



United States  
Department of  
Agriculture

Forest Service

Pacific Northwest  
Forest and Range  
Experiment Station

Resource Bulletin  
PNW-103

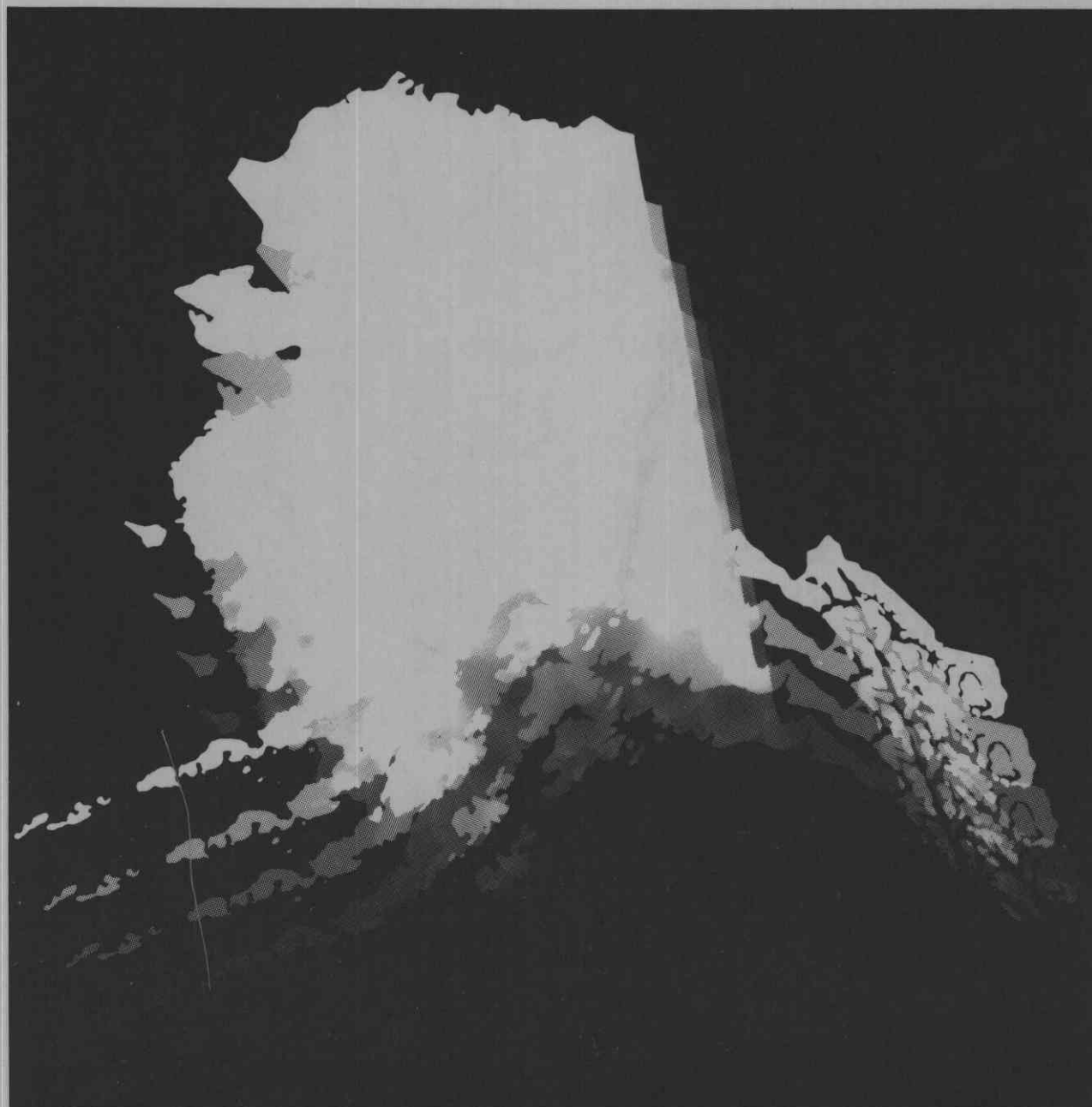
October 1983



# Timber Resource Statistics for the Prince of Wales Inventory Unit, Alaska, 1973

EDITOR'S  
FILE COPY

Willem W.S. van Hees and Vernon J. LaBau



## **Authors**

**WILLEM W. S. VAN HEES** is a research forester and **VERNON J. LABAU** is the project leader for Alaska Forest Inventory and Analysis located at Forestry Sciences Laboratory, Pacific Northwest Forest and Range Experiment Station, 2221 E. Northern Lights Blvd., Anchorage, Alaska 99508.

## Abstract

van Hees, Willem W. S.; LaBau, Vernon J. Timber resource statistics for the Prince of Wales inventory unit, Alaska, 1973. Resour. Bull. PNW-103. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Forest and Range Experiment Station; 1983. 30 p.

Statistics on forest area, total gross and net timber volumes, and annual net growth and mortality are presented from the 1973 timber inventory of the Prince of Wales unit, Alaska. Timberland area is estimated at 1.38 million acres (557 593 ha), net growing stock volume at 7.56 billion cubic feet (214 million m<sup>3</sup>), and annual net growth and mortality at -65.24 and 100.26 million cubic feet (-1.85 and 2.84 million m<sup>3</sup>), respectively.

Keywords: Forest surveys, timber inventory, statistics (forest), resources (forest), Alaska (southeast).

## Summary

This report for the 2.28-million-acre (923 760-ha) Prince of Wales timber inventory unit is the fourth in a series of six reports for southeast Alaska. The Prince of Wales unit is in the panhandle of southeast Alaska, and includes Prince of Wales, Coronation, Noyes, Baker, Lulu, San Fernando, Suemez, and Dall Islands, among others. The northern edge of the unit is bounded by Sumner Strait; on the east side, by Clarence Strait. The southern edge is the border between the United States and Canada. The Pacific Ocean forms the western boundary of the unit. Except for cities, towns, and private in-holdings, the unit is entirely within the Tongass National forest.

This is the first general reinventory of the forests in the Prince of Wales unit, which were first inventoried in 1957. It is also the second remeasurement of the growth and mortality plots established in 1957; they were also remeasured in 1968.

Statistics on forest area, total gross and net timber volumes, and annual net growth and mortality are presented from the 1973 timber resource inventory of the Prince of Wales unit. Timberland area is estimated at 1.38 million acres (557 593 ha), net growing stock volume at 7.56 billion cubic feet (213.95 million m<sup>3</sup>), and net annual growth and mortality at -65.24 and 100.26 million cubic feet (-1.85 and 2.84 million m<sup>3</sup>), respectively.

## Preface

Forest Inventory and Analysis (formerly Forest Survey) is a nationwide project of the USDA Forest Service authorized by the Forest and Rangeland Renewable Resources Research Act of 1978. Work units of the project, located at Forest Service Experiment Stations, conduct forest resource inventories throughout the 50 States. The Pacific Northwest Forest and Range Experiment Station at Portland, Oregon, is responsible for inventories in Alaska, California, Hawaii, Oregon, and Washington.

## **Contents**

|    |                               |
|----|-------------------------------|
| 1  | Introduction                  |
| 1  | Inventory Procedures          |
| 3  | Ownership Statistics          |
| 3  | Timber Harvesting             |
| 4  | Reliability of Inventory Data |
| 5  | Terminology                   |
| 14 | Names of Trees                |
| 15 | Tables                        |
| 30 | Acknowledgments               |
| 30 | Metric Equivalents            |
| 30 | Literature Cited              |

## Tables

Table 1--Area of forest land by forest type and forest land class, Prince of Wales unit, southeast coastal Alaska, 1973

Table 2--Area by land class and management block, Prince of Wales unit, southeast coastal Alaska, 1973

Table 3--Number of growing stock trees on timberland by species and diameter class, Prince of Wales unit, southeast coastal Alaska, 1973

Table 4--Number of growing stock trees on old-growth timberland by species and diameter class, Prince of Wales unit, southeast coastal Alaska, 1973

Table 5--Number of growing stock trees on young-growth timberland by species and diameter class, Prince of Wales unit, southeast coastal Alaska, 1973

Table 6--Number of growing stock mortality trees per year on timberland by species and diameter class, Prince of Wales unit, southeast coastal Alaska, 1973

Table 7--Net volume of growing stock on timberland, in cubic feet and volume per acre, by forest type and stand size class, Prince of Wales unit, southeast coastal Alaska, 1973

Table 8--Net volume of sawtimber on timberland, in board feet International 1/4-inch rule and volume per acre, by forest type and stand size class, Prince of Wales unit, southeast coastal Alaska, 1973

Table 9--Net volume of timber, cubic feet, on timberland by class of timber and by softwoods and hardwoods, Prince of Wales unit, southeast coastal Alaska, 1973

Table 10--Net volume of sawtimber, International 1/4-inch rule, on timberland by species and diameter class, Prince of Wales unit, southeast coastal Alaska, 1973

Table 11--Net volume of old growth, International 1/4-inch rule, on timberland by species and diameter class, Prince of Wales unit, southeast coastal Alaska, 1973

Table 12--Net volume of young growth, International 1/4-inch rule, on timberland by species and diameter class, Prince of Wales unit, southeast coastal Alaska, 1973

Table 13--Net volume of growing stock, cubic feet, on timberland by species and diameter class, Prince of Wales unit, southeast coastal Alaska, 1973

Table 14--Net volume of old growth, cubic feet, on timberland by species and diameter class, Prince of Wales unit, southeast coastal Alaska, 1973

Table 15--Net volume of young growth, cubic feet, on timberland by species and diameter class, Prince of Wales unit, southeast coastal Alaska, 1973

Table 16--Net annual growth of growing stock, cubic feet, on timberland by species and stand size class, Prince of Wales unit, southeast coastal Alaska, 1973

Table 17--Net annual growth of sawtimber, International 1/4-inch rule, on timberland by species and stand size class, Prince of Wales unit, southeast coastal Alaska, 1973

Table 18--Net annual growth of growing stock, cubic feet, on timberland by forest type and stand size class, Prince of Wales unit, southeast coastal Alaska, 1973

Table 19--Net annual growth of sawtimber, International 1/4-inch rule, on timberland by forest type and stand size class, Prince of Wales unit, southeast coastal Alaska, 1973

Table 20--Average annual mortality of growing stock, cubic feet, on timberland by species and stand size class, Prince of Wales unit, southeast coastal Alaska, 1973

Table 21--Average annual mortality of sawtimber, International 1/4-inch rule on timberland by species and stand size class, Prince of Wales unit, southeast coastal Alaska, 1973

Table 22--Average annual mortality of growing stock, cubic feet, on timberland by forest type and stand size class, Prince of Wales unit, southeast coastal Alaska, 1973

Table 23--Average annual mortality of sawtimber, International 1/4-inch rule, on timberland by forest type and stand size class, Prince of Wales unit, southeast coastal Alaska, 1973

Table 24--Summary of timber harvest, Scribner and International 1/4-inch rules, in the Ketchikan/Craig working circle of the Tongass National Forest, southeast coastal Alaska, 1974-80

## Highlights

|                                               | Thousand<br>acres | Thousand<br>hectares |
|-----------------------------------------------|-------------------|----------------------|
| Total Prince of Wales<br>inventory unit area: | 2,282.68          | 923.76               |
| With forests                                  | 2,155.12          | 872.15               |
| With nonforest                                | 111.11            | 44.96                |
| With non-Census water                         | 16.45             | 6.66                 |
| With Census water                             | <u>1/</u>         | <u>1/</u>            |
| Forested area:                                |                   |                      |
| Timberland                                    | 1,377.84          | 557.59               |
| Other forest land                             | 777.28            | 314.55               |
| Timberland composition:                       |                   |                      |
| Old-growth sawtimber                          | 1,233.09          | 499.01               |
| Young-growth sawtimber                        | 23.47             | 9.50                 |
| Poletimber                                    | 11.74             | 4.75                 |
| Seedlings and saplings,<br>and nonstocked     | 109.55            | 44.33                |
| Timberland forest type composition:           |                   |                      |
| Sitka spruce                                  | 103.10            | 41.72                |
| Hemlock-spruce                                | 93.36             | 37.78                |
| Western redcedar                              | 257.88            | 104.36               |
| Western hemlock                               | 817.89            | 330.99               |
| Mountain hemlock                              | 46.94             | 18.99                |
| Alaska-cedar                                  | 58.67             | 23.74                |
| Lodgepole pine                                | <u>1/</u>         | <u>1/</u>            |
| Other softwoods                               | <u>1/</u>         | <u>1/</u>            |
| Red alder                                     | <u>1/</u>         | <u>1/</u>            |
| Cottonwood/poplar                             | <u>1/</u>         | <u>1/</u>            |
| Other hardwoods                               | <u>1/</u>         | <u>1/</u>            |

---

1/No data were collected.

|                        | <u>All<br/>growing stock</u>       |                                      | <u>Sawtimber<br/>growing stock</u> |                                      |
|------------------------|------------------------------------|--------------------------------------|------------------------------------|--------------------------------------|
|                        | Million<br>cubic<br>feet <u>2/</u> | Million<br>cubic<br>meters <u>2/</u> | Million<br>board<br>feet <u>3/</u> | Million<br>cubic<br>meters <u>4/</u> |
| Volumes on timberland: |                                    |                                      |                                    |                                      |
| Total gross volume     | 8,571.36                           | 242.71                               | 46,375.68                          | 227.75                               |
| Total net volume       | 7,555.78                           | 213.95                               | 35,176.30                          | 199.68                               |
| Annual net growth      | -65.24                             | -1.85                                | -400.86                            | -2.07                                |
| Annual net mortality   | 100.26                             | 2.84                                 | 530.00                             | 2.83                                 |

---

2/Volume of roundwood for live trees 5.0 inches (12.7 cm) in d.b.h. and larger.

