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3194
SB 217

JETFOIL SERVICE SYNOPSIS

- o IT IS PROPOSED THAT THE JETFOILS BE BASED PRIMARILY IN JUNEAU. A SECONDARY OVERNIGHT BASE WILL BE KETCHIKAN (4 NIGHTS PER WEEK). SERVICE WILL BE REDUCED TO 2 JETFOILS IN WINTER.
- o JETFOILS WILL PROVIDE PASSENGER, FREIGHT, AND VEHICLE SERVICE ON WEEKLY CYCLES TO 17 COMMUNITIES OF SOUTHEAST ALASKA.
- o TYPES OF DAILY SCHEDULES:
 - JUNEAU, SITKA, ANGOON, TENAKEE, HOONAH AND RETURN.
 - JUNEAU, HAINES, SKAGWAY, JUNEAU, GLACIER BAY AND RETURN.
 - JUNEAU, EXCURSION INLET, HOONAH, ELFIN COVE, PELICAN AND RETURN.
 - JUNEAU, KAKE, PETERSBURG, WRANGELL AND RETURN.
 - JUNEAU, PETERSBURG, WRANGELL, HOLLIS, KETCHIKAN, METLAKATLA AND KETCHIKAN.
 - KETCHIKAN, METLAKATLA, KETCHIKAN, HOLLIS, WRANGELL, HOLLIS, KETCHIKAN, METLAKATLA AND KETCHIKAN.
 - KETCHIKAN, METLAKATLA, KETCHIKAN, HOLLIS, WRANGELL, PETERSBURG AND JUNEAU.
- o JETFOIL TRIP TIMES:

| | |
|------------------------------------|----------------------------------|
| - HAINES TO JUNEAU | 2:25 |
| - SKAGWAY TO JUNEAU | 3:30 (WITH STOP) |
| - SITKA TO JUNEAU | 4:05 AND 7:25 (WITH THREE STOPS) |
| - HOONAH TO JUNEAU | 1:50 |
| - KAKE TO JUNEAU | 2:25 |
| - PETERSBURG TO JUNEAU | 2:45 |
| - WRANGELL TO JUNEAU | 4:25 (WITH STOP) |
| - KETCHIKAN TO JUNEAU | 8:55 (WITH THREE STOPS) |
| - ANGOON TO SITKA (ALSO KAE - PSG) | 1:45 |
| - KETCHIKAN TO PETERSBURG | 5:40 (WITH TWO STOPS) |
| - KETCHIKAN TO HOLLIS | 1:05 |

JETFOIL SERVICE SYNOPSIS (CONTINUED)

- o JETFOIL SERVICE WILL BE DURING NORMAL HOURS (7:30 A.M. TO 11:00 P.M.).
- o SERVICE CAN BE PROVIDED FROM DOWNTOWN WATERFRONT.
- o NUMBER OF WEEKLY DEPARTURES FROM EACH COMMUNITY GENERALLY RANGE FROM SIX TO EIGHT (JUNEAU 22; PELICAN AND ELFIN COVE 1).
- o NUMBER OF DAYS PER WEEK EACH COMMUNITY GETS SERVICE GENERALLY RANGE BETWEEN THREE AND SIX (JUNEAU 7; PELICAN, ELFIN COVE AND EXCURSION INLET 1).
- o MORNING AND EVENING SERVICE
 - 4 PER WEEK -- HOONAH
 - 3 PER WEEK -- HAINES, SKAGWAY, TENAKEE, ANGOON, SITKA
 - 2 PER WEEK -- GLACIER BAY, KAKE, PETERSBURG, HOLLIS, METLAKATLA, KETCHIKAN
 - 1 PER WEEK -- EXCURSION INLET
- o DAY TRIPS TO COMMUNITIES WITH TWICE A DAY JETFOIL SERVICE GENERALLY ALLOWS A VISIT OF THREE TO NINE HOURS.

PROPOSED FERRY BOAT SERVICE (SUMMER)

REVISIONS ARE PROPOSED TO THE SCHEDULE OF SOME SOUTHEAST ALASKA FERRY BOATS TO MORE FULLY TAKE ADVANTAGE OF THE JETFOIL SERVICE AND IMPROVE THE FERRYBOAT PRODUCTIVITY. IN THIS MANNER, THE ENTIRE SYSTEM HAS AN INCREASE IN FREQUENCY OF SERVICE AND CAPACITY. THE REVISIONS ARE AS FOLLOWS:

o COLUMBIA FERRY:

- SEATTLE TO SKAGWAY SERVICE WITH STOPS AT KETCHIKAN, WRANGELL, PETERSBURG, JUNEAU, HAINES AND SITKA (SAME AS CURRENT).

o YAKU, MALASPINA, AND MATANUSKA FERRIES

- PRINCE RUPERT TO SKAGWAY SERVICE WITH STOPS AT KETCHIKAN, WRANGELL, PETERSBURG, JUNEAU AND HAINES. (EXCLUDES SITKA WHICH ALLOWS THE FERRIES TO MAKE ONE ADDITIONAL ROUND TRIP PER MONTH.)

PROPOSED FERRY BOAT SERVICE (CONTINUED)

o LE CONTE FERRY BOAT

- JUNEAU TO SITKA SERVICE WITH STOPS AT HOONAH, TENAKEE AND ANGOON (SIMILAR TO CURRENT SERVICE EXCEPT 27 DIRECT SITKA - JUNEAU TRIPS. HOONHA, TENAKEE AND ANGOON STOPS REDUCED TO LESS THAN HALF).
- WEEKLY SERVICE FROM KAKE TO PETERSBURG AND JUNEAU.

o AURORA FERRY BOAT

- HOLLIS TO KETCHIKAN SERVICE (SAME AS CURRENT SERVICE).
- KETCHIKAN TO METLAKATLA SERVICE (SUBSTITUTE FOR CHILKAT FERRY).
- PRINCE RUPERT TO JUNEAU SERVICE (SAME AS CURRENT SERVICE).

o CHILKAT FERRY BOAT

- NO SERVICE
(BECAUSE OF THE ADDITIONAL JETFOIL SERVICE TO METLAKATLA AND THE CURRENT LOW UTILIZATION OF THE AURORA, FOUR DAYS PER WEEK, THE TWO VESSELS TOGETHER CAN SUPPLY SATISFACTORY SERVICE TO METLAKATLA), (SIX DAYS PER WEEK SERVICE; THREE DAYS HAVE MORNING AND EVENING SERVICE).

IMPACT OF PROPOSED SERVICE
(SUMMER)

- o NEW SERVICE -- THREE COMMUNITIES (EXCURSION INLET, ELFIN COVE, GLACIER BAY).
- o WEEKLY SERVICE -- FOUR COMMUNITIES (PELICAN PLUS ABOVE THREE COMMUNITIES).
- o MORNING AND EVENING JETFOIL SERVICE -- THIRTEEN COMMUNITIES.
- o CAPACITY IMPACT:

| | PASSENGER SERVICE* (TRIPS AVAILABLE PER MONTH) | VEHICLES* | |
|---|---|------------------|-----------------------|
| | | JULY CAPACITY | JULY** LOAD FACTOR |
| MAINLINE SERVICE (JUNEAU - KETCHIKAN) | +37% | +17% | 63% |
| SITKA SERVICE | +133% | +21% | 57% |
| HOONAH SERVICE (INCLUDING ANGOON & TENAKEE) | +250% | -5% | 46% |
| HOLLIS SERVICE | +83% | +24% | 45% |
| METLAKATLA SERVICE | +49% | +22% | 18% |
| SKAGWAY SERVICE | +95% | +9% | 42% |

*JETFOIL AND FERRY BOAT SERVICE

**NO CREDIT TAKEN FOR TRANSFER OF FREIGHT FROM VEHICLES (VANS) TO CONTAINERS.

EXISTING TRAFFIC SUMMARY
SOUTHEAST ALASKA

- o LARGE PASSENGER MARKET -- 480,000 PASSENGER TRIPS (1982) (EXCLUDING PASSENGERS TO/FROM PRINCE RUPERT OR SEATTLE).
 - 40% FERRY PASSENGERS (55% WALK-ON, 45% MOTORIST).
 - 40% AIR TAXI PASSENGERS.
 - 20% JET AIRCRAFT PASSENGERS.

- o RAPID GROWTH IN MARKET OVER LAST DECADE.
 - FERRY TRAFFIC: 7% GROWTH PER YEAR.
 - JET AIR TRAFFIC: 5% GROWTH PER YEAR.

- o MOST RAPID GROWTH -- SITKA AND SECONDARY COMMUNITIES.
 - PRINCE OF WALES ISLAND -- 24% GROWTH PER YEAR IN FERRY TRAFFIC SINCE 1976.
 - HOONAH/TENAKEE/ANGOON -- 17% GROWTH PER YEAR IN FERRY TRAFFIC SINCE 1978.

PASSENGER TRAFFIC FORECAST
SOUTHEAST ALASKA

- o TRAFFIC GROWTH, AS EXPECTED, HAS FOLLOWED CLOSELY THE GROWTH IN ITS PRIMARY USERS, LOCAL RESIDENTS AND VISITORS.

(GROWTH PER YEAR)
1975 - 1982

| | |
|--|----|
| TOTAL VISITORS (STATEWIDE SINCE 1976) | 9% |
| FERRY TRAFFIC | 7% |
| JET AIR TRAFFIC | 5% |
| POPULATION AND EMPLOYMENT (SOUTHEAST ALASKA) | 3% |

- o FUTURE TRAFFIC GROWTH SHOULD FOLLOW PROJECTED TRENDS IN POPULATION, EMPLOYMENT AND TOURISM.

| | <u>(1983 - 1985)</u> | <u>(GROWTH PER YEAR)</u> <u>(1986 - 1990)</u> | <u>(1991 - 1995)</u> |
|--|----------------------|--|----------------------|
| TOTAL VISITORS - STATEWIDE (TOURISM DIVISION ESTIMATE) | 13% | -- | -- |
| FERRY PASSENGERS | 5% | 7% | 5% |
| AIR PASSENGERS | 4% | 4.5% | 4% |
| EMPLOYMENT - STATEWIDE (ALASKA DEPT. OF LABOR FORECAST) | 5% | 5% | -- |
| POPULATION - STATEWIDE (U.S. CENSUS FORECAST) | 2% | 1.5% | 1% |

- o FORECASTS MADE FOR EACH INDIVIDUAL ORIGIN AND DESTINATION BASED ON PAST TRENDS AND LOCAL GROWTH PROJECTIONS.

- RAPID GROWTH ROUTES: KETCHIKAN TO PRINCE OF WALES ISLAND
JUNEAU TO SITKA
MAINLINE TO HAINES
- MODERATE GROWTH ROUTES: JUNEAU/SITKA TO SMALL NORTHERN COMMUNITIES
MAINLINE TO PETERSBURG/WRANGELL
- SLOW GROWTH ROUTES: KETCHIKAN TO METLAKATLA
MAINLINE TO SKAGWAY

JETFOIL FARES

- o COMPETITIVE JETFOIL FARE LEVEL DETERMINED BY USING TRAVEL TIME/COST ANALYSIS WHICH INCLUDES:
 - PRESENT AIR AND FERRY FARES AND TRAVEL TIME
 - GROUND TRANSPORTATION TIME AND COST TO/FROM TERMINAL
 - CHECK-IN AND BAGGAGE PICK-UP TIME
 - FOOD PURCHASED ON BOARD

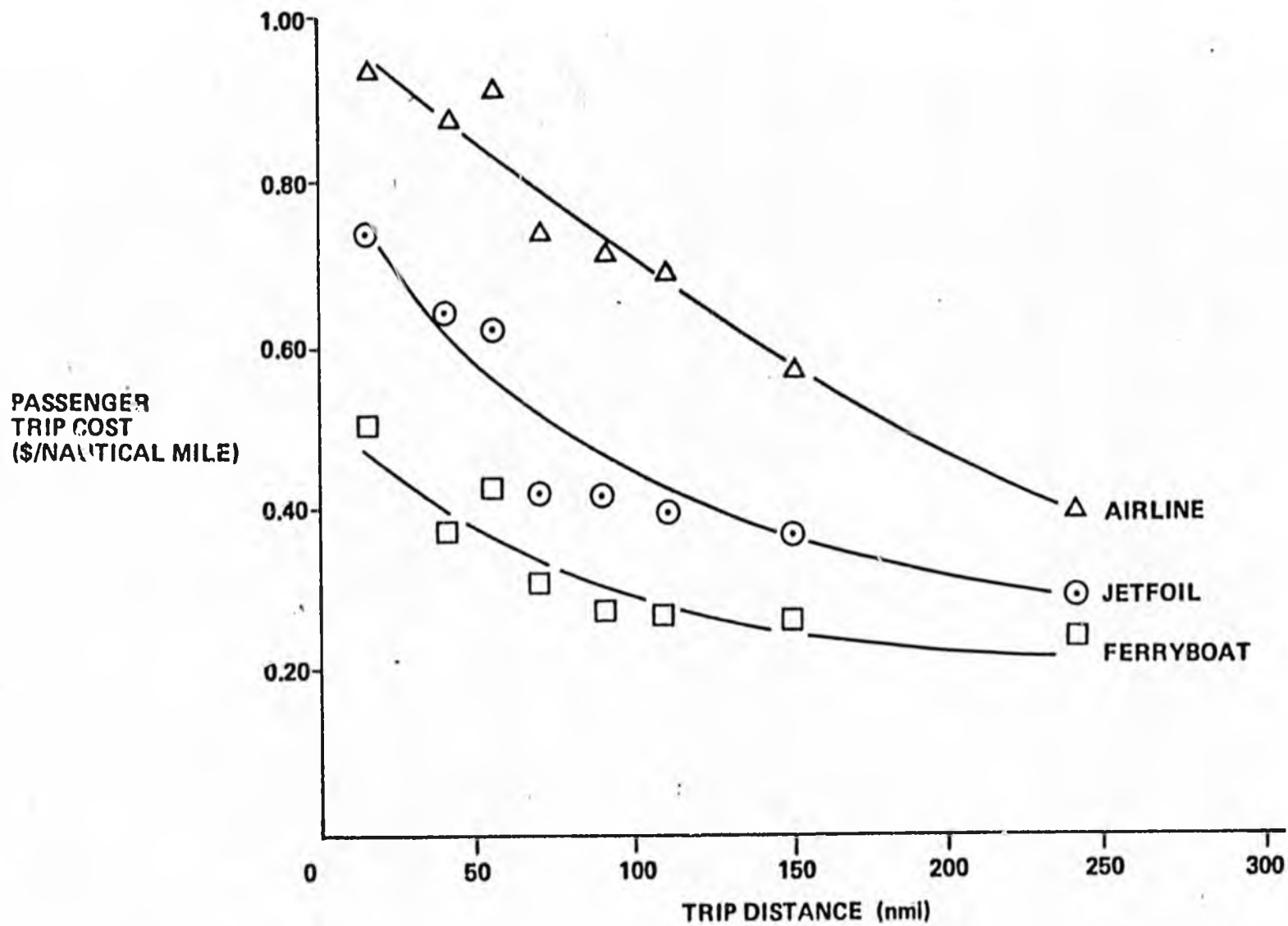
- o JETFOIL FARE LEVEL IS CONSISTENT WITH EXISTING JETFOIL OPERATIONS. ON AN AVERAGE, TRAVEL BY JETFOIL WOULD COST 50 PERCENT MORE THAN FERRY COMPARED TO AIR WHICH COSTS 150 PERCENT MORE THAN FERRY.

PERCENT ABOVE FERRY FARE (BY ROUTE LENGTH)

| | <u>20 N.M.</u> | <u>60 N.M.</u> | <u>100 N.M.</u> | <u>160 N.M.</u> |
|---------|----------------|----------------|-----------------|-----------------|
| JETFOIL | 56% | 50% | 50% | 40% |
| AIR | 106% | 186% | 150% | 120% |

Passenger Trip Cost Southeast Alaska

(1983 Dollars)



JETFOIL ECONOMIC SCENARIOS

THE FOLLOWING THREE ECONOMIC SCENARIOS WERE ESTABLISHED FOR THIS ANALYSIS SO THAT POSSIBLE CHANGES IN TRAFFIC DEMAND, ECONOMIC CLIMATE, AND FARE STRUCTURE WOULD BE CONSIDERED.

| | <u>MEDIUM CASE</u> | <u>LOW CASE</u> | <u>HIGH CASE</u> |
|-------------------|---|----------------------------------|--------------------------------|
| PASSENGER TRAFFIC | ANALYSIS OF INDIVIDUAL ROUTES AND TRAFFIC REQUIREMENTS | -15% | +15% |
| PASSENGER FARES | FARES COMPETITIVE TO OTHER MODES | BETWEEN FERRY AND MEDIUM CASE | BETWEEN AIR AND MEDIUM CASE |
| FREIGHT RATES | RATES COMPETITIVE TO OTHER MODES | SURFACE RATES | AIR RATES |
| COSTS | (SAME FOR ALL CASES) BASED ON ALASKA LABOR AND MATERIAL RATES, ALASKA DEMO, AND OTHER JETFOIL OPERATIONS. | | |
| JETFOIL SCHEDULE | (SAME FOR ALL CASES) 3 JETFOILS PROVIDING SERVICE TO 17 COMMUNITIES ON WEEKLY CYCLE (2800 HOURS PER YEAR PER BOAT). | | |

PASSENGER REVENUE AND MARKET SUMMARY (1986)
SOUTHEAST ALASKA

| | WITH PRINCE RUPERT | WITHOUT PRINCE RUPERT | |
|--|--------------------|-----------------------|-----------------------|
| FORECASTED TOTAL MARKET* | 590,000 | 540,000 | |
| FORECASTED WALK-ON MARKET* | 465,000 | 440,000 | |
| JETFOIL REVENUE/TRAFFIC SCENARIOS | | | |
| | <u>MEDIUM CASE</u> | <u>LOW CASE</u> | <u>HIGH CASE</u> |
| JETFOIL MARKET SHARE | 29% | -15% | +15% |
| JETFOIL INDUCEMENT FACTOR | 22%** | | |
| JETFOIL PASSENGERS (WALK-ON PASSENGERS WITHOUT PRINCE RUPERT) | 156,400 | 133,000 | 179,900 |
| JETFOIL PASSENGER LOAD FACTOR | 31% | 26% | 36% |
| JETFOIL FARE YIELD/NAUTICAL MILE (AVERAGE ROUTE LENGTH - 60 N.M.) | \$.53 | \$.41 (-20%) | \$.64 (+20%) |
| JETFOIL REVENUE | \$5,020,000 | \$3,265,000 (-35%) | \$6,945,000 (+35%) |

*DOES NOT INCLUDE PASSENGERS TO/FROM SEATTLE.

**REPRESENTS 28,000 PASSENGERS OR 6% INDUCEMENT OF WALK-ON MARKET.

CAPITAL COSTS

- o THE JETFOIL IS MORE EFFICIENT PER DOLLAR OF INVESTMENT THAN A CONVENTIONAL FERRY. JETFOIL'S ANNUAL EQUIVALENT PASSENGER MILES OFFERED ARE 48 PERCENT OF THE TUSTUMENA'S, WHILE THE JETFOIL INVESTMENT REQUIRED IS ONLY 38 PERCENT OF THE REPLACEMENT VESSEL (26 PERCENT MORE EFFICIENT PER DOLLAR OF CAPITAL COST).

- o BASED ON ONE YEARS PRODUCTIVITY, THE INVESTMENT PER PASSENGER MILE OFFERED IS \$.68 FOR THE JETFOIL VERSUS \$.86 FOR THE REPLACEMENT VESSEL* (PLUS 25 PERCENT).

