STATE OF NEW HAMPSHIRE
YEAR 2000 COMPUTING CRISIS

UPDATE

SPECIAL REPORT
JULY 1999

TO THE FISCAL COMMITTEE OF THE GENERAL COURT:

We have conducted an update to the Year 2000 readiness report that was issued in March 1999 to address a request made by the Fiscal Committee of the General Court.

The purpose of this update was to evaluate and report on Year 2000 readiness progress, and continuity and contingency plans for critical functions performed by State agencies since issuing our first report in March 1999.

This report is the result of our evaluation of the information noted above and is intended for the information of the Fiscal Committee of the General Court. This restriction is not intended to limit the distribution of this report, which upon acceptance by the Fiscal Committee is a matter of public record.

Office of Legislative Budget Assistant

OFFICE OF LEGISLATIVE BUDGET ASSISTANT

July 1999

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STATE OF NEW HAMPSHIRE
YEAR 2000 COMPUTING CRISIS UPDATE

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1. INTRODUCTION

The "Year 2000 problem," or "Y2K problem," is most often identified as the inability of computer systems to accurately recognize and calculate dates beginning with January 1, 2000 and beyond. Potential problems associated with the Year 2000 problem actually exceed difficulty with calculating dates in the year 2000. Additional problem dates, including some in 1999, have been identified. Embedded systems are also problematic. From the State's perspective, properly working embedded systems are essential for such items as business and emergency communication systems, vehicles and aircraft, and security systems. The Year 2000 problem also takes on added dimensions when one considers the number of linkages and data exchanges characteristic of many computing systems.

The Year 2000 problem, while technical in nature, is primarily a business problem and the responsibility of senior management. If computing and other automated functions fail, even partially, services may be disrupted causing problems for all kinds of consumers, whether interacting with the government or the private sector.

1.1 Project Mandate

In November 1998, the joint Legislative Performance Audit and Oversight Committee and the joint Legislative Fiscal Committee directed the LBA Audit Division to: 1) assess information on Year 2000 readiness provided to the Division of Information Technology Management, 2) identify and rank the State's critical functions, 3) determine whether agencies have developed contingency plans to continue operations should computing or embedded systems fail, and 4) replicate at the State level the "report card" approach that has been taken by the federal government.

Our earlier report, entitled *Year 2000 Computing Crisis Special Report*, was presented in March 1999 to the joint Legislative Fiscal Committee. At that time, we found that State agencies had Year 2000 compliance work to complete before they could certify their ability to provide critical government functions dependent upon automated computing, data exchange, and embedded systems. Additionally, we found agencies were deficient in Year 2000 contingency planning.

Upon reporting the above findings, we were directed by the joint Legislative Fiscal Committee to provide this update. In addition to updating the reported information regarding Year 2000 compliance of critical State functions, we were specifically directed to include the Department of Corrections, as well as to grade contingency planning for these functions.

1. Introduction (Continued)

1.2 Current Findings

Our current findings indicate State agencies have made progress since our March 1999 report. While half of the functions can now be considered compliant, there is more work to be done for the remaining functions. We found a great deal of time and effort continues to be spent remediating computing and embedded systems. This is a concern because continuity and contingency planning should now be the focus rather than remediation. Authoritative sources indicate there is not enough time to properly correct and test systems at this late date. More effort needs to be made in developing continuity and contingency plans that will enable critical State functions to operate in the event of computing systems, embedded systems, or infrastructure failure.

1.3 Scope, Objectives, And Methodology

The purpose of this report is to provide an updated grade for the State's critical functions and to provide a grade for Year 2000 contingency plans for those functions.

In conducting our fieldwork, we sought to answer two main questions regarding how well agencies are prepared to meet the Year 2000 problem. The first question addressed agency Year 2000 remediation efforts, while the second question addressed agency planning to manage potential Year 2000 failures:

1. *Have State agencies sufficiently validated and tested their computing, data exchange, and embedded systems for Year 2000 compliance?*

2. *Have State agencies prepared, tested, and validated comprehensive contingency plans to ensure the continued delivery of critical services to citizens regardless of unforeseen, unanticipated, or unpredictable failures of information technology, embedded systems, external systems or infrastructure associated with the Year 2000 issue?*

The methods we used to evaluate the State's response to the Year 2000 problem included:

- reviewing our March 1999 report and using that information as a baseline for conducting our current review;
- identifying and categorizing additional critical State functions;
- conducting on-site interviews with agency personnel and reviewing Year 2000 remediation documentation regarding computing, data exchange, and embedded systems, as well as continuity and contingency planning efforts;

1. Introduction (Continued)

1.3 Scope, Objectives, And Methodology (Continued)

- utilizing checklists to determine if those agencies reporting to be in implementation have sufficiently tested computer systems and adequately developed continuity and contingency plans; and
- following up with agency personnel by submitting memoranda to verify and confirm our understanding and assessment of an agency's Year 2000 readiness.

Based on our analysis of the interview information and remediation documentation, we developed a grading system for the Year 2000 readiness of the State's critical functions. Likewise, we developed a grading system for continuity and contingency plans based on the U.S. General Accounting Office's (GAO) continuity and contingency planning guidance. The grading systems were adapted from the federal Subcommittee on Government Management, Information, and Technology and are found in Sections 2 and 3 of this report.

1.4 Three Tier Approach

Our analysis utilized the same tier approach as in the March 1999 report. We divided State functions into three tiers depending on their criticality. Function assignments to tiers were corroborated through interviews with agencies. As in the March 1999 report, we focused our efforts on functions and systems in Tiers 1 and 2. The identified State functions are the same as in our initial report with few exceptions. Our evaluation of Year 2000 readiness and continuity and contingency planning encompasses eighteen agencies and fifty functions in the two tiers. Nine functions have been added to our latest report. All nine functions were added to Tier 1 and are denoted in Table 1.

Tier 1 functions are those related to ensuring the immediate life, health, or safety of the State's residents. The State provides several services in these areas as shown in Table 1.

Tier 2 includes functions related to providing immediate benefits to the State's residents, including wage and benefit payments, and State revenue collection. The functions include processing and distributing welfare and other support benefits, the State payroll, unemployment compensation, retirement benefits, and revenue collection. Generally, we have set an annual threshold of $25 million in revenue per fund for a system to be included in Tier 2. See Table 2 for Tier 2 identified functions.

Tier 3 includes functions related to departments performing their missions and maintaining public confidence in the State's government. Functions of these systems include oversight of entities, regulation and licensing, personnel, and several areas of service provision. Examples of these functions include those carried out by the Department of Labor, the Department of Education, and the Department of Resources and Economic Development. Also in Tier 3 are other functions of agencies we addressed in this report such as the licensing function of the Department of Fish and Game.

1. Introduction (Continued)

1.4 Three Tier Approach (Continued)

Table 1

Tier 1 Functions

Agency	Function(s)
Adjutant General	Emergency Response And Disaster Recovery
Administrative Services	Enhanced 9-1-1
Corrections	1) Men's Prison* 2) Women's Prison* 3) Lakes Region Facility* 4) Electronic Monitoring*
Environmental Services	1) Hazardous Waste Management 2) Dam Operations
Fish And Game	Search And Rescue
Governor's Office Of Emergency Management	1) Telecommunications 2) Emergency Alert System
Health And Human Services	1) Patient Care – Glencliff Home For The Elderly* 2) Patient Care – NH Hospital And Anna Philbrook Center*
Safety	1) Criminal History 2) Communications 3) State Police Automobiles 4) State Police Aircraft 5) Gun Check System* 6) Motor Vehicle Records 7) State Fire Marshal*
Transportation	1) Ground Traffic Safety 2) Air Navigation Safety 3) Highway Maintenance
Youth Development Services	Secure Detention*

Source: LBA analysis.
*Indicates functions added since the March 1999 report.

1. Introduction (Continued)

1.4 Three Tier Approach (Continued)

Table 2

Tier 2 Functions

Agency	Function(s)
Administrative Services	1) State Accounting 2) State Personnel Management 3) General Services
Employment Security	1) Unemployment Compensation 2) Unemployment Tax Collection 3) Mail Operations
Governor's Office Of Energy And Community Services	Low Income Home Energy Assistance Program
Health And Human Services	1) Child Abuse/Neglect Management And Claims 2) Eligibility Determination 3) Child Support Enforcement 4) Medicaid 5) Women, Infants, And Children 6) Mailing System 7) Personal Computer/Networking
Insurance	Revenue Collection
Liquor Commission	1) Revenue Collection 2) Store Operations
Retirement System	Annuity Payments
Revenue Administration	Revenue Collection
Safety	1) Motor Vehicle Financial System 2) Road Toll Collection (Gas Tax)
Sweepstakes Commission	Revenue Collection
Transportation	Turnpike Toll Collection
Treasury	1) Investment And Debt Management 2) Cash Management 3) General Fund Distribution

Source: LBA analysis.

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2. YEAR 2000 READINESS AND RATING OF CRITICAL STATE FUNCTIONS

As with our March 1999 report, we addressed State agency efforts to ensure computing systems and embedded technology could support the Tier 1 and Tier 2 critical functions during and beyond the Year 2000 rollover. In some cases, critical functions rely heavily on computer-based systems to accomplish a critical function under normal conditions. In many other cases, critical functions normally utilize "function-specific embedded technology" such as radios, vehicles and aircraft, global positioning systems, medical devices, and traffic controls. Where a function was found to rely upon both computer systems and function-specific embedded technology, both were assessed and the agency was graded accordingly. This operational definition has led to the grading of systems that were considered manual in our March 1999 report, such as the Department of Environmental Services' hazardous waste management function and the Department of Transportation's air navigation safety function. Agencies whose functions are largely or wholly reliant on function-specific embedded technology have little or no Year 2000 remediation to accomplish for these technologies because agencies generally can not test them and must rely upon vendor certification.

The phrase "function-specific embedded technology" does not include services generally considered infrastructure, such as power, water, sewer, and telephone communications. Infrastructure issues can not generally be addressed by agencies (other than obtaining provider assurances) as they are beyond agency control and are the responsibility of commercial providers. Therefore, infrastructure does not affect an agency's Year 2000 grade. However, as detailed in Section 3, an agency's continuity and contingency planning efforts must address infrastructure.

2.1 Current Assessment And Rating Of The State's Year 2000 Readiness

As mentioned earlier, our method for grading functions was the same as in the March 1999 report. A function's documented remediation phase determined the function's letter grade. "Remediation phase" refers to the five-phase GAO model. The five phases of the GAO model are: awareness, assessment, correction, testing, and implementation. Definitions for the phases can be found in Appendix A. We based grades on the least compliant system within a function. Agency functions in the implementation phase or compliant received an "A" grade. Functions in the testing phase received a "B" grade. Functions in the correction phase were given a "C" grade. Those functions in the assessment phase or awareness phase earned grades of "D" and "F", respectively.

Functions earned a plus or minus depending on several factors. Grades were given a plus if some parts of a function were at a higher remediation phase. Additionally, a plus was assigned to a grade if documentation sufficiently demonstrated a function was close to moving into the next remediation phase.

2. Year 2000 Readiness And Rating Of Critical State Functions (Continued)

2.1 Current Assessment And Rating Of The State's Year 2000 Readiness (Continued)

A minus was assigned to a grade if the agency accepted vendor certifications for parts of the function instead of independently testing the entire function. For example, some agencies accept vendor certification in place of testing their minicomputer and operating systems. A second example would be an agency reliant upon embedded technology, such as pagers and radios, accepting vendor certification due to the difficulties involved with testing and remediating embedded systems.

