the United States. The timber resources of subject lands and the situation of portions of the lands in relation to developing port cities and to the commercial centers of Chicago and Milwaukee are examples of features which contributed particularly to the value of parts of subject tracts.

On the basis of the matters discussed in this opinion, considering all of our findings herein and the entire record in this case, we have

found that the overall market value of subject land, comprising 5,115,908 acres in Wisconsin and Illinois,[5/] and 104,960 acres in Michigan, was $6,600,000 or about $1.26 an acre on the evaluation date, February 21, 1835. In reaching this conclusion, we have considered that the subject lands consisted of slightly more than 3,100,000 acres of good farming land in the prairie-hardwood regions of the Great Lakes; that about a million acres were in the timber-pinery region of northeastern Wisconsin, most of which were potentially valuable for commercial lumber development; that about 900,000 acres of the land contained excellent soils or consisted of oak openings, fine for crop cultivation; and finally, that about 200,000 acres of the land were situated in or near townsites, port cities, or consisted of important river-front acreage valuable for industrial or transportation purposes or had other site advantages which enhanced their value.

The Iowa Exchange Tract

The second article of the Treaty of September 26, 1833, provides that in part consideration for the cession under Article 1 the United States would grant to the United Nation of Indians a tract of not less than 5,000,000 acres of land west of the Mississippi River. The

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5/ Nine sections of land located in Royce Area 148 which were assigned and surrendered to the United States under the consideration paragraphs of the Treaty of September 26, 1833, are included in the acreage total for Wisconsin and Illinois lands.

boundaries of the tract, as set forth in the second article of the treaty, were altered by resolution of the United States Senate on May 22, 1834 (7 Stat. 447-48). The Indians did not consent to the alteration, but on October 1, 1834, urged that the boundaries be altered further to the following description:

> Beginning at the mouth of Boyer's river; thence down the Missouri river, to a point thereon; from which a due east line would strike the northwest corner of the State of Missouri; thence along the said east line, to the northwest corner of said State; then along the northern boundary line of the said State of Missouri, till it strikes the line of the lands of the Sac and Fox Indians; thence northwardly along said line to a point from which a west line would strike the sources of the Little Sioux river; thence along said west line, till it strikes the said sources of said river; then down said river to its mouth; thence down the Missouri river, to the place of beginning:
> Provided the said boundary shall contain five million of acres; but should it contain more, then said boundaries are to be reduced so as to contain the said five million of acres.
> [7 Stat. 446-47.]

The boundary changes thus proposed were adopted by Senate Resolution on February 11, 1835 (7 Stat. 447, 448).

In consideration of the boundary alteration, the United States agreed to pay $10,000 for the benefit of the plaintiff, to pay $2,000 to Gholson Kercheval, of Chicago, Illinois, for services to the plaintiff during the war between the United States and the Sac and Fox Indians, and to pay George Walker $1,000 for bringing Indian prisoners from west of the Mississippi River to Ottawa, Illinois. 7 Stat. 447-48.

In an opinion of March 20, 1974, the Commission denied the motion of plaintiffs in 15-C that the 5,000,000 acres of exchange lands granted to the United Nation Indians as part of the consideration under the Treaty of September 26, 1833, be determined either not to affect the plaintiffs' recovery or that the tract be valued on the basis of the consideration which the United States paid for it under the Treaty of July 15, 1830 (7 Stat. 328). In denying the motion, the Commission held that the defendant should be credited with the "fair market value" as of February 21, 1835, of the exchange lands actually provided under the 1833 treaty. Prairie Band of the Pottawatomie Tribe v. United States, Docket 15-C et al., 33 Ind. Cl. Comm. 394, 400 (1974).

The defendant requested that Area 265 in Iowa, referred to as the Iowa exchange lands, consisting of 5 million acres, extending from central to southwestern Iowa, be valued in this proceeding inasmuch as that tract was a part of the treaty consideration for the cession of Royce Areas 187 and 160. The defendant included in its appraisal some of the survey notes of Royce Area 265 and Dr. William Murray's appraisal of the part of Area 265 which has been identified as the Iowa exchange tract. The amended description of the tract is set forth above. It was one of several amendments which was adopted by the Senate as part of its consent to ratification of the Treaty of September 26, 27, 1833 (7 Stat. 447, 448). The plaintiffs argue that the Commission should either deny the defendant credit for the tract as consideration because the defendant failed to establish its value by competent evidence, or should allow the defendant

credit for the amount which the Government paid for the lands, or should value the exchange tract by weighing such independent evidence as there is with respect to the Iowa lands and value them as of 1835.

In keeping with their legal position, the plaintiffs did not introduce any evidence on the value of the Iowa lands at the valuation trial herein. They dispute the defendant's evidence and conclusion as to the value of the Iowa exchange tract in 1835, but point out that the Commission might consider such independent evidence as is available to it regarding the lands, discount Dr. Murray's appraisal in accordance with their objections to it, and value the lands as of 1835. As discussed more fully hereafter, the Iowa tract has been valued at 75 cents an acre as of 1846 in a prior Commission proceeding. The defendant has submitted some survey note on the tract, and the record contains abundant material on the social, economic and political factors which affected the prices in 1835 of lands in the area of the ceded lands and of the exchange tract. The Commission has also valued lands immediately to the east of the Iowa exchange tract as of February 1839, 4 years later than the evaluation date for this proceeding.

The portion of Royce Area 265 here under consideration was valued, as of June 1846, in the Commission proceeding valuing lands ceded by the Potawatomi Nation under the Treaty of June 5, 17, 1846 (9 Stat. 853). Prairie Band of Potawatomi Indians, Docket 15-J, 4 Ind. Cl. Comm. 409 (1956), aff'd, 143 Ct. Cl. 131, 165 F. Supp. 139 (1958), cert. denied, 359 U.S. 908 (1959). Economic, social, and political factors affecting the values of

western Iowa land in 1846 were not necessarily comparable to the affect of those, or corresponding, factors more than eleven years earlier in 1835. However, most of the physical data on the land would not have changed or be affected by the time difference. Dr. Murray, defendant's appraiser herein, was also appraiser for the defendant in the evaluation proceeding involving the Treaty of June 5, 17, 1846, in the Prairie Band of Potawatomi Indians, Docket 15-J, supra.

The Commission may take judicial notice of its findings in the Prairie Band proceeding, supra, regarding the basic physical conditions of the tract which presumably would not have changed in the 11-year period between 1835 and 1846, and therefore would be relevant to a determination of fair market value in February 1835. Further, the Commission may take judicial notice of treaties and agreements of the United States with other groups of Indians relating to the use and disposition of subject exchange lands in western Iowa. The Commission may also take judicial notice of its determinations in evaluation proceedings relating to lands close to the exchange tract at times near the 1835 evaluation date here involved which touched on political, economic, and social conditions, such as the opening of nearby lands to settlers and the movement of settlers into such lands.

After considering the matter, we conclude that there is sufficient data in previous Commission determinations, added to the evidence offered herein, to determine the value of the exchange tract in February 1835.

The general economic, social, and political factors influencing market value in 1835 are in evidence here as is the defendant's separate appraisal report on the Iowa exchange tract.

However, the Commission cannot base its valuation of the Iowa exchange tract as of February 21, 1835, on actual fair market value. In a number of cases, the Court of Claims has observed with approval that where no private sales market in fact existed for Indian lands on the date of cession, it has been settled practice of the Commission to consider such evidence of private sales as appears to be of probative value, and look to the best evidence available in determining market value. Sac and Fox Tribe v. United States, 167 Ct. Cl. 710 (1964), rev'g. Docket 220, 11 Ind. Cl. Comm. 578 (1964).