3/Net volume, International 1/4-inch rule, for trees 11.0 inches (28 cm) in d.b.h. and larger.

4/Volume of roundwood for trees 11.0 inches (28 cm) in d.b.h. and larger.



## Introduction

This report for the 2.28-million-acre (923 760-ha) Prince of Wales timber inventory unit is the fourth in a series of six reports for southeast Alaska. The Prince of Wales inventory unit lies between 56°30' north latitude and 54°30' south latitude, and between 132° east longitude and 134°30' west longitude in the panhandle of southeast Alaska. The unit includes all of Prince of Wales, Coronation, Noyes, Baker, Lulu, San Fernando, Suemez, and Dall Islands, among others (fig. 1). Except for cities, towns, and private in-holdings, the unit is entirely within the Tongass National Forest.

The Prince of Wales unit has a cool maritime climate. Temperatures tend to be slightly below freezing in the winter and are often comfortably warm in the summer; recorded extremes at lower elevations are -3°F to 88°F (-19°C to 31°C). Annual precipitation at lower elevations is between 100-200 inches (254-508 cm), which includes 30-60 inches (76.2-152.4 cm) of snow.

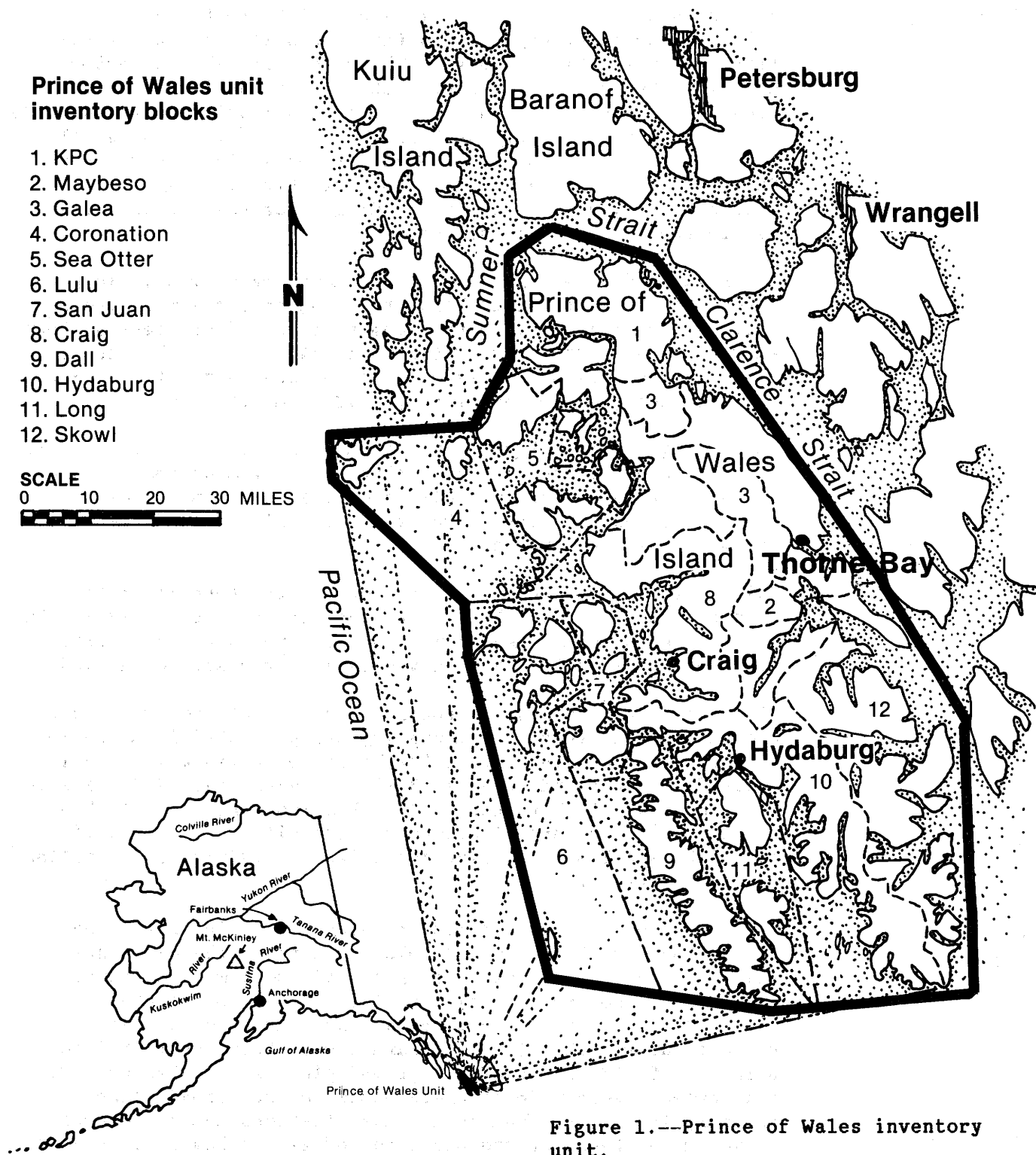
The geologic composition of the area is basically sandstone and fine grained sedimentary rocks rich in calcium carbonate. Most of the area is underlain by limestone, shale, some volcanic rocks, and conglomerates. On Prince of Wales Island there are areas of massive limestone.

This is the first general reinventory of the forests in the Prince of Wales unit, which were first inventoried in 1957. It is also the second remeasurement of the growth and mortality plots established in 1957; they were also remeasured in 1968.

Statistics on forest area, total gross and net timber volumes, and annual net growth and mortality are presented from the 1973 timber resource inventory of the Prince of Wales unit. Estimates for timberland total 1.38 million acres (557 593 ha) with a net growing stock volume of 7.56 billion cubic feet (213.95 million m<sup>3</sup>). Net annual growth and mortality are estimated at -65.24 and 100.26 million cubic feet (-1.85 and 2.84 million m<sup>3</sup>), respectively.

## Inventory Procedures

The estimates of area and timber volumes from the 1973 timber reinventory are based on a double sampling (2-phase) technique (Bickford 1952). In the first phase of the sampling study, 10,857 photo points were systematically distributed over 1:15,840 scale aerial photographs, then interpreted. Each photo point was classified by land type. From the 10,857 photo points, a field sample of 147 ground plots were selected. Tree measurements were made on these plots in the second phase of the sampling. Corrected area classifications and measurements of volume on these ground plots served as the basis for the area and volume estimates presented in this report.



Estimates of growth and mortality volumes presented are from 1973 remeasurements of 45 timber inventory plots established in 1957. Growth information from the reinventory plots was based on increment borings; the mortality estimates were based on estimations of the number of years since the trees died. Because mortality information is difficult to obtain this way, we used both the mortality and growth information from the remeasurement data rather than that from the reinventory data. The area base for the 1973 estimates of growth and mortality was calibrated to coincide with the area found in the 1973 timber reinventory.

## Ownership Statistics

Statistics on land ownership are not presented in this report because of uncertainties of land status changes associated with Alaska Native and State of Alaska land selections and wilderness area withdrawals. These changes in land status are the result of Federal legislation: the Alaska Statehood Act of 1958, Public Law 85-508; the Alaska Native Claims Settlement Act of 1971, Public Law 92-203; and the Alaska National Interest Lands Conservation Act, Public Law 96-487. Alaska Native land selections and decisions on wilderness withdrawals seemed nearly settled at the end of 1982, but Alaska State selections will remain uncertain for the next 5-10 years. Fieldwork for our study was completed in 1973; we have delayed publishing the results, anticipating that shifts in land ownership would be resolved by now and the information on ownership could be reprocessed and resummarized for inclusion here.

With the promise of further delays in resolving ownership changes, we decided to release the statistics available now. Statistics on ownership and reserved land status plus a resource analysis will be presented in the future when the status of land shifts is more clear. It is clear now, however, that the Alaska Native and State of Alaska land selections are concentrating on timberlands, which will leave a reduced proportion of the better timberland in Federal ownership.

## Timber Harvesting

A summary of volumes cut in the Ketchikan/Craig area of the Tongass National Forest is provided in table 24. Although this area does not coincide exactly with the inventory boundaries used by Forest Inventory and Analysis (FIA), the volume-cut figures provide an understanding of the amount of logging activity in the area from shortly after the 1973 inventory of the Prince of Wales unit through 1980.

## Reliability of Inventory Data

All area and volume statistics reported here are estimates based on sampling and are subject to sampling error. Sampling errors for all estimates presented in the tables are available on request. The reliability of the inventory is expressed in terms of relative sampling error at the 68-percent confidence level.

|                                                | <u>Design<br/>sampling<br/>error</u> | <u>Sampling<br/>error<br/>achieved</u> | <u>Sampling error<br/>of the<br/>total estimate</u> |
|------------------------------------------------|--------------------------------------|----------------------------------------|-----------------------------------------------------|
|                                                | - - - - - Percent - - - - -          |                                        |                                                     |
| Timberland area:                               |                                      |                                        |                                                     |
| Per million acres                              | 3.0                                  | 3.6                                    |                                                     |
| For the total 1.38<br>million acres            |                                      |                                        | 3.0                                                 |
| Other forest land area:                        |                                      |                                        |                                                     |
| Per million acres                              | 10.0                                 | 4.8                                    |                                                     |
| For the total 0.78<br>million acres            |                                      |                                        | 5.5                                                 |
| Net growing stock volume:                      |                                      |                                        |                                                     |
| Per billion cubic feet                         | 10.0                                 | 11.3                                   |                                                     |
| For the total 7.56<br>billion ft <sup>3</sup>  |                                      |                                        | 4.1                                                 |
| Net growth of growing<br>stock:                |                                      |                                        |                                                     |
| Per billion cubic feet                         | 10.0                                 | 25.5                                   |                                                     |
| For the total<br>-0.07 billion ft <sup>3</sup> |                                      |                                        | 100.0                                               |

For the Prince of Wales inventory unit, we estimate 7.56 billion cubic feet of net growing stock volume,  $\pm$  4.1 percent, yielding 68-percent confidence limits of 7.25 and 7.87 billion cubic feet. A 68-percent confidence level means that upon repeated sampling, about 68 percent of the confidence intervals constructed for each sample would capture the true value of the parameter being estimated.

## Terminology <sup>5/</sup>

Allowable cut--The volume of timber that could be cut on timberland during a given period under specified management plans for sustained production, such as those in effect on National Forests.

Census water--Areas of water classed as water by the Bureau of the Census that are at least 40 acres (16 ha) in size with a minimum width of one-eighth mile (200 m). (Also see non-Census water.)

Class of timber--A classification of trees as growing stock, cull, and salvable dead. Growing stock trees are subdivided into poletimber and sawtimber trees.

Commercial species--A tree species suitable for industrial wood products.

Cull logs--Softwood sawtimber logs with two-thirds or more of the board-foot volume in cull material. Hardwood sawtimber logs with one-half or more of the volume in cull material.

Cull material--Portions of a tree unusable for industrial products because of rot, form, or other defect.

Cull trees--Live trees of sawtimber or poletimber size that are not merchantable for saw logs nor are they likely to become merchantable because of defect, rot, or species.

D.b.h.--Diameter at breast height, a point 4-1/2 feet (1.37 m) above the ground on the uphill side of a tree, where, on a normally formed tree, the diameter is measured.

Diameter class--A classification of trees based on diameter of the tree outside the bark measured at breast height, 4-1/2 feet (1.37 m) above the ground. D.b.h. is the common abbreviation for "diameter at breast height." Each 2-inch diameter class is assigned to the appropriate even inch at midpoint. For example, the 6-inch class includes trees 5.0 through 6.9 inches d.b.h.

---

<sup>5/</sup>Terminology is from USDA Forest Service, Forest Service Handbook, Title 4813.1, 1967, and the manual of field instructions for the forest survey of coastal Alaska, 1970.

Established seedling--A tree 6.0 inches (15.24 cm) tall, up to 1.0 inch (2.54 cm) in diameter, with good coloration, no evidence of disease, and with a root system preferably in contact with the mineral soil. For seedlings growing on stumps or logs to be tallied, they must be well enough established to survive after the supporting material has decayed.

Forest land--Land at least 16.7 percent stocked by live trees of any size, or land formerly having such tree cover and not currently developed for nonforest use. Includes chaparral areas in the western United States and afforested areas. The minimum area for classification as forest land or subclasses of forest land is 1 acre (0.4 ha). Roadside, streamside, and shelterbelt strips of timber must be at least 120 feet (36 m) wide to be classified as forest land. Unimproved road and trails, streams, and clearings in forest areas must be less than 120 feet wide to be classified as forest land. (Also see timberland, other forest land, reserved forest land, and nonforest land.)

Forest trees--Woody plants having a well-developed stem and usually more than 12 feet tall, including both growing stock and cull trees.

Forest types--A classification of forest land based on the species forming a plurality of stocking on the area currently occupied by tree cover. The following summarizes the forest types of coastal Alaska:

*Alaska-cedar*--Forests in which Alaska-cedar comprises the plurality of the stocking. Common associates are mountain or western hemlock, lodgepole pine, western redcedar, and occasionally Sitka spruce.

*Black cottonwood*--Forests in which cottonwood comprises the plurality of the stocking. Common associates are red alder and Sitka spruce.

*Fir-spruce*--Forests in which subalpine or Pacific silver fir in combination with Sitka spruce comprises the plurality of the stocking. Common associates are black cottonwood, mountain hemlock, and western hemlock.

*Hemlock-spruce*--Forests in which 50 percent or more of the stand is western hemlock or mountain hemlock and where Sitka spruce comprises 30-49 percent of the stocking. Common associates are Alaska-cedar, western redcedar, and occasionally cottonwood, red alder, or lodgepole pine.