Our evaluation of Year 2000 readiness and the resulting grades are shown in Tables 3 and 4. As mentioned earlier, eighteen agencies consisting of fifty Tier 1 and Tier 2 functions received Year 2000 readiness grades. These grades indicate all but one function is in the correction phase or beyond. The Office of Emergency Management received funding approval through the Capital Budget to install a compliant telephone system. Agency officials indicated they are in the process of obtaining a new telephone system and plan to have it installed prior to the Year 2000.

Of the twenty-five functions receiving a grade of "A" or "A-", sixteen of the functions are normally reliant primarily upon embedded systems such as radios, pagers, or equipment specific to the function such as navigational aids, traffic signals, or monitoring devices for hazardous spills. The functions reliant upon embedded systems did not require significant, if any, remediation effort if vendor certifications were obtained stating the devices with embedded technology were Year 2000 compliant.

One agency received lower letter grades than in our March 1999 report. The Department of Employment Security's functions of unemployment compensation and unemployment tax collection went from an "A-" and "B+", respectively, to a "C+" for both functions. Even though the agency had completed internal Year 2000 testing of its systems, the agency also underwent independent verification and validation of its systems supporting these two functions. The independent verification and validation found some Year 2000 issues. The agency plans to correct the identified Year 2000 problems by August 1999.

We strongly recommend readers of this report review Appendix B, as it represents our understanding of the level of Year 2000 remediation that could be adequately documented for each critical function. The information in Appendix B also has been reviewed, verified, and concurred with by the agencies responsible for these critical functions, unless otherwise noted in an agency response.

2. Year 2000 Readiness And Rating Of Critical State Functions (Continued)

2.1 Current Assessment And Rating Of The State's Year 2000 Readiness (Continued)

Table 3

Year 2000 Report Card Update For Critical State Functions – Tier 1

Agency	Awareness	Assessment	Correction	Testing	Implementation/ Compliant	Previous Grade	Current Grade	Notes
Adjutant General								
Emergency Response And Disaster Recovery					✓	D	A-	†
Administrative Services								
Enhanced 9-1-1					✓	C+	A-	1
Corrections								
Men's Prison			✓			N/A	C+	†
Women's Prison			✓			N/A	C	†
Lakes Region Facility			✓			N/A	C+	†
Electronic Monitoring					✓	N/A	A-	†, 2
Environmental Services								
Hazardous Waste Management					✓	Manual	A-	†
Dam Operations					✓	Manual	A-	†
Fish And Game								
Search And Rescue					✓	A	A-	†
Governor's Office Of Emergency Management								
Telecommunications		✓				D+	D+	†, 4
Emergency Alert System					✓	A-	A-	†
Health And Human Services								
Patient Care - Glencliff Home					✓	Manual	A-	†
Patient Care - NH Hospital & Philbrook					✓	Manual	A-	†
Safety								
Criminal History			✓			C	C	
Communications					✓	A	A-	†
State Police Automobiles					✓	A	A-	†
State Police Aircraft					✓	F	A-	†
Gun Check System			✓			N/A	C+	
Motor Vehicle Records			✓			N/A	C+	
State Fire Marshal			✓			N/A	C	†
Transportation								
Ground Traffic Safety					✓	C+	A-	†, 3
Air Navigation Safety					✓	Manual	A-	†
Highway Maintenance					✓	C	A-	†, 3
Youth Development Services								
Secure Detention			✓			N/A	C	†

Source: LBA analysis.

2. Year 2000 Readiness And Rating Of Critical State Functions (Continued)

2.1 Current Assessment And Rating Of The State's Year 2000 Readiness (Continued)

Table 4

Year 2000 Report Card Update For Critical State Functions – Tier 2

Agency	Awareness	Assessment	Correction	Testing	Implementation/ Compliant	Previous Grade	Current Grade	Notes
Administrative Services								
State Accounting					✓	C+	A	
State Personnel Management					✓	C+	A	
General Services			✓			C+	C+	†
Employment Security								
Unemployment Compensation			✓			A-	C+	
Unemployment Tax Collection			✓			B+	C+	
Mail Operations					✓	D	A-	†
Governor's Office Of Energy And Community Services								
Low Income Home Energy Assistance Program			✓			D+	C	
Health And Human Services								
Child Abuse/Neglect Management and Claims					✓	B+	A	
Eligibility Determination				✓		C+	B	
Child Support Enforcement				✓		C	B	
Medicaid				✓		C	B-	
Women, Infants, And Children				✓		C	B-	
Mailing System					✓	A	A-	†
Personal Computer/Networking			✓			C+	C+	
Insurance Department								
Revenue Collection					✓	Manual	A-	
Liquor Commission								
Revenue Collection					✓	A-	A-	
Store Operations			✓			C+	C+	
Retirement System								
Annuity Payments					✓	C	A-	
Revenue Administration								
Revenue Collection					✓	A-	A-	
Safety								
Motor Vehicle Financial System			✓			D	C	
Road Toll Collection (Gas Tax)			✓			C	C	
Sweepstakes Commission								
Revenue Collection					✓	C+	A-	
Transportation								
Turnpike Toll Collection				✓		C+	B	
Treasury								
Investment And Debt Management				✓		D+	B	
Cash Management				✓		D+	B	
General Fund Distribution				✓		D	B	

Source: LBA analysis.

2. Year 2000 Readiness And Rating Of Critical State Functions (Continued)

2.1 Current Assessment And Rating Of The State's Year 2000 Readiness (Continued)

Notes to Tables 3 and 4

† Indicates a function largely or wholly reliant on function-specific embedded technology under normal conditions. Little or no Year 2000 remediation effort is required.

1. The Enhanced 9-1-1 function is reliant upon the ability of external telephone providers to remediate their systems. The overall status of the Enhanced 9-1-1 function remains in the correction phase. The bureau has completed all internal corrections to its systems and obtained vendor certifications where appropriate. Therefore, this effort is reflected with the compliant status of the Public Safety Answering Point.
2. Electronic Monitoring is wholly dependent upon electricity and telephone service, and the vendor's ability to monitor subjects in this program. The monitoring center is located in California, making New Hampshire's monitoring program subject to the readiness of telephone infrastructure nation-wide.
3. Readiness of the Morton Building, District 1 and 5 dispatch centers, and toll plazas were assessed. No other Department of Transportation facilities were assessed.
4. As of July 1, 1999, the Office of Emergency Management received funding approval through the Capital Budget to replace its non-compliant telephone system. The Office reports that it has begun the process of replacing the system.

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3. CONTINUITY AND CONTINGENCY PLANNING

As noted earlier, the Year 2000 problem is primarily a business problem and the responsibility of senior management. Agencies are generally attempting to ensure that functions critical to the citizens of the State are ready for the challenges of the Year 2000 and beyond. However, at any stage of Year 2000 compliance some systems could still fail to provide important State services. Corrective efforts may not be completed in time, renovated and tested systems thought to be compliant may still encounter unanticipated Year 2000 problems, or external suppliers such as utilities may experience difficulty providing services. As good business management practices, agencies should already have continuity and contingency plans in place to address all types of natural and man-made disasters. Year 2000 continuity and contingency plans could be built upon these plans. Continuity and contingency planning is perhaps the most difficult aspect of solving the Year 2000 problem because it involves a disciplined investigation into all aspects of an agency's operations to locate those points where risk can occur which could affect critical State functions.

As part of continuity and contingency planning, agencies should actively address ways to reduce the risk and potential impact of Year 2000-induced failures on their essential functions. Every agency needs to ensure the continuity of essential functions by identifying, assessing, managing, and mitigating Year 2000 risks. This effort can not be limited to the risks posed by Year 2000-induced failures of internal information systems, it must also include the potential Year 2000 failures of others.

Infrastructure poses its own unique problems that must be explicitly and comprehensively addressed in continuity and contingency plans. Agencies are reliant upon public infrastructure including telecommunications, water, sewer, natural gas and other heating fuels, and electricity. Agencies are not able to compel providers of infrastructure services to prepare for the Year 2000 challenge. While many providers have issued *assurances* of one type or another, they have not issued *certifications* of readiness. Combining these circumstances with the necessity of providing continued services to the public, State agencies must develop continuity and contingency plans that detail how critical services will be delivered in the event of partial or total infrastructure failure. Clearly, this is a major undertaking but continuity and contingency planning offers the only method that State agencies can *reasonably* use to ensure continuation of essential services.

Due to the difficulty of testing and remediating embedded systems, the best means to address the Year 2000 problem for embedded systems is to develop contingency plans so critical functions can be maintained even if vital equipment fails. Also, the risks associated with not testing either parts of systems or whole systems must be addressed in an agency's plan. One weak link in the chain of critical dependencies and even the most successful Year 2000 program will fail to protect against major disruption of essential functions. Continuity and contingency plans are intended to address these weak links.

3. Continuity And Contingency Planning (Continued)

Reliance on vendor certification for compliance is another risk that must be addressed in continuity and contingency plans. While we have accepted vendor certifications where appropriate, the acceptance of vendor certification adds additional risk to an agency's Year 2000 project, and may reduce the likelihood that critical systems and functions will be available in the event of a failure. Because operational conditions may be too variable for vendor certification to hold up for complex systems such as those operating in multiple agencies over local and wide area networks, agencies must have robust continuity and contingency plans. These must be based on a detailed risk assessment that explicitly delineates additional risks assumed by basing all or part of a Year 2000 project on vendor certification.

3.1 The Continuity And Contingency Planning Process

We found many federal and other states' agencies have adapted continuity and contingency planning to address the Year 2000 problem. In general, the primary objectives of a continuity and contingency plan are:

- to provide the agency with a tested process which when executed, will permit an efficient, timely resumption of the interrupted operations;
- to ensure the continuity of the organization's functions;
- to minimize the inconvenience and potential disruption to customers and clients; and
- to minimize the impact to the agency's public image.

Since there is no such thing as an unwritten plan, agency efforts must be written. A continuity plan includes a risk mitigation strategy, contingencies, and recovery procedures, to ensure the organization's critical processes continue in spite of disruptions to infrastructure or support systems. Agencies need to tailor their Year 2000 continuity planning efforts to reflect their unique needs within their operational environment to achieve necessary results in the most cost efficient manner. These plans emphasize dealing with the consequences rather than with the causes of failures.

Contingency plans are an element of continuity planning. Contingency planning is concerned with the effects of failures that are beyond the control of the agency, including failures on the part of business partners and public infrastructure. Federal and other states' contingency plans are focused on ensuring the function's continuity in the event of the loss or degradation of essential resources such as mission critical software, a computer system, local area and wide area network connectivity, or other communications device or interface. These contingency plans describe the steps an agency would take, including the activation of manual or contract processes, to ensure the continuity of its critical functions due to a Year 2000 system failure.

Testing continuity and contingency plans to ensure all the processes will work in the event of an emergency is required. Agencies need to ensure they are capturing the essential aspects of their critical processes and have a method to recover from a disruption when

normal conditions return. Comprehensive and detailed work-around plans should be developed, documented, tested, and placed in pre-defined accessible areas in anticipation of the day they will be needed. Necessarily, plans must be rehearsed and well understood by all members of an agency. An untested continuity and contingency plan is useless as an untested plan will deliver uncertain results and may not mitigate Year 2000 risks.

As with other aspects of the Year 2000 effort, the U.S. General Accounting Office provides recommendations for developing continuity and contingency plans in its publication *Year 2000 Computing Crisis: Business Continuity and Contingency Planning.* The GAO guidelines provide a structured approach to continuity and contingency planning which is intended to safeguard an agency's ability to produce *a minimum acceptable level* of outputs and services in the event of failures of internal or external mission-critical systems. Program and project management activities and accountability support each of the four phases of continuity planning under the GAO guidelines. The GAO's recommended phases for continuity and contingency planning are:

1. Initiation where a continuity project work group is established and a high-level business continuity planning strategy is developed. A master schedule and milestones are drafted and executive support is obtained.

