Alaska Applied Remote Sensing Project **FY2002 Request: $3,500,000**
Reference No: AMD 35214

AP/AL: Appropriation **Project Type:** Planning
Category: Development
Location: Statewide **Contact:** Nico Bus
House District: Statewide (HD 1-40) **Contact Phone:** (907)465-2406
Estimated Project Dates: 07/01/2001 - 06/30/2003

Brief Summary and Statement of Need:
NASA has designated $3.5 million for grants to Alaska-based agencies to investigate the application of remote sensing technology to a range of problems in the broad category of marine fisheries, air safety, natural resources and geologic hazards assessment. These needs were identified by Alaska citizens, the U.S. Congress, and by representatives of Alaska State, Federal, and Local organizations at a NASA sponsored workshop held December 14, 2000, in Anchorage, Alaska.

Funding:	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	Total
Fed Rcpts	$3,500,000						$3,500,000
Total:	$3,500,000	$0	$0	$0	$0	$0	$3,500,000

☐ State Match Required ☑ One-Time Project ☐ Phased - new ☐ Phased - underway ☐ On-Going
0% = Minimum State Match % Required ☑ Amendment ☐ Mental Health Bill

Operating & Maintenance Costs:

	Amount	Staff
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	
Totals:	0	0

Additional Information / Prior Funding History:

Project Description/Justification:
Most Alaska state and federal agencies do not now utilize air-and space-borne remote sensing technologies in their daily work. These technologies have been used to good advantage elsewhere in the world for specific kinds of problems and might significantly enhance the effectiveness of several agencies that are trying to solve similar problems in Alaska.

The Alaska Applied Remote Sensing Project is designed to determine whether remote sensing technologies can effectively address needs that have been transmitted to Alaska's federal delegation by Alaska citizens. Therefore, it is the desire of the U.S. Congress that research be undertaken in Alaska to attempt the application of remote sensing to problems within the subject areas of declining marine fisheries, air safety, natural resource inventories, and geologic hazard assessment. To that end, Congress directed NASA to designate $3.5 million from its FFY2001 base budget for grants to Alaska organizations to undertake research on how remote sensing technologies might be applied to these areas of interest.

Beginning in late fall of 2000, NASA contacted the Lieutenant Governor's Office, the Alaska Department of Natural Resources, and the University of Alaska Synthetic Aperture Radar facility to hold a series of statewide workshops and develop a process to identify the highest priority research topics within the above broad areas of interest. Although one workshop has been held, the process of selecting specific research projects is still in progress. Final research topics will be selected at a second workshop scheduled for May 30-June 2, 2001. At the completion of that process, at least one project in each of the above research areas will be identified for funding.

Specific Spending Detail:

Project spending details are not available at this time because specific projects are still in the process of being identified. DNR will act primarily as a disbursement office to transmit federal NASA funds to those agencies having the lead for specific tasks within the overall Alaska Applied Remote Sensing Project.

Project Benefits:
This project provides a mechanism to investigate more effective ways of solving problems that are negatively impacting Alaska's marine fisheries industry, public safety, and rural employment and to do so without expending state revenue. Work resulting from this project may curtail the loss of fish to offshore poaching, enhance salmon returns, or identify high seas fish concentrations. This project may also lead to the development of small rural placer mining developments.

This project will provide a mechanism to train several Alaska agency personnel in the application and limitations of various remote sensing products to high priority Alaska problems. This knowledge will be valuable in assessing future remote sensing application proposals that are likely to be made to the state. The experience gained through this project will allow agency personnel to make more informed future decisions.

Projected Revenue to the State:
This project will not result in the immediate creation of direct revenue to the state.

Project Support:
Lieutenant Governor's Office, North Pacific Marine Fisheries Council, University of Alaska SAR Facility, NASA, NOAA, FAA, Alaska Geographic Data Committee

Does this project leverage other funding for the state?
This project is funded as a grant and therefore does not require matching funds. Work done on project tasks will complement ongoing state work. By its nature, this grant is designed to fund trials of new approaches to Alaska problems.

Project History:
No other federal funds have been received previously for this project. This is an initial effort for what may be an ongoing NASA – State partnership to apply remote sensing technology to the solution of specific appropriate Alaska problems. Because of this, and the research nature of the effort, we have no history to refer to and forecasts of success are tentative. These new technologies are not all routinely applied anywhere. Those that are more common have not been used extensively in Alaska. Some problems that this project will attempt to address are well outside the experience of NASA.

Alternative Approaches/Financing Considered:
State General Fund appropriations for project tasks were considered and rejected because of the inability to confidently predict positive outcomes for the application of the remote sensing technologies that will be employed.

Engaging only federal agencies to perform this research on behalf of Alaska was considered and rejected because it does not result in transferring additional technical knowledge to Alaskan state agencies. While some tasks may be done in cooperation with federal agencies, we believe that it is important to develop in-state expertise in the use of these technologies if they are to be of long-term benefit to the state.

Annual Operating and Maintenance Costs:
The primary product of this project will be the transfer of technological expertise from federal to state agencies. Once it has been attained, there will not be any extraordinary costs for maintaining that expertise beyond normal agency appropriations. There will be new, but nominal, costs to state agencies to maintain certain specific remote sensing data analysis software licenses. These costs will not be incurred unless the research undertaken in this project is successful. In that case, the benefits realized by the state should be more than offset by the cost of maintaining the necessary computer programs.