

Scale 1"=200 Miles

SOURCE

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LEGEND

----- Fiber Optic Cable Route

GCI Alaska United Fiber Optic Cable

VICINITY MAP

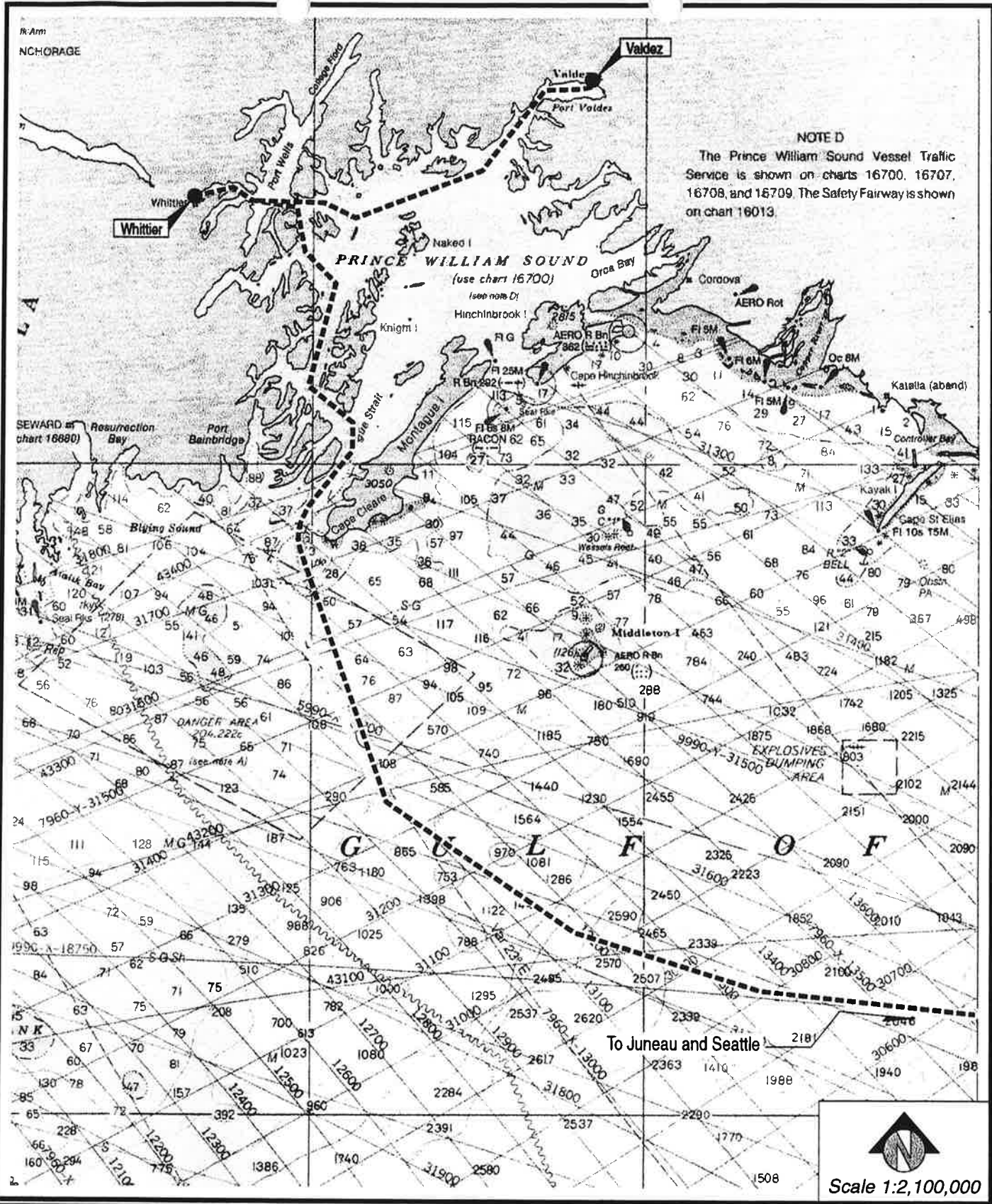
U.S. Army Corps of Engineers Permit #

GCI0002

November 1997

DAVID EVANS AND ASSOCIATES, INC.

FIG. 1



Ref. Drafting\fb-1ah\GCI10002-FIG. 2.a.dcr

SOURCE

Figure prepared from U.S. Department of Commerce National Oceanic and Atmospheric Administration National Ocean Service Coast Survey of Strait of Juan de Fuca to Kodiak Island.

