ALASKA LEGISLATURE COMMITTEE FILES 2001-2002 8672
10706 SENATE TRANSPORTATION 551

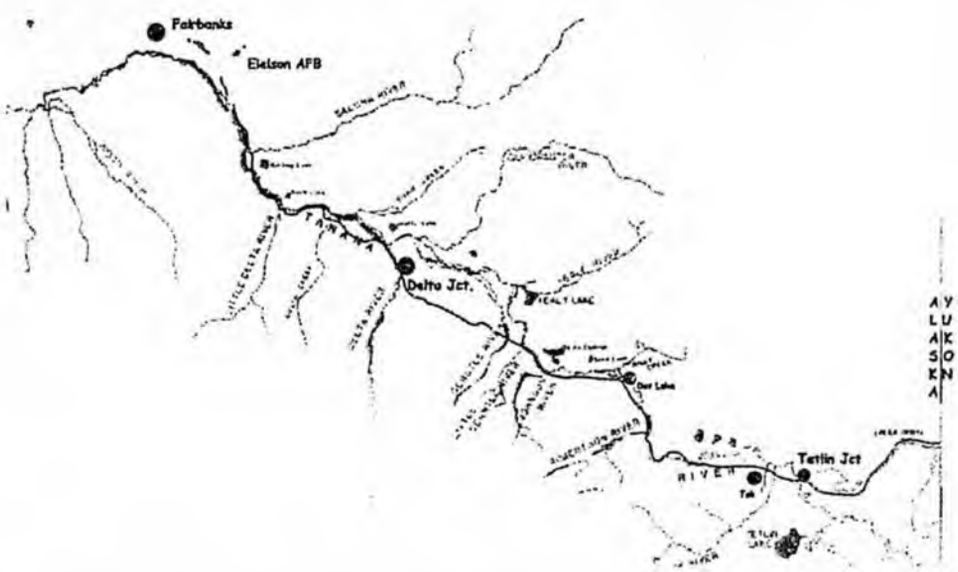
ports of Seward, Whittier, Skagway and Prince Rupert to a common rail system thus enhancing the natural resource development of all areas.

In 1979, the Alaska Legislature directed the Alaska Department of Transportation and Public Facilities to delineate a proposed railroad corridor and railroad right of way from Eielson Air Force Base, 30 miles southeast of Fairbanks, 271 miles to the Canadian border. That report, "Alaska Railroad Extension, Route Selection", was updated in1982.

PROPOSAL TO UPDATE THE ENVIRONMENTAL ASSESSMENT
EXTENDING THE ALASKA RAILROAD FROM FAIRBANKS, ALASKA TO THE CANADIAN BORDER

Background

In 1983 the State of Alaska completed an environmental assessment of a railroad corridor between Eielson Air Force Base, near Fairbanks, and the Yukon border. Constrained by geometric standards and geological features, the route identified left the existing track near Eielson, crossed the Tanana River to its south bank near Harding Lake and proceeded to where it crossed the Delta River at Delta Junction. Following the Tanana River valley, the route departed the drainage near Tetlin Junction and crossed over into the Ladue River valley where it proceeded to the Alaska/Yukon Border.



This study specifically did not address the economic feasibility of extending the railroad system to the border but instead, concentrated on the identification of a practical route that was environmentally acceptable. Some of the many topics studied included agriculture, wildlife, water quality, wetlands, archaeological resources, land use, 4(f) properties, construction costs and maintenance considerations.

Since 1983, the U.S. Dept. of the Interior, as trustee for the Alaska Native Corporation land selections, has identified and transferred ownership of many lands along the route. In addition environmental concerns focused on sensitive species or environments that could impact the routing or eventual construction of a railroad need to be reassessed and the route needs to be reviewed and modified to comply with updated railroad geometric standards and rolling stock considerations.

Proposal

Alaska Transportation Consultants, a non-profit corporation dedicated to expanding Alaska's transportation systems, proposes this conference support, by a resolution, updating the environmental assessment because it is essential to those determining the feasibility of connecting Alaska's railroad to the Canadian system. The updated study would address all of the geometric, geological and environmental aspects presented in the original report and would include current estimates for construction along the proposed route.

The final reassessment will be coordinated with State and Federal agencies and private concerns as required and will be submitted for endorsement to the State Administration. The estimated cost to complete this comprehensive update is $200,000. A resolution by this body requesting funding to update the environmental assessment of the rail extension would be most timely.

In closing it's important to note the Department of Defense has initiated early work toward a Ballistic Missile Defense System at Fort Greely, some 82 miles south of Eielson Air Force Base and on the proposed railroad corridor to the Canadian border. Should the federal government decide to extend the rail to Fort Greely at a cost estimated at $125 million, our action to complete early studies would be vital to that rail extension.

Don Lowell

Rails to Resources:

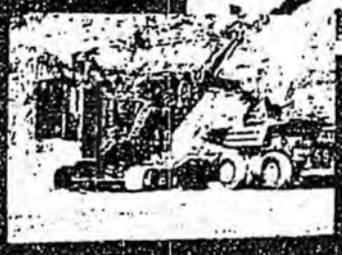
Yukon Mining Opportunities

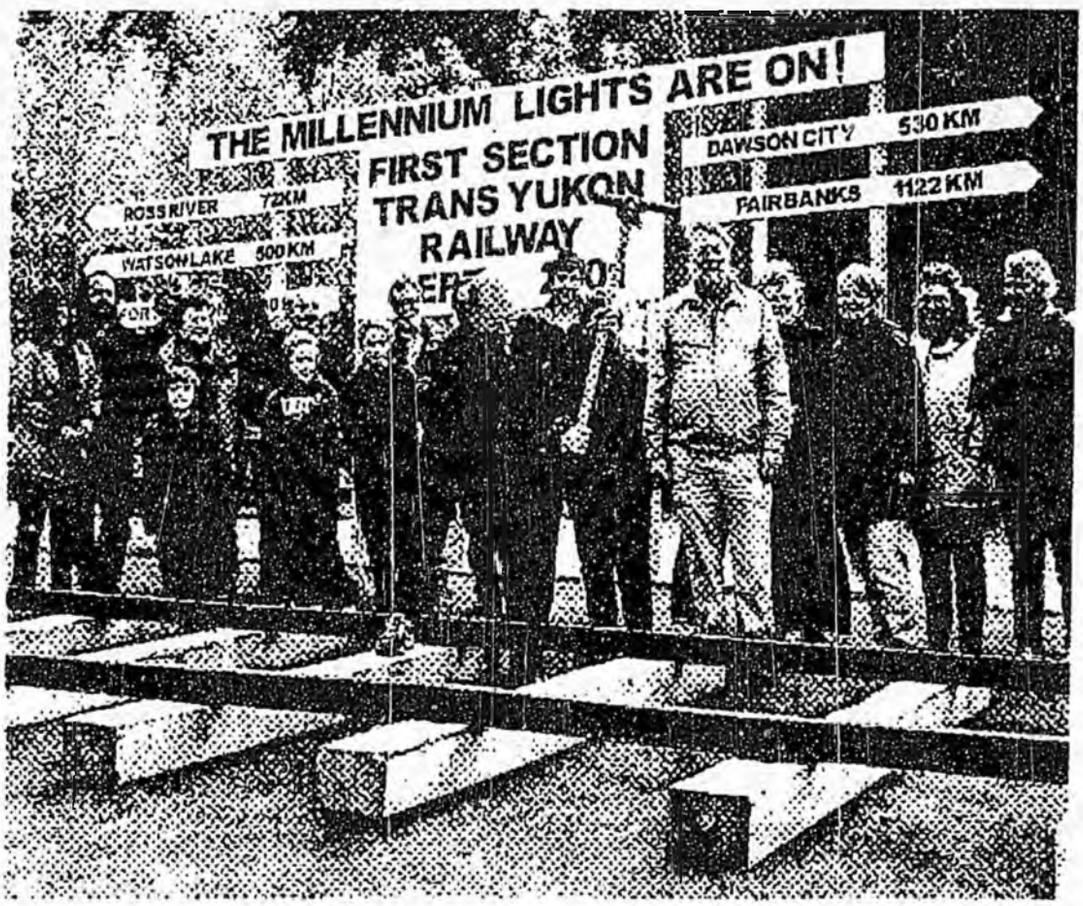
Second Alaska Canada Rail Connection Conference

Fairbanks, Alaska

Presented by James McLachlan MLA Faro

ared by Jesse L. D



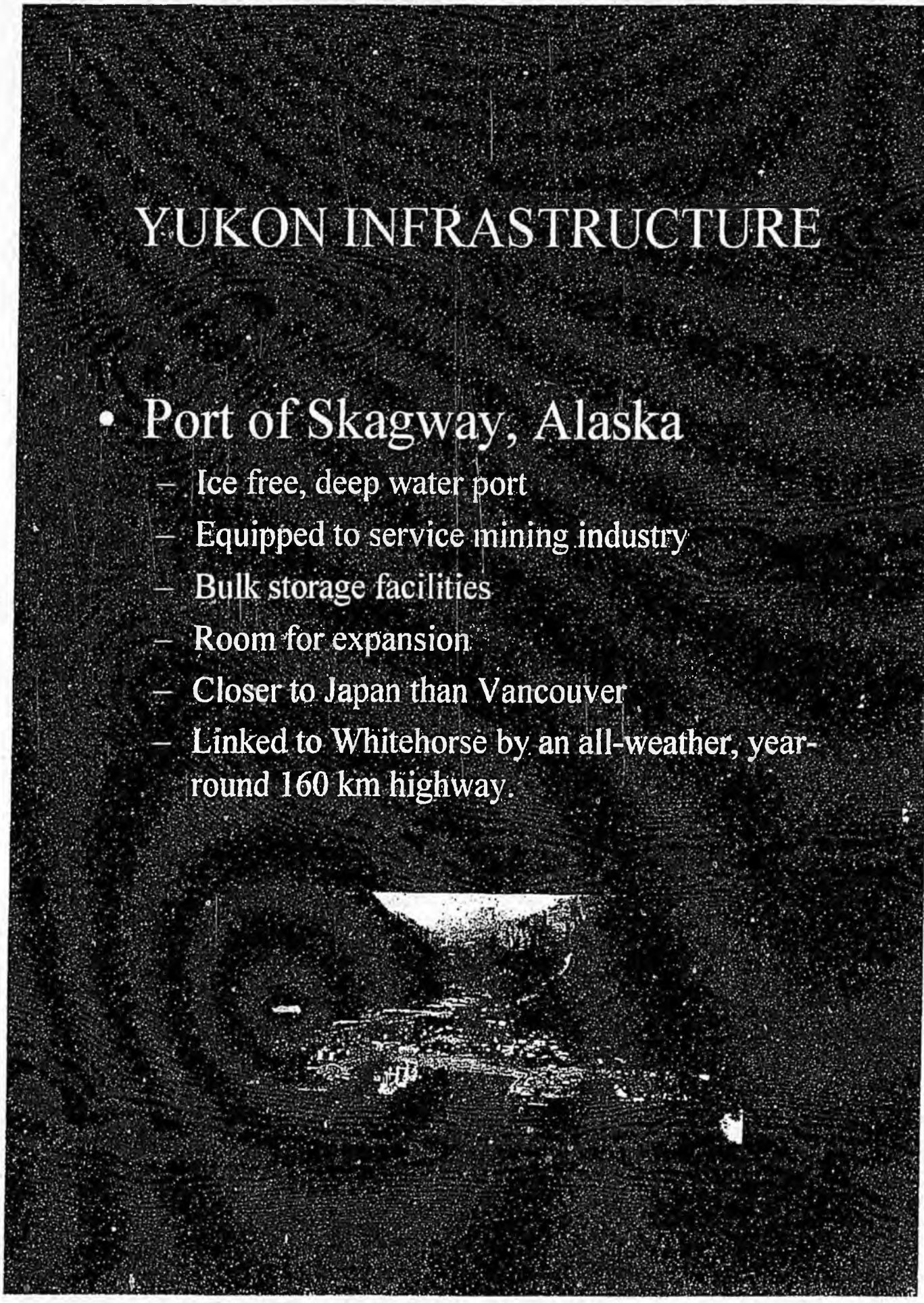


NEWS photo by Michael Hale

POUNDING A DREAM... Faro MLA Jim McLachlan drives the ceremonial first spike on Friday for a trans-Yukon railway the town is promoting.

YUKON INFRASTRUCTURE

- Port of Skagway, Alaska
  - Ice free, deep water port
  - Equipped to service mining industry
  - Bulk storage facilities
  - Room for expansion
  - Closer to Japan than Vancouver
  - Linked to Whitehorse by an all-weather, year-round 160 km highway.



- Many common features with Alaska
- Shares Outstanding mineral endowment
- Both understand importance of resource sectors
- Both face transportation costs/challenges

YUKON INFRASTRUCTURE

- Capital City - Whitehorse
  - – Administrative & business center
  - – Population 23,000
  - – Trained Workforce
    - *Yukon offers a trained, professional workforce including geological, geophysical and environmental consultants, assay labs, and drilling, heavy equipment and transportation suppliers used to rough and rugged conditions*

YUKON INFRASTRUCTURE

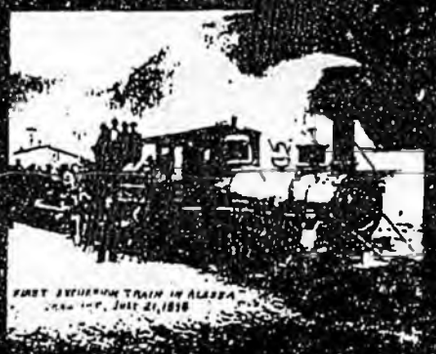
- Highway system
  - 4,696 kilometres of maintained roads
  - Generous weight limits
- Power supply
  - Growing opportunities for locally produced natural gas.
  - Widespread potential for hydroelectric development
- Rail Line to port of Skagway

The results are:

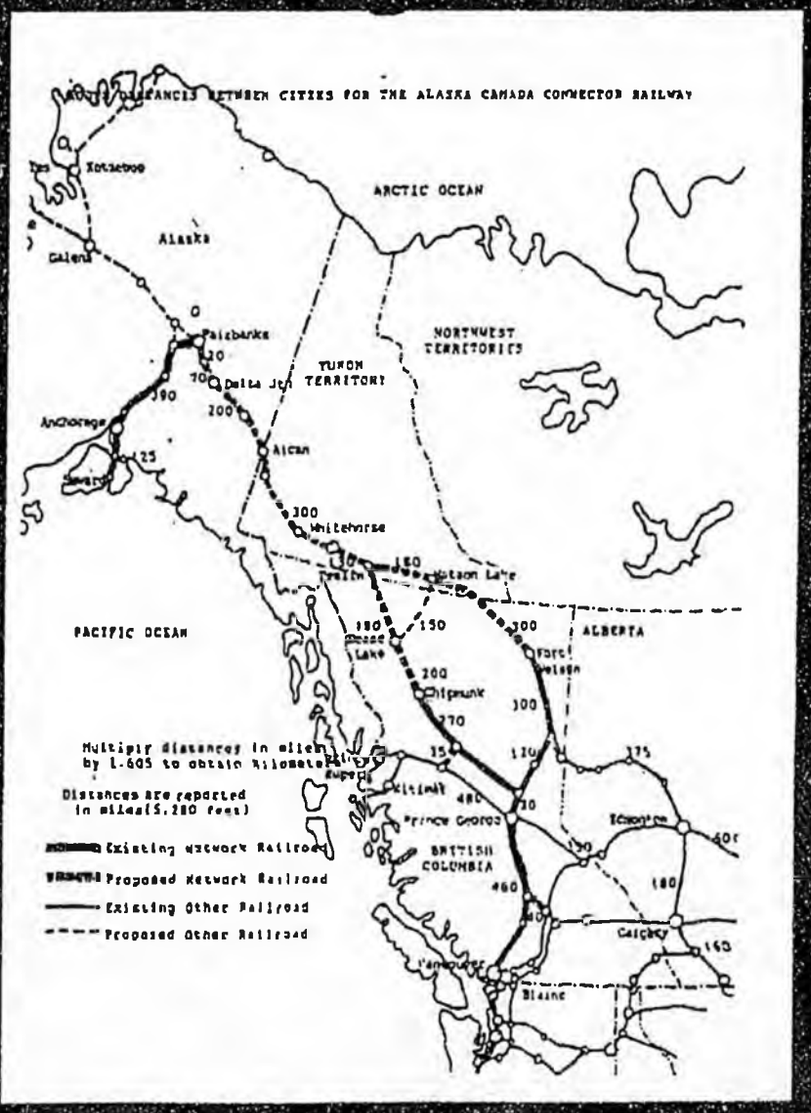
TOTAL TRANSPORTATION COSTS U.S. Dollars per WMT tonne, 1991	
Sa Dena Hes, Yukon	$73.98
Faro, Yukon	$61.30
[illegible], Peru	$58.00
Real de Los Angeles, Mexico	$55.00
Winston Lake	$55.40
Green's Creek, Alaska	$49.00
Mt. Isa, Australia	$40.00
Red Dog, Alaska	$37.50
Westmin, B.C.	$33.60
Broken Hill, Australia	$30.00
Boliden, Sweden	$26.40
Polaris, NWT	$2[illegible].00
Tara, Ireland	$21.80
Nanisivik, NWT	$19.65
Brunswick, N.B.	$18.08
Reocin, Spain	$18.08
Selbaie, Quebec	$17.00
Sullivan, B.C.	$10.20
Flin Flon, Manitoba	$ 6.00
Kidd Creek, Ontario	$ 3.40

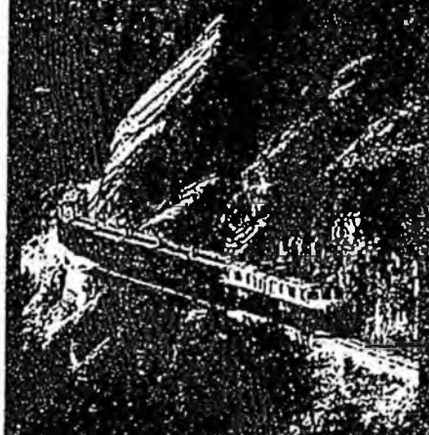
Source: [illegible]

Planning for northern Railroad



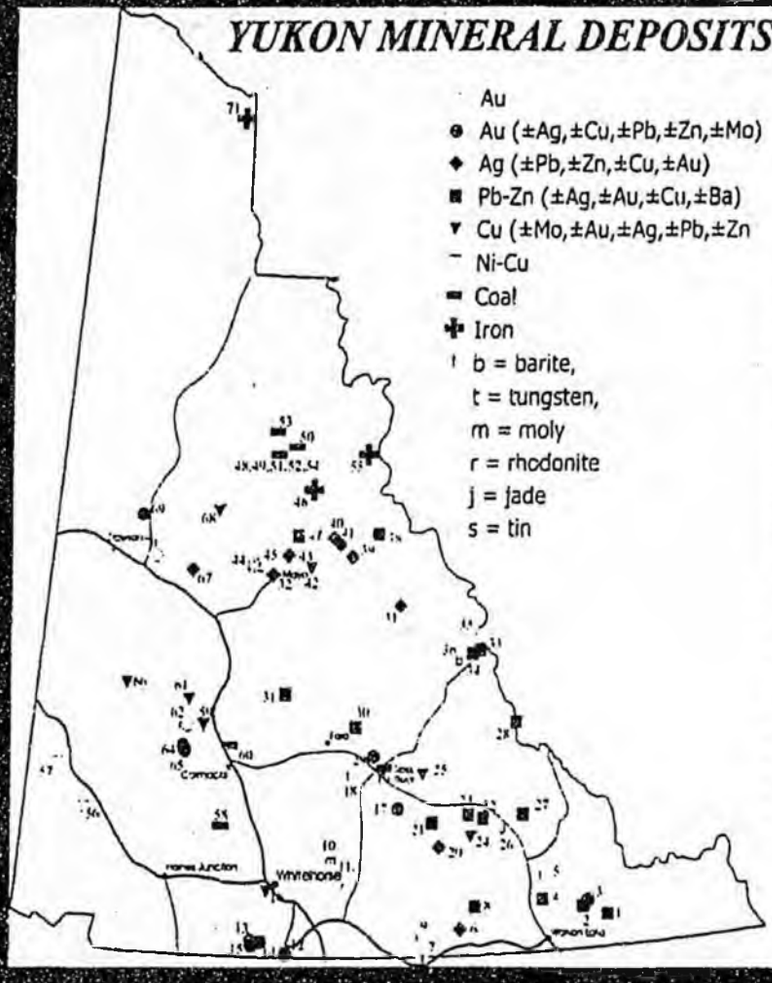
- Joint US-Canada Commission to study Feasibility
- 1800 km extension through Yukon estimated cost $1.5 to 2.3 billion



