

ALASKA LEGISLATURE

1943

HOUSE AND SENATE FINANCE COMMITTEE FILES, 1999 - 2000

State of Alaska
Y2K Project

Y2K Testing Guidelines and Requirements

Purpose

The State of Alaska must ensure that all its services and systems potentially affected by the millennium change are converted, modified, or replaced with Y2K (year 2000) compliant capabilities. Each agency is responsible for ensuring Y2K compliance of their hardware, software and networks, and is also responsible for documenting and reporting successful completion of their Y2K conversion to the Y2K Project Office (YPO).

This document sets out testing guidelines and requirements to ensure that all computer systems and applications supporting Mission Critical Business Functions (MCBF) within departments will be Y2K compliant and fully functional before, during, and after the Year 2000, and before their estimated Y2K-related failure dates.

COMPLIANCE , as defined by the "Year 2000 Compliance Standard" adopted by the State of Alaska is:

An information technology product is considered Year 2000 (Y2K) compliant if:

1. it accurately processes date- and time-related data (including, but not limited to, calculating, comparing, and sequencing) from, into, within, and between the twentieth and twenty-first centuries, including but not limited to processing and calculations for the years 1999 and 2000 and for leap years;
2. when used in combination with other information technology, shall accurately process date/time data if the other information technology properly exchanges date/time data with it."

Overall Guidelines

- Follow GAO guidelines for testing as defined in *Year 2000 Computing Crisis: A Testing Guide* (US General Accounting Office, GAO/AIMD-10.1.21, June 1998) *(these can be found on the State of Alaska Y2K web site)*
- Identify the hardware, software, and application software for mission critical business function supporting computer systems, and install and test Y2K compliant versions for all hardware and software.
- Work with YPO to define timetables for Y2K testing that require coordination with ITG, with other agencies, and appropriate external data exchange parties for functional interfaces.
- Inform YPO of any resources necessary to facilitate remediation and testing to achieve Y2K Compliance and Certification.
- Test in a fully Y2K compliant environment, with each component of the environment having vendor certification and testing completed, before MCBF supporting applications are tested and certified.
- Test according to the *Testing Compliance Guidelines* set out in this document.
- Submit a completed *TEST CHECKLIST* set out in this document, regardless if the test status previously reported to the YPO is 'completed'.
- Provide the YPO with department test scripts, plans and results when requested or as needed.
- Retain test scripts, plans and results according to guidelines for Y2K record retention. *(Retention guidelines to be published in separate document.)*
- Identify federal requirements for Independent Verification and Validation that may apply to your business function and supporting computer systems.

Testing Compliancy Guidelines

- All federal requirements for Independent Validation and Verification for mission critical business function supporting computer systems must be met by departments.
- Software applications developed 'in house' are required to have a baseline test, unit, integration, system, and user acceptance test. Agencies must complete the *TEST CHECKLIST* for each software application tested and submit copies of them to YPO.
- Vendor software packages must have vendor certification, and be system tested and user-acceptance tested by the departments using them.
- Outsourced programming and support must have vendor certification, and be system tested and user-acceptance tested by the departments relying on these services.
- Outsourced data sites must have vendor certification, and have been user-acceptance tested by the departments relying on these services.
- All new vendor contractual agreements for any services or software must have Year 2000 clauses in the contract language for Y2K compliancy.
- All departmental and ITG WAN equipment must have vendor certification for hardware and software components.
- All LAN devices, including its hardware and software components, must have vendor certification for all components, and each machine should be independently tested.

Levels of Testing

As a minimum, Year 2000 testing must include the following levels of testing.

UNIT	verifies the logic, computations, functionality and error handling of a unit or program; includes desk checking (visual inspection) of all
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lines of code, and code walkthroughs of all Year 2000 modifications.

- INTEGRATION** verifies the internal integrity of a collection of logically related units (module); verifies the module's external interfaces with other modules, data files, external input and output.
- SYSTEM** verifies the full, beginning to end capabilities of the system; verifies that the system is functionally and operationally complete; includes regression testing. System testing must be performed for conditions, test data and a system date in both the 20th and 21st centuries.
- BASELINE** an initial test done prior to any modifications of programming code, hardware or system software which will serve as a guideline or basic standard of which to compare results following changes made to any code, hardware, or software.
- REGRESSION** verifies that newly added or modified system components (hardware or software) have not compromised system functionality and performance (i.e. not introduced new errors).
- USER-ACCEPTANCE** verifies that the system requirements from a business perspective are functionally satisfied, including regression testing. Acceptance testing must be performed for conditions, test data, and a system date in both the 20th and 21st centuries.
- END-TO-END** conducted when a major element or group of elements in a related system is modified or replaced. The boundaries on end-to-end tests vary depending on a given business area's system dependencies and criticality to the mission of the organization. To plan for end to end testing, all interrelationships of data must be identified, both with the organization, across the enterprise, and outside the enterprise to the private and larger public sector.

End-to-End Testing Guidelines

Many of the supporting applications for mission critical business functions require testing interfaces from data exchange partners. In general, most of the end-to-end testing involves, but is not limited to, the following mission critical business function supporting applications:

- AKPAY
- AKSAS
- Alaska Student Loans (HELMS)
- APSIN
- Child Support Enforcement
- Permanent Fund Corporation
- Retiree Payroll
- Revenue and Billing
- SBS Annuity
- Treasury
- Welfare
- Medical Payments
- Unemployment Insurance
- Others may be added to this list, as necessary.

Each department is responsible for adhering to the following guidelines for successful end-to-end testing.

- Identify all relevant data exchange partners.
- Identify all file transfers or interfaces.
- Determine if these interfaces or files need to be tested, based on modifications to files for Y2K compliancy.
- Develop test scripts, plans and schedules for test.
- Retain all test scripts, plans and results of the tests.
- Schedule testing with data exchange partners.
- Document and validate results.

Testing Checklist

Please complete this checklist and return to the YPO office for review. For all tests that proved successful, mark "P" (pass) in the appropriate box. For those that do not apply to your business function and computer system, mark "n/a" (not applicable).

Mission Critical Business Function Name _____

Critical supporting system _____

Certifying person _____

Title _____

Phone _____ E-mail _____

	Baseline	Unit	Integration	System	User Acceptance
1. General					
Test on a Y2K-compliant environment					
Have vendor certification for each hardware and software component of system platform					
Develop test scripts for each application					
Retain test scripts with pass/fail checks					
Test manually (M) or used automated tool (A)					
2. Test the following dates or an appropriate subset of these for your application:					
4/9/1999 99th day of year Julian calendar					
7/1/1999 1 st day of state fiscal year					
9/9/1999 Sometimes used as end-of-file marker					
10/1/1999 1 st day of federal fiscal year, 1 st two character month					
12/31/1999 Last day of the year					
1/1/2000 1 st day of year 2000					

	Baseline	Unit	Integration	System	User Acceptance
1/3/2000 1 st working day of year 2000					
1/10/2000 1 st two character day of year 2000 (first five-digit date)					
1/31/2000 End of 1 st month					
2/28/2000 Day before leap year					
2/29/2000 Valid leap year					
2/30/2000 Invalid date					
3/1/2000 Day after leap year					
3/31/2000 End of 1 st quarter					
4/15/2000 Tax day					
4/30/2000 1 st month ending on weekend					
6/1/2000 1 st day of state fiscal year					
6/30/2000 End of 2 nd quarter, end of state fiscal year 2000					
9/30/2000 End of 3 rd quarter, end of federal fiscal year 2000					
10/10/2000 1 st full 8-character day					
12/31/2000 Last day of year, 366 th day of the year					
1/1/2001 1 st day of year 2001					
12/31/2001 Last day of year					
2/29/2001 1 st Invalid leap year date					

	Baseline	Unit	Integration	System	User Acceptance
3. Enter any additional dates critical to application, if any:					
4. Other tests:					
Test all calculated fields based on dates					
Test all date comparison results					
Test all dates used for some other meaning than a date.(e.g. end-of-file indicator, unknown date indicator(1/1/11))					
Test day-of-the-week conversions.					
Test all sorts using date fields.					
5. Database Backups and Restores:					
Test database backup and restore procedures crossing centuries.					11/9

Glossary

COMPLIANCE

A system, including all hardware, software and documentation, is Y2K compliant if it is capable of correctly processing, providing and/or receiving date data within and between the 20th and 21st centuries.

COMPLIANT ENVIRONMENT

A Y2K compliant environment has all hardware, system software, application software, embedded chips and interfaces capable of processing Y2K-related dates.

DEPARTMENT CERTIFICATION

Once all modifications, remediation, and testing has been completed for each MCBF and its supporting applications, each department commissioner must certify compliance to the Y2K Project Office.

INDEPENDENT VERIFICATION AND VALIDATION

The use of an external group (consultants, another agency) with a specified degree of technical, managerial, and financial independence from the department or development organization to review and assess Y2K remediation efforts.

REMEDATION

The conversion, replacement or elimination of selected platforms, applications, databases, programming code or interfaces.

WINDOWING

Using a range of years calculated from current date to decide whether century should be 19 or 20. For example, use 50 to interpret any 2 digit year YY greater than or equal to 50 to be century 19, and any YY less than or equal to 50 to be century 20.

EXPANSION

Redefining any two digit year field to a four digit year field to include the century in the date to be able to correctly process year 2000 dates.

DATA AGING

Adding either set values or calculated values to date fields, to allow testing for various future dates. For example, to age dates to create test data for Jan 1, 2000, use a simple file of test data created for Nov. 9, 1998, add 418 days to the date within the file to make it current for Jan 1, 2000 rather than current for Nov. 9, 1998.

TEST SCRIPTS

Detailed sequential tasks that are written for specific application logic and code that are followed during a test to ensure all areas of logic are tested.

DATES TO TEST

The dates listed in the *Test Checklist* here are a suggested listing of dates to test. Some of these dates may not apply to your application. You may have others that are appropriate for your testing. It is up to the department to determine the business needs of the application and document which dates were tested and which were not tested.

ARR 11/98 Status Report

The Y2K project at the ARRC is moving along with schedule date of completion still projected for February 1999. Efforts this month have mostly focused on developing contingency plans for the year 2000 possible interruptions in services. During weekly status meetings with all business area represented, all key functions and possible business constraints that will be experienced if interruptions from Y2K issues are being identified. A forms is being used for each mission critical business area to help business units plan for the appropriate resources and determine if additional resources are needed. This process is planned to be completed by the end of December 1998. Money has been budgeted in 1999 for any areas that might be identified that will need further attention. The area that will most likely be upgraded to support the contingency plan is General Office Building backup power generator to allow more equipment in dispatcher's office to run of a longer time that current uninterruptible power supply can support. Decision regarding power requirements and upgrade should be completed by end of 1998 with installation by February 1999 if necessary.

Testing is being completed for the financial systems including payroll which has been identified as priority one system. The only issue that has surfaced was a sorting error on a report and on user developed queries. These have been remediated already and don't expect to find any other issues. The Operational Information System that is used to track all rail cars, is currently having a new release installed that has been sent from the vendor to address the last of the year 2000 issues that have been identified. The release installation and testing are scheduled to be completed Dec 31, 1998. The last high priority system to be completed is Real Estate Accounting System which is scheduled for testing completion Dec. 5th, 1998 with training and production by end of December 1998. All other mission critical system testing has been completed including system hardware and operating systems.

For embedded processing, signal systems at road crossings have been tested and no issues were discovered. Event recorders on locomotives have also completed testing and no issues have been reported and have been certified as compliant by mechanical office. All other embedded processors including faxes, telephone switch and radio controllers have been tested and certified.

Vendors and customer letters requesting status are being reviewed with contact being made to key customers and vendors based on negative survey result. Banks have been contacted and interchange information has been tested.

If you have any additional questions regarding status please contact me at 265-2655 or cell 441-9109.

Thanks,
Eileen Reilly

Y2KPO CIP REVIEW CRITERIA

1. Is it a **Mission Critical** system?
2. Is this project necessary to survive Y2K?
3. Is the solution an appropriate response to problem?
4. Is request included in agency Y2K status report?
5. Does request relate to previously ongoing IT projects? If so does it solve Y2K?
6. Will supplemental requests lead to future CIP requests?

