

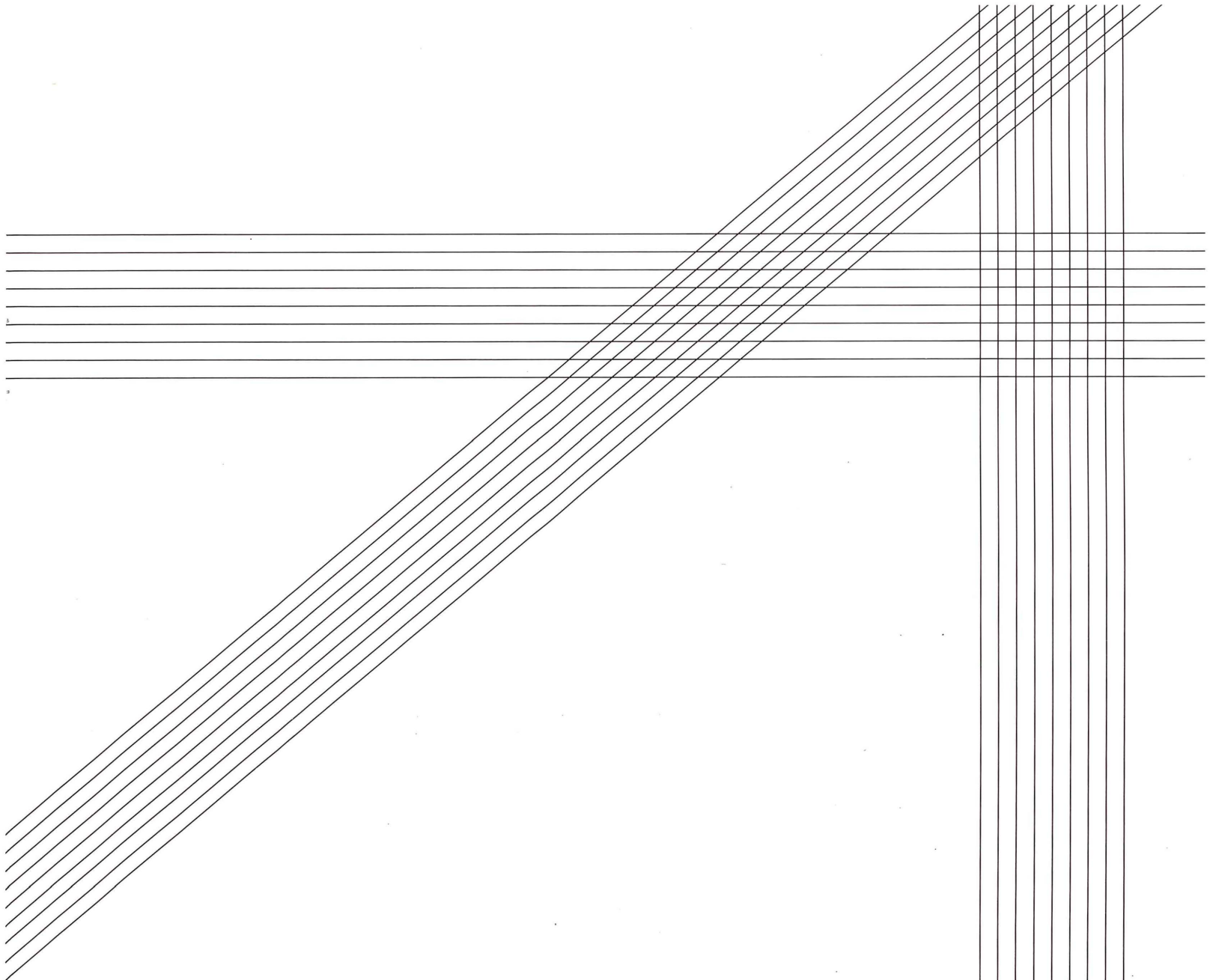
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NORTHWEST TERRITORIES
TRANSPORTATION AGENDA





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TRANSPORTATION AGENDA

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DEC 14 1993
Yellowknife, N.W.T.

December 1993

To improve transportation safety in the Northwest Territories, we will develop and implement a comprehensive transportation safety strategy. The strategy will deal with all aspects of transportation safety including drivers and other users, vehicles and the transportation infrastructure. It will identify key target areas and action plans to reduce both the frequency and severity of accidents.

10. Increase Local Involvement in Transportation Expenditures

Government expenditures represent a very sizable portion of the economic activity in the Northwest Territories. The territorial government has implemented various policies, including the Business Incentive Policy, to maximize the benefits of government expenditures to Northerners in general, and local residents in particular, through direct contracts, other business and employment opportunities, and training and development.

The Department of Transportation has been a leader in the government's efforts in this area. We have successfully applied the Business Incentive Policy, and in addition implemented many other innovative approaches.

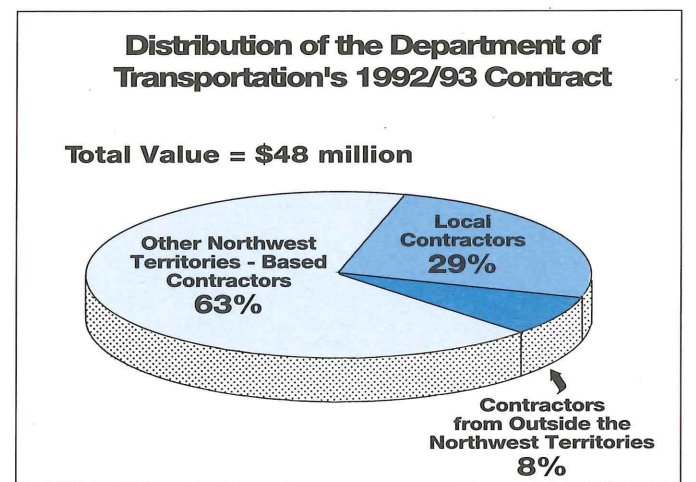
Transportation projects have been sized and scheduled to ease bidding by local contractors.

Negotiated contracts have enabled local contractors and community development corporations to undertake projects (without competition).

The Department has utilized its project managers working with locally hired workers on several major airport projects.

The Department has established a training centre at Baker Lake for airport operators.

All of the Department's highway and ferry operation



and maintenance activities employ local or northern personnel or contractors.

Of the 42 airports owned by the Department, 35 are operated under contract by local communities.

All operators of the 29 community airport radio stations (CARS) are local residents.

The results have been impressive. In fiscal 1992/93, of the \$48 million in capital, operation and maintenance contracts awarded by the Department, over 92 percent were awarded to Northern and local contractors and organizations (29 percent went to local companies and 63 percent to other Northwest Territories-based companies).

Because of the need to create and sustain employment at the local community level, the Department must increase the local content in its contracts. To do so we plan action on several fronts. We will make greater use of special contracting approaches which incorporate training programs and incentives to maximize local employment and sub-contracting opportunities.

We will also encourage the communities to get more involved in the delivery of our programs by, for example, taking steps to devolve management of airports to communities, and using the Department's Contributions Policy for construction of local access roads in partnership with local communities.

In 1993 the delivery of the Keewatin region's diesel fuel to Churchill by ship, instead of rail, saved the territorial government \$900,000 in comparison to 1992. These annual savings are expected to continue in the future.