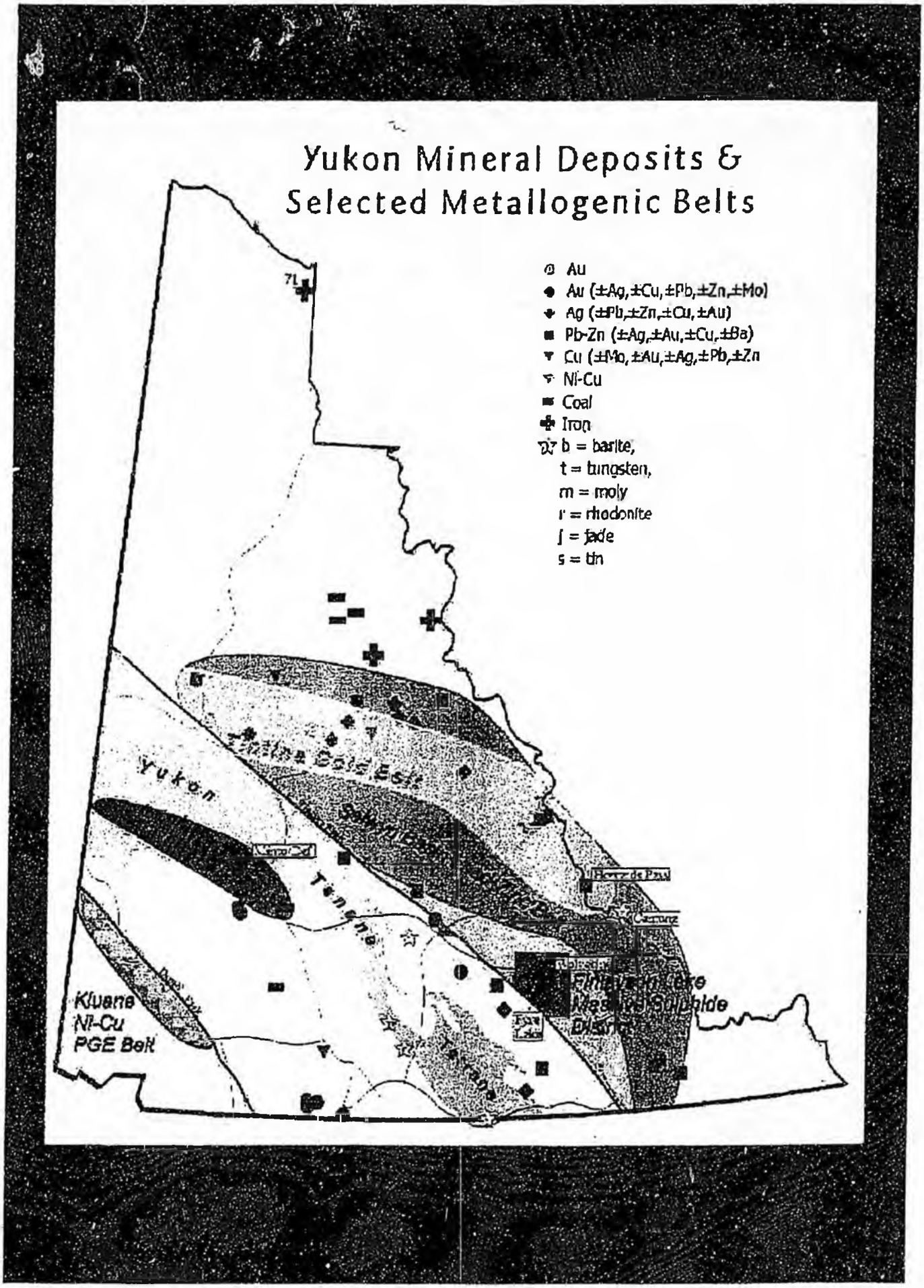


Planning for northern Railroad : where you you want it to go?

YUKON MINERAL DEPOSITS



1. Mel
2. McMillan
3. Hyland Gold
4. Sa Dena Hes
5. Bailey
6. Hart
7. Logtung
8. Logan
9. JC
10. Red Mountain
11. Marlin
12. Venus
13. Skukum
14. Goddell
15. Mt.Reid (Skukum Creek)
16. Whitehorse Copper
17. Ketza
18. Risby
19. Whiskey Lake
20. Tintina (Eagle)
21. Wolf
22. Wolverine Lake
23. Kudz Ze Kayah
24. Fyre
25. Ice
26. King Arctic
27. Matt Berry
28. Howards Pass
29. Grew Creek
30. Faro, Grum, Vangorda, Grizzly (DY), Swim
31. Clear Lake
32. United Keno Hill
33. Tom
34. Jason
35. Macmag
36. Sunnovar (Tea)
37. Plata Inca
38. Goz
39. Craig
40. Vera
41. Val
42. Marg
43. Clark
44. Dublin Gulch
45. Garnet (Ray Gulch)
46. Pagisteel
47. Blende
48. Marathon (Airstrip)
49. Pole (Wernecke)
50. Garlic Ring
51. Illtyd (Bonnet Plume Coal)
52. Pan Ocean (West Illtyd)
53. Deslaurier
54. Spaceship
55. Crest
56. Wellgreen
57. Canalask
58. Division
59. Williams Creek
60. Minto Def
61. Tantalus
62. Lafonna
63. Brown-McDade
64. Mount Nansen (Webber, Huestis, Flex)
65. Antoniuk
66. Casino
67. Zeta
68. Hart River
69. Mum
70. Brewery Creek
71. Boundary


Yukon Mineral Deposits &
Selected Metallogenic Belts
Au
Au (±Ag,±Cu,±Pb,±Zn,±Mo)
Ag (±Pb,±Zn,±Cu,±Au)
Pb-Zn (±Ag,±Au,±Cu,±Ba)
Cu (±Mo,±Au,±Ag,±Pb,±Zn
Ni-Cu
Coal
Iron
b = barite,
t = tungsten,
m = moly
r = rhodonite
j = jade
s = tin
Yukon
Tenane
Kluane
Ni-Cu
PGE Belt

Mega-deposits: total estimated concentrates:

- Average for 17 deposits: 15 million tonnes
- Total contained metal: $46 billion

Commodity Valuation - Deposits located within 200km of Proposed Railway along Tintina Trench Route

Deposits with concentrates calculated based upon assumptions

Calculated for deposits with >$300,000,000 gross in-situ metal value only (except Ice)

Note: deposits of coal, iron and barite were not evaluated

Deposit	Commodity	Gross in-situ metal value	Definition	Concentrate Total Tonnage		
				Average*	Low*	
Blende	Zn, Pb, Ag	$ 5,475,958,832	drill indicated geological reserve	1,575,837	1,073,070	
Cash	Cu, Mo, Au, Ag, Pb, Zn, Sn	$ 3,636,828,925	probable reserve	210,528	152,086	
Clear Lake	Zn, Pb, Ag	$ 1,710,981,422	estimated reserve	1,228,892	798,018	
Craig	Ag, Zn, Pb	$ 616,242,429	drill indicated reserve	300,990	202,032	
Faro, Grum	Zn, Pb, Ag, Au	$ 8,272,194,611	drill indicated and inferred reserve	3,496,063	2,347,048	
Ice	Cu, Au, Ag, Co	$ 96,155,069	drill indicated reserves	223,231	160,999	
Jason	Pb, Zn, Ag, Ba	$ 6,148,614,350	drill indicated reserves	2,650,035	1,815,496	
Logan	Zn, Ag	$ 2,025,965,449	mineable reserve	1,187,807	741,901	
Logtung	W, Mo	$ 2,850,032,324	mineable reserve	320,600	320,600	
Marg	Cu, Zn, Pb, Ag, Au	$ 3,526,474,858	reserve	883,077	606,804	
Mam	Au, Ag, Cu, W	$ 854,545,530	drill indicated reserve	10,915	7,869	
McMillan	Zn, Pb, Ag	$ 791,292,025	reserve	253,984	172,441	
Red Mountain	Mo	$ 1,655,012,214	reserve	306,889	236,069	
Tom	Pb, Zn, Ag, Ba	$ 3,652,068,101	mineable reserve	1,774,999	1,203,493	
United Keno Hill	Au, Ag, Pb, Zn	$ 2,383,747,600	mineable reserve	81,811	58,563	
Vera	Ag, Pb, Zn	$ 1,151,544,157	indicated and inferred reserves	38,300	28,502	
Wolf	Zn, Pb, Cu, Ag, Au	$ 1,748,242,300	geological resource	482,798	316,459	
	Total value in ground	$ 46,593,899,996		15,006,836	10,239,450	Total tonnes

Assumptions were based on data from 11 producing Canadian mines:

4 Cu-Pb-Zn-Ag 2 Pb-Zn-Ag W values taken from data on Mactung/Cantung

4 Cu-Zn-Ag 1 Cu-Mo

Average* Assumptions: (based on average % data from above mines)

Copper concentrate:	26%	Cu recovery	88%
Pb concentrate:	64%	Pb recovery	78%
Zn concentrate:	55%	Zn recovery	85%
Mo concentrate:	53%	Mo recovery	52%
W concentrate:	50%	W recovery	50%

Low* Assumptions: (recovery based on lowest value of data from above mines, concentrate based on average)

Copper concentrate:	26%	Cu recovery	82%
Pb concentrate:	64%	Pb recovery	58%
Zn concentrate:	55%	Zn recovery	54%
Mo concentrate:	53%	Mo recovery	40%
W concentrate:	50%	W recovery	50%

YUKON MINERAL DEPOSITS

- 500,000 tonnes per year over 30 years from mega-deposits containing $46 billion in metals

+ $5 billion from 16 smaller base metal deposits
+ services to precious metal deposits
+ future coal and iron ore production
+ forestry, tourism, community supplies, etc.
= reasonable conservative estimate for long-term

Conclusions

- Yukon resources can contribute significant traffic for a railroad in the long term.
- A Commission should carefully examine the resource potential of both Yukon and Alaska. We might all be quite surprised at our wealth.
- The Work of the Commission can provide a solid foundation for future decisions on a railroad.

Yukon
Economic Development

Alaska State Legislature

In District 34:

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Phone (907) 488-1546
Fax (907) 488-4271

In Juneau:

State Capitol Building
Juneau, Alaska 99801
Phone (907) 465-3743
Fax (907) 465-2381

House Of Representatives

Majority Leader
Representative Jeannette James

December 3, 2001

SUBJECT: Recommendations of the Alaska-Canada Rail Connection Conference, October 10-11, Fairbanks, Alaska.

The following recommendations were adopted unanimously:

1. This Conference urges that the United States / Canada Bilateral Commission, authorized by Senator Frank Murkowski's 'Rails to Resources' legislation, be fully implemented as soon as possible.
2. This Conference supports Rep. Jeannette James' HB 241 to authorize extension of a railroad and utility corridor from Eielson AFB in Alaska to Whitehorse, Yukon, Canada.
3. This conference requests clarification from Senator Ted Stevens as to efforts to extend the Alaska Railroad to Fort Greely.

AFFIRMED:

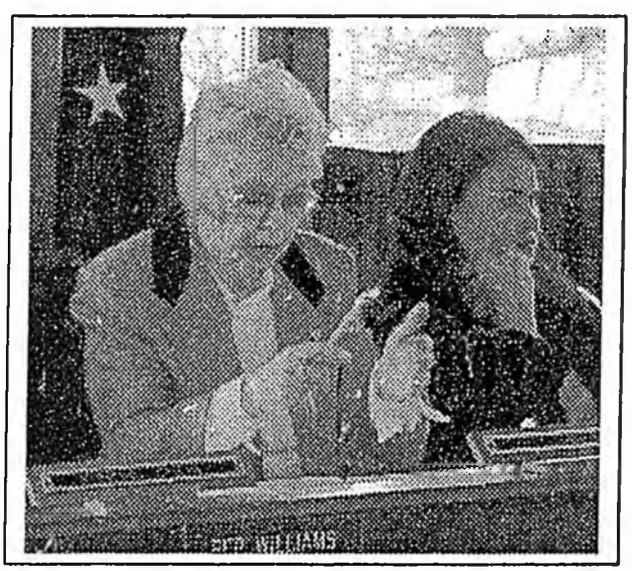
Hon. Larry Bagnell, Ottawa, BC
Rep. Jeannette James, North Pole, Alaska
Rep. John Coghill, Fairbanks, Alaska
Rep. Bud Fate, Fairbanks, Alaska
Hon. James McLachlan, Faro, Yukon
Jim Caswell, Anchorage, Alaska
Linda Wallace, Fort Nelson, BC
Michael Hurley, Anchorage, Alaska
Laurel Barger-Sheen, Delta Junction, Alaska
Norm Phillips, Fairbanks, Alaska
Jim Trull, Blaine, Washington
Tom Bundtzen, Fairbanks, Alaska
Barry Donnellan, Fairbanks, Alaska
Greg Wolf, Anchorage, Alaska
Dr. Paul Metz, Fairbanks, Alaska
Jerry Rafson, Fairbanks, Alaska
Irene Anderson, Nome, Alaska
Charles Jurasz, Faro, Yukon
Ian Rokeby, Burnaby, BC
Joseph Henri, Anchorage, Alaska
Kells Boland, Calgary, Alberta
Jack Eidson, Houston, Texas
Edgar Blatchford, Seward, Alaska
Mara Bacsujlaky, Fairbanks, Alaska
Michael Smith, Houston, Texas
Jerry Ofukany, Kamloops, BC
Merle Railton, Maple Ridge, BC
Gloria Goodwin, Fort St. James, BC
William Sharrow, Anchorage, Alaska
Royce Chapman, Fairbanks, Alaska
Dr. Milton Wiltse, Fairebanks, Alaska
Pete Hallgren, Delta Junction, Alaska
Caroline Higgins, Anchorage, Alaska
Joe Fields, Fairbanks, Alaska
Dean Owen, Fairbanks, Alaska
Barbara Cotting, Fairbanks, Alaska
Richard Schmitz, Juneau, Alaska
Brian Burton, Seattle, Wash.
Scott Swingle, Fairbanks, Alaska
Graham Kedgley, Vancouver, BC
David Broadbent, Port Coquitlam, BC
John Blair, Vancouver, BC
Capt. Orlando Dona, Jr., Eielson AFB, Alaska
Clark Milne, Fairbanks, Alaska
Hal B Cooper, PhD, Kirkland, Washington
Ted Trueblood, Delta, BC

CC:

President George W. Bush
Hon. Norman Mineta
Senator Frank Murkowski
Senator Ted Stevens
Rep. Don Young
Rt. Hon. Jean Chretien
Hon David Collenette
Gov. Tony Knowles
Members, Alaska Legislature
Members, Yukon Legislative Assembly
Conference attendees

SECTION 4:

REPORT OF ALASKA HOUSE SPECIAL COMMITTEE: PARTICIPANT PROFILES, AGENDA, MINUTES, ETC.



URL: www.repjames.org

Alaska State Legislature

Rep. Lesil McGuire, Chair
Rep. Joe Green, Vice-Chair
Rep. Fred Dyson
Rep. Jeanette James
Rep. Beverly Masek
Rep. Carl Morgan
Rep. Norman Rokeberg
Rep. Harry Crawford
Rep. Gretchen Guess

State Capitol
Juneau, AK 99801-1182
(907) 465-4955

House Special Committee on Economic Development, Trade and Tourism

March 28, 2001

Dear Reader,

This is a collection of the material presented at the joint committee of Transportation, Oil & Gas and Economic Development, Trade & Tourism on February 20, 2001. It includes all of the testimony from the experts and various members of corporations that want to build a transportation and utility corridor. This information should be helpful to all those interested in the development of this project.

The proposed corridor would benefit several industries and be a significant tool for enhancing economic development. Not only was this joint meeting a productive step toward furthering economic relations between Alaska and Canada, but it likely encouraged the future discussion of related issues between our two bordering countries.

I sincerely hope that you find this information useful as well as informative. If you have any comments or questions regarding the materials contained in this packet or any of the issues we discussed at the joint meeting, please don't hesitate to contact me.

Sincerely,

Representative Lesil McGuire

ALASKA STATE LEGISLATURE

REPRESENTATIVE
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While in Juneau
State Capitol
Juneau, Alaska
99801-1182
(907) 465-3743
FAX (907) 465-2381

Majority Leader
House of Representatives
House District 34

JOINT HOUSE COMMITTEE on CONSTRUCTION OF A TRANSPORTATION/UTILIY CORRIDOR TO CONNECT ALASKA WITH THE REST OF NORTH AMERICA

February 20, 2001
10:30 a.m.-12:30 p.m.
House Finance Committee Room

AGENDA

10:30 a.m.	Call to order; introduction of participants, other legislators present. 10:30 a.m. (Gavel in Joint House Committee, including Yukon legislators: MLAs Mike McLarnon, Scott Kent and Cynthia Tucker.)
10:30 a.m.	Bill Woolf, speaking for Senator Frank Murkowski from Washington , D.C.
10:45 a.m.	Larry Bagnell, Yukon MP, from Ottawa, Ont.
11:00 a.m.	Scott Kent, Yukon MLA, speaking for Premier Pat Duncan from Whitehorse, YT.
11:15 a.m.	Dr. Milt Wiltse, Power Point presentation: East Central Alaska Geologic Resources and Access Corridors
11:30 a.m.	Dr. Paul Metz, University of Alaska Fairbanks
11:45 a.m.	Jim Kubitz, Alaska Railroad
12 noon	Tom Brigham, speaking for (Alaska Department of Transportation and Public Facilities) Commissioner Joe Perkins
12:15 p.m.	Colin Chapman, for Congressman Don Young, from Washington, DC.
12:30 p.m.	Gavel out.

Mike McLarnon

Deputy Speaker
Chair of the Committee of the Whole House

MLA - Whitehorse Centre
Yukon Liberal Party

Mike McLarnon was elected as the MLA for Whitehorse Centre in the general election on April 17, 2000.

Mr. McLarnon is a life-long Yukon resident, born and raised in downtown Whitehorse. He is a former board member of the Yukon Sourdough Rendezvous Society, the Tourism Industry Association and Heritage North.

He is a winner of the Conference Board of Canada "Award of Excellence for Youth Employment" and was a host for the Yukon Pavilion at Expo '86.

He was most recently the owner and operator of the Whitehorse Airport Gift Shop and all visitor services at Parks Canada's S.S. Klondike.

He is married to Jeannette McLarnon.

E-mail: mike.mclarnon@gov.yk.ca

Scott Kent

Deputy Caucus Chair
Deputy House Leader
Deputy Chair of the Committee of the Whole House

MLA - Riverside
Yukon Liberal Party

Scott Kent was elected as the MLA for Riverside in the general election on April 17, 2000.

Mr. Kent has been a Whitehorse resident since 1973. He attended Selkirk Elementary School and F.H. Collins Secondary School as well as the University of Calgary.

He has been the president of the Yukon Broomball Association since 1997 and is the president of the Whitehorse Flag Football League. He is part owner of a local business and a holding company.

He was most recently the sales and purchasing manager for Whitehorse Distributors, where he worked for the past 10 years.

E-mail: scott.kent@gov.yk.ca

Cynthia Tucker

Government House Leader
Caucus Chair

MLA - Mount Lorne
Yukon Liberal Party

Cynthia Tucker was elected as the MLA for Mount Lorne in the general election on April 17, 2000.

Ms Tucker has been a property manager for commercial, residential and special-use facilities and a small business owner.

She has experience in mediation and negotiation, conflict resolution training, land use planning and zoning and urban land economics. She was a member of the Yukon Horseman's Association and the Yukon Agricultural Association, a Canadian Ranger and a founding member of the Carcross Ranger Patrol.

She was most recently the manager of the Whitehorse Housing Authority and the Chair of the Hamlet of Mount Lorne Council. She was a board member of the Association of Yukon Communities and the Community Training Trust Fund.

Ms Tucker, who is married to Harry Kern, lives in the Robinson subdivision outside of Whitehorse.

E-mail: cynthia.tucker@gov.yk.ca

37th Parliament

Members of the House of Commons

Photo

Name: Mr. Larry Bagnell
Political Party: Liberal Caucus
Constituency: Yukon
Province: Yukon
Telephone: (613) 995-9368
Fax: (613) 995-0945
Email: Bagnell.L@parl.gc.ca

ALASKA STATE LEGISLATURE
JOINT MEETING
HOUSE SPECIAL COMMITTEE ON ECONOMIC DEVELOPMENT, TRADE AND TOURISM
HOUSE SPECIAL COMMITTEE ON OIL AND GAS
HOUSE TRANSPORTATION STANDING COMMITTEE
February 20, 2001
10:30 a.m.

COMMITTEE CALENDAR

OVERVIEW: UTILITY CORRIDOR & RAILROAD RIGHT-OF-WAY TO CANADA

TAPES

01-8, SIDES A & B

(PLEASE ADD ANY OTHER TAPES)
(Please note these are House Special Committee on Economic Development, Trade and Tourism tapes)

CALL TO ORDER

REPRESENTATIVE McGUIRE, Chair, called the joint meeting of the House Special Committee on Economic Development, Trade and Tourism; the House Special Committee on Oil and Gas; and the House Transportation Standing Committee meeting to order at 10:42 a.m.