11/6/98
YPO

Y2K CIP REQUESTS

Department Administration	Note TIC	Reference#	Project Title	Fund	Fund Source	
					Total	Project Total
		6125	Y2K APOC Electronic Filing system <i>Not Y2K</i>	1004 Gen Fund	200,000	200,000
	Yes	6114	Y2K Retirement & Benefits Software Enhancements <i>Approved as Y2K Project</i>	1017 Ben Sys	400,000	400,000
	Yes	6122	Y2K Retirement & Benefits Data Processing Services <i>Approved as Y2K Project</i>	1017 Ben Sys	250,000	250,000
	TIC	6117	Y2K Public Defender Criminal Justice Information Integration Project <i>Not Y2K-Not Mission Critical</i>	1004 Gen Fund	400,000	400,000
	Yes	6106	Y2K Mainframe Test Environment <i>Approved as Y2K Project</i>	1004 Gen Fund	3,500,000	3,500,000
	Yes	6258	OPA Trust/Computrust Y2K Upgrade <i>Approved as Y2K Project</i>	1004 Gen Fund	104,000	104,000
Corrections	INFO.	30760	Y2K DOC/LAN/WAN/PC Hardware Replacement <i>Need more info on if all computers are related to Y2k problems or if just some are.</i>	1004 Gen Fund	560,000	560,000
	TIC	30762	Y2K DOC Criminal Justice Information System(OBSCIS) replacement <i>Not Y2K</i>	1002 Fed Rcpts	1,000,000	1,000,000
	INFO	30768	Y2K DOC Facilities Embedded Systems <i>Roll into DOT/PF project. Need more info on leased facilities</i>	1004 Gen Fund	385,000	385,000

Yes- Approved as Y2K Project

No - Recommend not approving project for submission in Governors budget

Info - More Information requested

TIC - Refer back to TIC for consideration as IT project

	Yes	30766	Y2K CIPT Central Control System Replacement <i>Approved as Y2K Project</i>	1004 Gen Fund	1,000,000	1,000,000
Education	TIC	32380	AVTEC Year 2000 Systems Upgrades <i>Not Y2K- Not Mission Critical</i>	1004 Gen Fund	187,100	187,100
Environmental Conservation	Yes	32345	Y2K-DEC FY2000 Y2K Compliance <i>Approved as Y2K Project</i> <i>Need Vendor evidence that equipment is not Y2K compatible</i>	1018 EVOSS 1004 Gen Fund	32,500 500,953	533,453
Health & Social Services	Yes	6149	Various Y2K Projects <i>Approved as Y2K</i> <i>Roll into DOT/PF Project</i>	1004 Gen Fund	218,300	218,300
	TIC	32341	Public Health Nursing Wide Area Network/Computer Upgrade <i>Not Y2K- New System</i>	1004 Gen Fund	200,000	200,000
	No	5605	Y2K and other Upgrades of Emergency Medical Services Communications Equipment <i>Not Y2K - Operating Item</i>	1005 GF/Prgm	250,000	250,000
	Yes	6150	McLaughlin Youth Facility- HVAC <i>Approved as Y2K Project</i>		4,000	4,000
	Yes	6157	AK Psychiatric Institute <i>Approved as Y2K Project</i>		100,000	100,000
	No	6151	McLaughlin Youth Facility Telephone System <i>Operating Item</i>	Gen Fund	30,000	30,000
	No	6152	Public Health Lab - Server <i>Operating Item</i>	Gen Fund	10,000	10,000

Yes- Approved as Y2K Project

No - Recommend not approving project for submission in Governors budget

Info - More Information requested

TIC - Refer back to TIC for consideration as IT project

	No	6153	EMS Certification - Database replacement <i>Operating Item</i>	Gen Fund	20,000	20,000
	No	6154	Public Health Nursing- Patient Mgmt. System <i>Not Y2K</i>	Gen Fund	50,000	50,000
Labor	No	6104	Y2K Equipment Replacement <i>Not Y2K - Operating Item</i>	1004 Gen Fund 1002 Fed Rcpts	214,400 455,600	670,000
	TIC	32376	UI Tax System Redesign <i>Not Y2K- New System</i>	1002 Fed Rcpts	2,600,000	2,600,000
Natural Resources	Yes	32333	Y2K network Upgrade for Recorders Office <i>Approved as Y2K</i>	1004 Gen Fund	225,000	225,000
Public safety	No	6116	Y2K Evaluation/Remediation/Certification <i>Not required to make ASPIN Y2K Compliant</i>	1004 Gen Fund	188,525	188,525
University of Alaska		6134	University of Alaska - Y2K "Tentative requests" <i>Not Considered</i>	1004 Gen Fund	7,932,300	7,932,300
DOT/PF	Yes		State Facility Review <i>Approved as Y2K Project</i>		6,900,000	6,900,000
Totals						
Approved as Y2K Project						\$13,234,753
Referred back to TIC						4,587,100
Awaiting more information						945,000
Not recommended						1,218,525
Not Reviewed						<u>7,932,300</u>
						\$27,917,678

Yes - Approved as Y2K Project
 No - Recommend not approving project for submission in Governors budget
 Info - More information requested
 TIC - Refer back to TIC for consideration as IT project

STATE OF ALASKA

YEAR 2000 PROJECT
BRIEFING AND
BACKGROUND MATERIALS

- Governor Knowles' Administrative Order No. 177
- State of Alaska Mission-Critical Business Functions
- Departmental Y2K Readiness Reports
- Project Status Reports
- Year 2000 Project Office - - Contact Information

Year 2000 Project Office

<http://www.state.ak.us/y2000/>

January 22, 1999



STATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

ADMINISTRATIVE ORDER NO. 177

I, Tony Knowles, Governor of the State of Alaska, under the authority of art. III, secs. 1 and 24 of the Alaska Constitution, establish a Year 2000 (Y2K) project office within the Office of the Governor, to be headed by the Y2K senior project manager.

PURPOSE

The Year 2000 date change problem is already affecting automation systems and the conduct of business worldwide, in both public and private sectors. The Y2K problem will increasingly affect automation systems and business operations as December 31, 1999, approaches, and will continue to have substantial effects even beyond the year 2000. Therefore, the Year 2000 problem poses serious potential risks for the State of Alaska and all Alaskans.

The brief time remaining to obtain compliance with year 2000 standards requires the Administration to act as if under emergency conditions to prevent or minimize the effects of noncompliance which may pose a direct and imminent threat of a disaster of sufficient magnitude and severity to justify state action.

To do the Administration's utmost to ensure essential state government functions continue without interruption, I declare Year 2000 compliance to be a priority of the highest level for the executive branch. In recognition of that priority, the Y2K senior project manager must function at the level of a member of the cabinet.

For the same reason, the Y2K project office, which has worked closely with state agencies in compiling inventories and assessments of their automated systems, must be elevated organizationally to link directly to the Office of the Governor.

DIRECTIVES FOR THE Y2K PROJECT OFFICE

The Y2K project office shall:

1. coordinate all Y2K efforts for the executive branch and focus those efforts on meeting the needs of mission critical systems of state agencies;
2. set Y2K compliance standards consistent with law for all state agencies in the executive branch;

3. monitor the efforts of state agencies in the executive branch to meet compliance standards established under this order;
4. establish a remediation timetable and a risk management and contingency plan for the executive branch for Y2K efforts;
5. establish a Y2K clearinghouse for making Y2K preparedness information available to state agencies, the public, and entities outside of state government; and coordinate technical assistance to other affected entities in Alaska;
6. maintain ongoing contact with Y2K coordinators in state agencies;
7. compile information regarding resource needs of state agencies to address Y2K issues; and analyze, coordinate, and present Y2K requests for appropriations to the Governor and the Legislature;
8. make monthly reports on the Y2K efforts and progress of state agencies to the Governor, Chief of Staff, Cabinet, and Legislature;

DIRECTIVES FOR STATE AGENCIES

Each state agency is responsible for doing its utmost to ensure its mission critical systems are, or can be made, and will remain, Y2K compliant. This includes ensuring, to the extent possible, its mission critical systems will not be interrupted or corrupted as a result of automation interfaces or business relationships with other entities inside or outside of state government.

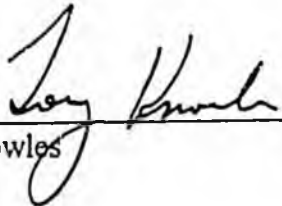
Each state agency shall:

1. consistent with legal obligations, adhere to all Y2K standards established for the executive branch;
2. with due consideration for mandated Administration and legislative initiatives, defer commencing new technology projects (including purchases or leases of software, system enhancements, and hardware) until mission critical systems are Y2K compliant, unless the state agency can demonstrate that those projects will not impede the agency's ability to achieve Y2K compliance for all of its mission critical systems;
3. identify all mission critical systems for the agency which requires Y2K-related modifications in order to function correctly and reliably, or may require replacement or elimination;
4. develop and implement a Y2K project work plan that is based on the use of existing resources to the extent possible, and is focused on achieving or maintaining the Y2K compliance of mission critical systems of the agency;

5. develop appropriate contingency plans to ensure that mission critical systems of the agency can continue to operate if Y2K-related interruption or corruption of supporting systems occurs;
6. identify additional needs to ensure its mission critical systems are repaired or replaced, tested, and fully addressed by an appropriate contingency plan of the agency; and
7. provide monthly progress reports on efforts conducted under this order to the Y2K senior project manager.

This order takes effect immediately.

Dated at Juneau, Alaska, this 28 day of August 1998.



Tony Knowles
Governor

State of Alaska - Year 2000 Project
Y2K Project Office

MISSION-CRITICAL BUSINESS FUNCTIONS

ENTERPRISE-LEVEL

The list below identifies the "enterprise-level" mission-critical business functions for purposes of the Year 2000 Project. These business functions and the systems which support them (business systems, automation systems, facilities, supplier and customer relationships, etc.) will be the primary focus of Y2K remediation and compliance efforts.

Administration

Procurement
Mental Health Trust Authority Grants
Public Guardian Trust Accounting System
Alaska Longevity Bonus Program
Alaska Pioneer Homes (general)
Payroll
Accounting
Computer Services
Network Services
Telephone Services
Telecommunications Services
Alaska Public Communications Services
Vehicle and Driver Licensing
Retiree Payroll
Supplemental Benefits System Annuity Plan
On-Line Personnel Recruitment

COMMERCE AND ECONOMIC DEVELOPMENT

Bradley Lake Hydro
Four Dam Pool Hydro
Larsen Bay Hydro
Alaska Intertie
AIDEA Loan Servicing
Investment Loan Servicing
Alaska Railroad

COMMUNITY AND REGIONAL AFFAIRS

Power Cost Equalization
State Revenue Sharing
Seniors and Disabled Renters Program
Safe Communities (formerly Municipal Assistance)

CORRECTIONS

DOC Twelve Correctional Institutions, And Their Security, Central Control Systems, Perimeter Fences, Card Entry/Exit Systems, Monitoring Systems, Health and Life/Safety Systems

DOC Telecommunications In Correctional Facilities.
EDUCATION

Post-Secondary Education Commission - Loans

ENVIRONMENTAL CONSERVATION

Laboratory Analysis of Food Samples
Certifying Commercial Drinking Water Labs
Analysis of environmental samples
Communications System for Emergency Response

FISH & GAME

Licensing fishermen, crew members and vessels for commercial fishing across the state
Enhancement Hatcheries
Process Fish Tickets

GOVERNOR

State Budget Preparation
Elections

HEALTH AND SOCIAL SERVICES

Family and Youth Services - Youth Detention Facilities
Family and Youth Services - Family Services, Child Protection Services
Alaska Psychiatric Institute
Public Health Nursing
Medical Benefits to Alaskans who qualify
Public Assistance or "Welfare" Programs (ATAP, Food Stamps/EBT, General Relief, Adult
Public Assistance and others) for Alaskans who qualify
Public Health Laboratories
Emergency Medical Services

LABOR

Unemployment Insurance
Employment Services
Worker's Compensation

LAW

Prosecution of Criminals
Collection of Civil & Criminal Debts to the State - Child Support Enforcement Collections
Investigation, Defense, & Prosecution of State's Oil & Gas Royalty and Taxation Cases
Child Protection Cases

MILITARY AND VETERANS AFFAIRS

**Emergency Response Capability - State, Local, Federal Coordination
Disaster Recovery Database - Emergency Response Support**

NATURAL RESOURCES

**DNR's revenue processing
Property recorder's office system
DNR oil patch
DNR Land Administration System.
Wildland Fire Suppression Systems
Field Radio and Mobile Repeater Systems**

PUBLIC SAFETY¹

**Alaska Public Safety Information Network
911 Emergency Dispatch Centers
Public Safety Message Switch
Vehicles, Vessels, Aircraft**

REVENUE

**Income & Excise Audit Division's Cash Processing
Process and deliver PFD checks
Process Child Support Payments
Collection of State Revenues
Disbursement of State Funds
In-house investment management of State/ASPIB fixed income
Permanent Fund Corporation - Asset Management**

TRANSPORTATION

**Alaska Marine Highway System Vessels
Anchorage International Airport Fire Alarm System
Anchorage International Airport Heating, Ventilating, Air Conditioning
Alaska Marine Highway System Shoreside Facilities
Anchorage International Airport Access Control System
Land Highway Traffic Control Devices
State Equipment Fleet Vehicles and Shop Equipment
State Equipment Fleet Equipment Management System
Fairbanks International Airport Access Control System
Fairbanks International Airport Andover Heating, Ventilating, Air Conditioning Contro.
Fairbanks International Airport Fire Alarm System
Sitka Airport
Telecommunication Infrastructure
Third Party Billing System
Public Facilities, Buildings**

¹ Two additional MCBF's ("Public Safety Message Switch" and " Vehicles, Vessels, Aircraft"), previously listed separately, were consolidated and included within the two MCBF's shown, effective 11/6/98.)

YEAR 2000 READINESS STATUS as of DECEMBER 1998

DEPARTMENT OF ADMINISTRATION

Overall Rating: **YELLOW**¹

- All systems have been inventoried and assessed
 - Each MCBF² is being aggressively worked
 - All systems except Payroll have been remediated and are in testing or awaiting testing
 - Good top management support
 - Appropriate funding requests have been made

Status of each Mission Critical Business Function:

1) Procurement - **YELLOW**

- Largely a manual process, Y2K problems not anticipated

2) Mental Health Trust Authority Grants - **YELLOW**

- Uses AKSAS

3) Alaska Longevity Bonus Program - **YELLOW**

- 100% remediated
- In testing

4) Alaska Pioneer Homes – Pharmacy System - **YELLOW**

- System certified by vendor to be Y2K compliant
- Tested in December 1998. Rating pending results

5) Payroll - **YELLOW**

- Anticipate Y2K compliant vendor upgrade in March 1999
- Do not anticipate completing testing until July 1999

Note – if system failure is affected by 6/30/99 changeover, plan could be too tight

¹ (red) Given current status/constraints, it is unlikely this MCBF will be Year 2000 compliant prior to projected failure date.

(yellow) Given current status, this MCBF should be Year 2000 compliant one month prior to its projected failure date.

(green) This MCBF is Year 2000 compliant, and an approved contingency plan is in place.