In Otoe and Missouri Tribe v. United States, 131 Ct. Cl. 593, 131 F. Supp. 265, cert. denied, 350 U.S. 848 (1955), the court, in discussing methods of valuation of Indian lands, pointed out that sometimes information based on an actual market for the lands is not available because the lands are not open to sale or settlement. The Court observed that in arriving at a fair determination of the market value of tribal lands, consideration was given to the quality of the land, its use at the time, the price paid by the Government for similar land at about the same time under treaties with other bands of Indians, the prices paid by persons other than Indians buying similar land in the locality from private citizens, and like factors. Determinations of value based on such factors must be used in circumstances where the land had no

conventional market value because it was absolutely controlled by the only possible purchaser, the United States.

In this proceeding, we have considered the factors just mentioned, particularly those which in our opinion, would have been weighed by a prospective buyer of the tract on the evaluation date. These include the natural resources of the land, e.g., its soil, timber, and minerals, their economic value at the time of cession, the accessibility of the land to transportation routes and markets, and the length of time the land would probably have to be held before resale. In addition, we have considered the defendant's appraisal herein of the exchange land, and the Commission's determinations of the fair market value of this and nearby lands in other proceedings, making appropriate allowance for differences in evaluation dates and other basic factors affecting land value.

In finding no. 21 of Prairie Band of Potawatomi Indians v. United States, Dockets 15-J and 71-A, 4 Ind. Cl. Comm. 424-25, supra, the Commission found that the boundaries of the 5-million acre tract of exchange land in Iowa, as amended by the treaty parties to exclude from the exchange area all land in the State of Missouri, were intended to extend northward a sufficient distance to include 5 million acres. The boundaries, as described in the amended treaty are those shown on Royce's map, Iowa 2, as cession No. 265. However, these boundaries embraced more than 7 million acres. The Commission found that the 5 million acres granted to the United Nation are in the southern portion of that tract with the northern boundary at approximately the 42nd parallel of latitude.

As we noted above, the Commission determined in 1956 the value of the Iowa exchange tract (and of the Osage River tract in Kansas which is not involved in subject proceeding) as of June 5, 17, 1846, following a valuation trial thereon.

The Iowa exchange lands are the portion of Royce Area 265 bounded on the north by the 42nd parallel, on the west by the Missouri River, and on the south by the Missouri-Iowa boundary line. The five-million acre tract is situated in the southwestern corner of Iowa. It includes all of Fremont, Page, Taylor, Mills, Montgomery, Adams, Pottawatomi, Cass, and Shelby counties, and parts of Monona, Crawford, Carroll, Audobon, Harrison, Adair, Union and Ringgold counties.

Among the streams and rivers on the tract are the Boyer, the West Nishnabotna, the East Nishnabotna, and the West Nodaway and Platte Rivers.

Physical Characteristics

Most of the Iowa exchange tract lands contained good or very good soil. These were interspersed with lands having second and third rate quality soil. In addition, there were some areas having poor drainage and some steep regions in the northwest portion of the tract. Annual precipitation in the area of the exchange tract, 28 to 34 inches, was somewhat less than that in the area of the ceded lands. A purchaser of the Iowa tract would be aware that crop failure due to lack of rainfall might be more of a threat in the area of the exchange tract than of the ceded lands. However, the climate in the area of the exchange tract was generally favorable to farming and to raising grain and livestock.

Appendix B in Dr. Murray's appraisal report herein contains the summaries or general descriptions which government surveyors noted after

surveying 60 miles of section lines inside each township of the exchange tract. For the townships having no such general descriptions, the summary observations of the surveyor at the end of each mile were included.

The exchange tract was surveyed at various times between 1849 and 1853. In addition to noting that most of its soils were good for cultivation, the land was described as well watered with rivers and streams, and, except that it lacked timber, was regarded as good farming country. At the time of the survey, some timber occurred in patches, mostly along water courses. Surveyors remarked that the scarcity of timber would make farming difficult in some portions of the tract. The land was level to rolling for the most part, but was hilly and rough along the Missouri River bluffs.

The remains of Indian camps were noted by the surveyors as late as 1850. Settlers had not moved into the area and were not occupying it in any numbers at the time of survey, long after the evaluation date herein.

Lands within the exchange tract were untilled, having been used primarily for hunting on the evaluation date, February 21, 1835. Generally, these lands were not suitable for growing crops until the surface had been broken by plows.

In Prairie Band of Potawatomi Indians, Docket 15-J, 4 Ind. Cl. Comm. supra, at 438, the Commission found that around 1846, improved farm machinery such as crude plows operated by horses or oxen were becoming available. Thick deep roots of the prairie cover prevented any substantial amount of cultivation without plows. Preparing land for

cultivation was difficult and time-consuming work. Prairie grasses were so tough that the sod could not be broken with ordinary plows but required special breaking plows. These were unwieldy, massive implements drawn by five or six yokes of oxen. With the largest of these plows, a furrow of only about 30 inches could be turned. However, the steel plow was not in use in 1835.

The Iowa exchange tract was not known to contain valuable minerals in 1835. Despite the scarcity of timber, its best potential use was for farming, the growing of grain crops, and the production of livestock. Prairie Band of Potawatomi Indians, Docket 15-J, supra, at 437.

A discussion of the settlement of prairie and subhumid lands by pioneers from the eastern part of the country in Climate and Man, Yearbook of Agriculture, 1941, observes that in settlements of the open prairie, the lack of timber, which had been plentiful in the humid east and which the settlers relied on extensively, was a serious detriment. Timber was used to build houses, barns and other buildings. It had furnished fuel and fencing materials, tools, and household furnishings. Wooded areas and forests also sheltered many animals which supplied food and furnishings for the settlers.

In Prairie Band of Potawatomi Indians, Docket 15-J, supra, the Commission found that during the treaty negotiations for the cession of Areas 187 and 160, the Indians were told that they would not only have as good lands west of the Mississippi as they owned east of the Mississippi, but that mills would be erected for them and that they would

be helped to prepare the land for farming. Later, the Indians who objected, inter alia, to the lack of timber and the remoteness of the lands felt that they had been deceived. (See finding no. 53.)

Dr. Murray's valuation of Royce Area 265 was based in part on an assumption that new settlements after 1830 in the area of the Missouri River would continue north from Kansas City, and that the land was desirable for agricultural development except for the shortage of timber. He believed that an interest rate of 8% was a reasonable one to use in calculating what a prospective buyer would have to pay to borrow funds to buy Royce Area 265 in 1835. Of the 435,434 acres of land in northwest Missouri, immediately south of Area 265, which were offered for public sale in 1821, only 38 per cent had sold through 1834, a rate slightly less than 3% a year. Dr. Murray assumed that there would be a 10-year period before the lands in Area 265 could be sold. He concluded that as of February 21, 1835, the value of the 5,000,000-acre exchange tract in Royce Area 265 was $1,300,000 or 26 cents an acre. However, on the basis of the Commission decision that as of June 5, 17, 1846, the fair market value of the 5,000,000-acre tract was 75 cents an acre, for a total of $3,750,000 (Prairie Band of Potawatomi Indians, 4 Ind. Cl. Comm. at 471 (1956)), Dr. Murray valued the exchange tract at 43 cents an acre for a total of $2,150,000 as of February 21, 1835. The only basis for changing his conclusion that the tract should be valued at 26 cents an acre as of February 1835 was the Commission's

determination of the 75 cents per-acre value in June 1846.