PRESENT

Committee members present were Representatives Chenault, Crawford, Dyson, Fate, Green, Guess, James, Kapsner, Kohring, Kookesh, Masek, McGuire, Morgan, Ogan, Rokeberg, Scalzi, and Wilson.

SUMMARY OF INFORMATION

FRED DYSON: Complimented past presentations

JOE GREEN: Asked questions regarding the certainty of deposits discussed by Dr. Mi't Wlitse. Also inquired about the safety issues of having a railroad and pipeline so close to a highway.

DREW SCALZI: Asked if there would be an increase in activity that would result in more funding for surveys

BILL WOOLF: Referred to Senator Murkowski's vision for better communication and transportation of resources and encouragement of a transportation corridor.

DR. PAUL METZ: Described possible routes for mining projects, a brief history of recent exploration of minerals.

JIM KUBITZ: Introduction of certain maps that outline possible routes for the utilities corridor.

COLIN CHAPMAN: Told the joint committee that Don Young was fully supportive of the plan to look into these issues for Alaska's future.

TOM BRINGHAM: Spoke about the Northwest corridor plan. Drew attention to looking at community and resident needs in terms of this issue.

ANNOUNCEMENTS

COMMITTEE ACTION

The committee took no action.

ADJOURNMENT

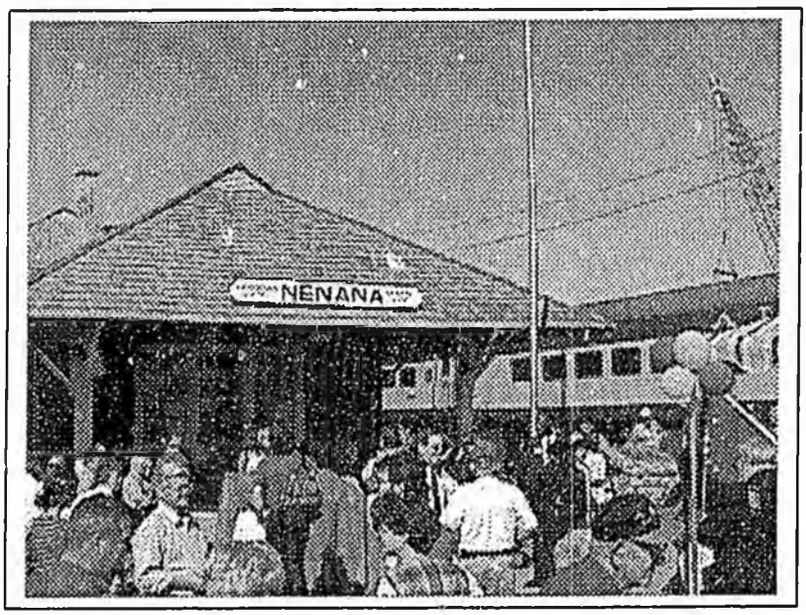
CHAIR McGUIRE adjourned the joint meeting of the House Special Committee on Economic Development, Trade and Tourism; the House Special Committee on Oil and Gas; and the House Transportation Standing Committee meeting to order at 12:30 P.M.

NOTE: The meeting was recorded and handwritten log notes were taken. A copy of the tape(s) and log notes may be obtained by contacting the House Records Office at State Capitol, Room 3, Juneau, Alaska 99801 (mailing address), (907) 465-2214, and after adjournment of the second session of the Twenty-Second Alaska State Legislature this information may be obtained by contacting the Legislative Reference Library at (907) 465-3808.

SECTION 5:

PROFESSIONAL REPORTS:

Dr. Paul Metz, Gil Carmichael,
Dr. Milt Wiltse, Steve Hites



URL: www.repjames.org

Testimony of Paul Metz, Ph.D., DIC, P.G.
Before the Joint House Committee Hearing on the Status of the Alaska-Canada Rail Link
February 20, 2001

Introduction and Statement of Qualifications

I would like to thank Representative Jeannette James for the opportunity to testify before this joint committee hearing on the US-Canada Rail Link. I am testifying as an individual and my credentials are given in the attached Curriculum Vita. I have undergraduate and graduate degrees in engineering, economic and mining geology, and business administration with an emphasis on engineering economics and finance. I teach courses in geological engineering, mineral exploration, mineral valuation, and mineral economics at the University of Alaska Fairbanks. I have conducted research on the mineral deposits and mining geology of Alaska and on the evaluation of mineral resources in the state and elsewhere. I have worked as a consultant to the mineral industry and have testified as an expert witness in litigation related to the mineral industry including eminent domain proceedings in state and federal court.

Engineering Geology of the Transportation Corridor from Fairbanks to the Canadian Border

In 1996, a proposal was submitted to the Alaska Railroad and later the Alaska Department of Transportation & Public Facilities for the production of engineering geologic maps and derivative geologic hazards maps for the transportation corridor from Seward to Fairbanks. In the summer of 2000 the project was revised to place an emphasis on the transportation corridor from Fairbanks to the Canadian Border as Phase I of the proposal and the corridor from Seward to Fairbanks as Phases II & III. As proposed this was a joint project between the Geological Engineering Program at the University of Alaska and the Alaska Division of Geological and Geophysical Surveys. A precedent for such cooperation was set by a bedrock geologic mapping program initiated in 1981 for the mineral districts in interior Alaska and referred to as the "Interior Mining Project" A summary of the results of that program is attached.

The objectives of the Transportation Corridor Project and the use of multipurpose engineering geological maps are summarized in the follow two attachments. The utilization of the multipurpose engineering geological by design engineers in the public and private sector will result in minimizing the risk and cost of geologic hazards to engineering works constructed in the corridor. These costs include both the capital costs of construction as well as annual maintenance and repair costs associated with the entire spectrum of geologic processes that can degrade engineering works. And most importantly the utilization of such maps minimized the risk of loss of life associated with catastrophic structural or earth failures due to a major hazardous geologic event.

A summary of the project, project history, the project status as of December 2000, and a discussion of the significance of this project was outline in my letter to Dr. Wiltse dated December 4, 2000 and attached herein. The changing economics of an Alaska Natural Gas Pipeline to the contiguous states has resulted in a major change in the economic parameters of the construction of the Extension of the Alaska Railroad to the Canadian Border and the connection to the Canadian Railroad System.

Changes in Mineral Resource Economics within the Transportation Corridor as a Function of the Availability of Natural Gas

Major mineral deposit types found in Alaska within fifty miles of the proposed extension of the Alaska Railroad to the Canadian Border include but are not limited to:

1. Bulk mineable low grade intrusive hosted gold (Fort Knox Type Deposits)
2. High-grade gold quartz veins (Pogo Type Deposits)
3. Bulk mineable moderate grade gold occurrences (Donlin Creek Type Deposits)
4. Porphyry Copper Occurrences
5. Porphyry Copper-Molybdenum Occurrences

6. Coal Deposits (Jarvis Creek Coal Field)
7. High purity limestone deposits for lime and portland cement production
8. Platinum Group Elements and podiform chromite in Alpine Ultramafics (Clinton Creek Type)
9. Platinum Group Elements in Layer Gabbroic Complexes (Paxson Mt.)
10. Precious metal enriched volcanogenic massive sulfide occurrences (Wolverine Complex Type)
11. Antimony-gold vein occurrences (Scrafford Type)
12. Tungsten skarn occurrences (Can-Tung Type)
13. Placer gold and platinum occurrences (Goodnews Bay Type)

The future availability of natural gas as a source of energy could greatly decrease the cut-off grade and thus positively impact the feasibility of developing bulk mineable mineral deposits in the corridor. The economic feasibility of bulk mineable mineral deposits is extremely sensitive to tonnage and grade and energy costs since energy is the single largest operating cost for such deposits. The combination of lower cost energy for what are now stranded mineral resources and the availability of a bulk transportation system would greatly enhance mineral exploration and development in the corridor in East-Central Alaska (see attached maps).

Other Sources of Tonnage for the Alaska Railroad and the Impact of the Economic Feasibility of the Transportation System

The uncertainty of future mineral discoveries should be carefully considered in the economic analysis of the Extension of the Railroad into Canada. Few railroads constructed in the 19th Century had defined markets prior to construction. The Alaska Railroad was constructed in the 20th Century under the same constraint. The only significant certain mineral deposits along the route of the Alaska Railroad prior to construction were the coal deposits in the Matanuska and Nenana Coal Fields and the placer gold deposits in Fairbanks. The deep and low-grade placer deposits in Fairbanks required dredges for their economic feasibility and the railroad was needed to get that equipment into the region. The placer deposits only contained 8 million ounces of gold. Today as a result of numerous gold discoveries since the completion of the "Interior Mining Project" there are over 40 million ounces of proven and drill indicated reserves in interior Alaska. This is 10 million more than the historic gold production of the entire state. Similarly the reserves of both the Greens Creek Mine and the Red Dog Mine have more than tripled since the initial feasibility studies for these projects. The availability of energy and transportation will result in increased mineral reserves at known mineral deposits and new mineral discoveries that cannot even be projected at this time.

Other sources of freight such as value added products from a petrochemical plant in Fairbanks and processed forest products as well as probable passenger revenues must be added to the expected cash flows from the mineral industry. The economic feasibility of the railroad extension should not be limited to the tonnage requirements of the mineral industry.

Effect of Lower Risk of Geologic Hazards with the Extension of the Railroad to Canada versus the Route from Seward to Fairbanks

The transportation corridor from Seward to Fairbanks transects some of the most hazardous geologic terrains in the world. This is a function of the plate tectonic boundary between the Pacific Plate and the accreted terrains along the margin of the North American Plate. By contrast the extension of the railroad into the Yukon Territory and either northern British Columbia or Alberta will transect on older and more stable interior plateau. Thus the rail extension will provide a relatively low risk transportation system for interior and even south central Alaska during future major earthquakes comparable to the March 1964 event. This factor must be included in the final economic analysis of the feasibility of the Extension of the Alaska Railroad. The same must be considered in the analysis of the Alaska Natural Gas Pipeline system.

Subject: Joint DNR-UAF Proposal Area
Date: Thu, 11 Jan 2001 15:28:07 -0900
From: Michele_Gorham <Michele_Gorham@dnr.state.ak.us>
To: Milton A Wiltse <milt_wiltse@dnr.state.ak.us>

Milt:

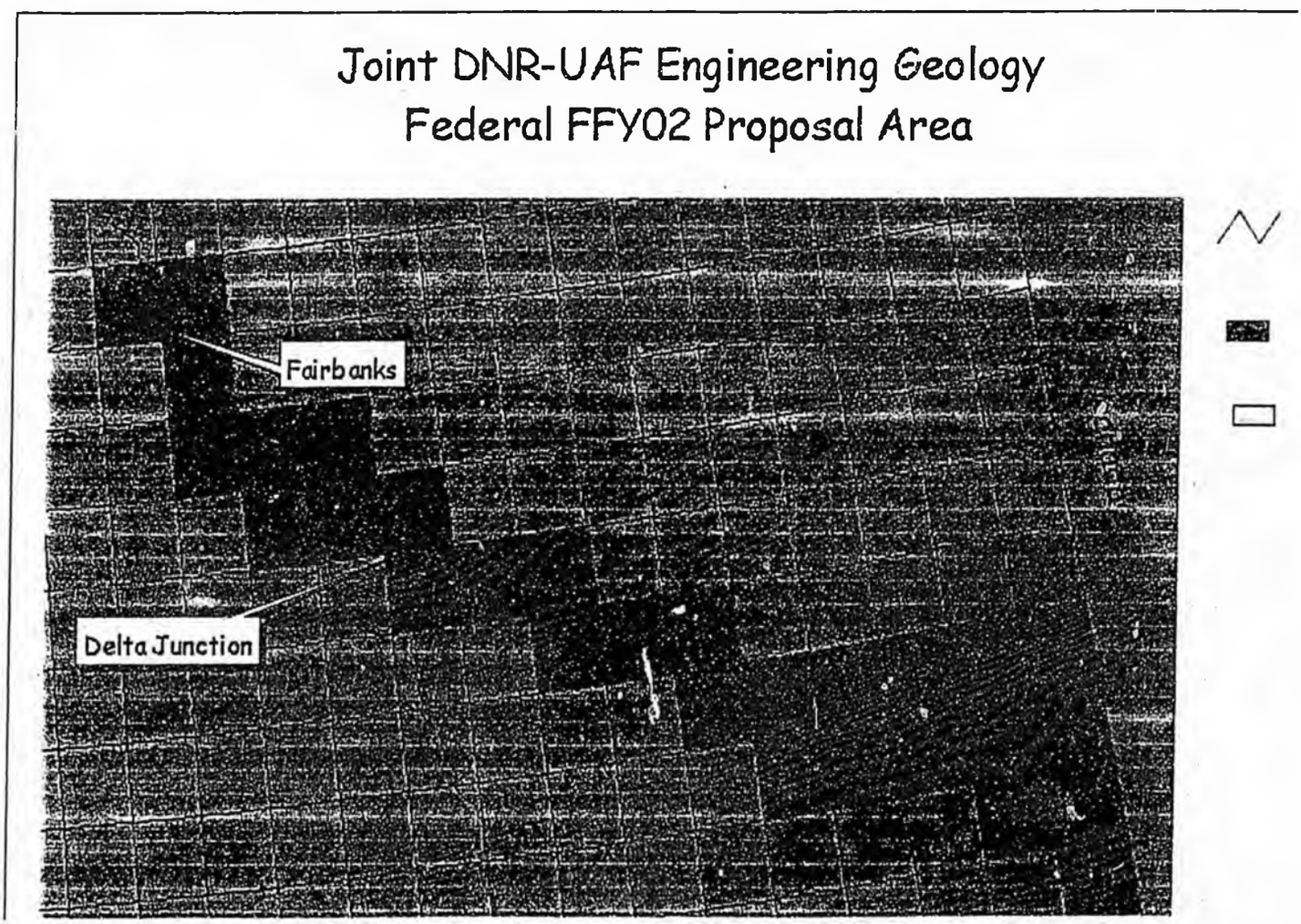
I have attached a jpg file depicting the outline of the Joint DNR-UAF Engineering Geology Federal FFY02 Proposal Area that I generated using the information I received yesterday.

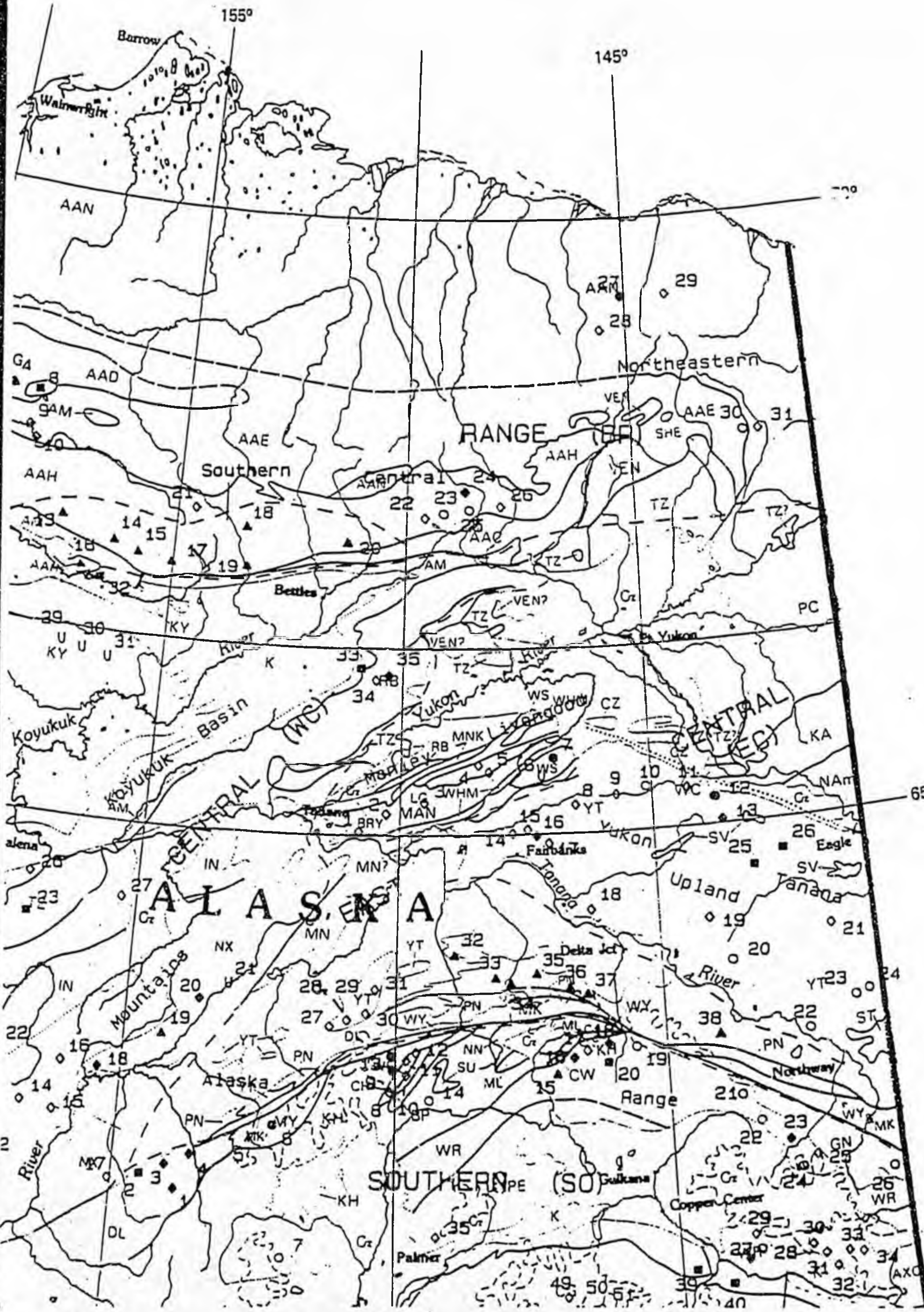
Please let me know if this is the correct area or if I need to make corrections.

Thanks!