2. Impact Analysis where the potential impact of mission-critical system failures on an agency's essential functions is assessed. Year 2000 failure scenarios are defined, and risk and impact analyses of each essential function are performed. Infrastructure risks are assessed and the minimum acceptable levels of outputs for each essential function are defined.

3. Planning where plans and implementation modes are identified and documented. Triggers for activating plans are established and resumption teams for each essential function are formed.

4. Testing where an agency's continuity and contingency strategy is validated. Test plans are documented and verified. Tests are prepared and executed. Disaster recovery plans and procedures are updated.

We have added a fifth phase, implementation. This phase parallels the Year 2000 implementation phase and is characterized by updating plans when computing systems, embedded systems, or operational processes are changed; re-testing the plans when changes are made; review and approval by management; and monitoring the Year 2000 readiness of data exchange and other partners.

This planning process transcends information technology systems and encompasses all aspects of an agency's operation. The primary value of continuity and contingency planning is that planning has taken place before the crisis, maximizing time by identifying alternatives in a non-crisis mode. Continuity and contingency planning links risk

3. Continuity And Contingency Planning (Continued)

3.1 The Continuity And Contingency Planning Process (Continued)

management and mitigation efforts to the agency's Year 2000 program and helps to identify alternate resources and processes needed to operate the agency's core processes.

3.2 Current Assessment And Rating Of The State's Continuity And Contingency Plans

Using GAO standards, we developed a checklist to assess agency continuity and contingency plans for the State's Tier 1 and Tier 2 functions (Appendix C). The checklist was used to assess whether the function was in the initiation, impact analysis, planning, testing, or implementation phase. In order to provide a letter-type grade for each function's continuity and contingency planning efforts, a grading model was developed based on GAO continuity and contingency planning guidance. Where disaster recovery plans or other documents detailing agency contingencies were available they were also incorporated into our analysis. A complete plan, including completion of testing and revisions if necessary, received a grade of "A". A plan determined to be in the testing phase received a letter grade of "B". A plan determined to be in the planning phase received a "C" grade. A plan in the impact analysis or initiation phases received a grade of "D" or "F", respectively.

Similar to the grading for Year 2000 readiness, grades for continuity and contingency plans could earn a plus or minus depending on several factors. Continuity and contingency plan grades could earn a plus if the plan was close to moving into the next phase, as supported by documentation. For example, an agency could earn a "C+" if they had completed assessing risks and documenting contingencies but did not have any written test plans or had addressed most but not all of the crucial elements of planning. An agency could earn a grade of "B+" if they were in the final phases of testing and provided results.

A minus could be earned on a plan if the agency was in the very beginning of a phase. For example, an agency might earn a grade of "C-" if they had only addressed a few critical areas of planning such as business resumption priorities. An agency could earn a grade of "B-" if they could provide evidence of a test plan or test results to some parts of the plan but the plan was incomplete.

Continuity and contingency grades for Tier 1 functions are found in Table 5, while continuity and contingency grades for Tier 2 functions are in Table 6. As shown in Tables 5 and 6, most agencies are in the impact analysis or planning phase of continuity and contingency efforts, with some notable exceptions to this progress. First, the Department of Health and Human Services' personal computer/network function and the Treasury Department's functions received failing grades for continuity and contingency planning. The Department of Health and Human Services reports networking will be addressed by individual functions as part of their individual continuity and contingency plans. At the time of this report, we saw no evidence that personal computers and networking had been addressed. The Treasury Department does not have a plan nor are there any efforts underway to develop plans.

3. Continuity And Contingency Planning (Continued)

3.2 Current Assessment And Rating Of The State's Continuity And Contingency Plans (Continued)

At the opposite end of the scale, we found six of the fifty functions to be in the testing phase. This includes the Adjutant General's Emergency Response and Disaster Recovery, Administrative Services' Enhanced 9-1-1, Department of Corrections' Men's Prison, Department of Health and Human Services' New Hampshire Hospital, Governor's Office's Low Income Home Energy Assistance Program, and the Department of Revenue Administration's Revenue Collection functions. Unfortunately, not all agencies see the value of testing their plans once developed. This seriously undermines the plans' value as no one can predict with accuracy what results plan implementation might produce.

As indicated earlier, we sought continuity and contingency plans for all critical functions. We expected, as recommended by the GAO, that even critical functions with systems reported to be Year 2000 compliant would have contingency planning documents in place to safeguard against unforeseen system failures. However, some agencies initially stated continuity and contingency plans were not needed because their equipment had been certified Year 2000 compliant. Certification of compliance or successful testing does not eliminate the need for continuity and contingency plans. Failure of certified compliant equipment or other items the function is dependent upon may still occur. Because no one can predict which embedded systems will fail, it is imperative for management to develop and implement continuity and contingency plans for critical functions dependent upon embedded systems as well.

Since our March 1999 report, agencies have made steady improvements in developing their continuity and contingency plans. However, our review of continuity and contingency plans noted that many of the plans did not adequately address the possibility of widespread infrastructure failures. Some agencies, such as the Retirement System, have stated they have faith utilities will be Year 2000 ready. Such assumptions may not sufficiently protect critical functions from failure.

Even with the steady improvements made in agency continuity and contingency plans, more effort needs to be made in identifying risks that may impact critical functions. These risks should be approached from a worst case scenario standpoint such as total failure of telecommunications and electricity, but not discount partial failure or irrational functioning. Continuity and contingency plans can be developed with these assumptions in mind and agency management can be assured their plans can address virtually any catastrophic event.

3. Continuity And Contingency Planning (Continued)

3.2 Current Assessment And Rating Of The State's Continuity And Contingency Plans (Continued)

Table 5

Continuity And Contingency Plan Grading – Tier 1

Agency	Initiation	Impact Analysis	Planning	Testing	Implementation	Grade
Adjutant General						
Emergency Response And Disaster Recovery				✓		B-
Administrative Services						
Enhanced 9-1-1				✓		B-
Corrections						
Men's Prison				✓		B-
Women's Prison			✓			C-
Lakes Region Facility			✓			C-
Electronic Monitoring		✓				D
Environmental Services						
Hazardous Waste Management			✓			C+
Dam Operations			✓			C+
Fish And Game						
Search And Rescue		✓				D
Governor's Office Of Emergency Management						
Telecommunications			✓			C+
Emergency Alert System			✓			C+
Health And Human Services						
Patient Care - Glencliff Home For The Elderly		✓				D+
Patient Care - NH Hospital & Philbrook Center				✓		B
Safety						
Criminal History			✓			C-
Communications			✓			C
State Police Automobiles			✓			C+
State Police Aircraft			✓			C-
Gun Check			✓			C-
Motor Vehicle Records			✓			C-
State Fire Marshal		✓				D
Transportation						
Ground Traffic Safety			✓			C+
Air Navigation Safety		✓				D
Highway Maintenance			✓			C-
Youth Development Services						
Secure Detention		✓				D

Source: LBA analysis.

3. Continuity And Contingency Planning (Continued)

3.2 Current Assessment And Rating Of The State's Continuity And Contingency Plans (Continued)

Table 6

Continuity And Contingency Plan Grading – Tier 2

Agency	Initiation	Impact Analysis	Planning	Testing	Implementation	Grade
Administrative Services						
State Accounting			✓			C
State Personnel Management			✓			C
General Services		✓				D
Employment Security						
Unemployment Compensation			✓			C
Unemployment Tax Collection			✓			C
Mail Operations			✓			C
Governor's Office Of Energy And Community Services						
Low Income Home Energy Assistance Program				✓		B-
Health And Human Services						
Child Abuse/Neglect Management and Claims			✓			C-
Eligibility Determination			✓			C-
Child Support Enforcement			✓			C-
Medicaid			✓			C-
Women, Infants, And Children			✓			C-
Mailing System			✓			C
Personal Computer/Networking	✓					F*
Insurance Department						
Revenue Collection			✓			C-
Liquor Commission						
Revenue Collection			✓			C
Store Operations		✓				D
Retirement System						
Annuity Payments		✓				D
Revenue Administration						
Revenue Collection				✓		B+
Safety						
Motor Vehicle Financial System			✓			C
Road Toll Collection (Gas Tax)		✓				D
Sweepstakes Commission						
Revenue Collection			✓			C
Transportation						
Turnpike Toll Collection		✓				D
Treasury						
Investment And Debt Management	✓					F
Cash Management	✓					F
General Fund Distribution	✓					F

Source: LBA analysis.

* Agency reports that individual functions will be incorporating personal computer/networking into their respective contingency plans.

3. Continuity And Contingency Planning (Continued)

3.2 Current Assessment And Rating Of The State's Continuity And Contingency Plans (Continued)

Another weakness we noted in many plans was they lacked details. Plans should include step-by-step instructions on how to accomplish a task, identify who will be responsible for accomplishing the task, and what resources are needed to accomplish the task. A plan should also ensure these resources are available for use in the necessary locations. The Department of Transportation's Air Navigation Safety and Turnpike Toll Collection functions have been addressed in very general terms. The contingencies developed to date lack sufficient detail to indicate that a thorough analysis of all the processes that support the functions have occurred.

We noted the New Hampshire Hospital, which is required by accrediting bodies to have contingency plans, had such details in its documented plan. So too did the Department of Revenue Administration's plan. However, the Department of Safety, the Department of Fish and Game, the Bureau of General Services within the Department of Administrative Services, the Retirement System, and other agencies have yet to undertake continuity and contingency planning efforts to this level of detail. Detailed procedures are critical as they allow any agency member to execute contingency procedures, even in the absence of key management. Detailed procedures can allow information technology systems to be restored regardless of staff turnover, which seems to be problematic in many agencies. Detailed procedures do not invest needed, critical institutional knowledge in individuals as they may not be available when needed for any number of reasons. Detailed procedures invest this knowledge in policy and procedure that remains in place irrespective of staffing issues. A lack of detailed procedures may subject agencies and the critical functions for which they are responsible to greater risk than is necessary.

Once again, we strongly recommend readers of this report review Appendix B, as it represents our understanding of the level of Year 2000 remediation that could be adequately documented for each critical function. The information in Appendix B also has been reviewed, verified, and concurred with by the agencies responsible for these critical functions, unless otherwise noted in an agency response.

4. CONCLUSION

As noted in the body of our report, we have found progress in the area of Year 2000 remediation. However, we have also found reason for caution. The Department of Employment Security recently completed an independent verification and validation of its Year 2000 efforts. This independent verification and validation revealed flaws in what appeared to be a solid Year 2000 remediation effort and compelled the agency to reenter the correction phase to address these flaws. Two overriding lessons can be gleaned.

First, independent verification and validation of Year 2000 efforts is highly recommended as it can rigorously and independently test the changes made to achieve compliance. Second, no matter how good a Year 2000 effort appears, there can always be unexpected problems at any time. Continuity and contingency planning offers a reasonable and effective method to control these risks.

Another area of concern is what may be excessive focus on January 1, 2000. Some agencies have tested the roll-over and little else. Many agency continuity and contingency plans assume that date to be the only critical date and develop contingencies based on knowing when a failure will occur. Authoritative sources have noted many other dates that may pose substantial threats to critical functions. Some of these dates are in 1999, such as the beginning of fiscal years and September 9, 1999 and dates beyond the roll-over, such as leap year in 2000 and 2004, and non-leap year dates in 2001. Both Year 2000 remediation plans and continuity and contingency plans should also address these potentialities.

Progress was noted in the area of continuity and contingency planning. As indicated in our March 1999 report, virtually no agencies had continuity or contingency plans in place. Most agencies we evaluated for this special report now have begun the process of developing needed plans. They should continue these efforts and other agencies should adopt this process and implement robust, tested plans designed to ensure uninterrupted delivery of critical services.

Finally, as noted in our March 1999 report, Year 2000 readiness among the State's critical functions changes regularly. Additionally, agencies appear to be making steady improvements in their continuity and contingency planning efforts. Therefore, readiness is likely to continue to change.