² MCBF: Mission Critical Business Function. Selected based on significant impact on life, health safety or economic well-being of Alaskans

6) Accounting- YELLOW

- 75% Remediated
- 70% Tested
- 60% Implemented
- AKSAS designed to process four digit dates

7) Vehicle and Driver Licensing - YELLOW

- Copy of ASPIN which is expected to be compliant
- Awaiting mainframe testing

8) Public Guardian Trust Accounting System - YELLOW

- Pacific Western package certified by vendor to be Y2K compliant
- Needs to be tested on platform it operates on

9) On-line Personnel Recruitment - YELLOW

- Not discussed in agency status report
- Comment based on research by Chris Parse
- New system – expected to be Y2K compliant
- Needs to be tested on current platform

10) Retiree Payroll - YELLOW

- Expected to be compliant
- 50% tested

11) Supplemental Benefits System Annuity Plan - YELLOW

- Expected to be compliant
- 30% tested

Funding Requirement: \$1,622,400

- **\$104,000 - Convert Public Guardian system to Y2K compliant and more stable platform**
- **\$250,000 - funding to assist with required testing of retirement system and potential additional remediation**
- **\$400,000 - Complete replacement of BENEALC system with Y2K compliant version**
- **\$868,400 - Y2K Project Administration**

YEAR 2000 READINESS STATUS as of DECEMBER 1998

DEPARTMENT OF ADMINISTRATION (ITG ONLY)

Overall Rating: **YELLOW**¹

- The mainframe test environment is in place. This is the most critical element for testing and certifying all key systems. Testing is currently scheduled to begin in January.
- All areas are being aggressively worked. The red rating in Telecommunications appears to be caused by a lack of update information. This area is being researched for update information at this time.
- Contingency plans have been submitted for review

Status of each Mission Critical Business Function:

1) Computer Services - **YELLOW**

- The partitioned environment needed for Y2K testing is in place
- This rating is tentative, and based on the pending release of a testing schedule, due out in mid January
- Remediation is ahead of schedule

2) Network Services - **YELLOW**

- Assessment and planning is complete and Remediation is ahead of schedule
- An aggressive team is working all levels of statewide network services
- A comprehensive inventory is available and being used in this effort

3) Telephone Services - **YELLOW**

- The state's three major PBX systems are run on Y2K compliant hardware and software
- Testing is possible and scheduled for these systems
- Local Exchange Carriers (LECs) in the three major urban areas (Anchorage, Fairbanks, Juneau) are addressing Y2K concerns

¹ (red) Given current status/constraints, it is unlikely this MCBF will be Year 2000 compliant prior to projected failure date.

(yellow) Given current status, this MCBF should be Year 2000 compliant one month prior to its projected failure date.

(green) This MCBF is Year 2000 compliant, and an approved contingency plan is in place.

4) Telecommunications - YELLOW

- The main ITG leased-line systems and interfaces supporting this function, are estimated at 100% assessed, and 30-50% remediated.
- Assessment and planning of paging equipment and two-way radios is 100% assessed, with a task order under preparation between ITG and the Y2K Project Office for conducting remediation. Completion of remediation is expected by 6/30/99, depending on availability of funding..

5) Alaska Public Communications Services - YELLOW

- Earth stations and transmission facilities have redundancy and backup power sources.
- The Satellite Interconnect Program is on schedule and should be completed by March 1999

6) Desktop LAN/WAN - YELLOW

- Remediation is ahead of schedule
- Activity is well into the remediation phase

Funding Requirement: \$2,126,300

- \$2,126,300 - Mainframe Test Environment

YEAR 2000 READINESS STATUS - - AS OF DECEMBER 1998

DEPARTMENT OF COMMERCE AND ECONOMIC DEVELOPMENT

OVERALL STATUS:..... YELLOW¹

- Department is making satisfactory progress and is ahead of the estimated failure dates for the automation systems supporting its MCBF's. No problems expected.
- Department-wide Y2K contingency plan in place.

STATUS OF MISSION-CRITICAL BUSINESS FUNCTION (MCBF):

1. Investment Loans Servicing YELLOW

- Mortgage Loans Extended system and Loans Online Information System both 100% completed for Assessment and Planning Stage, and 80% completed with Remediation Stage. Critical suppliers are identified (KeyBank LockBox Services and electrical utilities), and contingency plans for them are in place.

2. Alaska Railroad..... YELLOW

- Assessment and planning for main automation systems are 100% completed. Remediation is functionally 100% completed, with systems having been upgraded or replaced. Testing is 100% completed in four major systems and 90% completed for the fifth. Compliance work on embedded systems (signal systems, events recorders, phone/fax/radio controllers) is 100% completed.

3. Bradley Lake Hydro YELLOW

- Assessment and planning for all systems are 100% completed.
- Remediation is functionally 100% completed. Strategy (per normal operations) calls for replacement or manual override of relays, control

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YELLOW: Given current status and constraints, this MCBF should be Year 2000 compliant one month prior to its estimated failure date.

GREEN: This MCBF is Year 2000 compliant, and an approved contingency plan is in place.

systems and other parts if problems occur. Adequate procedures, on-site personnel, and inventory of replacement parts and equipment are all in place.

- Y2K-compliant verifications already received from most suppliers.
- Pilot-site testing of SCADA and maintenance management systems is scheduled for January 1999, with completion by 6/30/99 and results applied to other hydro sites and Alaska Intertie as needed.

4. Four-Dam Pool Hydro..... YELLOW

- (Same as above.)

5. Larsen Bay Hydro YELLOW

- (Same as above.)

6. Alaska Intertie YELLOW

- (Same as above.)

7. AIDEA Loan Servicing YELLOW

- Assessment and Planning for main automation systems (MLS system and Dynamics interface) are 100% completed, with remediation also 100% completed. Testing and implementation are both 80% completed.
- Remediation of desktop computers, LAN systems, and WAN links are 50% remediated, with testing and implementation also 50% completed.

8. Desktop/LANs/WAN..... YELLOW

- Assessment and planning for departmental systems supporting mission-critical business functions are 100% completed, with remediation 30% completed.

Y2K FUNDING REQUIREMENT: \$75,000

- \$ 75,000 - Alaska Public Utilities Commission Y2K Assessment

YEAR 2000 READINESS STATUS - - AS OF DECEMBER 1998

DEPARTMENT OF COMMUNITY AND REGIONAL AFFAIRS

OVERALL STATUS:..... YELLOW ¹

- Department is making adequate progress and is well ahead of the estimated failure dates for the automation systems supporting its MCBF's. No problems expected.

STATUS OF MISSION-CRITICAL BUSINESS FUNCTION (MCBF):

1. State Revenue Sharing..... YELLOW

- 100% completed for Assessment and Planning Stage, and for Remediation Stage. Testing is 20% done, with completion expected by 5/1/99. Small application, no problems expected.

2. Safe Communities (Municipal Assistance)..... YELLOW

- (Same as above.)

3. Seniors And Disabled Renters Program..... YELLOW

- 100% completed for Assessment and Planning Stage. Remediation is 90% done, with completion expected by 2/28/99. Small application, no problems expected.

¹ **RED:** Given current status and constraints, it is unlikely this MCBF will be Year 2000 compliant prior to its estimated failure date.

YELLOW: Given current status and constraints, this MCBF should be Year 2000 compliant one month prior to its estimated failure date.

GREEN: This MCBF is Year 2000 compliant, and an approved contingency plan is in place.

4. Power Cost Equalization YELLOW

- 100% completed for Assessment and Planning Stage, and 90% completed for Remediation Stage. Testing and Implementation are both 85% completed. Small application, no problems expected

5. Desktop/LANs/WAN YELLOW

- 100% remediated, with 90% of testing currently completed.

Y2K FUNDING REQUIREMENT: -- NONE --

- n/a

YEAR 2000 READINESS STATUS as of DECEMBER 1998

DEPARTMENT OF CORRECTIONS

Overall Rating: **YELLOW¹**

- 51% of all systems have been through the remediation phase
- Each MCBF² is being aggressively worked
- A funding request has been made to address non-compliant systems
- Strong contingency plans are in place
- Needed resources have been identified and requested

Status of each Mission Critical Business Function:

1) **Twelve Correctional Institutions, and their security, central control systems, perimeter, fences, card entry systems, monitoring systems, health and life/safety systems - YELLOW**

- Each facility has been walked through and inspected
- All facilities, to include administrative buildings, are being inspected under DOT's RSA
- A funding request to address the one correctional facility that cannot be brought into compliance has been submitted

2) **DOC Telecommunications in Correctional Facilities - YELLOW**

- Key systems are being replaced
- Digital systems are based on Y2K compliant hardware and software
- Communications between facilities is under review

3) **Desktop LAN/WAN - YELLOW**

- Desktop units tied to MCBFs have been tested
- Funding request for replacements of non-compliant units has been submitted

Funding Requirement: \$1,625,000

- \$1,000,000 - Upgrade Cook Inlet Prfe-Trial Facility central control system
- \$560,000 - Replace desktop units identified as non-compliant
- \$65,000 - Upgrade non-compliant telecommunications and embedded systems

¹ (red) Given current status/constraints, it is unlikely this MCBF will be Year 2000 compliant prior to projected failure date.

(yellow) Given current status, this MCBF should be Year 2000 compliant one month prior to its projected failure date.

(green) This MCBF is Year 2000 compliant, and an approved contingency plan is in place.

² **MCBF:** Mission Critical Business Function. Selected based on significant impact on life, health safety or economic well-being of Alaskans

YEAR 2000 READINESS STATUS as of DECEMBER 1998

DEPARTMENT OF EDUCATION

Overall Rating: **YELLOW**¹

- 83% through remediation
 - Each MCBF² is being aggressively worked
 - Top management involved
 - No additional funds required

Status of each Mission Critical Business Function:

1) Postsecondary Education - **YELLOW**

- Same as above

Funding Requirement: \$0

¹ (red) Given current status/constraints, it is unlikely this MCBF will be Year 2000 compliant prior to projected failure date.

(yellow) Given current status, this MCBF should be Year 2000 compliant one month prior to its projected failure date.

(green) This MCBF is Year 2000 compliant, and an approved contingency plan is in place.

² MCBF: Mission Critical Business Function. Selected based on significant impact on life, health safety or economic well-being of Alaskans

YEAR 2000 READINESS STATUS as of DECEMBER 1998

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Overall Rating: **YELLOW**¹

- Completion of remediation is dependent upon funding approval
- Each MCBF² is being aggressively worked
- All laboratory equipment has been tested and non-Y2K compliant units identified
- A funding request for compliant units has been made
- A contingency plan has been submitted for review

Status of each Mission Critical Business Function:

1) Laboratory Analysis and Food Services - **YELLOW**

- Non-compliant units have been identified and replacement funding requested
- If approved, units can be in place and tested prior to failure dates
- The monthly status report indicates that two elements can be brought into compliance, while 41 will need to be replaced

2) Certifying Commercial Drinking Water Labs - **YELLOW**

- Same as above

3) Analysis of Environmental Samples - **YELLOW**

- Same as above

4) Communications Systems for Emergency Response - **YELLOW**

- Radios, portable fax units and phones are compliant
- Repeaters are under review by the Information Technology Group

5) Desktop LAN/WAN - **YELLOW**

- Certification and replacement activity is currently under way

Funding Requirement: \$561,453

- \$ 533,453 - Statcwide equipment, software, and database compliance
- \$ 28,000 - Community wast water systems Y2K assessment

¹ (red) Given current status/constraints, it is unlikely this MCBF will be Year 2000 compliant prior to projected failure date.

(yellow) Given current status, this MCBF should be Year 2000 compliant one month prior to its projected failure date.

(green) This MCBF is Year 2000 compliant, and an approved contingency plan is in place.

² MCBF: Mission Critical Business Function. Selected based on significant impact on life, health safety or economic well-being of Alaskans

YEAR 2000 READINESS STATUS - - AS OF DECEMBER 1998

DEPARTMENT OF FISH AND GAME

OVERALL STATUS:..... YELLOW¹

- Department is making adequate progress and is well ahead of the estimated failure dates for the automation systems supporting its MCBF's. No problems expected.
- Department-wide Y2K contingency plan expected to be completed by 1/15/99.

STATUS OF MISSION-CRITICAL BUSINESS FUNCTION (MCBF):

1. Fish Ticket Processing..... YELLOW

- Assessment and planning for the main Fish Ticket System are 90% completed, and 100% completed on both the Fish Ticket Entry & Reporting interface and the Marianer system interface.
- Remediation of the Fish Ticket System is 40% completed, with reporting and Marianer interfaces at 40% and 100%, respectively.

2. Enhancement Hatcheries YELLOW

- Assessment and planning for the three main systems being tracked (ProScan Monitoring & Alarm System, Automated Process & Control System, and Emergency Power Generation System) is 100% completed.
- Remediation work on the three main systems, above, is 50% completed.

¹ **RED:** Given current status and constraints, it is unlikely this MCBF will be Year 2000 compliant prior to its estimated failure date.

YELLOW: Given current status and constraints, this MCBF should be Year 2000 compliant one month prior to its estimated failure date.

GREEN: This MCBF is Year 2000 compliant, and an approved contingency plan is in place.

3. Sport And Crew License Sales YELLOW

- Assessment and planning of main system is 100% completed, with remediation also 100% done.
- Testing and certification work is 80% completed, with implementation currently 50% completed.

4. Permit And Vessel Licensing..... YELLOW

- Assessment and planning for main licensing and revenue accounting system (Commercial Fisheries Entry Commission) are 100% completed, with remediation currently 85% completed.
- Testing and certification work are 85% completed, with the system currently 83% implemented to date.