- o ON 20-YEAR PAY BACK BASIS: JETFOIL FARE PER PASSENGER MILE OFFERED WOULD HAVE TO INCREASE \$.06 VERSUS \$.07 FOR THE REPLACEMENT VESSEL* (PLUS 17 PERCENT).

*TUSTUMENA

CAPITAL COST COMPARISON

o PRODUCTIVITY

| | <u>PURCHASE PRICE</u> | <u>ANNUAL DISTANCE</u> | <u>EQUIVALENT REVENUE PASS. CAPACITY</u> | <u>\$/PASSENGER N. MILE</u> |
|-----------------------------------|--------------------------------|------------------------|--|-----------------------------|
| JETFOIL | \$18.3 MILLIONS (\$55M ÷ 3) | 105,600 N. MI. | 256 (135 PAX + 19 TONS FREIGHT) | .68 |
| REPLACEMENT VESSEL (TUSTUMENA) | \$47.5 MILLION (ESTIMATE) | 65,000 N. MI. (1) | 848 (500 PAX + 116 VEHICLES) | .86 |

| o PAYBACK | <u>ANNUAL (2) AMORTIZATION</u> | <u>ADDITIONAL \$/PAX MILE REQUIRED 20 YEAR PAYBACK</u> |
|--------------------------------|---|--|
| JETFOIL | \$1.6 M ÷ 105,600 N.M. ÷ 256 PASSENGERS = | .06 |
| REPLACEMENT VESSEL (TUSTUMENA) | \$4.1 M ÷ 65,000 N.M. ÷ 848 PASSENGERS = | .07 |

(1) MAINLINE FERRIES AVERAGE (1978 - 1982).

(2) ASSUMES 20 YEAR PAYBACK AT 6% INTEREST (ESTIMATED LONG TERM ALASKA GOVERNMENT BOND RATE).

OPERATING COSTS

- o JETFOIL COSTS HAVE BEEN CALCULATED CONSERVATIVELY ON A STAND-ALONE OPERATION BASIS USING ALASKA MARINE HIGHWAY COSTS AND DATA.

- o CONVENTIONAL FERRY BOAT COSTS AND UTILIZATION CAME FROM FISCAL YEAR 1982 DATA ADJUSTED (PLUS 8 PERCENT) TO 1983, PROVIDED BY THE ALASKA MARINE HIGHWAY SYSTEM.

- o ANNUAL JETFOIL OPERATING COST IS \$.16 PER PASSENGER MILE OFFERED VERSUS \$.16 FOR THE AVERAGE OF ALL SOUTHEAST ALASKA FERRY BOATS.

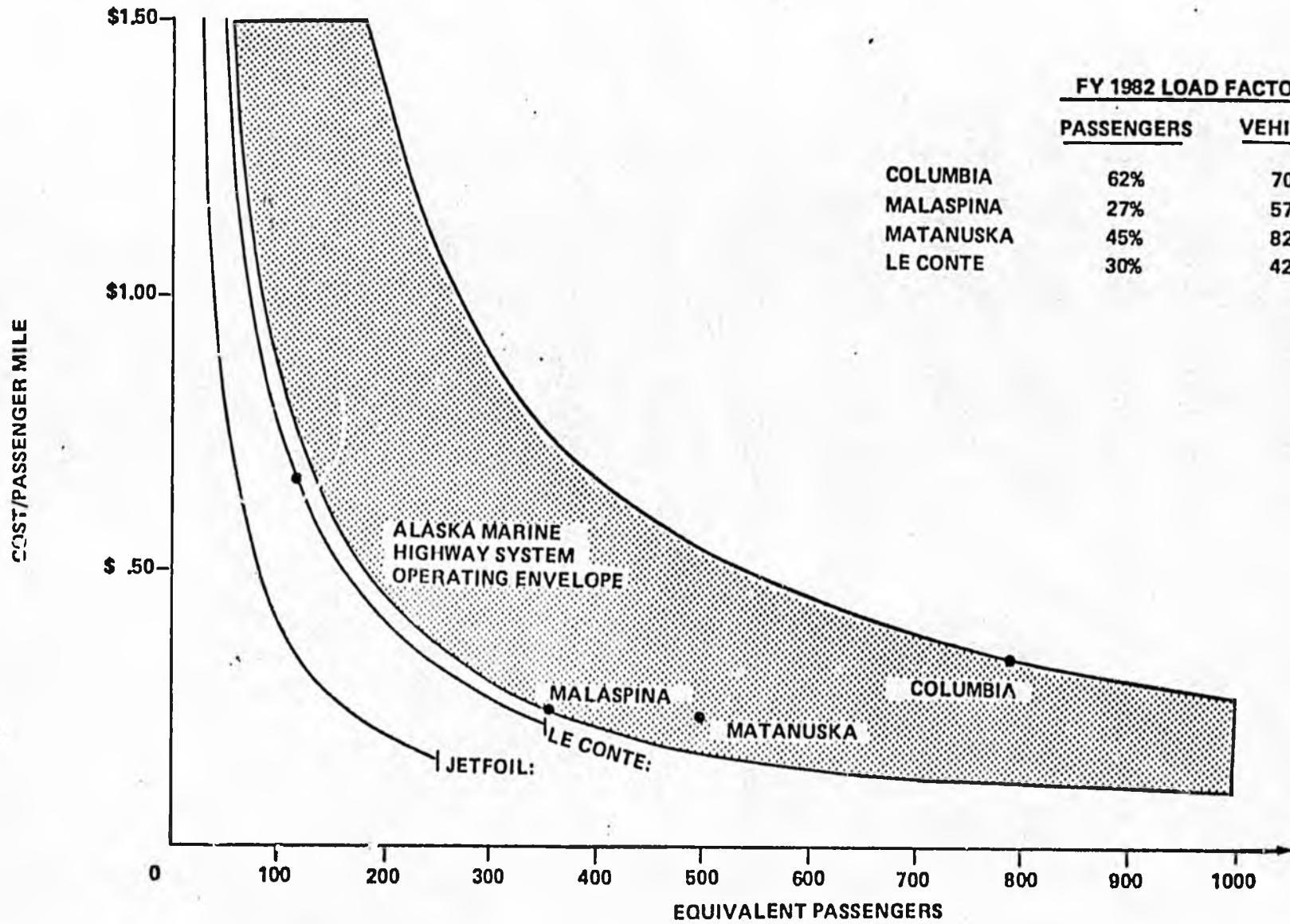
OPERATING COST COMPARISON

| <u>BOAT</u> | <u>TOTAL* EQUIVALENT PAX CAPACITY</u> | <u>ANNUAL OPERATING DISTANCE</u> | <u>ESTIMATED 1983 COSTS</u> | <u>COST PER NAUTICAL MILE</u> | <u>COST PER NAUTICAL SEAT MILE</u> |
|-----------------------------|---|--|------------------------------------|---------------------------------------|--|
| MAINLINE FERRIES (4) | 1,002 | 260,000 N.M. (AVG. 65,000 N.M.) | \$38,000,000 (AVG. \$9,500,000) | \$146 | \$.15 |
| SECONDARY FERRIES (2) | 355 | 126,000 N.M. (AVG. 62,000 N.M.) | \$10,400,000 (AVG. \$5,200,000) | \$ 83 | \$.23 |
| FLEET AVERAGE (WEIGHTED) | 786 | 386,000 N.M. (AVG. 64,000 N.M.) | \$48,400,000 (AVG. \$8,076,000) | \$125 | \$.16 |
| JETFOIL | 256 | 316,800 N.M. (AVG. 105,600 N.M.) | \$12,900,000 (AVG. \$4,300,000) | \$ 41 | \$.16 |

*EQUIVALENT PASSENGER CAPACITY HAS BEEN USED IN ORDER TO MAKE A MEANINGFUL ECONOMIC COMPARISON OF EACH VESSEL. THE EQUIVALENT PASSENGER CAPACITY REPRESENTS REVENUE FOR AN ALL PASSENGER VESSEL EQUIVALENT TO REVENUE GENERATED BY A MIXED PASSENGER VEHICLE AND FREIGHT CONFIGURATION.

**BASED ON FISCAL YEAR 1982 UTILIZATION (MAINLINE -- 33 MONTHS; SECONDARY -- 17 MONTHS). 1983 COSTS ESTIMATED USING FISCAL YEAR 1982 COSTS +8%.

Operating Cost vs Passengers



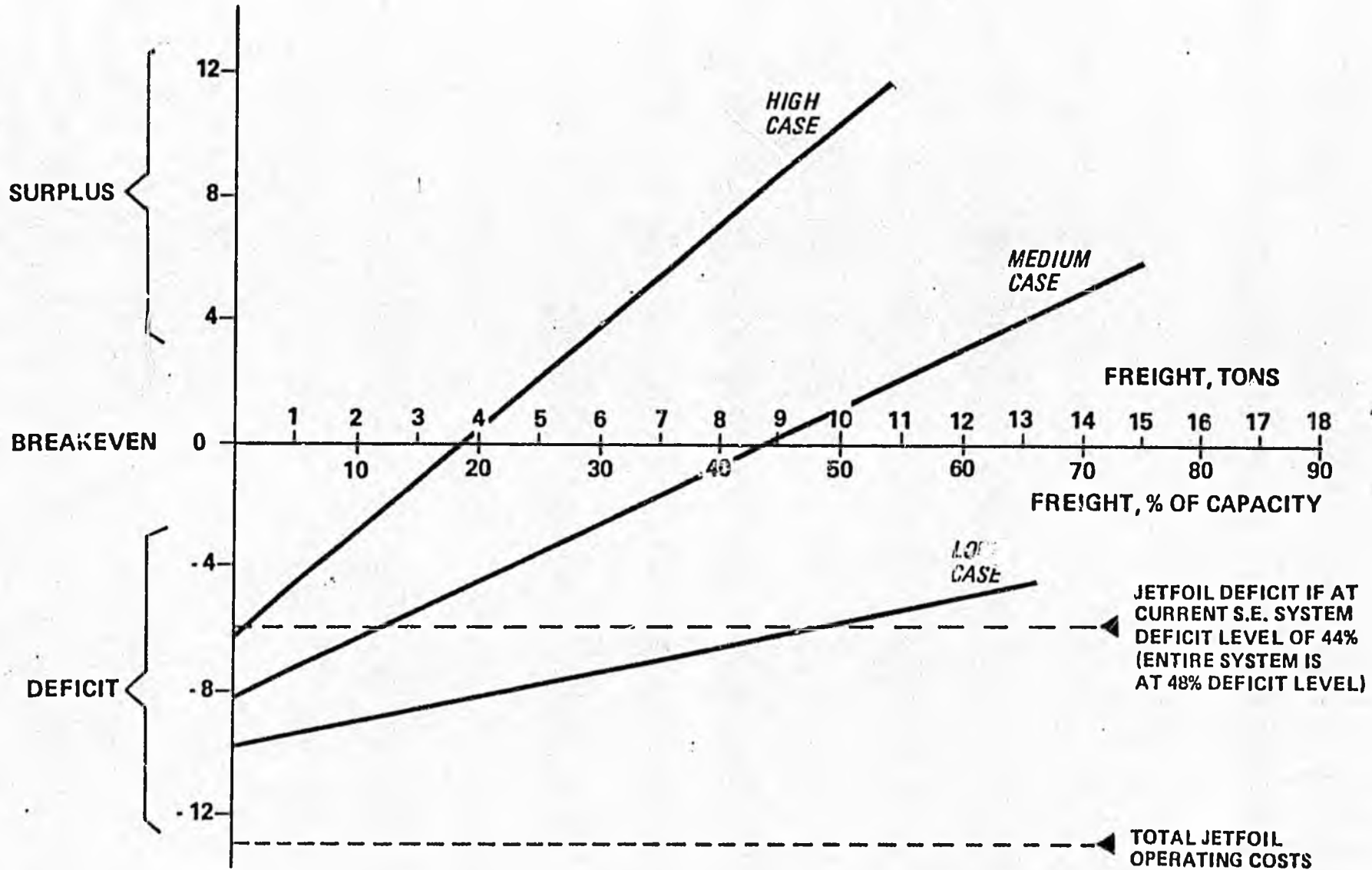
ASSUMES A PASSENGER:VEHICLE
REVENUE TRADE-OFF OF 3:1

● DENOTES EXPECTED EQUIVALENT
PASSENGER LOADS (BASED ON
FY 1982 DATA)

Annual Cash Flow

3 JETFOILS

(1983 Dollars in Millions)



JETFOIL REVENUE SCENARIOS

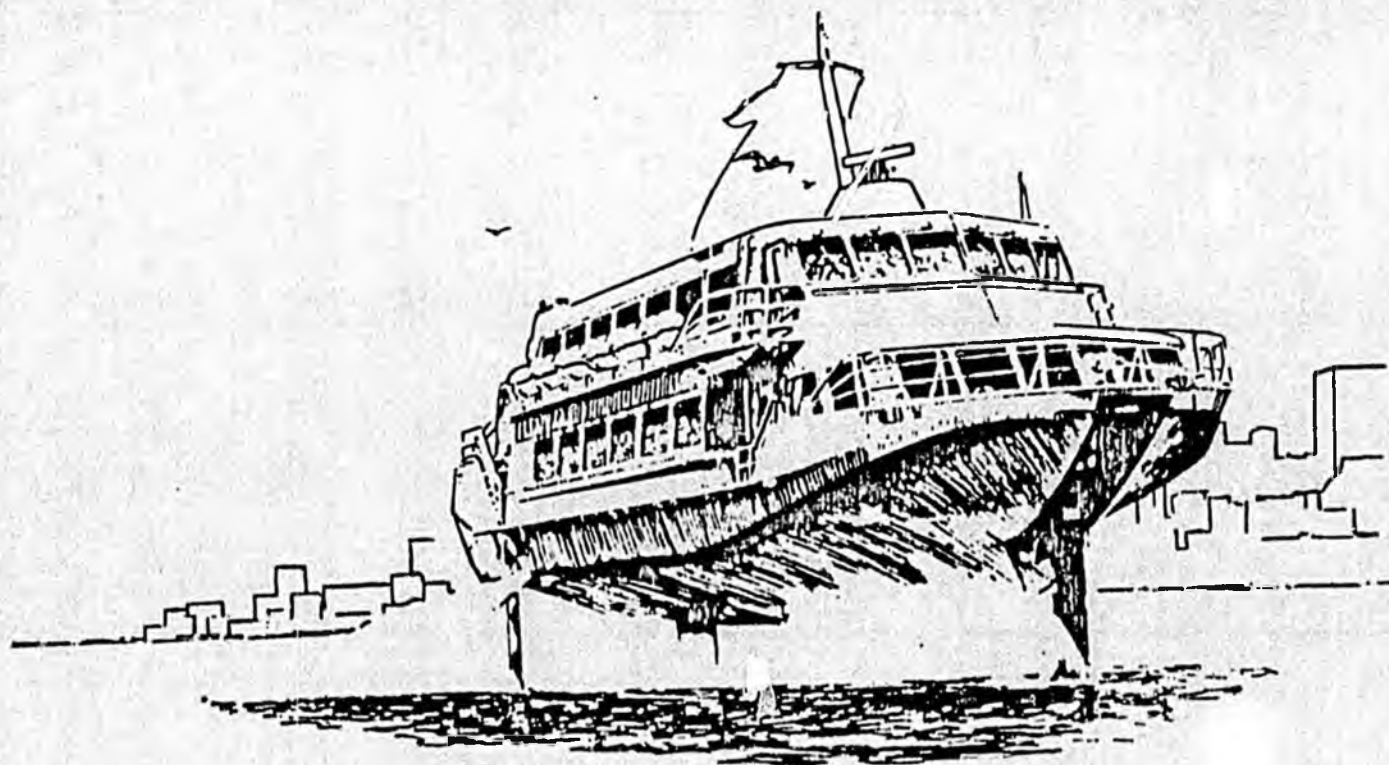
| | ANNUAL CARGO REVENUE | | | TOTAL ANNUAL REVENUE*** (CARGO & PASSENGER) | ANNUAL PROFIT**** (LOSS) |
|----------------------------------|----------------------|----------------------|------------------|---|------------------------------|
| | VEHICLE REVENUE* | FREIGHT REVENUE** | TOTAL REVENUE | | |
| <u>LOW CASE</u> | | | | | |
| 3 VEHICLES 1 TON OF FREIGHT | \$934,243 | \$887,000 | \$1,821,243 | \$6,841,399 | (\$6,069,001) 47% DEFICIT |
| <u>MEDIUM-LOW CASE</u> | | | | | |
| 2 VEHICLES 2 TONS OF FREIGHT | \$622,829 | \$1,734,000 | \$2,356,909 | \$7,377,065 | (\$5,533,335) 43% DEFICIT |
| <u>MEDIUM CASE</u> | | | | | |
| 2 VEHICLES 4 TONS OF FREIGHT | \$622,829 | \$3,548,160 | \$4,170,989 | \$9,191,145 | (\$3,719,255) 29% DEFICIT |
| <u>MEDIUM-HIGH CASE</u> | | | | | |
| 2 VEHICLES 8 TONS OF FREIGHT | \$622,829 | \$7,096,320 | \$7,719,149 | \$12,739,305 | (\$171,095) 1% DEFICIT |
| <u>HIGH CASE</u> | | | | | |
| 0 VEHICLES 15 TONS OF FREIGHT | 0 | \$13,305,600 | \$13,305,600 | \$18,325,756 | \$5,415,356 42% GAIN |

*(3 VEHICLES/JETFOIL) X (3 JETFOILS) X (105,600 N.M./YEAR) X (\$.983/VEHICLE N.M.) = \$934,243/YEAR.

** (1/2 TON/JETFOIL) X (3 JETFOILS) X (105,600 N.M./YEAR) X (\$2.80/TON MILE) = \$443,520/YEAR.

***USES MEDIUM PASSENGER REVENUE SCENARIO OF \$5,020,156 ANNUALLY.

****BASED ON AN ANNUAL OPERATING COST OF \$12,910,400 FOR 3 JETFOILS.



Proposed Southeast Alaska Ferry Service

PROPOSED SOUTHEAST ALASKA FERRY SERVICE

INTRODUCTION

IN THE PROCESS OF DEVELOPING A SCHEDULE FOR JETFOIL SERVICE IN SOUTHEAST ALASKA, CURRENT FERRY SERVICE WAS ALSO CONSIDERED AND THE IMPROVEMENTS THAT COULD BE MADE IN CONJUNCTION WITH THE IMPLEMENTATION OF JETFOIL SERVICE. IN THE PROPOSED SERVICE DESCRIBED HEREIN, THE EMPHASIS AND ANALYSIS HAS BEEN PRIMARILY PLACED ON THE SUMMER SERVICE SINCE THAT IS WHEN THERE IS THE HEAVIEST DEMAND FOR PASSENGER, VEHICLES, AND FREIGHT TRAFFIC.

JETFOIL SERVICE

THE JETFOIL SERVICE PROPOSED HERE SERVES SEVENTEEN COMMUNITIES OF SOUTHEAST ALASKA WITH THREE BOATS. ALL THREE JETFOILS ARE HOME PORTED IN JUNEAU. SERVICE IS PROVIDED DAILY DURING NORMAL HOURS (7:30 A.M. TO 11:00 P.M.). TWO JETFOILS SERVE THE NORTHERN PANHANDLE AND WILL OPERATE EVERY DAY OUT OF JUNEAU, WHILE THE THIRD JETFOIL SERVES MAINLY THE SOUTHERN PANHANDLE AND WILL OVERNIGHT IN KETCHIKAN FOUR NIGHTS PER WEEK AND THREE NIGHTS IN JUNEAU PER WEEK.