Michele

--
Michele Gorham, GIS Analyst/Programmer
Alaska DNR, 550 W. 7th, #706, Anchorage, AK 99501
(907) 269-8855 (ph) // (907) 269-8920 (fax)
email: michele_gorham@dnr.state.ak.us




155°
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Barrow
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Northeastern
RANGE (BR)
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Livengood
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Tanana
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Yukon
Yukon Upland
Tanana River
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Northway
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Copper Center
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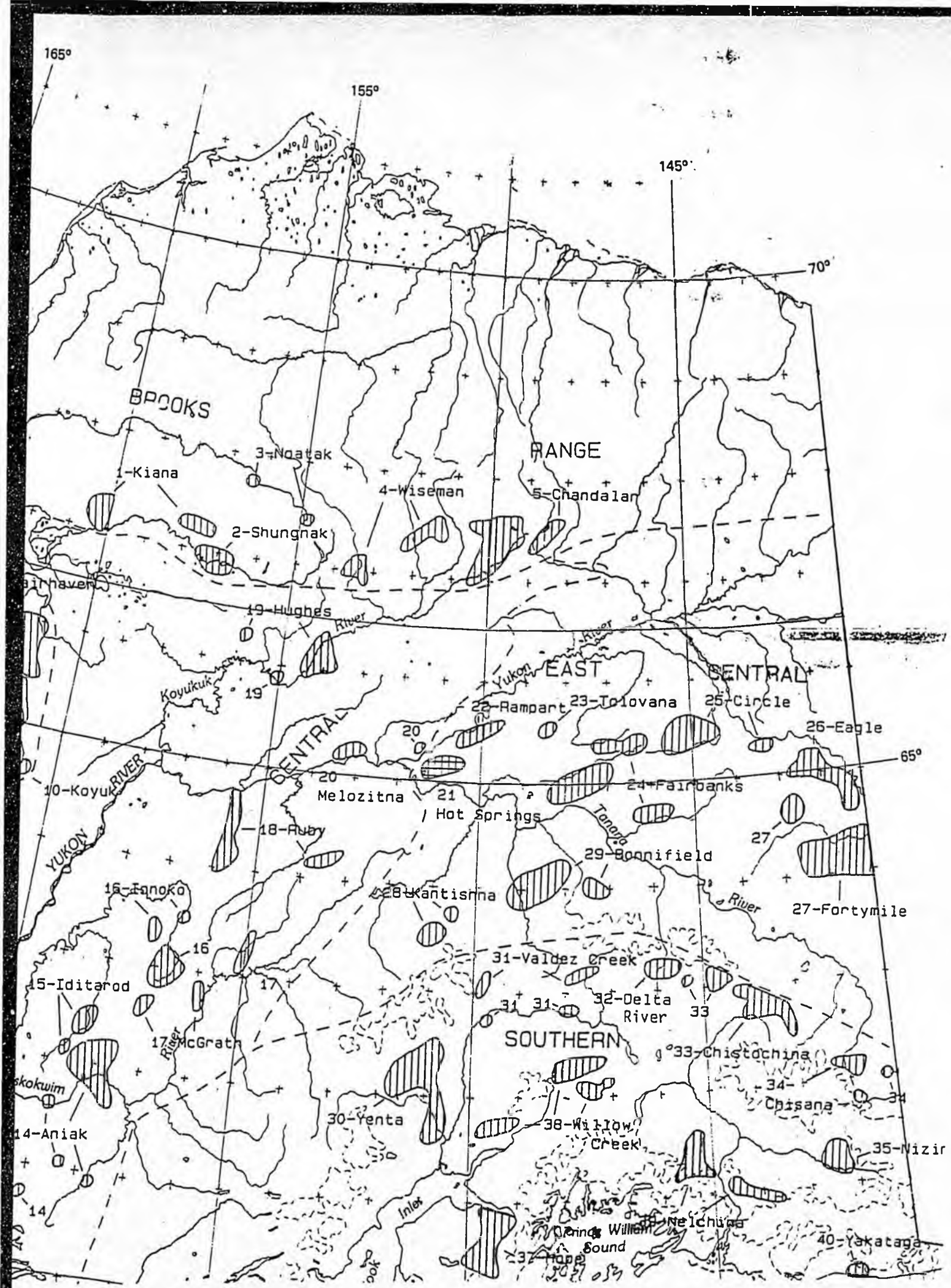
165°
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BROOKS
RANGE
1-Kiana
2-Shungnak
3-Noatak
4-Wiseman
5-Chandalar
19-Hughes
Koyukuk
River
Yukon
River
EAST
CENTRAL
22-Rampart
23-Tolovana
25-Circle
26-Eagle
CENTRAL
10-Koyuk
RIVER
YUKON
18-Ruby
Melozitna
Hot Springs
24-Fairbanks
Tanana
River
29-Bonnifield
27-Fortymile
River
16-Innoko
28-Kantishna
15-Iditarod
31-Valdez Creek
32-Delta River
SOUTHERN
17-McGrath
River
33-Chistochina
34-Chisana
30-Yenta
38-Willow Creek
35-Nizir
14-Aniak
Inlet
Prince William Sound
37-Hope
39-Nelchina
40-Yakataga

Engineering Geological Mapping
Of the Alaska Transportation Corridors

Phase I

Fairbanks to the Canadian Border

Cooperative Investigation by

The Geological Engineering Program
School of Mineral Engineering
University of Alaska Fairbanks

And

The Alaska Division of Geological and Geophysical Surveys

Objectives:

1. Completion of airborne geophysical and engineering geological maps for the 20 quadrangles (15 minute) transected by the Alaska highway and the proposed route of the Alaska Natural Gas Pipeline and the extension of the Alaska Railroad from Fairbanks to the Canadian Border.

2. Assessment of the soil and rock mechanics of the geological materials in these quadrangles.

3. Completion of geo'ogic hazards maps as derivatives of the engineering geological maps and geophysical maps.

4. Development of a Geographic Information System for all the geotechnical data

5. Provide the regional geological database for the location, permitting, design, and construction, and maintenance of ALL engineering works in the transportation corridor.

Multipurpose Engineering Geological Maps

1. Location and engineering classification of bedrock units
2. Location and engineering classification of soil units
3. Location and orientation of geologic structures
4. Hydrogeological conditions
5. Geomorphological conditions
6. Geodynamic phenomena
    a. Erosion and deposition on floodplains
    b. Aeolian processes
    c. Slope processes
    d. Permafrost and related cryogenic processes
    e. Karstification
    f. Suffusion
    g. Soil liquefaction
    h. Expansive soils
    i. Seismicity and active fault zones
    j. Volcanism

Summary of the Interior Mining Project

By
Paul A. Metz, Ph.D., P.G.

On February 29, 1980 a joint proposal entitled "Mineral Resource Appraisal of the Interior Alaska Mining Districts was completed by Paul Metz (Mineral Industry Research Laboratory, School of Mineral Engineering, University of Alaska Fairbanks) and Wyatt Gilbert (Alaska Division of Geological and Geophysical Surveys) and was submitted to the Fairbanks North Star Borough as a Capital Improvements Project for fiscal year 19[illegible]' (Proposal No. MIRL 80-24 total budget $948,000). The stated objective of the proposed project was "to conduct a mineral appraisal of the interior Alaska mining districts adjacent to or included in the Fairbanks North Star Borough, thus stimulating the establishment and the growth of the mineral industry in the region". The procedure for the appraisal included geological mapping of each district at a scale of 1 inch equals 1 mile, detailed mineral prospect mapping, geochemical sampling of outcrops, stream sediments and heavy mineral concentrates from stream gravel and mineral deposit modeling using trace element, stable isotope, fluid inclusion, and radiogenic isotopic geochemistry. All published geological, geochemical, and geophysical data for the four interior mining districts (Fairbanks, Livengood, Circle, and Richardson) was compiled prior to the field mapping and geochemical sampling.

Fieldwork began in the Fairbanks district in 1981 and the field maps, field notes, and geochemical data were released as public data files as field geologists and laboratory staff produced them. The geologic mapping defined favorable rock units for future mineral discoveries while the geochemical sampling defined specific areas of high potential for future mineral deposit discoveries. The data immediately stimulated individual prospectors, exploration geologists and exploration and mining firms to re-examine the Fairbanks mining district. Prospectors and explorationists began to relocate old placer mining claims and stake new lode mining claims at an unprecedented rate. The fieldwork and laboratory investigations in the Fairbanks District resulted in the definition of 14 new anomalous areas of potential gold mineralization. Joe Taylor and George Johnson, local prospectors, used this data to locate 34 lode claims adjacent to their 19 Fort Knox placer claims near Gilmore Dome. Today those claims have evolved into one of the largest gold mines in North America which employs 250 highly skilled workers, contains an estimated 7.5 million troy ounces of measured and inferred reserves, and produces 1000 troy ounces of gold per day for 365 days per year.

By 1984 the geologic mapping and geochemical sampling of the four districts was completed. Dozens of geologic maps, thousands of geochemical analyses and hundreds of pages of technical reports were published and/or presented at exploration and mining conferences (see Metz and Halls, 1981; Metz and Hawkins, 1981; Metz, 1982, Metz, 1983; Metz, 1984d). In addition to the Fort Knox geochemical anomaly, 62 other geochemically anomalous areas were discovered during the interior mining project investigation. These anomalous areas have been the subject of thousands of new mining claims being staked in the four mining districts.

The Fort Knox Gold Mine is a major producer of new wealth for the Fairbanks Community but more importantly it has demonstrated the economic feasibility of bulk mineable gold production in interior Alaska. This fact has resulted in the expenditure of tens of millions of dollars per year for mineral exploration and development not only in the Fairbanks mining district but in the entire area of interior Alaska from the North Flank of the Alaska Range to the South Flank of the Brooks Range. As a result of the Fort Knox Mine development, another 33 million troy ounces of gold have been discovered in interior Alaska (at $300 per troy ounce the gross value of these discoveries is approximately $ 12 billion). This has resulted in the interior mining districts developing into the single most important region of new gold discoveries in North America since 1980.

Since 1984 over a dozen Master of Science theses and one Doctor of Philosophy dissertation have been completed on the geology and mineral deposits of interior Alaska. Presentations of these works as well the results of exploration and development programs by mining companies at international mining conferences has continued to stimulate and guide private sector investment in mineral exploration in interior Alaska (see Metz and Hamil, 1986; Metz, 1987; Robinson, Smith and Metz, 1990; Metz, 1991). In the interior mining project proposal, the discovery of at least one world class mine was predicted. The Fort Knox Mine fulfilled that prediction however expectations have been greatly exceeded. The gold discoveries at the True North Project, the Golden Summit Project, and at the Pogo Project will result in at least three more major gold mines in interior Alaska in the near future.

References Cited

Metz, P.A., and Halls, C., 1981, Ore petrology of the Au-Ag-Sb-W-Hg mineralization of the Fairbanks mining district, Alaska: Abstr. In Proc. of Mineralization of Precious Metals, Uranium and Rare Earths, University College Cardiff, Wales, Dec. 15-18, 1981.

Metz, P.A., and Hawkins, 1981, A summary of gold fineness values from Alaska placer deposits: University of Alaska Fairbanks, Mineral Industry Research Laboratory, MIRL Report No, 45, 63 p.

Metz, P.A., 1982, Bedrock geology of the Fairbanks mining district, northeast sector: Alaska Division of Geological and Geophysical Surveys Open-File Report 154, map, 1 sheet, scale 1:24,000.

Metz, P.A., 1983, Bedrock stratigraphic, structural, and surficial depositional controls of the gold placer deposits of the Fairbanks mining district, Alaska: Abstr. 34th Alaska Science Conference, Whitehorse, Yukon Territory, Sept. 28 – Oct 1, 1983.

Metz, P.A., 1984d, Statistical analysis of the stream sediment, pan concentrate, and rock geochemical data from the Fairbanks mining district, Alaska: University of Alaska Fairbanks, Mineral Industry Research Laboratory, MIRL Open-File Report No. 84-1, 40 p., maps, 9 sheets, scale 1:63,360.

Metz, P.A., and Hamil, B.M., 1986, Origin and extent of the Au-Ag-Sb-W-Hg mineralization of the Fairbanks mining district, Alaska: in Hagni, R.D., ed., Process Mineralogy VI, The Metallurgical Society, Warrendale Penn., p. 215-238.

Metz, P.A., 1987, Ore mineralogy and gold grain size distribution in the gold-silver-arsenic-antimony-tungsten mineralization of the Fairbanks mining district, Alaska: in Carson, D, ed., Process Mineralogy VII, The Metallurgical Society, Warrendale, Penn., p. 247-264.

Robinson, M.S., Smith, T.E., and Metz, P.A., 1990, Bedrock geology of the Fairbanks mining district, Alaska: Alaska Division of Geological and Geophysical Surveys Professional Report 106, map, 2 sheets, scale 1:63,360.

Metz, P.A., 1991, Metallogeny of the Fairbanks mining district, Alaska and adjacent areas: University of Alaska Fairbanks, Mineral Industry Research Laboratory Report No. 90, 370 p.

UNIVERSITY OF ALASKA FAIRBANKS

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December 4, 2000

Milton Wiltse, State Geologist and
Director Alaska Division of Geological
& Geophysical Surveys
794 University Avenue, Suite 200
Fairbanks, Alaska 99707-3645

Subject: Engineering geology and geologic hazards assessment of the transportation corridors in Alaska – UA state and federal initiatives

Dear Dr. Wiltse

Attached is a copy of a University of Alaska Initiative submitted to the State Administration entitled, "Engineering Geology and Geologic Hazards Assessment of the Transportation Corridors in Alaska". A companion federal initiative was submitted to the Congressional Delegation through the Offices of the Provost and the Chancellor, University of Alaska Fairbanks and the University of Alaska Statewide Administration. The scope of work is similar to the scope of work that we jointly presented to President Hamilton during the Spring Semester of 1999. The recent initiatives include a third phase of work that encompasses the transportation corridor from Fairbanks to the Canadian Border as a first priority. The corridor investigations from Seward to Anchorage and from Anchorage to Fairbanks are assigned to Phases II and III respectively. In addition, airborne geophysical surveys have been added to the project thus significantly adding to the geological engineering database and the project cost.

These recent initiatives reflect the increased need for a comprehensive examination of the engineering geology along the proposed route of the extension of the Alaska Railroad through Canada and the construction of the Alaska Natural Gas Pipeline along the Alaska Highway route. These are major engineering projects essential to the long-term sustained growth of the Alaska economy. These engineering projects require regional geological engineering data collection, reduction, and analysis. This engineering data must include engineering geological maps that depict the mechanical and physical properties of the soils, rocks, ground water as well as the structural and dynamic process that affect the strength of these foundation and construction materials. This data is essential to the constructors of the Alaska Natural Gas Pipeline, the Alaska Railroad, and

the Alaska Communication industry that will in all likelihood install a fiber optic cable along these transportation systems.

As you may recall, I submitted the original proposal to the Alaska Railroad in May 1996 for the now Phase I & II work. Over the past four years endorsements for the original project have been forth coming from the Alaska Railroad, the Alaska State Emergency Response Commission, the Technical Advisory Commission of the Municipality of Anchorage, the Fairbanks North Star Borough, and the Alaska Department of Transportation & Public Facilities. The interior delegation also indicated support for this project, particularly at such time that it was in the Governor's Budget.

Initially funding for the Phase I & II of the project was sought from federal highway appropriations that would require a 10% (ten percent) match by the State of Alaska. Prior to completing the documentation for a publicly initiated highway project for Phases I & II, there was a strong indication that federal and state support for an extension of the Alaska Railroad through Canada was becoming a reality. This support was in part a function of the proposal for a National Missile Defense System to be located in the Big Delta area. Construction of the National Missile Defense System would be facilitated by the existence of a rail-link from Fairbanks to Big Delta. As you recall at the Alaska-Canada Rail Link Symposium in Vancouver last January, we were informed that federal highway funds could be utilized for the construction of the Alaska Railroad extension to Canada. Furthermore the collection, reduction, and analysis of the geotechnical data for site selection, permitting, and foundation design can be accomplished with federal highway funds.

Since our invited presentations at the Alaska-Canada Rail Link Symposium, I have been in contact with the co-sponsors of the meeting, Senator Mukowski and State Representative Jeannette James. They were kind enough to make presentations to our engineering students on November 6, 2000 on the synergies of the construction of both the Alaska Natural Gas Pipeline and the extension of the Alaska Railroad. They emphasized the need for engineering solutions to the complex geotechnical and environmental problems associated with both of these projects. At the Resource Development Council for Alaska, Inc. Annual Meeting on November 16-17, 2000, both the Senator Murkowski and State Representative James reiterated the problem solving nature of the geotechnical data collection, analysis, and reduction process and the timely permitting and design of both of these projects. After the RDC annual meeting, I meet with the local representatives from BP and Phillips Petroleum. Attached is a one-page summary of the project that was presented to these firms. They likewise emphasized the need for sound engineering data for the permitting as well as the design phase of the Alaska Natural Gas Pipeline. It was their consensus that there was not enough time to secure federal highway funds and a state match of those funds to allow collection of the required geological engineering data within their preferred time frame for the permitting and design of the Alaska Natural Gas Pipeline. In order to fast tract our project we will

need the timely assistance of the Congressional Delegation, the Office of the Governor, and the Alaska State Legislature.

I cannot stress enough the critical engineering nature of this project. All those involved must bring to the table a strong understanding of the difference between geological engineering data collection and simply the collection of bedrock lithologic and surficial geologic data. Engineering geological mapping and data collection emphasizes the mechanical and physical properties of the earth materials as they relate to specific engineering projects or general evaluation of a terrain for identification of geologic hazards that may adversely impact engineering works. Bedrock geologic maps and surficial geologic maps are not engineering geological maps although they may contain data that is an important component of the engineering geological map. I have attached a copy of a short treatise by Dearman (1976) on engineering geologic mapping. Each field person involved in this project must be familiar with the topics included in this paper. A more in-depth discussion of the subject along with the engineering geological mapping methods utilized by the British Geological Survey is included in Dearman (1991).

Airborne and ground based geophysical methods provide measurements of the physical and mechanical properties of soils and rocks as they exist in the field. The various geophysical techniques thus provide essential engineering data over larger vertical and lateral dimensions than are available to direct observation in the field or available to surface and subsurface sampling techniques. The project proposal has provisions for airborne magnetics, electromagnetics, and radiometric methods. The efficacy of these methods in engineering geological mapping has been discussed by Dearman (1976, 1991), Pitkin (1968) and Ward (1981) and the general use of these methods have been reviewed by Fitterman (1987), and Hanna (1987).

Scott and others (1990) give a very comprehensive review of the utilization of geophysics in the study of permafrost. Permafrost is the most challenging geologic hazard that will be encountered by both the Alaska Natural Gas Pipeline and the Alaska Railroad. Geophysics will be an essential tool in the identification and mitigation of this hazard. Ground based geophysical methods available in the Engineering Geophysics Laboratory in the Geological Engineering Program at UAF are listed as follows:

Engineering Geophysics Laboratory
Ground Based Geophysical Methods

1. Seismic Refraction Method
2. Gravity
3. Magnetics
4. Resistivity
5. Self Potential
6. Electromagnetics
7. Gamma Ray Spectrometer
8. Ground Penetrating Radar (FY 02 Budget Request)

The Geological Engineering Program at UAF also maintains a Geological Materials Engineering Laboratory with the following materials testing capabilities:

Geological Materials Engineering Laboratory
Soil and Rock Materials Testing

1. Soil moisture content
2. Specific gravity
3. Sieve analysis
4. Hydrometer analysis
5. Liquid limit test
6. Plastic limit test
7. Shrinkage limit test
8. Engineering classification of soils
9. Constant head permeability test
10. Falling head permeability test
11. Standard proctor compaction test
12. Modified proctor compaction test
13. Standard field unit weight test
14. Direct shear test
15. Unconfined compression test
16. Consolidation test
17. Triaxial compression test
18. Miscellaneous field geotechincal instrumentation

Individuals participating in this project must be familiar with the results of such geophysical surveys and testing methods and the depiction of the results on engineering geological maps. These tests may be supplemented by additional testing in-house or acquired though commercial laboratories and the materials testing laboratories of other state agencies.

Our clients, the users of this geological engineering data, are the constructors of the Alaska Natural Gas Pipeline, the Alaska Railroad, the Alaska Department of Transportation & Public Facilities, the geotechnical consulting industry and the Alaska communication industry, as well as the state and federal agencies that are permitting these engineering works. This project must be coordinated with these clients to maximize the benefit of the collected data and minimize the cost of data collection.

The project cost estimate contained in the federal and state initiatives includes the cost of acquisition and analysis of the specified geological engineering data. Additional data collection, reduction, and analysis by the UAF Geological Engineering Program, by the Alaska Division of Geological and Geophysical Surveys, or by other entities not specified in the initiatives will result in increased costs.

The Alaska Railroad and the Alaska DOT&PF have reviewed our original detailed proposals. The same cannot be said for the owners of the North Slope natural gas. The Alaska Natural Gas Pipeline presents a whole new set of geological engineering challenges not encountered in the Trans-Alaska Oil Pipeline. Due to the temperature of the oil in the ground, the energy necessary to transport the oil and the necessity to keep the paraffin at elevated temperatures to minimized oil viscosity, the oil pipeline is a significant heat source. In permafrost terrain, this heat source had to be decoupled from the ice rich permafrost. The Alaska Natural Gas Pipeline will be a very high-pressure line that will transport the fluid at temperatures below the freezing point of water. This will result in ice development around the pipe in areas where groundwater is available. Unabated, this will result in frost heave and longitudinal stresses on the pipe. Thus the presence of permafrost and groundwater are critical geological engineering parameters that must be delineated on engineering geological maps.

The Geological Engineering Program at UAF is currently conducting a large scale test of a cold buried gas pipeline in discontinuous permafrost. This is the largest scale test of its kind and is funded by the Japanese Government and a consortium of Japanese companies. It is expected that data from this test facility will provide critical information on the stresses in a buried cold natural gas pipeline in soil and groundwater conditions similar to the permafrost rich silts in the Fairbanks area.

The detail of the geological engineering data that can be provided by this investigation is limited to the scale of the mapping and the project budget. The geotechnical consulting industry will be the source of more detailed and site specific data collection, reduction, and analysis. However it is critical that the constructors of the Alaska Natural Gas Pipeline establish the detail of the geological engineering parameters that they would like to be provided with by the public sector. The same is true of the regulatory agencies. With this input there may be need for additional participants and an increased level of public funding.

Since the geological engineering work in the transportation corridor was first proposed to the Alaska Railroad in 1996 there have been at least a dozen derailments some of which were directly related to soil mechanics and groundwater flow in discontinuous permafrost. The derailment near Talkeetna in 1999 will cost the Alaska Railroad an estimated $9,000,000 (nine million dollars). The recent landslide along the Parks Highway near Ester will cost the State of Alaska an estimated $10,000,000 (ten million dollars). During the same time period avalanches were responsible for 14 fatalities in the transportation corridor between Seward and Anchorage. In addition the Alaska Railroad and DOT&PF have spend large sums of money mitigating other geologic hazards in the corridor such as soil creep, debris flows, and permafrost. The mitigation of a single geologic hazard along the route of the Alaska Natural Gas Pipeline and railroad extension will more than offset the cost of the proposed geological engineering investigation.