5. Desktop/LANs/WAN..... YELLOW

- Assessment and planning for the department's desktop computer systems, LAN systems and WAN links, are 100% completed, with remediation currently 50% completed.

Y2K FUNDING REQUIREMENT: - - NONE - -

- n/a

YEAR 2000 READINESS STATUS - - AS OF DECEMBER 1998

OFFICE OF THE GOVERNOR

OVERALL STATUS:..... YELLOW ¹

- Department is making adequate progress and is well ahead of the estimated failure dates for the automation systems supporting its MCBF's. No problems expected.
- Department-wide Y2K contingency plan is in place.

STATUS OF MISSION-CRITICAL BUSINESS FUNCTION (MCBF):

1. Election Ballot Tabulation..... YELLOW

- Assessment and planning for Accu-Vote system is 100% completed, with remediation also 100% completed. Testing is expected to be completed by 3/1/99.

2. Voter Registration Process..... YELLOW

- Assessment and planning for current Voter Registration and Election Management System (VREMS) is 90% completed, with remediation also approximately 90% completed. Key suppliers are identified (contractor-supplied voter ID cards, voter worker payment warrants from Division of Finance) and supply contingency plans are under development.

¹ **RED:** Given current status and constraints, it is unlikely this MCBF will be Year 2000 compliant prior to its estimated failure date.

YELLOW: Given current status and constraints, this MCBF should be Year 2000 compliant one month prior to its estimated failure date.

GREEN: This MCBF is Year 2000 compliant, and an approved contingency plan is in place.

3. State Budget Process..... YELLOW

- Assessment and planning for the Automated Budget System (ABS) is 100% completed, including virtually all of its system interfaces. Remediation for ABS is also 100% completed (the system was designed to be 100% Y2K compliant) are for, and the system is currently in the testing stage.

4. Desktop/LANs/WAN..... YELLOW

- This MCBF is 100% completed for the Assessment and Planning Stage, and 50% for the Remediation Stage, with testing expected to be completed by 4/1/99.

Y2K FUNDING REQUIREMENT: -- NONE --

- n/a

YEAR 2000 READINESS STATUS as of DECEMBER 1998

DEPARTMENT OF HEALTH AND SOCIAL SERVICES

Overall Rating: **YELLOW**¹

- 84% of all systems have been through the remediation phase
- Each HSS MCBF² is being aggressively worked, and the program strongly supported by management
- Funding requests to bring non-compliant systems into compliance have been made
- Strong Contingency Plans have been submitted

Status of each Mission Critical Business Function:

1) Family and Youth Services - Youth Detention Facilities - **YELLOW**

- All facilities are being reviewed under the DOT RSA
- A contingency plan exists for the provider payment system
- Funding requests for replacement of non-compliant systems have been submitted

2) Family and Youth Services - Family Services, Child Protection Services - **YELLOW**

- A contingency plan exists for the provider payment system
- AKSAS, a critical interface, is Y2K compliant
- Key suppliers have been identified

3) Alaska Psychiatric Institute - **YELLOW**

- Non-compliant systems have been identified
- A funding request has been submitted to address non-compliant systems

4) Public Health Nursing - **YELLOW**

- Most services in this area are communications dependent and are being addressed through ITG/APUC channels
- A contingency plan exists for this function
- Concerns over embedded systems have been isolated and are being researched

¹ (red) Given current status/constraints, it is unlikely this MCBF will be Year 2000 compliant prior to projected failure date.

(yellow) Given current status, this MCBF should be Year 2000 compliant one month prior to its projected failure date.

(green) This MCBF is Year 2000 compliant, and an approved contingency plan is in place.

² MCBF: Mission Critical Business Function. Selected based on significant impact on life, health safety or economic well-being of Alaskans

5) Medical Benefits to Alaskans Who Qualify - YELLOW

- Testing and Certification of system upgrades and Y2K compliance appears to be on schedule and due to be completed by March 1999

6) Public Assistance Program - YELLOW

- This rating is based on the probable availability of a host-based test platform
- Migration from the SNA link to a HSS LAN is in progress and ahead of schedule

7) Public Health Laboratories - YELLOW

- All assessment and planning is complete
- Testing and certification activities are on schedule, with a projected completion of April 1999
- Suppliers for critical biomedical equipment have been identified and are currently under review
- A funding request has been submitted to replace non-compliant server

8) Emergency Medical Services - YELLOW

- A funding request has been submitted to replace non-compliant database
- The automated system (PRMS) function can be performed manually
- All assessment and planning is complete
- Replacement software for TRAUMA! is on order and should be tested by year end, 1998

9) Desktop LAN/WAN - YELLOW

- All assessment and planning has been completed
- Aggressive testing and certification activity is under way

Funding Requirement: \$ 2,564,000

- \$4,000 - McLaughlin Youth Facility - HVAC
- \$100,000 - Alaska Psychiatric Institute information systems upgrade
- \$30,000 - McLaughlin youth Facility Telephone System Upgrade
- \$10,000 - Public Health Laboratory Server Replacement
- \$20,000 - Emergency Medical Services Certification Database Replacement
- \$2,400,000 - Medicaid Management Information System Y2K Upgrade

YEAR 2000 READINESS STATUS - - AS OF DECEMBER 1998

DEPARTMENT OF LABOR

OVERALL STATUS:..... YELLOW ¹

- The department is making adequate progress and is well ahead of the estimated failure dates for the automation systems supporting its MCBF's.
- The department also has its own mini-mainframe machine and testing environment for repairing and testing departmental applications, so is particularly well positioned to maintain its current rate of progress.
- Additionally, the department has engaged a contractor to provide independent validation and verification of its remediation and testing work on selected critical application systems.
- A department-wide Y2K contingency plan is in place.

STATUS OF MISSION-CRITICAL BUSINESS FUNCTIONS (MCBF):

1. Unemployment Insurance YELLOW

- 100% completed for Assessment and Planning Stage; currently 95% - 100% through the Remediation Stage. Testing expected to be completed by 2/1/99.

2. Employment Services YELLOW

- 100% completed for Assessment and Planning Stage; currently 95% - 100% through the Remediation Stage. Testing expected to be completed by 3/1/99.

¹ **RED:** Given current status and constraints, it is unlikely this MCBF will be Year 2000 compliant prior to its estimated failure date.

YELLOW: Given current status and constraints, this MCBF should be Year 2000 compliant one month prior to its estimated failure date.

GREEN: This MCBF is Year 2000 compliant, and an approved contingency plan is in place.

3. Workers Compensation..... YELLOW

- Assessment and planning for the new system; being developed are 100% completed. Remediation also is 100% completed (the system was designed to be 100% Y2K compliant), with the department awaiting final change requests from end-users currently testing the beta version of the system. Implementation is expected between 3/1/99 and 4/1/99, depending on final end-user comments.

4. Desktop/LANs/WAN..... YELLOW

- Assessment and planning for this MCBF are virtually 100% completed. Remediation is about 30% completed, with desktop remediation software having been acquired for the department's 600 desktop work stations and contractor engagement currently being finalized.

Y2K FUNDING REQUIREMENT:

- None.

YEAR 2000 READINESS STATUS - - AS OF DECEMBER 1998

DEPARTMENT OF LAW

OVERALL STATUS:..... YELLOW ¹

- Assessment and planning for all major critical systems of the department are 100% completed and 100% remediated.
- Assessment and planning for the single-user database interface) which supports the department's child support enforcement collections is 100% completed. Remediation of the interface (terminal access to the Dept. of Revenue's ENSTAR database) is part of the department's desktop/LAN/WAN remediation work, which currently is 35% completed.
- A department-wide Y2K contingency plan is in place.

STATUS OF MISSION-CRITICAL BUSINESS FUNCTIONS (MCBF):

1. Prosecution of Criminals YELLOW

- 100% completed for Assessment and Planning Stage; also currently 100% completed with remediation. Testing expected to be completed by 4/1/99.

2. Collection of Civil and Criminal Debts to the State..... YELLOW

- 100% completed for Assessment and Planning Stage; currently 95% - 100% through the Remediation Stage. Testing expected to be completed by 3/1/99.

¹ **RED:** Given current status and constraints, it is unlikely this MCBF will be Year 2000 compliant prior to its estimated failure date.

YELLOW: Given current status and constraints, this MCBF should be Year 2000 compliant one month prior to its estimated failure date.

GREEN: This MCBF is Year 2000 compliant, and an approved contingency plan is in place.

3. Child Support Enforcement Collections YELLOW

- Assessment and planning for this MCBF are 100% completed, with remediation 35% completed. This business function consists of a single terminal interface used by one attorney to access the Department of Revenue's ENSTAR database (whose Y2K compliance is being worked on by that department).

4. Investigation, Defense and Prosecution of State's Oil & Gas Royalty and Taxation Cases YELLOW

- Assessment and planning for the department's litigation support imaging system and mainframe document indexing system are 100% completed, with remediation of the systems 95% and 80% completed, respectively.

5. Child Protection Cases..... YELLOW

- Assessment and planning for the department's civil case management system, as well as remediation (replacement) of the system, are 100% completed. Testing is expected to be completed by 5/1/99.

6. Desktop/LANs/WAN..... YELLOW

- Assessment and planning for the department's desktop computers, LANs, and WAN links are 100% completed, with remediation approximately 35% completed. Testing is expected to be completed by 6/1/99.

Y2K FUNDING REQUIREMENT:

- None.

YEAR 2000 READINESS STATUS as of DECEMBER 1998

DEPARTMENT OF MILITARY AND VETERAN AFFAIRS (DES)

Overall Rating: YELLOW¹

- Remediation and testing is on schedule
- DES (DMVA's MCBF) is being aggressively managed
- By its nature, DES responds to disruptions, critical systems failures, and disasters that threaten life/safety
- Proactive interaction between DES and communities throughout Alaska is evident

Status of each Mission Critical Business Function:

1) Emergency response capability - State, Local, Federal Coordination - YELLOW

- Power Generators, antennas, communications and controllers are Y2K compliant
- Backup power systems are portable, and have no Y2K sensitive components
- The National Guard Bureau will be testing a stand-alone voice/data communications system in May 1999
- A Tabletop exercise is being scheduled for the February time frame

2) Disaster Recovery Database - Emergency Response Support - YELLOW

- Physical components are included above
- A strong contingency plan is in place

3) Desktop LAN/WAN - YELLOW

- SNA functionality is under review
- The DES LAN is stand-alone, and has a back-up power source
- All connectivity alternatives are being extensively tested

Funding Requirement: \$0

¹ (red) Given current status/constraints, it is unlikely this MCBF will be Year 2000 compliant prior to projected failure date.

(yellow) Given current status, this MCBF should be Year 2000 compliant one month prior to its projected failure date.

(green) This MCBF is Year 2000 compliant, and an approved contingency plan is in place.

YEAR 2000 READINESS STATUS - - AS OF DECEMBER 1998

DEPARTMENT OF NATURAL RESOURCES

OVERALL STATUS:..... YELLOW¹

- Department is making adequate progress and is well ahead of the estimated failure dates for the automation systems supporting its MCBF's. No problems are expected.
- All critical systems have been assessed, are expected to be Y2K compliant, and are awaiting testing.
- A department-wide Y2K contingency plan is in place.
- A funding request for compliant units has been made.

STATUS OF MISSION-CRITICAL BUSINESS FUNCTION (MCBF):

1. Revenue Processing..... YELLOW

- Assessment and planning for the department's revenue and billing system are 100% completed, with remediation also 100% completed. Testing is 50% completed, and is expected to be finished by 7/1/99.

2. Property Recorder's Office YELLOW

- Assessment and planning for the Recorder's Office System are 100% completed, with remediation and testing also nearly completed.

¹ **RED:** Given current status and constraints, it is unlikely this MCBF will be Year 2000 compliant prior to its estimated failure date.

YELLOW: Given current status and constraints, this MCBF should be Year 2000 compliant one month prior to its estimated failure date.

GREEN: This MCBF is Year 2000 compliant, and an approved contingency plan is in place.

3. DNR Oil Patch..... YELLOW

- Y2K readiness concerns in this area pertain to critical supply relationships with oil companies, pipeline service companies, tankers, refineries, etc. (Automation dependencies for this critical business function, including interfaces with banking institutions and payment transfer systems, are covered within MCBF's #1-2, above.) The department is maintaining close coordination with all key oil patch companies and service providers regarding supply dependencies, embedded systems in facilities, and Y2K contingency planning.

4. DNR Land Administration YELLOW

- Assessment and planning for the land administration system are 100% completed, with remediation also 100% completed. Testing is 50% completed, and is expected to be finished by 7/1/99.

4. Wildland Fire Suppression..... YELLOW

- Planning and assessment for the Fire Reporting System and the Fire Warehouse Program system are 100% completed, and more than 30% remediated. Mainframe database software supporting the Fire Reporting System is already Y2K compliant. Upgraded, Y2K-compliant software for the Fire Warehouse Program is currently under procurement and should require only testing.

5. Field Radio & Mobile Repeater System..... YELLOW

- Main systems being tracked for this function are embedded systems in communications hardware (field radios, mobile repeater systems). Radios are Y2K compliant because not date-sensitive. Embedded systems in mobile repeater systems are undergoing remediation, with completion expected by 6/30/99.

6. Desktop/LANs/WAN..... YELLOW

- Assessment and planning for the department's desktop computer systems and LAN/WAN links, are 90% completed, with remediation currently 50% completed. Implementation is currently 90% completed.

Y2K FUNDING REQUIREMENT: \$225,000

- \$ 225,000 - Upgrade for Recorder's Office.