THE WEEKLY JETFOIL SCHEDULES THAT HAVE BEEN DEVELOPED FOR THIS STUDY ARE DESIGNED FOR: INCREASING FREQUENCY OF SERVICE, MORNING AND EVENING SERVICE, INITIATE SERVICE TO NEW MARKETS, CONVENIENCE OF SERVICE, AND PROVIDING SATISFACTORY PASSENGER AND VEHICLE CAPACITY TO THE COMMUNITIES OF SOUTHEAST ALASKA.

JETFOIL TRIP TIMES ARE BASED ON ACTUAL EXPERIENCE OF THE JETFOIL DURING THE 1982/83 ALASKA DEMONSTRATIONS. TURN-AROUND TIMES ARE ALSO BASED ON JETFOIL EXPERIENCE ALTHOUGH THE PROCEDURES FOR HANDLING FREIGHT HAVE NOT BEEN DEMONSTRATED. THE PROJECTED TURN-AROUND TIMES ARE BELIEVED TO BE ADEQUATE, BUT IF IT WERE NECESSARY TO EXTEND THESE TIMES, NO SIGNIFICANT IMPACT WOULD OCCUR TO THE DAILY SCHEDULES. ALL TRIP TIMES AND DISTANCES FOR THE JETFOIL ASSUME THE JUNEAU TERMINAL IS DOWNTOWN SO ALL TRIPS NORTH INCLUDE THE TRAVERSE AROUND DOUGLAS ISLAND.

THE DAILY JETFOIL SCHEDULES HAVE BEEN STRUCTURED SO THAT A REPETITIVE TYPE OF SERVICE OCCURS DURING THE WEEK AS WELL AS FROM WEEK TO WEEK. FOR INSTANCE, THREE DAYS OF THE WEEK (MONDAY, WEDNESDAY AND FRIDAY), TWO JETFOILS PROVIDE SERVICE TO HOONAH, TENAKEE, ANGOON, AND SITKA. ONE JETFOIL SERVES HOONAH FIRST IN THE MORNING AND THE OTHER COMMUNITIES IN SEQUENCE WHILE THE SECOND JETFOIL SERVES SITKA FIRST AND THE OTHER COMMUNITIES IN SEQUENCE, PAGE 44 . THIS TYPE OF SERVICE ALLOWS PASSENGERS TO GET MORNING AND EVENING SERVICE FROM THESE COMMUNITIES OR MAKE DAY TRIPS TO THESE COMMUNITIES (5-1/2 HOURS AT SITKA; 7-1/2 HOURS AT HOONAH; 3-1/2 HOURS AT TENAKEE; 1-1/2 HOURS AT ANGOON). ANOTHER MORNING AND EVENING SERVICE IS PROVIDED TO HAINES, SKAGWAY AND GLACIER BAY ON TUESDAYS AND SUNDAYS EACH WEEK WHEN ONE JETFOIL GOES FIRST TO HAINES AND SKAGWAY AND THEN RUNS TO GLACIER BAY VIA JUNEAU. THE SECOND JETFOIL SERVES GLACIER BAY FIRST IN THE MORNING AND THEN TO HAINES AND SKAGWAY VIA JUNEAU. THIS ALLOWS 8-1/2 HOURS AT HAINES; 6-1/2 HOURS AT SKAGWAY; AND 9 HOURS AT GLACIER BAY. ONCE A WEEK SERVICE IS PROVIDED TO EXCURSION INLET, ELFIN COVE, AND PELICAN. THIS SERVICE ALSO ALLOWS A LAYOVER OF 7 HOURS AT EXCURSION INLET, AND 5 HOURS AT HOONAH. ON THURSDAYS AND SATURDAYS, ONE JETFOIL PROVIDES SERVICE TO WRANGELL VIA KAKE AND PETERSBURG AND RETURNS. THIS ALLOWS A PASSENGER TO LAYOVER IN KAKE FOR 9 HOURS AND PETERSBURG FOR 4-1/2 HOURS.

SERVICE TO THE SOUTHERN PANHANDLE BY THE THIRD JETFOIL IS PROVIDED DURING TWO CYCLES OF THREE DAYS EACH. ON MONDAY, THE JETFOIL MAKES THE RUN FROM JUNEAU TO KETCHIKAN VIA PETERSBURG, WRANGELL, AND HOLLIS. THAT EVENING, THE JETFOIL ALSO PROVIDES ROUND TRIP SERVICE TO METLAKATLA. ON THE SECOND DAY OF THE CYCLE, THE JETFOIL PROVIDES MORNING AND EVENING SERVICE TO METLAKATLA (ALLOWS A LAYOVER OF 11-1/2 HOURS IN METLAKATLA OR 9-1/2 HOURS IN KETCHIKAN), AND THEN MAKES A RUN TO HOLLIS AND WRANGELL WHICH ALLOWS A PASSENGER TO LAYOVER 6-1/4 HOURS IN HOLLIS. ON THE THIRD DAY, (WEDNESDAY), OF THE CYCLE, THE JETFOIL MAKES A MORNING ROUND TRIP TO METLAKATLA AND THEN RETURNS TO KETCHIKAN FOR THE RUN TO JUNEAU VIA HOLLIS, WRANGELL, AND PETERSBURG. THIS SAME CYCLE IS REPEATED ON FRIDAY, SATURDAY AND SUNDAY.

THIS SERVICE WITH THREE JETFOILS IS PLANNED FOR THE PEAK SUMMER SIX MONTHS (APRIL THROUGH SEPTEMBER). THE WINTER SERVICE (OCTOBER THROUGH MARCH), IS SIMILAR BUT WITH ONLY TWO JETFOILS IN SERVICE. DETAILS OF THESE SCHEDULES FOLLOW STARTING ON PAGE 39 .

FERRYBOAT SERVICE

FERRYBOAT SERVICE IN SOUTHEAST ALASKA AS PROPOSED HERE IS ESSENTIALLY THE SAME AS CURRENTLY OPERATED WITH THE EXCEPTION THAT MORE FERRYBOAT SERVICE IS SHIFTED TO THE LARGER COMMUNITIES WHERE THERE IS GREATER DEMAND FOR VEHICLE CAPACITY. THE REDUCTION IN CAPACITY IN THE SMALLER COMMUNITIES LIKE HOONAH, ANGOON, PELICAN, TENAKEE, AND METLAKATLA IS OFFSET BY THE IMPROVED JETFOIL SERVICE.

IN THE PROPOSED SERVICE, THE MAINLINE FERRIES (MATANUSKA, MALASPINA AND TAKU), WHICH CURRENTLY PROVIDE SERVICE FROM PRINCE RUPERT TO SKAGWAY INCLUDING THE INTERMEDIATE COMMUNITIES, WILL CONTINUE TO PROVIDE SUCH SERVICE BUT WITH INCREASED FREQUENCY. THIS CAN BE DONE BY NOT ROUTING THESE THREE MAINLINE FERRIES THROUGH SITKA. EACH TIME THE MAINLINE FERRY IS SCHEDULED THROUGH SITKA, THE TRANSIT TIME FROM PRINCE RUPERT TO SKAGWAY IS INCREASED BY 17-1/2 HOURS. BY ELIMINATING THE FOUR MONTHLY SITKA RUNS EACH MONTH, A SAVINGS OF SEVENTY HOURS OF UNDERWAY TIME PER MONTH IS MADE. THIS IS SUFFICIENT TIME FOR ONE ADDITIONAL ROUND TRIP FROM PRINCE RUPERT TO SKAGWAY AND RETURN WITHOUT ANY CHANGE IN TURN-AROUND TIMES AT EACH TERMINAL OR CHANGES IN OPERATING SPEED AND RESULTING TRANSIT TIMES. THIS IS SHOWN ON PAGE 48A AND A SUGGESTED SCHEDULE FOR ONE FERRYBOAT IS ON PAGE 49 . PROVIDING A SIMILAR SCHEDULE FOR THE OTHER TWO MAINLINE FERRIES RESULTS IN A DAILY DEPARTURE OUT OF PRINCE RUPERT AND ALSO IN IMPROVED SERVICE TO KETCHIKAN, WRANGELL, PETERSBURG, JUNEAU, HAINES, AND SKAGWAY. FREQUENCY OF SERVICE ON THE MAINLINE, WITH THE INCLUSION OF THE COLUMBIA SERVICE FROM SEATTLE AND THE JETFOIL SERVICE, INCREASES FREQUENCY OF TRIPS BY +37% OVER THE CURRENT SERVICE AND VEHICLE CAPACITY ON THE MAINLINE INCREASES BY +17%. THE INCREASE IN CAPACITY REFLECTS NOT ONLY THE INCREASED FREQUENCY OF THE MALASPINA, MATANUSKA, AND TAKU, BUT ADDITIONAL SPACE AVAILABLE ON EACH FERRY FOR MAINLINE TRAFFIC, PAGE 34 .

THE ADDITIONAL SPACE IS DUE TO NO SITKA TRAFFIC. ANALYSIS OF 1982 FERRY VEHICLE TRAFFIC THROUGH SITKA SHOWS THAT 61% OF VEHICLE TRAFFIC ABOARD THE MAINLINE FERRIES ORIGINATES AND TERMINATES AT PORTS OTHER THAN SITKA AND 39% OF THE TRAFFIC IS SITKA TRAFFIC. THEREFORE, IF THE THREE FERRIES ARE REMOVED FROM SITKA SERVICE, 39% OF ADDITIONAL SPACE IS AVAILABLE FOR MAINLINE VEHICLES.

AT SITKA, ALTHOUGH THREE MAINLINE FERRIES DO NOT PROVIDE SERVICE, THE COLUMBIA DOES STILL PROVIDE SERVICE AND IN ADDITION, THE LE CONTE INCREASES FREQUENCY OF JUNEAU AND SITKA TRIPS. THESE CHANGES IN FERRYBOAT SERVICE AND INCLUDING THE JETFOIL SERVICE, RESULTS IN MORE THAN DOUBLING (+133%) FREQUENCY OF SITKA TRIPS AND INCREASING VEHICLE CAPACITY BY +21% IN A SUMMER MONTH.

IT IS PROPOSED THAT THE LE CONTE FERRY WILL INCREASE THE NUMBER OF TRIPS TO SITKA BY REDUCING THE FREQUENCY OF STOPS AT HOONAH, TENAKEE AND ANGOON. THIS ALLOWS THE LE CONTE TO MAKE A TRIP FROM JUNEAU TO SITKA IN TEN HOURS INSTEAD OF FIFTEEN HOURS. THE REDUCTION IN FERRYBOAT SERVICE TO HOONAH, TENAKEE AND ANGOON IS OFFSET BY THE JETFOIL WHICH PROVIDES A SUBSTANTIAL (+250%) INCREASE IN TRIPS TO HOONAH. THE RESULTING CHANGE IN VEHICLE CAPACITY ON THE FERRIES IS APPROXIMATELY 5% LESS THAN CURRENT CAPACITY; HOWEVER, WITH CURRENT LOADS ONLY APPROXIMATELY 46% OF THE SPACE IS OCCUPIED ON A TYPICAL TRIP.

IN THE SOUTHERN PANHANDLE, THE CURRENT SERVICE TO MATLAKATLA IS PROVIDED MORNING AND EVENING, FOUR DAYS PER WEEK BY THE CHILKAT FERRY. THE AURORA FERRY PROVIDES ONE ROUND TRIP FROM HOLLIS TO KETCHIKAN AND RETURN, FOUR DAYS PER WEEK, AND IN ADDITION, IT MAKES ONE ROUND TRIP FROM PRINCE RUPERT TO JUNEAU AND RETURN WITH STOPS AT KETCHIKAN, HOLLIS, WRANGELL, AND PETERSBURG. WITH THE ADDITION OF JETFOIL SERVICE TO BOTH MATLAKATLA AND HOLLIS, IT IS BELIEVED THAT THE CHILKAT FERRY IS NO LONGER NEEDED. THE AURORA FERRY, WHICH IS UNDERWAY ONLY FIVE HOURS PER DAY FOR FOUR DAYS OF THE WEEK CAN PROVIDE SATISFACTORY SERVICE, IN CONJUNCTION WITH THE JETFOIL, TO BOTH MATLAKATLA AND HOLLIS, AS WELL AS MAINTAINING ITS WEEKLY RUN FROM PRINCE RUPERT TO JUNEAU. THE SCHEDULE IS SHOWN ON PAGE 51 .

THE RESULTS OF THE PROPOSED SERVICE ARE THAT METLAKATLA TRIP FREQUENCY INCREASES BY 49% AND MORNING AND EVENING SERVICE IS PROVIDED THREE DAYS PER WEEK. VEHICLE CAPACITY IS INCREASED 22% WITH RESULTING AVERAGE VEHICLE LOAD OF 18%. HOLLIS TRIP FREQUENCY IS INCREASED 66% AND VEHICLE CAPACITY IS INCREASED 24% WITH RESULTING AVERAGE VEHICLE LOAD OF 45%.

SUMMARY OF
PROPOSED SOUTHEAST ALASKA FERRY SERVICE
(JULY)

JETFOIL SERVICE

- 2 JETFOILS - SERVE NORTHERN PANHANDLE (BASED IN JUNEAU AND SERVICE TO SKAGWAY, HAINES, HOONAH, SITKA, TENAKEE, ANGOON, EXCURSION INLET, ELFIN COVE, PELICAN, KAKE, PETERSBURG, AND WRANGELL).
- 1 JETFOIL - SERVICE MAINLINE AND SOUTHERN PANHANDLE (PETERSBURG, WRANGELL, HOLLIS, KETCHIKAN, METLAKATLA, HAINES, AND SKAGWAY).

FERRYBOAT SERVICE

- COLUMBIA - SEATTLE TO SKAGWAY SERVICE INCLUDING SITKA (SAME AS CURRENT).
- TAKU - PRINCE RUPERT TO SKAGWAY (INCREASED FREQUENCY AND EXCLUDES SITKA).
- MALASPINA - PRINCE RUPERT TO SKAGWAY (INCREASED FREQUENCY AND EXCLUDES SITKA).
- MATANUSKA - PRINCE RUPERT TO SKAGWAY (INCREASED FREQUENCY AND EXCLUDES SITKA).
- LE CONTE - JUNEAU TO SITKA (INCREASED SITKA SERVICE AND REDUCE HOONAH, TENAKEE, ANGOON AND KAKE SERVICE).
- AURORA - KETCHIKAN TO HOLLIS, METLAKATLA, PRINCE RUPERT AND JUNEAU SERVICE (INCREASED FREQUENCY AND ADDS METLAKATLA SERVICE).
- CHILKAT - NO SERVICE.

IMPACT OF PROPOSED SERVICE
(JULY)

| | PASSENGER SERVICE (FERRY TRIPS AVAILABLE PER MONTH) | VEHICLES | |
|---|---|----------|---------------------|
| | | CAPACITY | JULY LOAD FACTOR |
| PRESENT COMMUNITIES | | | |
| MAINLINE SERVICE (JUNEAU - KETCHIKAN) | +37% | +17% | 63% |
| SITKA SERVICE | +133% | +21% | 57% |
| HOONAH SERVICE (INCLUDING ANGOON & TENAKEE) | +250% | -5% | 46% |
| HOLLIS SERVICE | +66% | +3% | 54% |
| METLAKATLA SERVICE | +49% | +22% | 18% |
| SKAGWAY SERVICE | +95% | +9% | 42% |
| NEW SERVICES | | | |
| EXCURSION INLET | NEW FERRY SERVICE (WEEKLY) | | |
| ELFIN COVE | | | |
| GLACIER BAY | | | |
| PELICAN | WEEKLY SERVICE (FROM MONTHLY) | | |
| HOONAH | MORNING AND EVENING SERVICE FROM JUNEAU (3 PER WEEK) | | |
| TENAKEE | | | |
| ANGOON | | | |
| SITKA | | | |
| RAINES | | | |
| SKAGWAY | | | |
| GLACIER BAY | | | |

*ASSUMES NO TRANSFER OF FREIGHT FROM VEHICLES TO CONTAINERS.

NOTE: INCLUDING JETFOIL SERVICE.

MAINLINE FERRY SERVICE
(KTN - WGL - PSG - JNU - HNS - SGY)

| | <u>CURRENT SUMMER SERVICE</u> | | <u>PROPOSED SUMMER SERVICE</u> | |
|---|---------------------------------------|---------------------------------|--|---------------------------------|
| <u>FERRY</u> | | <u>TRIPS / MONTH**</u> | | <u>TRIPS / MONTH**</u> |
| COLUMBIA (SEA - SGY) | | 4 | (SEA - SGY) | 4 |
| (VIA SITKA) | | 4 | (VIA SITKA) | 4 |
| TAKU (YPR - SGY) | | 14 | (YPR - SGY) | 20 |
| (VIA SITKA) | | 5 | | |
| MALASPINA (YPR - SGY) | | 15 | (YPR - SGY) | 20 |
| (VIA SITKA) | | 4 | | |
| MATANUSKA (YPR - SGY) | | 13 | (YPR - SGY) | 20 |
| (VIA SITKA) | | 5 | | |
| JETFOIL | | 0 | (KTN - SGY) | 18 |
| | | <u>63</u> | | <u>86</u> (+37%) |
| | | <u>VEHICLE CAPACITY / MONTH</u> | | <u>VEHICLE CAPACITY / MONTH</u> |
| COLUMBIA (140) | | 560 | | 560 |
| | | 342* | | 342* |
| TAKU (80) | | 1,120 | | 1,600 |
| | | 244* | | |
| MALASPINA (92) | | 1,380 | | 1,840 |
| | | 224* | | |
| MATANUSKA (92) | | 1,196 | | 1,840 |
| | | 281* | | |
| JETFOIL (3) | | 0 | | 54 |
| | | <u>5,347</u> | | <u>6,236</u> (+17%) |
| NOMINAL JULY VEHICLE LOAD FACTOR (KTN-HNS) | | 74% | | 63% |

* 61% OF CAPACITY, REMAINDER OF CAPACITY ALLOCATED TO SITKA TRAFFIC
** ROUNDED TO NEAREST WHOLE TRIP

SKAGWAY FERRY SERVICE

CURRENT SUMMER SERVICE

PROPOSED SUMMER SERVICE

| <u>FERRY</u> | <u>TRIPS / MONTH</u> | <u>TRIPS / MONTH</u> |
|-------------------------------|----------------------|----------------------|
| COLUMBIA (SEA-SGY) | 8 | 8 |
| TAKU (YPR-SGY) | 19 | 20 |
| MALASPINA (YPR-SGY) | 19 | 20 |
| MATANUSKA (YPR-SGY) | 18 | 20 |
| JETFOIL (JNU-SGY) | 0 | 53 |
| | <u>64</u> | <u>121</u> (+95%) |
| | | |
| COLUMBIA (140) | 1,120 | 1,120 |
| TAKU (80) | 1,520 | 1,600 |
| MALASPINA (92) | 1,748 | 1,840 |
| MATANUSKA (92) | 1,656 | 1,840 |
| JETFOIL (3) | 0 | 159 |
| | <u>6,044</u> | <u>6,559</u> (+9%) |
| | | |
| AVG. JULY VEHICLE LOAD FACTOR | 46% | 42% |

SITKA FERRY SERVICE

CURRENT
SUMMER
SERVICE

PROPOSED
SUMMER
SERVICE

| <u>FERRY</u> | <u>TRIPS / MONTH***</u> | | <u>TRIPS / MONTH***</u> |
|------------------------------|-------------------------|------------------------|-------------------------|
| COLUMBIA (SEA-SGY) | 4 | (SEA-SGY) | 4 |
| TAKU (YPR-SGY) | 5 | (YPR-HNS) | 0 |
| MALASPINA (YPR-SGY) | 4 | (YPR-HNS) | 0 |
| MATANUSKA (YPR-SGY) | 5 | (HPR-HNS) | 0 |
| LE CONTE (SIT-JNU) | 0 | (SIT-JNU) | 27 |
| LE CONTE (SIT-JNU INCL. HNH) | <u>27</u> | (SIT-JNU INCL. H.T.A.) | 12 |
| JETFOIL (SIT-JNU) | 0 | (SIT-JNU) | <u>62</u> → |
| | <u>45</u> | | 105 (+133%) |

VEHICLE CAPACITY / MONTH

VEHICLE CAPACITY / MONTH

| | | |
|----------------|--------------|---------------------|
| COLUMBIA (140) | 218 * | 218 * |
| TAKU (80) | 156 * | 0 |
| MALASPINA (92) | 144 * | 0 |
| MATANUSKA (92) | 179 * | 0 |
| LE CONTE (35) | 0 | 945 |
| | 425 ** | 189 ** |
| | <u>1,122</u> | <u>1,352</u> (+21%) |

AVERAGE JULY VEHICLE LOAD FACTOR

69%

57%

*39% OF CAPACITY, REMAINDER OF CAPACITY ALLOCATED TO OTHER ROUTES.