LEGEND

----- Fiber Optic Cable Route

GCI Alaska United Fiber Optic Cable

PRINCE WILLIAM SOUND, ALASKA

U.S. Army Corps of Engineers Permit #

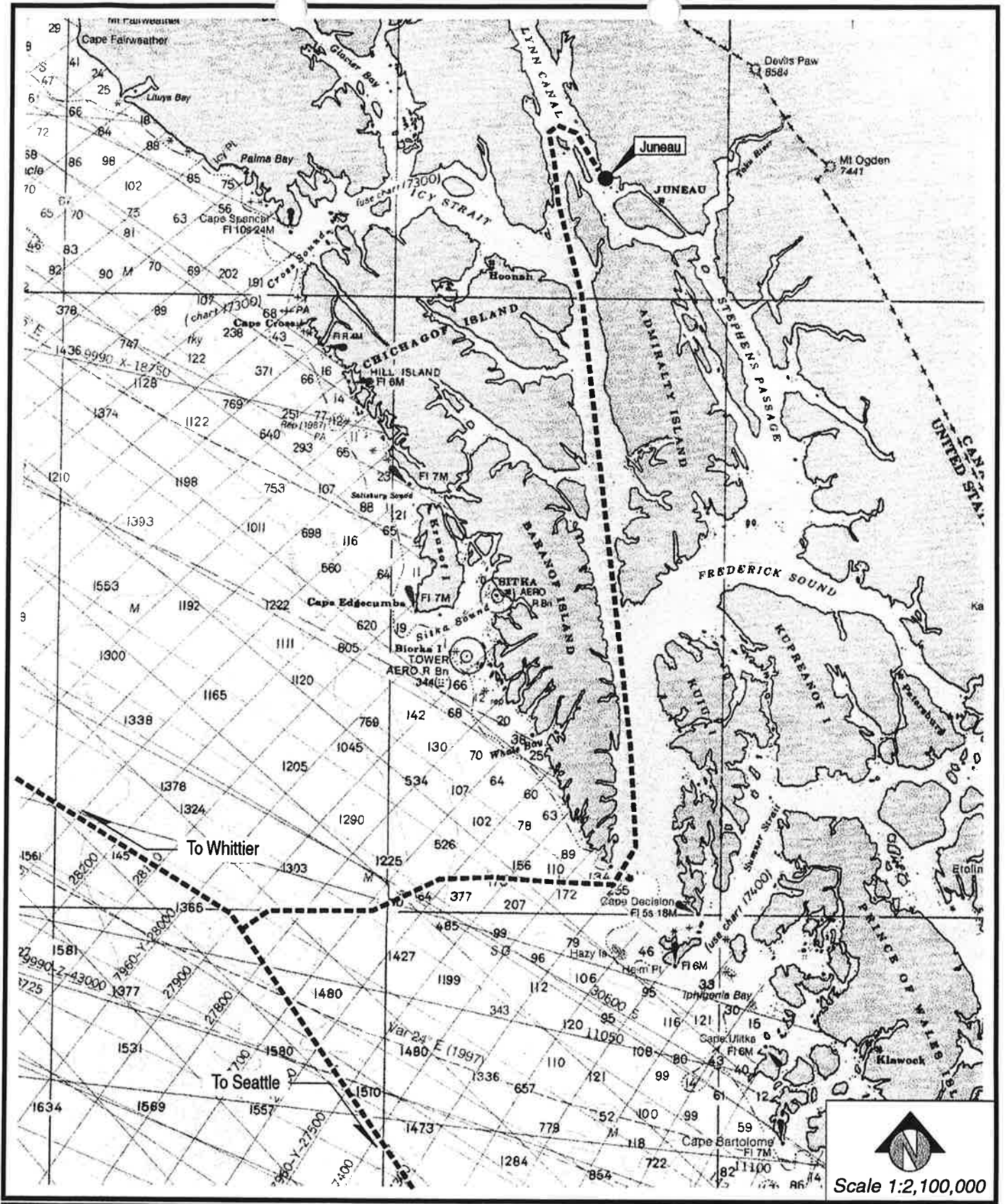
GCI10002

November 1997

FIG. 2.a

DAVID EVANS AND ASSOCIATES, INC.

Ref. Drafting/tb-1ah/GCI/0002-FIG. 2 a.dcr



SOURCE

Figure prepared from U.S. Department of Commerce National Oceanic and Atmospheric Administration National Ocean Service Coast Survey of Strait of Juan de Fuca to Kodiak Island.

LEGEND

----- Fiber Optic Cable Route

GCI Alaska United Fiber Optic Cable

LYNN CANAL, ALASKA

U.S. Army Corps of Engineers Permit #

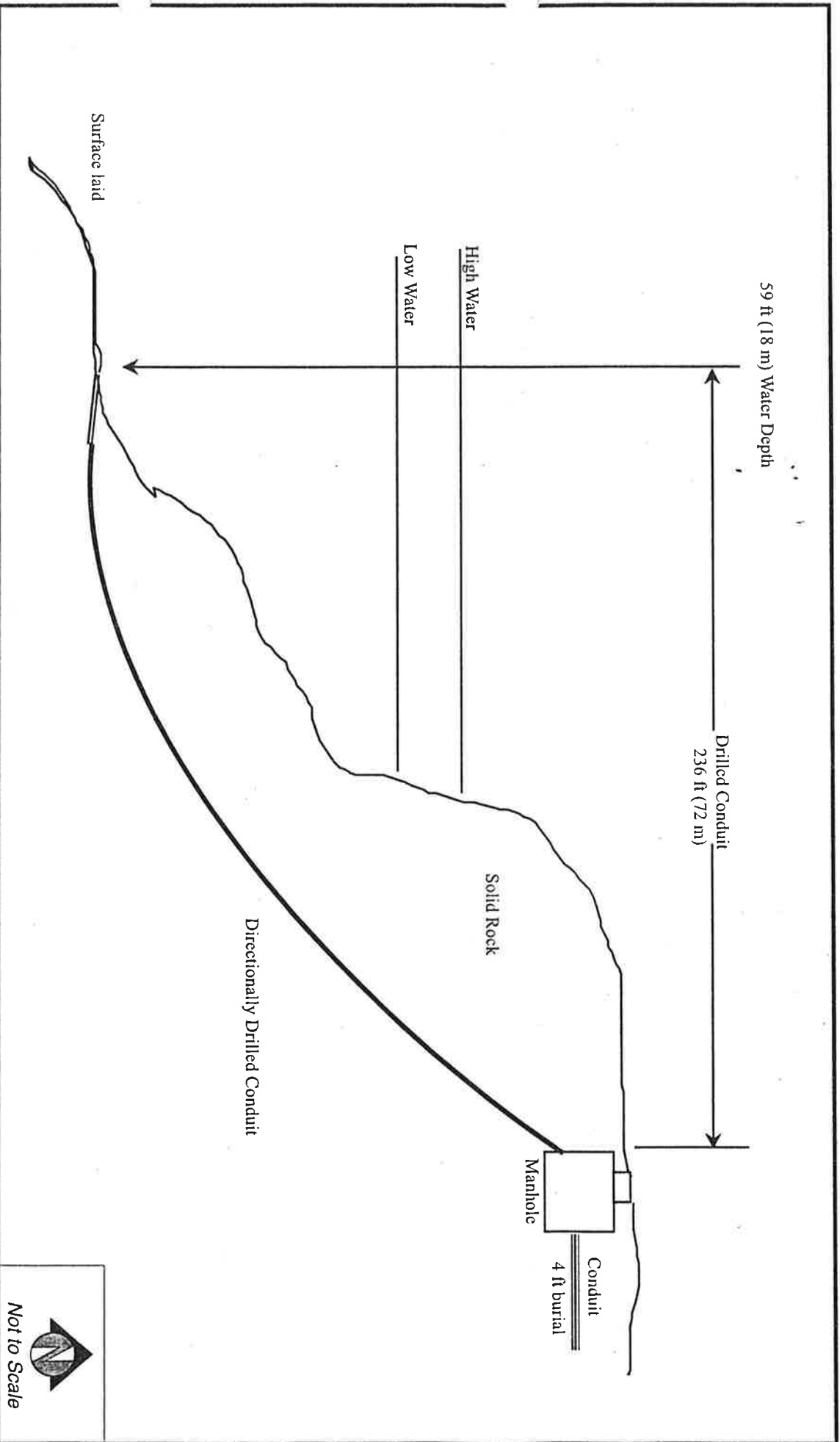
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November 1997