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STATE OF NEW HAMPSHIRE
YEAR 2000 COMPUTING CRISIS UPDATE

APPENDIX A

GLOSSARY

Assessment phase	Second phase of the five-phase Year 2000 remediation model where core systems are identified, systems inventoried, analyzed, and prioritized for correction, contingency plans developed, and resources have been committed.
Awareness phase	First phase of the five-phase Year 2000 remediation model where an entity is aware of Year 2000 issues and has executive support.
Business function	A group of logically related tasks that are performed together to accomplish an objective.
Certification	A document serving as evidence or as written testimony attesting to status.
Contingency plan	In general, the steps the enterprise would take, including the activation of manual or contract processes, to ensure the continuity of its business processes in the event of a Year 2000-induced system failure.
Continuity and contingency planning	The process of developing a continuity of business plan for an entity and contingency plans tailored to meet specific risks faced by the entity.
Continuity plan	In the context of the Year 2000 Program, the overall plan, including risk mitigation strategy, contingencies, and recovery, to ensure the organization's processes continue in spite of disruptions to infrastructure or support systems.
Correction phase	Third phase of the five-phase Year 2000 remediation model where systems have been converted, replaced, or retired.
Data exchange	The electronic exchange of information between two business entities or trading partners.

Electronic data interchange	The interchange of information utilizing telecommunications between data processing systems. Used for transmitting vendor billing and invoice information and the subsequent payment processing without "paper."
Embedded system/ Embedded chip	Embedded systems are microprocessor-based systems containing one or more "chips" or microprocessors used to control, monitor, communicate, or operate equipment. They are employed in a wide variety of systems such as communications systems, office equipment, traffic control systems, utility systems, security systems, elevators, medical monitoring equipment, environmental control systems, and many others.
External interface	Any interface between one of an agency's systems and a system not controlled by the agency (i.e., the exchange of data between trading partners specific to an application or system by any electronic media).
Implementation phase	Fifth phase of the five-phase Year 2000 remediation model where corrected systems have been put into production, users have been trained, and documentation has been updated.
Independent Verification And Validation	The process of evaluating a system or component during or at the end of the development process to determine whether it satisfies specified requirements. It provides a double-check that mission-critical systems will, in fact, be ready and discover systems which were considered compliant but are not. Management is afforded a higher degree of confidence that the agency will achieve compliance on time through verification.
Infrastructure	The facilities, equipment, installations, and support systems needed for the functioning of a system. Generally thought of as electricity, telecommunications, water, sewer, and transportation.
Interface	A boundary across which two systems communicate. An interface might be a hardware connector used to link to other devices, or it might be a convention used to allow communication between two software systems.

Production environment	The computing system environment where the agency performs its routine information processing activities.
Renovation phase	See Correction phase.
Resumption team	Team comprised of application system specialists and business analysts. This is a quick action team that will pinpoint the computer-related problem and bring subject matter experts in to correct or work around the problem.
Risk analysis	A combination of risk assessment and risk evaluation performed at a particular point in time.
Risk assessment	A continuous process performed during all phases of system development to provide an estimate of the damage, loss, or harm that could result from a failure to successfully develop individual system components.
Risk evaluation	The process of determining the acceptability of risks.
Risk management	A management approach designed to prevent and reduce risks, including system development risks, and lessen the impact of their occurrence.
Risk mitigation	Action(s) taken to eliminate or reduce the impact or likelihood of a risk or threat prior to the time horizon to failure.
System infrastructure	The computer and communication hardware, software, databases, people, and policies supporting the enterprise's information management functions.
Test	The process of exercising a product to identify differences between the expected and actual behavior.
Testing phase	Fourth phase of the five-phase Year 2000 remediation model where corrected systems have been tested for compliance and program modifications have been tested.
Trigger	The event or events that cause a contingency plan to be implemented.
Validation phase	See Testing phase.

Year 2000/Y2K compliant	The capability of a system, component, or product to perform its intended function or functions without interruption, malfunction, or performance degradation, including the loss, corruption, or generation of inaccurate data as a result of internal date/time computations relating to the transition from years 1999 to 2000 and beyond, and including computations relating to the occurrence of leap years.
Year 2000/Y2K problem	Most often identified as the inability of computer systems to accurately recognize and calculate dates beginning with January 1, 2000 and beyond. Calculations which require dates in the 21st century will be incorrect and some automated functions may fail to operate.
Zero Day	The day of an expected event (i.e., January 1, 2000). Describes the procedures to be implemented at that time.

STATE OF NEW HAMPSHIRE
YEAR 2000 COMPUTING CRISIS UPDATE

APPENDIX B

DETAILED STATUS REPORT OF YEAR 2000 READINESS

Note: The status reported for the systems listed below has been presented in memo form to each agency, and we have received written statements of concurrence except where indicated by an *Agency Response.*

ADJUTANT GENERAL'S DEPARTMENT

Year 2000 Remediation.

Emergency Response And Disaster Recovery **Status:** Compliant.

- Local and wide area network upgrades have been installed and certified Year 2000 compliant by vendor.
- Helicopters are reported to be compliant by the Department of the Army.
- Ground vehicles are reported compliant by the Department of the Army. Agency relies on New Hampshire Department of Transportation fuel sites. The Adjutant General's contingency plan addresses fuel supply issues for its vehicles.
- Tactical frequency modulation communication systems are reported compliant by the Department of the Army.
- Current high frequency communications hardware is compliant. Agency plans to replace system in September 1999 with a new compliant system.
- Army Guard facilities presently have no dedicated back-up power. Instead they rely on guard units to provide generators. The Year 2000 compliance status is being assessed by the agency.

Other Issues

- The Guard Administration System serves as a centralized purchasing point and handles benefits of members when in a State active duty status. Non-compliant components have been identified. Compliant back-up systems are available in the event of a failure. Agency is in the process of replacing non-compliant systems.
- Agency reports security alarms on Army Guard armory weapons vaults are all analog or event driven and not susceptible to Year 2000 issues. However, alarm systems rely on telephone lines to communicate with monitoring services. Documented contingencies are in place to secure weapons vaults with guards.
- Agency has certified all embedded systems in its Army Guard building controls are not subject to a Year 2000 failure.
- Agency has initiated contact with utility providers supplying service to its Army Guard facilities located around the state. Contingency plans address utility concerns for Army Guard facilities that have a State disaster recovery role.

Appendix B – Detailed Status Report Of Year 2000 Readiness (Continued)

Adjutant General's Department (Continued)

- Air Guard facilities are not addressed in the same plan. The agency has provided a separate plan that details assessed risks and provides guidance on how to mitigate these risks.
- Agency has tested its personal computers and hardware related to the Army Guard local area network for Year 2000 issues.

Continuity And Contingency Planning.

Emergency Response And Disaster Recovery Continuity And Contingency Plan **Phase:** Testing.

- Agency has several plans detailing various contingencies.
- Agency has completed tabletop testing exercises to validate its plan. Documented results of these tests have not been provided.
- Agency expects to conduct a full test of its plans in September 1999. Agency has a test plan to govern the operation of the test and has begun coordination with other local and State agencies. The Governor's Office of Emergency Management is intimately involved in plan development, which will test various Year 2000 and non-Year 2000 scenarios.
- The agency could improve its plan by including cost estimates; preparatory training requirements; clearly defined, expected test results, and exit criteria for measuring a successful test; and a schedule to retest deficient portions of the plan.
- Air Guard contingency plans are in place and continue to be refined.
- Agency could benefit from consolidating certain efforts such as Year 2000 planning and Emergency Response and Disaster Recovery (Military Support to Civil Authorities) plans into one plan that represents the agency as a whole and addressing testing and training in preparation for the September 1999 agency's exercise.
- Air Guard plans could benefit from additional details that would operationalize the guidance developed to date.

DEPARTMENT OF ADMINISTRATIVE SERVICES, BUREAU OF EMERGENCY COMMUNICATIONS

Year 2000 Remediation.

Enhanced 9-1-1

- The Enhanced 9-1-1 function is reliant upon the ability of external telephone providers to remediate their systems. The overall status of the Enhanced 9-1-1 function remains in the correction phase. The bureau has completed all internal corrections to its systems and obtained vendor certifications where appropriate. This effort is reflected below with the compliant status of the Public Safety Answering Point.

Public Safety Answering Point **Status:** Compliant.

- The Public Safety Answering Point answers and routes all emergency phone calls (including voice, cellular, digital, and teletypewriter to local police, fire, and medical service agencies. Approximately 1,200 emergency 9-1-1 calls are answered by the Public Safety Answering Point each day.
- Hardware - Hardware supporting the Public Safety Answering Point consists of two Compaq servers and 19 Compaq workstations. Agency contacted and received vendor certification of compliance.
- Software - The Public Safety Answering Point uses Windows NT 4.0 with Service Pack 4 as a network operating system and uses specialized software (Vesta version 1.2) for Enhanced 9-1-1 function. Agency contacted and received vendor certification of compliance.

Other Issues

- Reliance upon Bell Atlantic and other telephone providers' network. Bell Atlantic accounts for approximately 93 percent of the wired phones in New Hampshire. Bureau monitoring telephone providers through New Hampshire Public Utilities Commission to determine Year 2000 readiness. Bureau contacted Bell Atlantic directly.
- A June 22, 1999 Bell Atlantic press release states the company has “completed the remediation work necessary…” However, the release continues, “[v]irtually all of the more than 100,000 instances of network equipment and related software in the company's 14 state service area are compliant as of today.” Bell Atlantic expects to become compliant by January 1, 2000.
- Enhanced 9-1-1 system designed for redundancy: uses two switches (one from Manchester, one from Concord). If one switch fails, calls automatically routed through other switch.

Department Of Administrative Services, Bureau Of Emergency Communications (Continued)

- Potential reliance on generator in case of electrical outage. Vendor certification obtained.

Continuity And Contingency Planning**.**

Enhanced 9-1-1 Continuity And Contingency Plan **Phase**: Testing.

- Bureau has a continuity and contingency plan for the Enhanced 9-1-1 function.
- The plan could be improved by addressing the potential impact of environmental controls such as heating or ventilation controls in the Public Safety Answering Point center, renovation and testing failures (e.g., migration from Windows NT 4.0, service pack 4 to Windows NT 4.0, service pack 5), the cost of staffing and additional resource costs (e.g., additional fuel for generator).
- The agency has tested some parts of its continuity and contingency plan, such as the default routing of calls. Agency plans to continue to test their continuity and contingency plan.

DEPARTMENT OF ADMINISTRATIVE SERVICES, FINANCIAL DATA MANAGEMENT

Year 2000 Remediation.

State Accounting And Personnel Management (New Hampshire Integrated Financial System/Government Human Resources System) **Status:** Compliant.

- Agency has developed comprehensive management strategy for ensuring desktop compliance. Testing plan for desktops is reported to be 100 percent complete. Agency has forwarded verification of completion.
- Check printing capability is certified by the vendor as compliant. Agency also reports it will test printers to verify compliance.
- Agency has been addressing Year 2000 related issues since at least 1996. Agency has mechanism in place to exchange information internally on Year 2000 issues that include business and information technology personnel. Agency has a detailed work plan with dates associated with events. This plan forms the basis for an "issues list" that tracks any issue related to the project from discovery to completion. This is used to inform Year 2000 team members of status and work assignments.
- Production versions of Year 2000 compliant New Hampshire Integrated Financial System and Government Human Resources System applications have been running normally since April 23, 1999.
- Mainframe computer is certified by the vendor as compliant. Agency reports it does NOT rely on vendor certifications; it has independently tested *then* sought vendor certification. Agency has not had formal discussions with customer agencies regarding compliance of local area networks and other interfaces used to access New Hampshire Integrated Financial System and Government Human Resources System. Agency asserts that the Bureau of General Services within the Department of Administrative Services is wholly responsible for any infrastructure and telecommunications related compliance issues.
  Agency Response: Business supervisors are currently working with all agencies to identify individual agency services required from administrative services.
- The agency has completed testing major systems. Test plan for mainframe computing system exists. Results are available and demonstrate that functions and systems tested have produced identical information as baseline data. The Bureau of Accounting has verified test results.
- The only remaining tests planned are ancillary systems that do not affect New Hampshire Integrated Financial System or Government Human Resources System.