In addition to the 11-year time difference there were many conditions and circumstances affecting the value of the exchange tract in 1835 which differed markedly from those determinative of market value in 1846, and which need to be considered and weighed before deciding the matter.

In Otoe and Missouria Tribe v. United States, Dockets 11-A and 138, 5 Ind. Cl. Comm. 316 (1957), the Commission found that under the Treaty of July 15, 1830, proclaimed February 24, 1831 (7 Stat. 328), with the Otoes and Missouria, the Iowas, the Omaha, the Confederated Tribes of the Sacs and Foxes, and the Bands or Tribes of the Medawa Kanton, the Wahpacoota, Wahpeton, and Sisseton Sioux, the participating Indians ceded and relinquished their right and title to part of Royce Area 151, containing approximately 11 million acres along the Missouri River and streams feeding into it in western Iowa and northern Missouri, and including a small triangular-shaped area in southwestern Minnesota. The cession was qualified by a provision that the ceded lands were to be assigned and alloted under the direction of the President of the United States to the tribes then living thereon or to such other tribes as the President might locate thereon for hunting and other purposes. The Commission found (finding no. 46 in Otoe and Missouria Tribe, supra, at 343-45) that the United States intended to allot the area as a common

hunting ground and to prevent further warfare and enforce peace among the tribes using the area by defining boundaries between them.

The Commission further found that by the Treaty of September 26, 1833, as proclaimed with amendments of February 21, 1835 (7 Stat. 431, 447-48), the United States made an outright grant to the United Nation of Chippewa, Ottawa, and Potawatomi Indians of a tract of five million acres within Area 151 south of the Yankton line and immediately north of the boundary line between Iowa and Missouri. (Id. at 345-46, and see Yankton Sioux Tribe v. United States, 175 Ct. Cl. 564, at 569-72 (1966), aff'g Commission order of November 25, 1959, in Dockets 11-A and 138, fixing the location of part of the Yankton line; and rev'g the Commission in part not here pertinent in Dockets 142, 359-363, and 332-A, 10 Ind. Cl. Comm. 137 (1962).)

The tribes participating in the Treaty of July 15, 1830, ceded their interests in the tract a number of years after February 21, 1835, the evaluation date herein. The cession dates of these interests, as found by Commission order of November 29, 1957, 5 Ind. Cl. Comm. 366 (1957), in Dockets 11-A and 138, were as described in the following paragraph.

The Iowa Tribe ceded its interest in the exchange tract on November 23, 1837 (7 Stat. 547), effective February 16, 1838. The Sac and Fox Tribe ceded its interest in the Iowa exchange tract by the treaties of October 21, 1837 (7 Stat. 540, 543), effective February 16, 1838. The Otoe and Missouria Tribe ceded its interest in the exchange

tract by Treaty of March 15, 1854 (10 Stat. 1038), effective April 17, 1854, and the Omaha Tribe ceded its interest in the exchange tract by the Treaty of March 16, 1854 (10 Stat. 1043), effective April 17, 1854.

Thus, Indian title of the Otoe and Missouria Tribe, and of the Iowa, the Omaha, and the Sac and Fox tribes in Royce Area 151 (which includes all of Royce Area 265 here involved), had not been extinguished on February 21, 1835, the evaluation date of the Iowa exchange tract for purposes of determining its value as payment on the plaintiffs' claim under section 2 of the Indian Claims Commission Act. 25 U.S.C. §70a (1970). The fact that tribes, other than the plaintiffs, had treaty claims to the exchange tract, which were not extinguished until long after the evaluation date, affected the market value of the tract on the evaluation date when the tract became subject to the plaintiffs' rights under the Treaty of September 26, 27, 1833. The United States prohibited acquisition of title to land subject to Indian treaty and occupancy claims and settlers did not ordinarily move into such areas. The length of time elapsing before a tract would become available for resale to settlers would be expected to increase with each additional treaty claim for the land. (See Iowa Tribe v. United States, Docket 153, 22 Ind. Cl. Comm. 388-89 (1970), in which the continued use of an area by Indians with the date of their removal assumed but uncertain was acknowledged as a factor depressing land value, and Crow Tribe v. United States, Docket 54, 6 Ind. Cl. Comm. 112, 124 (1958).) Opening the land

for sale was precluded as long as substantial Indian occupancy claims or treaty rights were outstanding, and clearing the land of such claims often required time-consuming negotiations. In February 1835, an informed purchaser would have had no way of knowing when the Indian interests in the Iowa exchange tract might be acquired by the United States.

In finding nos. 42 and 43, in the Prairie Band of Potawatomi Indians, Docket 15-J, supra, the Commission found that although steamboats were plying the Missouri River in 1846, shipping at that time (eleven years after the valuation date for the lands here involved) was subject to hazards of swift currents, shifting sand bars, seasonal low water, and winter ice. Despite navigational difficulties, it was an important waterway. However, there were no tributaries flowing through the Iowa tract into the Missouri River which were large enough to carry steamboats. Water transportation was necessary to transport supplies to the tract from any distance.

There were no prospects of railroads on or near the exchange tract in February 1835.

The lack of accessibility of the Iowa tract to commercial markets and populated areas of the country, and to settlers using the ordinary routes of travel, is an important factor in determining the fair market value of the land in February 1835. Lands which were closer to populated areas and established markets and lands which were readily accessible

to settlers were in greater demand and had a higher market value than remote areas. Our findings on transportation and on the economic development of the Wisconsin, Illinois, and Michigan ceded lands, and comparable data regarding the Iowa exchange lands, indicate that the Iowa lands were much less accessible to settlers and established markets than were the ceded lands, which was in line with the removal of Indians to areas remote from white settlements. The Commission has found that a discount for remoteness of the exchange tract, amounting to 25%, is appropriate in determining properly the effect of the lack of accessibility of the tract on its fair market value. (finding no. 58.)

Decisions in a number of Indian claims evaluation cases require that in determining the fair market value of land, the costs to a purchaser of holding the land pending resale must be considered. Where settlement of an area was not possible on the evaluation date, and an informed buyer knew that it would take many years to sell a substantial portion of the tract, and knew also that the carrying costs would be high over many years, during which time the purchase price would be tied up with no new income from the land, the determination of the fair market value of the land should reflect these considerations, presumably by scaling down the amount which a willing purchaser would otherwise pay. In Nez Perce Tribe v. United States, 176 Ct. Cl. 815 (1966), rev'g on other grounds Docket 175-B, 13 Ind. Cl. Comm. 184, 257 (1966), the court remarked that any purchaser of a large tract necessarily must take into account the

interest cost of holding land pending resale. By buying land and holding it, the interest on the purchase price for the time between purchase and resale is lost, as is the interest cost of borrowing any part of the purchase price. Consequently, the fair market value as of a particular date should include consideration of the length of time which would elapse until the land could be resold, and the speed of settlement of the particular land. However, before considering the length of time prior to resale of the Iowa tract, we shall summarize, briefly, data on the cost of borrowing money to purchase land on and about the evaluation date.