YEAR 2000 READINESS STATUS as of DECEMBER 1998

DEPARTMENT OF PUBLIC SAFETY

Overall Rating: **YELLOW**¹

- All assessment and planning activity is completed.
- Remediation is largely dependent on mainframe testing
- Considerable redundancy and back-up support systems exist for apprehension and emergency response
- An aggressive program is in place, and fully supported by management

Status of each Mission Critical Business Function:

1) Alaska Public Safety Information Network - **YELLOW**

- Critical elements (vehicles, radios) have been tested and found Y2K compliant
- Contingency plans exist for the APSIN system
- Mainframe testing will be scheduled in early January

2) 911 Emergency Dispatch Centers - **YELLOW**

- Urban areas (E911) use highly redundant systems that will function as long as power is provided
- Radios, PLBs, ELTs and pagers have been tested and are Y2K compliant

3) Desktop LAN/WAN - **YELLOW**

- Testing and certification has been started and should be completed by April 1999
- The monthly status report indicates this MCBF is 40% through the remediation phase

Funding Requirement: \$0

¹ (red) Given current status/constraints, it is unlikely this MCBF will be Year 2000 compliant prior to projected failure date.

(yellow) Given current status, this MCBF should be Year 2000 compliant one month prior to its projected failure date.

(green) This MCBF is Year 2000 compliant, and an approved contingency plan is in place.

YEAR 2000 READINESS STATUS as of DECEMBER 1998

DEPARTMENT OF REVENUE

Overall Rating: **YELLOW**¹

- All systems are believed to be Y2K compliant and are awaiting testing
- Each MCBF² is being aggressively worked
- Generally good top management support
- Good contingency plan
- Additional funding not required

Status of each Mission Critical Business Function:

1) **Income and Excise Audit Division's Cash Processing - YELLOW**

- System is expected to be Y2K compliant, awaiting testing
- Interface to AKSAS is manual
- State Street Bank key to overall compliance so will require assurance from bank

2) **Process and Deliver PFD Checks - YELLOW**

- System is expected to be Y2K compliant, awaiting testing
- Plan to complete testing by end of December, 1998

3) **Process Child Support Payments - YELLOW**

- System is expected to be Y2K compliant, in system testing
- Plan to complete testing by end of December, 1998

4) **Collection of State Revenues - YELLOW**

- Assessment and planning for automation systems are 100% completed, and remediation is 100% completed.

5) **Disbursement of Funds - YELLOW**

- Assessment and planning for three main automation systems and interfaces are 100% completed. Remediation for two of them is 100% completed, with the third (communications interface) 35% completed..

¹ (red) Given current status/constraints, it is unlikely this MCBF will be Year 2000 compliant prior to projected failure date.

(yellow) Given current status, this MCBF should be Year 2000 compliant one month prior to its projected failure date.

(green) This MCBF is Year 2000 compliant, and an approved contingency plan is in place.

² MCBF: Mission Critical Business Function. Selected based on significant impact on life, health safety or economic well-being of Alaskans

6) In-house Investment Management of State/ASPIB Fixed Income- YELLOW

- New Y2K compliant system expected by January, 1999

7) Permanent Fund Corporation – Asset Management- YELLOW

- System expected to be compliant, awaiting testing
- Good plan
- Plan to replace Routers by 7/1/99

Funding Requirement: \$0

YEAR 2000 READINESS STATUS as of DECEMBER 1998

DEPARTMENT OF TRANSPORTATION

Overall Rating: **YELLOW**¹

- Two MCBFs are nearing a green status rating
- Extremely strong efforts are being taken to insure Y2K compliance at Anchorage and Fairbanks International Airports
- All Mission Critical Business Functions are being aggressively worked and all efforts strongly supported by management

Status of each Mission Critical Business Function:

1) **Alaska Marine Highway System Vessels - YELLOW**

- Funds have been requested to address compliance for this function

2) **Alaska Marine Highway System Shoreside Facilities - YELLOW**

- All facilities are currently under review and all activity on schedule

3) **Anchorage International Airport Fire Alarm System - YELLOW**

4) **Anchorage International Airport Access Control System - YELLOW**

5) **Anchorage International Airport Heating, Ventilation, Air Conditioning - YELLOW**

6) **Fairbanks International Airport Fire Alarm System - YELLOW**

7) **Fairbanks International Airport Access Control System - YELLOW**

8) **Fairbanks International Airport Heating, Ventilation, Air Conditioning - YELLOW**

- All airport systems at Anchorage and Fairbanks Airports are being aggressively worked and tested
- By their nature, both airports have heavily redundant systems, as well as backup power sources and redundant communications links
- Remediation activity is on schedule
- The Fairbanks Fire Alarm System is Y2K compliant

¹ (red) Given current status/constraints, it is unlikely this MCBF will be Year 2000 compliant prior to projected failure date.

(yellow) Given current status, this MCBF should be Year 2000 compliant one month prior to its projected failure date.

(green) This MCBF is Year 2000 compliant, and an approved contingency plan is in place.

9) Land Highway Traffic Control Devices - YELLOW

- All devices have been tested and are Y2K compliant
- Once an approved contingency plan is in place, this MCBF will be elevated to GREEN

10) State Equipment Fleet Vehicles and Shop Equipment - YELLOW

- All vehicles been tested and are Y2K compliant

11) Sitka Airport - YELLOW

- The access control system is not Y2K compliant. However, this will not cause disruptions or delays in airport services

12) Telecommunications Infrastructure - YELLOW

- Activity on this MCBF is on schedule and under review by ITG

13) Third Party Billing System - YELLOW

- The application itself is Y2K compliant
- Testing in the mainframe environment will be scheduled in January

14) State Equipment Fleet Management System - YELLOW

- The EMS system is scheduled for migration to a UNIX/AIX platform in 1999
- A RFP is currently in the system
- As long as this project remains on schedule, the system should be completed, tested and in service by September 1999

Funding Requirement: \$5,825,000

- \$4,500,000 - State Facility Review
- \$110,000 - M/V Kennecott Y2K Assessment
- \$75,000 - State Equipment Fleet emissions test equipment replacement
- \$600,000 - Alaska Marine Highway system Y2K remediation

State of Alaska

Year 2000 (Y2K) Project Office

State of Alaska

Status Report on Year 2000

January 4, 1999

This represents the seventh Y2K status report provided to the Legislative Budget and Audit Committee. There remain 361 days until the Year 2000.

December Accomplishments:

1. Draft contingency plans have been received from each agency.
2. Initial agency readiness reports have been reviewed with each respective commissioner. These reports describe each agency's progress toward resolving Y2K problems within its department. This first report was internal. The second of these readiness reports will be available on January 18, 1999 and will be provided to the Legislature as well as posted on our Y2K web site (www.state.ak.us/y2000).
3. The NASIRE site that reports on each state's progress in addressing Y2K has been updated and reflects the current status of Alaska's Y2K progress.
4. Federal interface data has been gathered to assist coordination between state and federal agencies in resolving Y2K issues. This data has been posted on the GSA Y2K site as requested.
5. A statewide emergency management response "table top" exercise is targeted for late February 1999. This effort will factor into the State's emergency response plan those new elements introduced by Y2K. We anticipate considering several regional scenarios. The exercise process will then be taken to each region to continue the "table top" approach.
6. The RSA with DOT/PF to estimate the cost of making state-owned facilities Y2K compliant has been completed. This should add significantly to the accuracy of this budget request. The revised figure has been reduced significantly from the originally estimated amount. State agencies will meet on 1/6/99 to prioritize which facilities should be addressed first.

7. ITG has implemented OS390, the Y2K compliant mainframe operating system, and it is currently available for use in testing mainframe application systems. 65% of Alaska's mission critical systems are currently either in testing or awaiting testing. An RSA from the YPO is paying for this effort.
8. A new and much improved Y2K web site for Alaska has continued to serve us well in communicating to a wide variety of parties interested in Alaska's progress in dealing with Y2K. There have been approximately 3500 hits since the beginning of November.
9. The YPO will be moving from the Governor's Office to the Department of Administration as part of my transition to the Department of Administration, Commissioner's Office.
10. The YPO initiated an RSA with the Department of Transportation to review the MV Kennecott in order to identify any Y2K problems that may be present.
11. The Y2K supplemental budget review process has been completed and a budget bill is currently being drafted. This request will be provided to the Legislature during the first week of the Twenty-First Alaska State Legislature. Timely passage of this bill will be requested.
12. The YPO continues to work with a wide variety of community Y2K organizations that have been forming around the state. Additionally, as part of the Y2K outreach effort, we continue to do a wide range of newspaper, radio and television programs on the subject.

State of Alaska

Year 2000 (Y2K) Project Office

State of Alaska Status Report on Year 2000 December 4, 1998

This represents the sixth Y2K status report provided to the Legislative Budget and Audit Committee.

November Accomplishments:

1. A new and much improved Y2K web site for Alaska has continued to serve us well in communicating to a wide variety of parties interested in Alaska's progress in dealing with Y2K. There have been over 2000 hits since the beginning of November.
2. System testing guidelines were published by the Y2K Project Office (YPO) and posted on the web site for use by agencies in determining whether their systems are Y2K compliant. This step was crucial in establishing when a system would be considered compliant.
3. Contingency plan guidelines were published by the YPO and posted on the web site. All agency contingency plans are due to the YPO 12/15/98.
4. Agency readiness reports have been presented to the Cabinet. The first iteration of these reports will be internal and thereafter, future reports will be issued for legislative and public review. The first public round of these reports will be available in mid January 1999 and will be posted to the Y2K web site.
5. Plans are underway to conduct a statewide emergency management response "table top" exercise which factors into the State's emergency response plan those new elements introduced by Y2K. We anticipate considering several regional scenarios. The exercise process will then be taken to each region to continue the "table top" approach.
6. The RSA with DOT/PF to estimate the cost to make state-owned facilities Y2K compliant has been expanded to encompass 58 facilities. This should add significantly to the accuracy of this budget request.

7. ITG anticipates having the mainframe operating system Y2K compliant and available for use in testing mainframe applications by mid December 1998. An RSA from the YPO is paying for this effort.
8. During November formal Y2K presentations were made to the Alaska Municipal League conference, the City of Homer and to the Board of the Anchorage Chamber of Commerce.
9. The YPO has been staying in touch with other states' efforts through participation in the monthly national Y2K teleconference which allows state Y2K coordinators to speak with John Koskinen, the Chairman of the Presidents Y2K Council.
10. We have also been working with several other communities in their efforts to form local Y2K task forces including Juneau, Homer, Kenai, Kodiak, and Valdez.

State of Alaska

Year 2000 (Y2K) Project Office

State of Alaska Status Report on Year 2000

November 17, 1998

This represents the fifth Y2K status report provided to the Legislative Budget and Audit Committee.

October Accomplishments:

1. A new and much improved Y2K web site for Alaska has been brought up. This site will serve as one of the key ways that the Y2K Project Office (YPO) will communicate its progress to the public, other states, interested parties, etc. The URL for the new site is www.state.ak.us/y2000 or it can be accessed under Year 2000 from the State of Alaska's home page.
2. The state agency status reporting system is in its second iteration. Agency response was significantly improved and most bugs have been eliminated. We are currently preparing the summary agency reports. Agency walk-throughs have been completed indicating significant agency progress in addressing Y2K.
3. The review of Y2K-related budget requests is very near completion. Commissioner Mark Boyer and Deputy Commissioner Rick Cross participated in the Y2K project review process.
4. An Reimbursable Services Agreement (RSA) has been executed with the Department of Transportation and Public Facilities (DOT/PF) to pay for the review of all state-owned facilities and to develop a solid budget estimate on the cost of Y2K-related problems. This project has also been expanded, in cooperation with the Department of Environmental Conservation (DEC), to include Village Safe Water projects.
5. An RSA has also been executed with the Information Technology Group (ITG) to pay for a mainframe computer upgrade, software license fees and data storage devices to allow for required Y2K testing of agency mainframe systems. Approximately 65% of agency MCBF's are awaiting testing on the state's mainframe computer. This upgrade is expected to be completed in December of this year.

6. Met with the City Manager and Y2k Coordinator for the City and Borough of Juneau to assist them in getting their Y2K effort off the ground.
7. Assisted Alaska Science and Technology Fund (ASTF) in reviewing Y2K grant proposals that they have been receiving.
8. Facilitated a meeting of the Anchorage and Fairbanks International Airports to discuss and verify their efforts in addressing Y2K problems. This meeting led to a presentation by the international airports to the Airport Operating Committee on their Y2K efforts. This did a lot to satisfy airlines' concerns about the future Y2K readiness of these two airports. Additionally, an invitation has been extended to Alaska Airlines to conduct a tour of selected rural airports to better understand the state of Y2K readiness for these airports.

State of Alaska

Year 2000 (Y2K) Project Office

State of Alaska

Status Report on Year 2000

October 7, 1998

This represents the fourth Y2K status report provided to the Legislative Budget and Audit Committee. The first series of status reports concentrated heavily on defining the Y2K problem and on describing the state's approach to resolving its Y2K problems. In order to make these reports as useful as possible, this and future status reports will now simply report on our progress in completing the work tasks ahead of us.

September Accomplishments:

1. Y2K project team has been approved and hired. Joe Culp and Brenn Berliner are on board and Chris Meholic will begin October 12, 1998. Agency assignments and other work tasks have been assigned as appropriate. There are now 7 members of the Y2K Project Office including the Senior Project Manager and our full time intern.
2. Lt. Governor and TIC Policy Council have been continually briefed on Y2K progress and emerging issues.
3. Agency Y2K Status Reporting System was implemented and tested, bugs are being resolved, and work with individual agencies is ongoing.
4. An RSA was executed with Military and Veterans Affairs to hire Dusty Finley to manage the Y2K effort for the emergency management functions.
5. Met with Sam Cotton and Robert Lohr to discuss the APUC's efforts toward assuring that certified and regulated utilities would be Y2K compliant.
6. RSA's are under discussion with DOT/PF the pay for a Y2K review of state facilities and to review the state marine vessels for Y2K compliance. And an RSA with the Information Technology Group to pay for additional mainframe capacity to support agency Y2K testing is under development.
7. Representative Gail Phillips has agreed to participate on statewide Y2K task force as the House member.