DAVID EVANS AND ASSOCIATES, INC.

Scale 1:2,100,000

FIG. 2.b



SOURCE
Alaska United Fiber System Partnership

Alaska United Fiber System
WHITTIER LANDING
Profile

GC/10002
November 1997

DAVID EVANS AND ASSOCIATES, INC.



ALASKA UNITED - Whittier to Cape Cleare
State Jurisdiction (3nm)

Pos No	Latitude	Longitude	Depth (m)	Heading	Course Change	Route Distance		Cable/Lay Type
						Between (km)	Total (km)	
001	60°46.609'N	148° 42.465'W	0				0.000	
				022.22°	022.22°S		0.317	DA-HS / Surface
002	60°46.767'N	148° 42.333'W	130				0.317	
				060.58°	038.36°S		6.136	DA-HS / Surface
003	60°48.388'N	148° 36.442'W	175				6.453	
				039.59°	020.99°P		0.974	DA-HS / Surface
004	60°48.792'N	148° 35.758'W	192				7.427	
				071.11°	031.53°S		0.407	DA-HS / Surface
005	60°48.863'N	148° 35.333'W	242				7.834	
				094.54°	023.43°S		3.033	DA-HS / Surface
006	60°48.733'N	148° 32.000'W	247				10.867	
				079.32°	015.22°P		1.846	DA-HS / Surface
007	60°48.917'N	148° 30.000'W	252				12.713	
				064.65°	014.67°P		0.685	DA-HS / Surface
008	60°49.075'N	148° 29.317'W	330				13.399	
				095.14°	030.49°S		1.199	DA-HS / Surface
009	60°49.017'N	148° 28.000'W	345				14.598	
				101.21°	006.07°S		1.279	DA-HS / Surface
010	60°48.883'N	148° 26.617'W	363				15.877	
				122.90°	021.69°S		0.667	DA-HS / Burial
011	60°48.688'N	148° 26.000'W	365				16.543	Cable Transition
				153.12°	030.22°S		1.12	LWA/ Burial
012	60°48.150'N	148° 25.442'W	362				17.663	
				141.64°	011.49°P		1.499	LWA/ Burial
013	60°47.517'N	148° 24.417'W	367				19.162	
				131.45°	010.19°P		0.959	LWA/ Burial
014	60°47.175'N	148° 23.625'W	366				20.122	
				096.56°	034.89°P		4.318	LWA/ Burial
015	60°46.908'N	148° 18.900'W	365				24.44	
				106.05°	009.49°S		0.504	LWA/ Burial
016	60°46.833'N	148° 18.367'W	365				24.944	Cable Transition
				102.57°	003.49°P		0.853	DA-HS/ Burial
017	60°46.733'N	148° 17.450'W	365				25.797	
				096.91°	005.65°P		4.986	DA-HS / Surface
018	60°46.408'N	148° 12.000'W	367				30.783	
				095.44°	001.48°P		4.053	DA-HS / Surface
019	60°46.200'N	148° 7.558'W	397				34.836	
				112.92°	017.49°S		1.191	DA-HS / Surface
020	60°45.950'N	148° 6.350'W	427				36.027	
				131.60°	018.67°S		1.762	DA-HS/ Burial
021	60°45.320'N	148° 4.900'W	427				37.789	Cable Transition
				153.06°	021.46°S		1.083	LWA / Surface
022	60°44.800'N	148° 4.360'W	425				38.872	
				167.13°	014.07°S		0.857	LWA/ Burial
023	60°44.350'N	148° 4.150'W	440				39.729	
				183.58°	016.45°S		5.973	LWA/ Burial
024	60°41.140'N	148° 4.560'W	452				45.702	
				173.81°	009.77°P		5.417	LWA/ Burial
025	60°38.240'N	148° 3.920'W	481				51.119	
				163.58°	010.24°P		1.3	LWA/ Burial
036	60°37.569'N	148° 3.517'W	487				52.419	
				163.57°	000.00°S		0.249	LWA / Surface
027	60°37.440'N	148° 3.440'W	489				52.668	
				155.67°	007.91°P		3.546	LWA / Surface
028	60°35.700'N	148° 1.840'W	625				56.214	
				155.78°	000.12°S		1.425	LWA/ Burial