The "Engineering geology and geological hazards assessment of the Transportation Corridors in Alaska, Phase I – Fairbanks to the Canadian Border" is an integral part of these construction of the Alaska Natural Gas Pipeline, the Extension of the Alaska Railroad, and parallel fiber optic cable systems. The Geological Engineering Program and the Alaska Division of Geological and Geophysical Surveys have taken a lead role in predicting the need for funding for such geological engineering investigations. These entities must take a lead role in implementation of these engineering investigations. As noted above, the timely completion of this geological engineering project is predicated on the good graces of the Congressional Delegation, the Office of the Governor, the Alaska Sate Legislature, the University of Alaska and the users of the engineering data.

Sincerely

Paul A. Metz, Professor of Geological Engineering
And Licensed Professional Engineering Geologist

Cc: Robert Carlson, Interim Dean
School of Mineral Engineering

Martha A. Stewart, Director
Federal Relations

Representative Jeannette James

References Cited

Dearman, W.R., 1976, Engineering geological maps: Unesco Press, Paris, 79 p.

Dearman, W.R., 1991, Engineering geological mapping: Butterworth-Heinemann London, 387 p.

Fitterman, D.V., 1987, Developments and applications of modern airborne electromagnetic surveys: U.S. Geol. Survey Bull. 1925, 216 p.

Hanna, W.F., 1987, Geologic applications of modern aeromagnetic surveys: U.S. Geol. Survey Bull. 1924, 106 p.

Pitkin, J.A., 1968, Airborne measurements of terrestrial radioactivity as an aid to geologic mapping: U.S. Geol. Survey Prof. Paper 516-F, 29 p.

Scott, W.J., Sellman, P.V., and Hunter, J.A., 1990, Geophysics in the study of permafrost: in Ward, S.H., Geotechnical and environmental geophysics, Society of Exploration Geophysicists, Investigations in Geophysics No. 5, p. 355-384.

Ward, S.H., 1981, Gamma-ray spectrometry in geologic mapping and uranium exploration: Economic Geology 75th Ann. Volume, p 840-849.

EAST CENTRAL ALASKA GEOLOGIC RESOURCES AND ACCESS CORRIDORS

ALASKA DIVISION OF GEOLOGICAL AND GEOPHYSICAL SURVEYS

JUNEAU, ALASKA

FEBRUARY 20, 2001

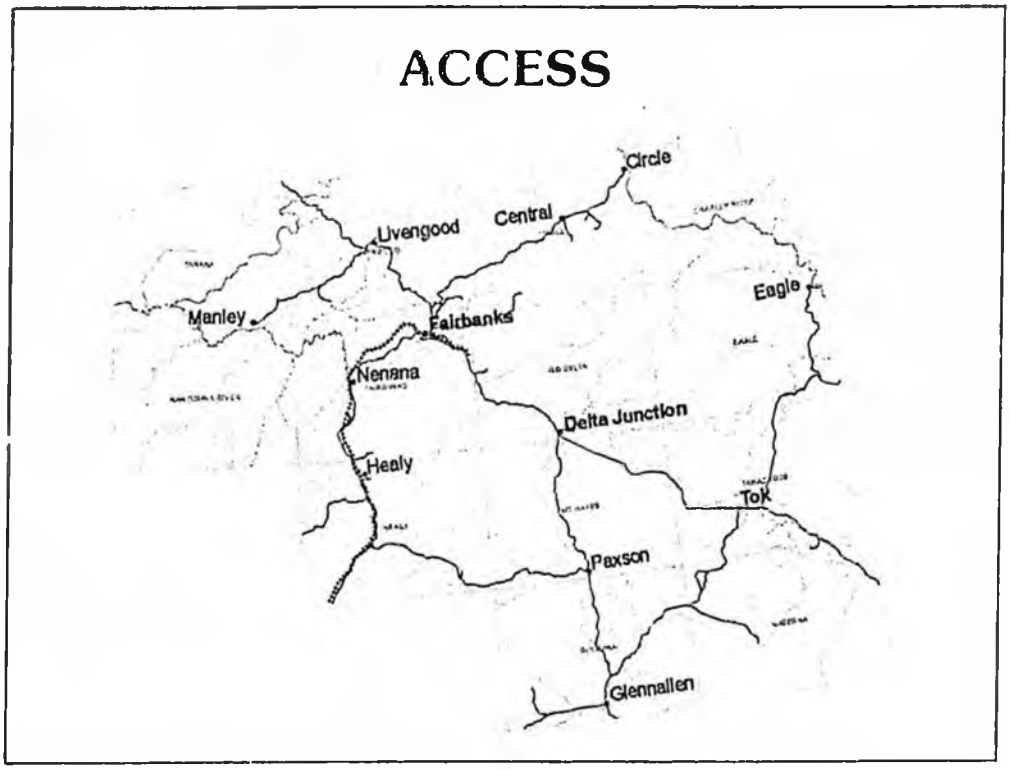
EAST CENTRAL ALASKA GEOLOGIC RESOURCES

East Central Alaska includes the central portion of a regional international United State - Canada mineral trend that informally has acquired the designation of "Tintina Gold Belt"

Gold is not the only mineral commodity within the "Gold Belt." This region also contains significant coal deposits, and copper, lead, zinc, nickel, and platinum group metal prospects.

The proposed extension of the Alaska Railroad is located within a highly mineralized portion of the Tintina Gold Belt.

ACCESS



The area shown in the following graphics represents about 78,000 square miles. As an indication of scale, it is about 100 miles (165 km) between Fairbanks and Delta Junction.

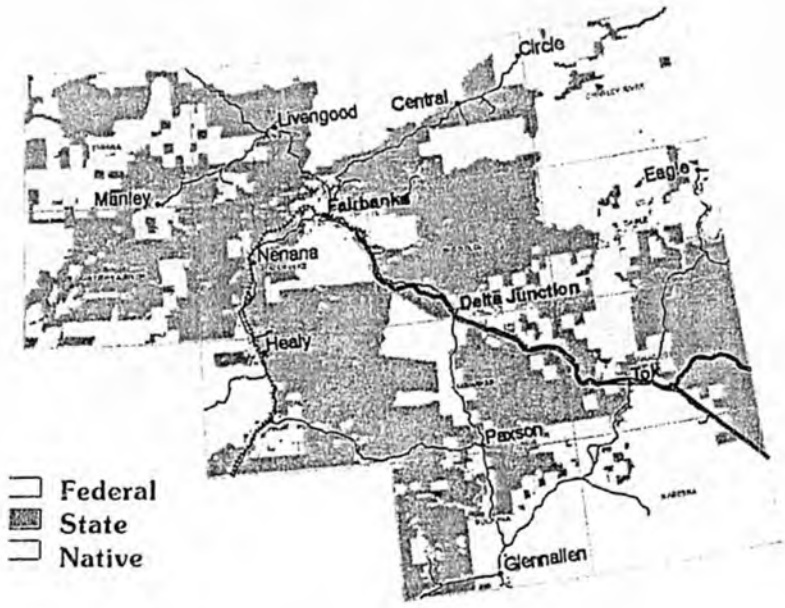
The existence of a road and railroad transportation network has been a significant positive factor in fostering mineral exploration and development in East-Central Alaska.

The Fairbanks commercial center; serviced by the Alaska Railroad, the Parks Highway, and the Alaska Highway; disburses equipment, supplies, and services to regional towns and villages that serve as staging areas for mineral exploration and development ventures.

Fairbanks is a world-scale mining center. Delta Junction is the terminal supply point for developing the recently discovered Pogo gold deposit. Tok serves the Fortymile and Delta mineral districts. The town of Healy supports the states largest active coal mine and is a local supply center for mineral exploration in the Bonnifield and Chulitna district.

A large percentage of East Central Alaska lies within fifty miles of an existing road.

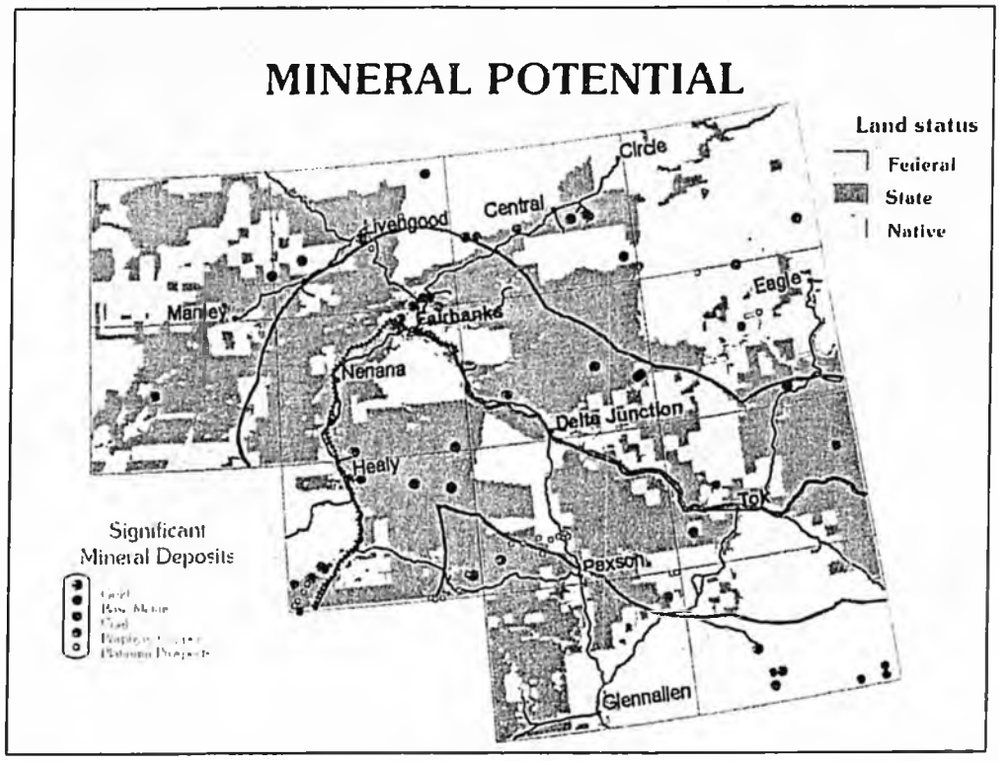
LAND OWNERSHIP



There are three major classes of land owners in Alaska: 1) the federal government; 2) the state of Alaska; and 3) Alaska Native Regional- and Village-Corporations. Other private land owners are a small minority when measured by acres in private fee-simple ownership.

The majority of known significant mineral deposits in East-Central Alaska are located on state or Native controlled land.

Much of the land selected by the state of Alaska and the Native Corporations was purposely chosen because of perceived high mineral potential. In spite of the existence of several known significant mineral deposits, these lands are under-explored. A fact amply demonstrated by the discovery of a gold deposit by sampling the road cuts of the Alaska Highway near Tetlin Junction last summer



A majority of the most valuable known mineral deposits of East-Central Alaska are located within fifty miles of the proposed or existing Alaska Railroad, e.g., Usibelli Coal Mine (1.4 billion tons), Fort Knox Gold Mine (6 million ounces), Pogo Prospect (5.2 million + ounces), True North Prospect (1.3 million ounces), Ryan Lode (0.8 million ounces).

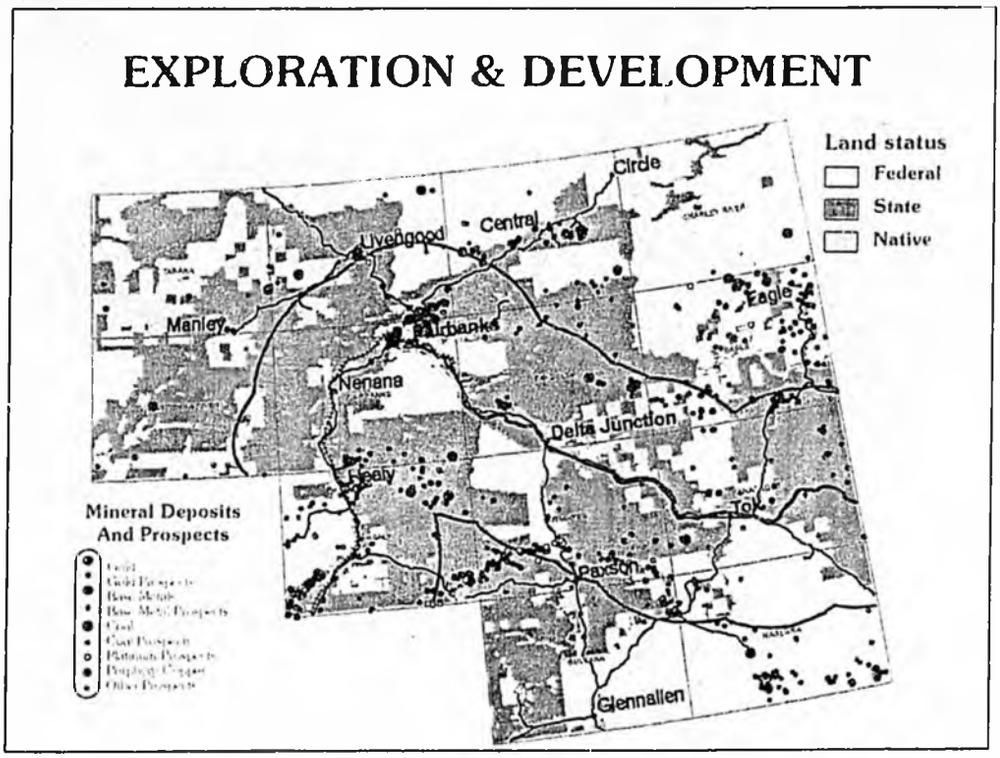
The region hosts several other significant prospects and mineral districts, e.g. the Bonnifield gold and massive sulfide copper-lead-zinc district east of Healy; the copper-lead-zinc Delta District southwest of Tok; the Richardson gold district northwest of Delta Junction.

There is growing interest in a series of nickel-copper-platinum group metal prospects north of Paxson.

There are brief references for some of these deposits in the appendices of the *Alaska Mineral Industry –1999* annual report published by the Alaska Division of Geological and Geophysical Surveys.

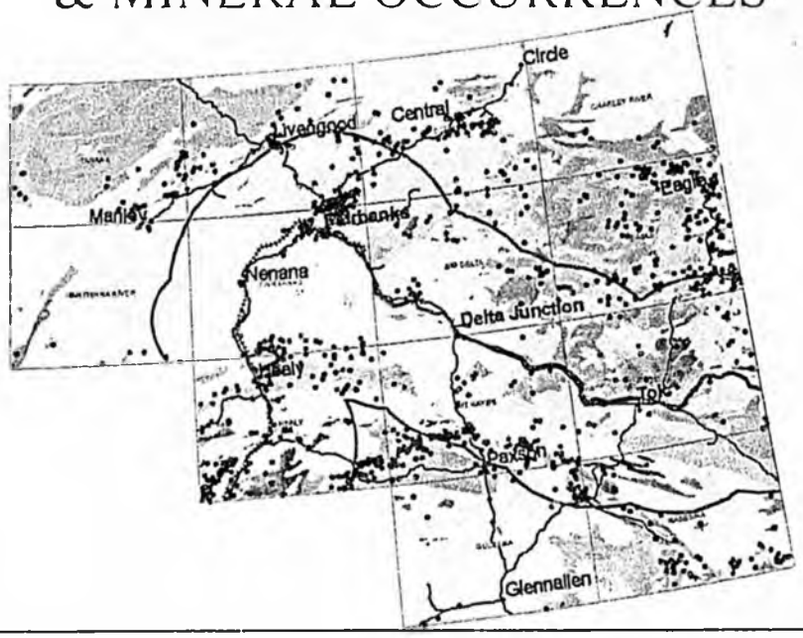
Using a non-quantitative definition of "significant," there are about thirty significant mineral deposits or prospects within the existing and proposed 100-mile wide rail-belt corridor.

EXPLORATION & DEVELOPMENT



In addition to these "significant"deposits, there are scores of lode gold, base metal massive sulfide, copper porphyry, and nickel-copper-PGM, tungsten, and tin prospects within the rail-belt corridor and many others surrounding the corridor.

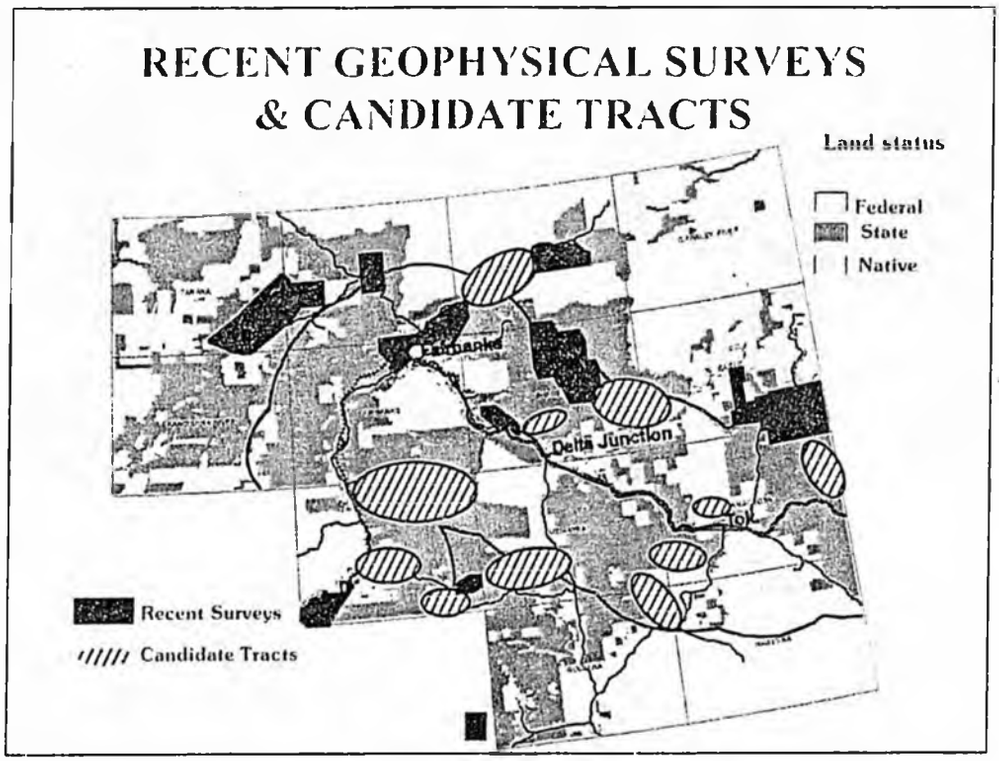
GEOLOGIC FRAMEWORK & MINERAL OCCURRENCES



Placer gold deposits and districts have proved effective in identifying areas hosting significant lode deposits of several mineral commodities. If placer gold occurrences are added to the lode occurrences already shown, one gets a feel for just how widespread indications of mineralization are within East-Central Alaska.

Both lode and placer occurrences exist within a framework of varied and complex geology. By world standards, this geology is very poorly understood. We really have only crude initial hypotheses for most of the East-Central Alaska area. Most of this country has not been geologically mapped at scales useful for detailed mineral exploration.

Much of the geologic mapping that does exist is derived from regional scale (4 mile to the inch) maps that were generated from field data collected between 1950 and 1975.



Beginning in 1993, the state of Alaska has sustained an annual airborne-geophysical/geological ground-truth geologic mapping program in an effort to improve the general knowledge of the geology and mineral resource potential of state lands.

The airborne-geophysical/geological mapping programs are centered on historical mining districts or on lands nominated by various members of the Alaska geological community because of their perceived high mineral potential.

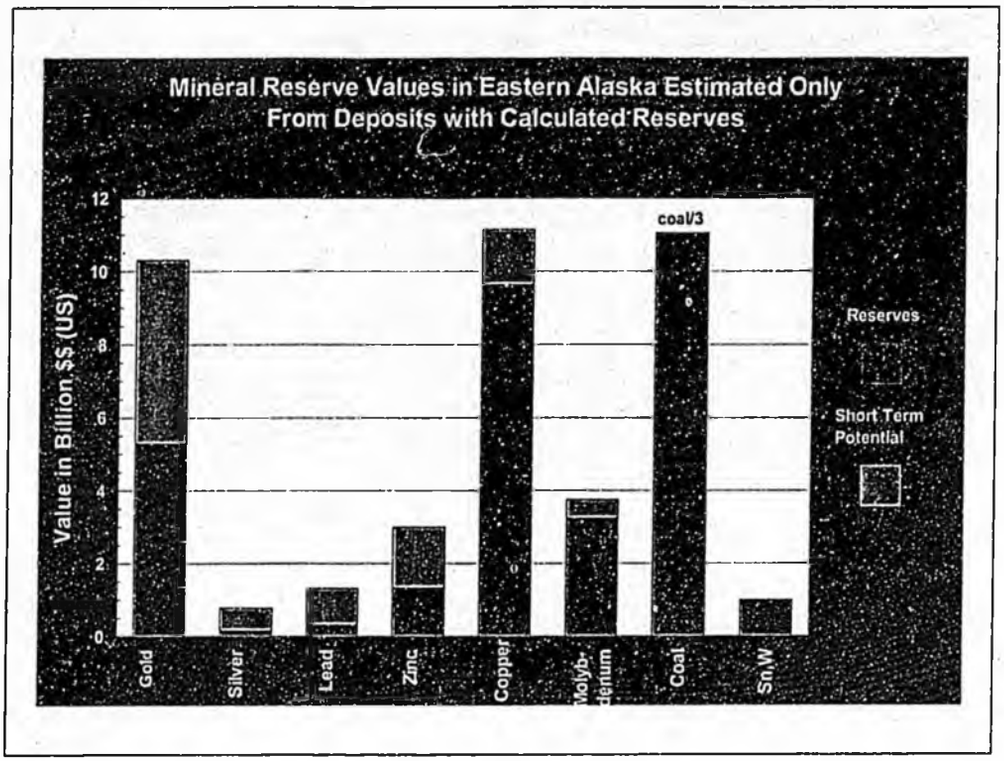
To date, nine tracts have been geophysically surveyed within East-Central Alaska. Modern ground-truth geologic maps at a scale of 1:63,360 (1 inch = 1 mile) are available for six of these tracts. The Fortymile mining district is currently being mapped.