Interest Rates

On or about the 1835 evaluation date, interest rates on loans to settlers on the frontier with little or no security ranged from ten to fifty percent. Banks sprang up rapidly in frontier areas as lands were opened. Interest on loans to land purchasers ranged from 12 to 50%, and from 10 to 18% on established agricultural projects. In 1837 in the upper Mississippi River area, interest rates on large sums ranged from 10 to 20%, and, on small sums, up to 36%. At land office sales interest on small sums ranged from 60% per annum to 10 per cent a month. In Prairie Band of Potawatomi Indians, Docket 15-J, 4 Ind. Cl. Comm. supra, at 440-41, the Commission found that although the legal maximum interest rate in Iowa in 1846 was 10% per annum, rates as high as 40% were common in selling land to settlers in small tracts, various devices being used to get around the legal ceiling.

Ordinarily, settlers on the frontier had little security to offer for borrowing purchase money for their lands. The defendant's appraiser who agreed that, usually, interest rates from 10 to 50% were needed to make loans for such purposes, described a frequent method used by creditors to obtain such interest rates thus:

> A common practice of loan agents in the early years on the frontier was for the agent to buy the land from the U.S. Government at the minimum price of $1.25 an acre and resell it to the settler at a price of $1.75 an acre to be paid in one year's time. This time price sale provided the agent with a gain of 50 cents an acre which was equivalent to 40 per cent interest in a year's time on the original land price of $1.25 an acre. This practice, since it did not specify interest but merely the sale of the land at a price, allowed the land and loan agents to avoid any illegal interest charges. This was important because maximum interest rate laws were common in the frontier areas. [Def's. V-19 at 85 et seq. from Preston, History of Banking in Iowa.]

Rate of Sale of Land in Exchange Tract

Between 1850 and 1854 lands within the Iowa exchange tract were surveyed and offered for sale in the order in which the Surveyor General believed they would sell most quickly. None of the land was sold until 1853 and then, of the almost 3 million acres offered for sale, less than 6% was sold. It was not until 1855, when a great many new warrants were available to use in lieu of cash for paying for the land, that half of the Iowa exchange tract was sold. Much of the acreage was paid for by warrants rather than cash. The Commission found that a small proportion of the exchange tract lands were disposed of in 1853, but

substantial amounts of the land were not sold until 1855-56. Practically all of the land in the tract had been sold by 1862. (Prairie Band of Potawatomi Indians, Docket 15-J, finding no. 49, supra, at 445. Considering all of the circumstances discussed herein relating to resale of the subject tracts, we conclude that an informed and willing purchaser would be warranted in estimating in 1835 that the shortest time the exchange tract would have to be held with almost no income would be 20 to 25 years. In our opinion, interest on funds to finance such a purchase would be at least 10%. The Commission has concluded that a purchaser of the Iowa exchange tract would have been losing between an 8 and 18% return on his own money for all the years (20 to 25 years for the bulk of the tract) the land would have to be held prior to resale. If any money were borrowed to pay the purchase price in 1835, or for carrying costs, this would have required interest payments of from 10 to 18%. Such costs for financing and holding land until it could be sold to settlers or other users requires that the fair market value in 1835 be discounted from what the Commission found it to be in 1846, i.e. from 75 cents an acre.

In the Nez Perce case, supra, the Court observed that the size of the ceded area was an important feature entering into market value, adding that a purchaser of over one half million acres simply would not pay what 1,000 purchasers of 500 acres each would be willing to pay. Ordinarily, the market value of both the 5-million acre exchange tract and the ceded lands totalling about 5 million acres (Royce Areas 187 and 160)

would be discounted because the large sizes of the tracts (other than the Michigan lands) so require. Although the discount for size might be proportionately somewhat less for the ceded lands than for the exchange lands because their accessibility and other characteristics made the ceded lands more readily marketable than the exchange tract, we conclude that if discounts for size were taken, they would cancel each other out as the value of the exchange tract is part of the treaty consideration to be deducted from the value of the ceded lands in determining whether compensation is due under this claim. In these circumstances, we conclude that no purpose is served in taking a discount for size in determining the fair market value of the ceded tracts and of the exchange tract.

Royce Area 262 is immediately east of Royce Area 265. In Iowa Tribe v. United States, Docket 153, supra, 22 Ind. Cl. Comm. 385 (1970), in which the Commission evaluated Royce Area 262, that area was divided into 262 South and 262 North. Area 262 South, which was ceded by the Iowa Tribe, was valued as of February 28, 1839. It consisted of almost 4 million acres in the southwestern portion of Area 262. Area 262 land was somewhat better for farming than was the exchange tract. Timber was more plentiful, and rainfall somewhat greater in Royce Area 262 South than on the exchange tract. (Id. at 397.) With respect to Area 262 South, the Commission found that the settlers in Area 262 South preferred lands with some timber, and that most townships had some timber (Id.)

The Commission determined also that a purchaser would know that eastern Iowa lands had advantages over the more western lands such as those in Area 262. Many of the eastern lands were closer to the Mississippi River than were those in Area 262. The Mississippi was the important commercial route for the transportation of persons and produce in that region of the country. Eastern Iowa had more timber, a real advantage for settlers, and a slightly longer growing period for crops, but there was little difference in soils of the two regions. Id., 403.

The Commission found further that as of February 28, 1839, a purchaser of Area 262 South could not have anticipated rapid settlement of the area. Immediately to the west lay several million acres (Royce Cessions 151 and 265, which overlap to a large extent) which were used for hunting by the Yankton Sioux, Omaha, Otoe, Iowa, and Sac and Fox. See Otoe and Missouria Tribe v. United States, Docket 11-A, 5 Ind. Cl. 316 (1957), supra. In addition the United Nation of Chippewa, Ottawa and Potawatomi had been granted a 5-million acre tract of this land in 1833. See Prairie Band of Potawatomi Indians, et al., v. United States, Docket 15-J, supra. Beginning in 1836, even though all the United Nation members had not completed their move to western Iowa, the government initiated attempts at a second removal southwest of the Missouri River. Prairie Band of Potawatomi, Docket 15-J, supra. This removal was not effected until 1846. Iowa Tribe v. United States, supra, at 406, 407.

If, as the Commission has found, a purchaser of Area 262 South could not expect its rapid settlement in 1839, a fortiori the Iowa exchange tract, which was subject to occupancy and hunting by several tribes at the time the subject treaty of 1833 with the Potawatomi became effective, could not be expected to be opened to settlement for many years. We conclude that the Commission's finding that Area 262 South, containing 3,184,000 acres, had an average value of 90 cents an acre in 1839 is not a controlling precedent for determining the value of the exchange tract in 1835 because the exchange tract was subject to treaty rights of a number of Indian tribes, and these rights had to be acquired or extinguished by the United States before the lands could be offered for sale. Consequently, a purchaser would expect to pay about 10% interest for 20 years or more on any amount he had to borrow to buy the exchange tract, and he would have to wait many years before beginning to receive any return on his investment. Since Area 262 South was free of Indian claims before its evaluation in 1839, its market value would be considerably higher than that of the exchange tract in 1835, because the sale of the latter tract to settlers had to be delayed until the land was freed of Indian claims. It follows that the fair market value of the exchange tract in 1835 must be scaled down considerably from the value of Area 262 South in 1839. In addition to the existence of Indian claims against the exchange tract, the exchange tract was larger, was less accessible to settlement from existing transportation routes, and

was less accessible to markets than was Area 262 South. Further, there was a marked scarcity of timber on the exchange tract as compared with Area 262 South, the exchange tract had less annual precipitation and apparently a larger quantity of poor land than Area 262 South. Cf. finding nos. 55, 56 herein and finding no. 16, Iowa Tribe, supra, 22 Ind. Cl. Comm. 385 at 395-96. All of these were conditions which detracted from the value of the exchange tract as compared with the value of Area 262 South. They are among the considerations which support a substantially different value for the Iowa exchange lands from that for the Area 262 lands. We have considered the Commission's value of Area 262 lands in perspective in determining, on the basis of the relevant facts and circumstances, the value of the Iowa exchange tract.