Appendix B – Detailed Status Report Of Year 2000 Readiness (Continued)

Department Of Administrative Services, Financial Data Management (Continued)

Continuity And Contingency Planning.

State Accounting And Personnel Management (NH Integrated Financial System/Government Human Resources System) Continuity And Contingency Plan **Phase:** Planning.

- Agency has a draft continuity and contingency plan. Agency has taken the approach that a plan should address *all* risks the agency faces, not just Year 2000 risks. The plan assumes five working days of operation in contingency mode.
  Agency Response: Our draft continuity plan is currently being integrated with the Administrative Services Department Plan.
- Agency plans to allocate mainframe access time based on the number of transactions an agency normally handles rather than the criticality of the agency's function. This may leave agencies that routinely do not process numerous transactions without access in an emergency situation. The agency may want to involve other State agencies that have a critical role in disaster response in the priority determination process.
  Agency Response: No agency will be without access to input devices. Sufficient data entry devices will be made available at the data center to support all critical functions for all agencies, the treasury and the Department. Agencies currently submitting electronic transmissions via the bulletin board will be able to submit their transactions via diskette. The analysis of payment transactions processed by agency was completed to identify the minimum number of terminals necessary to accommodate the worst case scenario of all agencies requiring direct access. The Department Year 2000 coordinator has instructed Business Supervisors to work with their agencies to identify any additional administrative services required as part of their contingency plans.
- The agency could improve its plan by assessing the impact of encountering Year 2000 problems earlier than expected; determining the cost of plan implementation (including staff resources and costs); defining business resumption teams; detailing staff recall procedures; and addressing staff safety, information security, and physical security.
  Agency Response: IFS and GHRS upgrades including remediated versions have been implemented prior to fiscal year 2000. Verification includes such early dates as FY2000 (7/1/99) and September 9, 1999 and final pay periods in calendar year 1999. The issues of timing and cost will be addressed for the departmental plan prior to its completion. We do not estimate additional costs for Financial Data Management with the exception of recall pay, estimated at $1500 and possible overtime of $1400. The plan is not complete until integration with the Department Plan. We do not anticipate plan completion until September 1999 at which time these issues will be addressed including staff schedules. Business resumption teams will be identified in the schedule. No leave requests are being

Department Of Administrative Services, Financial Data Management (Continued)

routinely approved for critical periods. Access to the data center will be authorized only for those previously identified agency staff with appropriate security identification. Other safety and security issues are being addressed in the department plan.

- Agency reports some contingencies have been tested but has not documented results. Agency reports that no further testing of its contingency plan is currently anticipated.
  Agency Response: The UPS (electrical generator) is tested on a weekly basis and is the responsibility of general services within the department. Our Year 2000 compliant software has been implemented since April 23, 1999.
- Agency plans to conduct Statewide training on this plan in October 1999.
- Department of Administrative Services has begun the process of developing departmentwide plans since it is responsible for several critical functions including Enhanced 9-1-1, New Hampshire Integrated Financial System and Government Human Resources System, and General Services.

DEPARTMENT OF ADMINISTRATIVE SERVICES, BUREAU OF GENERAL SERVICES

Year 2000 Remediation.

Telecommunications Systems **Status:** Non-Compliant. Correction Phase.

- The State telephone system (Centrex) is not fully compliant. Certain features, such as automatic call forwarding, voice mail, and detailed messaging, will not be available due to Year 2000 problems. These features reportedly are not commonly used by agencies. Basic voice telephony will be unaffected by the Year 2000 according to the vendor. Agencies were informed of Year 2000 status and allowed to make independent decisions on whether to use the non-compliant system or purchase a new system.
- General Services has contacted the data network service vendor and was informed that data networks will be fully compliant by June 30, 1999.
  Agency Response: The State telephone system (Centrex) is fully compliant. This system provides several State agencies in the City of Concord including State Police and E-911 as well as the general public with basic phone service. This service is provided to the State from Bell Atlantic and they have assured us that all mission critical systems are Year 2000 compliant and tested as of June 30, 1999. Some State agencies with electronic key telephone systems may have equipment that is not fully compliant. These agencies have chosen not to replace their telephone equipment because the functions or features that are not compliant are not in use or required to conduct everyday business. These deficiencies will not affect the telephone services that State agencies require to conduct business in the Year 2000. The data networks are considered mission critical applications and Bell Atlantic assures us that they are Year 2000 compliant as of June 30, 1999.

Building Systems **Status:** Non-Compliant. Correction Phase.

- Energy Management - Energy management systems are centrally controlled and run automatically. Vendor certifies they are compliant. If the automatic controls fail, a technician can set each system to run manually.
- Fire Systems - Agency reports the only "smart" fire system is in the State Library and requires a manual date change on January 1, 2000 but will otherwise function normally. Other systems are reported to be compliant.
  Agency Response: All fire alarm systems are fully compliant except for the smart system in the State Library that requires manual intervention on January 1, 2000. No other software or hardware modifications are required or are available for this fire alarm system. The system will function fine and Y2K will only affect the printer operation until someone can change the date after January 1, 2000 occurs.
- Generators - Agency has vendor certification for most, but not all, generators.

Agency Response: All generators do not contain any date or time sensitive equipment and are all Year 2000 compliant.

- Security Systems - Security systems are in the process of being replaced. Initially, systems were to be replaced by June 30, 1999 but the project is behind. Completion date is unknown.
- Water and Sewer - Agency reports water and sewer are compliant but has not provided vendor certification.
  Agency Response: Water and Sewer are provided by the City of Concord. The City of Concord anticipates no Year 2000 problems with either system. A contingency plan has been developed for all mission critical facilities to provide bottled water and porta-potties as required.
- Steam - Agency reports steam is compliant but has not provided vendor certification.
  Agency Response: Concord Steam anticipates no Year 2000 problems with their systems. Emergency generators are in place for all mission critical facilities and a contingency plan has been developed to protect other facilities.

Other Issues

- No independent verification or testing of items reported as compliant by vendors has occurred. Agency reports it may test where possible.
  Agency Response: We rely on the vendors that maintain and support the various building systems to provide us with accurate information and testing.

Continuity And Contingency Planning.

General Services (Telecommunications Systems And Building Systems) Continuity And Contingency Plan **Phase:** Impact Analysis.

- Agency has a continuity and contingency planning group consisting of representatives from the agency's major functions.
- Agency has a draft continuity and contingency plan.
- Agency could improve its contingency plan by completing a thorough risk assessment (including the risks posed by embedded technology), ranking critical functions, establishing recovery priorities, and assessing the cost of plan implementation. Agency stated it may test its contingency plan.

DEPARTMENT OF CORRECTIONS

Year 2000 Remediation.

Men's Prison **Status:** Non-Compliant. Correction Phase.

- The Special Housing Unit security system is non-compliant. Agency reports it is installing software patches for the system. Agency reports hardware is compliant. Agency plans to complete installation and testing by July 31, 1999.
- Agency reports Hancock Building security system and the perimeter system are compliant. Agency tested perimeter system in-house. Agency reports the control room security system has no "microchips" or timers of any kind. No vendor certification for the Hancock Building security system, control room security systems, or the perimeter system. No test scripts or results provided for perimeter system tests completed by the Department.
- Inmate security can be controlled with keys. Agency plans to incorporate the use of key lockdowns in its contingency planning testing.

Other Issues: Men's Prison

- Agency has vendor certification for fire alarm. Agency independently tested all clock-based fire alarms. All clock-based fire alarms passed test.
- Agency has vendor certifications for its generators, boilers, elevators, and radios.
- Agency has obtained vendor certification stating Year 2000 compliance for heating and ventilation system. Air conditioner was tested for Year 2000 compliance and found to be compliant.
- Agency has obtained the Year 2000 status from its suppliers of electricity, natural gas, water supply, waste treatment, boiler fuel, and diesel fuel.

Women's Prison **Status:** Non-Compliant. Correction Phase.

- Inmate security is controlled by manual keys.
- Perimeter gate and sally port powered by electricity. Manual keys can be used to open and close gates if no electricity.

Other Issues: Women's Prison

- Boilers and radios are Year 2000 compliant per vendor certification.
- Year 2000 certifications or disclosures have been obtained for the generators, pagers, and fire alarm.
- No vendor certification obtained for the sprinkler system, heating and ventilation system, vehicles, or telephones (wired and cellular).

Department Of Corrections (Continued)

- Agency has sent a letter to the Hillsborough County Complex to obtain Year 2000 plans for the continuation of water and heating fuel as well as back up power for the boiler plant.

Lakes Region Facility **Status:** Non-Compliant. Correction Phase.

- Inmate security is controlled by manual keys.
- Agency plans to replace motion detection system for perimeter fence to ensure Year 2000 compliance.
- Perimeter gate powered by electricity. Manual keys can be used to open and close gates if no electricity.

Other Issues: Lakes Region Facility

- Water is gravity supplied to facility. Loss of water will have an impact on fire suppression systems and the ability to supply potable water. Agency plans to have a generator available to pump water into towers if power fails. Sewage could be impacted by the loss of power. The City of Laconia has stated that water and sewage treatment should not be interrupted.
- Vendor certifications provided for the generators, fire detection system, and radios. No certification provided for telephone systems.

Electronic Monitoring **Status:** Compliant.

- Field Services responsible for probation and parole function.
- Currently, 50-55 individuals are monitored through electronic bracelet or anklet. Agency obtained Year 2000 certification from monitoring firm located in California. Agency reports electronic monitoring users receive intensive supervision from parole and probation officers.
- Monitoring reliant upon operational phone lines.
- Probation and parole officers use telephones (land lines and cellular) and radios (through sheriff departments, local police departments, and State Police) to communicate.

Continuity And Contingency Planning.

Men's Prison Continuity And Contingency Plan **Phase:** Testing.

- Agency has a written continuity and contingency plan for the continuation of secure detention at the Men's Prison in Concord, New Hampshire.
- The plan could be improved by assessing the recovery priorities and timing, providing a deliberate risk management process, defining triggers for plan implementation, and a mechanism to return to normal operations.

Department Of Corrections (Continued)

- The agency has a written plan to test the secure detention function in a situation where electricity and all telecommunications, except radios, are not functioning. Testing is planned for October 1999 and will include all three staffing shifts.

Women's Prison Continuity And Contingency Plan **Phase**: Planning.

- Agency has a written continuity and contingency plan for the continuation of secure detention.
- Agency is currently working with State and county institutions to establish an evacuation plan for the prisoners.
- The plan could be improved by assessing recovery priorities and timing, utilizing a deliberate risk management process, mechanism to return to normal operations, identifying plan triggers, and staff recall procedures.
- The agency does not have a formal written plan to test the contingency plan.

Lakes Region Facility Continuity And Contingency Plan **Phase:** Planning.

- Agency has a written continuity and contingency plan for the continuation of secure detention.
- The plan could be improved by assessing recovery priorities and timing, using a deliberate risk management process, identifying a mechanism for returning to normal operations, identifying the cost of plan implementation, identifying plan triggers, and staff recall procedures.
- The agency does not have a formal written plan to test the contingency plan.

Electronic Monitoring Continuity And Contingency Plan **Phase:** Impact Analysis.