**45% OF CAPACITY, REMAINDER OF CAPACITY ALLOCATED TO HNH & ANG.

***ROUNDED TO NEAREST WHOLE TRIP.

****PROPOSED SERVICE REDUCES SOUTHBOUND SERVICE TO ONLY COLUMBIA, HOWEVER COLUMBIA CAPACITY IS ADEQUATE FOR CURRENT TRAFFIC.

HOONAH FERRY SERVICE

| | <u>CURRENT SUMMER SERVICE</u> | | <u>PROPOSED SUMMER SERVICE</u> | |
|----------------------------------|---------------------------------------|----------------|--|----------------|
| <u>FERRY</u> | <u>TRIPS / MONTH**</u> | | <u>TRIPS / MONTH**</u> | |
| | <u>HNH-JNU</u> | <u>HNH-SIT</u> | <u>HNH-JNU</u> | <u>HNH-SIT</u> |
| LE CONTE | 26 | 22 | 73 | 13 |
| JETFOIL | <u>0</u> | <u>0</u> | <u>71</u> | <u>62</u> |
| | 26 | 22 | 89 | 80 |
| | | | (+240%) | (+263%) |
| | <u>VEHICLE CAPACITY / MONTH</u> | | <u>VEHICLE CAPACITY / MONTH</u> | |
| LE CONTE (35) | 501* | 424* | 250 * | 250 * |
| JETFOIL (3) | <u>0</u> | <u>0</u> | <u>213</u> | <u>186</u> |
| | 501 | 424 | 463 | 436 |
| | | | (-8%) | (+3%) |
| AVG. JULY VEHICLE LOAD FACTOR | 46% | 43% | 50% | 42% |

*55% OF CAPACITY, REMAINDER OF CAPACITY
ALLOCATED TO SITKA THROUGH TRAFFIC
**ROUNDED TO NEAREST WHOLE TRIP

7

HOLLIS / METLAKATLA FERRY SERVICE

CURRENT
SUMMER
SERVICE

PROPOSED
SUMMER
SERVICE

| <u>FERRY</u> | <u>TRIPS / MONTH**</u> | |
|--------------|------------------------|---------------|
| | <u>METLAKATLA</u> | <u>HOLLIS</u> |
| AURORA | 0 | 35 |
| CHILKAT | 71 | 0 |
| JETFOIL | <u>0</u> | <u>0</u> |
| | 71 | 53 |

| <u>TRIPS / MONTH**</u> | |
|------------------------|---------------|
| <u>METLAKATLA</u> | <u>HOLLIS</u> |
| 27 | 35 |
| 8 | 18 |
| 0 | 0 |
| <u>71</u> | <u>35</u> |
| 106 | 88 |

(+49%) (+66%)

| | <u>VEHICLE CAPACITY / MONTH</u> | |
|--------------|---------------------------------|---------------|
| | <u>METLAKATLA</u> | <u>HOLLIS</u> |
| AURORA (35) | 0 | 1,225 |
| CHILKAT (15) | 1,065 | 0 |
| JETFOIL (3) | <u>0</u> | <u>0</u> |
| | 1,065 | 1,540 |

| <u>VEHICLE CAPACITY / MONTH</u> | |
|---------------------------------|---------------|
| <u>METLAKATLA</u> | <u>HOLLIS</u> |
| 945 | 1,225 |
| 140* | 315* |
| 0 | 0 |
| <u>213</u> | <u>53*</u> |
| 1,298 | 1,593 |

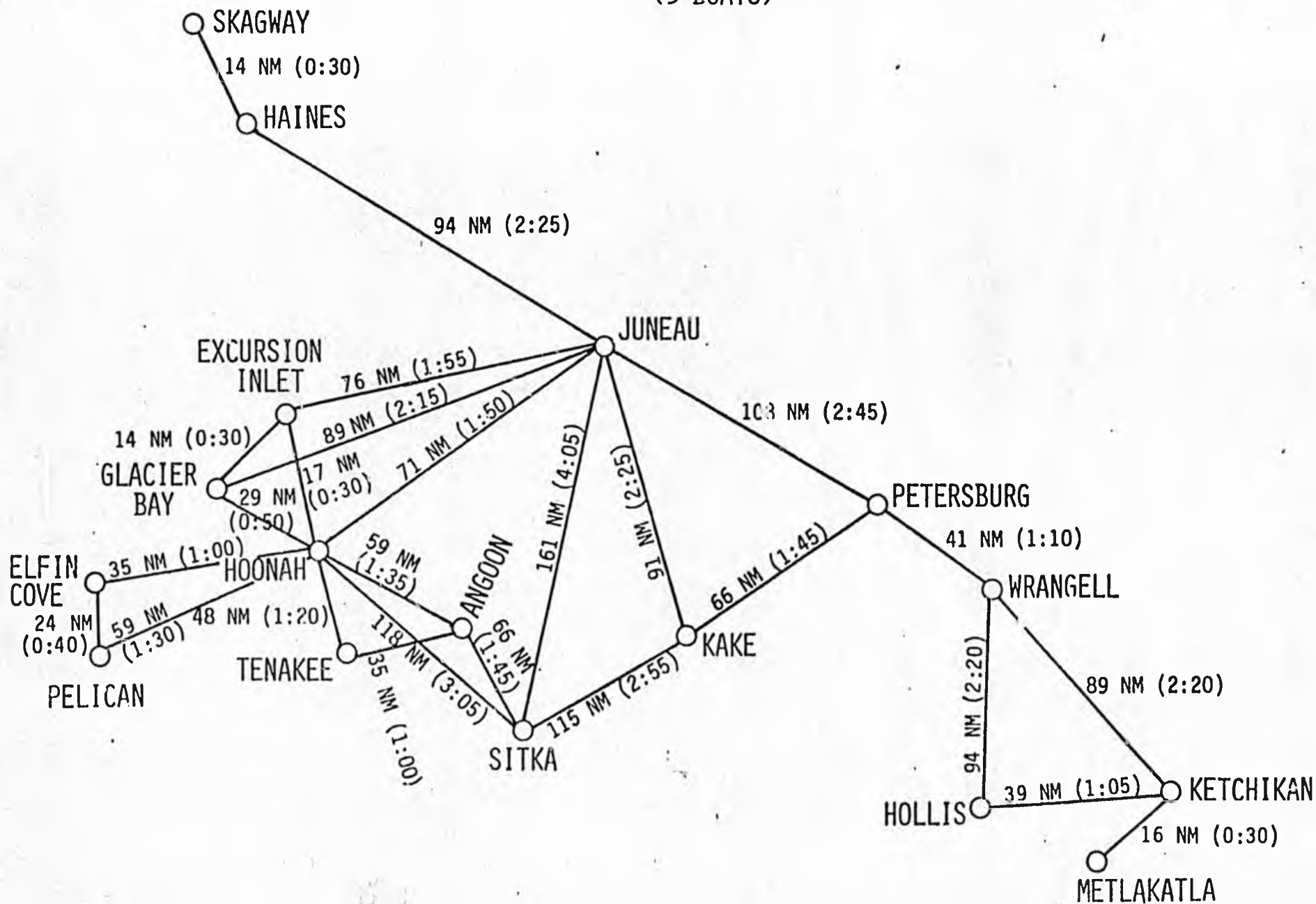
(+22%) (+3%)

AVG JULY VEHICLE LOAD FACTOR 22% 56%

18% Est. 54% Est.

*@ 50% OF CAPACITY
REMAINDER CAPACITY USED FOR OTHER MARKETS
**ROUNDED TO NEAREST WHOLE TRIP

JETFOIL SERVICE
SOUTHEAST ALASKA
(3 BOATS)



JETFOIL SUMMER SCHEDULE

| | <u>BOAT #1</u> | <u>BOAT #2</u> | <u>BOAT #3</u> |
|-----------|----------------|----------------|----------------|
| MONDAY | HNH/SIT | SIT/HNH | JNU/KTN |
| TUESDAY | SGY/GLB | GLB/SGY | MET/WGL |
| WEDNESDAY | HNH/SIT | SIT/HNH | KTN/JNU |
| THURSDAY | HNH/PEL | KAK/WGL | 2 SGY |
| FRIDAY | HNH/SIT | SIT/HNH | JNU/KTN |
| SATURDAY | SIT/HNH | KAK/WGL | MET/WGL |
| SUNDAY | SGY/GLB | GLB/SGY | KTN/JNU |

JETFOIL WINTER SCHEDULE

| | <u>BOAT #1</u> | <u>BOAT #2</u> |
|-----------|----------------------|----------------|
| MONDAY | HHH/SIT | JNU/KTN |
| TUESDAY | SGY/HHH | KTN/JNU |
| WEDNESDAY | SIT/HHH | KAK/WGL |
| THURSDAY | SGY/HHH | JNU/KTN |
| FRIDAY | HHH/SIT | HET/HOL |
| SATURDAY | HHH/PEL (OR KAK/WGL) | KTN/JNU |
| SUNDAY | SIT/HHH | OFF |

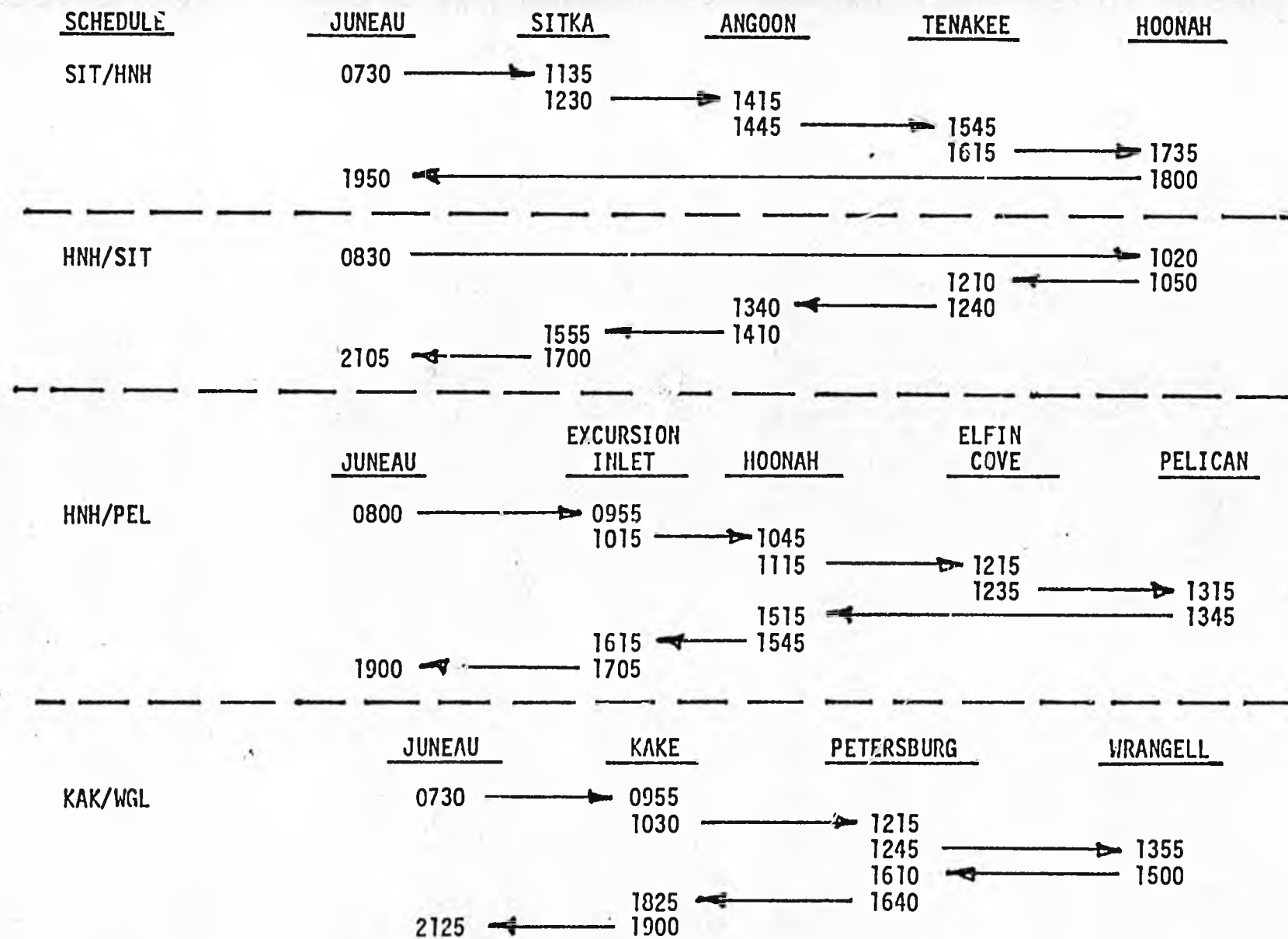
TYPES OF DAILY JETFOIL SERVICE

| ROUTE | <u>HNH/SIT</u> | <u>SIT/HNH</u> | <u>2 SGY</u> | <u>KAK/WGL</u> | <u>JNU/KTN</u> | <u>KTN/JNU</u> |
|-------------------|----------------|----------------|--------------|----------------|----------------|----------------|
| MORNING DEPARTURE | JUNEAU | JUNEAU | JUNEAU | JUNEAU | JUNEAU | KETCHIKAN |
| SERVICE TO | HOONAH | SITKA | HAINES | KAKE | PETERSBURG | NETLAKATLA |
| | TENAKEE | ANGOON | SKAGWAY | PETERSBURG | WRANGELL | KETCHIKAN |
| | ANGOON | TENAKEE | HAINES | WRANGELL | HOLLIS | HOLLIS |
| | SITKA | HOONAH | JUNEAU | PETERSBURG | KETCHIKAN | WRANGELL |
| | | | HAINES | KAKE | NETLAKATLA | PETERSBURG |
| | | | SKAGWAY | | | |
| | | | HAINES | | | |
| EVENING RETURN | JUNEAU | JUNEAU | JUNEAU | JUNEAU | KETCHIKAN | JUNEAU |

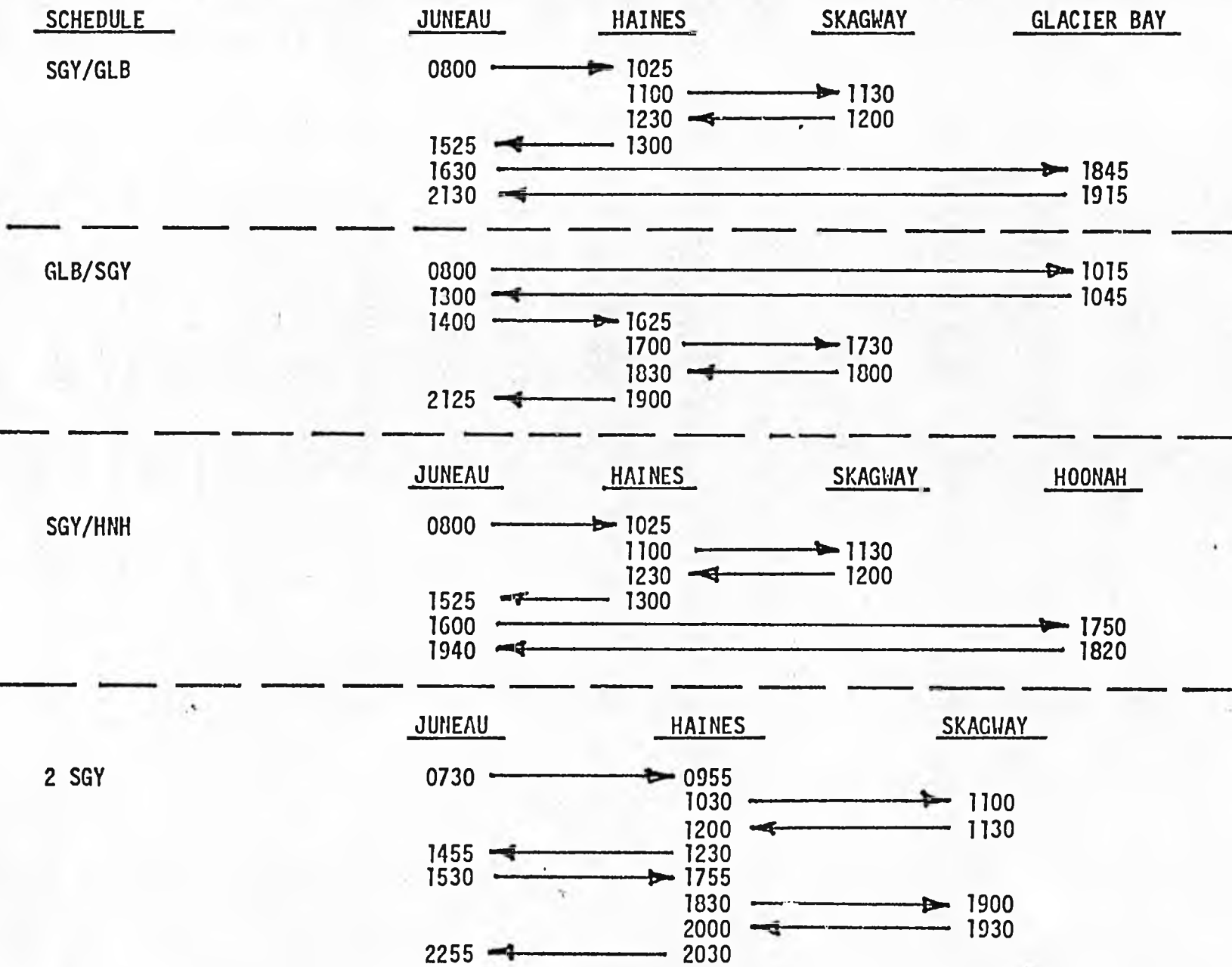
TYPES OF DAILY JETFOIL SERVICE

| ROUTE | <u>MET/WGL</u> | <u>GLB/SGY</u> | <u>SGY/GLB</u> | <u>SGY/HNH</u> | <u>HNH/PEL</u> | <u>MET/HOL</u> |
|-------------------|----------------|----------------|----------------|----------------|-----------------|----------------|
| MORNING DEPARTURE | KETCHIKAN | JUNEAU | JUNEAU | JUNEAU | JUNEAU | KETCHIKAN |
| SERVICE TO | METLAKATLA | GLACIER BAY | HAINES | HAINES | EXCURSION INLET | METLAKATLA |
| | KETCHIKAN | JUNEAU | SKAGWAY | SKAGWAY | HOONAH | KETCHIKAN |
| | HOLLIS | HAINES | HAINES | HAINES | ELFIN COVE | HOLLIS |
| | WRANGELL | SKAGWAY | JUNEAU | JUNEAU | PELICAN | KETCHIKAN |
| | HOLLIS | HAINES | GLACIER BAY | HOONAH | HOONAH | METLAKATLA |
| | KETCHIKAN | | | | EXCURSION INLET | KETCHIKAN |
| | METLAKATLA | | | | | HOLLIS |
| EVENING RETURN | KETCHIKAN | JUNEAU | JUNEAU | JUNEAU | JUNEAU | KETCHIKAN |