*Lodgepole pine*--Forests in which lodgepole pine comprises the plurality of the stocking. Common associates are mountain hemlock, Alaska-cedar, and western hemlock.

*Mountain hemlock*--Forests in which mountain hemlock comprises the plurality of the stocking. Common associates are western hemlock and Alaska-cedar.

*Other hardwoods*--Forests in which noncommercial hardwoods, such as willow and alder other than red alder, comprise the plurality of the stocking. Common associates are black cottonwood and Sitka spruce.

*Other softwoods*--Forests in which noncommercial softwoods, such as Pacific yew, and junipers comprise the plurality of the stocking. Common associates are Alaska-cedar and mountain hemlock.

*Pacific silver fir*--Forests in which Pacific silver fir comprises the plurality of the stocking. Common associates are black cottonwood, Sitka spruce, mountain hemlock, and western hemlock.

*Red alder*--Forests in which red alder comprises the plurality of the stocking. Common associates are black cottonwood, Sitka spruce, western hemlock, and occasionally western redcedar and/or Alaska-cedar.

*Sitka spruce*--Forests in which Sitka spruce comprises the plurality of the stocking. Common associates are western hemlock, western redcedar, and occasionally cottonwood, red alder, and Alaska-cedar.

*Subalpine fir*--Forests in which subalpine fir comprises the plurality of the stocking. Common associates are black cottonwood, Sitka spruce, mountain hemlock, and western hemlock.

*True fir*--Forests in which Pacific silver fir and subalpine fir comprise the plurality of the stocking. Common associates are black cottonwood, Sitka spruce, mountain hemlock, and western hemlock.

*Western hemlock*--Forests in which western hemlock comprises the plurality of the stocking. Common associates are Sitka spruce, Alaska-cedar, western redcedar, mountain hemlock, and occasionally cottonwood, red alder, or lodgepole pine.

*Western redcedar*--Forests in which western redcedar comprises the plurality of the stocking. Common associates are Sitka spruce, western hemlock, Alaska-cedar, and occasionally cottonwood, red alder, and mountain hemlock.

Gross growth--Net annual growth plus the annual growth on mortality.

Growing stock trees--All live trees except cull trees.

Growing stock volume--Net volume in cubic feet of live sawtimber and poletimber growing stock trees from stump to a minimum 4.0-inch (10-cm) top (of central stem) outside the bark. Net volume equals gross volume less deductions for rot and missing bole sections.

Growth--See net annual growth, gross growth, and ingrowth.

Hardwoods--(1) Trees that are angiosperms, usually broad-leaved and often deciduous. (2) Forests predominantly cottonwood or red alder, singly or in combination.

Ingrowth--The net volume of trees that grew into poletimber or sawtimber growing stock during a specified year.

Inoperable timberland--Includes areas of timberland that are presently inoperable because of marginal volume (usually less than 20,000 board feet per acre) or rough, rocky, cliffy, or otherwise broken terrain. This also includes pockets of high volume timberland that are isolated or more than one-fourth mile (396 m) from operable timberland areas. (Also see operable timberland.)

International 1/4-inch rule--The standard board-foot log rule adopted nationally by the USDA Forest Service for the presentation of inventory volume statistics.

Land area--Area reported as land by the Bureau of the Census. Total land area includes dry land and land temporarily or partially covered by water such as marshes, swamps, and river flood plains (omitting tidal flats below mean high tide); streams, sloughs, estuaries, and canals less than one-eighth mile (200 m) wide; and lakes, reservoirs, and ponds less than 40 acres (16 ha) in area. (Also see non-Census water.)

Land class--A classification of land by major use, such as timberland, other forest, and nonforest. The minimum size area for classification is 1 acre (0.4 ha).

Log grades--A classification of logs based on external characteristics as indicators of quality or value.

Management blocks--Units delineated for timber management by the National Forest System of the USDA Forest Service, usually oriented to islands and/or watershed complexes.



Mean annual increment (MAI)--A measure of the productivity of forest land in terms of the average increase in cubic-foot volume per acre per year. The FIA minimum standard for timberland is the ability to produce 20 cubic feet per acre (1.4 m<sup>3</sup>/ha) per year.

Merchantable height--Height of a tree expressed in the number of 16-foot (5-m) logs to a merchantable top.

Merchantable saw log--For softwood sawtimber, a merchantable saw log must be at least 12 feet (3.6 m) long to a minimum top of 7.0 inches (18 cm) outside the bark or to a top diameter inside the bark that is 40 percent of d.b.h. At least one-third of its board-foot volume must be in sound, recoverable wood. For hardwood sawtimber, a merchantable saw log must be at least 8 feet (2.5 m) long to a minimum top of 9.0 inches (23 cm) outside the bark or to a top diameter inside the bark that is 40 percent of d.b.h. At least half its board-foot volume must be in sound, recoverable wood.

Merchantable stem--For softwoods, the portion of the tree between the 1-foot (0.3-m) stump and either the top diameter of 7.0 inches (18 cm) outside the bark or to a top diameter inside the bark that is 40 percent of d.b.h., whichever is larger. For hardwoods, the portion of the tree between the 1-foot stump and either the top diameter of 9.0 inches (23 cm) outside the bark or to a top diameter inside the bark that is 40 percent of d.b.h., whichever is larger.

Merchantable top--The point on the bole of sawtimber trees above which a saw log cannot be produced. The minimum merchantable top is 7.0 inches (18 cm) outside the bark for softwoods, and 9.0 inches (23 cm) outside the bark for hardwoods.

Merchantable tree--A merchantable tree must be producing or be capable of producing at least one merchantable saw log which is at least 50-percent sound for hardwoods or 33-percent sound for softwoods, board-foot measure. All poletimber that is less than 50-percent sound, cubic-foot measure, and all saplings with any sign of rot are not considered merchantable trees, but rotten culls. All trees that are of such poor form that they will never produce a merchantable saw log are not classed as merchantable trees, but as sound culls or rough trees.

Mortality--Number of or the sound wood volume from live trees dying from natural causes during a specified period.

Mortality of growing stock--The volume of sound wood in live sawtimber and poletimber trees dying annually from natural causes during a specified period.

Mortality of sawtimber--The net board-foot volume of sawtimber trees dying annually from natural causes during a specified period.

Mortality tree--On plots being measured for the first time, a tree of commercial species at least 1 inch (2.54 cm) in d.b.h. or larger that has died within the past 5 years; on plots being remeasured, a tree of commercial species at least 1 inch in d.b.h. that has died since the previous measurement was made.

Net annual growth--The increase in net volume of wood for growing stock trees during a specified year. Components of net annual growth are: (a) the increment in net volume of trees alive at the beginning of the specified year, including that on periodic mortality, plus (b) the net volume of trees reaching sawtimber or poletimber size during the year, minus (c) the net volume of trees that died during the year, minus (d) the net volume lost to tree decay during the year.

Net volume--The gross volume of a tree less deductions for rot, sweep, or other defect affecting product use.

Non-Census water--Areas of water classed as land area by the Bureau of the Census, but that are either 1-40 acres (0.4-16 ha) in area or have a minimum width of 120 feet (36 m) and a maximum width of one-eighth mile (200 m). (Also see Census water.)

Noncommercial species--Tree species of typically small size, poor form, or inferior quality that normally is not suitable for industrial products.

Nonforest land--Land that does not qualify as forest land. Includes land that has never supported forests and lands formerly forested where forest use is precluded by development for nonforest uses. Included are lands used for agricultural crops, improved pasture, residential areas, and city parks, improved roads, operating railroads and their right-of-way clearings, and pipeline clearings. If intermingled in forest areas, unimproved roads, streams, canals, and nonforest strips must be more than 120 feet (36 m) wide, and clearings or other areas must be 1 acre (0.4 ha) or larger to qualify as nonforest land.

Nonstocked land--Timberland less than 16.7 percent stocked with growing stock trees.

Old-growth stands--Stands with at least 50 percent of the live-tree stocking per acre comprised of old-growth trees.

Old-growth trees--Trees that have reached or passed the age of physiological maturity, assumed to be 150 years for coastal Alaska.

Operable timberland--All timberland considered silviculturally and economically operable. This includes areas on stable soils, on slopes that are not too steep to log without causing serious site damage, and stands valuable enough to pay the logging costs using the methods and costs in effect at the time of the inventory. Stands that require new, undeveloped logging methods are not in the operable class.

Other forest land--Unproductive forest land incapable of yielding crops of industrial wood because of adverse site conditions. This includes sterile or poorly drained forest land, subalpine forests, and steep rocky areas where topographic conditions are likely to prevent management for timber production indefinitely. In coastal Alaska, this includes forest lands that are not capable of producing 8,000 board feet per acre (net International 1/4-inch rule).

Poletimber stands--Stands at least 16.7 percent stocked with growing stock trees, with half or more of this stocking in poletimber and sawtimber trees, and with poletimber stocking exceeding that of sawtimber.

Poletimber trees--Growing stock trees 5.0 to 10.9 inches (12.5 to 27.5 cm) in d.b.h.

Quality saw log--See merchantable saw log.

Reserved forest land--Forest land withdrawn from timber utilization through statute or administrative regulation.

Rotten trees--Live trees at least 5 inches (12.7 cm) in d.b.h. that do not contain a saw log and are not likely to, primarily because of rot.

Rotten cull trees--Live trees that do not contain a merchantable saw log and are not likely to, primarily because of rot.

Rough trees--Live trees that do not contain a merchantable saw log and are not likely to, primarily because of roughness, poor form, or they are noncommercial species.

Salvable dead trees--Standing or down dead trees of commercial species at least 11.0 inches (28 cm) in d.b.h., containing at least 50 percent of their volume in sound wood, and with at least one merchantable saw log.

Sapling stands--See seedling and sapling stands.

Sapling trees--Trees 1.0 to 4.9 inches (2.5 to 12.5 cm) in d.b.h.

Saw log--A log meeting minimum standards of diameter, length, and defect, including logs at least 8 feet (2.5 m) long, sound and straight, and with a minimum small-end diameter of 6.0 inches (15 cm) inside the bark for softwoods and 8.0 inches (20 cm) for hardwoods.

Saw-log portion--The bole of sawtimber trees between the stump and the saw-log top.

Saw-log top--The point on the bole of sawtimber trees above which a saw log cannot be produced. The minimum top diameter is 7.0 inches (18 cm) outside the bark for softwoods and 9.0 inches (23 cm) inches outside the bark for hardwoods.

Sawtimber stands--Stands at least 16.7 percent stocked with growing stock trees, with half or more of this stocking in sawtimber or poletimber trees, and with sawtimber stocking at least equal to that of poletimber.

Sawtimber trees--Growing stock trees at least 11.0 inches (28 cm) in d.b.h.

Sawtimber volume--Net volume of sawtimber trees measured in board feet. Net volume equals gross volume less deduction for rot, sweep, crook, and other defects that affect use for lumber.

Scribner, bureau scale-- A common timber scaling rule using 32-foot log lengths.

Scribner rule--The common board-foot timber scaling rule used locally in determining volume of sawtimber.

Seedling and sapling stands--Stands at least 16.7 percent stocked with growing stock trees and with saplings and/or seedlings comprising more than half this stocking.

Seedling--An established tree less than 1.0 inch (2.5 cm) in d.b.h.

Site class--A classification of forest land based on its capacity to grow crops of industrial wood.

Softwoods--Coniferous trees, usually evergreen with needles or scalelike leaves. Species in coastal Alaska are Sitka spruce, western hemlock, mountain hemlock, Alaska-cedar, western redcedar, lodgepole pine, Pacific silver fir, subalpine fir, and Pacific yew.

Sound cull tree--See rough tree.

Stand age class--A classification of forest land based on the predominant age of trees in a given stand.

Stand size class--A classification of forest land based on the predominant size of timber present: sawtimber, poletimber, or seedlings and saplings.

Stocking--A measure of the area occupied by trees of specified classes. FIA forest inventories consider three categories of stocking: all live trees, growing stock trees, and desirable trees. Stocking of all live trees is used to delineate forest land and forest types. Stocking of growing stock trees is used in classifications of stand size and stand age. Stocking of desirable trees is used to delineate area condition classes.

Stump height--For all timber volume estimates, 1 foot (0.3 m).

Timber harvest--Volume of roundwood removed from forest land for products.

Timberland--Forest land producing or capable of producing crops of industrial wood and not withdrawn from timber utilization. Areas qualifying as timberland could produce in excess of 20 cubic feet per acre ( $1.4 \text{ m}^3/\text{ha}$ ) per year of industrial wood under management. In old-growth forests of coastal Alaska, this is equated to stands that could produce 8,000 board feet per acre (net International 1/4-inch rule).

Tree size class--A classification of sawtimber trees, poletimber trees, saplings, and seedlings based on the diameter at breast height.

Upper-stem portion--The bole of sawtimber trees above the saw-log top--7.0 inches (18 cm) outside the bark for softwoods and 9.0 inches (23 cm) outside the bark for hardwoods--to a minimum top diameter of 4.0 inches (10 cm) outside the bark, or to the point where the central stem breaks into limbs.

Volume of growing stock--Volume of sound wood in the bole of live growing stock sawtimber and poletimber trees from stump to a minimum 4.0-inch (10-cm) top outside the bark or to the point where the central stem breaks into limbs.

Volume of salvable dead sawtimber-sized trees--Net volume of standing or down, dead, sawtimber-sized trees that contain 50-percent sound board-foot volume.

Volume of sawtimber--Net volume of the saw-log portion of live growing stock sawtimber trees, expressed in board feet.

Water--See Census water and non-Census water.

Young-growth stands--Stands with at least 50 percent of the live-tree stocking per acre comprised of young-growth trees.

Young-growth trees--Trees that have not passed the age of physiological maturity, assumed to be 150 years for coastal Alaska.