- Field Services has a written continuity and contingency plan for its electronic monitoring function.
- The plan could be improved by assessing the potential risks associated with the half-way houses (e.g., heat, space for additional residents, food, water, etc.), assessing the costs for plan implementation, and addressing the impact of telecommunications on the ability of the vendor to monitor individuals with electronic bracelets or anklets.
- The agency does not have a formal written plan to test the contingency plan.

GOVERNOR'S OFFICE OF EMERGENCY MANAGEMENT

Year 2000 Remediation.

Telecommunications **Status:** Non-Compliant. Assessment Phase.

- Telephones - Vendor documentation states phone system no longer supported; expected to be non-compliant. New phone system approved as part of the capital budget. Office of Emergency Management officials are unsure how long it will take to install the new phone system.
- Pagers - Used to contact employees in emergency situations. Compliant based on vendor certification.
- Radio communications - Radio communications relied on heavily during emergency operations. The two-way radio systems are essential. Multiple radio systems for redundancy. Compliant based on vendor certifications.
  Agency Response: We are confident that the telephone will be installed by the end of the year.

Emergency Alert System **Status:** Compliant.

- Emergency Alert System alerts public of emergency situations. Emergency Management upgraded software so user display is Year 2000 compliant. Vendor certification states system is compliant.

Other Issues

- Not reliant on computer systems for emergency management function.
- Building security system not Year 2000 compliant. New system is planned.
  Agency Response: Administrative Services is managing this project along with other building improvements in Johnson Hall. This is also a Capital Budget issue, although approval of the request is expected. Y2K compliance documentation on the system should come from Administrative Services.
- Potential reliance on generator in emergency situations. Can operate entire emergency management function for 14 days. Generator uses a mechanical timer; no electronic date/time function. Vendor certification has been obtained.

Continuity And Contingency Planning.

Telecommunications And Emergency Alert System Continuity And Contingency Plan **Phase**: Planning.

- Agency has developed an addendum to the Emergency Operations Plan that has Year 2000 specific contingencies.

Governor's Office Of Emergency Management (Continued)

- The plan could be improved by assessing the potential impact of disruption of their mission if emergency vehicles are not functioning, staff recall procedures, and alternative modes of getting staff to work.
  Agency Response: The reference to "emergency vehicles" is unclear. NHOEM does not operate emergency vehicles. Agency vehicles are conventional automobiles. NHOEM does not have Y2K compliance documentation on emergency vehicles operated by other state agencies or municipalities, but any significant failures of these vehicles would be addressed under existing mutual aid agreements. These agreements are in place for police, fire, and public works departments across the state. NHOEM plans to activate its Emergency Operations Center on December 31, 1999. Thus, key staff will already be on duty through the critical period. If additional staff are needed that evening, they will be notified by pager, telephone or two-way radio. All staff will be instructed to fill the fuel tanks of their personal vehicles and agency vehicles assigned to them prior to Dec. 28. Anyone without transportation will be picked up by other staff members. We have reviewed our contingency plans in light of the GAO guidelines and do not believe any of the items pointed out constitute deficiencies. NHOEM will be fully functional on December 31, 1999 and able to carry out its mission as the state's lead agency in dealing with the consequences of emergencies.
- The agency plans to test the plan in September 1999 in conjunction with the Adjutant General, the Public Utilities Commission, and other critical State agencies and public utilities. The agency does not have a written test plan.

DEPARTMENT OF EMPLOYMENT SECURITY

Year 2000 Remediation.

Unemployment Compensation (New Hampshire Unemployment System) **Status**: Non-Compliant. Correction Phase.

- No changes in the system. System calculates unemployment benefits and cuts checks to recipients. Developed in 1994 to be Year 2000 compliant. Date fields use CCYYMMDD format.
- In-house testing conducted for all transactions processed by system with dates in the Year 2000. Preliminary independent verification and validation conducted; system was deemed Year 2000 ready. However, the full-scale independent verification and validation found several Year 2000 issues. Agency is in the process of reviewing and correcting code. Plan to complete the code review and correction by the end of August 1999. Agency plans to re-test once renovation completed.
- The independent verification and validation expressed a concern with the lack of end-to-end testing. Agency officials plan to test interfaces. They are currently waiting on exchange partners.

Unemployment Tax Collection (New Hampshire Accounting Contribution Tax System) **Status:** Non-Compliant. Correction Phase.

- New system implemented in February 1999 replaces older COBOL system and was designed with date fields that use CCYYMMDD format.
- Full-scale independent verification and validation report identified several Year 2000 issues with the system. Vendor responsible for the maintenance of the system is in the process of reviewing and correcting identified Year 2000 issues. Vendor expects to complete corrections by the middle of August 1999. Agency plans to re-test system once corrections are completed.

Mail Operations **Status:** Compliant.

- Agency implemented Year 2000 compliant mailing equipment as of June 11, 1999.
- Vendor certification obtained for new mail equipment.
- Mail equipment has been tested off-site for Year 2000 compliance.

Appendix B – Detailed Status Report Of Year 2000 Readiness (Continued)

Department Of Employment Security (Continued)

Continuity And Contingency Planning.

Unemployment Compensation (New Hampshire Unemployment System) Continuity And Contingency Plan **Phase**: Planning.

- Formal written plan developed and approved by federal Department of Labor. Agency plans to test the plan.
- The plan could be improved by assessing the probability of various potential failures and risks facing the agency such as building infrastructure (e.g., water, sewage, heating, ventilation and air conditioning, etc.) recovery timings and priorities, the lack of a mechanism to return to normal operations, the cost of plan implementation, and mechanisms to filter out non-Year 2000 failures.

Unemployment Tax Collection (New Hampshire Accounting Contribution Tax System) Continuity And Contingency Plan **Phase**: Planning.

- Formal written plan developed. Agency anticipates testing the plan.
- The plan could be improved by assessing the probability of various potential failures and risks facing the agency such as building infrastructure (e.g., water, sewage, heating, ventilation and air conditioning), recovery timings and priorities, the lack of a mechanism to return to normal operations, the cost of plan implementation, and mechanisms to filter out non-Year 2000 failures.

Mail Operations Continuity And Contingency Plan **Phase:** Planning.

- Formal written plan developed.
- The plan could be improved by assessing the probability of various potential failures and risks facing the agency, addressing recovery timings and priorities, resource requirements, the cost of additional resources, and identifying a mechanism to return to normal operations.
- The agency does not have a formal written plan to test the mailing contingency plan.

GOVERNOR'S OFFICE OF ENERGY AND COMMUNITY SERVICES

Year 2000 Remediation.

Low Income Home Energy Assistance Program **Status:** Non-Compliant. Correction Phase.

- The Low Income Home Energy Assistance Program relies on various partners to carryout its function. This federal program pays for home energy for eligible clients.
- The Governor's Office of Energy and Community Services allocates available federal funds to the six local Community Action Programs located throughout the State. Home heating fuel vendors deliver fuel to client's homes. The fuel vendor bills the local Community Action Program.
- The federal government operates and maintains the Payment Management System. This system is reported to be under renovation.
- The agency reports it has tested its desktop computers and they are compliant.
- The agency has requested Year 2000 documentation from the Community Action Programs. Four programs have responded to the request; none report they are fully Year 2000 compliant. Agency continues to track Community Action Program Year 2000 status.
- Agency has surveyed nearly 360 fuel providers Statewide. Forty percent have reportedly responded. Agency should consider ensuring that providers have compliant embedded systems in addition to business systems as providers may rely on automated or semi-automated processes to deliver their product. According to the agency, an analysis conducted by a fuel industry institute stated no Year 2000 issues were found in delivery systems.

Building Systems

- The building owner has certified the fire alarm and suppression system and heating, ventilation, and air conditioning system are compliant.
- Agency is dependent upon utilities for heat and water. Agency continues to assess the readiness of utilities regarding their Year 2000 status.

Continuity And Contingency Planning.

Low Income Home Energy Assistance Program Continuity And Contingency Plan **Phase:** Testing.

- Agency has formed a comprehensive risk management team to address business continuity and contingency planning. Agency has a continuity and contingency plan for the Low Income Home Energy Assistance Program.
- Agency reports it has completed desk audits of the current plan.

Governor's Office Of Energy And Community Services (Continued)

- Agency plans to incorporate a full simulation test into its continuity and contingency plan. Agency plans to conduct this test in July 1999. Agency also plans to participate in testing in September 1999. Agency should develop a detailed test plan.
- Agency could improve its plan by addressing transportation disruptions; ranking critical functions and identifying recovery priorities; estimating the cost of plan implementation; considering the use of alternative locations and equipment; estimating resources required; and detailing staff safety, information security, and physical security procedures.

DEPARTMENT OF ENVIRONMENTAL SERVICES

Year 2000 Remediation.

Hazardous Waste Management **Status:** Compliant.

- The department does not control or manage hazardous wastes. Local agencies such as fire department personnel are first responders to hazardous waste spills and incidents. Environmental Services personnel advise, assist, and monitor local agency efforts.
- The department uses a manual paper system to track movement of hazardous wastes from "cradle to grave." An electronic database compiles and organizes the information.

Dam Operations **Status:** Compliant.

- The department operates and maintains 268 State-owned dams. State operated dams are manual.
- The department regulates approximately 3,175 privately owned dams statewide. Most dams are manually operated, but approximately two dozen dams are remotely operated and may contain embedded technology. Letter sent to regulated dam operators discussing potential Year 2000-related problems with dams.

Other

- Agency contacted Administrative Services to assess building environmental controls. Administrative Services informed Environmental Services that:
  - Telephones are Year 2000 compliant;
  - The electronic building security system is not Year 2000 compliant. Agency reports a "patch" is needed to make the system compliant and scheduled to be installed in July 1999; and
  - The building's emergency generator is only capable of powering emergency lighting in the building and is not capable of operating the heating, ventilation, and air conditioning system.

Continuity And Contingency Planning.

Hazardous Waste Management Continuity And Contingency Plan **Phase**: Planning.

- The department's continuity and contingency plan could be improved by addressing costs for plan implementation, addressing costs associated with potential additional resources and staff and fully testing its plan.

Department Of Environmental Services (Continued)

Dam Operations Continuity And Contingency Plan **Phase:** Planning.

- The department's continuity and contingency plan could be improved by assessing the environmental controls in buildings used by the bureau, addressing the costs associated with the plan, describing recall procedures for staff, and fully testing the plan.
  Agency Response: DES has routinely responded to a variety of natural and man-made emergencies as part of its mission to protect human health and the environment. DES has contingency plans that have been successfully tested by our demonstrated response to past emergencies, including floods, dam breaches, ice storms, oil spills and hazardous materials incidents. In other words, we have a long and successful track record of "real world" testing that has prepared DES for events such as Y2K and other potential emergencies.

  We also have been actively engaged in many emergency response drills for issues such as major oil spills, major evacuations, hazardous waste spills and other episodes. As part of our on-going commitment to ensure preparedness, the contingency plans for both the Dam Bureau and the Waste Management Division will be tested during the 3-day Y2K State Emergency Operations Center Exercise scheduled for September 9 through 11, 1999. This test will include all emergency response agencies within the state as well as the major utilities, the Hospital Association, and local communities. It is scheduled for that time in order to coincide with the National Guard's Y2K exercise scheduled for that date. To date, DES and the other participating organizations have met twice to plan the exercise. DES is also serving on the subcommittee responsible for preparing the scenario for the exercise. Given that our plans have been tested many times through real emergency response actions and numerous drills over the years, we did not feel that additional tests are necessary. The exercise in September will further confirm this.

DEPARTMENT OF FISH AND GAME

Year 2000 Remediation.

Search And Rescue **Status:** Compliant.