**ALASKA UNITED - Whittier to Cape Cleare
State Jurisdiction (3nm)**

Pos No	Latitude	Longitude	Depth (m)	Heading	Course Change	Route Distance		Cable/Lay Type
						Between (km)	Total (km)	
029	60°35.000'N	148° 1.200'W	620				57.639	
				132.61°	023.17°P	3.975		LWA/ Burial
030	60°33.550'N	147° 58.000'W	632				61.614	
				122.16°	010.45°P	4.009		LWA/ Burial
031	60°32.400'N	147° 54.290'W	635				65.623	
				118.05°	004.11°P	0.454		LWA/ Burial
032	60°32.285'N	147° 53.852'W	635				66.077	
				118.08°	000.02°S	0.966		LWA / Surface
033	60°32.040'N	147° 52.920'W	625				67.043	
				145.11°	027.03°S	1.992		LWA / Surface
034	60°31.160'N	147° 51.675'W	570				69.035	
				171.64°	026.53°S	1.858		LWA / Surface
035	60°30.170'N	147° 51.380'W	470				70.893	
				183.68°	012.04°S	1.712		LWA / Surface
036	60°29.250'N	147° 51.500'W	441				72.605	
				196.32°	012.64°S	2.283		LWA / Surface
037	60°28.070'N	147° 52.200'W	377				74.888	
				208.26°	011.94°S	2.635		LWA / Surface
038	60°26.820'N	147° 53.560'W	352				77.523	
				193.64°	014.63°P	2.064		LWA / Surface
039	60°25.740'N	147° 54.090'W	356				79.587	
				203.94°	010.31°S	0.996		LWA / Surface
040	60°25.250'N	147° 54.530'W	380				80.583	
				204.64°	000.70°S	6.087		LWA / Surface
041	60°22.270'N	147° 57.290'W	400				86.67	
				195.64°	009.00°P	3.278		LWA / Surface
042	60°20.570'N	147° 58.250'W	385				89.948	
				185.04°	010.59°P	5.6		LWA / Surface
043	60°17.566'N	147° 58.784'W	600				95.548	
				185.04°	000.00°S	0.589		LWA/ Burial
044	60°17.250'N	147° 58.840'W	600				96.137	
				189.27°	004.23°S	3.725		LWA/ Burial
045	60°15.270'N	147° 59.490'W	600				99.862	
				173.53°	015.74°P	3.607		LWA/ Burial
046	60°13.340'N	147° 59.050'W	534				103.469	
				164.38°	009.15°P	1.716		LWA/ Burial
047	60°12.450'N	147° 58.550'W	463				105.185	
				150.75°	013.63°P	0.681		LWA/ Burial
048	60°12.130'N	147° 58.190'W	459				105.866	
				135.12°	015.63°P	0.707		LWA/ Burial
049	60°11.860'N	147° 57.650'W	450				106.573	
				118.24°	016.88°P	0.903		LWA/ Burial
050	60°11.630'N	147° 56.790'W	433				107.476	
				132.60°	014.36°S	2.249		LWA/ Burial
051	60°10.810'N	147° 55.000'W	367				109.725	
				145.31°	012.71°S	2.439		LWA/ Burial
052	60° 9.730'N	147° 53.500'W	335				112.164	
				147.90°	002.60°S	3.791		LWA/ Burial
053	60° 8.000'N	147° 51.325'W	301				115.955	
				145.15°	002.75°P	6.616		LWA/ Burial
054	60° 5.075'N	147° 47.250'W	274				122.571	
				157.70°	012.54°S	0.672		LWA/ Burial
055	60° 4.740'N	147° 46.975'W	325				123.243	
				175.53°	017.84°S	0.894		LWA/ Burial
056	60° 4.260'N	147° 46.900'W	352				124.137	
				191.32°	015.79°S	11.854		LWA/ Burial

ALASKA UNITED - Whittier to Cape Cleare								
State Jurisdiction (3nm)								
Pos No	Latitude	Longitude	Depth (m)	Heading	Course Change	Route Distance		Cable/Lay Type
						Between (km)	Total (km)	
057	59°58.000'N	147° 49.400'W	224				135.991	
				201.22°	009.89°S	0.617		LWA/ Burial
058	59°57.690'N	147° 49.640'W	216				136.608	
				213.56°	012.34°S	0.691		LWA/ Burial
059	59°57.380'N	147° 50.050'W	208				137.299	
				224.79°	011.24°S	16.799		LWA/ Burial
060	59°50.950'N	148° 02.720'W	147				154.098	

ALASKA UNITED - Whittier to Cape Cleare
ROUTE POSITION LIST
State Jurisdiction (3 nm)

NOTES: Segment 2

1. All distances are in kilometers. Datum is WGS-84.
2. Land Cable is not included - see SLD for Land Cable.
3. Burial will be best endeavor.