## Names of Trees <sup>6/</sup>

| Common name         | Scientific name                                     |
|---------------------|-----------------------------------------------------|
| <b>Softwoods:</b>   |                                                     |
| Alaska-cedar        | <i>Chamaecyparis nootkatensis</i><br>(D. Don) Spach |
| Fir, Pacific silver | <i>Abies amabilis</i> (Dougl.) Forbes               |
| Fir, subalpine      | <i>A. lasiocarpa</i> (Hook.) Nutt.                  |
| Hemlock, mountain   | <i>Tsuga mertensiana</i> (Bong.) Carr.              |
| Hemlock, western    | <i>T. heterophylla</i> (Raf.) Sarg.                 |
| Pine, lodgepole     | <i>Pinus contorta</i> Dougl.                        |
| Redcedar, western   | <i>Thuja plicata</i> Donn                           |
| Spruce, Sitka       | <i>Picea sitchensis</i> (Bong.) Carr.               |
| Yew, Pacific        | <i>Taxus brevifolia</i> Nutt.                       |
| <b>Hardwoods:</b>   |                                                     |
| Alder, red          | <i>Alnus rubra</i> Bong.                            |
| Cottonwood, black   | <i>Populus trichocarpa</i> Torr. & Gray             |
| Willow, Barclay     | <i>Salix barclayi</i> Anderss.                      |
| Willow, Bebb        | <i>S. bebbiana</i> Sarg.                            |
| Willow, feltleaf    | <i>S. alaxensis</i> (Anderss.) Cov.                 |
| Willow, grayleaf    | <i>S. glauca</i> L.                                 |
| Willow, hooker      | <i>S. hookeriana</i> Barratt                        |
| Willow, Sitka       | <i>S. sitchensis</i> Sanson                         |
| Willow, Pacific     | <i>S. lasiandra</i> Benth.                          |

<sup>6/</sup>Scientific names are according to Viereck and Little (1972).

## Tables

Estimates in this report are developed from statistically based samples and therefore are subject to sampling error. Sampling errors for estimates of various sizes are presented in the section "Reliability of Inventory Data."

TABLE 1--AREA OF FOREST LAND BY FOREST TYPE AND FOREST LAND CLASS, PRINCE OF WALES UNIT, SOUTHEAST COASTAL ALASKA, 1973 <sup>1/</sup>

| FOREST TYPE          | TIMBERLAND | OTHER FOREST | ALL CLASSES |
|----------------------|------------|--------------|-------------|
| THOUSAND ACRES       |            |              |             |
| SOFTWOODS:           |            |              |             |
| SITKA SPRUCE         | 103.10     | --           | 103.10      |
| HEMLOCK-SITKA SPRUCE | 93.36      | 11.79        | 105.15      |
| WESTERN REDCEDAR     | 257.88     | 82.20        | 340.08      |
| WESTERN HEMLOCK      | 817.89     | 306.30       | 1,124.19    |
| MOUNTAIN HEMLOCK     | 46.94      | 141.50       | 188.44      |
| ALASKA-CEDAR         | 58.67      | 176.59       | 235.26      |
| LODGEPOLE PINE       | --         | 58.90        | 58.90       |
| OTHER SOFTWOODS      | --         | --           | --          |
| TOTAL                | 1,377.84   | 777.28       | 2,155.12    |
| HARDWOODS:           |            |              |             |
| BLACK COTTONWOOD     | --         | --           | --          |
| RED ALDER            | --         | --           | --          |
| OTHER HARDWOODS      | --         | --           | --          |
| TOTAL                | --         | --           | --          |
| ALL TYPES            | 1,377.84   | 777.28       | 2,155.12    |

Estimates are subject to sampling error.

-- = no data were collected.

<sup>1/</sup> Totals may be off because of rounding.

TABLE 2--AREA BY LAND CLASS AND MANAGEMENT BLOCK, PRINCE OF WALES UNIT, SOUTHEAST COASTAL ALASKA, 1973 <sup>1/</sup>

| LAND CLASS                                  | KPC     | MAYBESO | GALEA   | COROMATION | SEA<br>OTTER | LULU   | SAM<br>JUAN | CRAIG   | DAHL    | HYDABURG | LONG   | SKOWL   | ALL<br>BLOCKS |
|---------------------------------------------|---------|---------|---------|------------|--------------|--------|-------------|---------|---------|----------|--------|---------|---------------|
| ACRES                                       |         |         |         |            |              |        |             |         |         |          |        |         |               |
| TIMBERLAND:                                 |         |         |         |            |              |        |             |         |         |          |        |         |               |
| SEEDLING AND SAPLING,<br>AND NONSTOCKED     | 54,880  | --      | --      | --         | 19,057       | --     | --          | 4,184   | 10,475  | 10,475   | --     | 10,475  | 109,547       |
| POLETIMBER                                  | --      | --      | 11,735  | --         | --           | --     | --          | --      | --      | --       | --     | --      | 11,735        |
| SAWTIMBER VOLUME<br>STRATA <sup>2/</sup> -- |         |         |         |            |              |        |             |         |         |          |        |         |               |
| 8,000-20,000                                | 187,748 | 11,735  | 35,202  | 11,734     | 11,734       | 23,468 | --          | 70,409  | 23,469  | 70,405   | 11,734 | 82,140  | 539,777       |
| 20,001-30,000                               | 128,534 | 11,460  | 11,460  | --         | 23,471       | 23,471 | --          | 35,204  | 35,206  | 34,654   | 11,735 | 34,928  | 350,122       |
| 30,001-50,000                               | 59,816  | 1,139   | 11,735  | 11,734     | 11,735       | 11,735 | --          | 82,147  | 11,735  | --       | 23,471 | 58,675  | 283,923       |
| 50,001 OR MORE                              | 47,530  | --      | --      | --         | --           | --     | --          | 11,735  | 11,735  | 11,735   | --     | --      | 82,735        |
| TOTAL                                       | 478,508 | 24,334  | 70,132  | 23,468     | 65,997       | 58,674 | --          | 203,679 | 92,620  | 127,269  | 46,940 | 186,218 | 1,377,839     |
| OTHER FOREST LAND:                          |         |         |         |            |              |        |             |         |         |          |        |         |               |
| ROCKY                                       | --      | --      | --      | --         | --           | --     | --          | --      | --      | --       | --     | --      | --            |
| LOW VOLUME <sup>3/</sup>                    | 46,994  | --      | 11,734  | 11,734     | 11,792       | --     | --          | 11,792  | 23,526  | 47,110   | 23,468 | 70,694  | 258,842       |
| MUSKEG FOREST                               | 188,613 | --      | 23,584  | --         | --           | --     | --          | 70,578  | --      | 47,110   | --     | 47,052  | 376,936       |
| HIGH ELEVATION FOREST                       | 23,583  | --      | --      | --         | --           | --     | 11,792      | 23,584  | 47,168  | --       | 11,792 | 23,584  | 141,504       |
| SLIDE ZONE                                  | --      | --      | --      | --         | --           | --     | --          | --      | --      | --       | --     | --      | --            |
| OTHER NONPRODUCTIVE                         | --      | --      | --      | --         | --           | --     | --          | --      | --      | --       | --     | --      | --            |
| TOTAL                                       | 259,190 | --      | 35,318  | 11,734     | 11,792       | --     | 11,792      | 105,954 | 70,694  | 94,220   | 35,260 | 141,330 | 777,282       |
| NONFOREST:                                  |         |         |         |            |              |        |             |         |         |          |        |         |               |
| FARMS AND GRASSLANDS                        | --      | --      | --      | --         | --           | --     | --          | --      | --      | --       | --     | --      | --            |
| ALDER SHRUBLAND                             | 22,221  | --      | --      | --         | --           | --     | --          | --      | --      | --       | --     | --      | 22,221        |
| NON-ALDER SHRUBLAND                         | 11,111  | --      | --      | --         | --           | --     | --          | --      | --      | --       | --     | 11,111  | 22,221        |
| ALPINE MEADOW                               | --      | 11,111  | --      | --         | --           | --     | --          | 11,111  | --      | --       | --     | --      | 22,221        |
| MUSKEG MEADOW                               | 11,111  | --      | --      | --         | 11,111       | --     | --          | --      | --      | --       | --     | 11,111  | 33,332        |
| URBAN AND OTHER                             | --      | --      | --      | --         | --           | --     | --          | --      | --      | --       | --     | --      | --            |
| ALPINE ROCK                                 | --      | --      | --      | --         | --           | --     | --          | --      | --      | --       | --     | 11,111  | 11,111        |
| ICE AND SNOWFIELDS                          | --      | --      | --      | --         | --           | --     | --          | --      | --      | --       | --     | --      | --            |
| TOTAL                                       | 44,443  | 11,111  | --      | --         | 11,111       | --     | --          | 11,111  | --      | --       | --     | 33,333  | 111,106       |
| NON-CENSUS WATER <sup>4/</sup>              | --      | --      | --      | --         | --           | --     | --          | --      | 5,483   | 5,483    | --     | 5,483   | 16,448        |
| ALL LANDS                                   | 782,141 | 35,445  | 105,450 | 35,203     | 88,900       | 58,674 | 11,792      | 320,744 | 168,797 | 226,971  | 82,199 | 366,362 | 2,282,678     |

Estimates are subject to sampling error.

-- = no data were collected.

<sup>1/</sup> Totals may be off because of rounding.<sup>2/</sup> Board feet, Scribner scale, except base value of 8,000 board feet, which is International 1/4-inch rule.<sup>3/</sup> Less than 8,000 board feet per acre, International 1/4-inch rule.<sup>4/</sup> Water as classified by Forest Inventory and Analysis standards.



TABLE 3--NUMBER OF GROWING STOCK TREES ON TIMBERLAND BY SPECIES AND DIAMETER CLASS, PRINCE OF WALES UNIT, SOUTHEAST COASTAL ALASKA, 1973 1/

| SPECIES          | DIAMETER CLASS (INCHES AT BREAST HEIGHT) |              |               |               |               |               |                    |                |
|------------------|------------------------------------------|--------------|---------------|---------------|---------------|---------------|--------------------|----------------|
|                  | SEEDLINGS<br>LESS THAN 1.0               | 1.0-<br>10.9 | 11.0-<br>20.9 | 21.0-<br>30.9 | 31.0-<br>40.9 | 41.0-<br>50.9 | 51.0 AND<br>LARGER | ALL<br>CLASSES |
| THOUSAND TREES   |                                          |              |               |               |               |               |                    |                |
| SOFTWOODS:       |                                          |              |               |               |               |               |                    |                |
| ALASKA-CEDAR     | 31,446.73                                | 22,792.23    | 5,843.33      | 1,667.96      | 101.51        | --            | --                 | 61,851.79      |
| SITKA SPRUCE     | 502,741.46                               | 41,588.20    | 5,222.80      | 2,210.87      | 1,130.06      | 466.94        | 314.01             | 553,674.33     |
| LOGEPOLE PINE    | 1,075.76                                 | 1,490.79     | 434.86        | 26.75         | --            | --            | --                 | 3,028.17       |
| WESTERN REDCEDAR | 66,420.93                                | 23,492.31    | 9,493.77      | 3,922.70      | 998.95        | 172.54        | 25.94              | 104,527.14     |
| WESTERN HEMLOCK  | 2,968,032.74                             | 304,086.88   | 37,445.18     | 10,495.77     | 3,161.58      | 713.93        | 27.12              | 3,323,963.19   |
| MOUNTAIN HEMLOCK | 61,856.50                                | 23,069.25    | 3,802.10      | 585.65        | 45.55         | --            | --                 | 89,359.04      |
| TOTAL            | 3,631,574.16                             | 416,519.65   | 62,242.04     | 18,909.70     | 5,437.65      | 1,353.40      | 367.06             | 4,136,403.66   |
| HARDWOODS:       |                                          |              |               |               |               |               |                    |                |
| RED ALDER        | 537.94                                   | 5,251.59     | 260.88        | --            | --            | --            | --                 | 6,050.41       |
| BLACK COTTONWOOD | --                                       | --           | --            | --            | --            | --            | --                 | --             |
| OTHER HARDWOODS  | --                                       | --           | --            | --            | --            | --            | --                 | --             |
| TOTAL            | 537.94                                   | 5,251.59     | 260.88        | --            | --            | --            | --                 | 6,050.41       |
| ALL SPECIES      | 3,632,112.10                             | 421,771.24   | 62,502.92     | 18,909.70     | 5,437.65      | 1,353.40      | 367.06             | 4,142,454.06   |

Estimates are subject to sampling error.

-- = no data were collected.

1/ Totals may be off because of rounding.