Also, in 1993 suppliers were allowed to arrange the most cost-effective method of resupplying bulk fuel to eleven eastern Arctic communities. As a result, a single contract for both the supply and delivery of bulk fuel was used in 1993. A \$1.1 million saving was achieved compared to historical eastern Arctic costs. Comparable savings are expected to continue in the future.

There are millions more to be saved through improving resupply systems, contracting procedures and, where necessary, improved marine facilities. The 1993 Strategic Transportation Improvement Agreement provided additional federal funding of \$1.8 million to upgrade marine resupply facilities at Rankin Inlet and Iqaluit, and to conduct hydrographic surveys to prove the viability of deep-draft shipping routes to the Coronation Gulf. We will continue to seek additional federal assistance to improve marine resupply facilities.

We must pursue further rationalization of marine resupply systems in the Northwest Territories. We will continue to investigate improvements to the resupply of bulk fuel and dry cargo to communities in the Keewatin, Baffin and western Arctic coast regions. We will work cooperatively with the Canadian Coast Guard, the Department of National Defence, other circumpolar jurisdictions and the commercial shipping industry to find long-term, cost-effective solutions for marine resupply problems in the North. In rationalizing our marine resupply systems and facilities, our objectives will be to improve service and safety, reduce costs, and increase northern and local business and employment opportunities.

9 Improve Transportation Safety

Safety is an essential characteristic demanded by users of transportation facilities and services. Unique northern aspects such as severe climate and long distances play an important role in transportation safety in the Northwest Territories, particularly on our highway system.

In terms of infrastructure improvements, the Department of Transportation has made significant progress in dust-control or reconstruction and paving of our highway system, and upgrading of our airports and marine facilities.

Improving transportation safety also requires improving driver skills and awareness, and ensuring safety of vehicles.

The driver is the most critical element in road safety. Safety initiatives undertaken by the Department of Transportation must focus on public awareness and safety education. We are taking initiatives in areas such as improved driver testing and licensing standards, seat-belt campaigns, impaired-driver programs, driver demerit point regulation, safety education at schools and all-terrain vehicle (ATV) safety programs.

The Department has also adopted the National Safety Code for heavy commercial vehicles and amended the All-Terrain Vehicle Act.

However, more needs to be done. The current 60 percent use of seat-belts in the Northwest Territories, compared to the national average of 88 percent, must be improved. We must continue to promote responsible attitudes to impaired driving, monitor the safety performance of the trucking industry, and amend the laws and regulations related to transportation safety as required.

FOREWORD

The vital role of transportation in the modern society is well recognized. This role is even more crucial in a region such as the Northwest Territories which has very few people spread over a vast area. The high cost of living in many of our communities is a direct result of high transportation costs. Lack or inadequacy of transportation is also a major factor in frustrating the development of our abundant natural resources.

Improved transportation systems and services are essential if we are to achieve our full economic, social and political potential. Over the past few years, we have made some progress in addressing the deficiencies in our transportation infrastructure. However, we recognize that our needs for transportation improvements far exceed the financial resources currently available to us.

We must use the funding we do have judiciously to achieve the maximum benefit, and, because our future depends upon improved transportation, we must also recognize the needs that are not being met and find the means to address them.

This document identifies ten major objectives which must be pursued over the next several years and the resources which must be found to achieve them. Taken together these objectives define the agenda of the Minister of Transportation for the next several years.

This is the agenda that I intend to pursue, with the continued advice and support of all Members of the Legislative Assembly.



The Honourable John Todd
Minister Responsible for Transportation

8. Improve Marine Resupply Systems

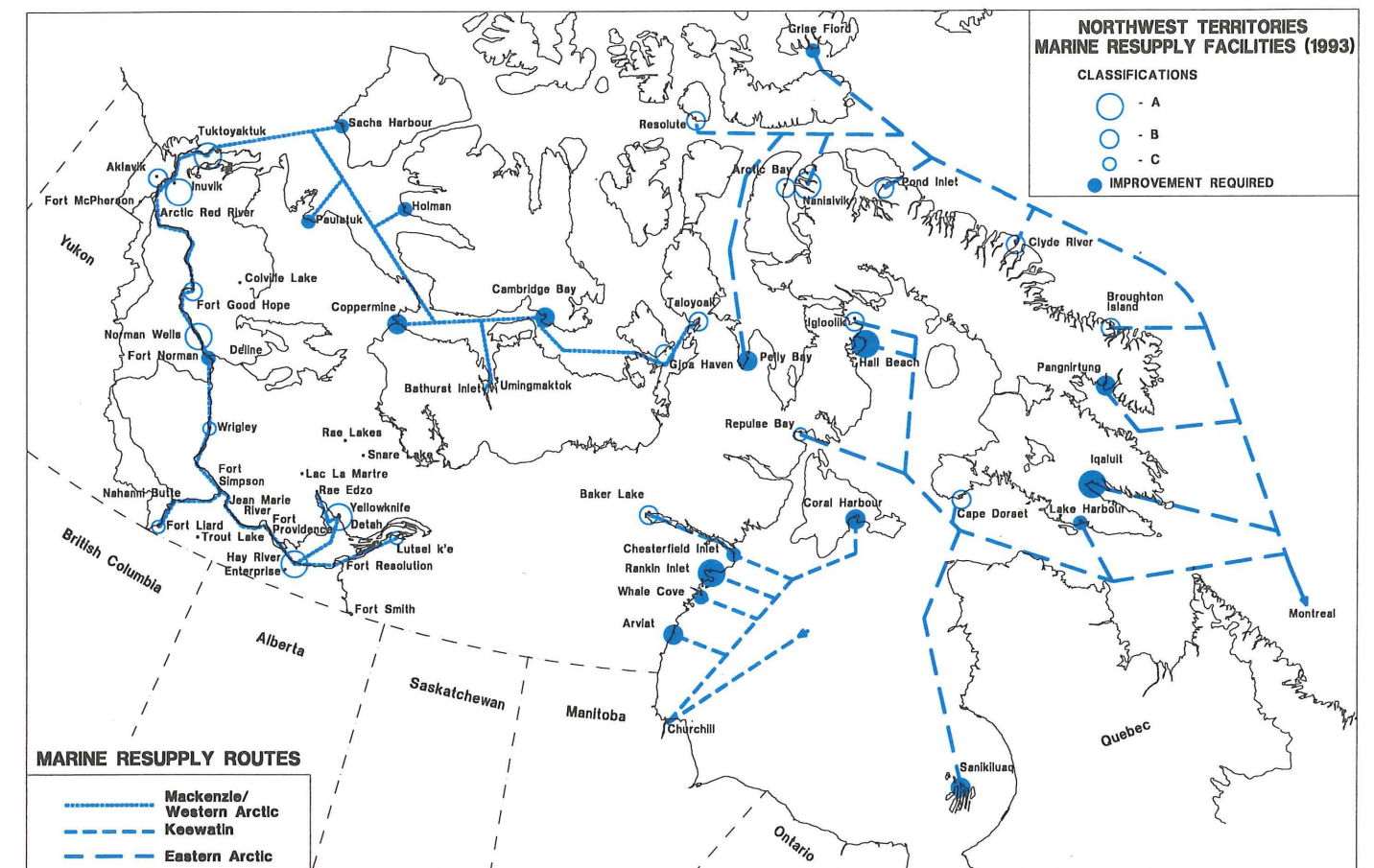
There are 30 off-highway communities in the Northwest Territories with a combined population of 22,000 or 40% of the territorial population. These communities rely exclusively on marine resupply for petroleum products and most of the dry cargo.