In this connection, we note also that in its decision in Otoe and Missouria Tribe v. United States, 131 Ct. Cl. 593 (1955), supra, the court affirmed the determination by this Commission valuing the lands in Royce Area 186, Nebraska, at $.75 an acre as of April 12, 1834, the effective date of the Treaty of September 21, 1833 (7 Stat. 429). Area 186 in Nebraska was a much smaller tract than the Iowa exchange tract, was more favorably located in terms of accessibility, and differed in other ways from the exchange tract. Because of the differences between the two tracts in location, accessibility, size, and other conditions and circumstances affecting fair market values, we conclude that the value per acre for the Iowa exchange tract on

February 21, 1835, is controlled by different considerations than those determining the value of Area 186 lands in Nebraska on April 12, 1834.

On the evaluation date, February 21, 1835, a knowing buyer would be aware that within the past two years, twenty eight million acres of public lands free of Indian claims had been put on the market (opened to sale) by the United States. Most of this land was more accessible to settlers by travel on existing routes from the east (Great Lakes, Erie Canal, Ohio River) than was the exchange tract in western Iowa. An informed buyer would know too that title to that twenty eight million acres was marketable and subject to immediate resale in 1835. By contrast, title to the 5-million acre exchange tract was subject to claims of a number of Indian tribes and could not be resold until those claims were cleared.

As discussed herein, in addition to a discount for remoteness, the value of the exchange tract must be scaled down to reflect the fact that the land could not be put on the market for resale in smaller tracts for many years, but had to be held, with no income whatsoever or interest on the purchase price, for 20 years before any substantial portion of the tract could be disposed of. In our opinion, a discount of approximately 25% should be taken to counterbalance the effect of the long waiting period after the evaluation date before these lands would bring any income. Moreover, in the instant case, a purchaser of the Iowa exchange tract would have been losing approximately 10 per cent

on his own money for all the years (20 to 25 years for the bulk of the tract) the land would have to be held prior to resale. These considerations require that the fair market value in 1835 be discounted substantially from what the Commission found it to be in 1846, that is, from 75 cents an acre.

Considering all of the facts and circumstances discussed herein, the findings in this proceeding, and the entire record in this case, and considering particularly the remoteness of the Iowa exchange tract from transportation routes and markets, the fact that a number of Indian tribes in addition to plaintiffs herein had treaty claims to the land on the evaluation date, and that there were large acreages of excellent land with resources superior to those of the exchange tract immediately available for purchase and development at the time, we conclude that the fair market value of the Iowa exchange tract on February 21, 1835, was $1,500,000, or thirty cents an acre.

Further Treaty Consideration

Payments made to or expended for the Indian grantors by the government in fulfilling its treaty or contractual obligations agreed to for the cession of subject lands in Michigan, Illinois, and Wisconsin are payments on the claim and, except as otherwise provided by the Act of October 2, 1974 (88 Stat. 1499), discussed hereafter, are deductible from the quantum of the award under the Indian Claims Commission Act. 6/

6/ See Quapaw Tribe v. United States, Docket 14, 1 Ind. Cl. Comm. 644, 665-6 (1951), aff'd in part here relevant, 128 Ct. Cl. 45 (1954).

Thus, in this case, payments on the claim are payments made by the United States in carrying out the treaty agreements of September 26, 1833, and the Articles Supplementary of September 27, 1833, by which the plaintiffs ceded the subject lands in Michigan, Illinois, and Wisconsin. The total of these payments is to be added to the value of the Iowa exchange tract to determine the full amount to be deducted as payments by the defendant on the plaintiffs' claim for the cession of subject lands.

The defendant asserts that a total of $2,104,044.78 is shown by the accounting report, V-38, admitted as a late exhibit, to have been disbursed in satisfying the contractual obligations of the United States under the Treaty of September 26, 27, 1833. The Commission cannot accept this assertion. The total claimed by the defendant is the sum of amounts disbursed under 26 separate schedules listed in Abstract No. 1, at 96-98 of the report (our page numbering). Abstract No. 1 lists disbursements under the Treaty of September 26, 27, 1833, and under many other statutes which are not relevant to a decision of the amount which the United States paid as consideration for the Wisconsin, Illinois, and Michigan lands here under consideration. Disbursements listed in Abstract 1 include interest on the Potawatomi mills fund. Interest on this amount was not a part of the 1833 treaty consideration. Prairie Band of Potawatomi Indians, Docket 15-J, supra, at 466.

Other amounts improperly included in the total claimed by the defendant as consideration paid under the Treaty of September 26, 27, 1833,

are reimbursable appropriations made for the purchase of allotments for the Wisconsin Potawatomis and the support of the Wisconsin and Michigan bands of Potawatomis. The reimbursement requirement and the language of the statutes involved indicate that the amounts were intended to be repaid by the Indians if they received monies under several treaties in which they had not shared. In addition, the specified uses of these funds in the appropriation statutes, such as for allotments and for purchasing buildings, varied from the treaty agreements to pay tribal annuities, and the appropriations were not made in fulfillment of treaty obligations, but pursuant to the Act of June 30, 1913 (38 Stat. 102), authorizing the appropriation of the reimbursable funds. See Acts of May 18, 1916 (39 Stat. 156-57), March 2, 1917 (39 Stat. 969, 991), May 25, 1918 (40 Stat. 561). Furthermore, even if any of the special payments for the Wisconsin and Michigan Potawatomis were properly included, only a fraction of the amount listed in Abstract No. 1 of the G.A.O. report would have been granted in lieu of a share of annuities to which they might have been entitled under the Treaty of September 26, 27, 1833, the rest having been granted in lieu of amounts which they claimed under many other treaties. See H.R. Doc. No. 830, 60th Cong., 1st Sess. (1908), Act of June 30, 1913, 38 Stat. 102. The G.A.O. report disregards this and includes as payments under the 1833 treaty amounts which were appropriated because these Indians had not received annuities which they claimed were due under a number of treaties other than that here involved.

Similarly, the G.A.O.'s listing as a disbursement under the Treaty of September 26, 27, 1833, a payment in the amount of $76,889.28 to the Potawatomi Indians of Michigan under the Act of April 21, 1904 (33 Stat. 210), is untenable. The statute attempted to pay an amount in lieu of a proportionate share of annuities due under a number of treaties to certain Michigan Potawatomis and claimed by one of the groups involved in Potawatomie Indians v. United States, 27 Ct. Cl. 403 (1892), aff'd in Pam-To-Pee v. United States, 148 U.S. 691 (1893). The $76,889,28 represented amounts claimed under many treaties. If any part of the $76,889,28 were properly listed here, only a portion would have been payment in lieu of annuities under the 1833 treaty. However, the entire amount is counted in the GAO report as payment under the 1833 treaty.