TABLE 4--NUMBER OF GROWING STOCK TREES ON OLD-GROWTH TIMBERLAND BY SPECIES AND DIAMETER CLASS, PRINCE OF WALES UNIT, SOUTHEAST COASTAL ALASKA, 1973 1/

| SPECIES          | DIAMETER CLASS (INCHES AT BREAST HEIGHT) |              |               |               |               |               |                    |                |
|------------------|------------------------------------------|--------------|---------------|---------------|---------------|---------------|--------------------|----------------|
|                  | SEEDLINGS<br>LESS THAN 1.0               | 1.0-<br>10.9 | 11.0-<br>20.9 | 21.0-<br>30.9 | 31.0-<br>40.9 | 41.0-<br>50.9 | 51.0 AND<br>LARGER | ALL<br>CLASSES |
| THOUSAND TREES   |                                          |              |               |               |               |               |                    |                |
| SOFTWOODS:       |                                          |              |               |               |               |               |                    |                |
| ALASKA-CEDAR     | 29,045.88                                | 22,792.23    | 5,843.33      | 1,667.96      | 101.51        | --            | --                 | 59,450.91      |
| SITKA SPRUCE     | 410,645.56                               | 20,403.39    | 4,815.69      | 1,974.87      | 1,064.10      | 430.91        | 301.60             | 439,636.12     |
| LOGEPOLE PINE    | 1,075.76                                 | 1,490.79     | 434.86        | 26.75         | --            | --            | --                 | 3,028.17       |
| WESTERN REDCEDAR | 62,858.09                                | 23,492.31    | 9,420.54      | 3,893.83      | 998.95        | 172.54        | 25.94              | 100,862.20     |
| WESTERN HEMLOCK  | 2,720,327.53                             | 274,261.58   | 36,326.92     | 10,309.73     | 3,123.38      | 706.18        | 27.12              | 3,045,082.43   |
| MOUNTAIN HEMLOCK | 61,856.50                                | 23,069.25    | 3,802.10      | 585.65        | 45.55         | --            | --                 | 89,359.04      |
| TOTAL            | 3,285,809.31                             | 365,509.54   | 60,643.45     | 18,458.79     | 5,333.49      | 1,309.63      | 354.66             | 3,737,418.87   |
| HARDWOODS:       |                                          |              |               |               |               |               |                    |                |
| RED ALDER        | 537.94                                   | 5,251.59     | 213.23        | --            | --            | --            | --                 | 6,002.76       |
| BLACK COTTONWOOD | --                                       | --           | --            | --            | --            | --            | --                 | --             |
| OTHER HARDWOODS  | --                                       | --           | --            | --            | --            | --            | --                 | --             |
| TOTAL            | 537.94                                   | 5,251.59     | 213.23        | --            | --            | --            | --                 | 6,002.76       |
| ALL SPECIES      | 3,286,347.26                             | 370,761.13   | 60,856.68     | 18,458.79     | 5,333.49      | 1,309.63      | 354.66             | 3,743,421.63   |

Estimates are subject to sampling error.

-- = no data were collected.

1/ Totals may be off because of rounding.

TABLE 5--NUMBER OF GROWING STOCK TREES ON YOUNG-GROWTH TIMBERLAND BY SPECIES AND DIAMETER CLASS, PRINCE OF WALES UNIT, SOUTHEAST COASTAL ALASKA, 1973 <sup>1/</sup>

| SPECIES          | DIAMETER CLASS (INCHES AT BREAST HEIGHT) |              |               |               |               |               |                    |                |
|------------------|------------------------------------------|--------------|---------------|---------------|---------------|---------------|--------------------|----------------|
|                  | SEEDLINGS<br>LESS THAN 1.0               | 1.0-<br>10.9 | 11.0-<br>20.9 | 21.0-<br>30.9 | 31.0-<br>40.9 | 41.0-<br>50.9 | 51.0 AND<br>LARGER | ALL<br>CLASSES |
| THOUSAND TREES   |                                          |              |               |               |               |               |                    |                |
| SOFTWOODS:       |                                          |              |               |               |               |               |                    |                |
| ALASKA-CEDAR     | 2,400.88                                 | --           | --            | --            | --            | --            | --                 | 2,400.88       |
| SITKA SPRUCE     | 92,095.90                                | 21,184.81    | 407.11        | 235.99        | 65.96         | 36.03         | 12.40              | 114,038.21     |
| LOGEPOLE PINE    | --                                       | --           | --            | --            | --            | --            | --                 | --             |
| WESTERN REDCEDAR | 3,562.84                                 | --           | 73.23         | 28.87         | --            | --            | --                 | 3,664.94       |
| WESTERN HEMLOCK  | 247,705.22                               | 29,825.30    | 1,118.25      | 186.04        | 38.23         | 7.72          | --                 | 278,880.76     |
| MOUNTAIN HEMLOCK | --                                       | --           | --            | --            | --            | --            | --                 | --             |
| TOTAL            | 345,764.84                               | 51,010.11    | 1,598.60      | 450.91        | 104.19        | 43.74         | 12.40              | 398,984.79     |
| HARDWOODS:       |                                          |              |               |               |               |               |                    |                |
| RED ALDER        | --                                       | --           | 47.65         | --            | --            | --            | --                 | 47.65          |
| BLACK COTTONWOOD | --                                       | --           | --            | --            | --            | --            | --                 | --             |
| OTHER HARDWOODS  | --                                       | --           | --            | --            | --            | --            | --                 | --             |
| TOTAL            | --                                       | --           | 47.65         | --            | --            | --            | --                 | 47.65          |
| ALL SPECIES      | 345,764.84                               | 51,010.11    | 1,646.24      | 450.91        | 104.19        | 43.74         | 12.40              | 399,032.43     |

Estimates are subject to sampling error.

-- = no data were collected.

<sup>1/</sup> Totals may be off because of rounding.

TABLE 6--NUMBER OF GROWING STOCK MORTALITY TREES PER YEAR ON TIMBERLAND BY SPECIES AND DIAMETER CLASS, PRINCE OF WALES UNIT, SOUTHEAST COASTAL ALASKA, 1973 <sup>1/</sup>

| SPECIES          | DIAMETER CLASS (INCHES AT BREAST HEIGHT) |               |               |               |               |                    |                |
|------------------|------------------------------------------|---------------|---------------|---------------|---------------|--------------------|----------------|
|                  | 1.0-<br>10.9                             | 11.0-<br>20.9 | 21.0-<br>30.9 | 31.0-<br>40.9 | 41.0-<br>50.9 | 51.0 AND<br>LARGER | ALL<br>CLASSES |
| THOUSAND TREES   |                                          |               |               |               |               |                    |                |
| SOFTWOODS:       |                                          |               |               |               |               |                    |                |
| ALASKA-CEDAR     | 142.92                                   | 36.50         | 190.69        | 13.38         | --            | --                 | 383.48         |
| SITKA SPRUCE     | 1,241.94                                 | 220.62        | 31.92         | 74.28         | --            | --                 | 1,568.76       |
| LOGEPOLE PINE    | --                                       | --            | --            | --            | --            | --                 | --             |
| WESTERN REDCEDAR | --                                       | 76.98         | 63.32         | 24.76         | --            | --                 | 165.06         |
| WESTERN HEMLOCK  | 3,352.12                                 | 1,527.13      | 532.01        | 120.63        | --            | 4.09               | 5,536.00       |
| MOUNTAIN HEMLOCK | 134.47                                   | 53.86         | --            | --            | --            | --                 | 188.33         |
| TOTAL            | 4,871.45                                 | 1,915.09      | 817.93        | 233.05        | --            | 4.09               | 7,841.63       |
| HARDWOODS:       |                                          |               |               |               |               |                    |                |
| RED ALDER        | --                                       | --            | --            | --            | --            | --                 | --             |
| BLACK COTTONWOOD | --                                       | --            | --            | --            | --            | --                 | --             |
| OTHER HARDWOODS  | --                                       | --            | --            | --            | --            | --                 | --             |
| TOTAL            | --                                       | --            | --            | --            | --            | --                 | --             |
| ALL SPECIES      | 4,871.45                                 | 1,915.09      | 817.93        | 233.05        | --            | 4.09               | 7,841.63       |

Estimates are subject to sampling error.

-- = no data were collected.

<sup>1/</sup> Totals may be off because of rounding.

TABLE 7--NET VOLUME OF GROWING STOCK ON TIMBERLAND, IN CUBIC FEET AND VOLUME PER ACRE, BY FOREST TYPE AND STAND SIZE CLASS, PRINCE OF WALES UNIT, SOUTHEAST COASTAL ALASKA, 1973 <sup>1/</sup>

| FOREST TYPE<br>AND UNIT | SAWTIMBER     |              | POLETIMBER | SEEDLINGS<br>AND SAPLINGS | NONSTOCKED | ALL<br>CLASSES |
|-------------------------|---------------|--------------|------------|---------------------------|------------|----------------|
|                         | OLD GROWTH    | YOUNG GROWTH |            |                           |            |                |
| TRUE FIR: <sup>2/</sup> |               |              |            |                           |            |                |
| FT <sup>3</sup>         | --            | --           | --         | --                        | --         | --             |
| ACRES                   | --            | --           | --         | --                        | --         | --             |
| FT <sup>3</sup> /ACRE   | --            | --           | --         | --                        | --         | --             |
| HEMLOCK-SPRUCE:         |               |              |            |                           |            |                |
| FT <sup>3</sup>         | 526,691,488   | --           | --         | 0                         | --         | 526,691,488    |
| ACRES                   | 72,413        | --           | --         | 20,950                    | --         | 93,363         |
| FT <sup>3</sup> /ACRE   | 7,273         | --           | --         | 0                         | --         | 5,641          |
| WESTERN REDCEDAR:       |               |              |            |                           |            |                |
| FT <sup>3</sup>         | 1,084,723,923 | --           | --         | --                        | --         | 1,084,723,923  |
| ACRES                   | 257,884       | --           | --         | --                        | --         | 257,884        |
| FT <sup>3</sup> /ACRE   | 4,206         | --           | --         | --                        | --         | 4,206          |
| SITKA SPRUCE:           |               |              |            |                           |            |                |
| FT <sup>3</sup>         | 424,089,427   | 49,940,680   | 34,364,591 | 7,599,131                 | --         | 515,993,830    |
| ACRES                   | 58,674        | 11,735       | 11,735     | 20,950                    | --         | 103,095        |
| FT <sup>3</sup> /ACRE   | 7,228         | 4,256        | 2,928      | 363                       | --         | 5,005          |
| MOUNTAIN HEMLOCK:       |               |              |            |                           |            |                |
| FT <sup>3</sup>         | 149,597,489   | --           | --         | --                        | --         | 149,597,489    |
| ACRES                   | 46,935        | --           | --         | --                        | --         | 46,935         |
| FT <sup>3</sup> /ACRE   | 3,187         | --           | --         | --                        | --         | 3,187          |
| WESTERN HEMLOCK:        |               |              |            |                           |            |                |
| FT <sup>3</sup>         | 4,860,617,766 | 124,272,380  | --         | 21,467,618                | --         | 5,016,357,651  |
| ACRES                   | 738,508       | 11,735       | --         | 67,647                    | --         | 892,024        |
| FT <sup>3</sup> /ACRE   | 6,582         | 10,590       | --         | 317                       | --         | 5,624          |
| ALASKA CEDAR:           |               |              |            |                           |            |                |
| FT <sup>3</sup>         | 262,414,710   | --           | --         | --                        | --         | 262,414,710    |
| ACRES                   | 58,670        | --           | --         | --                        | --         | 58,670         |
| FT <sup>3</sup> /ACRE   | 4,473         | --           | --         | --                        | --         | 4,473          |
| LODGEPOLE PINE:         |               |              |            |                           |            |                |
| FT <sup>3</sup>         | --            | --           | --         | --                        | --         | --             |
| ACRES                   | --            | --           | --         | --                        | --         | --             |
| FT <sup>3</sup> /ACRE   | --            | --           | --         | --                        | --         | --             |
| RED ALDER:              |               |              |            |                           |            |                |
| FT <sup>3</sup>         | --            | --           | --         | --                        | --         | --             |
| ACRES                   | --            | --           | --         | --                        | --         | --             |
| FT <sup>3</sup> /ACRE   | --            | --           | --         | --                        | --         | --             |
| BLACK COTTONWOOD:       |               |              |            |                           |            |                |
| FT <sup>3</sup>         | --            | --           | --         | --                        | --         | --             |
| ACRES                   | --            | --           | --         | --                        | --         | --             |
| FT <sup>3</sup> /ACRE   | --            | --           | --         | --                        | --         | --             |
| ALL TYPES:              |               |              |            |                           |            |                |
| FT <sup>3</sup>         | 7,308,133,996 | 174,213,064  | 34,364,591 | 39,066,749                | --         | 7,555,778,438  |
| ACRES                   | 1,233,087     | 23,470       | 11,735     | 109,547                   | --         | 1,377,841      |
| FT <sup>3</sup> /ACRE   | 5,927         | 7,423        | 2,928      | 356                       | --         | 5,484          |

Estimates are subject to sampling error.

-- = no data were collected.

<sup>1/</sup> Totals may be off because of rounding.

<sup>2/</sup> Subalpine fir and Pacific silver fir.