Standard Submerged Land Easements for Submarine Fiber Optic Cable Calculation

Route Length X 20 foot wide Easement = Easement Area

154.98 km = 505,596 linear feet

505,596 ft X 20 ft = 10,111,920 sq. ft

**ALASKA UNITED - Valdez to Whittier
ROUTE POSITION LIST
State Jurisdiction (3nm)**

Pos No	Latitude	Longitude	Heading	Course Change	Route Distance			Cable / Lay Type
					Between (km)	Between (km)	Total (km)	
001	61° 7.487'N	146° 20.559'W					0.000	Manhole Valdez
			152.28°	152.28°S	0.534	0.539		DA / Surface
002	61° 7.233'N	146° 20.283'W					0.539	
			212.31°	060.02°S	1.024	1.034		DA / Surface
003	61° 6.767'N	146° 20.892'W					1.573	
			212.04°	000.27°P	0.493	0.495		DA / Burial
004	61° 6.542'N	146° 21.183'W					2.069	
			211.52°	000.52°P	0.473	0.475		DA / Burial
005	61° 6.325'N	146° 21.458'W					2.544	
			228.35°	016.83°S	0.372	0.374		DA / Burial
006	61° 6.192'N	146° 21.767'W					2.917	
			241.30°	012.95°S	0.410	0.412		DA / Burial
007	61° 6.086'N	146° 22.167'W					3.329	
			254.65°	013.35°S	0.722	0.726		DA / Burial
008	61° 5.983'N	146° 22.942'W					4.055	
			267.34°	012.69°S	11.888	11.948		DA / Burial
009	61° 5.675'N	146° 36.150'W					16.003	
			253.47°	013.87°P	1.142	1.147		DA / Burial
010	61° 5.500'N	146° 37.367'W					17.150	
			237.65°	015.81°P	0.319	0.321		DA / Burial
011	61° 5.408'N	146° 37.667'W					17.471	
			237.75°	000.09°S	0.230	0.232		DA / Surface
012	61° 5.342'N	146° 37.883'W					17.703	
			207.47°	030.28°P	1.170	1.182		DA / Surface
013	61° 4.783'N	146° 38.483'W					18.885	
			239.02°	031.55°S	1.172	1.184		DA / Surface
014	61° 4.458'N	146° 39.600'W					20.069	
			209.42°	029.60°P	0.976	0.986		DA / Surface
015	61° 4.000'N	146° 40.133'W					21.055	
			221.35°	011.93°S	0.886	0.894		DA / Surface
016	61° 3.642'N	146° 40.783'W					21.949	
			188.62°	032.73°P	1.003	1.013		DA / Surface
017	61° 3.108'N	146° 40.950'W					22.963	
			200.80°	012.18°S	0.761	0.768		DA / Surface
018	61° 2.725'N	146° 41.250'W					23.731	
			200.43°	000.37°P	0.495	0.498		DA / Burial
019	61° 2.475'N	146° 41.442'W					24.229	
			201.06°	000.63°S	1.294	1.300		DA / Burial
020	61° 1.825'N	146° 41.958'W					25.529	
			251.25°	050.19°S	0.912	0.917		DA / Burial
021	61° 1.667'N	146° 42.917'W					26.446	
			221.10°	030.15°P	4.230	4.251		SA / Burial
022	60°59.950'N	146° 46.000'W					30.697	
			206.90°	014.20°P	0.798	0.802		SA / Burial
023	60°59.567'N	146° 46.400'W					31.498	
			192.42°	014.48°P	1.015	1.021		SA / Burial
024	60°59.033'N	146° 46.642'W					32.519	
			204.04°	011.62°S	1.236	1.243		SA / Burial
025	60°58.425'N	146° 47.200'W					33.762	
			216.80°	012.76°S	5.140	5.166		SA / Burial
026	60°56.208'N	146° 50.608'W					38.928	
			232.07°	015.26°S	2.464	2.477		SA / Burial
027	60°55.392'N	146° 52.758'W					41.404	
			216.03°	016.03°P	6.886	6.921		SA / Burial
028	60°52.392'N	146° 57.232'W					48.325	