8. Testified before LB&A to brief the committee on Y2K, explain how the state was addressing the Y2K challenge, to describe the current use of the Risk Management Fund as our current fund source and to describe our plans to replenish the Risk Management Fund and for submitting Y2K CIP requests for FY00.
9. Public outreach activities this month have included:
 - Appearance on Kay Brown's radio show in Anchorage on Y2K
 - Y2K presentation to Western States Conference in Anchorage
 - Y2k presentation at Southeast Conference
 - Y2K presentation to State Chamber of Commerce convention in Valdez
10. National Y2K reporting system (NASIRE) responsibility was moved from Information Technology Group (ITG) to Y2K Project Office and the survey is now current.

State of Alaska

Year 2000 (Y2K) Project Office

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State of Alaska Status Report on Year 2000

July 30, 1998

This is the second update for the Legislative Budget and Audit Committee, legislators and the public on the State of Alaska's progress toward readiness for the Year 2000 (Y2K). The first update was issued April 25, 1998 in a memo to the House and Senate Finance Committees. From now on, reports will be issued at least quarterly by the Y2K Project Office. This report covers activities in the executive and judicial branches. The University of Alaska is submitting a separate report directly to LB&A.

What is the Y2K problem?

The Y2K problem is a holdover from the early days of computers. Due to the immense cost of computer hardware, every effort was devoted to reducing hardware acquisition and operating costs. Storing only the last two digits of the year saved billions of dollars of data storage space and other computer processing resources nationwide. This worked fine until it became necessary to determine if a year stored as '01', for example, should be interpreted as 1901 or as 2001.

The Y2K problem can appear in an astonishing variety of ways. Common examples include:

- computer system freezes and shutdowns;
- data corruption;
- erroneous instructions to automated security systems, such as in hospitals and prisons;
- incorrect telemetry instructions to railroad switching yards and hydroelectric facilities;
- incorrect operation of security, heating and ventilation systems in buildings;
- failure of microchips in vehicles; and,
- proliferation of these and other errors via the Internet and other network links.

Complications include the fact that applications and systems previously repaired and certified by manufacturers as Year 2000 compliant sometimes turn out not to be compliant after all. Many contingency or back-up systems are at risk as well. For example, disaster recovery and emergency preparedness systems often depend on computer based technology, especially power grids and telecommunications systems.

The overall approach to identifying and solving Y2K problems includes the following phases for all types of systems:

- Inventory
- Assessment
- Remediation
- Testing and Validation
- Implementation
- Contingency Planning

Each state agency is in various stages of this process for each of their specific systems, depending on system priority, resources, and other factors.

Overview of state progress through July 1998

An Alaska Year 2000 Task Force was established last February to ensure that all branches of state government are adequately addressing Y2K issues. The Governor, House Speaker, Senate President, Chief Justice, and University president each appointed a high-level representative to the task force. ARCO and National Bank of Alaska were asked to participate on the task force to provide the benefit of private sector experience as the state responds to this critical issue.

This spring, a Y2K Project Office was established in the Office of Management and Budget to provide statewide coordination of Y2K activities. In April, the state engaged Unisys Corporation, a national firm with expertise in Year 2000 project management and coordination services, to help design the next phase of the state's Y2K effort. This contract extends through September 1998 with funding from a special information technology appropriation in the FY98 budget. As the state moves into the next intensive phase of Y2K activity, the governor has named Bob Poe to be the full-time Y2K Senior Project Manager. Poe, who begins the assignment August 3, will be a member of the cabinet and report directly to the Chief of Staff.

Many state agencies have been working for months to assess and fix Y2K problems by the end of this calendar year. For instance:

- The state accounting and payroll systems will have been fully tested and verified as Year 2000 compliant by the end of this calendar year.
- The Alaska Permanent Fund has already converted two of its major financial systems – portfolio management and accounting. The remaining mission-critical financial system (real estate management) will have new Y2K compliant software installed this fall.

In some cases, Y2K corrections have been made as outdated systems were overhauled primarily for other reasons, e.g. criminal justice information systems and child support enforcement.

Public health and safety requirements are the focus of intensive efforts underway among state agencies and others outside of state government. For instance:

- The Alaska Public Utilities Commission opened a docket on Y2K and is surveying all regulated and certificated utilities to ensure that power, telecommunications and other critical utilities are preparing adequately to remediate and test their systems.

- The Division of Emergency Services met last week with all state, federal and local agencies responsible for emergency preparedness and response. DES is hiring a full-time Y2K coordinator to ensure that communications and other systems will be fully functional.
- Specialized training was provided to facilities managers (especially those operating 24 hour institutions such as adult and youth correctional facilities, Pioneer Homes and state hospitals) on Y2K compliance in security systems, heating/ventilation, fire alarms, elevators, etc.

Other broad areas of Y2K activity include:

- A Y2K coordinating committee with representatives of all executive branch departments, quasi-public corporations, University of Alaska and Alaska Court System has been meeting regularly since the winter to share information and plan major work assignments.
- Agencies have identified their Y2K mission-critical business processes and are completing inventories of all facets of those systems which require assessment and, if necessary, remediation and testing. This includes computer systems, embedded microchips and interfaces with federal and local agencies, contractors, vendors and others in the private sector such as banks.
- Agencies are assessing the need to extend or adjust disaster recovery, business contingency and risk management plans for their mission critical systems.
- Special task groups are working on interdepartmental issue areas such as banking and finance, embedded systems/facilities, emergency communications and disaster recovery planning, and legal/risk management issues.
- The State has been determining and ensuring the Y2K compliance status of key entities in its "supply chain" e.g. vendors, contractors, and other service providers who do business with the State through contracts, leases, grants, etc.;
- An online clearinghouse provides information to agencies on best practices, vendor compliance data, testing and certification approaches, and software tools and methodologies.

Statewide Y2K priorities and responsibilities established

While there are hundreds of important state services, not all have the potential for significant threats to public safety or major impacts on the state economy if Y2K problems are not corrected. Most governments and businesses have recognized that it may not be appropriate or fiscally responsible to correct every single instance where Y2K problems might develop. To determine where the state should focus its efforts, criteria for determining which business processes are mission critical were developed and reviewed by Law and Risk Management. They are:

- Loss or endangerment of life, health, safety.
- Extraordinary financial or revenue loss to the State of Alaska.
- Extraordinary economic loss to the State of Alaska.
- Extraordinary disruptions in utilities, transportation, or communications systems.
- Extraordinary loss or interruptions to persons or businesses.
- Extraordinary environmental damage/loss.

All department business processes have been inventoried and matched against these criteria. A list of the Y2K mission critical functions — those where the state will focus its efforts — is in the final stages of development.

Although there is a statewide Y2K coordinating office, commissioners are responsible for ensuring the assessment, remediation and testing of mission critical processes in their departments. Each department has named a Y2K project team with members drawn from the department's program and technical managers. The Unisys consultant has met with each department's Y2K project team to discuss Y2K issues and responsibilities.

To assure continuity of mission critical functions, business continuity and contingency plans will be required by the end of December 1998. These contingency plans are necessary because even with the best of state efforts, full remediation may not be possible since interfaces with suppliers, federal agencies or others may not work because of problems at their end of the data exchange. Also, external problems such as power or telecommunications failures may make normal processes non-functional.

An overall project plan and the budget for the Project Office will be finalized by Bob Poe within a month. This will give him an opportunity to review the work done to date and incorporate the results of the inventory process now being completed by agencies. In general, the responsibilities of the Y2K Project Office will include:

- monitoring the progress executive branch toward compliance of mission critical systems;
- sharing best practices;
- coordinating interdepartmental task groups in key areas such as emergency preparedness, finance and risk management;
- researching risk management issues (such as liability limits and exclusion language which are beginning to surface in insurance negotiations), legislation; and
- working with local governments and political subdivisions to coordinate management issues and avoid duplication of effort;
- centrally researching commonly used hardware and software and posting bookmarks on the state's website clearinghouse with hot links to manufacturers' compliance information; and
- communicating with local governments, the private sector and the public.

Last week, Bob Poe and Annalee McConnell attended a State Y2K Summit organized by the National Governor's Association in Washington D.C. to learn how other states are addressing the problem and to discuss with federal officials the many complex interrelationships with the federal government. Of the forty-five states that attended, progress ranges from states that have been working on the problem for the last year or so, to states that have not even begun. Alaska is about in the middle with respect to its efforts to address the Y2K problem. It was reassuring to learn that we are actively pursuing all the major issues raised by state and federal officials during the meetings.

Legal and risk management issues

This task group includes OMB, the Chief Procurement Officer, Risk Management Director and an Assistant Attorney General. Activities to date include:

- drafting model vendor compliance letters for agencies to use in contacting suppliers and contractors that provide state services to assess their ability to support government functions without interruption;
- drafting new more consistent and thorough Y2K compliance language for state general services master contracts to replace what has been in place for the past two years;
- additionally, a definitions section, and disclaimer are currently under legal review;
- due diligence practices have been established for contacting outside entities and archiving their responses; and
- legislation such as limitations on liability for information-sharing is being researched (various bills already passed in 3 states and being considered in 12 others)

Telecommunications, electric power and other essential utilities

The Alaska Public Utilities Commission (APUC) is the lead review agency on Y2K compliance in the utility sector, including telephone companies, electric utilities, and water and sewer utilities. The APUC is addressing the Y2K issue on a statewide basis, not just within state government. The APUC has opened a docket on Y2K matters and distributed a survey in June on the status of utility Y2K efforts. This survey was provided to all certificated utilities in Alaska and to all of the cellular phone companies in Alaska, even though these companies are regulated by the FCC, not the APUC (over 400 entities in total).

The survey is the initial phase of the Commission's investigation and is intended to determine whether Alaska's utilities have appropriate plans in place for addressing potential Y2K problems in providing utility services. The survey is also intended to expand awareness of the Y2K issue among the state's utilities and to promote the exchange of Y2K-related information among the utilities.

Responses to the survey were due July 16. A considerable number of the state's utilities have filed their responses. However, the Commission, at the request of several utilities and pipeline carriers, has extended the deadline to August 6, 1998. The Commission is in the process of tabulating the survey results; however, preliminary review of the surveys indicates that most of the respondents have Y2K plans in place or are assessing their systems for Y2K issues.

The Commission will determine the next steps in its Y2K investigation after evaluating the survey results. The Commission recognizes that reliable utility services are extremely important to the state's residents, as well as to public and private sector organizations, and that it is essential for the state's utilities to thoroughly address the Y2K issue.

Emergency management

The Y2K Project Office is working with the Division of Emergency Services (DES) to coordinate Y2K readiness of all parts of state/federal/local emergency preparedness and response. The Project Office made Y2K presentations at the July meetings of the State Emergency Response

Commission (SERC) and the Local Emergency Planning Committee (LEPC). The SERC meeting was attended by 24 Local and State agencies. SERC has formed a committee to provide local perspective to the State's Year 2000 Emergency Management team and written a letter of support and petition for resources to the Governor. The LEPC meeting was attended by 16 local and state agencies. Not surprisingly, there is a wide divergence in Year 2000 readiness among local communities.

DES is in the process of hiring a full-time person assigned to Year 2000 coordination among federal, state, local and private business sectors for the following tasks:

- Coordinate emergency management related Y2K inventory assessment, remediation and testing.
- Develop emergency management contingency plans.
- Support the Project Office with regular progress reports.
- Provide direct planning assistance to local governments.
- Assist state agencies and local governments in identifying resources available for Y2K problem resolution.

Facilities and embedded systems

Y2K related problems can occur in many building systems, including heating and ventilation control systems, boiler and chiller units, fire alarm systems, security systems, elevator controls, lighting systems, and emergency generator systems. Other embedded systems with potential Y2K problems are found in the state ferries, traffic light control systems, medical equipment, laboratory equipment, and vehicles. All of these systems need to be inventoried and assessed for Y2K compliance, and where necessary, remediated and tested.

The responsibility for Y2K compliance for state facilities has been assigned to:

- Department of Transportation and Public Facilities for facilities currently managed or maintained by the department;
- Department of Administration for all state-leased facilities; and
- Each individual department for special facilities they manage, such as correctional institutions, youth facilities, API and Pioneer Homes.

Two workshops on Y2K compliance for facilities and other embedded systems were held on July 15 and 16 in Juneau and Anchorage, with the Juneau workshop videoconferenced to Fairbanks. The workshops were conducted by Scientific Applications International Corporation, a large information technology firm with extensive experience in facilities Y2K compliance. The workshops provided detailed information and checklists on how to assess, remediate and test systems in facilities, with an emphasis on mission-critical 24-hour institutions.

Approximately 50 state facility managers attended the workshops, including representatives from all of the state agencies with facilities responsibilities. They indicated that the workshops were very useful in assisting their Y2K compliance efforts.

The Department of Administration is in the process of sending letters to all lessors requiring a status report on Y2K compliance for each building by the end of September. While it is the lessors' responsibility to address Y2K compliance in their buildings, it is important that the state closely monitor Y2K compliance in leased facilities to minimize any Y2K-related building problems that would impact state government operations.

Clearinghouse

The Project Office currently is evaluating software for maintaining the statewide status of mission-critical and other systems and interfaces. Departments will supply data regularly to the Project Office, which will in turn compile and update status information on the state's Y2K website.