TABLE 8--NET VOLUME OF SAWTIMBER ON TIMBERLAND, IN BOARD FEET INTERNATIONAL 1/4-INCH RULE AND VOLUME PER ACRE, BY FOREST TYPE AND STAND SIZE CLASS, PRINCE OF WALES UNIT, SOUTHEAST COASTAL ALASKA, 1973 <sup>1/</sup>

| FOREST TYPE<br>AND UNITS | SAWTIMBER      |              | POLETIMBER | SEEDLINGS<br>AND SAPLINGS | NONSTOCKED | ALL<br>CLASSES |
|--------------------------|----------------|--------------|------------|---------------------------|------------|----------------|
|                          | OLD GROWTH     | YOUNG GROWTH |            |                           |            |                |
| TRUE FIR: <sup>2/</sup>  |                |              |            |                           |            |                |
| FBM <sup>3/</sup>        | --             | --           | --         | --                        | --         | --             |
| ACRES                    | --             | --           | --         | --                        | --         | --             |
| FBM/ACRE                 | --             | --           | --         | --                        | --         | --             |
| HEMLOCK-SPRUCE:          |                |              |            |                           |            |                |
| FBM                      | 2,694,193,952  | --           | --         | 0                         | --         | 2,694,193,952  |
| ACRES                    | 72,413         | --           | --         | 20,950                    | --         | 93,363         |
| FBM/ACRE                 | 37,206         | --           | --         | 0                         | --         | 28,857         |
| WESTERN REDCEDAR:        |                |              |            |                           |            |                |
| FBM                      | 4,206,657,600  | --           | --         | --                        | --         | 4,206,657,600  |
| ACRES                    | 257,884        | --           | --         | --                        | --         | 257,884        |
| FBM/ACRE                 | 16,312         | --           | --         | --                        | --         | 16,312         |
| SITKA SPRUCE:            |                |              |            |                           |            |                |
| FBM                      | 2,208,714,284  | 284,106,608  | 72,055,424 | 33,835,277                | --         | 2,598,711,520  |
| ACRES                    | 58,674         | 11,735       | 11,735     | 20,950                    | --         | 103,095        |
| FBM/ACRE                 | 37,644         | 24,210       | 6,140      | 1,615                     | --         | 25,207         |
| MOUNTAIN HEMLOCK:        |                |              |            |                           |            |                |
| FBM                      | 585,643,558    | --           | --         | --                        | --         | 585,643,558    |
| ACRES                    | 46,935         | --           | --         | --                        | --         | 46,935         |
| FBM/ACRE                 | 12,478         | --           | --         | --                        | --         | 12,478         |
| WESTERN HEMLOCK:         |                |              |            |                           |            |                |
| FBM                      | 23,428,445,465 | 629,528,140  | --         | 46,405,274                | --         | 24,104,378,438 |
| ACRES                    | 738,508        | 11,735       | --         | 67,647                    | --         | 892,024        |
| FBM/ACRE                 | 31,724         | 53,645       | --         | 685                       | --         | 27,022         |
| ALASKA CEDAR:            |                |              |            |                           |            |                |
| FBM                      | 986,711,468    | --           | --         | --                        | --         | 986,711,468    |
| ACRES                    | 58,670         | --           | --         | --                        | --         | 58,670         |
| FBM/ACRE                 | 16,817         | --           | --         | --                        | --         | 16,818         |
| LODGEPOLE PINE:          |                |              |            |                           |            |                |
| FBM                      | --             | --           | --         | --                        | --         | --             |
| ACRES                    | --             | --           | --         | --                        | --         | --             |
| FBM/ACRE                 | --             | --           | --         | --                        | --         | --             |
| RED ALDER:               |                |              |            |                           |            |                |
| FBM                      | --             | --           | --         | --                        | --         | --             |
| ACRES                    | --             | --           | --         | --                        | --         | --             |
| FBM/ACRE                 | --             | --           | --         | --                        | --         | --             |
| BLACK COTTONWOOD:        |                |              |            |                           |            |                |
| FBM                      | --             | --           | --         | --                        | --         | --             |
| ACRES                    | --             | --           | --         | --                        | --         | --             |
| FBM/ACRE                 | --             | --           | --         | --                        | --         | --             |
| ALL TYPES:               |                |              |            |                           |            |                |
| FBM                      | 34,110,363,897 | 913,634,752  | 72,055,424 | 80,240,550                | --         | 35,176,294,617 |
| ACRES                    | 1,233,087      | 23,470       | 11,735     | 109,547                   | --         | 1,377,841      |
| FBM/ACRE                 | 27,663         | 38,928       | 6,140      | 732                       | --         | 25,530         |

Estimates are subject to sampling error.

-- = no data were collected.

<sup>1/</sup> Totals may be off because of rounding.

<sup>2/</sup> Subalpine fir and Pacific silver fir.

<sup>3/</sup> FBM = board-foot measure, International 1/4-inch rule.

TABLE 9--NET VOLUME OF TIMBER, CUBIC FEET, ON TIMBERLAND BY CLASS OF TIMBER AND BY SOFTWOODS AND HARDWOODS, PRINCE OF WALES UNIT, SOUTHEAST COASTAL ALASKA, 1973 <sup>1/</sup>

| CLASS OF TIMBER           | SOFTWOODS | HARDWOODS | ALL SPECIES |
|---------------------------|-----------|-----------|-------------|
| <i>MILLION CUBIC FEET</i> |           |           |             |
| SAWTIMBER TREES:          |           |           |             |
| SAW-LOG PORTION           | 6,876.22  | 5.85      | 6,882.07    |
| UPPER-STEM PORTION        | 173.61    | .24       | 173.84      |
|                           |           |           |             |
| TOTAL                     | 7,049.82  | 6.09      | 7,055.92    |
| POLETIMBER TREES          | 486.52    | 13.34     | 499.87      |
|                           |           |           |             |
| ALL GROWING STOCK         | 7,536.34  | 19.44     | 7,555.78    |
| ROUGH TREES               | 2.27      | --        | 2.27        |
| ROTTEN TREES              | 405.13    | .05       | 405.19      |
| SALVABLE DEAD TREES       | 160.82    | --        | 160.82      |
|                           |           |           |             |
| ALL TIMBER                | 8,104.57  | 19.49     | 8,124.06    |

Estimates are subject to sampling error.

-- = no data were collected.

<sup>1/</sup> Totals may be off because of rounding.

TABLE 10--NET VOLUME OF SAWTIMBER, INTERNATIONAL 1/4-INCH RULE, ON TIMBERLAND BY SPECIES AND DIAMETER CLASS, PRINCE OF WALES UNIT, SOUTHEAST COASTAL ALASKA, 1973 <sup>1/</sup>

| SPECIES            | DIAMETER CLASS (INCHES AT BREAST HEIGHT) |               |               |               |                    |                |
|--------------------|------------------------------------------|---------------|---------------|---------------|--------------------|----------------|
|                    | 11.0-<br>20.9                            | 21.0-<br>30.9 | 31.0-<br>40.9 | 41.0-<br>50.9 | 51.0 AND<br>LARGER | ALL<br>CLASSES |
| MILLION BOARD FEET |                                          |               |               |               |                    |                |
| SOFTWOODS:         |                                          |               |               |               |                    |                |
| ALASKA-CEDAR       | 543.87                                   | 556.74        | 50.95         | --            | --                 | 1,151.56       |
| SITKA SPRUCE       | 1,106.61                                 | 1,895.91      | 2,266.05      | 1,593.36      | 2,003.76           | 8,865.70       |
| LOGEPOLE PINE      | 126.65                                   | 12.42         | --            | --            | --                 | 139.07         |
| WESTERN REDCEDAR   | 852.56                                   | 1,185.35      | 608.26        | 176.47        | 40.93              | 2,863.56       |
| WESTERN HEMLOCK    | 7,285.96                                 | 7,660.76      | 4,623.67      | 1,585.56      | 91.50              | 21,247.44      |
| MOUNTAIN HEMLOCK   | 532.95                                   | 299.70        | 51.05         | --            | --                 | 883.70         |
| TOTAL              | 10,448.61                                | 11,610.87     | 7,599.98      | 3,355.39      | 2,136.19           | 35,151.03      |
| HARDWOODS:         |                                          |               |               |               |                    |                |
| RED ALDER          | 25.27                                    | --            | --            | --            | --                 | 25.27          |
| BLACK COTTONWOOD   | --                                       | --            | --            | --            | --                 | --             |
| OTHER HARDWOODS    | --                                       | --            | --            | --            | --                 | --             |
| TOTAL              | 25.27                                    | --            | --            | --            | --                 | 25.27          |
| ALL SPECIES        | 10,473.88                                | 11,610.87     | 7,599.98      | 3,355.39      | 2,136.19           | 35,176.30      |

Estimates are subject to sampling error.

-- = no data were collected.

<sup>1/</sup> Totals may be off because of rounding.

TABLE 11--NET VOLUME OF OLD GROWTH, INTERNATIONAL 1/4-INCH RULE, ON TIMBERLAND BY SPECIES AND DIAMETER CLASS, PRINCE OF WALES UNIT, SOUTHEAST COASTAL ALASKA, 1973 <sup>1/</sup>

| SPECIES            | DIAMETER CLASS (INCHES AT BREAST HEIGHT) |               |               |               |                    |                |
|--------------------|------------------------------------------|---------------|---------------|---------------|--------------------|----------------|
|                    | 11.0-<br>20.9                            | 21.0-<br>30.9 | 31.0-<br>40.9 | 41.0-<br>50.9 | 51.0 AND<br>LARGER | ALL<br>CLASSES |
| MILLION BOARD FEET |                                          |               |               |               |                    |                |
| SOFTWOODS:         |                                          |               |               |               |                    |                |
| ALASKA-CEDAR       | 543.87                                   | 556.74        | 50.95         | --            | --                 | 1,151.56       |
| SITKA SPRUCE       | 1,017.48                                 | 1,697.36      | 2,135.57      | 1,439.29      | 1,931.18           | 8,220.88       |
| LOGEPOLE PINE      | 126.65                                   | 12.42         | --            | --            | --                 | 139.07         |
| WESTERN REDCEDAR   | 841.42                                   | 1,179.93      | 608.26        | 176.47        | 40.93              | 2,847.04       |
| WESTERN HEMLOCK    | 7,070.64                                 | 7,538.63      | 4,577.10      | 1,571.20      | 91.50              | 20,849.07      |
| MOUNTAIN HEMLOCK   | 532.95                                   | 299.70        | 51.05         | --            | --                 | 883.70         |
| TOTAL              | 10,133.01                                | 11,284.78     | 7,422.93      | 3,186.96      | 2,063.60           | 34,091.29      |
| HARDWOODS:         |                                          |               |               |               |                    |                |
| RED ALDER          | 19.09                                    | --            | --            | --            | --                 | 19.09          |
| BLACK COTTONWOOD   | --                                       | --            | --            | --            | --                 | --             |
| OTHER HARDWOODS    | --                                       | --            | --            | --            | --                 | --             |
| TOTAL              | 19.09                                    | --            | --            | --            | --                 | 19.09          |
| ALL SPECIES        | 10,152.10                                | 11,284.77     | 7,422.93      | 3,186.96      | 2,063.60           | 34,110.37      |

Estimates are subject to sampling error.

-- = no data were collected.

<sup>1/</sup> Totals may be off because of rounding.

TABLE 12--NET VOLUME OF YOUNG GROWTH, INTERNATIONAL 1/4-INCH RULE, ON TIMBERLAND BY SPECIES AND DIAMETER CLASS, PRINCE OF WALES UNIT, SOUTHEAST COASTAL ALASKA, 1973 <sup>1/</sup>

| SPECIES            | DIAMETER CLASS (INCHES AT BREAST HEIGHT) |               |               |               |                    |                |
|--------------------|------------------------------------------|---------------|---------------|---------------|--------------------|----------------|
|                    | 11.0-<br>20.9                            | 21.0-<br>30.9 | 31.0-<br>40.9 | 41.0-<br>50.9 | 51.0 AND<br>LARGER | ALL<br>CLASSES |
| MILLION BOARD FEET |                                          |               |               |               |                    |                |
| SOFTWOODS:         |                                          |               |               |               |                    |                |
| ALASKA-CEDAR       | --                                       | --            | --            | --            | --                 | --             |
| SITKA SPRUCE       | 89.13                                    | 198.55        | 130.48        | 154.07        | 72.58              | 644.82         |
| LOGEPOLE PINE      | --                                       | --            | --            | --            | --                 | --             |
| WESTERN REDCEDAR   | 11.14                                    | 5.42          | --            | --            | --                 | 16.56          |
| WESTERN HEMLOCK    | 215.32                                   | 122.13        | 46.56         | 14.36         | --                 | 398.37         |
| MOUNTAIN HEMLOCK   | --                                       | --            | --            | --            | --                 | --             |
| TOTAL              | 315.60                                   | 326.09        | 177.05        | 168.43        | 72.58              | 1,059.74       |
| HARDWOODS:         |                                          |               |               |               |                    |                |
| RED ALDER          | 6.19                                     | --            | --            | --            | --                 | 6.19           |
| BLACK COTTONWOOD   | --                                       | --            | --            | --            | --                 | --             |
| OTHER HARDWOODS    | --                                       | --            | --            | --            | --                 | --             |
| TOTAL              | 6.19                                     | --            | --            | --            | --                 | 6.19           |
| ALL SPECIES        | 321.78                                   | 326.09        | 177.05        | 168.43        | 72.58              | 1,065.93       |

Estimates are subject to sampling error.

-- = no data were collected.

<sup>1/</sup> Totals may be off because of rounding.

TABLE 13--NET VOLUME OF GROWING STOCK, CUBIC FEET, ON TIMBERLAND BY SPECIES AND DIAMETER CLASS, PRINCE OF WALES UNIT, SOUTHEAST COASTAL ALASKA, 1973 <sup>1/</sup>

| SPECIES            | DIAMETER CLASS (INCHES AT BREAST HEIGHT) |               |               |               |               |                    |                |
|--------------------|------------------------------------------|---------------|---------------|---------------|---------------|--------------------|----------------|
|                    | 5.0-<br>10.9                             | 11.0-<br>20.9 | 21.0-<br>30.9 | 31.0-<br>40.9 | 41.0-<br>50.9 | 51.0 AND<br>LARGER | ALL<br>CLASSES |
|                    |                                          |               |               |               |               |                    |                |
| MILLION CUBIC FEET |                                          |               |               |               |               |                    |                |
| SOFTWOODS:         |                                          |               |               |               |               |                    |                |
| ALASKA-CEDAR       | 41.83                                    | 148.85        | 129.05        | 11.31         | --            | --                 | 331.03         |
| SITKA SPRUCE       | 35.85                                    | 228.61        | 335.18        | 380.01        | 268.86        | 345.92             | 1,594.43       |
| LOGEPOLE PINE      | 1.42                                     | 24.09         | 2.59          | --            | --            | --                 | 28.11          |
| WESTERN REDCEDAR   | 48.84                                    | 257.29        | 304.37        | 143.33        | 38.14         | 8.26               | 800.23         |
| WESTERN HEMLOCK    | 329.16                                   | 1,526.70      | 1,477.15      | 895.50        | 314.49        | 17.19              | 4,560.19       |
| MOUNTAIN HEMLOCK   | 29.42                                    | 121.62        | 61.16         | 10.14         | --            | --                 | 222.35         |
| TOTAL              | 486.52                                   | 2,307.17      | 2,309.51      | 1,440.29      | 621.49        | 371.37             | 7,536.34       |
| HARDWOODS:         |                                          |               |               |               |               |                    |                |
| RED ALDER          | 13.35                                    | 6.09          | --            | --            | --            | --                 | 19.44          |
| BLACK COTTONWOOD   | --                                       | --            | --            | --            | --            | --                 | --             |
| OTHER HARDWOODS    | --                                       | --            | --            | --            | --            | --                 | --             |
| TOTAL              | 13.35                                    | 6.09          | --            | --            | --            | --                 | 19.44          |
| ALL SPECIES        | 499.87                                   | 2,313.26      | 2,309.51      | 1,440.29      | 621.49        | 371.37             | 7,555.78       |

Estimates are subject to sampling error.