**ALASKA UNITED - Valdez to Whittier
ROUTE POSITION LIST
State Jurisdiction (3nm)**

Pos No	Latitude	Longitude	Heading	Course Change	Route Distance			Cable / Lay Type
					Between (km)	Between (km)	Total (km)	
			217.79°	001.75°S	0.470	0.475		SA / Surface
029	60°52.192'N	146° 57.550'W					48.800	
			242.13°	024.34°S	6.544	6.609		SA / Surface
030	60°50.542'N	147° 3.933'W					55.409	
			242.15°	000.02°S	5.197	5.223		SA/ Burial
031	60°49.233'N	147° 9.000'W					60.632	
			250.61°	008.46°S	10.586	10.639		SA / Burial
032	60°47.333'N	147° 20.000'W					71.271	
			256.41°	005.80°S	10.280	10.331		SA / Burial
033	60°46.025'N	147° 31.000'W					81.602	
			251.93°	004.48°P	8.008	8.048		SA / Burial
034	60°44.683'N	147° 39.375'W					89.650	
			261.20°	009.27°S	0.959	0.963		SA / Burial
035	60°44.604'N	147° 40.417'W					90.614	
			261.93°	000.73°S	0.489	0.492		SA / Burial
036	60°44.567'N	147° 40.950'W					91.106	
			261.12°	000.81°P	1.503	1.518		SA / Surface
037	60°44.442'N	147° 42.583'W					92.623	
			250.12°	011.01°P	0.186	0.187		SA / Surface
038	60°44.408'N	147° 42.775'W					92.811	
			262.69°	012.57°S	0.481	0.484		SA / Burial
039	60°44.375'N	147° 43.300'W					93.294	
			250.91°	011.78°P	2.598	2.611		SA / Burial
040	60°43.917'N	147° 46.000'W					95.905	
			246.94°	003.97°P	1.796	1.805		SA / Burial
041	60°43.538'N	147° 47.817'W					97.711	
			249.23°	002.28°S	0.178	0.180		SA / Surface
042	60°43.504'N	147° 48.000'W					97.890	
			263.87°	014.65°S	0.869	0.878		SA / Surface
043	60°43.454'N	147° 48.950'W					98.768	
			294.05°	030.18°S	0.839	0.847		SA / Surface
044	60°43.638'N	147° 49.792'W					99.615	
			306.71°	012.66°S	1.370	1.384		SA / Surface
045	60°44.079'N	147° 51.000'W					100.999	
			285.39°	021.32°P	3.771	3.809		SA / Surface
046	60°44.617'N	147° 55.000'W					104.808	
			310.70°	025.31°S	2.208	2.230		SA / Surface
047	60°45.392'N	147° 56.842'W					107.038	
			310.31°	000.39°P	0.477	0.479		SA / Burial
048	60°45.558'N	147° 57.242'W					107.517	
			296.01°	014.30°P	0.601	0.604		SA / Burial
049	60°45.700'N	147° 57.837'W					108.122	
			281.65°	014.36°P	0.460	0.462		SA / Burial
050	60°45.750'N	147° 58.333'W					108.584	
			264.17°	017.48°P	0.457	0.459		SA / Burial
051	60°45.725'N	147° 58.833'W					109.043	
			255.02°	009.15°P	1.020	1.025		SA / Burial
052	60°45.583'N	147° 59.917'W					110.068	
			270.00°	014.99°S	0.477	0.479		SA / Burial
053	60°45.583'N	148° 0.442'W					110.547	
			285.57°	015.56°S	3.355	3.372		SA / Burial
054	60°46.067'N	148° 4.000'W					113.919	
			285.23°	000.34°P	1.883	1.901		SA / Surface
055	60°46.333'N	148° 6.000'W					115.820	
			277.81°	007.42°P	0.917	0.926		SA / Surface

**ALASKA UNITED - Valdez to Whittier
ROUTE POSITION LIST
State Jurisdiction (3nm)**

Pos No	Latitude	Longitude	Heading	Course Change	Route Distance			Cable / Lay Type
					Between (km)	Between (km)	Total (km)	
056	60°46.400'N	148° 7.000'W					116.746	
			276.85°	000.96°P	10.920	10.974		SA / Burial
057	60°47.092'N	148° 18.942'W					127.720	
			277.73°	000.88°S	0.511	0.514		SA / Burial
058	60°47.129'N	148° 19.500'W					128.234	
			276.80°	000.92°P	2.027	2.047		SA / Surface
059	60°47.258'N	148° 21.717'W					130.281	
			287.29°	010.48°S	1.933	1.952		SA / Surface
060	60°47.567'N	148° 23.750'W					132.233	
			303.33°	016.05°S	0.788	0.795		SA / Surface
061	60°47.800'N	148° 24.475'W					133.029	
			318.12°	014.79°S	0.499	0.504		SA / Surface
062	60°48.000'N	148° 24.842'W					133.533	
			333.86°	015.74°S	1.767	1.784		SA / Surface
063	60°48.854'N	148° 25.700'W					135.317	
			314.56°	019.31°P	0.233	0.235		SA / Surface
064	60°48.942'N	148° 25.883'W					135.552	
			294.00°	020.56°P	1.617	1.633		SA / Surface
065	60°49.296'N	148° 27.512'W					137.185	
			275.06°	018.94°P	0.611	0.617		SA / Surface
066	60°49.325'N	148° 28.183'W					137.802	Cable Transition
			256.26°	018.81°P	2.630	2.657		DA / Surface
067	60°48.988'N	148° 31.000'W					140.459	
			269.59°	013.33°S	4.082	4.122		DA / Surface
068	60°48.971'N	148° 35.500'W					144.581	
			240.20°	029.39°P	0.684	0.690		DA / Surface
069	60°48.788'N	148° 36.154'W					145.272	
			208.35°	031.85°P	0.485	0.490		DA / Surface
070	60°48.558'N	148° 36.408'W					145.762	
			231.15°	022.80°S	0.690	0.697		DA / Surface
071	60°48.325'N	148° 37.000'W					146.459	
			254.94°	023.79°S	1.222	1.234		DA / Surface
072	60°48.154'N	148° 38.300'W					147.692	
			239.25°	015.69°P	4.279	4.321		DA / Surface
073	60°46.975'N	148° 42.350'W					152.014	
			188.74°	050.52°P	0.688	0.695		DA / Surface
074	60°46.609'N	148° 42.465'W					152.708	Manhole Whittier

NOTES:

1. All distances are in kilometers. Datum is WGS-84.

Standard Submerged Land Easements for Submarine Fiber Optic Cable Calculation

Route Length X 20 foot wide Easement = Easement Area

152.708 km = 501,035 linear feet

501,035 ft X 20 ft = 10,020,700 sq. ft *= 230 acres*



AUFS - Segment 1
SAILING SHEET
 Norma Beach, WA
 TO
 Branching Unit

Issue **2 DRAFT**
 Engineer BDI
 Date 12-17-97

Event Title	Latitude	Longitude	Heading	Course Change	Route Distance	
					Between (km)	Total (km)
Manhole - Norma Beach	47°51.887 N	122°19.926 W				
			298.35°		0.714	
A/C	47°52.0700 N	122°20.4300 W				0.714
			269.15°	029.20°S	0.499	
A/C	47°52.0660 N	122°20.8300 W				1.213
			254.55°	014.60°S	0.737	
A/C	47°51.9600 N	122°21.4000 W				1.950
			239.96°	014.59°S	4.107	
A/C	47°50.8500 N	122°24.2500 W				6.057
			248.70°	008.74°S	1.071	
A/C	47°50.6400 N	122°25.0500 W				7.128
			263.15°	014.45°S	1.087	
A/C	47°50.5700 N	122°25.9150 W				8.215
			277.39°	014.24°S	0.793	
A/C	47°50.6250 N	122°26.5450 W				9.008
			292.76°	015.37°S	0.805	
A/C	47°50.7930 N	122°27.1400 W				9.813
			307.88°	015.12°S	0.806	
A/C	47°51.0600 N	122°27.6500 W				10.619
			321.75°	013.87°S	0.413	
A/C	47°51.2350 N	122°27.8550 W				11.031
			337.15°	015.40°S	0.995	
A/C	47°51.7300 N	122°28.1650 W				12.027
			352.16°	015.01°S	2.376	
A/C	47°53.0000 N	122°28.4250 W				14.403
			356.46°	004.31°S	4.140	
A/C	47°55.2300 N	122°28.6300 W				18.543
			343.37°	013.10°S	0.522	
A/C	47°55.5000 N	122°28.7500 W				19.065
			325.74°	017.63°S	0.830	
A/C	47°55.8700 N	122°29.1250 W				19.895
			311.35°	014.39°S	0.954	
A/C	47°56.2100 N	122°29.7000 W				20.849
			306.04°	005.31°S	1.039	
A/C	47°56.5400 N	122°30.3750 W				21.888
			291.15°	014.90°S	0.848	
A/C	47°56.7050 N	122°31.0100 W				22.736
			275.64°	015.51°S	2.740	
A/C	47°56.8500 N	122°33.2000 W				25.476
			290.62°	014.98°S	1.210	
A/C	47°57.0800 N	122°34.1100 W				26.686



**AUFS - Segment 1
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Issue **2 DRAFT**
Engineer **BDI**
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Event Title	Latitude	Longitude	Heading	Course Change	Route Distance	
					Between (km)	Total (km)
			305.53°	014.90°S	0.749	
A/C	47°57.3150 N	122°34.6000 W				27.436
			322.72°	017.20°S	1.397	
A/C	47°57.9150 N	122°35.2800 W				28.833
			336.61°	013.88°S	1.050	
A/C	47°58.4350 N	122°35.6150 W				29.883
			339.31°	002.70°S	6.983	
A/C	48° 1.9600 N	122°37.6000 W				36.866
			348.23°	008.92°S	7.610	
A/C	48° 5.9800 N	122°38.8500 W				44.476
			333.64°	014.60°S	1.034	
A/C	48° 6.4800 N	122°39.2200 W				45.510
			318.52°	015.12°S	0.881	
A/C	48° 6.8360 N	122°39.6900 W				46.391
			308.26°	010.26°S	0.790	
A/C	48° 7.1000 N	122°40.1900 W				47.181
			319.28°	011.02°S	0.856	
A/C	48° 7.4500 N	122°40.6400 W				48.037
			327.62°	008.34°S	1.668	
A/C	48° 8.2100 N	122°41.3600 W				49.705
			314.13°	013.50°S	0.985	
A/C	48° 8.5800 N	122°41.9300 W				50.690
			304.46°	009.67°S	3.113	
A/C	48° 9.5300 N	122°44.0000 W				53.803
			314.90°	010.44°S	0.525	
A/C	48° 9.7300 N	122°44.3000 W				54.328
			330.71°	015.81°S	0.659	
A/C	48°10.0400 N	122°44.5600 W				54.986
			341.11°	010.41°S	1.685	
A/C	48°10.9000 N	122°45.0000 W				56.671
			327.26°	013.85°S	0.573	
A/C	48°11.1600 N	122°45.2500 W				57.244
			311.91°	015.35°S	1.249	
A/C	48°11.6100 N	122°46.0000 W				58.492
			295.93°	015.98°S	0.551	
A/C	48°11.7400 N	122°46.4000 W				59.044
			289.24°	006.68°S	0.787	
A/C	48°11.8800 N	122°47.0000 W				59.831
			274.74°	014.50°S	6.091	
A/C	48°12.1500 N	122°51.9000 W				65.922
			289.34°	014.60°S	2.744	