Some of the questions raised by including in this GAO report disbursements under particular statutes involve accounting practices which might be resolved more properly in connection with other accounting reports which have been filed with the Commission involving Potawatomi claims. Other questions, including the matters discussed above, preclude our reliance on or use of the GAO report here in evidence as a source of information about the amounts which the United States paid in fulfilling treaty obligations under the Treaty of September 26, 27, 1833.

The plaintiffs in Dockets 15-C and 71 admit that what was stipulated to be paid was paid by the Government under the treaty and supplementary articles, but object to the attempt in the accounting report to evaluate

whether certain disbursements constitute consideration under the treaty. All of the plaintiffs objected to the inclusion in the accounting report of a number of expenditures which, they contended, did not constitute treaty consideration. The plaintiffs' arguments that certain treaty stipulations were not tribal benefits will be considered separately under the respective treaty provisions. However, since the plaintiffs do not dispute that the United States paid the amounts which it agreed in the treaty to pay, the amount actually paid is not in issue except for those provisions for which no money total was set in the treaty. These were the amounts which were spent for removal and subsistence costs and the total sums spent for life annuities for several leaders.

The Commission may take judicial notice of congressional reports of amounts paid by the United States under Potawatomi treaties. A report based upon tabular statements of payments from the Second Auditor of the Treasury, and vouchers supporting the items of expenditure included in other reports or documents of the Indian Office or Library of Congress, which payments the United States made in fulfilling treaty agreements with the Potawatomi Indians, is printed in H.R. Exec. Doc. No. 61, 40th Cong., 3d Sess. (1866). The information which the Commission needs to determine the amount of consideration paid under the 1833 treaty for removal and subsistence costs and for life annuities is available in a much more readily useable form in this report than in the defendant's G.A.O. report. We have determined, therefore, to take judicial notice of

payments by the United States in fulfilling obligations under the 1833 treaty as shown by H.R. Exec. Doc. 61, supra, which was relied on for different purposes than that here involved by the Commission and the Court of Claims in Pottawatomie Nation of Indians v. United States, 205 Ct. Cl. 765, 502 F. 2d 852 (1974), aff'g Docket 71, 27 Ind. Cl. Comm. 187 (1972).

The second article of the Treaty of September 26, 1833, recommending that a deputation of the chiefs and headmen of the plaintiffs visit the country west of the Mississippi, which the United States would grant in exchange for the Illinois and Wisconsin lands ceded, provided that the United States would pay the expenses of such a deputation to consist of not more than 55 persons under the general direction of an officer of the United States. The paragraph provided further that as soon as the Indians were prepared to emigrate, they would be removed at the expense of the United States and receive subsistence while on the journey and for one year after their arrival at their new homes. These provisions will be discussed below.

The first paragraph of Article 3 of the Treaty of September 26, 1833, provides that in consideration of the cession, the United States shall pay $100,000 to satisfy sundry individuals in behalf of whom reservations were asked which the treaty commissioners refused to grant, and to indemnify the Chippewa tribe for certain lands, the manner in which the same was to be paid was set forth in Schedule A annexed to the treaty.

The plaintiffs in Dockets 15-C and 71 assert that the amounts paid to individuals in lieu of reservations are prima facie bribes paid to induce the Potawatomi leaders to consent to the cession of their lands. If the money was paid as promised to named individuals in lieu of reservations (and no reservations were carved out of this cession), there appears to be no reason for treating this item of consideration any differently from the payment of annuities to individual leaders. The Commission has held that such items are properly included in counting the amount of consideration paid by the defendant under the Indian Claims Commission Act. Accordingly, the $100,000 which the United States agreed to pay in lieu of reservations under the Treaty of September 26, 1833, will be counted as payment on the claim herein. See Quapaw Tribe v. United States, supra.

The United States undertook in Article 3 to pay debts of and claims against the United Nation in the amount of $150,000, according to Schedule B annexed to the treaty. The plaintiffs object to treating any payments under this provision as payments on the claim on the ground that these moneys purchased articles for individual members and did not benefit the tribe.

The Commission has rejected this argument, holding that where a tribe has ceded land and agreed that part of the consideration would be the defendant's payment of debts which the Indians agreed they owed, and the record does not show that the debts were individual obligations, the

payment of such debts amounted to payment on the claim under the Indian Claims Commission Act. Absentee Delaware Tribe v. United States, Docket 337, 9 Ind. Cl. Comm. 346, 357 (1961). The conclusion is reenforced in this case where the Senate, in consenting to the ratification of the Treaty, required the examination by a commissioner of all debts for which payment was sought under the provision to pay debts of the Indians in order to exclude any found to be unjust. 7/

We conclude that the defendant's treaty agreement to pay Indian debts of $150,000 is properly counted as a payment on the claim under Section 2 of the Indian Claims Commission Act.

Article 3 of the treaty provides further that two hundred and eighty thousand dollars shall be paid in annuities of fourteen thousand dollars per year for twenty years as consideration by the United States. The plaintiffs in Docket 15-C and 71 contend that the value of that annuity on the valuation date was not $280,000, but $174,508, its cash value on the evaluation date. The defendant points out that in Pawnee Tribe v. United States, 157 Ct. Cl. 134 (1962), cert. denied, 370 U.S. 918 (1962), the Court of Claims held that where there is a limited annuity specified in a treaty as consideration,

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7/ The Senate consented to the Treaty of September 26 and the Articles Supplementary of September 27, 1833, subject to several amendments, including a provision that all the debts mentioned in schedule B, which were identified in a separate report, were to be examined by a commissioner appointed by the President, the individuals to be paid only the sums which were found to be justly due by the commissioner. The sum to be paid was not to be increased in any instance and if any amount was saved by deduction or disallowance of the debts to be paid, the amount so saved was to be paid to the Indians. (7 Stat. 447.)

it represents an agreed consideration to be paid in installments, and the defendant is allowed a deduction for all the payments made pursuant thereto. The plaintiffs' reliance on a case involving interpretation of the Federal Estate tax[8/] provides no basis for modifying our decision on this question, the Commission being bound by the Court of Claims ruling in the Pawnee case, supra, in any event. We conclude that the defendant's payment of $280,000 for tribal annuities was a payment on the claim under section 2 of the Indian Claims Commission Act.

Under the fourth paragraph of Article III of the Treaty of September 26, 1833, the United States promised $100,000 in goods and provisions, part to be delivered upon signing of the treaty and the rest to be delivered during the following year. A supplemental statement dated September 27, 1833, signed by the treaty commissioners and a number of chiefs and headmen on behalf of the United Nation of Indians witnessed that in accordance with the third article of the Treaty of September 26, 1833, there had been purchased and delivered, at the request of the Indians, goods, provisions, and horses in the amount of $65,000, leaving the balance of $35,000 to be supplied in the year 1834. This treaty agreement to pay $100,000.00 in goods and provisions is discussed further below.

Article 3 of the treaty also provided that the United States would pay $150,000 for the erection of mills, farm houses, blacksmith shops, agricultural improvements, and for other designated purposes, and, in

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8/ Continental Illinois National Bank and Trust Co. v. United States, 504 F. 2d 586 (7th Cir. 1974).

addition, $70,000 for education and domestic arts. We conclude that these amounts are to be counted as payments on the claim under section 2 of the Indian Claims Commission Act.