-- = no data were collected.

<sup>1/</sup> Totals may be off because of rounding.

TABLE 14--NET VOLUME OF OLD GROWTH, CUBIC FEET, ON TIMBERLAND BY SPECIES AND DIAMETER CLASS, PRINCE OF WALES UNIT, SOUTHEAST COASTAL ALASKA, 1973 1/

| SPECIES            | DIAMETER CLASS (INCHES AT BREAST HEIGHT) |               |               |               |               |                    |                |
|--------------------|------------------------------------------|---------------|---------------|---------------|---------------|--------------------|----------------|
|                    | 5.0-<br>10.9                             | 11.0-<br>20.9 | 21.0-<br>30.9 | 31.0-<br>40.9 | 41.0-<br>50.9 | 51.0 AND<br>LARGER | ALL<br>CLASSES |
| MILLION CUBIC FEET |                                          |               |               |               |               |                    |                |
| SOFTWOODS:         |                                          |               |               |               |               |                    |                |
| ALASKA-CEDAR       | 41.83                                    | 148.85        | 129.05        | 11.31         | --            | --                 | 331.03         |
| SITKA SPRUCE       | 23.29                                    | 211.54        | 302.44        | 357.46        | 243.42        | 333.84             | 1,471.99       |
| LOGEPOLE PINE      | 1.43                                     | 24.09         | 2.59          | --            | --            | --                 | 28.11          |
| WESTERN REDCEDAR   | 48.84                                    | 254.18        | 302.89        | 143.33        | 38.14         | 8.26               | 795.63         |
| WESTERN HEMLOCK    | 289.04                                   | 1,482.71      | 1,453.97      | 886.68        | 311.51        | 17.19              | 4,441.11       |
| MOUNTAIN HEMLOCK   | 29.42                                    | 121.62        | 61.16         | 10.14         | --            | --                 | 222.35         |
| TOTAL              | 433.85                                   | 2,242.99      | 2,252.10      | 1,408.92      | 593.07        | 359.29             | 7,290.22       |
| HARDWOODS:         |                                          |               |               |               |               |                    |                |
| RED ALDER          | 13.35                                    | 4.57          | --            | --            | --            | --                 | 17.92          |
| BLACK COTTONWOOD   | --                                       | --            | --            | --            | --            | --                 | --             |
| OTHER HARDWOODS    | --                                       | --            | --            | --            | --            | --                 | --             |
| TOTAL              | 13.35                                    | 4.57          | --            | --            | --            | --                 | 17.92          |
| ALL SPECIES        | 447.20                                   | 2,247.56      | 2,252.10      | 1,408.92      | 593.07        | 359.29             | 7,308.14       |

Estimates are subject to sampling error.

-- = no data were collected.

1/ Totals may be off because of rounding.

TABLE 15--NET VOLUME OF YOUNG GROWTH, CUBIC FEET, ON TIMBERLAND BY SPECIES AND DIAMETER CLASS, PRINCE OF WALES UNIT, SOUTHEAST COASTAL ALASKA, 1973 1/

| SPECIES            | DIAMETER CLASS (INCHES AT BREAST HEIGHT) |               |               |               |               |                    |                |
|--------------------|------------------------------------------|---------------|---------------|---------------|---------------|--------------------|----------------|
|                    | 5.0-<br>10.9                             | 11.0-<br>20.9 | 21.0-<br>30.9 | 31.0-<br>40.9 | 41.0-<br>50.9 | 51.0 AND<br>LARGER | ALL<br>CLASSES |
| MILLION CUBIC FEET |                                          |               |               |               |               |                    |                |
| SOFTWOODS:         |                                          |               |               |               |               |                    |                |
| ALASKA-CEDAR       | --                                       | --            | --            | --            | --            | --                 | --             |
| SITKA SPRUCE       | 12.56                                    | 17.08         | 32.74         | 22.55         | 25.43         | 12.09              | 122.44         |
| LOGEPOLE PINE      | --                                       | --            | --            | --            | --            | --                 | --             |
| WESTERN REDCEDAR   | --                                       | 3.12          | 1.49          | --            | --            | --                 | 4.60           |
| WESTERN HEMLOCK    | 40.11                                    | 43.99         | 23.18         | 8.82          | 2.98          | --                 | 119.08         |
| MOUNTAIN HEMLOCK   | --                                       | --            | --            | --            | --            | --                 | --             |
| TOTAL              | 52.67                                    | 64.18         | 57.41         | 31.37         | 28.41         | 12.09              | 246.12         |
| HARDWOODS:         |                                          |               |               |               |               |                    |                |
| RED ALDER          | --                                       | 1.52          | --            | --            | --            | --                 | 1.52           |
| BLACK COTTONWOOD   | --                                       | --            | --            | --            | --            | --                 | --             |
| OTHER HARDWOODS    | --                                       | --            | --            | --            | --            | --                 | --             |
| TOTAL              | --                                       | 1.52          | --            | --            | --            | --                 | 1.52           |
| ALL SPECIES        | 52.67                                    | 65.67         | 57.41         | 31.37         | 28.41         | 12.09              | 247.64         |

Estimates are subject to sampling error.

-- = no data were collected.

1/ Totals may be off because of rounding.



TABLE 16--NET ANNUAL GROWTH OF GROWING STOCK, CUBIC FEET, ON TIMBERLAND BY SPECIES AND STAND SIZE CLASS, PRINCE OF WALES UNIT, SOUTHEAST COASTAL ALASKA, 1973 1/

| SPECIES             | SEEDLING<br>AND SAPLING | POLETIMBER | YOUNG-GROWTH<br>SAWTIMBER | OLD-GROWTH<br>SAWTIMBER | ALL<br>CLASSES |
|---------------------|-------------------------|------------|---------------------------|-------------------------|----------------|
| THOUSAND CUBIC FEET |                         |            |                           |                         |                |
| SOFTWOODS:          |                         |            |                           |                         |                |
| ALASKA-CEDAR        | --                      | 14.38      | --                        | 892.85                  | 907.23         |
| SITKA SPRUCE        | --                      | 194.25     | 1,437.80                  | <u>2/</u> -10,259.13    | -8,627.07      |
| LOGEPOLE PINE       | --                      | 1.78       | --                        | 126.13                  | 127.91         |
| WESTERN REDCEDAR    | --                      | 129.13     | 7.77                      | 996.82                  | 1,133.72       |
| WESTERN HEMLOCK     | --                      | 136.19     | 251.29                    | -58,657.93              | -58,270.48     |
| MOUNTAIN HEMLOCK    | --                      | --         | --                        | -618.82                 | -618.82        |
| TOTAL               | --                      | 475.73     | 1,696.86                  | -67,520.10              | -65,347.51     |
| HARDWOODS:          |                         |            |                           |                         |                |
| RED ALDER           | --                      | --         | 109.89                    | 2.53                    | 112.42         |
| BLACK COTTONWOOD    | --                      | --         | --                        | --                      | --             |
| OTHER HARDWOODS     | --                      | --         | --                        | --                      | --             |
| TOTAL               | --                      | --         | 109.89                    | 2.53                    | 112.42         |
| ALL SPECIES         | --                      | 475.73     | 1,806.75                  | -67,517.57              | -65,235.08     |

Estimates are subject to sampling error.

-- = no data were collected.

1/ Totals may be off because of rounding.

2/ Negative net annual growth indicates that annual mortality exceeded gross annual growth.

TABLE 17--NET ANNUAL GROWTH OF SAWTIMBER, INTERNATIONAL 1/4-INCH RULE, ON TIMBERLAND BY SPECIES AND STAND SIZE CLASS, PRINCE OF WALES UNIT, SOUTHEAST COASTAL ALASKA, 1973 1/

| SPECIES             | SEEDLING<br>AND SAPLING | POLETIMBER | YOUNG-GROWTH<br>SAWTIMBER | OLD-GROWTH<br>SAWTIMBER | ALL<br>CLASSES |
|---------------------|-------------------------|------------|---------------------------|-------------------------|----------------|
| THOUSAND BOARD FEET |                         |            |                           |                         |                |
| SOFTWOODS:          |                         |            |                           |                         |                |
| ALASKA-CEDAR        | --                      | 21.17      | --                        | 2,369.23                | 2,390.40       |
| SITKA SPRUCE        | --                      | 249.24     | 8,910.19                  | <u>2/</u> -82,341.38    | -73,181.96     |
| LOGEPOLE PINE       | --                      | 701.87     | --                        | 268.16                  | 970.03         |
| WESTERN REDCEDAR    | --                      | 132.58     | 34.44                     | -498.59                 | -331.58        |
| WESTERN HEMLOCK     | --                      | 1,325.28   | 2,841.80                  | -336,232.65             | -332,065.57    |
| MOUNTAIN HEMLOCK    | --                      | --         | --                        | 675.64                  | 675.64         |
| TOTAL               | --                      | 2,430.13   | 11,786.43                 | -415,759.60             | -410,543.04    |
| HARDWOODS:          |                         |            |                           |                         |                |
| RED ALDER           | --                      | --         | 679.50                    | 8.46                    | 687.96         |
| BLACK COTTONWOOD    | --                      | --         | --                        | --                      | --             |
| OTHER HARDWOODS     | --                      | --         | --                        | --                      | --             |
| TOTAL               | --                      | --         | 679.50                    | 8.46                    | 687.96         |
| ALL SPECIES         | --                      | 2,430.13   | 12,465.93                 | -415,751.14             | -400,855.08    |

Estimates are subject to sampling error.

-- = no data were collected.

1/ Totals may be off because of rounding.

2/ Negative net annual growth indicates that annual mortality exceeded gross annual growth.

TABLE 18--NET ANNUAL GROWTH OF GROWING STOCK, CUBIC FEET, ON TIMBERLAND BY FOREST TYPE AND STAND SIZE CLASS, PRINCE OF WALES UNIT, SOUTHEAST COASTAL ALASKA, 1973 1/

| FOREST TYPE         | SEEDLING<br>AND SAPLING | POLETIMBER | YOUNG-GROWTH<br>SAWTIMBER | OLD-GROWTH<br>SAWTIMBER | ALL<br>CLASSES |
|---------------------|-------------------------|------------|---------------------------|-------------------------|----------------|
| THOUSAND CUBIC FEET |                         |            |                           |                         |                |
| HEMLOCK-SPRUCE      | --                      | 201.48     | 522.78                    | 1,250.69                | 1,974.95       |
| WESTERN REDCEDAR    | --                      | --         | --                        | 2,623.62                | 2,623.62       |
| SITKA SPRUCE        | --                      | 274.25     | 1,074.94                  | <u>2/</u> -3,505.85     | -2,156.66      |
| MOUNTAIN HEMLOCK    | --                      | --         | --                        | --                      | --             |
| WESTERN HEMLOCK     | --                      | --         | 209.04                    | -68,050.75              | -67,841.71     |
| ALASKA-CEDAR        | --                      | --         | --                        | 164.71                  | 164.71         |
| LOGGEPOLE PINE      | --                      | --         | --                        | --                      | --             |
| RED ALDER           | --                      | --         | --                        | --                      | --             |
| BLACK COTTONWOOD    | --                      | --         | --                        | --                      | --             |
| ALL TYPES           | --                      | 475.73     | 1,806.75                  | -67,517.57              | -65,235.09     |

Estimates are subject to sampling error.

-- = no data were collected.

1/ Totals may be off because of rounding.

2/ Negative net annual growth indicates that annual mortality exceeded gross annual growth.

TABLE 19--NET ANNUAL GROWTH OF SAWTIMBER, INTERNATIONAL 1/4-INCH RULE, ON TIMBERLAND BY FOREST TYPE AND STAND SIZE CLASS, PRINCE OF WALES UNIT, SOUTHEAST COASTAL ALASKA, 1973 1/

| FOREST TYPE         | SEEDLING<br>AND SAPLING | POLETIMBER | YOUNG-GROWTH<br>SAWTIMBER | OLD-GROWTH<br>SAWTIMBER | ALL<br>CLASSES |
|---------------------|-------------------------|------------|---------------------------|-------------------------|----------------|
| THOUSAND BOARD FEET |                         |            |                           |                         |                |
| HEMLOCK-SPRUCE      | --                      | 473.76     | 2,923.88                  | <u>2/</u> -10,335.07    | -6,937.44      |
| WESTERN REDCEDAR    | --                      | --         | --                        | 6,355.67                | 6,355.67       |
| SITKA SPRUCE        | --                      | 1,956.36   | 8,840.86                  | -17,826.51              | -7,029.29      |
| MOUNTAIN HEMLOCK    | --                      | --         | --                        | --                      | --             |
| WESTERN HEMLOCK     | --                      | --         | 701.20                    | -394,312.04             | -393,610.84    |
| ALASKA-CEDAR        | --                      | --         | --                        | 386.82                  | 386.82         |
| LOGGEPOLE PINE      | --                      | --         | --                        | --                      | --             |
| RED ALDER           | --                      | --         | --                        | --                      | --             |
| BLACK COTTONWOOD    | --                      | --         | --                        | --                      | --             |
| ALL TYPES           | --                      | 2,430.13   | 12,465.93                 | -415,751.13             | -400,855.07    |

Estimates are subject to sampling error.