There are 4441 square miles of airborne-geophysical surveys represented by the gray polygons shown in this figure

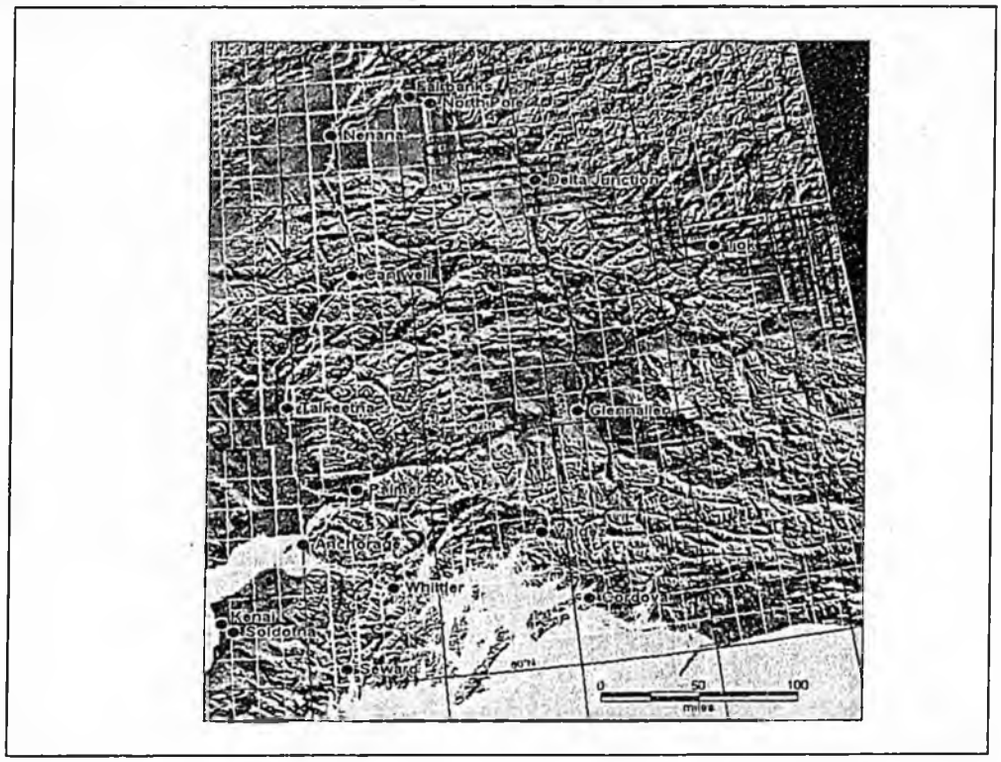
These new geophysical and geological data have catalyzed a tremendous private sector investment in mineral exploration and development within East-Central Alaska.

In addition to the nine tracts already surveyed, the proposed rail-belt corridor includes all or portions of eight additional candidate areas: Steese, Salcha, southeastern-Pogo, Sixty-mile Butte, Ladue River, Delta, Mentasta Pass, Broxson Gulch, and Bonnifield.

Completing the remaining surveys is contingent upon special annual appropriations.



From a global perspective, the Tintina Gold Belt has recently been recognized by the mineral industry as an "emergent district." That is, a region in which additions to reserves are expected to follow regularly with continued exploration. This is a young exploration region with a limited knowledge base. There is still a lot of room for success.



There is no doubt that the general corridor of the proposed extension of the Alaska Railroad passes within less than fifty miles of many significant mineral deposits. A useful and responsible next step in developing the railroad extension would be to conduct a full technical corridor analysis in order to optimize the alignment for the extension. Because the corridor for the railroad approximately coincides with the corridor for the proposed natural gas pipeline from Fairbanks to the Yukon border, one analysis could serve both projects for the Alaska portion of the railroad and pipeline.

DNR has submitted a proposed gas line supplemental project that includes some preliminary aspects of a true corridor analysis. DGGS has also worked with the NASA through the Alaska SAR Facility at the University of Alaska Geophysical Institute to acquire a detailed digital elevation terrain model for this corridor. That terrain model will probably be completed by next October. A true corridor analysis requires many layers of data beginning with corridor-wide engineering geology data at a scale of at least 1 inch=1 mile, definitive land status, geologic hazards assessment, and more information on construction materials and other geologic resources. Corridor analyses are routinely conducted for major construction projects in the Lower-48 to maximize project efficiency and minimize adverse impacts. We could benefit from following this strategy in Alaska.

The existing Alaska Railroad and railroad extension would intersect a road network providing access to about 78,000 square miles of land.

Much of that land is in nominal control of the state of Alaska or Native Corporations.

Much of the land within East-Central Alaska that is state or native corporate land was selected because of its perceived high mineral potential.

The validity of the perception of mineral wealth in East Central Alaska is being demonstrated by new discoveries resulting from an improving geologic database and private sector investment in mineral exploration.

Gold is currently the commodity of greatest interest, but East Central Alaska has potential for copper, lead, zinc, nickel, tungsten, tin, and platinum group elements.

A full technical corridor assessment of the region through which the Alaska Railroad extension would pass is a logical and beneficial next step to guide the development of this international project.

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Gil Carmichael

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Transportation Institute

People

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Gilbert E. Carmichael
Chairman of the ITI Board

Vice Chairman
MotivePower Industries
Meridian, Mississippi

Chairman
Amtrak Reform Council

Gilbert E. (Gil) Carmichael is a leading international authority on railroad and intermodal transportation policy and is committed to a seamless, safe and secure, efficient and economical, freight and passenger transportation system for the 21st century. Carmichael served as the US Department of Transportation Federal Railroad Administrator (FRA) in the administration of President George Bush from 1989 to 1993 and is currently on the Amtrak Reform Council. He is vice chairman of the Board of MotivePower Industries, the leading independent manufacturer of after-market locomotive component parts and the leading independent locomotive remanufacturer in North America.

In addition to managing the nation's rail safety and research programs as FRA Administrator, Carmichael supervised international railway technical assistance programs and sponsored the first World Railways Congress in 1991, which brought together senior government and railway officials from 60 nations. He also helped develop the national transportation policy to permit intermodal transportation initiatives and to formulate new federal policy toward the rail mode and Amtrak, the United States rail passenger system. He chaired the three-year, $29 million, National Maglev Initiative and was one of many contributors to the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), proposing a network of regional high-speed rail passenger corridors, now under development.

A graduate of Texas A&M University and a former Fellow in the Kennedy School of Government at Harvard University, he presents and publishes papers on the transportation industry, promoting the need for a North American and global intermodal freight and passenger system, utilizing the world's rail network. He is a contributing editor to *Progressive Railroading*. On 20 May 1999 Carmichael delivered a speech before the Road Gang, Washington DC's highway transportation fraternity. His address is entitled "The Case for Interstate II."

This paper especially prepared for

ALASKA / CANADA RAIL LINK CONFERENCE

January 20, 2000

Gilbert E. Carmichael
2209 Highway 45 N., Suite F
Meridian, MS 39301
601-483-9712/9711 fax

GIL CARMICHAEL
ADDRESS TO THE ALASKA/CANADA
RAIL LINK CONFERENCE
VANCOUVER, B.C., JANUARY 20, 2000

I welcome this opportunity. On several occasions I have accepted invitations to address audiences in Alaska concerning future options and opportunities as that state considers its 21st Century transportation needs. Strategies and intentions on the part of the people of British Columbia and the Yukon always have been important to any plans that Alaska might undertake, and I am pleased to know that opinion leaders in Canada have begun to consider what steps are appropriate for them.

As an outsider, it is not proper for me to come here and lecture you about what you should do. But I do have experience which I believe is worth sharing.

A North American Rail System Has Evolved

One of the developments that stimulated this meeting is the growing recognition that remarkable changes in recent years have transformed the main-line railroads of North America into a unified operating network. This North American rail system carries profound...and positive implications for the economies, societies, environmental concerns, and mobility needs of the people who live in Canada, Mexico and the United States.

There actually is a lengthy history of cross-border operations involving our railroad companies. For many decades tracks of the Canadian-owned Soo Line ranged throughout the United States midwest to destinations as far away as Cincinnati and Kansas City. The Grand Trunk, a long-time subsidiary of Canadian National, operated to Detroit and Chicago. United States railroads controlled routes in southern Ontario. Burlington Northern has served Vancouver and Winnipeg for many years. Amtrak operates to Montreal, Toronto and Vancouver. In the early decades of the 20th Century United States rail companies controlled affiliates within Mexico, and later Mexico's national railway system held interests in a key route in Texas.

One important legacy of cross-border ownership and operation is a continental rail system with common and standardized track, equipment, and operating practices. Locomotives, freight cars and passenger equipment can operate freely over routes in all three nations.

The basic pattern of a North American rail system has been in place for a century. Unfortunately, it suffered along with the fortunes of the rail industry in the post-World War II era,

when public policy in the United States favored transportation solutions involving highways and commercial aviation, and was content to allow rail transportation to languish. That finally changed in 1980 when Congress adopted the Staggers Act and conferred a greater degree of economic deregulation upon the industry.

The result of Staggers was "staggering." A sick industry was restored to health. During the past 20 years more than 60 billion dollars of private capital investment has flowed to new equipment, better track, and innovative technology. United States railroads are profitable again. Light-density lines have been spun off to hundreds of local and regional carriers who have preserved and improved freight service. Policy in Canada meanwhile allowed the nation's federally-chartered company, Canadian National, to divest itself of uneconomic lines and dramatically improve its balance sheet. Mexico restructured its rail system through a privatization plan that now stands as a world model. Private companies with joint Mexican-US ownership now operate routes throughout that nation and have developed improved high-performance corridors which link the interior of Mexico with freight customers as far away as Montreal and Vancouver.

Today, the North American Rail System serves 90 states and provinces--almost 400 million people--with 240,000 miles of routes. Main-line routes connecting major cities utilize heavy-duty welded rail and are in better operating condition than at any time in the industry's history.

A Global Intermodal Network Is in Place

Meanwhile, another innovation has taken place over the past 20 years, and it has profoundly altered transportation. Intermodal transportation has become the global standard for moving freight---using a system which is sharply focused on speed, safety, reliable scheduling, and economic efficiency. "Intermodal" is to transportation what the "internet" is to communications.

Today, the intermodal network emphasizes moving freight in North America and passengers in Europe and Asia. It is beginning to include passenger service in the United States.

The global high-speed intermodal freight system builds on the strengths of each mode--who have become partners in offering service. Key to its success is the versatility of the cargo container. Cargo ships and airplanes span the oceans. The freight railroad is the high-speed, long-distance, transportation artery for container movement on the land. The truck provides local feeder service at origins and destinations. Cargo airplanes deliver high-value and specialized freight. This

system works--but it urgently needs dramatic improvements to its land component in order to handle growing volumes of containers delivered by ship and airplane.

Modern, strategically located, high-efficiency, high-capacity intermodal terminals are key to the system, providing almost "seamless" interchange of containers. Secondary rail and highway routes support the intermodal system and connect cities, rural regions, and individual freight customers to the main-line corridors.

Today, a doublestack train leaving a coastal port like Vancouver can replace 280 trucks, run at speeds up to 90 miles an hour on the western railroads, and afford as much as nine times the fuel efficiency of an 18-wheel trailer rig on the highway. Overall, the operational and economic efficiency of freight's intermodal network conserves fuel, reduces other environmental impacts, and is significantly safer. It represents the most economically and environmentally "sustainable" approach to transportation services. These are especially critical elements for the pristine nature of Northwest Canada and Alaska.

A Rail Corridor Offers Many Advantages

The time has come, it seems to me, for the people of northwestern Canada and the state of Alaska to consider the benefits of being connected to the huge North American Rail System and the global intermodal network--whose long-distance land component is the railroad. Experience elsewhere demonstrates that efficient transportation service brings down the cost of transporting goods and passengers. The people of Alaska, British Columbia and the Yukon are consumers of goods and are far removed from the sources of manufacture.

Other important trends are in place which suggest to me the advantages of a British Columbia-to-Alaska rail linkage. I recognize that some people would argue that vast sections of this region be preserved in pristine condition. However, construction of the Alaskan Highway more than a half-century ago opened northwest Canada and Alaska to development. In retrospect, we would have been better off if a railroad line had been built instead. But that is a bit of history that we cannot erase.

During the post-World War II era, Alaska's population has grown by roughly 100,000 each decade. That trend is firmly in place. Northern British Columbia and the southern Yukon have been opened to mineral extraction. At the same time the entire area is attracting the interest of tourists. They are coming. They will continue to do so.

I am convinced that a policy of "selective expansion" of transportation connections, based upon the railroad, will be

preferable to annual invasions of sport utility vehicles rambling willy-nilly over environmentally-sensitive land--such as Alaska's Denali National Park.

The Unique Benefits of Railroads

For this part of the North American continent, rail service offers several advantages over highways.

The railroad operates over a narrower right-of-way, and leaves a smaller footprint upon the land. Construction activity is less disruptive of natural surroundings. Research undertaken in Russia suggests that a rail corridor has far less impact in regions of permanent frost because track ballast absorbs much less radiant heat from the sun than a highway surface. Research conducted by Alaska's Department of Transportation found that it actually raised the freeze line.

Railroad design allows heavier weights to be transported with little effect upon the land surface. This takes on special importance in regions of unstable soil conditions, and those climates subject to frequent freezing and thawing. By contrast, even the best-designed interstate highways built over stable terrain are being repaved at nearly twice the rate originally projected, because heavy trucks cause so much damage.

Railroad operations are more environmentally benign as well. Trains are more fuel efficient and emit lower levels of pollution. Pollution levels can be reduced even further through the use of locomotives powered by natural gas--or ultimately by electrification at some point in the future. The "occasional train" is less intrusive than a constant procession of highway vehicles. They also afford all-weather capabilities. I am told that one railroad track has capacity equal to eight lanes of highway.

Rail transportation offers a particular benefit in accommodating tourism business. Train travel by itself can be part of the tourism experience, and moving tourists by train permits controlled access to scenic areas, as the Alaska Railroad has proved for years. When people leave the train, they can move in groups via shuttle buses, which cause fewer problems than a herd of private vehicles operating independently. No matter how carefully we plan roadways to minimize environmental concerns, when people visit your scenic wonders by SUV, they will be inclined to roam wherever their personal fancies impel them.

I already have noted the lower-cost transportation that railroads can provide versus truck or air cargo. But a rail-based tourism system also will allow for the expansion of a jobs-producing tourist economy in an environmentally sustainable way.

It Is Time to be Visionary

I have presented my case for connecting northwest Canada and Alaska to the North American Rail System and the global intermodal transportation network. It is not my intent to recommend a particular route alignment, and I am aware that preliminary studies already have taken place. Obviously, a rail line through northwest Canada logically would connect with the Alaska Railroad. I also believe that consideration should be given to "multi-modal" rail corridors. It is an easy matter to establish a buried fiber optics cable in the process of building a railroad line. This would connect remote regions to the continent's main-line telecommunications system. Portions of the corridor may make sense for energy pipelines as well. Rail corridors can easily move freight, passengers, fuel and information.

The specific route--its components and capabilities--rightfully belongs as a decision to be made by the people of British Columbia, Alaska and the Yukon. Part of the decision process should include the feasibility of private investment to defray a portion of the costs. By working with its congressional delegation and the U.S. Department of Transportation, I believe that Alaska can make a strong case that segments of this rail project to be built in that state should qualify for funding under the recent surface transportation reauthorization law.

I recognize that Alaska, British Columbia and the Yukon represent special places whose priorities sometimes are different from those considered elsewhere. Distance. Remoteness. Climate. Environment. The status of native inhabitants. Natural resources. Scenery. Wilderness.

Growth is taking place, and will continue. Alaska's rate of population increase during the past 50 years is exceeded only by that of Arizona, Florida and Nevada. Tourists arrive in greater numbers each year to Alaska and northwest Canada. In the "lower 48" states, the 20th Century was a period in which we accomplished much in transportation, but the landscape is littered with the debris of our mistakes. We became over-reliant upon the highway and the airport. We allowed our railroads to founder for 80 years until the choices were stark ones--deregulation or nationalization. Many local and intercity rail passenger services were left to die. Our transportation policies led to the withering of small towns and the crowding of new suburbs. We brought smog and highway gridlock to our large cities.

You people have the opportunity to capture the benefits of the 21st Century's transportation system without repeating our mistakes of a century that has just passed into history. You have the freedom to design a system for your use that qualifies as "ethical." Ethics may seem to be a strange word to apply to

something as commonplace as transportation, but it is a concept that I have argued for more than a quarter-century. When I speak of an ethical transportation system, I mean one that is economically-efficient, safe, environmentally-benign, and energy-conserving, but also meets the mobility needs of the people who live here--or come to visit.

We now know that highways and airways cannot solve the transportation problems facing us. They cannot meet the freight and passenger growth that we confront. I encourage you be visionary. If you plan carefully, you can maintain the best possible quality of life for your citizens.

Thank you.

Steve Hites

SKAGWAY STREET CAR COMPANY, INC.

270 SECOND AVENUE, P. O. BOX 400
SKAGWAY, ALASKA 99840
TELEPHONE (907) 983-2908 FACSIMILE (907) 983-3908

Steve Hites has been in the entertainment business in the North since 1972, when he left his home in Colorado and came to Skagway, Alaska, seeking a job with the White Pass & Yukon Route narrow gauge railroad. While working his way through the company as a brakeman, conductor, train dispatcher, and passenger agent, he performed in local theaters and saloons, and wrote dozens of songs about the Klondike Gold Rush and the history of Alaska and the Yukon. These songs formed the basis of his first album, **"Yukon Legacy"**, which was recorded live at the Red Dog Saloon in Juneau, Alaska, and released in 1978. It was the first record album ever produced in Southeast Alaska.

Hites has toured throughout the North over the last 27 years, and in addition to hundreds of stage, television, film, and radio performances, he has released two more albums: **"Inside Passage"** (1992, 1996), and **"Life on the Railroad"** (1993). His original songs have appeared on several albums by other northern artists. He has also produced three professional multi-media programs, a stage play, and written and published a book on the White Pass & Yukon Railroad, "Scenic Railway of the World."

During his railroad career in Alaska, Hites worked as Director of Rail Operations for Tour Alaska, Inc., pioneering the use of privately-owned vista dome passenger cars on the Alaska Railroad. He was Manager of Passenger Operations for the successful reopening of the White Pass & Yukon Route as a summer-only passenger excursion railroad. This line passes through the Klondike Gold Rush National Historical Park as well as the Tongass National Forest, and carried over 285,000 people in 1999. Hites continues to work in a consulting capacity for Tri-White Corporation, the Toronto owner of the White Pass & Yukon.

With the rapid growth of the Alaska cruise industry, Hites and his wife, Gayla, concentrated their efforts on recreating the **Skagway Street Car Company**, a sightseeing operation in Skagway which uses a fleet of eleven antique automobiles

from the 1920's and ' 30's to show visitors around the historic community and all its points of interest. Hites calls the tour "theater without walls", and dresses up in a 1890's- style black three- piece suit with gold watch and derby hat. "We get to tell old Skagway stories on every tour," he says. "It's great fun."

The company also operates a fleet of modern 27-passenger minibuses, providing short sightseeing tours up to the US/Canadian border, and longer day trips into the Yukon Territory. The majority of the company's tours are sold on cruise ships.