- Not reliant on computer systems for search and rescue function.
- Reliant on vehicles, radio communications (including pagers), and global positioning system for search and rescue function.
- Letters received from vehicle vendors regarding Year 2000 certifications.
- Newly purchased off road vehicles have a Year 2000 certification as part of the purchase agreement.
- Letters received from communication vendors regarding Year 2000 certifications.
- Dive computers are Year 2000 compliant based on vendors' letters.
- The department has obtained Year 2000 certification for the global positioning system units used by Fish and Game.

Continuity And Contingency Planning.

Search And Rescue Continuity And Contingency Plan **Phase**: Impact Analysis.

- The department does not have a formal contingency plan. Agency officials stated the Incident Command System, existing standards of practice, and officer training are sufficient to address any Year 2000 issue.
- The department has a directive for conservation officers to follow for December 31, 1999 and January 1, 2000. Additionally, the department provided Standard Operating Procedures addressing the need for officers to keep their equipment in a state of readiness.
- The department could improve its contingency planning efforts by assessing the risks of being unable to fuel its vehicles at State fueling sites and developing alternative plans for fueling vehicles.
  Agency Response: Please find enclosed a directive based upon your concerns for failure of Fish and Game Department equipment, which has been confirmed operational with documentation as Y2K compliant. New Hampshire Fish and Game Law Enforcement emergency response equipment received a high grade for Y2K compliance by the LBA Audit. This was essential to ensure our ability to respond to the State's emergency needs. ***SEARCH AND RESCUE OPERATIONS ARE NOT DEPENDENT ON ANY Y2K INSTRUMENTS, TECHNOLOGY OR MECHANIZED VEHICLES AFFECTED BY Y2K.***

This has been explained and, based upon your recent letter, apparently needs further clarification. All emergencies are handled by use of the Incident Command System (IC). All New Hampshire Fish and Game Law Enforcement Officers operate under a military protocol, which includes the Incident Command System. History has proven this structure to be the most efficient system in organizing responses.

After instructing the officers and the availability to use the IC system, we will be prepared to respond to any emergency request be it search and rescue or a request from any other State agency utilizing whatever level of communication or transportation is available to achieve an organized conclusion to the incident. The decision to respond will be done in the same manner as currently utilized for search and rescue missions using the IC. The experience of dealing with search and rescue and the use of the IC have already been tested to Y2K compliance in that any piece of equipment can and will fail. We have backups to every electronic or mechanized piece of equipment based on experiencing failure of these mechanical devises. Not once has this prevented the completion of search and rescue missions but it has provided hands-on training using the IC system to overcome problems.

Enclosed is a packet on Global Positioning Systems (GPS), which will experience its equivalent to Y2K in August. This will be our first proof of vendor accuracy in certification of compliance.

In closing, a search and rescue contingency plan for Y2K resulting in complete mechanized failure, including non-computerized vehicles already available with a ready range of 300 miles, and complete communication failure of all 99 emergency frequencies available (copy enclosed), as well as radio to radio frequencies not utilizing repeater systems, would be as follows. Given your example and request to develop a contingency plan for search and rescue under these conditions, the first need would be the establishment of a Unified Command under the IC system. This would be done to prioritize the level a search and rescue mission would hold. With this type of failure, prioritization would occur for issues of security, public safety, emergency medical needs, the needs of New Hampshire citizens and adjoining states. A Unified Command would be established under the protocols of the Governor's Office of Emergency Management. The Unified Command structure is in place and trained to deal with these types of emergencies. New Hampshire Fish and Game has an active role, as do all State agencies.

DIRECTIVE

January 1, 2000, will be a mandatory work day to ensure all search and rescue requirements are Y2K compliant. Each CO will ensure all his motorized vehicles are fully fueled and operational to their maximum potential prior to January 1,

2000. This will be relayed to the District Lieutenant, and the Lieutenants will notify Headquarters by December 31, 1999.

On January 1, 2000, at 0800 hours all officers will check all motorized vehicles, communication devices and all frequencies that are at their disposal. All officers will report to their Lieutenants by 1000 hours on the status of vehicles and communications. All Lieutenants will report to Headquarters by 1100 hours as to their district's status. This response will be accomplished by the most effective and efficient means available. If the response requires the use of radio and New Hampshire Fish and Game frequencies are not available on Digital, Analog, car to car, or portable to portable, the Officer will use the following in this order of frequency.

Statewide State Police frequencies
Statewide DRED frequencies
County dispatch
State Police Troop Stations
Local Police Departments
Mutual Aid
EMS
Fire
Out of State frequencies

All CO's will remain at their residence on January 1, 2000, until instructed by their Lieutenants to do otherwise. All Lieutenants will use whatever means of transportation or communication available to ensure the most effective and efficient means of achieving contact is possible. If the Lieutenants use the radio, they will use it in the same priority list described above unless approved in advance by Headquarters.

All Headquarters law enforcement administrative staff are to report to Headquarters at 0800 hours to facilitate a Y2K compliance check. Given statewide catastrophe with no transportation or communication, all Administrative Staff shall report to the Governor's Office of Emergency Management (GOEM) for further prioritization of Fish and Game Staff to any existing emergency statewide or outside of the State.

Should all vehicles and all communications be inoperative, all officers will remain at their homes until notified that their Lieutenant is requesting them to respond to a certain location. This will be accomplished given whatever mechanized or non-mechanized vehicles or communication systems are available to effectively and efficiently meet the emerging needs. All search and rescue

Department Of Fish And Game (Continued)

related electronic equipment will be checked by the appropriate Team Leader to confirm Y2K compliance.

Should all vehicles and communications systems work, the Lieutenants shall authorize all officers to finish working on Fish and Game law enforcement responsibilities for the remainder of the day.

Should any Officer have any questions as to this memo's intent, content or expectations they are to notify the Chief or Assistant Chief of Law Enforcement directly to ensure all questions are given a unified and consistent response.

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Year 2000 Remediation.

Patient Care - Glencliff Home For The Elderly **Status:** Compliant.

- The home has a capacity of 108 residents.
- Approximately six patients have feeding tubes that are electronically controlled. All devices have battery back up (20 minutes for the feeding tubes). The home has obtained Year 2000 certifications for these devices.

Other Issues

- Power is generated locally by the home. The home operates a hydropower generator and three diesel generators. The diesel generators are the main power generators. Certification for generators has been obtained. Hydropower station is compliant per vendor certification. Vendor recommends independently testing the components of the control system.
- Phone lines used for calling for help. The home reports phones are Year 2000 compliant and have vendor certification for the telephone system. Cell phones and a dispatch radio system can be used as back up.
- The home reports its water is gravity fed. Sewage is treated by the home. No reliance on outside water or sewage services.

Patient Care - New Hampshire Hospital And The Anna Philbrook Center **Status:** Compliant.

- Patients are not dependent upon embedded systems for life threatening issues. Critical care patients are served in local hospitals.

Building Systems And Infrastructure.

- Building Systems - Buildings are accessible by manual keys. Vendor certifies pharmacy and health information security systems as compliant. Agency reports other security systems, such as video monitoring equipment, are compliant but have no vendor certifications. Campus-wide fire control system is certified compliant by vendor. Heating, ventilation, and air conditioning have been certified by vendors as compliant.
  Agency Response: The video cameras within the patient units in APS are on the emergency power system. The video cameras within patient units of Philbrook are not located on emergency power circuits. They do have a backup electrical system, but both primary and secondary sources are from the same commercial power source. Although the cameras are Y2K compliant, the power system is questionable.

Department Of Health And Human Services (Continued)

- Infrastructure - New Hampshire Hospital has an emergency back up generator that can operate for approximately two weeks using stored fuel and longer with additional fuel deliveries. Vendor reports system is compliant. Emergency power in the event of commercial power failure is limited to the acute psychiatric services building. Other facilities will have only battery powered lights.
- The facilities are still assessing steam heat supplies. An initial response from the water provider is that the system is compliant. Water supply is reported to be gravity fed and is being assessed. Wastewater removal continues to be assessed.

Child Abuse/Neglect Management And Claims **Status:** Compliant.

- New Hampshire Bridges is used by the Division for Children, Youth and Families for case management and claims processing.
- Housed on a Hewlett Packard 9000 Unix mainframe, Bridges is a client/server application using Oracle database version 7.3.
- Hardware is certified compliant by the manufacturer.
- Unix operating system is certified compliant by the manufacturer.
- PowerBuilder version 6.5 and Oracle database are certified compliant by the manufacturers.
- Formal written test plans and scripts have been developed. Test plans include interfaces.
- Tests conducted in February 1999 found two Year 2000 compliance issues: one in the Intake/Assessment Information Report and one with the Restitution Summary Report. The department reports these issues were fixed in the May Bridges release which was implemented June 7, 1999 and is in use by field staff.
- The department reports Bridges is currently exchanging data with SPEDIS (which is not Year 2000 compliant). Bridges converts files received from SPEDIS into compliant, readable files using a windowing technique.
- The department plans to retest its interface with New Heights in August 1999 (target date for New Heights to complete testing). The department reports an earlier data exchange test with New Heights was successful.
- The department plans to release another version of Bridges in October 1999. This release is meant to correct non-Year 2000 issues.

Eligibility Determination **Status:** Non-Compliant. Testing Phase.

- The New Heights application determines eligibility for many programs department-wide including Medicaid, Temporary Assistance to Needy Families, Child Care, Food Stamps, Old Age Assistance, Aid to the Permanently and Totally Disabled, and Aid to the Needy Blind. New Heights was implemented on December 1, 1998.

Department Of Health And Human Services (Continued)

- Application housed on the IBM mainframe (ES/9000) operated by the Department of Administrative Services, Administrative Services Data Center.
- Hardware - The IBM ES/9000 is certified as Year 2000 compliant by the manufacturer.
- The IBM ES/9000 is partitioned into several virtual machines. The production environment currently uses a non-compliant operating system. The test environment uses a compliant operating system. Both environments use the same New Heights application which was designed to be Year 2000 compliant.
- Level I (user acceptance) testing is complete. Level II (application Year 2000) testing began in June 1999. Level III (application, operating system, and hardware) testing is planned to start on August 16, 1999, after the operating system upgrade is completed. Department expects Level III testing to be completed and Year 2000 compliant by October 31, 1999.
- Twenty-two interfaces, six of which are considered critical (Bridges, Medicaid Management Information System, Citibank, Citizens Bank, State Treasury, and Check File). Department personnel stated Citibank is Year 2000 ready. The department reports the Medicaid Management Information System interface testing began on July 12, 1999. The department plans to test remaining interfaces after August 15, 1999.

Child Support Enforcement **Status:** Non-Compliant. Testing Phase.

- The New England Child Support Enforcement System is used to collect, distribute, and disburse child support payments related to child support enforcement.
- Application has been moved from the IBM ES/9000 mainframe to an IBM Multiprise 2003 mainframe. Mainframe operated by the Department of Administrative Services, Administrative Services Data Center. (This mainframe also houses Government Human Resource System and the New Hampshire Integrated Financial System.)
- Hardware - The IBM Multiprise 2003 is certified Year 2000 compliant by the manufacturer.
- Operating System - VSE and VM/ESA operating systems are certified Year 2000 compliant by the vendor.
- New England Child Support Enforcement System application – The department has started user acceptance testing and plans to complete testing by the end of August 1999.
- Core middleware is not Year 2000 compliant. The department reports conversion to a compliant ES 2.0 has begun. Vendor certification provided for the ES 2.0.
- The department plans to retest once ES 2.0 middleware has been completely implemented.
- The department reports 60 New England Child Support Enforcement System interfaces. Of the 60 interfaces, 42 are reported compliant. The department is

surveying data exchange partners to determine the Year 2000 status of interfaces.

- The department expects New England Child Support Enforcement System to be Year 2000 compliant by October 11, 1999.

Medicaid (Medicaid Management Information System) **Status:** Non-Compliant. Testing Phase.