While agencies are ultimately responsible for achieving their own compliance, the Project Office is attempting to reduce the workload by centrally collecting and posting compliance information on commonly used office software and hardware products. Product inventories have been collected from most state agencies and Project Office staff are systematically researching common office products (400 so far) and establishing web site links (58 to date) to vendor/manufacture compliance information sources, best practices, etc.

Banking, insurance and electronic commerce

The risk management task group is currently evaluating state responsibilities and potential liabilities with special emphasis on activities/industries directly regulated by the state. The group is sorting out exactly where the state's responsibilities begin and end. For example, the Division of Insurance, working through the National Association of Insurance Commissioners, is directly responsible for ensuring that the 10 companies domiciled in Alaska are compliant, particularly with respect to time sensitive payments such as annuities, premiums, etc. The Division of Banking and Securities has a less direct role. The Federal Financial Institution Examination Council has taken the lead for the financial industry by conducting a compliance survey of all financial institutions and providing a plan for achieving compliance by 12/98.

Within state government itself, the DOA-Finance Division is hiring an experienced project coordinator to ensure complete evaluation and testing of all state interfaces with banks, local and federal governments, vendors, etc. This task addresses financial processing such as revenue collection, payroll/vendor payments via checks and electronic deposits, federal drawdowns, electronic benefits transfers, etc.

Oil and gas industry

All regulatory, revenue and environmental protection aspects of state relationships with the oil and gas industry are being evaluated for potential Y2K implications. Agencies involved are:

- DNR – Division of Oil and Gas and Pipeline Coordinator's Office
- Alaska Public Utilities Commission – Common Carrier Pipelines
- DOR – Oil and Gas Audit Division
- DOA – Oil and Gas Conservation Commission

- DEC – Division of Spill Prevention and Response

Local governments and school districts

The Project Office has been coordinating with the Alaska Municipal League (AML) and DCRA to raise awareness and provide information to local governments. An article was published in the June edition of the AML - *Touchstone* newsletter on how local governments should organize themselves to address the problem. AML will also schedule workshops on Y2K issues for municipalities at their annual November conference. On the state government side, DCRA is organizing a strategy for addressing the needs of smaller municipalities. This process will involve Rural Utilities Business Advisors (RUBA), the Division of Energy and local government specialists providing information and support to city managers, administrators, school superintendents and public works directors.

The Department of Education is evaluating a recently-received Y2K school district checklist developed by Prudential Insurance Company. If appropriate, it will be distributed to school districts statewide to help them be sure school facilities and services are Y2K compliant.

Testing methodology

The Project Office is organizing workshops for various types of testing needs – mainframe, client-server, and desktop systems. The content will be based on an analysis of Year 2000 best practices and a survey of agency requirements. A separate mainframe test environment is being established in ITG for inter-agency use. Additional Year 2000 specific testing tools are being researched to support this and other agency testing environments.

Funding of Y2K efforts

The Y2K Task Force recommended that \$15.98 million be appropriated initially in the FY 99 capital budget for Y2K activities in the executive, legislative and judicial branches of government and the University of Alaska. The funds would be used for:

- assessment and planning;
- remediation of computer code;
- acquisition of needed manpower, support, hardware, software tools, testing tools, testing services and environments, and certification services;
- assessment of state facilities for embedded systems problems;
- external communications and contingency/disaster recovery planning;
- creation of a State Y2K clearinghouse for product compliance information; and,
- project management, and coordination.

The Task Force emphasized that this was not likely to be the total funding needed for FY99, let alone the total amount needed for dealing with all the state's Y2K problems. Even after January 1, 2000, it is likely a large number of system fixes and changes will be needed to finish the job.

The House version of the FY99 budget appropriated \$4 million for executive/judicial Y2K work and \$1 million for the University's efforts. However, the measure failed to achieve the three-quarters vote in the Senate necessary to appropriate these amounts from the Constitutional Budget Reserve Fund. (As mentioned above, funds for the current Unisys contract come from the FY98 capital appropriation for information technology. All but \$2,700 of this appropriation has been expended or encumbered). The administration is working with legislators on a mechanism for temporary funding to adequately address Y2K problems over the interim.

Senior Project Manager Bob Poe will submit additional cost information and budget recommendations to the Legislative Budget and Audit Committee within two weeks.

Status of Alaska Court System activities

Year 2000 readiness assessments for facilities maintained by the court system are on-target for completion by the end of 1998. The court system is in the process of migrating all of their key computer systems to new systems that will be Y2K compliant. A total of 33 separate systems are being replaced by 29 new systems. The testing of all enterprise software is scheduled for September 1998, with implementation scheduled for October 1998 - March 1999.

The court system is currently addressing other critical dependencies -- interfaces and suppliers -- as well as contingency planning.

State of Alaska

Year 2000 (Y2K) Project Office

State of Alaska Status Report on Year 2000

September 4, 1998

This is the third update for the Legislative Budget and Audit Committee, legislators and the public on the State of Alaska's progress in preparing for the automated system problems and potential resulting impacts on essential state government services caused from the Year 2000 problem (Y2K). Additionally, this report represents the first report since the Y2K office was elevated to an independent special office within the Office of Governor, and the Y2K senior project manager, Bob Poe, was brought on to the project. From this date forward, project status reports will be provided monthly. This report covers activities in the executive and judicial branches.

The Y2K Workplan:

Y2K is unique for a number of reasons. First, this project has literally never been done before, so every Y2K effort must maintain a certain degree of flexibility in how it helps assure Y2K compliance and readiness. Secondly, the Y2K approach is basically the same for every Y2K effort. Thirdly, since virtually every organization using automated systems today is working on this problem at the same time, resources have become very scarce. The basic worksteps are as follows:

- Inventory – all of the business functions should be identified and the underlying automation systems supporting the business function should be inventoried.
- Assessment – each of the mission critical (see **A Question of Limited Resources** below) business functions should be reviewed to determine if they will likely experience difficulty with the date change to the year 2000. Additionally, work requirements, timetables, and resource needs should be preliminarily scoped.
- Remediation – each mission critical business function, and the supporting automation systems it relies on, determined to have

problems dealing with the Y2K date change, must either be reprogrammed to correct the problems, replaced, or temporarily corrected to allow time for a more permanent correction.

- Testing and validation – any mission critical business function that was remediated, must be tested to assure that the corrections solved the Y2K problems and that the corrections did not introduce new problems.
- Implementation – all newly Y2K compliant systems must be implemented so that they will be in place prior to the dates when Y2K problems are expected.
- Contingency planning – whether a system is Y2K compliant or not, it is prudent to make plans which outline how the agency would continue the mission critical business function with little or no automated assistance. Contingency plans are required for each mission critical business function.

This is essentially the workplan that each state agency dealing with the Y2K problem is following. Each status report from here forward will present agency progress in terms of the above workplan by mission critical business function (MCBF).

As described in our July 30, 1998 report, many state agencies have been following this approach for the last two or more years to assure that certain key systems like AKSAS, the Permanent Fund Corporation systems, Child Support Enforcement, etc. were Y2K compliant. However, the larger job for the Y2K Project Office will be to assure that each agency has identified their non-compliant MCBF's, and are taking the appropriate steps to mitigate expected Y2K problems. The Y2K office will have the ongoing responsibility to monitor agency activity, to help make resources available to agencies as they need them, and to pinpoint problem areas where additional focus or resources need to be directed.

Attachment A is Administrative Order 177, which outlines the responsibilities of both the Y2K office and each agency. Further it establishes Y2K as the highest priority for each agency in working with automated systems.

A Question of Limited Resources:

The key resources in any automation project are time, staff, computer capacity and money. All of these are sharply limited at this time. In order to assure that these very limited resources are directed at assuring continuity for the highest priority business functions, we have subjected all agency business functions to a triage screening process. We have defined the systems that made it through the triage as MCBF's. As was outlined in the July 30, 1998 status report, MCBF's

were chosen based on their relative impact on the life, health, safety and economic well being of Alaskans. **Attachment B** represents this list of MCBF's.

However, even with this significant reduction in the number of systems being addressed by the agencies, there will no doubt be state systems that may not be fully Y2K compliant given the time remaining. This fact brings forward three key issues. First, agencies may have to rely on contingency plans to make sure that mission critical system functions are not interrupted. Secondly, agencies will require significant supplemental appropriations to accomplish the Y2K tasks ahead of them. Thirdly, additional Y2K expenditure requests to the Legislature will continue beyond FY2000 both to complete work on MCBF's and to deal with the Y2K-related needs of other less critical systems in the future.

Staffing limitations can often be met temporarily through contractors. However, at the present time, qualified contractors are becoming very difficult to obtain, and competition to obtain available contractor staff is driving the cost up significantly. As agencies move to identify needed corrections to their MCBF's, the Y2K office will act as a clearinghouse for external resources that may be available to assist agencies in solving their Y2K problems. However, each of the resources will cost money, funds that agencies do not presently have in their budgets. As we move closer to the Twenty-First Alaska State Legislature, we expect to have more substantiated numbers on the cost of the Y2K clean up both for FY99 and for FY00 (FY2000).

Finally and critically additional short-term computer capacity will be required to meet agency Y2K testing needs. The problem is that, as MCBF's are remediated, they will need to be tested. Responsible systems implementation requires that the revised system be tested at the same time as the old system is operating. This process is called parallel testing. The reality is that there will be so many systems being parallel tested at one time that there will be insufficient computer space to accommodate the need.

Agency Status Reporting:

One of the most important functions of the Y2K Office is to monitor agency status in regards to their specific Y2K MCBF's. First, this is necessary in order to provide a meaningful reporting on Alaska's progress in solving its Y2K problems. Secondly, it is a critical tool in identifying problem areas so that resources and other solutions can be used efficiently where help is most needed.

While state agencies have been reporting their progress to the Governor's office for the last few months, they have reported their status using a variety of formats. Due to these varying formats and the disparity of data that has been provided, a comparable state summary of agency status and an overall state summary can not be provided at this time. The Y2K Office has designed an Excel agency status reporting system, which was presented to agency Y2K coordinators on

September 2, 1998. Once each agency's initial status is entered into the system, agencies will be asked to update their status report by the third week of each month. Allowing for one month of system debugging, we anticipate having clean, comparable agency status reports and an overall executive branch summary report by the beginning of December. At that time we should be able to provide the Legislature with a clear picture of Alaska's Y2K situation.

Compliance Standards:

How do you know when a system is Y2K compliant? That is the question that compliance standards answer. These standards were released in draft to the agency Y2K coordinators at our 8/14/98 meeting and were released in final at our 9/2/98 meeting of the Y2K coordinators. The compliance standards outline the approach that each agency should take in resolving their Y2K problems on MCBF's, describe the elements to consider in each work step including testing and contingency planning, and outline monthly reporting that is required from each agency.

Compliance standards have been included as **Attachment C**.

Testing Standards:

Testing is perhaps the most critical, and certainly the most costly, step in solving an agency's Y2K problems. Without an adequate testing plan, it will not be known whether the remediated MCBF can withstand the wide variety of date changes that will arise during 1999, 2000 and 2001. For instance, not only does a system have to accommodate the date change from 12/31/99 to 1/1/00, but it also has to accommodate other dates including 7/1/99, 9/9/99, 10/1/99, 2/15/00, 4/30/00, 2/29/01, etc. There are actually several date changes that can, depending on the purpose of the system in question, cause a variety of problems.

Alaska will be adopting the testing approach suggested by the GAO in GAO/AIMD-10.1.21 Year 2000 testing. This document, along with appropriate attachments was provided to both the Y2K coordinators at our 9/2/98 meeting and is being distributed to the Technical Advisory Committee (TAC) of the Telecommunications Information Council (TIC). See **Attachment D**.

Testing will represent a large portion of the work to be completed by agencies in addressing their Y2K issues. Systems must be tested at least twice, once to determine under what situations the existing system will fail and a second time to determine if the remediated system can withstand the full range of dates that it will have to process successfully. The Y2K Office expects to bring on a full time testing staff member no later than 12/16/98 to assist agencies with their testing responsibilities.

Additionally, Y2K coordinators have been asked to advise the Y2K Office as to their testing training needs. These comments are expected by 9/9/98. Based on agencies' needs, the Y2K Office will be issuing an RFP (request for proposals) to obtain an agency testing training program(s) to be given as soon as possible.

Contingency Plans:

Contingency plans are required for all MCBF's regardless of whether the system has been proven to be Y2K compliant or not. Contingency plans will generally be developed by each agency for their MCBF's prior to remediating any systems expected not to be Y2K compliant. Since an MCBF could be negatively impacted by an interface with another system, which may not be Y2K compliant, contingency plans are critical to assure that each agency knows how they will maintain the continuity of the MCBF even if their Y2K compliant automated system fails. Contingency plans will also be critical in enabling agencies to maintain MCBF continuity even if they will not be able to fully remediate the automated systems, which support the MCBF, by the time date problems are encountered.

We will be adopting the contingency planning methodology suggested by the GAO in the GAO/AIMD-10.1.19 reference. **Attachment E** illustrates the contingency planning process and includes the GAO reference.

Other Accomplishments to Date:

The Y2K Project Office has been established using surplus furniture and equipment to the extent possible. The project team has been formed and will be fully staffed by December.

Communication between the Y2K Project Office and state agencies has been formally established through the Y2K coordinators group. All Y2K coordinators are either Deputy Commissioners or Administrative Services Directors. All technical communication is accomplished through the Technical Advisory Committee to the Telecommunication Information Council.

An RSA has been established between the Risk Management Office and the Y2K Project Office within the Office of the Governor to temporarily fund Alaska's Y2K effort. The RSA is initially for \$1.0 million with an understanding the future increments under the RSA of \$1.0 million will be allowed based on future requests from the Y2K Project Office. As discussed in earlier correspondence to the Legislative Budget and Audit Committee, our intention will be to submit a supplemental budget request to the Legislature at the start of the 21st Alaska Legislature when it begins in January 1999 to reimburse the Risk Management Fund and to fund the FY99 Y2K effort.