JETFOIL SCHEDULES



JETFOIL SCHEDULES



JETFOIL SCHEDULES

| <u>SCHEDULE</u> | <u>JUNEAU</u> | <u>PETERSBURG</u> | <u>VRANGELL</u> | <u>HOLLIS</u> | <u>KETCHIKAN</u> | <u>METLAKATLA</u> |
|-----------------|---------------|-------------------|-----------------|------------------------------|--|------------------------------|
| JNU/KTN | 0800 | 1045 1115 | 1225 1300 | 1520 1550 | 1655 1730 1900 | 1800 1830 |
| KTN/JNU | 1355 | 1540 1610 | 1355 1430 | 1105 1135 | 0800 0930 1000 | 0830 0900 |
| MET/WGL | | | 1355 1430 | 1105 1135 1650 1720 | 0800 0930 1000 1825 1900 2030 | 0830 0900 1930 2000 |
| MET/HOL | | | | 1105 1135 1905 1930 | 0800 0930 1000 1240 1600 1730 1800 2005 | 0830 0900 1630 1700 |

SUMMER JETFOIL SERVICE

| | <u>DEPARTURES PER WEEK</u> | <u>SERVICE DAYS PER WEEK</u> | <u>MORNING AND EVENING SERVICE</u> | <u>LAYOVER TIME</u> |
|-----------------|--------------------------------|----------------------------------|--|-------------------------|
| JUNEAU | 22 (BASE) | 7 | 7/WEEK | OVERNIGHT |
| HAINES | 12 | 3 | 3 | 2.5 - 10.5 HOURS |
| SKAGWAY | 6 | 3 | 3 | 6.5 - 8.5 HOURS |
| HOONAH | 9 | 5 | 4 | 7.5 HOURS |
| TENAKEE | 7 | 4 | 3 | 3.5 HOURS |
| ANGOON | 7 | 4 | 3 | 1.5 HOURS |
| EXCURSION INLET | 2 | 1 | 1 | 7.0 HOURS |
| ELFIN COVE | 1 | 1 | 0 | -- |
| PELICAN | 1 | 1 | 0 | -- |
| GLACIER BAY | 4 | 2 | 2 | 9.0 HOURS |
| SITKA | 7 | 4 | 3 | 5.5 HOURS |
| KAKE | 4 | 2 | 2 | 8.5 HOURS |
| PETERSBURG | 8 | 5 | 2 | 4.0 HOURS |
| WRANGELL | 8 | 7 | 0 | -- |
| HOLLIS | 8 | 6 | 2 | 6.25 - 8.25 HOURS |
| METLAKATLA | 8 | 6 | 2 | 8.5 - 11.5 HOURS |
| KETCHIKAN | 8 | 6 | 2 | 6.5 - OVERNIGHT |

JETFOIL SERVICE FREQUENCY
(3 JETFOILS)

| <u>COMMUNITY</u> | <u>DEPARTURES PER WEEK (SUMMER)</u> | <u>DEPARTURES PER WEEK (WINTER)</u> |
|------------------|---|---|
| JUNEAU | 22 (BASE) | 12 (BASE) |
| HAINES | 12 | 4 |
| SKAGWAY | 6 | 2 |
| HOONAH | 9 | 7 |
| TENAKEE | 7 | 4 |
| ANGOON | 7 | 4 |
| EXCURSION INLET | 2 | 1/2* (AVERAGE) |
| ELFIN COVE | 1 | 1/2* (AVERAGE) |
| PELICAN | 1 | 1/2* (AVERAGE) |
| GLACIER BAY | 4 | 1/2* (AVERAGE) |
| SITKA | 7 | 4 |
| KAKE | 4 | 3* (AVERAGE) |
| PETERSBURG | 8 | 7* (AVERAGE) |
| WRANGELL | 8 | 5-1/2* (AVERAGE) |
| HOLLIS | 8 | 6 |
| METLAKATLA | 8 | 4 |
| KETCHIKAN | 8 | 6 |

(17 COMMUNITIES)

*DEPARTURES ON ALTERNATE WEEKS

MAINLINE FERRY SERVICE

TRANSIT TIME

- o PRINCE RUPERT TO SKAGWAY, WITHOUT SITKA
(INCLUDES KETCHIKAN, WRANGELL, PETERSBURG, JUNEAU AND HAINES)
TIME: 32:45
- o PRINCE RUPERT TO SKAGWAY WITH SITKA, ETC.
TIME: 49:15
- o NET TIME SAVINGS EXCLUDING SITKA
17:30

TIME SAVINGS PER MONTH

MAINLINE FERRY AVERAGES 4 SITKA TRIPS PER MONTH

$$4 \times 17.5 = 70 \text{ HOURS}$$

EXTRA ROUND TRIP REQUIREMENTS

| | |
|------------------------|--------------|
| TURN-AROUND TIME (YPR) | 3.5 HOURS |
| YPR - SGY | 32.75 |
| TURN-AROUND TIME (SGY) | 1.5 |
| SGY - YPR | <u>32.75</u> |

70.00 HOURS

PROPOSED
 MALASPINA, MATANUSKA, TAKU SCHEDULE
 (YPR, KTN, WGL, PSG, JNU, HNS, SGY SERVICE ONLY)
 (WEEKLY, SUMMER)

| PRINCE RUPERT (DAY/TIME) | SKAGWAY (DAY/TIME) |
|--------------------------------|-----------------------|
| 1/0930 | 2/1815 |
| 4/0430 | 2/1945 |
| 4/0930 | 5/1815 |
| 7/0430 | 5/1945 |
| 7/0930 | 8/1815 |
| 10/0430 | 8/1945 |
| 10/0930 | 11/1815 |
| 13/0430 | 11/1945 |
| 13/0930 | 14/1815 |
| 16/0430 | 14/1945 |
| 16/0930 | 17/1815 |
| 19/0430 | 17/1945 |
| 19/0930 | 20/1815 |
| 22/0430 | 20/1945 |
| 22/0930 | 23/1815 |
| 25/0430 | 23/1945 |
| 25/0930 | 26/1815 |
| 28/0430 | 26/1945 |
| 28/0930 | 29/1815 |
| 31/0430 | 29/1945 |

TOTAL: 20 TRIPS PER FERRY

NOTE: IT MAY BE NECESSARY TO ROUTE MAINLINE FERRIES THROUGH
 AUKE BAY FOR ALL JUNEAU STOPS.

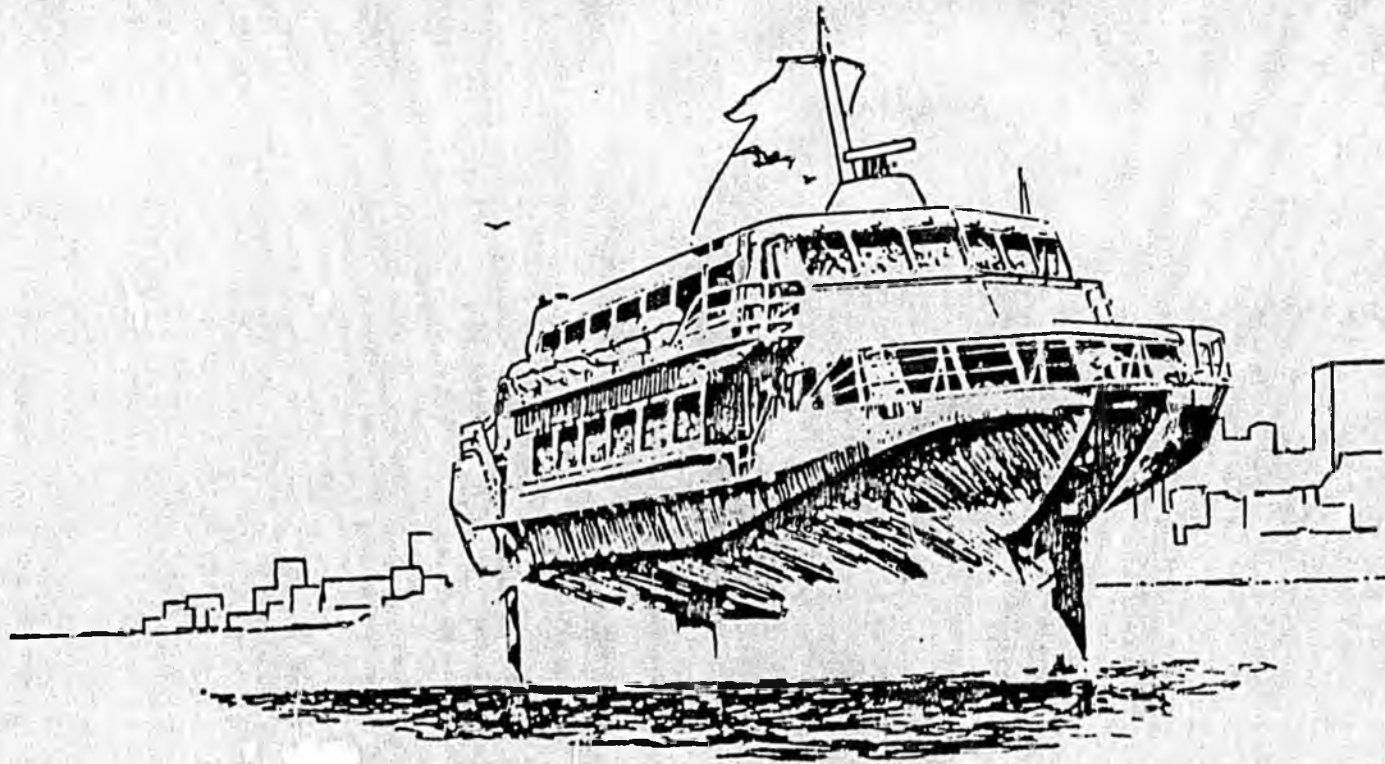
PROPOSED
LE CONTE FERRY SCHEDULE
(WEEKLY, SUMMER)

| <u>WEEK DAY</u> | <u>SITKA</u> | <u>HOONAH, TENAKEE & ANGOON</u> | <u>AUKE BAY</u> | <u>KAKE</u> | <u>PETERSBURG</u> |
|--|--------------|-------------------------------------|-----------------|---------------|-------------------|
| MON, TUES, | 1800 | ←—————→ | 080J | | |
| SAT, SUN * | 2000 | —————→ | 060C | | |
| WED | 2330/W | ←—————→ STOPS ←—————→ | 0800/W | | |
| THURS | 0130/T | —————→ STOPS —————→ | 1700/T | | |
| THURS | | | 2300/T | —————→ 0600/F | |
| FRI | | | | 0700/F | —————→ 1130/F |
| | | | | 2200/F | ←————— 1750/F |
| | | | 0600/SA | ←————— 2300/F | |
| SAT * | 2300/SA | ←—————→ STOPS ←—————→ | 0800/SA | | |
| SUN | 0130/SU | —————→ STOPS —————→ | 1700/SU | | |

* ALTERNATE WEEK SCHEDULE

PROPOSED
AURORA SCHEDULE
(WEEKLY)

| WEEK DAY | PRINCE RUPERT | METLAKATLA | KETCHIKAN | HOLLIS | JUNEAU (VIA WGL & PSG) |
|----------------|-------------------|--------------------------------------|--------------------------------------|--------------------------------------|------------------------|
| ① WED & FRI | | 1155 ← 1230 → | 1000 ← 1045 → 1340 → 1530 → | 0715 ← 1815 → | |
| ② FRI | | | 2145F ← | 1900 ← | |
| SAT | 0615S ← 0830 → | 2340 ← 2415 → 1430 → 1515 → | 2230 ← 1625 → 1730 → | 2015 → 2100 → | 1530 SU → 1730 ← |
| SUN MON | | 1640 ← 1715 → | 1445 ← 1530 → 1825 → 1930 → | 1200 ← 2215 → | |
| ③ TUES & THURS | | | 1000 ← 1045 → 1715 ← 180C → | 0715 ← 1330 → 1430 → 2045 → | THURSDAY ONLY |



Capital and Operating Costs

CAPITAL AND OPERATING COSTS

THE FOLLOWING INFORMATION PROVIDES AN EVALUATION OF THE OPERATING COSTS OF THE JETFOIL. THE DATA IS BASED ON THE OPERATING CHARACTERISTICS OF THE JETFOIL, CURRENT ALASKA MARINE HIGHWAY SYSTEM SALARIES, CURRENT FUEL PRICES AND THE INDIRECT COSTS OF THE PROPOSED OPERATION.

JETFOIL COST ASSUMPTIONS
(1983 U.S. DOLLARS)

INVESTMENT PACKAGE ESTIMATE*

| | |
|--------------------|------------------|
| BOAT PRICE (3) | \$46,300,000 |
| OPTIONS | 2,900,000 |
| SPARES AND SUPPORT | <u>5,800,000</u> |
| | \$55,000,000 |

CREW

3 CREW/BOAT
6 MEMBERS/CREW

FUEL

\$1.10/GALLON

MAINTENANCE

MATERIAL: \$158.00 PER OPERATING HOUR
LABOR: 29 PERSONNEL FOR 3 BOATS

INSURANCE

2% OF BOAT VALUE

INDIRECT COSTS

OVERHEAD LABOR, TERMINAL, ADVERTISING, SUPPLIES, EQUIPMENT,
UTILITIES, AND MISCELLANEOUS EXPENSES.

*BOEING PROPOSAL INCLUDES COST OF JETFOILS ONLY (E.G., COST OF
ADDITIONAL FACILITIES REQUIRED IS NOT INCLUDED.)

CAPITAL COST COMPARISON

o PRODUCTIVITY

| | <u>PURCHASE PRICE</u> | <u>ANNUAL DISTANCE</u> | <u>EQUIVALENT REVENUE PASSENGER CAPACITY</u> | <u>\$/PASSENGER N. MILE</u> |
|--------------------------------|-------------------------------|------------------------|--|-----------------------------|
| JETFOIL | \$18.3 MILLION (\$55M ÷ 3) | 105,600 N. MI. | 256 (135 PAX + 19 TONS FREIGHT) | .677 |
| REPLACEMENT VESSEL (TUSTUMENA) | \$47.5 MILLION (ESTIMATE) | 65,000 N. MI. (1) | 848 (500 PAX + 116 VEHICLES) | .86 |

o PAYBACK

| | <u>ANNUAL (2) AMORTIZATION</u> | <u>ADDITIONAL \$/PAX MILE REQUIRED 20 YEAR PAYBACK</u> |
|--------------------------------|---|--|
| JETFOIL | \$1.6 M ÷ 105,600 N. MI. ÷ 256 PASSENGERS = | .06 |
| REPLACEMENT VESSEL (TUSTUMENA) | \$4.1 M ÷ 65,000 N. MI. ÷ 848 PASSENGERS = | .07 |

(1) MAINLINE FERRIES AVERAGE (1978 - 1982).

(2) JETFOIL: 19 TON CARGO CAPACITY
 X \$2.80 CARGO REVENUE/TON MILE
 ÷ \$.44 REVENUE/PASSENGER MILE
 121 EQUIVALENT PASSENGER CAPACITY
 + 135 ACTUAL PASSENGER CAPACITY
 256 TOTAL EQUIVALENT PASSENGER CAPACITY

(3) REPLACEMENT VESSEL (TUSTUMENA)
 116 VEHICLE CAPACITY
 X 3 EQUIVALENT PASSENGER REVENUE/VEHICLE
 348 EQUIVALENT PASSENGER CAPACITY
 + 500 ACTUAL PASSENGER CAPACITY
 848 TOTAL EQUIVALENT PASSENGER CAPACITY

(4) ASSUMES 20 YEAR PAYBACK AT 6% INTEREST (ESTIMATED LONG TERM ALASKA GOVERNMENT BOND RATE).

JETFOIL OPERATING COST
(1983 U.S. DOLLARS)

o CREW

THE JETFOIL HAS BEEN APPROVED BY THE U.S. COAST GUARD TO BE OPERATED BY 2 PERSONNEL IN THE WHEELHOUSE AND 2 PERSONNEL IN THE CABIN. A LARGER CREW SIZE WILL BE ASSUMED FOR THIS ANALYSIS DUE TO USE OF THE VISION AUGMENTATION SYSTEM (VAS) FOR NIGHT SERVICE AND IMPROVED CABIN SERVICE.

| <u>CREW</u> | <u>PER CREW</u> | <u>NO. CREWS</u> | <u>MAN YEARS</u> | <u>ANNUAL SALARY*</u> | <u>TOTAL</u> |
|-------------|-----------------|-------------------|------------------|-----------------------|------------------|
| CAPTAIN | 1 | 9 | 9 | 58,944 | 530,496 |
| FIRST MATE | 1 | 9 | 9 | 45,756 | 411,804 |
| OBSERVER | 1 | 6 HALF** | 3 | 34,764 | 104,272 |
| ATTENDANTS | 3 | 5 FULL, 4 HALF*** | 21 | 29,400 | 617,400 |
| | | | | | <u>1,663,992</u> |

$$1,663,992 \times 1.37 \text{ FRINGE} = \$2,279,700$$

o FUEL

FUEL CONSUMPTION PER HOUR WILL VARY WITH ROUTE DEPENDING ON ROUTE DISTANCE, HULLBORNE DISTANCE, WIND AND WAVES, AND AVERAGE PASSENGER LOADS. BASED ON THE 1982-83 DEMONSTRATION, 485 GALLONS PER HOUR OF OPERATION IS EXPECTED. THE CURRENT COST OF NO. 2 DIESEL IS \$1.10/GALLON.

$$(8,400 \text{ HOURS/YEAR}) \times (485 \text{ GALLONS/HOUR}) \times (\$1.10/\text{GALLON}) = \$4,481,400$$

* BASED ON FY 1983 ALASKA MARINE HIGHWAY SYSTEM DATA FOR THE LE CONTE AND AURORA FERRY BOATS (CAPTAIN AND FIRST MATE) AND THE AVERAGE FOR ALL S.E. VESSELS (OBSERVER AND ATTENDANTS).