In 1996 the company opened a new entertainment complex in Skagway. The three-story building houses the 160-seat **Club House Theater**, the 2,000 square foot **Skagway Mercantile** specialty retail store, and the **Excelsior Cafe & Bakery**, as well as providing the company with offices, storage, and staff apartments. The building was inspired by the 1899 architect's drawings of the original Club House of the Arctic Brotherhood, a Klondike Gold Rush social organization. The new building, which was built in the Skagway Historic District in the Klondike Gold Rush National Historical Park, incorporates all of the period elements of a structure which would have been built in Skagway in 1899. It is Skagway's largest historic-styled building.

Steve Hites's stories, songs, and original music can be heard daily each summer when he performs at the Club House Theater, or at some 300 special concert performances which he contracts to do aboard the cruise ships which call in at Skagway throughout the season.

Hites has a degree in History and Education from Whitworth College. He served on the Skagway City Museum Board for ten years, and was elected to a seat on the Skagway City Council from 1991 through 1994. During his term the Council voted the Guidelines for the Skagway Historic District into law. These guidelines, which are part of the Skagway City Code, are used to direct development in the Skagway Historic District, where architecture and signage must reflect the period of the Alaska - Yukon Gold Rush of 1896 - 1910. Most of this district in downtown Skagway is also part of the Klondike Gold Rush National Historical Park's Skagway Unit.

Steve Hites and his wife Gayla have one grown son, Ryan.

Tourism & Recreational Railroads:
A Northern Glimpse into the 21st Century

The first railroad in the Far North, the White Pass & Yukon Route, was built one hundred years ago with British financing, American engineering, and Canadian contracting. I wrote a song to honor Micheal J. Heney, the energetic young Canadian contractor who helped to build the WP&YR.

"Big Mike Heney"

I was born one cold gray morning on the Overland Express;
the brakeman was the midwife, the conductor was impressed.
They knew I was a railroad man from the chew tucked in my cheek;
I shrieked like a locomotive, had a spike between my teeth.
(He shrieked like a locomotive, had a spike between his teeth.)

Before I was old enough to walk they had me layin' track
crawlin' along, ties under my arm, a rail across my back
I warmed my bottle on the firebox, I helped to shovel coal
While the engineer would take his nap, I made the engine roll
(While the engineer would take his nap, he made the engine roll)

Drillin' tunnels through the Rockies, drinkin' whiskey during the day
I grew up on the CPR, Van Horn a leadin' the way
We laid track so fast we never looked up ' til a fish swam by to say
"you've laid the railroad over a cliff into Vancouver Bay"
(Yes, you've laid the railroad over a cliff into Vancouver Bay)

As I was there treadin' water, another fish passed by to say
"They've found gold up in the Klondike two thousand miles away"
So I hitched a ride on a humpback whale right up to Skagway town
The gold rush needed a railroad, I started breakin' ground

(The gold rush needed a railroad, he started breakin' ground)

With picks and shovels and powder, and a wild-eyed gang of men
we blasted into the mountains and blasted them down again
I used spiderwebs for trestles, fought with grizzly bears as well
"Give me dynamite and snooze, I'll build a railway straight to Hell."
(Give him dynamite and snooze he'll build a railway straight to hell.)

I went on to other exploits, built a railroad to the Pole
a railroad to Hawaii, trains to Singa por and Seoul
but a man like me just can't sit back as I gaze up at the stars
I'll build a railroad up to Jupiter, a shortline on to Mars
("He'll build a railroad up to Jupiter, a shortline on to Mars.")

All that talk about the last century has got me going. Let's build a Time Machine, get in it together, set the old "Way Back Dial" (remember the Way Back Machine from the "Rocky and Bullwinkle Show", with Sherman and Mr. Peabody?), and hang on!

It is the late 1960's. Trains Magazine editor David P. Morgan writes a cover story which asks, "Who Killed the Passenger Train?" Privately operated North American passenger trains are dying off, victims of the interstate, the automobile and the airplane.

Let's go on forward a bit. It is the mid 1970's. The lives of quasi-government corporations Amtrak and Via Rail hang in the balance as government committees drag these skeletal rail services through the hot coals of debate on "public need" vs. "public dollars" spent on passenger trains.

Whoa. That's enough of that. Let's jump forward again.

It is the mid 1980's. Union Stations in major cities are turned into shopping malls, hotels, and restaurants. The last American private passenger train, the Rio Grande Zephyr, is allowed to suspend service. The passenger train has finally reached the end of the line.

Not good scenery here. Seems the farther ahead we go, the worse it gets. But being optimists (and everyone in this room is an optimist, or you wouldn't be here, talking about construction of the last link in the transcontinental railroad), we want to see where all this ends up.

Now, it is the year 2000. It is now thirty-five years after the "official death" in the press of the passenger train. And we look out across a very different landscape.

Rail travel is booming. It is not traditional rail travel by any means. It is a new type of experience: recreational rail travel, leisure rail travel, maybe, even, perhaps, rail cruising. The phenomena is still new enough that workable labels have yet to be attached. But whatever you want to call it, the recent popularity of recreational rail travel begs comparison with the rise in popularity experienced in the cruise industry. And with tourism predicted to become the largest industry in the world during this century, business and industry leaders should look closely at these parallels to better understand present and future opportunities.

Into our Time Machine again! Back again to the ' 60's.

The Jet Age arrives. The remaining transatlantic ocean liners are doomed. Some survive by trying to transform themselves into warm-water party vessels, offering leisurely cruises around the Caribbean. They don't really go much of anywhere, there isn't much to do on board (shuffle board and gambling), and even the entertainment is sophomoric. But it keeps several companies afloat. Entrepreneurs like Miami's Ted Arison charter laid-up ships on the cheap from the likes of Canadian Pacific, fill them with discount cruisers, bring them home happy, and do it again. Wanting to find a name that tells potential customers what he is selling, Arison chooses ""Carnival" for the atmosphere on board, and tags his vessels "The Fun Ships". (Carnival's "Fun Ships" now comprise the largest and most profitable cruise line in the world.) Stan McDonald charters the CPR's "Princess Patricia", and starts Princess Cruises. Chuck West starts Westours, a cruise and land package operator to Alaska. (For a detailed study of this fascinating transition period, read Carnival Cruise Line's President's Bob Dickenson's 1997 book, "Selling the Seas: The Creation of the Modern

Cruise Industry").

Wow! What's happened here? An outdated transportation mode whose fleets are ready for the scrapper is repackaged and becomes a leisure mode. The ship becomes the vacation. The means becomes the end, and the journey becomes the vacation.

Let's pop back to the present, because this is exactly what has happened with the passenger train.

Successful examples of this change are all around us.

Excursion railroads like the White Pass & Yukon Route, and the Durango & Silverton;

"Day trains" like The Rocky Mountaineer, and the Sierra Madre Express in Mexico's Copper Canyon, who overnight their passengers in hotels along the rail route;

"Cruise trains" like the American Orient Express

Private car "trains" like the Princess' Tour's Midnight Sun Express, and Holland America Line Westours' McKinley Explorer;

Dinner trains like the "Spirit of Washington" running in the Seattle metropolitan area, and BC Rails' dinner train to Squammish;

Combinations of the above like the Napa Valley Wine Train;

Excursion trains used as substitutes for automobiles like the Grand Canyon Railway:

Ski trains like the one out of Denver, Colorado to Winter Park on the old D&RGW;

Steam excursion trains operating over regular roads, like BC Rail's popular "Royal Hudson".

There are many others, but these show the diversity of products available to the 21st Century recreational railroad passenger in North America.

These new products all have several things in common:

--They do not primarily serve the public as a means of getting from A to B
(This is even true with the Denver Ski Train. The customer is buying the skiing experience packaged with the train, not the transportation service.)

--They provide what the customer wants (as to a variety of services)

--They do it at a price which is acceptable to the market

--They make money, or they aren't around anymore. Not one of these operations is subsidized by a government. My personal rule of thumb: railroad operations should pay their own way.

Recreational rail travel needs to be looked at as a for-profit enterprise. For most common carriers, passenger revenues have never been more than incremental, an "add on" to freight revenues. And, in the Far North, with it's light population density, local passengers have never been a major part of a railroad's revenue. So, these revenues need to be generated from elsewhere.

The first revenue train operated by the first railroad in Alaska was a July 21st, 1898 passenger excursion train from Skagway to the end-of-track on the White Pass and Yukon Route. Four flat cars were jammed with local politicians, businessmen, writers from Seattle, and from the towns three newspapers. Shortly after the road's completion in 1900, the White Pass rolled out it's timeless slogan, "Scenic Railway of the World," which it carries to this day.

WP&YR maintained a Passenger Office in Chicago, Illinois. White Pass salesmen like Herman Weig carried their bulky "magic lantern" show out on the road. The marvelous hand-tinted photo transparencies held audiences in awe, and Weig lectured throughout the country to church groups and service clubs on the glories of leisure travel in the mysterious Land of the Midnight Sun.

Canadian Pacific put together complete vacation packages to Alaska and the Yukon early on, using their fleet of coastwise steamships. Northern Pacific followed, partnering with the Alaska Steamship Company. With the opening of the Copper River & Northwestern, circle tours could be booked all the way through to Fairbanks, with rail from Cordova to Chitna, thence overland to the Chena River, and connecting

with river steamers back up the Yukon itself and back out at Skagway. The completion of the U.S. Government Railroad in 1923 created yet another circle tour loop, from Seward to Anchorage, and on to Fairbanks, now entirely by train.

Seventy- six years after U.S. President Warren G. Harding drove the ceremonial last spike at Nenana, two railroads in the Far North survive. Passenger revenues are essential to both, but they are generated by tourism to Alaska. Neither survives on ticket sales generated along the route of its line.

The Alaska Railroad is a full service common carrier running over the same route opened by President Harding. It operates year-round passenger service on its own trains. During the busy summer tourist season, the ARR express trains between Anchorage and Fairbanks offer private car haulage rates to Princess Tours and Holland America Line Westours, whose private fleets now total over two dozen full-dome railcars. These luxurious vista domes are carried on the tail end of the trains behind the regular Alaska Railroad coaches. In addition, the ARR has recently purchased a new full-domed trainset which can be used for service on the popular scenic run from Anchorage to Seward, Alaska.

The White Pass & Yukon Route, which suspended operations for five and a half years between 1982 and 1988 due to the closure of its principle shipper, the Cyprus Anvil lead-zinc mine, reopened in May 1988 as a passenger-only summer excursion railroad. Cashing in on the rapid growth of the cruise market, the WP&YR carried 36,000 riders its first season back in business, hit 100,000 by the fourth season, and carried an astounding 278,000 revenue passengers in 1999. With its 40-mile round-trip ride sold as a Shore Excursion on every cruise ship calling on Skagway, operating up to nine trains per day, many to sold-out crowds, it is one of the most profitable of all excursion railroads, commanding one of the highest rates per passenger mile operated anywhere in the world. Its Toronto owner, Tri-White Corporation, plans to grow an even larger leisure services company from within the WP&YR. They have no plans to change the profitable 100 year old narrow gauge railroad, but President Fred McCorriston has repeatedly said that White Pass will look at any reasonable business proposal that can make money for his company.

So much for the present. What will the future of rail cruising look like? How will it look in the Far North? We do have several clues.

One of the least heralded and most dramatic changes which has come about has been the complete redesign and re-engineering of the passenger car.

Tom Rader, founder of Colorado Railcar Manufacturing in Ft. Lupton, Colorado, began the re-invention of the vista dome in 1988 with the introduction of the "Ultradome" on the Midnight Sun Express between Anchorage and Fairbanks. Rader continued engineering the concept with the "Ultradome II" series, and now builds completely new "from the ground up" full-dome railcars, in both a double-decked (bi- level) and single level version (new sills, new trucks, brand new everything). Customers for the Rader domes include Princess Tours, Peter Armstrong's Rocky Mountain Rail Tours, and the British Columbia Railway. The Alaska Railroad purchased a full trainset of Rader-built equipment from First American Railways defunct "Florida Fun Train". (For answers as to why that failed, see me after the conference: we'll have a drink and talk about where not to locate one's terminals, and how you really need to have a solid market your product before you start running it.)

Rader threw the old Pullman Standard-type construction concepts out the window, and literally built a new window. Using modern materials and techniques, he created the largest viewing areas ever built into rail equipment. With their rooftops made entirely out of specially strengthened, tinted, bowed glass, these versatile and lightweight cars offer passengers unprecedented scenic viewing opportunities.

Many railroads run through spectacular scenery, but without a platform from which to view that scenery, the ability to experience that beauty is diminished, or even lost. If what the railroad has to sell is its scenery, it must find the best way to serve that product up for the viewing customer. The new dome design has provided one way.

And they are just a box, waiting to be made into something.

Just like aboard the cruise ships, the interior spaces of the new rail cars are being re-shaped by the customer as well. To rise like a Phoenix from the ashes, the concept of the ocean liner had to re-invent itself. On Royal Caribbean International's new Voyager of the Seas, old-time shuffleboard has been replaced by ice skating rinks, golf courses, in-line skating arenas, rock climbing walls, and multiple themed restaurants. Similarly, the tired railroad day coach has become the interactive video arcade car, a bi-level atriumed dance lounge, a two- tiered themed dining room, or a solarium car with retractable roof fully equipped with weight room, saunas, and multiple hot tubs.

Sleeping accommodations no longer need to be crammed into dark narrow spaces with the bathroom down the hall, or perhaps under the seat of your tiny roomette. Guests on the cruise train of the 21st Century will lie down in comfortable double beds under their section of the full dome, reaching from one side of the car to the other, falling asleep under a canopy of stars, and in the morning awake - not to an Amtrak Deluxe Bedroom commode/shower all-in-one combination plastic molds- but to their own full-sized washroom with separate in-room shower bath. When not enjoying the on-train activities (lectures in the library, a piano concert or dance band in the Showroom), they can watch television or videos in their suite, or let the countryside roll by outside while they listen to the music of their choice on their state-of-the-art in-room stereo sound system.

To be fair, some of this is already being done on the beautifully refurbished 1950's era equipment of the American Orient Express. But no matter how you clean it up, the platform being used by the AOE still dates from the 1950's: tiny rooms, bathrooms down the hall or retrofitted, and a high price tag for the pleasure (between $500 and $1,000 per person per day).

With no real competition in the luxury end of the market, the AOE has done well. But any train which utilizes the new car technology will provide more of the creature comforts the customer wants, and will capture the market in short order.

The cruise trains of the 21st Century will be what the market demands. Any railroad wanting passenger revenues will need to use the most modern platforms available to get a piece of that market. They will present new and different itineraries to lure more people to try the cruise train product: ski cruises, Civil War theme cruises, The American Southwest cruises, "the best Capital cities of America" cruises, and "National Parks of the West". The possibilities are endless. And the proposed transcontinental link between Canada and Alaska, with its scenery and sweep, is a natural for the new trains.

Cruise lines, tour companies, and travel wholesalers could offer packages with a cruise ship one way, and a rail return on the "cruise train" back again in the opposite direction. Stopping along the way for historical, cultural, or natural points of interest, the cruise train itinerary, like that of a cruise ship, would allow passengers the opportunity to get out and experience the areas along the route first hand. Off-train excursions into the countryside, like Shore Excursions on ships, would allow for more in depth exploration.

Pretty cool stuff. But as we enter this new era, for businesses that really want to be a part of it and participate, the sky literally has to be the limit. The market demographics tell us that the leisure traveler of 2000 is younger, more educated, more sophisticated, more well-traveled, more active, and more financially secure than ever before. They are far more demanding, but they will pay the fare for a perceived value. They like nice things.

I recall the middle-aged Texan who was riding with his family and a small group of escorted tour passengers on the original Midnight Sun Express back in 1984. He was wearing a leisure suit with an open-necked shirt, and several gold chains hung around his neck. As we glided into the Nenana River Canyon southbound, we decided to treat the small group to something special, and served brunch up topside in the dome. Sipping his fresh Bloody Mary, savoring the perfect unbroken hollandaise sauce on his Eggs Benedict, listening to the tastefully muted classical music floating over the sound system, he leaned back. looked at me and said, "Ya' know, son, I like nice things. This is a nice thing."

The passenger trains which will be placed into service on the proposed last great transcontinental link between Canada and Alaska will have to be cut of that kind of cloth.

The cruise trains of the next century must be "nice things". If they are, long distance rail travel will most certainly "make its own way", finding a comfortable niche in the leisure market of the future.

One last element to consider. Beyond the statistics and market information, beyond the geography and the engineering, there is the adventure of what is being proposed here today. The doing of something never before done, of participating in something important, something great. No one put that feeling into words in a better way than Gordon Lightfoot did in 1967 with his wonderful song about the very first Canadian Transcontinental railroad, the "Canadian Railroad Trilogy".

(CANADIAN RR TRILOGY).

Note: The above paper was presented by Steve Hites at the Alaska Canada Rail Link Conference, January 20, 2000, Vancouver, B.C.

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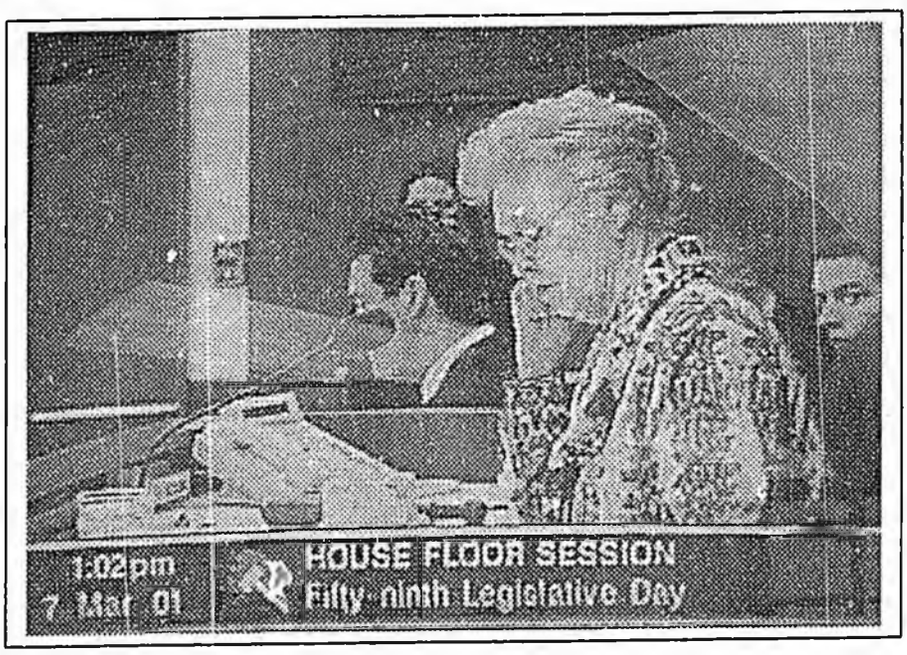
SECTION 6:

SIGNIFICANT LEGISLATION



URL: www.repjames.org

ALASKA STATE LEGISLATURE

Introduced: 3/25/65
Referred: Resources

BY SENATORS KILCHER, BLODGETT, FOSTER AND WALSH

IN THE SENATE

SENATE JOINT RESOLUTION NO. 66

IN THE LEGISLATURE OF THE STATE OF ALASKA

FOURTH LEGISLATURE - FIRST SESSION

Relating to a highway connection between North America and Asia at Bering Straits.

BE IT RESOLVED BY THE LEGISLATURE OF THE STATE OF ALASKA:

WHEREAS long-range international agreements and cooperation tend to tie nations together; and

WHEREAS joint projects and common interests of nations are a deterrent to destructive wars; and

WHEREAS an international highway from the southern tip of South America to the Bering Sea will soon be a reality; and

WHEREAS Asia and Europe are already linked together with a complex highway system; and

WHEREAS the narrow Bering Straits are the only obstacle to prevent the tying together of the American and Eurasian continents by road;

BE IT RESOLVED that the United States government contact the government of the U.S.S.R. to explore their interest in constructing such a tunnel; and be it

FURTHER RESOLVED that the U. S. Department of Commerce be requested to cause a feasibility study to be made concerning the construction of an intercontinental highway to the Bering Sea and a tunnel under the Bering Straits; and be it

FURTHER RESOLVED that this resolution be sent to the Honorable Lyndon B. Johnson, President of the United States; the Honorable Dean Rusk, Secretary of State; the Honorable John T.

Connor, Secretary of Commerce; the Honorable Warren G. Magnuson, Chairman, Senate Commerce Committee; the Honorable Oren Harris, Chairman, House Interstate and Foreign Commerce Committee and the Honorable E. L. Bartlett and the Honorable Ernest Gruening, U. S. Senators, and the Honorable Ralph J. Rivers, U. S. Representative, members of the Alaska delegation in Congress.

LAWS OF ALASKA

1977

Source: HB 47

Chapter No. 145

AN ACT

Relating to creation of a utility corridor for extension of the Alaska Railroad; and providing for an effective date.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* Section 1. AS 19.05 is amended by adding a new section to read:

Sec. 19.05.122. UTILITY CORRIDOR FOR EXTENSION OF THE ALASKA RAILROAD. (a) The interior division of the department shall delineate a proposed utility corridor for the extension of the Alaska Railroad to the Canadian border. The proposed utility corridor shall include a delineation of a proposed railroad right-of-way.