State of Alaska

Tony Knowles, Governor

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TO: House and Senate
Finance Committees

DATE: April 25, 1998

FROM: Year 2000 Project Office

SUBJECT: Year 2000 Problem
Funding Requirements

An Alaska Year 2000 (Y2K) Task Force was established in February of 1998 to ensure that all branches of State government are adequately addressing the State of Alaska's Y2K issues. The Governor, House Speaker, Senate President, Chief Justice, and University president each appointed a high-level representative to the task force. ARCO and National Bank of Alaska were also asked to participate on the task force to ensure that private's sector knowledge, experience, and advice was incorporated into the State's response.

This memorandum explains what the Y2K problem is, how other organizations have responded, how the State has responded so far, a status of the State's current situation, and an explanation of FY 99 funding needs. It addresses aspects of the problem affecting all three branches of state government. The draft was circulated to task force members from all branches of state government and the private sector and this final memorandum incorporates all of the comments received. Several members noted that they could not "speak for" the other branches, although they felt the summary was a realistic assessment of the state's Y2K situation as they know it.

What is the Y2K Problem?

The Y2K problem is a holdover from the early days of computers when standard computer programming techniques emphasized maximum efficiency in the use of technology, particularly data storage mediums. Due to the immense cost of computer hardware, every effort was devoted to reducing hardware acquisition and operating costs. Storing only the last two digits of the year instead of all four digits was a way of saving data storage space and other computer processing resources. This system worked fine until dates in the next millennium exposed that the programs are unable to determine if a year stored as a '10', for example, should be interpreted as 1910 or as 2010.

As the millennium approaches, the risk of technology failures is enormous. One of the more frustrating aspects of the Y2K problem is that it often manifests itself in a number of seemingly unrelated ways. More common examples include:

- computer system freezes and shutdowns;

- data corruption;
- erroneous instructions to automated security systems, such as those common in hospitals and correctional facilities;
- incorrect transmission of remote telemetry instructions to railroad switching yards and hydroelectric facilities;
- incorrect operation of heating, and ventilation systems in buildings;
- failure of microchips in trucks and other vehicles on which could endanger health and safety;
- denial of authorizations for credit cards that expire in the new millennium; and,
- proliferation of these and other errors via the Internet and other network links.

To further compound the problem, many of the contingency systems related to the above list are at risk as well. For example, many disaster recovery and emergency preparedness systems depend on computer based technology, especially power grids and telecommunications systems. Also, many critical state government functions and services rely on suppliers and vendors with their own Y2K problems to solve. Lastly, many businesses, local governments, and nonprofit organizations heavily lean on the availability, reliability, and safety of services provide by the State government.

How Have Other Organizations Responded?

Governments and businesses are directing considerable funding and resources toward their Y2K problems. For example, Georgia plans to spend \$160 million in FY 99 alone, New York expects to spend \$400 million, and Wyoming approximately \$13 million. *The Washington Times* reported on April 2, 1998, that fewer than half of all federal agencies will be ready by the Year 2000. The latest cost estimate for dealing with federal Year 2000 problems, announced in April, is \$50 billion, more than ten times greater than the federal Office of Management and Budget's previous estimate. A private sector example is the Bank of New York which set aside \$500 million in next year's budget for its Year 2000 remediation effort.

Most organizations turn to contractors and consultants to help solve the problem. Unfortunately, firms and contractors capable of providing enterprise level Year 2000 services are already in short supply. They are increasingly demanding, and obtaining, higher prices and "master" contracts in which they provide all the resources needed to meet the client's Year 2000 needs. Some are even demanding, and reportedly obtaining, long term strategic partnerships with clients to provide other automation services in addition to the work required to remediate the Year 2000 problems.

Many organizations are realizing they do not have enough time to fix their Year 2000 problems and are opting to concentrate instead on contingency planning. For example, in March 1998, the chair of the President's Council on the Year 2000 Conversion told Congress he met with the Federal Emergency Management Agency and asked them to initiate talks with state and local disaster relief agencies about the preparation of contingency plans.

In March, the Society For Information Management announced that its study of 200 corporations with annual revenues exceeding \$4 billion each found that fewer than half of their Year 2000 projects are beyond the planning stage. The project managers estimated that on average 70% of the project effort occurs *after* the plans are completed.

In a step backwards, many applications and systems previously repaired and certified as Year 2000 compliant are turning out not to be compliant after all. For example, Microsoft announced in April, 1998, that it has backed off its earlier announcement that its major business applications would be Year 2000 compliant before the millennium.

What Has the State of Alaska Done About the Y2K Problem?

There is some good news. Many state agencies have been working for months to assess and fix Y2K problems. Several key computer systems have already been fixed, or are scheduled for remediation in the near future. In some cases, the corrections were made when outdated systems were overhauled primarily for other reasons (e.g., the State's criminal justice, child support enforcement, and budget systems).

One of the biggest steps taken to date to help assure the State's readiness is the recent engagement of a private sector Y2K project manager. Ms. Karen Perkins, a senior consultant with Unisys Corporation with expertise in Year 2000 project management and coordination services, has been retained to help lead the state's Y2K effort. This includes assessing and documenting the State's readiness for potential Y2K problems, providing overall statewide coordination and management, and assisting state agencies in identifying and resolving specific Y2K issues and problems at the agency level.

Ms. Perkins was recommended and obtained through a contract with a consortium of Alaskan vendors that conducted a national search for Year 2000 expertise on behalf of the State. Unisys Corporation is a nationally respected firm doing both public and private Y2K work and has been selected as one of the Gartner Group's "Premier" Y2K vendors. Funding of this contract through September 1998 was provided from the information technology appropriation made last session.

Other specific Y2K actions include:

- the State has formed a Y2K coordinating committee with representation from all executive branch departments, agencies, and quasi-public corporations;
- the State has identified its mission-critical application systems as well as the core state government services which depend on them;
- the State has begun an assessment of mission-critical systems to determine the type and criticality of Y2K related problems, as well as the resource and time requirements for fixing the problems and testing the solutions; and assessing the need to extend or adjust disaster recovery and risk management plans;
- the State has established this Year 2000 Task Force which has executive level representatives from all three branches of state government as well as the private sector;
- special working groups focused on key issue areas have been formed. These groups are addressing issues that cross department boundaries including key business partner relationships. So far, working groups have been formed for: banking and finance, criminal justice, embedded systems/facilities, emergency communications and disaster recovery planning, federal government relations, legal and risk management issues, and telecommunications;

- the State has begun initial development of an enterprise wide process for determining and ensuring the Y2K compliance status of all entities in its "supply chain" e.g. vendors, contractors, and other service providers who do business with the State through contracts, leases, grants, etc.;
- the State has conducted initial Y2K compliance interviews with key agencies and programs such as the Alaska Data Center, Department of Corrections, and telecommunications and emergency services; and,
- the State has begun the initial development of an online clearinghouse to coordinate and share Y2K related information such as best practices, vendor compliance data, testing and certification approaches, and software tools and methodologies.

These activities are being coordinated through the Office of Management and Budget.

What is the State's Current Status?

Some of the State's major mainframe financial application systems such as payroll (AKPAY) and accounting (AKSAS) are expected to be completed, tested, and in production by 12/31/98. Assessment of Y2K related problems for department level application systems, networks, and desktop systems is under way, but progress varies greatly by department.

A major issue is the considerable uncertainty about the compliance status of vendors' hardware and software products. Vendors are becoming reluctant to warrant and certify their products as being Y2K compliant due to potentially huge liability issues.

The State's greatest uncertainty about potential exposure to Y2K problems arises in the areas of telecommunications and embedded systems (such as elevators, health monitoring equipment, etc.). The State is also concerned about the potential for Y2K related disruptions to spread from one system or organization to another via networks and the supply chain.

Unfortunately, much of the assessment phase of dealing with the Y2K problem, plus the largest part of the necessary remediation, testing, certification, reimplementation, and contingency planning and disaster recovery phases, still lie ahead.

All of these phases will pose challenges and significant resource requirements. The testing phase above all, however, is expected to pose the greatest demands. Discussions with outside firms as well as the experience of our own private sector business partners on the Year 2000 Task Force indicate strongly that we should not underestimate our needs for hardware, software, and personnel during this phase. Typically, testing costs run about 50%-70% of total Y2K expenditures, and even higher for widely dispersed operations like the State's which are not as amenable to centralized testing approaches. Our private sector members caution that since testing requires the direct involvement of key personnel who know the business thoroughly, backfilling those key business positions can generate substantial costs, or else important business functions will go undone.

FY 99 Funding Needs

It is difficult, if not impossible, to estimate with any reliability the total amount of funding needed to deal with all the State's Y2K problems. The full extent of the problem cannot be

determined until more analysis of the State's systems is completed and more is known about Y2K compliance among vendors, the federal government, and others with whom state government interacts. Already, however, it is clear that work needs to continue at an even greater level than at present.

As funding for these activities is discussed, two considerations are crucial:

- 1) Funding is needed immediately. As mentioned earlier, with the January 2000 deadline approaching so quickly, the State of Alaska will increasingly be seeking to engage Y2K resources in a national "escalating dollar per hour environment". Also, with global Y2K activities plus the present Euro-Dollar conversion in Europe siphoning off already-scarce technical resources, the window for engaging Y2K contract assistance at any price is rapidly closing.
- 2) Without prompt action, the Y2K technical resources the State needs will simply be unobtainable. Funding authority must be provided so contracts can be negotiated and signed before available talent pools are depleted, even though the cash flow requirement may not be immediately tapped; and,
- 3) Funds appropriated in the FY 99 capital budget for the Y2K effort must be sufficient to allow work to proceed through at least February of 1999 and to secure major contracts to begin detailed assessment and remediation. By then, the State will have much better information about what is possible (and not possible) to achieve before the December 31, 1999, "event horizon". A detailed Y2K project plan and proposal for further funding will be developed and presented to policy makers and legislators for discussion in the next legislative session.

With these considerations in mind, the Task Force recommends that \$15.98 million be appropriated now in the FY 99 capital budget for Y2K activities. This funding authorization level is needed immediately to negotiate for and begin purchasing the resources needed for the State's overall Y2K effort in the following areas:

- assessment and planning;
- remediation of computer code;
- acquisition of needed manpower, support, hardware, software tools, testing tools, testing services and environments, and certification services;
- assessment of state facilities for embedded systems problems;
- external communications and contingency/disaster recovery planning;
- creation of a State Y2K clearing-house for product compliance information; and,
- project management, and coordination.

The requested level of funding should be allocated (or separately appropriated) as follows:

Executive Branch	\$ 10,000,000 ^{/a}
University	\$ 4,000,000 ^{/b}
Court System	\$ 90,000 ^{/c}
Legislature	\$ 1,890,000 ^{/d}

^{a/} Excludes the University of Alaska. Recommend an appropriation to OMB for disbursement to other agencies according to need.

- b/ Current University estimate of full Year 2000 funding need for FY99 is approx. \$8.6 million.
- c/ Already included in the Court System's overall FY99 capital budget request for computer technology.
- d/ The Legislative Affairs Agency has independently made a capital project request to eliminate its mainframe software systems. Replacing the systems includes acquiring and implementing Y2K-compliant elements.

This amount may not be the total funding needed for FY99. Additional funds are likely to be requested next session when more detailed and reliable cost estimates have been developed. The Task Force also emphasizes that these estimates **do not** indicate the total amount of funding that will be needed for dealing with the State's entire Y2K problem. Even after January 1, 2000, it is likely a large number of system fixes and changes will be needed in order to finish the job.

Although the requested amount is large, it is smaller than what many other similarly sized organizations plan to spend. For example, the Gartner Group says 20-25% of an organization's annual information technology budget is a general rule of thumb for estimating annual Y2K related funding needs through at least calendar year 2000. In Alaska's case, this would equate to approximately \$25 million per year for FY99, FY00, and perhaps also FY01.

Sample appropriation language is attached. It could be used either as a separate Year 2000 appropriation bill or as part of the FY99 capital budget.

Year 2000 Project

DRAFT APPROPRIATION LANGUAGE

Section 1. Purpose

Public sector and private sector organizations around the world, including businesses, governments, nonprofit organizations and others, are racing to prevent and mitigate problems which may result from the effects of the so-called "Year 2000 Problem". These problems include the potential failure or erroneous performance of automation systems, and the resulting disruptions in essential programs and activities supported by those systems. A significant concern of the State of Alaska is to avoid or mitigate significant Year 2000-related disruptions from State of Alaska systems. The appropriations in Section 2 are to fund the prevention or mitigation of problems caused by the State's Year 2000 problem.

Section 2. Appropriations

The following amounts are appropriated from the general fund separately to each entity below to support all aspects of assessment, remediation, testing, certification and contingency planning activities aimed at solving or mitigating the Year 2000-related problems of the State of Alaska. The appropriation made to the Office of Management and Budget is to be distributed to agencies within the executive branch as needed for their Year 2000 efforts.

Office of Management and Budget	\$10,000,000
University of Alaska	\$4,000,000
Court System	\$90,000
Legislature	\$1,800,000

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State of Alaska Year 2000 Website: <http://www.state.ak.us/y2000>

Attachment #2

2/1/99

FEB-01-99 10:01 FROM:

Year 2000 Project Status Report

University of Alaska
January 15, 1999

ID:

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Six Major Phases

- Year 2000 Awareness
 - Inventory & Assessment
 - Remediation
 - Testing & Validation
 - Implementation
- Contingency
(Overlaps Other Phases)