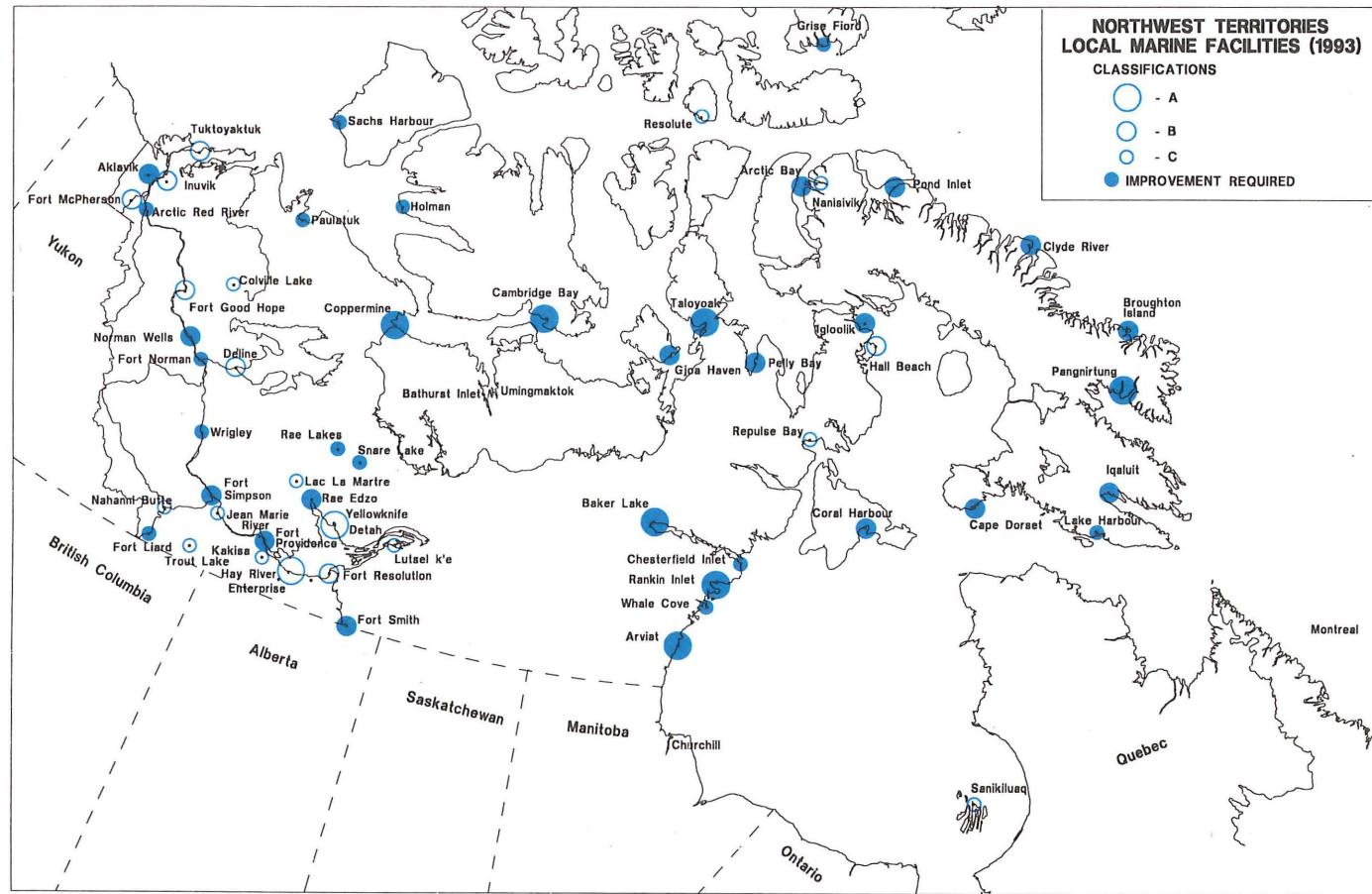
Transportation costs are a major component of the landed cost of petroleum products in most regions of the Northwest Territories. Costs are particularly high for Pelly Bay, the western Arctic coast and the Keewatin. If shipping costs in these areas could be reduced to typical Baffin region rates, it would mean savings in the order of \$4 to \$6 million per year. The fuel price at the Norman Wells refinery is also high at 26 cents per litre, compared to 18 to 21 cents per litre at Montreal.

Although volumes for dry cargo are much lower than for petroleum products, unit costs are much higher. Again, costs are high for Pelly Bay, the western Arctic coast and the Keewatin.

Several initiatives taken by the Department of Transportation since 1990 have helped reduce marine resupply costs significantly, particularly for petroleum products.

In 1991 and 1992 the Department cost-shared the completion of the hydrographic survey of the approaches to Pelly Bay. This enabled the first-ever marine resupply of diesel fuel to Pelly Bay in 1993 (instead of airlift), at a net cost saving to the territorial government of over \$200,000. From 1994 onwards the savings are expected to be approximately \$500,000 per year. In future years, the use of marine resupply for gasoline and dry cargo as well as for diesel will yield substantial additional savings.





Despite this progress there are many unfulfilled needs. Upgrading or replacement of local marine facilities to correct deficiencies is required at 37 communities. Members of the Legislative Assembly and communities have put a high priority on these improvements.

The cost of addressing all currently identified deficiencies and needs is estimated at \$19 million. The Department's current capital allocation of \$1 million per year for local marine facilities is clearly insufficient.

To meet this shortfall several actions will be pursued. We intend to substantially increase funding for this program by reallocation within the Department's capital targets.

The Canada-Northwest Territories Strategic Transportation Improvement Agreement will provide additional federal funding of \$1.7 million over five years beginning in 1993. This will allow us to significantly

increase the scope of the local marine facilities at Pangnirtung and Coral Harbour. We will pursue additional bilateral agreements with Transport Canada.

We will also seek funding from the federal government through the Small Craft Harbour Branch of Fisheries and Oceans Canada whose mandate includes port and harbour facilities in support of commercial fishing and recreational boating.

INTRODUCTION

The Government of the Northwest Territories published the Northwest Territories Transportation Strategy in the fall of 1990. Based on extensive consultation and analysis, this document presented the first-ever comprehensive, long-term transportation plan for the North. It has served as a guide and blueprint for the policies and programs of the Department of Transportation.

By 1993 the Transportation Strategy needed updating to reflect the fact that many short term priorities have been accomplished since 1990, while new priorities have been identified. Advice has been sought from all Members of the Legislative Assembly on how the 1990 Strategy has met or fallen short of needs, and on changes that should be made to reflect the current economic, social and political conditions.

Like the 1990 version, the updated Transportation Strategy is a comprehensive, long-term planning document, containing detailed inventories, assessment of needs and priorities, and identification of both short and long-term objectives. It identifies needs that are not being met, as well as those that are.

The Minister and the Department of Transportation also need a separate document to focus on the major shorter-term priorities for addressing needs that are not being met. This Transportation Agenda describes the ten major objectives which must be high on the Minister's agenda. It is not a catalogue of all the programs that are being undertaken, nor does it identify priorities for the long-term future. Rather it is a set of realistic objectives on which progress can and should be made over the next two to five years. Specific actions are proposed for each objective.