The plaintiffs argue that the payment of individual life annuities, as provided in Article 3 of the treaty, to Billy Caldwell, Alexander Robinson, Joseph LaFromboise, and Shabenay should not be counted as payment on the tribe's claim because the named individuals, not the tribe, benefited from such annuities. The Commission has held that where the defendant has agreed to particular benefits for plaintiffs' chiefs and leaders or other named individuals as part of the consideration for ceding land, such benefits are a part of the consideration for the tribe under the Indian Claims Commission Act, and where they have been paid by the defendant as provided by treaty, they are subject to deduction as payments on the claim. Quapaw Tribe v. United States, supra, 665-66. We find no basis for departing from that ruling here.

Accordingly, the amounts which the defendant paid to the individual leaders named in the treaty, totalling $19,300.00, as shown in House of Representatives Executive Document No. 61, supra, will be counted as payment on the claim, having been part of the consideration for the cession of subject tracts.

The last paragraph of Article 3 provides for the payment of $2,000 to Wauponehsee and his band, and of $1,500 to Awnkote and his band, as consideration for nine sections of land granted to them by the 3d Article

of the Treaty of Prairie du Chien of the 29th of July 1829 (7 Stat. 320), which were assigned and surrendered to the defendant. Plaintiffs in Docket 15-C and 71 argue that because the tracts of Wau-pon-eh-see and Awnkote were not within Royce Areas 187 and 160, but were in Royce Area 148, south of Area 187, the lands were outside of the cession, and the $3,500 paid therefor should not be included as payment on the claim herein. Since the tracts were surrendered and assigned to the United States by the plaintiffs for $3,500 (almost 61 cents an acre), under the Treaty of September 26, 1833, we conclude that they should be included in this valuation (see note 5) and that the $3,500 should be counted as a payment on the claim by the United States.

Finding nos. 39 through 57 of the Commission in Citizen Band of Potawatomi Indians v. United States, Docket 217, 11 Ind. Cl. Comm. 641, 667-77 (1962), rev'd in part not here relevant, 179 Ct. Cl. 473 (1967), cert. denied, 389 U.S. 1046 (1968), indicate that the nine sections of land in Royce Area 148, which were reserved from the cession of most of Area 148 under the Treaty of July 29, 1829 (7 Stat. 320), and were assigned and surrendered under the Treaty of September 26, 1833, are, in their physical characteristics and their location close to major transportation routes, very similar to the lands in Illinois in the southern portion of Area 187 here involved. The above-cited findings in Docket 217 support a conclusion that there is no basis for differentiating between the lands in Area 148 and those in the southern portion of Area 187 with respect to the physical qualities

and assets of the lands. The Commission has found that the per-acre value of the nine sections, or 5,760 acres of land, in Area 148 was the same as that of the southern portion of Area 187 on February 21, 1835.

The Articles Supplementary contained the following agreements as to consideration:

> ARTICLE 2d--In consideration of the above cession, it is hereby agreed that the said chiefs and head-men and their immediate tribes shall be considered as parties to the said treaty to which this is supplementary, and be entitled to participate in all the provisions therein contained, as a part of the United Nation; and further, that there shall be paid by the United States, the sum of one hundred thousand dollars: to be applied as follows.
>
> Ten thousand dollars in addition to the general fund of one hundred thousand dollars, contained in the said treaty to satisfy sundry individuals in behalf of whom reservations were asked which the Commissioners refused to grant;--the manner in which the same is to be paid being set forth in the schedule "A", hereunto annexed.
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> Twenty-five thousand dollars in addition to the sum of one hundred and fifty thousand dollars contained in the said Treaty, to satisfy the claims made against all composing the United Nation of Indians, which they have admitted to be justly due, and directed to be paid according to Schedule "B", to the Treaty annexed.
>
> Twenty-five thousand dollars, to be paid in goods, provisions and horses, in addition to the one hundred thousand dollars contained in the Treaty.
>
> And forty thousand dollars to be paid in annuities of two thousand dollars a year for twenty years, in addition to the two hundred and eighty thousand dollars inserted in the Treaty, and divided into payments of fourteen thousand dollars a year.

In consideration of the boundary alteration, discussed above, the United States also agreed to pay $10,000 for the benefit of the plaintiff, to pay $2,000 to Gholson Kercheval, of Chicago, Illinois, for services to

the plaintiff during the war between the United States and the Sac and Fox Indians, and to pay George Walker $1,000 for bringing Indian prisoners from west of the Mississippi River to Ottawa, Illinois, for judicial proceedings. 7 Stat. 447-448.

In connection with the agreement of the United States to pay $25,000 in goods, provisions and horses, a supplemental statement dated September 27, 1833, signed by the treaty commissioners and a number of chiefs and headmen for the United Nation of Indians witnessed that in accordance with the Articles Supplementary of September 27, 1833, there had been purchased and delivered, at the request of the Indians, goods, provisions, and horses amounting to fifteen thousand dollars, leaving the balance of ten thousand dollars to be supplied thereafter. Evidence in this record does not include itemized lists of the goods and provisions furnished to the Indians under this provision or under the corresponding provision in the Treaty of September 26, 1833, to furnish goods and provisions worth $100,000. These agreements are discussed further below.

In accordance with the cases cited above in ruling on the plaintiffs' objections to counting certain agreements under the Treaty of September 26, 1833, as payments on the claim, we conclude that the following amounts agreed to under the articles supplementary are to be counted as payments on the claim: $10,000 in lieu of reservations, $40,000 as tribal annuity, $25,000 for the payment of claims, $10,000 for change of boundary, and $3,000 for the services of Kercheval and Walker.

On considering other payments claimed as creditable consideration by the defendant we must interpret the recent amendment of the Indian

Claims Commission Act by the Act of October 27, 1974, Public Law 93-494 (88 Stat. 1499), which provides that food, rations, and provisions shall not be deemed payments on the claim under Section 2 of the Indian Claims Commission Act. Although there is some ambiguity in the language of the amendment and its legislative history as to whether "payments on the claim" are to be deemed synonymous with or include "consideration," our present judgment as to the intent of Congress is that such forms of payment are not to be credited against our awards whether or not there exists a refined distinction between consideration and payments on the claim. 9/

The parties have not discussed in their briefs the effect of the Act of October 27, 1974, on determining the amount of creditable consideration within that promised by the defendant under the Treaty of September 26, 27, 1833. However, we note that in a brief recently filed in another proceeding before the Commission the defendant concedes that promised food, rations or provisions within a treaty will not be claimed as creditable consideration because of the 1974 amendment. 10/ The amendment applies generally to claims which are subject to the last paragraph of section 2 of the Indian Claims Commission Act. The House and Senate Committee reports on the proposal which became the Act of October 27, 1974, indicate that the expenditures

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9/ We note that the Court of Claims in a recent decision made, in dicta, a persuasive observation as to the effect of the amendment:

> . . . resort to that section simplifies things by avoiding the necessity to measure whether consideration was conscionable. As the Congress does not want the rations to be used as offsets, a fortiori they should not come into the case by way of measuring the conscionability of consideration. United States v. Sioux Nation, 207 Ct. Cl. 234 (1974) (Slip op. at 6).