AUFS - Segment 1
SAILING SHEET
 Norma Beach, WA
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Issue **2 DRAFT**
 Engineer **BDI**
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Event Title	Latitude	Longitude	Heading	Course Change	Route Distance	
					Between (km)	Total (km)
A/C	48°12.6400 N	122°53.9900 W				68.666
			278.24°	011.10°S	0.388	
A/C	48°12.6700 N	122°54.3000 W				69.054
			292.31°	014.07°S	0.830	
A/C	48°12.8400 N	122°54.9200 W				69.884
			307.89°	015.58°S	4.408	
A/C	48°14.3000 N	122°57.7300 W				74.292
			292.08°	015.81°S	1.282	
A/C	48°14.5600 N	122°58.6900 W				75.574
			279.23°	012.85°S	1.041	
A/C	48°14.6500 N	122°59.5200 W				76.615
			266.44°	012.79°S	1.191	
A/C	48°14.6100 N	123° 0.4800 W				77.806
			252.98°	013.45°S	13.628	
A/C	48°12.4500 N	123°11.0000 W				91.434
			254.48°	001.50°S	6.430	
A/C	48°11.5200 N	123°16.0000 W				97.864
			264.92°	010.43°S	8.709	
A/C	48°11.1000 N	123°23.0000 W				106.574
			272.07°	007.16°S	13.243	
A/C	48°11.3500 N	123°33.6800 W				119.817
			275.22°	003.14°S	1.020	
A/C	48°11.4000 N	123°34.5000 W				120.837
			300.90°	025.68°S	1.444	
A/C	48°11.8000 N	123°35.5000 W				122.281
			338.15°	037.26°S	2.995	
A/C	48°13.3000 N	123°36.4000 W				125.276
			299.31°	038.85°S	1.136	
A/C	48°13.6000 N	123°37.2000 W				126.412
			281.97°	017.34°S	16.193	
A/C	48°15.4000 N	123°50.0000 W				142.605
			281.91°	000.06°S	12.642	
A/C	48°16.8000 N	124° 0.0000 W				155.247
			291.93°	010.02°S	21.559	
A/C	48°21.1250 N	124°16.1900 W				176.806
			287.66°	004.26°S	6.700	
A/C	48°22.2200 N	124°21.3600 W				183.506
			299.76°	012.10°S	15.115	
A/C	48°26.2600 N	124°32.0000 W				198.620
			287.72°	012.04°S	10.869	
A/C	48°28.0400 N	124°40.4000 W				209.489



AUFS - Segment 1
SAILING SHEET
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Event Title	Latitude	Longitude	Heading	Course Change	Route Distance	
					Between (km)	Total (km)
			273.85°	013.88°S	4.447	
A/C	48°28.2000 N	124°44.0000 W				213.936
			262.43°	011.41°S	8.953	
A/C	48°27.5600 N	124°51.2000 W				222.889
			245.76°	016.67°S	6.492	
A/C	48°26.1200 N	124°56.0000 W				229.381
			248.67°	002.92°S	2.648	
A/C	48°25.6000 N	124°58.0000 W				232.029
			264.86°	016.19°S	2.477	
A/C	48°25.4800 N	125° 0.0000 W				234.506
			277.61°	012.75°S	1.120	
A/C	48°25.5600 N	125° 0.9000 W				235.626
			296.19°	018.58°S	1.512	
A/C	48°25.9200 N	125° 2.0000 W				237.138
			303.28°	007.08°S	4.055	
A/C	48°27.1200 N	125° 4.7500 W				241.194
			287.62°	015.65°S	0.918	
A/C	48°27.2700 N	125° 5.4600 W				242.112
			271.01°	016.62°S	1.060	
A/C	48°27.2800 N	125° 6.3200 W				243.172
			257.39°	013.62°S	1.188	
A/C	48°27.1400 N	125° 7.2600 W				244.360
			246.76°	010.62°S	1.315	
A/C	48°26.8600 N	125° 8.2400 W				245.675
			229.53°	017.23°S	2.626	
A/C	48°25.9400 N	125° 9.8600 W				248.301
			220.91°	008.62°S	3.580	
A/C	48°24.4800 N	125°11.7600 W				251.881
			237.56°	016.64°S	17.927	
A/C	48°19.2800 N	125°24.0000 W				269.808
			245.25°	007.69°S	19.764	
A/C	48°14.8000 N	125°38.5000 W				289.572
			231.01°	014.24°S	5.418	
A/C	48°12.9600 N	125°41.9000 W				294.989
			242.37°	011.36°S	2.796	
A/C	48°12.2600 N	125°43.9000 W				297.786
			232.54°	009.83°S	6.122	
A/C	48°10.2500 N	125°47.8200 W				303.907
			211.69°	020.85°S	3.093	
A/C	48° 8.8300 N	125°49.1300 W				307.000
			230.49°	018.80°S	2.010	



AUFS - Segment 1
SAILING SHEET
 Norma Beach, WA
 TO
 Branching Unit

Issue **2 DRAFT**
 Engineer **BDI**
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Event Title	Latitude	Longitude	Heading	Course Change	Route Distance	
					Between (km)	Total (km)
A/C	48° 8.1400 N	125°50.3800 W				309.010
			249.17°	018.68°S	5.935	
A/C	48° 7.0000 N	125°54.8500 W				314.944
			257.20°	008.02°S	8.338	
A/C	48° 6.0000 N	126° 1.4000 W				323.282
			230.63°	026.57°S	3.213	
A/C	48° 4.9000 N	126° 3.4000 W				326.495
			250.08°	019.45°S	10.309	
A/C	48° 3.0000 N	126°11.2000 W				336.804
			270.24°	020.16°S	48.211	
A/C	48° 3.0000 N	126°50.0000 W				385.015
			294.18°	023.94°S	13.607	
A/C	48° 6.0000 N	127° 0.0000 W				398.622
			307.29°	013.11°S	183.630	
A/C	49° 5.0000 N	129° 0.0000 W				582.253
			315.91°	008.62°S	302.661	
A/C	51° 0.0000 N	132° 0.0000 W				884.914
			334.64°	018.72°S	309.874	
A/C	53°30.0000 N	134° 0.0000 W				1194.788
			327.22°	007.41°S	316.180	
A/C	55°51.5000 N	136°44.0000 W				1510.967
			321.29°	005.94°S	9.994	
Branch Unit	55°55.7000 N	136°50.0000 W				1520.962



AUFS - Segment 1
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NOTES:

1. All distances are in kilometers. Datum is WGS-84.