The following ten major objectives have been identified for action over the next few years:

ROAD

1. Accelerate Highway Upgrading Capital Program
2. Continue Mackenzie Highway Extension
3. Construct Arctic Coast Transportation Corridor
4. Enhance Community Local Access Roads Program

AIR

5. Upgrade Airports to Standard
6. Improve Air Navigation Systems

MARINE

7. Improve Local Marine Facilities
8. Improve Marine Resupply Systems

ALL MODES

9. Improve Transportation Safety
10. Increase Local Involvement in Transportation Expenditures

These objectives are listed by transportation mode and are not in order of priority. Success in achieving some of these objectives is within our reach because it depends completely on our own actions (Objectives 4, 7, 9, 10). Success on other objectives will depend, at least partly, on our ability to influence others, particularly the government of Canada (Objectives 1, 2, 3, 5, 8). Still other objectives depend on taking advantage of opportunities presented by changing technology or private sector developments (Objectives 3, 6). However, in all instances we must pursue these objectives with the means available to us.

Each of these ten objectives is discussed in a separate section below. Each section briefly presents the background, progress made since 1990, current needs and deficiencies, accomplishments proposed with funds available to the Department of Transportation and action plans for addressing the unfulfilled needs.

1. Accelerate Highway Upgrading Capital Program

The two major features of a highway which influence road safety, user costs and tourism potential are road geometry (adequate width and alignment) and surface condition (paved, dust-controlled or untreated gravel).

The Northwest Territories all-weather highway network totals 2200 kilometres. Responsibility and base funding for capital rehabilitation and upgrading of the highway system was transferred from the federal government to the Government of the Northwest Territories in 1990. When the 1990 Transportation Strategy was released, only 40 percent of this system met geometric standards, with only 14 percent paved and an additional 14 percent dust-controlled.

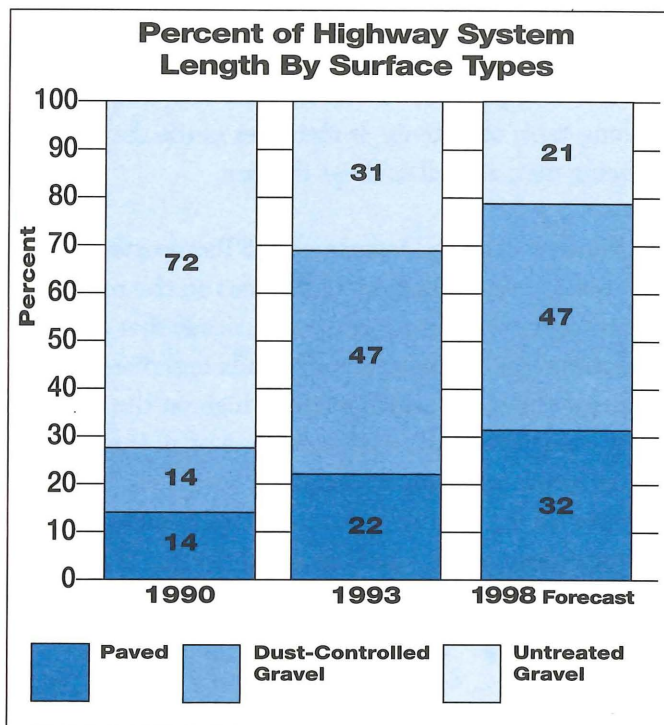
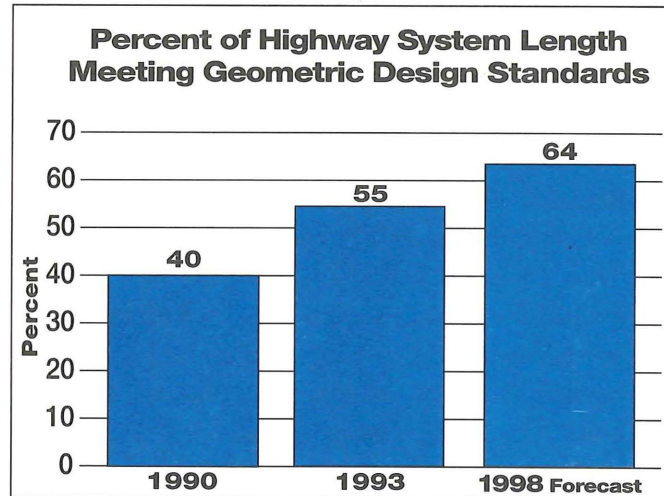
By 1993, an aggressive upgrading program and enhanced dust-control measures have resulted in substantial improvements. Fifty-five percent of the system now meets geometric standards; 22 percent is paved and an additional 47 percent is dust-controlled.

Upgrading and paving programs have targeted those highway sections which carry the most travel (vehicle-kilometres). Currently, although only 22 percent of our highway kilometres are paved, they carry approximately 58 percent of all highway travel in the Northwest Territories. A full 92 percent of highway travel is on highways which are paved or dust-controlled.

Forecast capital expenditures on highway reconstruction will average \$24 million per year over the next five years. Of this amount, an estimated \$8 million per year must be allocated for repair and rehabilitation of existing bridges, culverts and pavements. This leaves about \$16 million per year for upgrading, including road reconstruction and new paving.

Nearly \$360 million in upgrading needs can be currently justified on the basis of safety, user costs and tourism benefits. At current funding levels this work will take over 20 years to complete.

Additional capital expenditures of \$20 million per year would be required to satisfy all highway upgrading needs within the next ten years.



(DME) at nine federal and seven territorial airports, and instrument landing systems at five federal airports. The Department of Transportation has also provided NDB's at four smaller territorial airports.

The Northwest Territories has an excellent record of air transportation safety. The Department of Transportation's objective is to maintain and enhance the level of safety and reliability of ANS by taking advantage of new and emerging technology which can provide better service at the same or lower cost.

Automated weather observation systems (AWOS) have supplemented the CARS program in some communities by providing twenty-four hour weather information. In the near future, AWOS and remote communications outlets (RCO) are expected to provide better coverage at lower cost.

A technological revolution is occurring in global navigational satellite systems which will make most ground-based electronic navigation aids, such as NDB's and DME's, redundant in the next decade. Aircraft-based global positioning system (GPS) receivers have been approved for non-precision approaches and enroute navigation.

In the next few years, ground-based differential global positioning systems (DGPS) could replace the instrument landing systems at five Transport Canada airports in the Northwest Territories. Thus, significant savings in capital replacement and in operations and maintenance costs will be achieved. DGPS may also be warranted at selected territorial airports depending on the future growth in air traffic.

It is anticipated that the new aviation technology in automated weather reporting and satellite navigation systems will lead to significant improvements in air safety and reliability at reduced cost. An added benefit will be savings in flight times and operating costs to airlines, which should lead to reductions in air freight and passenger rates.

We will work with Transport Canada to ensure that these technological improvements are implemented at federal and territorial airports in the Northwest Territories. We must also ensure that training programs are established to maximize opportunities for local residents in the maintenance, calibration and repair of the new electronic equipment.

7. Improve Local Marine Facilities

Residents of virtually every community in the Northwest Territories depend on the use of small vessels for recreation, tourism, subsistence and commercial harvesting of fish and marine mammals, and access to other local resources such as carving stone. In recent years, expansion of commercial fishing has led to the use of larger boats in many communities.