** TWO OBSERVERS PER BOAT WILL BE REQUIRED FOR SUMMER SERVICE ONLY.

*** REDUCED WINTER SCHEDULE WILL NOT REQUIRE FULL CREW COMPLEMENT OF ATTENDANTS.

o MAINTENANCE

MATERIAL

COST OF CONSUMABLE MATERIALS (FLUIDS, GASKETS, ROSES, BOLTS, ETC.), REPAIRABLE PARTS (INCLUDING RESERVES FOR ENGINE AND GEARBOX REPAIR), OUTSIDE SERVICES FOR OVERHAUL OF MAJOR COMPONENTS AND ANNUAL HAUL-OUT OF THE JETFOIL HAVE BEEN ESTIMATED FROM OPERATIONAL EXPERIENCE OF THE JETFOIL TO BE \$158 PER HOUR OF OPERATION.

$$(8,400 \text{ HOURS/YEAR}) \times (\$158/\text{HOUR}) = \$1,327,200$$

LABOR

THE JETFOIL MAINTENANCE SCHEDULE IS BASED ON A REPLACE AND REPAIR CONCEPT WITH SIGNIFICANT ATTENTION TO PREVENTIVE MAINTENANCE. THE JETFOIL IS MAINTAINED AND SERVICED PRIMARILY BY A DOCKSIDE MAINTENANCE CREW. THE PRINCIPAL EFFORT IS GENERALLY AT NIGHT WHILE THE BOAT IS OUT OF SERVICE. MAINTENANCE TASKS INCLUDE SERVICING, CLEANING, PERFORMING PRE-PLANNED DAILY INSPECTIONS ON THE BOAT EQUIPMENT, AND ACCOMPLISHING CORRECTIVE MAINTENANCE AS NECESSARY. A STAFF OF 29 PERSONNEL IS RECOMMENDED FOR A 3 BOAT STAND-ALONE OPERATION WHERE THE BOATS ARE UTILIZED 2500 HOURS TO 3000 HOURS PER YEAR. THE DETAILS OF THIS REQUIREMENT ARE SHOWN ON THE SUBSEQUENT PAGE.

| | <u>NO.</u> | <u>ANNUAL SALARY*</u> | <u>TOTAL</u> |
|-------------------------|------------|-----------------------|------------------|
| SUPERVISION | 1 | 62,616 | 62,616 |
| PLANNING/ADMINISTRATIVE | 1 | 34,764 | 34,764 |
| STORES | 2 | 33,348 | 66,696 |
| JANITORIAL | 4 | 30,048 | 120,192 |
| ELECTRICAL TECHNICIAN | 7 | 50,280 | 351,960 |
| MECHANICAL TECHNICIAN | 14 | 50,280 | 703,920 |
| | <u>29</u> | | <u>1,340,148</u> |

$$1,340,148 \times 1.37 \text{ FRINGE} = \$1,036,000$$

* BASED ON FY 1983 ALASKA MARINE HIGHWAY SYSTEM DATA FOR THE LE CONTE AND AURORA FERRY BOATS (SUPERVISION AND TECHNICIANS) AND THE AVERAGE FOR ALL S.E. VESSELS (JANITOR AND STORES).

JETFOIL MAINTENANCE LABOR REQUIREMENTS

MODEL 929-155

1983

| A. MANPOWER ESTIMATES Annual Hours Utilization | Total Direct & Indirect Number of Boats in Fleet | | | |
|--|---|----------|----------|----------|
| | <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> |
| 2000 | 14 | 20 | 27 | 33 |
| 2500 | 16 | 22 | 28 | 34 |
| 3000 | 17 | 22 | 29 | 35 |
| 3500 | 17 | 22 | 29 | 36 |
| 4000 | 18 | 23 | 30 | 36 |

| <u>Manhour Allocation</u> | |
|---------------------------|-----|
| Preventive Maintenance | 35% |
| Corrective Maintenance | 35% |
| Janitorial Tasks | 30% |

| B. SKILL TYPES (3000 Hrs) | <u>Number of Boats in Fleet</u> | | | |
|---------------------------|---------------------------------|-----------|-----------|-----------|
| <u>Indirect</u> | <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> |
| Supervision | 1 | 1 | 1 | 1 |
| Planning/Administrative | 0 | 0 | 1 | 1 |
| Stores/Supply | 2 | 2 | 2 | 2 |
| Janitorial | 2 | 3 | 4 | 6 |
| <u>Direct Technicians</u> | | | | |
| Electrical | 4 | 6 | 7 | 9 |
| Mechanical | <u>8</u> | <u>10</u> | <u>14</u> | <u>16</u> |
| TOTAL PERSONNEL | 17 | 22 | 29 | 35 |

| <u>Preventive Maintenance Concept</u> | |
|---------------------------------------|---------------------|
| <u>Item</u> | <u>Manhours/Day</u> |
| Daily Preflight | 0.8 |
| Daily Postflight | 6.0 |
| Servicing | 1.4 |
| Weekly Inspection | 1.6 |
| Monthly Inspection | 1.0 |
| Quarterly Inspection | 0.4 |
| Semi-Annual Inspection | 0.2 |
| Annual Inspection | <u>0.3</u> |

11.7

JETFOIL OPERATING COSTS
(1983 U.S. DOLLRS)

o INSURANCE

TYPICAL JETFOIL RATE IS 2% OF HULL PRICE

$$(2\% \text{ RATE}) \times (\$49,200,000 \text{ 3-BOAT PRICE}) = \$984,000$$

o INDIRECT COSTS

INDIRECT OPERATING COSTS ARE GENERALLY QUITE DIFFICULT TO ESTIMATE UNLESS ONE IS COMPLETELY FAMILIAR WITH THE DETAILS OF OPERATION. IT DEPENDS ON LABOR ARRANGEMENTS (I.E., FULL TIME, PART TIME, CONTRACT), LEVEL OF PASSENGER SERVICES, AND TYPE OF TERMINAL FACILITIES. THE FOLLOWING, HOWEVER, HAS BEEN ESTIMATED AS REASONABLE FOR AN ONGOING STAND-ALONE OPERATION:

LABOR

| | | |
|--------------------------------|----------------|-------------|
| GENERAL MANAGER | 65,000 | |
| MARKETING/ASSISTANT MANAGER | 50,000 | |
| CLERK | 26,000 | |
| JUNEAU TICKET OFFICE (MAIN) | | |
| 6 CASHIERS/RESERVATIONS | | |
| AT \$28,000 + 37% FRINGE | 230,200 | |
| JUNEAU TERMINAL SERVICE: | | |
| DOCKING AND FREIGHT | | |
| TOTAL 10 PEOPLE | | |
| 10 x \$29,000 x 1.37 = | 397,300 | |
| OTHER TERMINALS | | |
| 4 PEOPLE PER DEPARTURE | | |
| 4 HOURS PER DAY | | |
| \$16 PER HOUR | | |
| 4 x 4 x \$16 x 3100 DEPARTURES | <u>793,600</u> | \$1,562,100 |

| | |
|------------------------------|--------------------|
| ADVERTISING | 50,000 |
| EQUIPMENT | 45,000 |
| OFFICE SUPPLIES AND UNIFORMS | 45,000 |
| FACILITIES COST* | 250,000 |
| UTILITIES | 20,000 |
| TRAVEL AND EXPENSES | <u>30,000</u> |
| | <u>\$2,002,100</u> |

o TOTAL ANNUAL 3-JETFOIL OPERATING COST:

\$12,910,400

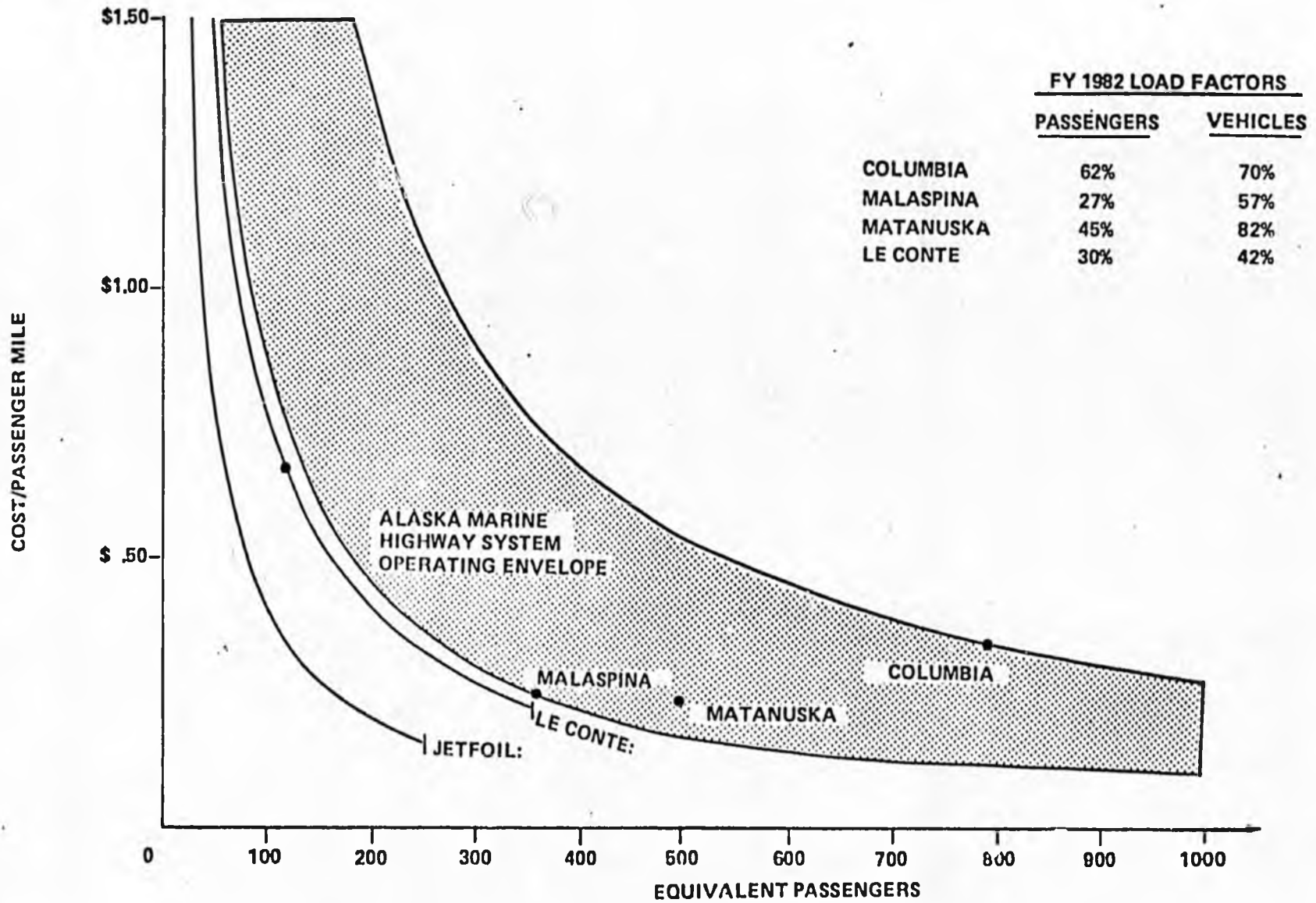
*BASED ON AN AMORITZATION OVER A 30-YEAR TERM AT 6% INTEREST. TOTAL FACILITIES COST WOULD BE \$3.4 MILLION.

OPERATING COST COMPARISON

| BCAT | CARGO/VEHICLE CAPACITY | CONVERSION TO EQUIVALENT PAX | ACTUAL PAX CAPACITY | TOTAL EQUIVALENT PAX CAPACITY | ANNUAL* OPERATING DISTANCE | 1982 COSTS** | 1983 COSTS | COST PER NAUTICAL MILE | COST PER NAUTICAL SEAT MILE |
|----------------------|------------------------|---|---------------------|-------------------------------|---------------------------------------|--------------------------|---------------------------------------|------------------------|-----------------------------|
| MAINLINE FERRIES (4) | 100.5 X 3 = | 302 | 700 | 1,002 | 260,000 N.M. (65,000 N.M. AVERAGE) | \$35,200,000 X 1.08 = | \$38,000,000 | \$146 | \$.15 |
| SECONDARY | 35 X 3 = | 105 | 250 | 335 | 126,000 N.M. (62,000 N.M. AVERAGE) | \$9,650,000 X 1.08 = | \$10,400,000 | \$ 83 | \$.23 |
| FLEET AVERAGE | | | | 786 | 386,000 N.M. (64,000 N.M. AVERAGE) | | \$48,400,000 (\$8,067,000 AVERAGE) | \$125 | \$.16 |
| JETFOIL | | 19 TON CARGO CAPACITY x \$2.80/TON MILE -- \$.44 PAX = 121 EQUIVALENT PAX | 135 | 256 | 316,800 N.M. | | \$12,900,000 | \$ 40.75 | \$.16 |

*BASED ON FISCAL YEAR 1982 UTILIZATION (MAINLINE 33 MONTHS, SECONDARY -- 17 MONTHS). 1983 COSTS ESTIMATED.
 **ACTUAL 1982 FISCAL YEAR FERRY COSTS.

Operating Cost vs Passengers



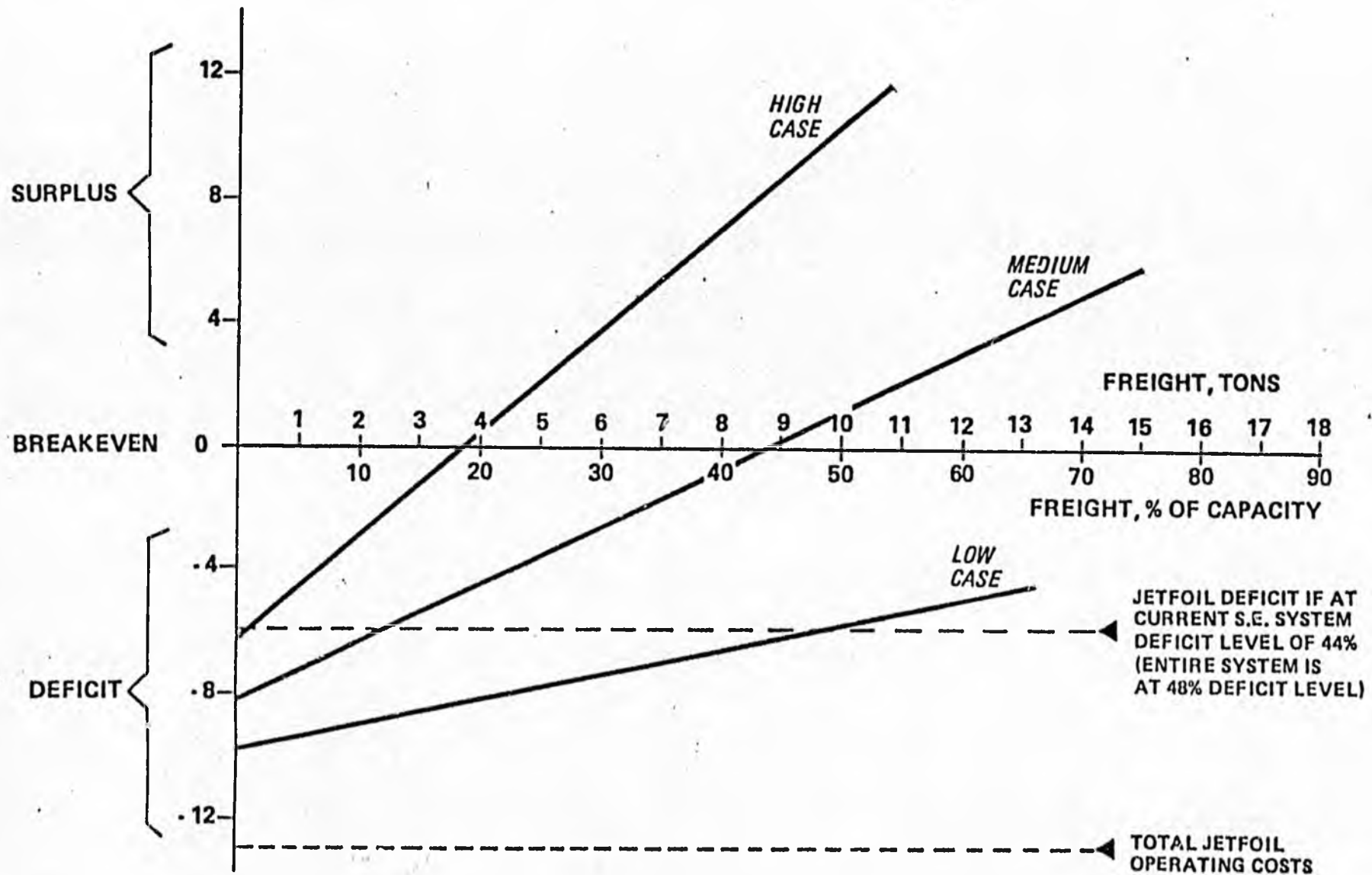
ASSUMES A PASSENGER:VEHICLE REVENUE TRADE-OFF OF 3:1

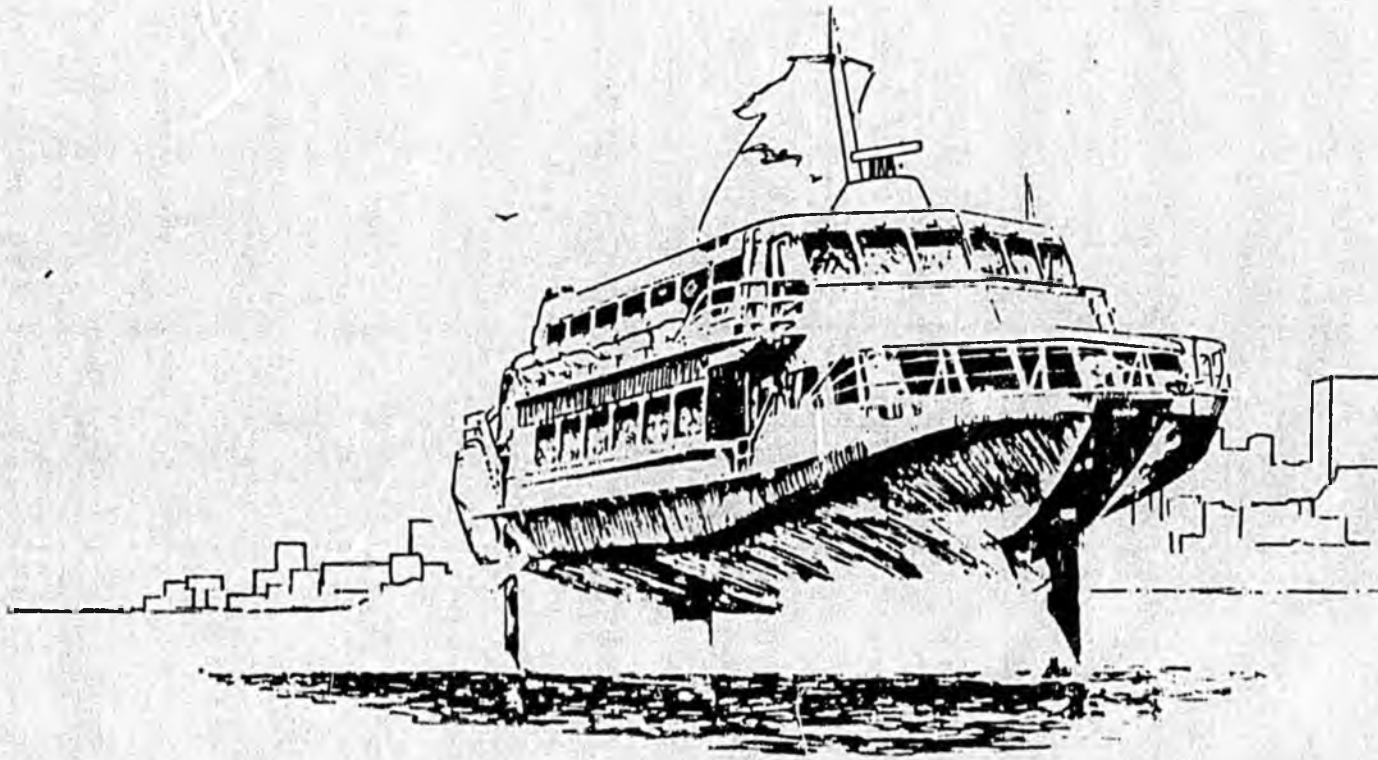
● DENOTES EXPECTED EQUIVALENT PASSENGER LOADS (BASED ON FY 1982 DATA)

Annual Cash Flow

3 JETFOILS

(1983 Dollars in Millions)





Existing Market Analysis

EXISTING TRAFFIC

SUMMARY

PASSENGER AND VEHICLE TRAFFIC WITHIN SOUTHEAST ALASKA HAS EXPERIENCED A STEADY, STRONG GROWTH OVER THE LAST DECADE. FERRY PASSENGERS AND VEHICLES HAVE GROWN BY OVER 7% PER YEAR AND JET AIR PASSENGERS BY 5% PER YEAR. IN 1982, THERE WERE OVER 450,000 PASSENGERS TRAVELING WITHIN SOUTHEAST ALASKA AND CLOSE TO 500,000 WHEN PASSENGERS TO/FROM PRINCE RUPERT ARE INCLUDED (SEE CHART ON PAGE). FERRY PASSENGERS REPRESENT 40% - 45% OF THIS TOTAL AND ARE ESTIMATED TO BE ROUGHLY DIVIDED EQUALLY BETWEEN WALK-ON AND MOTORISTS. JET AIR PASSENGERS ACCOUNT FOR 20% OF THE TRAFFIC AND ARE PRIMARILY TRAVELING BETWEEN THE MAJOR COMMUNITIES, (JUNEAU, KETCHIKAN AND SITKA). MOST AIR SERVICE IS PROVIDED BY MANY SMALL AIR TAXI OPERATORS WHICH ARE ESTIMATED TO ACCOUNT FOR CLOSE TO 40% OF PASSENGER TRAFFIC. MOST OF THIS AIR TAXI SERVICE IS BY CHARTER FLIGHTS BETWEEN THE MANY SMALL, ISOLATED COMMUNITIES IN THIS AREA. IN ADDITION, THERE WERE OVER 50,000 VEHICLES CARRIED PRIMARILY ON THE MAINLINE FERRY ROUTES BETWEEN PRINCE RUPERT AND HAINES/SKAGWAY.