(b) The commissioner shall, in conformity with the Administrative Procedure Act (AS 44.62), adopt a regulation approving, modifying, or rejecting the proposed utility corridor and railroad right-of-way.

(c) If the commissioner approves or modifies the proposed utility corridor and railroad right-of-way,

(1) the Department of Natural Resources shall classify, or reclassify, and reserve any state land within the utility corridor for use as a utility corridor and railroad right-of-way; and

(2) the department shall exercise its authority under sec. 40 of this chapter to acquire rights-of-way across land within the utility corridor which is subject to the state's power of condemnation.

(d) The requirements of the Alaska Land Act (AS 38.05) relating to classification and reclassification of land are inapplicable to actions taken under this section.

* Sec. 2. This Act takes effect immediately in accordance with AS 01.10.070(c).

Approved by the Governor: June 18, 1977
Actual Effective Date: June 19, 1977

Bill History/Action Display

H

BILL: HB 182 SHORT TITLE: APPROP: FAIRBANKS-NOME TRANS. CORRIDOR
BILL VERSION:
SPONSOR(S): REPRESENTATIVES(S) JAMES, Mulder

CURRENT STATUS: (H) FIN STATUS DATE: 4/19/93

TITLE: "An Act making a special appropriation to the Department of Transportation and Public Facilities, northern region, for identification and delineation of a transportation and utility corridor between Fairbanks and the Seward Peninsula; and providing for an effective date."

Full Text | Appropriation Info

Committee Action With Bill History

Jrn-Date	Jrn-Page		Action
2/25/93	456	(H)	READ THE FIRST TIME - REFERRAL(S)
2/25/93	456	(H)	TRANSPORTATION, RESOURCES, FINANCE
3/31/93	893	(H)	TRA RPT 4DP 2NR
3/31/93	893	(H)	DP: MULDER, FOSTER, G.DAVIS, VEZEY
3/31/93	893	(H)	NR: MACKIE, MENARD
4/01/93	920	(H)	COSPONSOR(S): MULDER
4/19/93	1321	(H)	RES RPT 4DP 2DNP 2NR
4/19/93	1321	(H)	DP: CARNEY, GREEN, JAMES, MULDER
4/19/93	1321	(H)	DNP: FINKELSTEIN, DAVIES
4/19/93	1321	(H)	NR: BUNDE, WILLIAMS
4/19/93	1321	(H)	REFERRED TO FINANCE

Similar Subject Match or Exact Subject Match
APPROPRIATIONS
HIGHWAYS
RAILROAD
SPECIAL APPROPRIATIONS
TRANSPORTATION
UTILITIES

Bill Root: | Display History/Action | Clear Bill Root

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Bill Text

H

BILL ID: HB 182

00 HOUSE BILL NO. 182
01 "An Act making a special appropriation to the Department of Transportation and
02 Public Facilities, northern region, for identification and delineation of a
03 transportation and utility corridor between Fairbanks and the Seward Peninsula;
04 and providing for an effective date."
05 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:
06 * Section 1. The sum of $7,300,000 is appropriated from the general fund to the
07 Department of Transportation and Public Facilities, northern region, for reconnaissance
08 photography and study and for right-of-way mapping in conjunction with identifying and
09 delineating a transportation and utility corridor between Fairbanks and the Seward Peninsula.
10 * Sec. 2. The unexpended and unobligated portion of this appropriation lapses into the
11 general fund June 30, 1995.
12 * Sec. 3. This Act takes effect immediately under AS 01.10.070(c).

Bill Root: [ ] Display History/Action Clear Bill Root

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Bill History/Action Display

BILL: HB 183 SHORT TITLE: TRANSPORTATION CORRIDOR: FAIRBANKS-NOME
BILL VERSION: SCS CSHB 183(TRA)(EFD FLD S)
SPONSOR(S): REPRESENTATIVES(S) JAMES, Mulder

CURRENT STATUS: CHAPTER 83 SLA 94 STATUS DATE: 6/06/94
EFFECTIVE DATE OF LAW 9/4/94

TITLE: "An Act directing the identification and delineation of a transportation and utility corridor between Fairbanks and the Seward Peninsula."

Full Text | Fiscal Note Info

Committee Action With Bill History

Jrn-Date	Jrn-Page		Action
2/25/93	456	(H)	READ THE FIRST TIME - REFERRAL(S)
2/25/93	456	(H)	TRANSPORTATION, RESOURCES, FINANCE
3/31/93	893	(H)	TRA RPT CS(TRA) 5DP 1NR
3/31/93	894	(H)	DP: FOSTER, VEZEY, MULDER,G.DAVIS,MENARD
3/31/93	894	(H)	NR: MACKIE
3/31/93	894	(H)	-FISCAL NOTE (DOT) 3/31/93
4/01/93	920	(H)	COSPONSOR(S): MULDER
4/24/93	1489	(H)	RES RPT CS(RES) 4LP 3DNP 1NR
4/24/93	1490	(H)	DP: CARNEY, GREEN, JAMES, MULDER
4/24/93	1490	(H)	DNP: FINKELSTIN, DAVIES, BUNDE
4/24/93	1490	(H)	NR: WILLIAMS
4/24/93	1490	(H)	-FISCAL NOTE (DOT) 4/24/93
4/24/93	1490	(H)	MEMO REGARDING DRAFTING ERROR IN BILL
3/16/94	2826	(H)	FIN RPT CS(FIN) NEW TITLE 1DP 5NR
3/16/94	2826	(H)	DP: MACLEAN
3/16/94	2826	(H)	NR: LARSON,HANLEY,MARTIN,PARNELL,BROWN
3/16/94	2826	(H)	-ZERO FISCAL NOTE (H.FIN/DOT) 3/16/94
3/21/94	2905	(H)	RULES TO CALENDAR 3/21/94
3/21/94	2905	(H)	READ THE SECOND TIME
3/21/94	2905	(H)	FIN CS ADOPTED UNAN CONSENT
3/21/94	2906	(H)	AMENDMENT NO 1 BY BROWN AND JAMES
3/21/94	2906	(H)	AMENDMENT NO 1 ADOPTED Y28 N10 E2
3/21/94	2906	(H)	AMENDMENT NO 2 BY NICHOLIA
3/21/94	2907	(H)	AMENDMENT NO 2 ADOPTED Y21 N17 E2
3/21/94	2907	(H)	ADVANCE TO 3RD RDG FAILED Y24 N13 E2 A1
3/21/94	2908	(H)	ADVANCED TO THIRD READING 3/23 CALENDAR
3/23/94	2945	(H)	READ THE THIRD TIME CSHB 183(FIN) AM
3/23/94	2945	(H)	PASSED Y33 N6 A1
3/23/94	2945	(H)	EFFECTIVE DATE SAME AS PASSAGE
3/23/94	2945	(H)	NICHOLIA NOTICE OF RECONSIDERATION
3/25/94	2981	(H)	RECON TAKEN UP - IN THIRD READING
3/25/94	2981	(H)	RETURN TO SECOND FOR AM 3 UNAN CONSENT
3/25/94	2981	(H)	AMENDMENT NO 3 BY ULMER
3/25/94	2982	(H)	AMENDMENT NO 3 FAILED Y17 N22 E1
3/25/94	2982	(H)	AUTOMATICALLY IN THIRD READING
3/25/94	2983	(H)	RETURN TO 2ND FOR AM 4 FLD Y17 N21 E2
3/25/94	2984	(H)	HOLD ON RECON TO 3/28 PSD Y26 N12 E2
3/28/94	3023	(H)	RECON TAKEN UP - IN THIRD READING
3/28/94	3024	(H)	PASSED ON RECONSIDERATION Y28 N12
3/28/94	3024	(H)	EFFECTIVE DATE SAME AS PASSAGE

3/28/94	3029	(H)	TRANSMITTED TO (S)
3/29/94	3388	(S)	READ THE FIRST TIME - REFERRAL(S)
3/29/94	3388	(S)	TRA, FIN
4/13/94	3626	(S)	TRA RPT SCS 2DP 1NR 1DNP SAME TITLE
4/13/94	3627	(S)	PREVIOUS H ZERO FN APPLIES (DOT)
4/19/94	3781	(S)	FIN RPT 4DP 2NR (TRA)SCS
4/19/94	3781	(S)	PREVIOUS H ZERO FN (DOT)
5/05/94	4357	(S)	RULES RPT 2CAL 1NR 1DNP 5/5/94
5/05/94	4376	(S)	READ THE SECOND TIME
5/05/94	4376	(S)	TRA SCS ADOPTED UNAN CONSENT
5/05/94	4376	(S)	THIRD READING 5/6 CALENDAR
5/06/94	4431	(S)	READ THE THIRD TIME SCS CSHB 183(TRA)
5/06/94	4431	(S)	PASSED Y11 N9
5/06/94	4431	(S)	EFFECTIVE DATE FAILED Y11 N9
5/06/94	4431	(S)	ADAMS NOTICE OF RECONSIDERATION
5/07/94	4499	(S)	RECON TAKEN UP - IN THIRD READING
5/07/94	4499	(S)	HELD ON RECONSIDERATION TO 5/8 CALENDAR
5/08/94	4530	(S)	RECON TAKEN UP - IN THIRD READING
5/08/94	4531	(S)	PASSED ON RECONSIDERATION Y11 N9
5/08/94	4531	(S)	EFFECTIVE DATE FAILED Y11 N9
5/08/94	4540	(S)	TRANSMITTED TO (H) AS AMENDED
5/09/94	4216	(H)	HELD UNDER UNFINISHED BUSINESS
5/09/94	4276	(H)	CONCUR AM OF (S) Y28 N12
7/15/94	4462	(H)	11:45 AM 5/18/94 TRANSMITTED TO GOVERNOR
7/15/94	4488	(H)	SIGNED INTO LAW 6/6 CHAPTER 83 SLA 94
7/15/94	4488	(H)	EFFECTIVE DATE OF LAW 9/4/94

Similar Subject Match or Exact Subject Match
HIGHWAYS
RAILROAD
TRANSPORTATION
UTILITIES

Bill Root: [ ] [Display History/Action] [Clear Bill Root]

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Bill Text

H

BILL ID: SCS CSHB 183(TRA)(EFD FLD S)

SENATE CS FOR CS FOR HOUSE BILL NO. 183(TRA)(efd fld S)
"An Act directing the identification and delineation of a transportation and utility corridor between Fairbanks and the Seward Peninsula."
BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:
* Section 1. AS 19.25 is amended by adding a new section to read:
Sec. 19.25.123. FAIRBANKS - SEWARD PENINSULA TRANSPORTATION AND UTILITY CORRIDOR. (a) Subject to legislative appropriation, the department shall identify and delineate a proposed transportation and utility corridor between Fairbanks and the western end of the Seward Peninsula.
(b) In performing the work required by (a) of this section,
(1) the railroad alignment and identification of a railroad right-of-way of not less than 500 feet, together with adjacent sites that can be developed for necessary construction materials, shall guide the identification and delineation of the corridor; and
(2) the department shall consider the following factors:
(A) grade and alignment standards that are commensurate with rail and road construction standards;
(B) availability of construction materials;
(C) safety;
(D) impacts on and service to adjacent communities;
(E) environmental concerns;
(F) use of public land to the maximum degree possible;
(G) minimization of probable construction costs;
(H) the location of, and the opportunity to obtain access to, identified natural resources that could contribute significantly to the state's economic development; and
(I) prior and established traditional uses.
(c) Within 90 days after receiving a report transmitting the work of the department under (a) of this section, the commissioner shall, in conformity with AS 44.62 (Administrative Procedure Act), if necessary, adopt a regulation approving, modifying, or rejecting the proposed corridor.
(d) If the commissioner approves or modifies the proposed corridor when presented under (c) of this section,
(1) the Department of Natural Resources shall promptly classify, or reclassify, and reserve any state land within the corridor and at adjacent sites that can be developed for necessary construction materials for use as a corridor; and
(2) the department shall
(A) subject to legislative appropriation, exercise its authority under AS 19.05.040 to acquire rights-of-way across land within the corridor that is subject to the state's power of condemnation; and
(B) work with federal officials to secure reclassification and withdrawal of federal land in the corridor for reservations and rights-of-way across the federal land for use as a corridor.
(e) The requirements of AS 38.05 (Alaska Land Act) relating to classification and reclassification of land are inapplicable to actions taken under this section.
(f) To complete the work required by this section, the commissioner may accept any legal gifts and grants and may enter into contracts or other transactions or agreements relating to it with the federal government, an agency or instrumentality of the state, a municipality, or a private organization.
(g) In this section, "corridor" means the transportation and utility corridor required to be identified and delineated by (a) of this section.
* Sec. 2. AS 19.25.123, added by sec. 1 of this Act, is repealed July 1, 2055.

Bill Root: [ ] Display History/Action | Clear Bill Root

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Bill History/Action Display

H

BILL: HB 184 SHORT TITLE: APPRO: AK RAILROAD EXTENSION STUDY
BILL VERSION: CSSSHB 184(FIN)
SPONSOR(S): REPRESENTATIVES(S) JAMES, Therriault, Olberg

CURRENT STATUS: RETURN TO (H) RLS STATUS DATE: 2/24/94

TITLE: "An Act making a special appropriation to the Department of Transportation and Public Facilities to determine the cost of acquiring real property within the right-of-way of the proposed extension of the Alaska Railroad from Eielson Air Force Base to the Alaska-Canada border; and providing for an effective date."

Full Text | Appropriation Info

Committee Action With Bill History

Jrn-Date	Jrn-Page		Action
2/25/93	456	(H)	READ THE FIRST TIME - REFERRAL(S)
2/25/93	456	(H)	TRANSPORTATION, FINANCE
1/18/94	2097	(H)	SPONSOR SUBSTITUTE INTRODUCED-REFERRALS
1/18/94	2097	(H)	TRANSPORTATION, FINANCE
1/21/94	2121	(H)	TRA RPT 5DP
1/21/94	2121	(H)	DP: VEZEY, MULDER, HUDSON, G. DAVIS,
1/21/94	2121	(H)	DP: FOSTER
1/21/94	2121	(H)	-FISCAL NOTE (DOT) 1/21/94
2/16/94	2412	(H)	FIN RPT CS(FIN) 5DP 4NR
2/16/94	2413	(H)	DP: LARSON, MARTIN, PARNELL, THERRIAULT
2/16/94	2413	(H)	DP: FOSTER
2/16/94	2413	(H)	NR: BROWN, HANLEY, GRUSSENDORF, NAVARRE
2/23/94	2497	(H)	RULES TO CALENDAR 2/23/94
2/23/94	2497	(H)	READ THE SECOND TIME
2/23/94	2498	(H)	FIN CS ADOPTED UNAN CONSENT
2/23/94	2498	(H)	ADVANCED TO THIRD READING UNAN CONSENT
2/23/94	2498	(H)	READ THE THIRD TIME CSSSHB 184(FIN)
2/23/94	2498	(H)	PASSED Y30 N7 E3
2/23/94	2499	(H)	EFFECTIVE DATE SAME AS PASSAGE
2/23/94	2499	(H)	ULMER NOTICE OF RECONSIDERATION
2/24/94	2522	(H)	RECON TAKEN UP - IN THIRD READING
2/24/94	2523	(H)	RETURNED TO RULES COMMITTEE

Similar Subject Match or Exact Subject Match
APPROPRIATIONS
RAILROAD
RESOURCES
SPECIAL APPROPRIATIONS
TRANSPORTATION
UTILITIES

Bill Root: | Display History/Action | Clear Bill Root

Bill Text

H

BILL ID: CSSSHB 184(FIN)

00 CS FOR SPONSOR SUBSTITUTE FOR HOUSE BILL NO. 184(FIN)
01 "An Act making a special appropriation to the Department of Transportation and
02 Public Facilities to determine the cost of acquiring real property within the right-of-way of the
03 proposed extension of the Alaska Railroad from Eielson Air Force
04 Base to the Alaska-Canada border; and providing for an effective date."
05 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:
06 * Section 1. The sum of $10,000 is appropriated from the general fund to the Department
07 of Transportation and Public Facilities for the fiscal year ending June 30, 1995, to determine
08 the cost of acquiring private land, and private interests in land, sufficient to accommodate
09 construction of an extension of the Alaska Railroad or construction of a transportation,
10 communication, or transmission facility within the right-of-way described in the April 1982
11 updated report of the Department of Transportation and Public Facilities on Route Selection
12 for the Alaska Railroad Extension from Eielson to Canadian Border.
13 * Sec. 2. This Act takes effect July 1, 1994.

Bill Root: Display History/Action Clear Bill Root

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Bill History/Action Display

H

BILL: SB 135 SHORT TITLE: APPRO: AK RAILROAD EXTENSION STUDY
BILL VERSION: CSSB 135(FIN)
SPONSOR(S): SENATOR(S) MILLER, Sharp, Frank, Phillips;
REPRESENTATIVE(S) James

CURRENT STATUS: CHAPTER 74 SLA 94 STATUS DATE: 6/06/94
EFFECTIVE DATE OF LAW 7/1/94

TITLE: "An Act making a special appropriation to the Department of Transportation and Public Facilities to determine the cost of acquiring real property within the right -of-way of the proposed extension of the Alaska Railroad from Eielson Air Force Base to the Alaska-Canada border; and providing for an effective date."

Full Text | Appropriation Info

Committee Action With Bill History

Jrn-Date	Jrn-Page		Action
2/26/93	504	(S)	READ THE FIRST TIME - REFERRAL(S)
2/26/93	504	(S)	TRANSPORTATION, FINANCE
3/18/93	846	(S)	TRA RPT 4DP 1NR
3/18/93	846	(S)	FISCAL NOTE (DOT)
1/24/94	2580	(S)	FIN RPT CS 4DP 1NR SAME TITLE
1/28/94	2615	(S)	RULES RPT 1 CAL 2 CAL/NR
1/28/94	2623	(S)	READ THE SECOND TIME
1/28/94	2623	(S)	FIN CS ADOPTED UNAN CONSENT
1/28/94	2623	(S)	ADVANCED TO THIRD READING UNAN CONSENT
1/28/94	2623	(S)	READ THE THIRD TIME CSSB 135(FIN)
1/28/94	2623	(S)	PASSED Y13 N3 E4
1/28/94	2624	(S)	EFFECTIVE DATE PASSED Y16 N- E4
1/28/94	2624	(S)	ADAMS NOTICE OF RECONSIDERATION
2/01/94	2643	(S)	RECONSIDERATION NOT TAKEN UP
2/01/94	2643	(S)	TRANSMITTED TO (H)
2/02/94	2213	(H)	READ THE FIRST TIME - REFERRAL(S)
2/02/94	2213	(H)	TRANSPORTATION, STATE AFFAIRS, FINANCE
2/28/94	2557	(H)	TRA REFERRAL WAIVED
2/28/94	2558	(H)	CROSS SPONSOR(S): JAMES
3/21/94	2903	(H)	STA RPT 2DP 3NR
3/21/94	2903	(H)	DP: VEZEY, G.DAVIS
3/21/94	2903	(H)	NR: SANDERS, OLBERG, ULMER
5/05/94	4022	(H)	FIN RPT 3DP 1DNP 6NR
5/05/94	4022	(H)	DP: LARSON, MARTIN, FOSTER
5/05/94	4022	(H)	DNP: NAVARRE
5/05/94	4022	(H)	NR: HANLEY, PARNELL, GRUSSENDORF
5/05/94	4022	(H)	NR: HOFFMAN, BROWN, MACLEAN
5/08/94	4201	(H)	RULES TO CALENDAR 5/8/94
5/08/94	4201	(H)	READ THE SECOND TIME
5/08/94	4202	(H)	OBJECTION TO ADVANCEMENT MOTION
5/08/94	4202	(H)	ADVANCED TO THIRD READING ON NEXT
5/08/94	4202	(H)	...LEGISLATIVE DAY'S CALENDAR
5/09/94	4242	(H)	READ THE THIRD TIME CSSB 135(FIN)
5/09/94	4242	(H)	PASSED Y25 N14 A1
5/09/94	4243	(H)	EFFECTIVE DATE PASSED Y30 N8 A2
5/09/94	4243	(H)	PHILLIPS NOTICE OF RECONSIDERATION
5/10/94	4384	(H)	RECONSIDERATION NOT TAKEN UP

5/10/94	4384	(H)	RETURN TO (S), TRANSMIT TO GOVERNOR NEXT
5/16/94	4769	(S)	10:40 AM 5/16/94 TRANSMITTED TO GOVERNOR
7/15/94	4801	(S)	SIGNED INTO LAW 6/6 CHAPTER 74 SLA 94
7/15/94	4801	(S)	EFFECTIVE DATE OF LAW 7/1/94

Similar Subject Match or Exact Subject Match
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