Marine facilities are required for loading and unloading, protection, access, and repair of boats. Infrastructure requirements depend upon site conditions and may include wharves, floating docks, breakwaters and boat launching and landing facilities.

Site to site variations in natural conditions such as water depth, tides, ice conditions, wind, geology, topography and land use require considerable flexibility in developing standards. Design standards are therefore based on providing adequate levels of service and safety, rather than on standardized infrastructure solutions.

Many communities, especially those on tidewater, do not have adequate local marine facilities. Since 1990, improvements have been undertaken at the following 16 communities: Arctic Bay, Arctic Red River, Arviat, Broughton Island (in progress), Cape Dorset, Chesterfield Inlet, Fort Resolution, Fort Simpson, Gjoa Haven, (in progress) Igloolik, Iqaluit (in progress), Jean Marie River, Kakisa, Nahanni Butte, Pangnirtung (in progress) and Sanikiluaq.

million to \$15 million each, and cannot currently be justified.

Changing aircraft characteristics, facility aging, normal "wear and tear", and various external technological and socio-economic developments will create additional needs for airport infrastructure. For example, the expected closure of the Nanisivik mine and airport will require substantial upgrading of the community airport at Arctic Bay.

The aircraft in use by northern airlines, such as the Twin Otter and Hawker Siddley 748, are no longer in production. The aircraft that will replace these may require expensive lengthening of runways at many territorial airports. Depending on the aircraft characteristics, paving of the runways at some territorial airports may be justified.

We must monitor socio-economic developments in the North and the plans of air carriers for their future aircraft fleets, with a view to providing the airport facilities needed for safe, reliable and economical service.

These factors will create additional demands for funds. There are several possible funding sources that will be pursued.

We are currently negotiating the devolution of the nine Arctic "A" airports from Transport Canada to the territorial government. If negotiations are successful and the transfer is approved, responsibility for these federal airports will be transferred to the Northwest Territories, along with base funding. The Department of Transportation will then be responsible for the planning, capital improvement and operation and maintenance of the entire public airport system in the Northwest Territories. We anticipate that the resulting economies of scale will give us some leeway in addressing deficiencies in other parts of our airport program.

Transport Canada has a program to provide financial assistance for local airports. We will seek funding from Transport Canada under this program for capital improvements at applicable territorial airports.

The Department has been successful in negotiating two bilateral agreements with Transport Canada for airport improvements. We will continue to lobby the federal government for additional funding for air transportation infrastructure upgrading and development in the Northwest Territories.

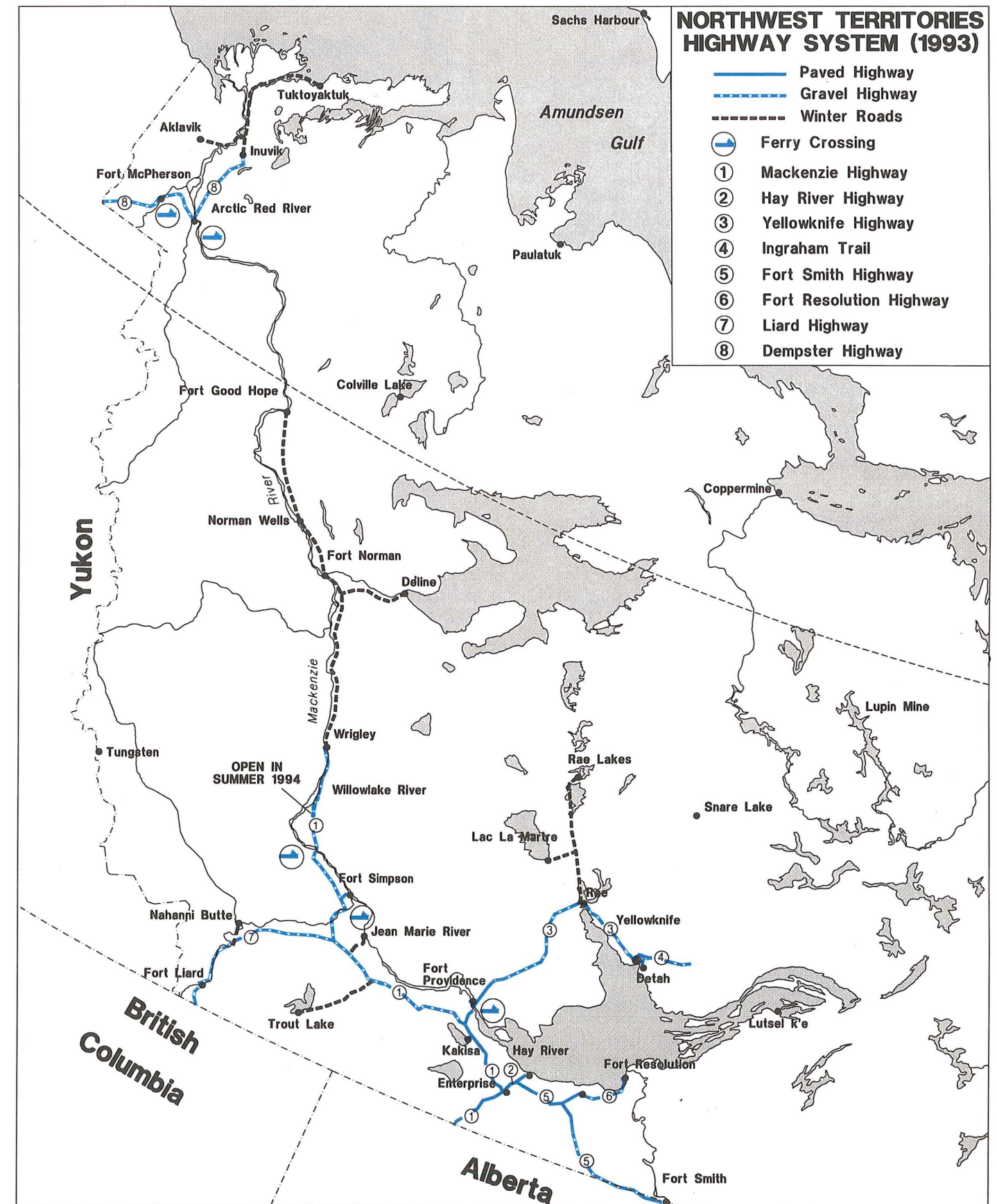
6. Improve Air Navigation Systems

Air Navigation Systems (ANS) include electronic navigation aids, air traffic control services, flight information services and weather services. The type and level of ANS provided for various routes and airports depend mainly on the volume and type of air traffic, the climate and weather conditions, and the location of the airport with respect to major air routes.

Transport Canada is responsible for providing ANS in the Northwest Territories. To provide flight and weather information, Transport Canada operates flight service stations at the nine federally owned airports and at four territorial airports; two of the latter will be converted to community airport radio stations (CARS) in 1994. CARS are managed by the Department of Transportation at 29 territorial airports (31 in 1994) for Transport Canada which provides the funding.

Since 1990 the Department of Transportation has significantly improved the reliability of CARS. The success of the CARS program can at least partly be attributed to economies and service improvements realized by training and hiring staff from local communities.