-- = no data were collected.

1/ Totals may be off because of rounding.

2/ Negative net annual growth indicates that annual mortality exceeded gross annual growth.

TABLE 20--AVERAGE ANNUAL MORTALITY OF GROWING STOCK, CUBIC FEET, ON TIMBERLAND BY SPECIES AND STAND SIZE CLASS, PRINCE OF WALES UNIT, SOUTHEAST COASTAL ALASKA, 1973 <sup>1/</sup>

| SPECIES                    | SEEDLING<br>AND SAPLING | POLETIMBER | YOUNG-GROWTH<br>SAWTIMBER | OLD-GROWTH<br>SAWTIMBER | ALL<br>CLASSES |
|----------------------------|-------------------------|------------|---------------------------|-------------------------|----------------|
| <i>THOUSAND CUBIC FEET</i> |                         |            |                           |                         |                |
| SOFTWOODS:                 |                         |            |                           |                         |                |
| ALASKA-CEDAR               | --                      | --         | --                        | 578.30                  | 578.30         |
| SITKA SPRUCE               | --                      | --         | 352.84                    | 19,580.71               | 19,933.55      |
| LOGEPOLE PINE              | --                      | --         | --                        | --                      | --             |
| WESTERN REDCEDAR           | --                      | --         | --                        | 531.89                  | 531.89         |
| WESTERN HEMLOCK            | --                      | --         | 395.56                    | 78,524.99               | 78,920.56      |
| MOUNTAIN HEMLOCK           | --                      | --         | --                        | 298.75                  | 298.75         |
| TOTAL                      | --                      | --         | 748.40                    | 99,514.65               | 100,263.05     |
| HARDWOODS:                 |                         |            |                           |                         |                |
| RED ALDER                  | --                      | --         | --                        | --                      | --             |
| BLACK COTTONWOOD           | --                      | --         | --                        | --                      | --             |
| OTHER HARDWOODS            | --                      | --         | --                        | --                      | --             |
| TOTAL                      | --                      | --         | --                        | --                      | --             |
| ALL SPECIES                | --                      | --         | 748.40                    | 99,514.65               | 100,263.05     |

Estimates are subject to sampling error.

-- = no data were collected.

<sup>1/</sup> Totals may be off because of rounding.

TABLE 21--AVERAGE ANNUAL MORTALITY OF SAWTIMBER, INTERNATIONAL 1/4-INCH RULE, ON TIMBERLAND BY SPECIES AND STAND SIZE CLASS, PRINCE OF WALES UNIT, SOUTHEAST COASTAL ALASKA, 1973 <sup>1/</sup>

| SPECIES             | SEEDLING<br>AND SAPLING | POLETIMBER | YOUNG-GROWTH<br>SAWTIMBER | OLD-GROWTH<br>SAWTIMBER | ALL<br>CLASSES |
|---------------------|-------------------------|------------|---------------------------|-------------------------|----------------|
| THOUSAND BOARD FEET |                         |            |                           |                         |                |
| SOFTWOODS:          |                         |            |                           |                         |                |
| ALASKA-CEDAR        | --                      | --         | --                        | 1,925.17                | 1,925.17       |
| SITKA SPRUCE        | --                      | --         | 2,492.45                  | 116,705.02              | 119,197.47     |
| LODGEPOLE PINE      | --                      | --         | --                        | --                      | --             |
| WESTERN REDCEDAR    | --                      | --         | --                        | 1,668.52                | 1,668.52       |
| WESTERN HEMLOCK     | --                      | --         | 1,501.30                  | 404,393.03              | 405,894.33     |
| MOUNTAIN HEMLOCK    | --                      | --         | --                        | 1,318.37                | 1,318.37       |
| TOTAL               | --                      | --         | 3,993.76                  | 526,010.11              | 530,003.87     |
| HARDWOODS:          |                         |            |                           |                         |                |
| RED ALDER           | --                      | --         | --                        | --                      | --             |
| BLACK COTTONWOOD    | --                      | --         | --                        | --                      | --             |
| OTHER HARDWOODS     | --                      | --         | --                        | --                      | --             |
| TOTAL               | --                      | --         | --                        | --                      | --             |
| ALL SPECIES         | --                      | --         | 3,993.76                  | 526,010.11              | 530,003.87     |

Estimates are subject to sampling error.

-- = no data were collected.

<sup>1/</sup> Totals may be off because of rounding.

TABLE 22--AVERAGE ANNUAL MORTALITY OF GROWING STOCK, CUBIC FEET, ON TIMBERLAND BY FOREST TYPE AND STAND SIZE CLASS, PRINCE OF WALES UNIT, SOUTHEAST COASTAL ALASKA, 1973 <sup>1/</sup>

| FOREST TYPE         | SEEDLING<br>AND SAPLING | POLETIMBER | YOUNG-GROWTH<br>SAWTIMBER | OLD-GROWTH<br>SAWTIMBER | ALL<br>CLASSES |
|---------------------|-------------------------|------------|---------------------------|-------------------------|----------------|
| THOUSAND CUBIC FEET |                         |            |                           |                         |                |
| HEMLOCK-SPRUCE      | --                      | --         | --                        | 6,234.87                | 6,234.87       |
| WESTERN REDCEDAR    | --                      | --         | --                        | 1,525.49                | 1,525.49       |
| SITKA SPRUCE        | --                      | --         | 488.06                    | 6,046.66                | 6,534.72       |
| TRUE FIR            | --                      | --         | --                        | --                      | --             |
| MOUNTAIN HEMLOCK    | --                      | --         | --                        | --                      | --             |
| WESTERN HEMLOCK     | --                      | --         | 260.34                    | 85,144.71               | 85,405.05      |
| ALASKA-CEDAR        | --                      | --         | --                        | 562.92                  | 562.92         |
| LODGEPOLE PINE      | --                      | --         | --                        | --                      | --             |
| RED ALDER           | --                      | --         | --                        | --                      | --             |
| BLACK COTTONWOOD    | --                      | --         | --                        | --                      | --             |
| ALL TYPES           | --                      | --         | 748.40                    | 99,514.65               | 100,263.05     |

Estimates are subject to sampling error.

-- = no data were collected.

<sup>1/</sup> Totals may be off because of rounding.

TABLE 23--AVERAGE ANNUAL MORTALITY OF SAWTIMBER, INTERNATIONAL 1/4-INCH RULE, ON  
TIMBERLAND BY FOREST TYPE AND STAND SIZE CLASS, PRINCE OF WALES UNIT, SOUTHEAST COASTAL  
ALASKA, 1973 <sup>1/</sup>

| FOREST TYPE         | SEEDLING<br>AND SAPLING | POLETIMBER | YOUNG-GROWTH<br>SAWTIMBER | OLD-GROWTH<br>SAWTIMBER | ALL<br>CLASSES |
|---------------------|-------------------------|------------|---------------------------|-------------------------|----------------|
| THOUSAND BOARD FEET |                         |            |                           |                         |                |
| HEMLOCK-SPRUCE      | --                      | --         | --                        | 29,718.85               | 29,718.85      |
| WESTERN REDCEDAR    | --                      | --         | --                        | 5,671.09                | 5,671.09       |
| SITKA SPRUCE        | --                      | --         | 2,847.50                  | 32,205.13               | 35,052.63      |
| TRUE FIR            | --                      | --         | --                        | --                      | --             |
| MOUNTAIN HEMLOCK    | --                      | --         | --                        | --                      | --             |
| WESTERN HEMLOCK     | --                      | --         | 1,146.25                  | 456,203.02              | 457,349.27     |
| ALASKA CEDAR        | --                      | --         | --                        | 2,212.02                | 2,212.02       |
| LODGEPOLE PINE      | --                      | --         | --                        | --                      | --             |
| RED ALDER           | --                      | --         | --                        | --                      | --             |
| BLACK COTTONWOOD    | --                      | --         | --                        | --                      | --             |
| ALL TYPES           | --                      | --         | 3,993.76                  | 526,010.10              | 530,003.86     |

Estimates are subject to sampling error.

-- = no data were collected.

<sup>1/</sup> Totals may be off because of rounding.

TABLE 24--SUMMARY OF TIMBER HARVEST, SCRIBNER AND INTERNATIONAL  
1/4-INCH RULES, IN THE KETCHIKAN/CRAIG WORKING CIRCLE OF THE  
TONGASS NATIONAL FOREST, SOUTHEAST COASTAL ALASKA, 1974-80

| YEAR OF<br>HARVEST  | VOLUME CUT,<br>INTERNATIONAL<br>1/4-INCH RULE | VOLUME CUT<br>SCRIBNER RULE,<br>BUREAU SCALE <sup>1/</sup> | VALUE         |
|---------------------|-----------------------------------------------|------------------------------------------------------------|---------------|
| THOUSAND BOARD FEET |                                               |                                                            | DOLLARS       |
| 1974                | 240,057.82                                    | 201,648.57                                                 | \$ 656,103.79 |
| 1975                | 189,081.93                                    | 158,828.83                                                 | 3,331,184.22  |
| 1976                | 247,495.12                                    | 207,895.90                                                 | 4,810,687.85  |
| 1977                | 123,205.99                                    | 103,493.04                                                 | 2,471,158.74  |
| 1978                | 208,330.77                                    | 174,997.85                                                 | 4,203,710.94  |
| 1979                | 204,489.09                                    | 171,770.84                                                 | 4,099,624.83  |
| 1980                | 214,595.98                                    | 180,260.63                                                 | 12,986,718.33 |
| TOTAL               | 1,427,256.70                                  | 1,198,895.66                                               | 32,559,188.70 |

<sup>1/</sup> Scribner, Bureau scale volume = International 1/4-inch volume x 0.84. (Bones, James E. Relating products output to inventory estimates on the Tongass Forest. Juneau, AK: Northern Forest Experiment Station; 1963. Office Report.)

## Acknowledgments

The timber inventory was performed by the USDA Forest Service, Alaska Region (R-10), Ketchikan, Alaska. The Forestry Sciences Laboratory of the Pacific Northwest Forest and Range Experiment Station (PNW), Juneau, Alaska, provided technical assistance for the study.

Inventory supervision by: Tongass National Forest, Ketchikan area--Mangus E. (Gene) Chelsted, Timber Management staff officer; Douglas A. Cronlund, field supervisor; Rex Baumbach, R-10, technical assistance; Vernon J. LaBau, PNW, technical assistant.

Photo interpretation by: Douglas A. Cronlund and Richard M. Funk.

Field measurements by: Russell B. Beers, Douglas A. Cronlund, Richard M. Funk, George F. Hudak, Eugene E. Miller, Wayne L. Patterson, Laura Smith, and Richard Smith.

Timber operability classification by: Victor Baer and Edward Blankenship.

Office compilation by: George F. Hudak (Ketchikan); Vernon J. LaBau (Fort Collins, Colorado, now in Anchorage); David Jacobs and Patti Bassett, remeasurement edit and compilations (Portland); Marion Simons (Portland) and Gary Carroll (Anchorage), table and output compilations.

Statistical report prepared by: Willem W. S. van Hees and Vernon J. LaBau.

## Metric Equivalents

1 inch = 2.54 centimeters (cm)  
1 foot = 0.3048 meter (m)  
1 mile = 1.609 kilometers (km)  
1 acre = 0.4047 hectares (ha)  
1 cubic foot = 0.0283 cubic meter (m<sup>3</sup>)  
1 cubic foot per acre = 0.07 cubic meter per hectare (m<sup>3</sup>/ha)  
20 cubic feet per acre = 1.3994 cubic meters per hectare (m<sup>3</sup>/ha)  
1 square foot basal area per acre = 0.2296 square meter per hectare (m<sup>2</sup>/ha)

## Literature Cited

Bickford, C.A. The sampling design used in the forest survey of the Northeast. J. For. 50(4): 290-293; 1952.

Viereck, Leslie A.; Little, Elbert E., Jr. Alaska trees and shrubs. Agric. Handb. 410. Washington, DC: U.S. Department of Agriculture; 1972. 265 p.

van Hees, Willem W. S.; LaBau, Vernon J. Timber resource statistics for the Prince of Wales inventory unit, Alaska, 1973. Resour. Bull. PNW-103. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Forest and Range Experiment Station; 1983. 30 p.

Statistics on forest area, total gross and net timber volumes, and annual net growth and mortality are presented from the 1973 timber inventory of the Prince of Wales unit, Alaska. Timberland area is estimated at 1.38 million acres (557 593 ha), net growing stock volume at 7.56 billion cubic feet (214 million m<sup>3</sup>), and annual net growth and mortality at -65.24 and 100.26 million cubic feet (-1.85 and 2.84 million m<sup>3</sup>), respectively.

Keywords: Forest surveys, timber inventory, statistics (forest), resources (forest), Alaska (southeast).

The **Forest Service** of the U.S. Department of Agriculture is dedicated to the principle of multiple-use management of the Nation's forest resources for sustained yields of wood, water, forage, wildlife, and recreation. Through forestry research, cooperation with the States and private forest owners, and management of the National Forests and National Grasslands, it strives — as directed by Congress — to provide increasingly greater service to a growing Nation.

The U.S. Department of Agriculture is an Equal Opportunity Employer. Applicants for all Department programs will be given equal consideration without regard to age, race, color, sex, religion, or national origin.

Pacific Northwest Forest and Range  
Experiment Station  
809 N.E. Sixth Avenue  
P.O. Box 3890  
Portland, Oregon 97208