10/ Defendant's Brief and Requested Findings of Fact on Payments on the Claim and Gratuities, Yankton Sioux v. United States, Docket 332-C, filed April 20, 1976, pages 4-8.

which were intended to be affected by the proposed legislation consisted almost entirely of food, rations, and other subsistence provisions. H.R. Rep. No. 93-1456, 93d Cong. 2d Sess. 5 (1974); see S. Rep. No. 93-863, 93d Cong. 2d Sess. 2 et seq. (1974); H. R. Rep. No. 93-1446, 93d Cong. 2d Sess. (1974). Descriptions of the kinds of consideration and items which Congress intended to preclude as payments on claims under the Indian Claims Commission Act are contained in the treaty with the Sioux of April 29, 1868 (15 Stat. 635), modified and continued by the Act of February 28, 1877 (19 Stat. 254). In addition to food, these items included clothing, agricultural supplies (seed, fertilizer), farming implements or equipment (hoes, plows, fencing), and livestock. The use of the phrase, "food, rations, and provisions" in the 1974 amendment thus permits a certain flexibility in interpretation. The word "rations" as used in the distribution of supplies to Indians, has for many years, meant shares or allowances of goods. See Rev. Stats. §2110, based on §16 of the Act of June 30, 1834 (4 Stat. 738), which authorized the President to cause such rations as he deemed proper to be issued to Indians from Army provisions. Blankets and shoes were distributed by rations, and so also were hominy and hard bread. Fifty pounds of flour was the maximum daily allowance for 100 rations under the 1904 regulations of the Indian Office as well as under the revised 1884 regulations. Regulations of the Indian Department, Revised by the Indian Bureau Washington 1884; Regulations of the Indian Office, effective April 1, 1904, Washington 1904. The long-standing use of the words, "rations" and "provisions" in legislation and administrative regulations relating to Indian affairs suggests that the phrase, "food, rations, or provisions"

included at least the goods and supplies, and perhaps some services, that were available through army depots or supply stations.

Neither the expenses of the deputation (exploring party), nor the items for which expenditures were summarized under the heading "Removal and Subsistence Costs" under the 1833 treaty were listed or identified in this record. The items purchased for similar expeditions and removals made about the same time consisted, for the most part, of food, some clothing and blankets, a few medical supplies, the cost of necessary wagons and horses, and like items. Removal of many of the Potawatomis was by military escort or force. Representatives of the Army sometimes contracted with private persons to undertake removal accompanied by some members of the Army. Under such contracts, the lowest amount paid per person for removal was $55.00.

A letter of April 6, 1830, to the Secretary of War from Thomas L. McKenny, Office of Indian Affairs, states that the cost for providing for Indians after removal was six cents a day, and that the amount of $55 per individual for removal costs included the cost of supporting each person for one year in addition to the costs of removal.[11/] Such minimal removal expenditures indicate that little was supplied to the Indians other than necessities.

We have examined a number of schedules of removal costs, listing items for which expenditures were made in removing Indians from lands in the eastern part of the country, many of which schedules are reprinted in Document 512 (23rd Cong. 1st Sess. (1837)) which contains correspondence on the subject of the emigration of Indians between November 30, 1831,

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11/ The letter is reprinted in Hearings on H.R. 20150 before the Senate Committee of Indian Affairs, 63rd Cong., 3rd Sess. Vol. 1 at 459 (1915) of which document the Commission takes judicial notice.

and December 27, 1833, with abstracts of expenditures by disbursing agents. Abstracts listing items purchased and expenditures for exploratory parties of Indians are also included in the correspondence reprinted in Document 512. These abstracts show that in addition to expenditures for food, clothing, and related supplies, expenditures were made for some medicine, for tents and incidental items such as axes, for the costs of ferrying wagons over streams, and for comparable basic supplies and services. The defendant might have asserted that removal and subsistence expenditures were not food, rations, and provisions within the meaning of the 1974 amendment but submitted no evidence to this effect. We conclude that expenditures incurred under the heading, "Removal and Subsistence", totaling $391,606.65 listed in Schedule Q in Executive Document 61, supra, which costs were a part of the treaty consideration under the Treaty of September 26, 27, 1833, were food, rations, or provisions within the meaning of the Act of October 27, 1974 (88 Stat. 1499). Accordingly, these removal and subsistence costs will not be deducted as payments on the claim in determining the quantum of relief to which plaintiffs herein are entitled.

We have also examined schedules in Document 512 identifying "treaty goods and provisions" in which disbursing agents listed items and expenditures therefor under agreements to furnish goods and provisions like the agreements in the Treaty of September 26, 27, 1833. The bulk of the items purchased included food, clothing, and like items related

to subsistence needs. We have concluded that amounts spent for goods and provisions under the 1833 treaty here involved are food, rations, or provisions within the meaning of the Act of October 27, 1974, as the defendant has not shown that fulfilling the treaty agreements for goods and provisions included expenditures for items other than food, rations, or provisions. The cost of goods, provisions, or livestock paid by the United States in fulfilling agreements under the Treaty of September 26, 27, 1833, will, therefore, not be deducted as payments on the claim herein.

The Commission has found that the following amounts were paid by the United States to the plaintiffs pursuant to agreements under the Treaty of September 26, 27, 1833, and that these amounts are to be deducted as payments on the claim under section 2 of the Indian Claims Commission Act:

I. Under Treaty of September 26, 1833

$100,000.00	.....in lieu of reservations
150,000.00	.....claims against plaintiffs
280,000.00	.....tribal annuities
150,000.00	.....erecting mills
70,000.00	.....education
19,300.00	.....annuities for Caldwell, Robinson, and Lafromboise and Shabenay
2,000.00	.....to Wau-pon-eh-see for land granted under Treaty of July 29, 1829
1,500.00	.....to Awn-kote for land granted under Treaty of July 29, 1829
$772,800.00	Total

II. Under Articles Supplementary

$ 10,000.00	.....in lieu of reservations
25,000.00	.....for payment of claims
40,000.00	.....tribal annuity
10,000.00	.....change of boundary
3,000.00	.....Kercheval and Walker
$ 88,000.00	Total

The Commission has found further that the following amounts which were spent by the United States to fulfill obligations under the Treaty of September 26, 27, 1833, are not payments on the claim by reason of the Act of October 27, 1974, which amended section 2 of the Indian Claims Commission Act by precluding amounts spent for food, rations, or provisions as payments on the claim:

I. Under the Treaty of September 26, 1833:

$391,606.65 .....Removal and subsistence costs
100,000.00 .....Goods and provisions

II. Under Articles Supplementary:

$ 25,000.00 .....Goods and provisions

In sum, the value of the Iowa exchange tract on the evaluation date, February 21, 1835, was $1,500,000.00.

The value of the other consideration which the United States paid under the Treaty of September 26, 27, 1833, excluding payments for food, rations or provisions, was $860,800.00. These amount to a total of $2,360,800.00 to be deducted as payments on the plaintiffs' claim herein.

Whether or not those sums which the defendant paid for food, rations, and provisions, amounting to $516,606.65, are to be included in measuring the conscionability of the consideration paid need not be decided here because in either event the total amounted to less than $3,000,000.00 (n. 9, supra).

Considering the defendant's payment of less than $3,000,000.00 for land which had a fair market value of $6,600,000.00 on the date of cession,

February 21, 1835, and considering the circumstances of the cession, we find the amount paid to be so grossly inadequate as to constitute unconscionable consideration. Accordingly, the Commission concludes that the petitioner is entitled, under the provisions of Clause 3, Section 2 of the Indian Claims Commission Act, to an award in the amount of $4,239,200.00.

An order consistent with this opinion is being issued as of this date.

Margaret H. Pierce, Commissioner

We concur:

Jerome K. Kuykendall, Chairman

John T. Vance, Commissioner

Richard W. Yarborough, Commissioner

Brantley Blue, Commissioner