Transport Canada also provides most of the electronic air navigation aids in the Northwest Territories such as non-directional beacons (NDB) at nine federal and 25 territorial airports, distance measuring equipment



It is unlikely that significant additional funding can be allocated from within departmental or territorial government appropriations. Increases in user fees through highway fuel taxes and licence fees would offer very limited potential, due to the low population and traffic densities.

The Government of the Northwest Territories must seek federal financial assistance by supporting the National Highway System initiative. This proposal calls for a joint federal-provincial/territorial cost-shared program to upgrade Canada's national highway system. It would be similar to the Trans-Canada Highway program of the 1960's. A 1992 federal proposal could have made an additional \$8 million per year available to the Northwest Territories for this purpose. However, unanimous support from all jurisdictions was not achieved and the proposal has been withdrawn.

If a national program cannot be agreed upon, the territorial government must pursue a bilateral program with the federal government to accelerate the upgrading of substandard territorial highways to an acceptable standard.

2. Continue Mackenzie Highway Extension

In 1972 the federal government began the extension of the Mackenzie Valley Highway from Fort Simpson to Inuvik. Work was halted in 1977 at a point 18 kilometres south of Wrigley. The remaining 18-kilometre section to Wrigley was subsequently completed in the early 1980's. However, this section was not opened to year round traffic due to the lack of bridge/ferry infrastructure. At present a winter road is constructed annually by the Department of Transportation on the highway route as far north as Fort Good Hope.

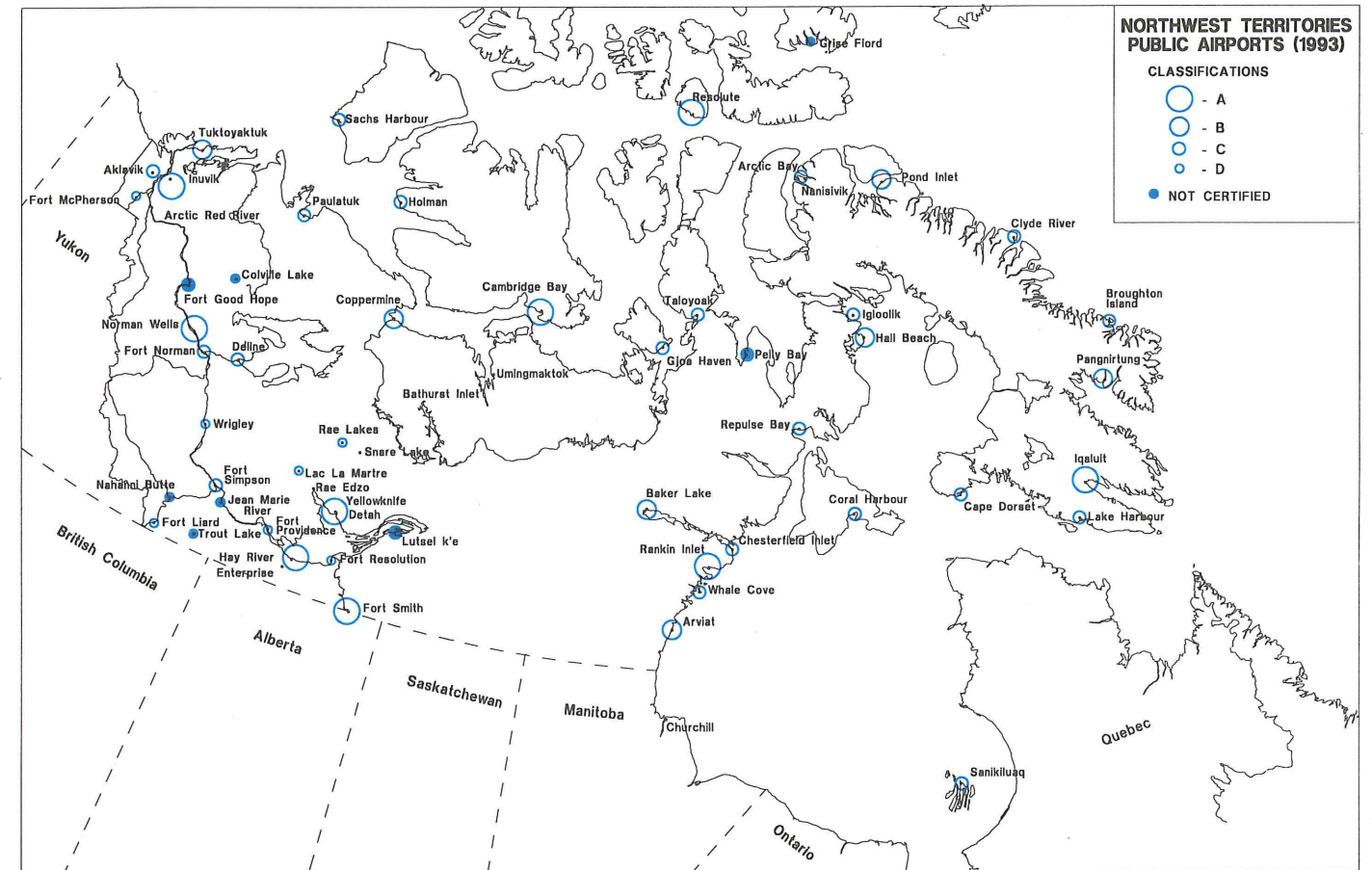
As part of the transfer of the highway reconstruction program from the federal government, the Government of the Northwest Territories assumed responsibility for completing the Mackenzie Highway from Fort Simpson to Wrigley. The territorial government will have spent over \$6 million on the project by the time it is open to traffic in the summer of 1994.

Construction of the remainder of the Mackenzie Highway from Wrigley northwards remains a federal responsibility.

The proposed highway between Wrigley and the Dempster Highway south of Inuvik is 800 kilometres in length. Capital costs are estimated at \$500 million. Once completed, an estimated \$8 million will be required annually for maintenance.

The 160-kilometre section from Inuvik to Tuktoyaktuk would cost an estimated \$160 million to construct, with annual maintenance costs of \$3 million.

Completion of the Mackenzie Highway to Inuvik and Tuktoyaktuk would provide many benefits including training and employment opportunities, lower transportation costs for resupply, increased mobility and business opportunities. The road would benefit the oil



Since 1990, the Department has built new airports at Lac la Martre, Paulatuk and Rae Lakes. New air terminal buildings have been built at Arviat and Igloolik. In addition, we have undertaken safety and lighting improvements and rehabilitation and restoration of runways at many other airports.

The underlying rationale of our airport program is that we must give priority to rehabilitating existing airport infrastructure and to improving airports at off-highway communities to meet certification and operational standards for current critical aircraft.

The Department's current capital plan proposes to spend \$45 million on airports over the next five years. Airport construction/upgrading is scheduled at Coppermine, Deline, Fort Good Hope, Lutsel k'e, Nahanni Butte, Pelly Bay and Snare Lake. Necessary rehabilitation and restoration of runways, lights and

terminal buildings will be undertaken at many other airports. As a result, by the end of 1998, all but one territorial airport will have certified status.

Although we are making good progress in the airports program, many deficiencies will remain unaddressed at current budget levels. Several certified airports have limitations which restrict their use. The communities of Rae/Edzo and Arctic Red River do not have airports.

To address all currently justified but unfunded needs would require an additional \$10 million over the next five years.