TOTAL PASSENGER TRAFFIC
1982 - SOUTHEAST ALASKA

| ROUTE AREA | FERRY | | JET | AIR TAXI | TOTAL |
|-------------------------------|---------|----------|--------|----------|---------|
| | WALK-ON | MOTORIST | | | |
| JUNEAU - SKAGWAY | 40,412 | 35,912 | -- | 42,588 | 118,912 |
| JUNEAU - GUSTAVUS | -- | -- | 23,431 | 1,820 | 25,251 |
| JUNEAU - SITKA | 25,161 | 8,096 | 32,351 | 45,994 | 111,602 |
| JUNEAU - KETCHIKAN | 23,229 | 14,510 | 37,117 | 21,255 | 96,111 |
| KETCHIKAN - METLAKATLA/HOLLIS | 20,299 | 19,696 | -- | 62,552 | 102,547 |
| TOTAL WITHOUT PRINCE RUPERT* | 109,101 | 78,214 | 92,899 | 174,209 | 454,423 |
| % OF TOTAL | 41% | | 20% | 39% | |
| TOTAL WITH PRINCE RUPERT* | 125,304 | 98,084 | 92,899 | 175,964 | 492,251 |
| % OF TOTAL | 45% | | 19% | 36% | |

*EXCLUDING PASSENGERS WITH ORIGIN OR DESTINATION IN SEATTLE WHICH DO NOT DISEMBARK FROM THE FERRY AT ANY INTERMEDIATE PORTS IN SOUTHEAST ALASKA (ALL PORTS BUT HAINES AND SKAGWAY).

EXISTING TRAFFIC

SOURCES AND METHODOLOGY

JET AIR PASSENGERS (P. 67)

THE SOURCE OF THIS DATA WAS THE CIVIL AERONAUTICS BOARD "SERVICE SEGMENT DATA" FOR ALASKA AIRLINES PASSENGERS TRAVELING WITHIN SOUTHEAST ALASKA. DATA WAS AVAILABLE THROUGH SEPTEMBER 1981 AND AN ESTIMATE MADE FOR 1981 AND 1982.

AIR TAXI PASSENGERS (P. 68 - 69)

SCHEDULED AIR TAXI TRAFFIC WAS ESTIMATED USING ACTUAL SCHEDULES FROM THE LOCAL OPERATORS, AN ESTIMATE OF THEIR AVERAGE AIRCRAFT CAPACITY AND ASSUMPTION OF 50% LOAD FACTOR.

CHARTER PASSENGERS WERE ESTIMATED USING THE RELATIONSHIP OF CHARTER VERSUS SCHEDULED PASSENGERS DETERMINED IN THE SOUTHEASTERN ALASKA TRANSPORTATION STUDY (SEE P. 70). AIR TAXI TRAFFIC WITHIN SOUTHEAST ALASKA (PROVIDED BY THE ALASKA TRANSPORTATION COMMISSION) REACHED ALMOST 180,000 PASSENGERS IN 1976. OF THIS, 78% IS ESTIMATED TO BE CHARTER TRAFFIC. ASSUMING 4% GROWTH PER YEAR, THERE WOULD BE 165,000 CHARTER PASSENGERS IN 1982. FOR CONSERVATISM, 35% OF THIS TRAFFIC IS ASSUMED TO BE UNAVAILABLE TO THE JETFOIL EITHER BECAUSE IT IS BOUND TO DESTINATIONS NOT SERVED BY THE JETFOIL, OR CANNOT FIT INTO JETFOIL SCHEDULES. THE REMAINING CHARTER TRAFFIC IS DISTRIBUTED AMONG THOSE ROUTES WHICH ARE REGULARLY RECEIVING CHARTER SERVICE. IN MOST CASES, CHARTER PASSENGERS ARE ESTIMATED TO BE TWO TIMES SCHEDULED PASSENGERS IN SUMMER AND EQUAL TO SCHEDULED PASSENGERS IN WINTER. FOR ROUTES WITH NO SCHEDULED SERVICE, CHARTER PASSENGERS ARE ESTIMATED BASED ON SERVICE ON SIMILAR ROUTES.

FERRY PASSENGERS (PP. 71 - 73) AND VEHICLES (PP. 74 - 76)

FERRY PASSENGER AND VEHICLE TRAFFIC BY ORIGIN AND DESTINATION WAS PROVIDED FOR 1970 - 1982 BY THE ALASKA STATE DEPARTMENT OF TRANSPORTATION.

PASSENGER DISTRIBUTION BETWEEN MOTORIST AND WALK-ON PASSENGERS (PP. 80 - 82) WAS ESTIMATED FOR 1982 BY USING THE NUMBER OF ACCOMPANIED VEHICLES AND AVERAGES OF 1.5 - 3.0 PERSONS PER VEHICLE.

ACCOMPANIED VEHICLES WERE ESTIMATED FOR 1982 BY TAKING TOTAL VEHICLES AND SUBTRACTING COMMERCIAL VANS WHICH ARE UNACCOMPANIED (PP. 77 - 79). COMMERCIAL VANS ESTIMATES WERE BASED ON DISCUSSIONS WITH FERRY SYSTEM OFFICIALS.

ANNUAL JET AIRCRAFT PASSENGERS*
SOUTHEAST ALASKA

ACTUAL TRAFFIC

| ROUTE | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981** | 1982*** |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|----------------|----------------|----------------|
| GST - JNU | 2,250 | 7,028 | 8,005 | 11,499 | 11,833 | 15,529 | 22,220 | 21,684 | 22,749 | 23,431 |
| % CHANGE | -- | 248 | 14 | 29 | 3 | 31 | 43 | (2) | 5 | 3 |
| JNU - KTN | 5,416 | 14,643 | 15,095 | 17,487 | 21,574 | 20,043 | 18,158 | 17,864 | 17,936 | 17,836 |
| % CHANGE | -- | 170 | 9 | 10 | 23 | (3) | (13) | (2) | -- | -- |
| JNU - PST | 4,217 | 4,995 | 5,539 | 5,500 | 7,267 | 9,203 | 8,429 | 8,307 | 7,971 | 7,971 |
| % CHANGE | -- | 18 | 11 | 1 | 30 | 27 | (8) | (1) | (4) | -- |
| JNU - SIT | 11,315 | 17,612 | 20,372 | 22,309 | 25,730 | 28,000 | 32,354 | 30,273 | 31,409 | 32,351 |
| % CHANGE | -- | 56 | 16 | 10 | 15 | 9 | 16 | (6) | 4 | 3 |
| JNU - VRG | 2,403 | 3,968 | 4,513 | 4,314 | 4,629 | 4,595 | 4,432 | 4,748 | 3,667 | 3,667 |
| % CHANGE | -- | 60 | 14 | (4) | 7 | (1) | (4) | 7 | (23) | -- |
| KTN - PSG | 3,037 | 7,291 | 7,557 | 3,009 | 3,100 | 2,446 | 3,571 | 3,366 | 3,349 | 3,249 |
| % CHANGE | -- | 140 | 4 | (60) | 6 | 8 | 4 | (6) | (1) | -- |
| KTN - SIT | 1,534 | 6,112 | 6,511 | 7,598 | 8,813 | 9,243 | 9,838 | 10,240 | 10,165 | 10,267 |
| % CHANGE | -- | 298 | 7 | 17 | 16 | 5 | 6 | 4 | (1) | 1 |
| KTN - VRG | 2,159 | 5,090 | 5,142 | 3,031 | 3,122 | 3,178 | 2,993 | 3,043 | 2,898 | 2,898 |
| % CHANGE | -- | 136 | 1 | (41) | 3 | 2 | (6) | 2 | (5) | -- |
| PSG - SIT | 996 | 1,221 | 2,300 | 1,694 | 791 | 1,014 | 1,040 | 1,026 | 1,236 | 1,236 |
| % CHANGE | -- | 23 | 80 | (26) | (53) | 20 | 3 | (1) | 20 | -- |
| PSG - VRG | 1,117 | 1,630 | 2,459 | 1,649 | 1,405 | 1,463 | 1,224 | 1,281 | 1,296 | 1,296 |
| % CHANGE | -- | 47 | 50 | (33) | (15) | 4 | (16) | 5 | 1 | -- |
| SIT - VRG | 1,428 | 1,427 | 1,636 | 1,246 | 656 | 669 | 712 | 674 | 654 | 654 |
| % CHANGE | -- | -- | 15 | (24) | (47) | 2 | 6 | (5) | 27 | -- |
| TOTAL | 35,952 | 71,825 | 80,809 | 79,416 | 89,000 | 97,183 | 104,971 | 102,506 | 103,520 | 105,256 |
| % CHANGE | -- | 100 | 11 | (2) | 12 | 9 | 8 | (2) | 1 | 2 |

*SOURCE: C.A.B. SERVICE SEGMENT DATA

**ESTIMATE BASED ON JANUARY - SEPTEMBER 1981 ACTUAL DATA

***FORECAST BASED ON EVALUATION OF PAST TRAFFIC TRENDS, PROJECTED POPULATION AND TOURISM GROWTH AND ANTICIPATED ECONOMIC RECOVERY STARTING IN 1984 AND PEAKING IN 1986.

AIR TAXI

ESTIMATED 1983 AIR TAXI PASSENGERS*
SOUTHEAST ALASKA

| ROUTE | PEAK SEASON (APRIL-SEPT.) | | | OFF-PEAK SEASON (OCT.-MAR.) | | | SCHEDULED | TOTAL YEAR CHARTER | TOTAL |
|---|---------------------------|--------------|-------------|-----------------------------|-------------|-----------|--------------|-----------------------|-------------|
| | SCHEDULED | CHARTER | TOTAL | SCHEDULED | CHARTER | TOTAL | | | |
| JUNEAU - ANGOON/ TENAKEE % OF TOTAL | 780 33 | 1,560 67 | 2,340 | 780 50 | 780 50 | 1,560 | 1,560 40 | 2,340 60 | 3,900 |
| JUNEAU - EXCURSION INLET % OF TOTAL | 103 33 | 364 67 | 546 | 102 50 | 182 50 | 364 | 364 40 | 546 60 | 910 |
| JUNEAU - GUSTAVUS % OF TOTAL | 364 33 | 728 67 | 1,092 | 364 50 | 364 50 | 720 | 728 40 | 1,092 60 | 1,820 |
| JUNEAU - HAINES/ SKAGWAY % OF TOTAL | 9,820 33 | 19,656 67 | 29,484 | 6,552 50 | 6,552 50 | 13,104 | 16,380 40 | 26,208 60 | 42,508 |
| JUNEAU - HOONAH % OF TOTAL | 9,028 33 | 9,028 67 | 19,656 | 6,552 50 | 3,276 50 | 9,028 | 16,380 40 | 13,104 60 | 29,484 |
| JUNEAU - KAKE % OF TOTAL | 780 33 | 1,560 67 | 2,340 | 780 50 | 780 50 | 1,560 | 1,560 40 | 2,340 60 | 3,900 |
| JUNEAU - PELICAN % OF TOTAL | 780 33 | 1,560 67 | 2,340 | 780 50 | 780 50 | 1,560 | 1,560 40 | 2,340 60 | 3,900 |
| JUNEAU - PETERSBURG % OF TOTAL | -- -- | 1,560 100 | 1,560 -- | -- -- | 780 100 | 780 -- | -- -- | 2,340 100 | 2,340 -- |
| KETCHIKAN - CRAIG/ KLAIOCK % OF TOTAL | 7,007 33 | 14,014 67 | 21,021 | 3,022 50 | 3,022 50 | 7,644 | 10,029 40 | 17,036 60 | 28,665 |

*SCHEDULED PASSENGERS ARE ESTIMATED USING PUBLISHED SCHEDULES, AVERAGE SEAT CAPACITY AND 50% LOAD FACTOR. CHARTER PASSENGERS ARE ESTIMATED TO BE TWO TIMES SCHEDULED PASSENGERS IN SUMMER AND EQUAL TO SUMMER PASSENGERS IN WINTER. FOR ROUTES WITH NO SCHEDULED SERVICE CHARTER PASSENGERS ARE ESTIMATED BASED ON SERVICE ON SIMILAR ROUTES.

AIR TAXI

ESTIMATED 1983 AIR TAXI PASSENGERS*
SOUTHEAST ALASKA

| ROUTE | PEAK SEASON (APRIL-SEPT.) | | | OFF-PEAK SEASON (OCT.-MAR.) | | | TOTAL YEAR | | |
|--|---------------------------|---------------|----------------|-----------------------------|---------------|---------------|---------------|----------------|----------------|
| | SCHEDULED | CHARTER | TOTAL | SCHEDULED | CHARTER | TOTAL | SCHEDULED | CHARTER | TOTAL |
| KETCHIKAN - METLAKATLA % OF TOTAL | 7,049 33 | 14,098 67 | 21,147 | 6,370 50 | 6,370 50 | 12,740 | 13,419 40 | 20,468 66 | 33,887 |
| KETCHIKAN - PRINCE RUPERT % OF TOTAL | 351 33 | 702 67 | 1,053 | 351 50 | 351 50 | 702 | 702 40 | 1,053 60 | 1,755 |
| KETCHIKAN - UIRANGELL % OF TOTAL | -- -- | 3,120 100 | 3,120 | -- -- | 1,560 100 | 1,560 | -- -- | 4,680 100 | 4,680 |
| PETERSBURG - KAKE % OF TOTAL | 780 33 | 1,560 67 | 2,340 | 780 50 | 780 50 | 1,560 | 1,560 40 | 2,340 60 | 3,900 |
| PETERSBURG - UIRANGELL % OF TOTAL | -- -- | 3,120 100 | 3,120 | -- -- | 1,560 100 | 1,560 | -- -- | 4,680 100 | 4,680 |
| SITKA - ANGOON % OF TOTAL | -- -- | 2,340 100 | 2,340 | -- -- | 780 100 | 780 | -- -- | 3,120 100 | 3,120 |
| SITKA - PELICAN % OF TOTAL | -- -- | 2,340 100 | 2,340 | -- -- | 780 100 | 780 | -- -- | 3,120 100 | 3,120 |
| SITKA - TENAKEL % OF TOTAL | -- -- | 780 100 | 780 | -- -- | 780 -- | 780 | -- -- | 1,560 -- | 1,560 |
| TOTAL | 37,729 | 20,090 | 116,619 | 27,313 | 30,277 | 57,590 | 65,042 | 109,167 | 174,209 |
| % OF TOTAL | 30 | 70 | | 45 | 55 | | 35 | 65 | |

*SCHEDULED PASSENGERS ARE ESTIMATED USING PUBLISHED SCHEDULES, AVERAGE SEAT CAPACITY AND 50% LOAD FACTOR. CHARTER PASSENGERS ARE ESTIMATED TO BE TWO TIMES SCHEDULED PASSENGERS IN SUMMER AND EQUAL TO SUMMER PASSENGERS IN WINTER. FOR ROUTES WITH NO SCHEDULED SERVICE CHARTER PASSENGERS ARE ESTIMATED BASED ON SERVICE ON SIMILAR ROUTES.

SCHEDULED VERSUS CHARTER AIR PASSENGERS - 1976
AIR TAXI SYSTEM
SOUTHEAST ALASKA

| REGION | PEAK SEASON (APRIL-SEPTEMBER) | | | | OFF-PEAK SEASON (OCTOBER-MARCH) | | | |
|--------------------------------|-------------------------------|---------|---------|--------------------|---------------------------------|---------|---------|--------------------|
| | SCHEDULED* | CHARTER | TOTAL** | TOTAL SCHEDULED | SCHEDULED* | CHARTER | TOTAL** | TOTAL SCHEDULED |
| NORTHERN (HOONAH NORTH) | 10,000 | 17,100 | 27,900 | 2.6 | 6,000 | 8,900 | 14,900 | 2.5 |
| CENTRAL (HOONAH - WRANGELL) | 2,300 | 26,700 | 29,000 | 12.4 | 2,300 | 13,200 | 15,500 | 6.6 |
| SOUTHERN (WRANGELL SOUTH) | 9,500 | 49,700 | 59,200 | 6.2 | 6,000 | 24,700 | 31,500 | 4.6 |
| TOTAL | 22,600 | 91,200 | 116,100 | 5.1 | 15,100 | 46,800 | 61,900 | 4.1 |

*ESTIMATED BASED ON SCHEDULES IN OFFICIAL AIRLINE GUIDE FOR 1976, AVERAGE CAPACITY AND ASSUMPTION OF 50% LOAD FACTOR.