Airports in several other communities such as Lake Harbour, Pangnirtung and Repulse Bay have restrictions to improvements because of location or are in conflict with community land use. However, relocating these airports would be very expensive, estimated to cost \$12

| Major Highway Upgrading Needs | | | | |
|-------------------------------|--|-------------|---------------|--|
| Priority | Project | Length (km) | Cost (\$ mil) | |
| 1 | Highway 3 Complete Reconstruction and Paving | 250 | 170 | |
| 2 | Highway 8 Reconstruction | 257 | 70 | |
| 3 | Access Roads Reconstruction and/or Paving | 48 | 15 | |
| 4 | Highway 5 Reconstruction and Paving | 177 | 55 | |
| 5 | Highway 6 Reconstruction and Paving | 90 | 25 | |
| 6 | Highway 4 Reconstruction and Paving | 69 | 25 | |
| Total | | 891 | \$360 | |

Note: Access roads include Detah, Fort Liard, Fort McPherson, Fort Simpson, Hay River Reserve and Kakisa.

4. Enhance Community Local Access Roads Program

Consultations with Members of the Legislative Assembly and communities have confirmed a high priority for local access roads to nearby attractions such as recreational and tourism sites, historic sites and local resources. Local access roads are particularly important for off-highway communities.

Depending on their intended purpose, local access roads may be high standard all-weather roads, seasonal roads (winter, summer, fair-weather) or trails for restricted vehicle use (four by four, all terrain vehicle (ATV), light traffic only). In general they have low traffic volumes and low operating speeds.

Two recurring themes in the comments received from communities were the desire by the communities to undertake the work themselves with local equipment and labour, and the suggestion that most of these access roads required minimal standards.

Since initiation of the Department's community local access roads program, progress has been relatively slow due to the low funding level (\$250,000 in 1993) and the absence of a framework for community involvement.

Two actions are proposed to overcome these problems. First, we must increase the funding available for this program. This can be accomplished through reallocation from other transportation programs.

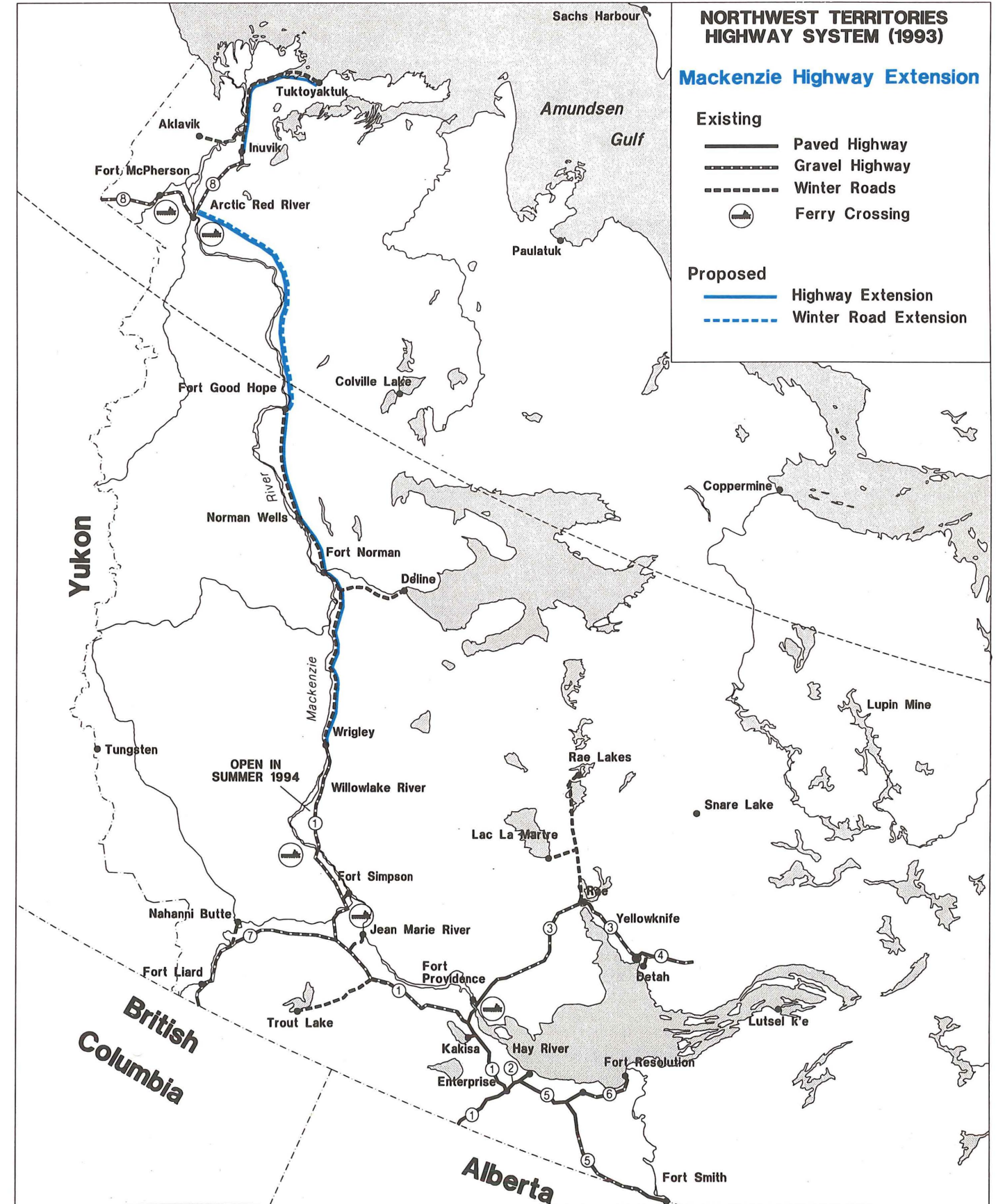
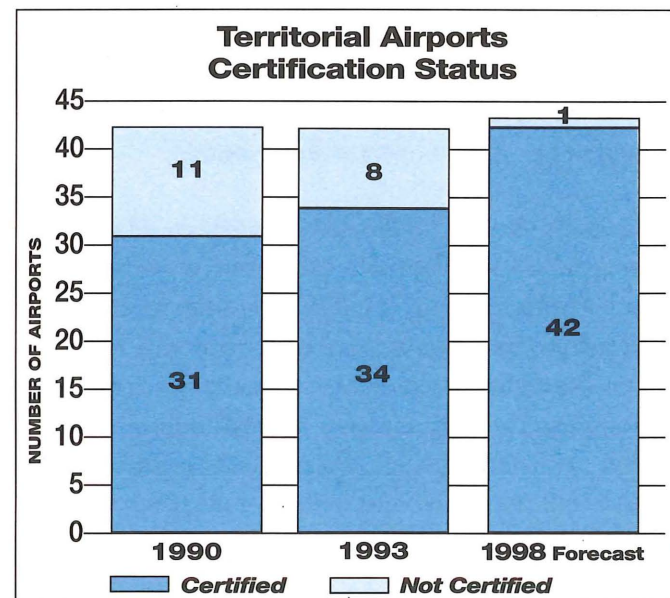
Second, we must give the communities more control over decisions regarding local access road projects. The Department will therefore implement a Contributions Policy as a means to provide financial assistance to communities to build local access roads. We believe that such a policy will help minimize costs by ensuring that design and construction standards are appropriate and that there is local commitment and ownership for the project.

5. Upgrade Airports to Standard

There are 55 public airports in the Northwest Territories. Nine airports are owned and operated by Transport Canada, 42 by the Northwest Territories Department of Transportation, and four by private concerns or local communities. Responsibility for the territorial airports was transferred from Transport Canada in 1990, along with base funding.

At the time of transfer, many airports had major deficiencies. In 1990, eleven airports did not meet certification requirements. Several others had restrictions to improvement because of location.

Since 1990, the Department of Transportation has made significant progress. We have negotiated two cost-sharing agreements with the federal government. The five-year Airport Construction Contribution Agreement of 1991, and the five-year Strategic Transportation Improvement Agreement signed in 1993, together provide almost \$15 million in federal funding for upgrading nine territorial airports.



and gas industry and allow harvesting of renewable resources through the provision of relatively inexpensive transportation and improved reliability. Tourism opportunities are also considered significant as this highway would complete the loop with the Dempster Highway in the Yukon Territory.

Completion of the section from Fort Simpson to Wrigley in 1994 demonstrates the territorial government's commitment to the Mackenzie Highway. Consideration is also being given to extending the winter road from Fort Good Hope to Inuvik, thus providing a seasonal road link to Inuvik and Tuktoyaktuk from the southern Northwest Territories.

Construction of the Mackenzie Valley Highway must not be undertaken as a mega-project. The main objective is local employment, with work in several locations on an ongoing basis. Work must begin now, and not wait for an oil or gas pipeline to materialize.

The extension of the Mackenzie Highway from Wrigley to Inuvik and Tuktoyaktuk must be proposed to the federal government as a joint Canada-Northwest Territories employment-creation initiative.

3 Construct Arctic Coast Transportation Corridor

The Slave Geologic Province, between Great Slave Lake and the Arctic coast, holds enormous potential for mineral developments. A host of base metal, gold and diamond deposits have been discovered, with several developments impending, such as the base metal mine at Izok Lake.

Mining is one of the major economic development potentials in the Northwest Territories. Potential benefits of mining include training and employment opportunities both in mining and associated activities, business opportunities in the service and support sectors, and ownership and investment opportunities

with a share in profits. Mining could also lead to increased territorial revenues in the form of royalties and business and income taxes, and create spin-off economic activity resulting from new infrastructure and the mining support sector. The settlement of comprehensive claims will position aboriginal groups to play a major role in mineral developments.

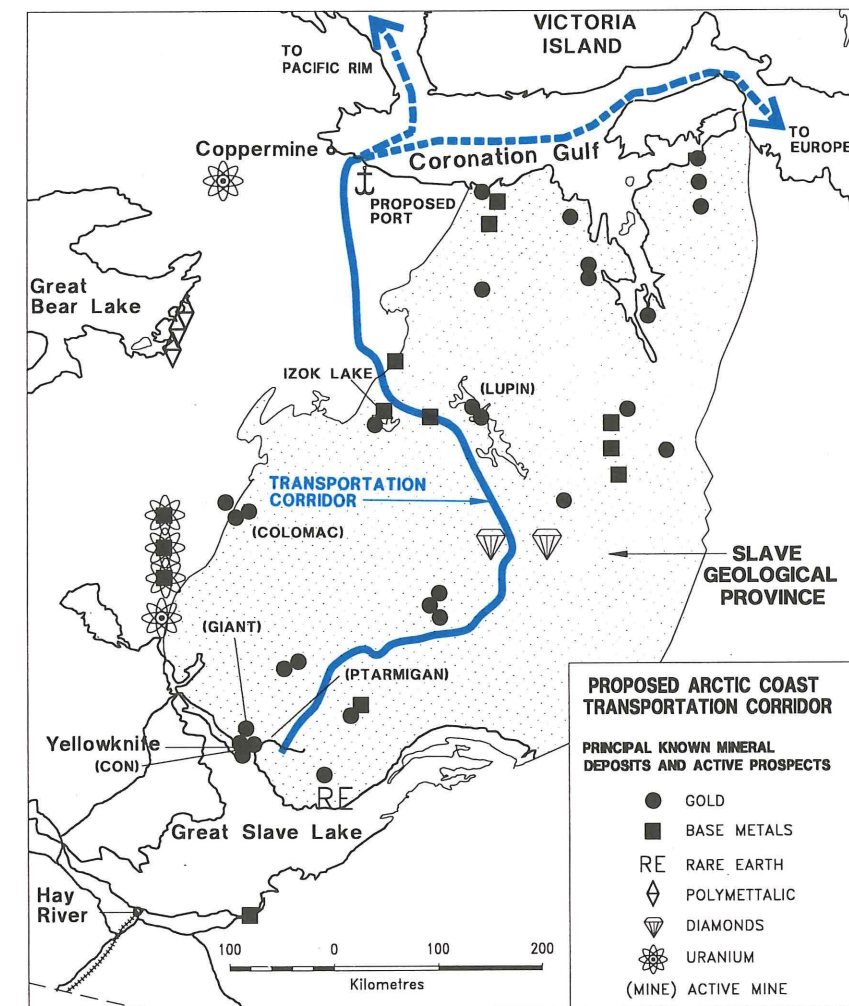
At present, transportation infrastructure in the Slave Geologic Province consists of a winter road from Yellowknife to the Lupin mine, constructed annually by the mine owner Echo Bay Resources, and a public winter road to Rae Lakes and Lac la Martre constructed by the Department of Transportation. A private winter road to the Colomac mine is also planned for the winter of 1993/94.

Because of remoteness, transportation costs related to mining exploration and development in the Slave Geologic Province are extremely high. A road from Yellowknife to a new port on the Arctic Coast is considered essential to serve the needs of current and potential mining exploration and developments in the region.

In the short term a transportation corridor consisting of a winter road connecting Yellowknife, Lupin and Izok Lake to a port on the Arctic Coast is required. This winter road would likely be sufficient for existing developments plus Izok Lake. However, a winter road would not adequately serve the needs of the other promising mineral deposits in the region.

Winter roads are typically open for only three months of the year. Mines dependent on a winter road would require much higher working capital and would encounter other operational inefficiencies. An all-weather road in the Slave Geologic Province would encourage greater exploration and development. Moreover, it could make many marginal deposits economic to develop.

Therefore, our long-term objective must be an all-weather road from Yellowknife to a port on the Arctic Coast. This 650-kilometre all-weather road is



estimated to cost \$600 million for construction and \$11 million per year for maintenance. A port on the Arctic Coast is estimated to cost \$50 million to construct and \$3 million per year to operate and maintain.

It is unlikely that any single development could support this magnitude of investment. Therefore, a cooperative effort between the mining industry and the federal and territorial governments is required to meet this need. The mining industry would be the direct beneficiary of any infrastructure development through improved and reliable year round access. Governments would benefit through increased economic activity, royalties and taxes.

The territorial government should take a lead role in coordinating stakeholders, including mining and

business interests, aboriginal groups and governments, to ensure developments proceed to the benefit of all.

The federal government must be convinced that investment in this project is worthwhile since mining in the North benefits the entire nation and produces substantial revenues for the federal government. We will also seek support from other provinces whose economies will benefit from developments in the North.

We will continue to work with mining companies and other stakeholders to determine what infrastructure will best meet needs and when it should be built. Finally, in cooperation with the federal government and the mining industry, we need to develop and implement a proposal for financing the necessary investments in public infrastructure.