**DATA FROM ALASKA TRANSPORTATION COMMISSION AND PUBLISHED IN THE SOUTHEASTERN ALASKA TRANSPORTATION STUDY PREPARED FOR ALASKA DEPARTMENT OF TRANSPORTATION BY WILDER SMITH AND ASSOCIATES, 1979, P. 119

FERRY PASSENGERS

ANNUAL ALASKA FERRY PASSENGERS
SOUTHEAST ALASKA
ACTUAL TRAFFIC*

| ROUTE | 1970 | 1974** | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | ANNUAL CHANGE 1970-1982 |
|------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------------------------|
| JUNEAU - ANGOON % CHANGE | -- | -- | -- | -- | 681 | 1,525 | 2,366 | 2,810 | 2,944 | 3,614 | 40% (SINCE 1977) |
| JUNEAU - HAINES % CHANGE | 15,294 | 24,319 | 27,028 | 25,601 | 21,890 | 23,818 | 22,792 | 25,552 | 25,377 | 28,526 | 5% |
| JUNEAU - HOONAH % CHANGE | 2,803 | 2,326 | 4,085 | 4,392 | 3,967 | 4,819 | 4,944 | 6,036 | 7,031 | 7,097 | 8% |
| JUNEAU - KAKE % CHANGE | -- | 149 | 560 | 332 | 306 | 330 | 719 | 618 | 644 | 738 | 16% (SINCE 1974) |
| JUNEAU - KETCHIKAN % CHANGE | 5,209 | 6,409 | 5,654 | 6,351 | 5,195 | 6,012 | 6,416 | 7,702 | 8,165 | 8,293 | 4% |
| JUNEAU - PELICAN % CHANGE | -- | -- | -- | 191 | 718 | 739 | 577 | 276 | 418 | 849 | 28% (SINCE 1976) |
| JUNEAU - PETERSBURG % CHANGE | 3,863 | 6,011 | 7,292 | 6,785 | 6,167 | 6,078 | 6,733 | 7,205 | 6,500 | 6,993 | 5% |
| JUNEAU - PRINCE RUPERT % CHANGE | 8,877 | 9,928 | 13,352 | 11,612 | 6,279 | 8,400 | 7,161 | 7,790 | 8,390 | 10,446 | 1% |
| JUNEAU - SITKA % CHANGE | 2,686 | 5,144 | 6,061 | 5,994 | 5,141 | 6,379 | 7,770 | 10,115 | 10,543 | 11,433 | 13% |
| JUNEAU - SKAGWAY % CHANGE | 8,504 | 13,201 | 13,480 | 14,276 | 11,515 | 12,441 | 15,707 | 16,851 | 16,769 | 18,915 | 7% |
| JUNEAU - TENAKEE % CHANGE | -- | -- | -- | -- | -- | 1,259 | 947 | 1,345 | 1,699 | 2,047 | 13% (SINCE 1978) |

*SOURCE: ALASKA STATE DEPARTMENT OF TRANSPORTATION, ORIGIN AND DESTINATION STATISTICS

**P.A. -- PER ANNUM

FERRY PASSENGERS

ANNUAL ALASKA FERRY PASSENGERS
SOUTHEAST ALASKA
ACTUAL TRAFFIC (CONTINUED)*

| ROUTE | 1970 | 1974** | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | ANNUAL CHANGE 1970-1982 |
|-------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------------------------|
| JUNEAU - WRANGELL | 1,056 | 2,529 | 2,663 | 2,351 | 2,033 | 2,118 | 2,056 | 2,127 | 2,370 | 2,149 | 1% |
| % CHANGE | -- | 0 | 5 | (12) | (14) | 4 | (3) | 3 | 12 | (10) | |
| KETCHIKAN - HAINES | 1,612 | 2,282 | 2,123 | 2,315 | 1,877 | 1,929 | 2,008 | 2,578 | 3,130 | 3,409 | 6% |
| % CHANGE | -- | 9 | (7) | 9 | (19) | 3 | 4 | 28 | 21 | 9 | |
| KETCHIKAN - HOLLIS | -- | 816 | 5,623 | 5,165 | 4,920 | 8,258 | 11,593 | 13,612 | 20,117 | 24,946 | 53% |
| % CHANGE | -- | -- | 591 | (8) | (5) | 60 | 40 | 17 | 48 | 24 | (SINCE 1974) |
| KETCHIKAN - METLAKATLA | -- | 9,813 | 12,480 | 14,606 | 13,466 | 13,740 | 15,598 | 17,233 | 15,421 | 15,049 | 6% |
| % CHANGE | -- | -- | 27 | 17 | (8) | 2 | 14 | 10 | (10) | (2) | (SINCE 1974) |
| KETCHIKAN - PETERSBURG | 3,035 | 5,251 | 4,518 | 4,595 | 4,223 | 4,489 | 4,770 | 4,932 | 4,640 | 5,066 | 4% |
| % CHANGE | -- | 15 | (14) | 2 | (8) | 6 | 6 | 3 | (6) | 9 | |
| KETCHIKAN - PR. RUPERT | 17,676 | 18,486 | 19,131 | 19,036 | 14,504 | 17,058 | 12,985 | 17,270 | 20,103 | 21,566 | 2% |
| % CHANGE | -- | 1 | 3 | (1) | (24) | 18 | (24) | 33 | 16 | 7 | |
| KETCHIKAN - SKAGWAY | 1,044 | 1,691 | 1,382 | 1,296 | 1,512 | 1,351 | 1,446 | 2,164 | 2,476 | 2,490 | 8% |
| % CHANGE | -- | 13 | (18) | (6) | 17 | (11) | 7 | 50 | 14 | 1 | |
| KETCHIKAN - WRANGELL | 4,011 | 5,867 | 7,183 | 5,651 | 4,343 | 4,736 | 5,061 | 5,838 | 4,690 | 5,757 | 3% |
| % CHANGE | -- | 10 | 22 | (21) | (23) | 9 | 7 | 15 | (16) | 18 | |
| PETERSBURG - HAINES | 818 | 1,160 | 1,204 | 1,329 | 1,106 | 1,394 | 1,080 | 1,136 | 1,341 | 1,271 | 4% |
| % CHANGE | -- | 9 | 3 | 10 | (17) | 26 | 23 | 5 | 18 | 5 | |
| PETERSBURG - KAKE | -- | 841 | 2,527 | 4,075 | 3,681 | 3,319 | 4,941 | 5,073 | 4,596 | 4,576 | 24% |
| % CHANGE | -- | -- | 200 | 61 | (10) | (10) | 49 | 3 | 10 | -- | (SINCE 1974) |
| PETERSBURG - PR. RUPERT | 1,590 | 1,740 | 2,825 | 2,069 | 1,632 | 2,210 | 1,583 | 1,875 | 1,475 | 2,437 | 4% |
| % CHANGE | -- | 2 | 62 | (27) | (21) | 35 | (20) | 18 | (21) | 65 | |

*SOURCE: ALASKA STATE DEPARTMENT OF TRANSPORTATION, ORIGIN AND DESTINATION STATISTICS

**P.A. -- PER ANNUM

ANNUAL ALASKA FERRY PASSENGERS
SOUTHEAST ALASKA
ACTUAL TRAFFIC (CONTINUED)*

| ROUTE | 1970 | 1974** | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | ANNUAL CHANGE 1970-1982 |
|-----------------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------------------|
| PETERSBURG - SKAGWAY | 229 | 442 | 624 | 491 | 509 | 460 | 713 | 803 | 691 | 644 | 9% |
| % CHANGE | -- | 18 | 41 | (21) | 4 | (10) | 55 | 13 | (14) | (7) | |
| PETERSBURG - WRANGELL | 2,643 | 4,539 | 3,975 | 3,601 | 2,988 | 3,941 | 4,187 | 4,110 | 3,386 | 4,172 | 4% |
| % CHANGE | -- | 14 | (12) | (9) | (17) | 32 | 6 | (2) | 10 | 23 | |
| SITKA - ANGOON | -- | -- | -- | -- | 632 | 1,013 | 3,366 | 5,366 | 6,626 | 6,624 | 60% |
| % CHANGE | -- | -- | -- | -- | -- | 187 | 66 | 59 | 24 | -- | (SINCE 1970) |
| SITKA - HAINES | 1,026 | 1,539 | 1,559 | 2,100 | 1,403 | 1,805 | 1,952 | 2,053 | 2,052 | 1,939 | 6% |
| % CHANGE | -- | 11 | 1 | 35 | (33) | 29 | 8 | 5 | -- | (6) | |
| SITKA - HOONAH | -- | 105 | 432 | 814 | 601 | 1,297 | 1,132 | 1,667 | 2,381 | 1,437 | 29% |
| % CHANGE | -- | -- | 134 | 88 | (16) | 89 | (13) | 47 | 43 | (40) | (SINCE 1974) |
| SITKA - SKAGWAY | 405 | 1,116 | 1,112 | 1,604 | 975 | 1,160 | 1,237 | 1,811 | 1,813 | 1,520 | 12% |
| % CHANGE | -- | 29 | -- | 44 | (39) | 20 | 6 | 46 | -- | (16) | |
| WRANGELL - HAINES | 497 | 877 | 1,170 | 951 | 853 | 694 | 632 | 610 | 754 | 667 | 3% |
| % CHANGE | -- | 15 | 23 | (19) | (10) | (19) | (9) | (3) | 24 | (12) | |
| WRANGELL - PR. RUPERT | 1,486 | 1,885 | 3,514 | 1,019 | 1,206 | 1,406 | 1,164 | 1,409 | 1,984 | 1,780 | 2% |
| % CHANGE | -- | 6 | 86 | (40) | (34) | 23 | (22) | 21 | 41 | (10) | |
| WRANGELL - SKAGWAY | 263 | 209 | 352 | 375 | 245 | 235 | 337 | 294 | 557 | 230 | (1%) |
| % CHANGE | -- | 6 | 68 | 7 | (35) | (4) | 43 | (13) | 89 | (59) | |
| HAINES - SKAGWAY | 9,478 | 10,995 | 12,915 | 14,408 | 11,853 | 12,410 | 14,462 | 15,529 | 15,075 | 16,705 | 5% |
| % CHANGE | -- | 4 | 17 | 12 | (18) | 5 | 16 | 7 | 2 | 5 | |
| TOTAL | 94,905 | 139,808 | 164,737 | 164,264 | 136,507 | 157,422 | 168,515 | 193,048 | 205,166 | 22,380 | 7% |
| % CHANGE | -- | 10 | 18 | -- | (17) | 15 | 7 | 15 | 6 | 9 | |

*SOURCE: ALASKA STATE DEPARTMENT OF TRANSPORTATION, ORIGIN AND DESTINATION STATISTICS

**P.A. -- PER ANNUM

ANNUAL VEHICLE TRAFFIC
SOUTHEAST ALASKA FERRY SYSTEM
ACTUAL TRAFFIC*

| ROUTE | 1970 | 1975** | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | ANNUAL CHANGE 1970 - 1982 |
|------------------------------------|-------------|-------------|---------------|---------------|-------------|---------------|-------------|-------------|--------------|------------------------------|
| JUNEAU - ANGOON % CHANGE | -- -- | -- -- | -- -- | 62 -- | 265 327 | 340 31 | 363 4 | 434 20 | 732 69 | 64% (SINCE 1977) |
| JUNEAU - HAINES % CHANGE | 5509 -- | 7989 8 | 7631 (4) | 6420 (16) | 7234 13 | 6705 (7) | 7308 9 | 7519 3 | 8524 13 | 4% |
| JUNEAU - HOONAH % CHANGE | 308 -- | 672 17 | 749 17 | 776 4 | 757 (2) | 939 24 | 1,146 22 | 1,218 6 | 1,369 12 | 13% |
| JUNEAU - KAKE % CHANGE | -- -- | 79 -- | 56 (79) | 81 45 | 85 5 | 106 25 | 137 29 | 159 16 | 173 9 | 12% (SINCE 1975) |
| JUNEAU - KETCHIKAN % CHANGE | 923 -- | 770 4 | 944 23 | 823 (13) | 906 10 | 1,009 11 | 1,130 12 | 1,304 15 | 1,183 (9) | 2% |
| JUNEAU - PELICAN % CHANGE | -- -- | -- -- | 6 -- | 32 433 | 31 (3) | 49 58 | 52 6 | 64 23 | 84 31 | 55% (SINCE 1976) |
| JUNEAU - PETERSBURG % CHANGE | 683 -- | 1,121 10 | 1,139 2 | 895 (21) | 7,179 32 | 1,087 (8) | 1,097 1 | 1,120 2 | 1,229 10 | 5% |
| JUNEAU - PRINCE RUPERT % CHANGE | 1,893 -- | 3,347 12 | 2,921 (13) | 1,944 (33) | 2,329 20 | 1,949 (17) | 2,273 17 | 2,631 16 | 3,518 34 | 5% |
| JUNEAU - SITKA % CHANGE | 687 -- | 1,192 12 | 1,352 13 | 1,139 (16) | 1,295 14 | 1,571 21 | 1,742 11 | 1,912 10 | 2,068 8 | 10% |
| JUNEAU - SKAGWAY % CHANGE | 1,170 -- | 1,538 6 | 1,712 11 | 1,606 (6) | 1,734 8 | 2,506 45 | 2,723 9 | 2,713 -- | 3,238 19 | 9% |
| JUNEAU - TENAKEE % CHANGE | -- -- | -- -- | -- -- | -- -- | -- -- | -- -- | -- -- | -- -- | -- -- | -- |

* SOURCE: ALASKA STATE DEPARTMENT OF TRANSPORTATION, ORIGIN AND DESTINATION STATISTICS

** P.A. -- PER ANNUM

ANNUAL VEHICLE TRAFFIC
SOUTHEAST ALASKA FERRY SYSTEM
ACTUAL TRAFFIC* (Cont'd)

| ROUTE | 1970 | 1975** | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | ANNUAL CHANGE 1970 - 1982 |
|----------------------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|------------------------------|
| JUNEAU - WRANGELL | 275 | 452 | 381 | 284 | 334 | 309 | 387 | 353 | 306 | 2% |
| % CHANGE | -- | 10 | (16) | (25) | 18 | (7) | 25 | (9) | (5) | |
| KETCHIKAN - HAINES | 483 | 630 | 780 | 632 | 580 | 662 | 757 | 988 | 835 | 5% |
| % CHANGE | -- | 5 | 24 | (19) | (8) | 14 | 14 | 24 | (11) | |
| KETCHIKAN - HOLLIS | -- | 1,674 | 1,745 | 1,806 | 2,635 | 3,181 | 4,352 | 6,247 | 7,572 | 24% (SINCE 1975) |
| % CHANGE | -- | -- | 4 | 4 | 46 | 21 | 37 | 44 | 21 | |
| KETCHIKAN - METLAKATLA | -- | 3,011 | 3,489 | 3,143 | 2,795 | 3,707 | 4,344 | 3,400 | 3,100 | .5% (SINCE 1975) |
| % CHANGE | -- | -- | 16 | (10) | (11) | 33 | 17 | (22) | (9) | |
| KETCHIKAN - PETERSBURG | 452 | 549 | 566 | 507 | 654 | 694 | 692 | 702 | 779 | 5% |
| % CHANGE | -- | 4 | 3 | (10) | 29 | 6 | -- | 1 | 11 | |
| KETCHIKAN-PRINCE RUPERT | 3,832 | 3,933 | 4,651 | 4,003 | 4,683 | 4,258 | 4,885 | 5,738 | 6,557 | 5% |
| % CHANGE | -- | 1 | 18 | (14) | 17 | (9) | 15 | 17 | 14 | |
| KETCHIKAN - SKAGWAY | 48 | 43 | 73 | 73 | 117 | 113 | 104 | 159 | 117 | 0% |
| % CHANGE | -- | 2 | 70 | -- | 60 | (3) | (8) | 53 | (26) | |
| KETCHIKAN - WRANGELL | 679 | 2,008 | 995 | 792 | 907 | 1,028 | 1,035 | 899 | 1,137 | 4% |
| % CHANGE | -- | 24 | (50) | (20) | 15 | 13 | 1 | (13) | 26 | |
| PETERSBURG - HAINES | 235 | 332 | 421 | 316 | 374 | 332 | 309 | 355 | 311 | 2% |
| % CHANGE | -- | 7 | 27 | (25) | 18 | (11) | (7) | 15 | (12) | |
| PETERSBURG - KAKE | -- | 335 | 576 | 429 | 394 | 701 | 839 | 966 | 987 | 17% (SINCE 1975) |
| % CHANGE | -- | -- | | (17) | (8) | 78 | 20 | 15 | 2 | |
| PETERSBURG - PRINCE RUPERT | 611 | 817 | 600 | 600 | 667 | 619 | 601 | 726 | 891 | 3% |
| % CHANGE | -- | 6 | (17) | (12) | 11 | (7) | 10 | 7 | 23 | |

* SOURCE: ALASKA STATE DEPARTMENT OF TRANSPORTATION, ORIGIN AND DESTINATION STATISTICS

** P.A. -- PER ANNUM

ANNUAL VEHICLE TRAFFIC
SOUTHEAST ALASKA FERRY SYSTEM
ACTUAL TRAFFIC* (Cont'd)

| ROUTE | 1970 | 1975** | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | ANNUAL CHANGE 1970 - 1982 |
|--------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------------------------------|
| PETERSBURG - SKAGWAY | 41 | 55 | 39 | 43 | 45 | 69 | 61 | 78 | 63 | 4% |
| % CHANGE | -- | 6 | (29) | 10 | 5 | 53 | (12) | 28 | (20) | |
| PETERSBURG - WRANGELL | 842 | 963 | 901 | 770 | 981 | 976 | 981 | 1,021 | 1,190 | 3% |
| % CHANGE | -- | 3 | (6) | (14) | 26 | (1) | 1 | 4 | 17 | |
| SITKA - ANGOON | -- | -- | -- | 76 | 196 | 357 | 562 | 660 | 582 | 50% |
| % CHANGE | -- | -- | -- | -- | 158 | 82 | 57 | 17 | (12) | (SINCE 1977) |
| SITKA - HAINES | 317 | 472 | 446 | 396 | 429 | 475 | 532 | 552 | 464 | 3% |
| % CHANGE | -- | 8 | (6) | (11) | 8 | 11 | 12 | 4 | (16) | |
| SITKA - HOONAH | -- | 21 | 72 | 59 | 113 | 103 | 149 | 254 | 165 | 34% |
| % CHANGE | -- | -- | 243 | (18) | 92 | (9) | 45 | 70 | (35) | (SINCE 1975) |
| SITKA - SKAGWAY | 115 | 464 | 470 | 340 | 491 | 367 | 403 | 442 | 370 | 10% |
| % CHANGE | -- | 22 | 3 | (29) | 44 | (25) | 32 | (8) | (14) | |
| WRANGELL - HAINES | 182 | 404 | 186 | 184 | 143 | 137 | 145 | 156 | 138 | (2%) |
| % CHANGE | -- | 17 | (54) | (1) | (22) | (4) | 6 | 8 | (12) | |
| WRANGELL - PRINCE RUPERT | 650 | 1,802 | 840 | 531 | 505 | 445 | 509 | 636 | 701 | 2% |
| % CHANGE | -- | 23 | (53) | (37) | (5) | (12) | 14 | 25 | 23 | |
| WRANGELL - SKAGWAY | 16 | 41 | 40 | 25 | 32 | 34 | 24 | 29 | 14 | (1%) |
| % CHANGE | -- | 21 | (2) | (88) | 28 | 6 | (29) | 21 | (52) | |
| HAINES - SKAGWAY | 1,723 | 2,197 | 2,530 | 2,113 | 2,066 | 3,730 | 3,967 | 4,143 | 4,737 | 9% |
| % CHANGE | -- | 5 | 15 | (14) | (5) | 81 | 6 | 4 | 14 | |
| TOTAL | 21,674 | 36,911 | 36,339 | 30,968 | 34,956 | 38,574 | 43,779 | 47,528 | 53,249 | 8% |
| % CHANGE | -- | 11 | (2) | (15) | 13 | 10 | 13 | 9 | 12 | |

* SOURCE: ALASKA STATE DEPARTMENT OF TRANSPORTATION, ORIGIN AND DESTINATION STATISTICS

** P.A. -- PER ANNUM