- System makes payments to approximately 10,000 medical providers, including pharmacies.
- Function currently relies on a non-compliant client/server system. The department plans to implement a new compliant system August 14, 1999.
- A new system consists of a compliant Sun Ultra 3500 using Sun Solaris 7 operating system. Both are certified compliant by the manufacturer. The department reports its new system uses Ingres as a database, which is compliant.
- The department reports the application (NH Advanced Information Management System) has been renovated. The application is currently used on both the older non-compliant system for production and the new compliant system for testing. The department reports the contractor will provide testing documentation upon completion.
- The department reports it plans to test New Heights interface once New Heights is compliant.
- Detailed testing plans currently in development. The department plans to begin testing in early July 1999.

Women, Infants, And Children **Status:** Non-Compliant. Testing Phase.

- Women, Infants, and Children system determines eligibility and generates food vouchers. Currently using the non-compliant Wang VS 100 for production. Neither hardware nor operating system are Year 2000 compliant. Bureau reports the Women, Infants, and Children application is Year 2000 compliant but unable to thoroughly test because of non-compliant hardware and operating system.
- A new, compliant Wang 6120 (known as a Century Server) was received and installed in June 1999. The new Wang 6120 uses the compliant VS 7.53 operating system.
- The department reports all data has been migrated to the new system and all of the older COBOL programs have been recompiled for Year 2000 compliance. Currently testing Year 2000 code changes made to the application.
- The department will begin running the two systems in parallel to test Year 2000 compliance on July 19, 1999. Implementation is planned for early August 1999.
- The department reports that it has installed computers at the community-based subcontractor agencies that provide direct client services for Women, Infants,

and Children. These computers have been tested for and were deemed Year 2000 compliant by the department. They are used to dial into the Wang 6120 computer for data exchange.

Mailing System (Automated Insert Mailing System) **Status:** Compliant.

- Stuffs and seals envelopes and places postage on all department mail including benefit payments. Can process up to 10,000 pieces of mail per day.
- Year 2000 vendor certification obtained.

Personal Computer/Networking **Status:** Non-Compliant. Correction Phase.

- Department has approximately 2,500 personal computers of which 920 are not Year 2000 compliant. The department has a personal computer lab that it used to test all its personal computer models. A commercial off-the-shelf test program was used to determine Year 2000 compliance. The department plans to replace all non-compliant personal computers by the end of September 1999. The department was waiting for Capital Budget approval before it could purchase compliant personal computers. The department reports it has completed the competitive bidding process and has selected a vendor to provide the compliant personal computers.
- The department's critical applications are interconnected through local and wide area networks.
- Network operating systems used are Windows NT, Novell NetWare, and Sun Solaris.
  - Windows NT – The department currently uses non-compliant service pack 3. The department plans to install compliant service pack 4. The department reports it is approximately 90 percent complete with the upgrade.
  - Sun Solaris – The department uses version 2.5.1 that requires a patch to make it Year 2000 compliant. The department reports it has installed the patch making the Sun Solaris version 2.5.1 Year 2000 compliant.
  - NetWare – The department reports it uses version 4.11 for its file and print servers which was made Year 2000 compliant with a patch.
- Hardware:
  - Servers – The department uses Compaq and Hewlett Packard Servers. All are certified compliant by the manufacturers.
  - Hubs/Firewall – Some fixes required for Year 2000 compliance. The department plans to complete fixes by September 1, 1999.
  - Routers – The department reports all routers are Year 2000 compliant. The department completed upgrading its 12 district office routers in March 1999.

Appendix B – Detailed Status Report Of Year 2000 Readiness (Continued)

Department Of Health And Human Services (Continued)

Continuity and Contingency Planning.

Patient Care - Glencliff Home For The Elderly Continuity And Contingency Plan **Phase:** Impact Analysis.

- The home does not have a formal written continuity plan. The home has a disaster plan as well as a plan for managing the failure of the tube feeding pumps. The disaster plan includes operating procedures such as evacuation of residents during natural disasters. It does not address some of the issues that are specific to Year 2000, such as the failure of electronic medical devices. The plan for managing the failure of the feeding tubes only discusses the contacting of the pharmacy for gravity fed feeding bags but does not address what will happen in the event the electronic tubes fail and the home is not able to obtain the gravity fed feeding bags in a timely fashion (e.g., snowstorm).
- Home officials have stated they are in the process of developing a contingency plan that would allow the home to care for residents for up to four weeks before needing to be re-supplied. Officials stated they expect to complete a formal inventory and risk assessment by mid-August 1999 and expect to complete the contingency planning process before November 1, 1999.

Patient Care - New Hampshire Hospital And The Anna Philbrook Center's Continuity And Contingency Plan **Phase:** Testing.

- The department has detailed and comprehensive contingency plans for the New Hampshire Hospital and the Anna Philbrook Center. The basis for the plans are continuity of operations plans that predate Year 2000 planning. Year 2000 issues are addressed in a separate document. Together, these documents address the risks faced by these facilities.
- The plan could be improved by ranking critical functions and priorities for recovery and identifying cost estimates. We also noted that the department has not addressed how some security considerations (such as burglar alarms on pharmacy and health information sites or video surveillance in key areas) will be maintained in the event of various failures.
- Test plans appear limited in that they do not fully address the department's contingency plans. Documented results of tests have been provided and indicate areas needing improvement. The department should consider development and implementation of a comprehensive test plan to ensure that contingencies are robust enough to address Year 2000 related failures, including failure of key security related systems.
  Agency Response: In the Year 2000 Risk Assessment Guidance section of the Department's Year 2000 Project Plan it is stated that: "The department will undertake Y2K preparedness and reasonable contingency planning efforts in order to support the business functions of the Department."

Department Of Health And Human Services (Continued)

Child Abuse/Neglect Management And Claims Continuity And Contingency Plan **Phase:** Planning.

- The department has a draft continuity plan for benefits processing and providing services to clients. The plan assumes a worst case scenario (no power or telephone service) and relies on manual procedures in case of system failure. The department plans to print case information prior to January 2000 and use existing hard copy case files for case management.
- The plan could be improved by addressing contingencies for Bridges, including risk reduction and zero day strategies. The plan could also be improved by addressing recovery priorities and timing, addressing the probability of various potential failures and risks, plan implementation costs, and establishment of business resumption priorities.

Eligibility Determination Continuity And Contingency Plan **Phase:** Planning.

- The department has a draft New Heights continuity and contingency plan. The plan assumes a worst case scenario (no power or telephone service, etc.), identifies mission critical functions, and key interagency dependencies. The plan lists pre-event plans and zero day strategies for five identified possible scenarios.
- The plan could be improved by addressing risk reduction strategies, resource costs and implementation costs, establishment of resumption teams and procedures, recovery times, staff notification procedures, and plan implementation approval and escalation mechanisms.
- The department plans to test the plan within overall departmental contingency plan testing.

Child Support Enforcement Continuity And Contingency Plan **Phase:** Planning.

- The department has a formal written contingency plan for collecting and processing child support payments in the event of computer failure.
- The plan could be improved by identifying recovery priorities and timing, addressing the probability of various potential failures and risks, plan implementation costs, strategies for resuming normal operations, and identifying additional resources that may be needed.
- The department plans to have tabletop reviews of the contingency plan and provide training to staff on manual procedures.

Medicaid (Medicaid Management Information System) Continuity And Contingency Plan **Phase:** Planning.

- The department has identified its Medicaid Management Information System risks and plans to fully develop its continuity and contingency plan during July 1999 and test it during August 1999.
- The plan could be improved by ranking critical functions, identifying recovery priorities and timing, risk reduction strategies, plan implementation costs, and fully developing contingencies.

Women, Infants, And Children Continuity And Contingency Plan **Phase:** Planning.

- The department has a draft continuity and contingency plan for its Women, Infants, and Children program. The plan relies on manual procedures in case of system failure. The department reports these manual procedures have been in use until recently and still has forms available for use. The department also plans to preprint Women, Infants, and Children vouchers in December 1999 and hold them for distribution in January 2000.
- The plan could be improved by including risk reduction strategies, identifying resumption teams, staff notification procedures, plan implementation approval and escalation mechanisms, resumption of normal operations, and plans to test the plan.

Mailing System (Automated Insert Mailing System) Continuity And Contingency Plan **Phase:** Planning.

- The department has a draft continuity and contingency plan for its mailing system. The plan addresses power and telecommunications outages.
- The plan could be improved by addressing the impact of environmental control, identifying resumption priorities and teams, address performing automated processes manually, define minimum levels of output, and recovery time objectives.

Personal Computer/Networking Continuity And Contingency Plan **Phase:** Initiation.

- No contingency or continuity plans were provided for networking or desktop services. It is recommended that contingency plans be developed for networking and personal computers. The development of plans for these two units should be done in conjunction with contingency plans already being developed throughout the department.
  Agency Response: Personal Computer/Networking and Information Systems Y2K failures that meet the criteria identified in the Year 2000 Project Plan Year 2000

Risk Assessment Guidance will be planned for as part of the business areas planning process.

INSURANCE DEPARTMENT

Year 2000 Remediation.

Revenue Collection (Insurance Premium Tax) **Status**: Compliant.

- The department manually processes insurance premium tax payments.
- Tax payment checks arrive in March, June, September, and December.

Other

- No electronic access or security systems.
- No emergency generator. Agency is dependent upon utilities for heat and water.

Continuity And Contingency Planning.

Revenue Collection (Insurance Premium Tax) Continuity And Contingency Plan **Phase**: Planning.

- The department's continuity and contingency plan could be improved by addressing risks posed by the loss of electrical power. Additionally, heating systems may be affected by Year 2000 problems resulting in the inability to use the building. For example, in case of power outage the plan could address whether revenue processing could continue at the existing location or whether an alternate location would be necessary due to a lack of heat and lights. The plan could also address the length of time outages may occur without adverse impacts upon continuing the manual revenue collection processes. The plan could also be improved by identifying triggers for plan implementation, estimating resources needed and costs for plan implementation.
- No plans to test the plan were identified.

NEW HAMPSHIRE STATE LIQUOR COMMISSION

Year 2000 Remediation.

Revenue Collection (Financial Management - Masterpiece Accounting) **Status:** Compliant.

- Masterpiece is reported to be fully compliant. A vendor provided letter constitutes compliance. System is reported to be functioning properly. Independent testing has not been completed to verify Year 2000 compliance. Agency plans to test in August 1999.

Store Operations (Warehouse - Warehouse Inventory Management) **Status:** Non-Compliant. Correction Phase.

- Agency's key, privately operated warehouse reported that as of January 1999, they were 80 percent complete with their Year 2000 program. No documented status updates have been obtained since January 1999.
- Internal warehouse management relies on an internally developed program that has not yet been renovated. Renovation planned to be completed by mid-July 1999. Internal systems are scheduled by the agency to be compliant by September 30, 1999.

Store Operations (Point of Sale System) **Status:** Non-Compliant. Correction Phase.

- Point of sale is being replaced by ACR2000, which is reported to be compliant. Pilot testing for ACR2000 has been completed. The agency reports 34 of 73 systems are installed. Installation planned to be complete by August 11, 1999; completion originally planned for June 1999.
- Vendor reports compliance but independent testing is not currently documented.
- Credit card validators pose a risk of failure that has not been formally addressed.

Other Issues

- Building Systems - Electronic access and security systems are being renovated through a contract. Replacement of current systems is expected to be completed by June 30, 1999. Vendor certification has not been obtained but Year 2000 compliance is required by the request for proposal. Other building systems (e.g., heating, ventilation, and air conditioning, telecommunications, water, etc.) remain an issue and are in assessment.
- Agency remains behind in its Year 2000 efforts. This is reportedly due to staff turnover and shortages.
- Agency plans to create a Year 2000 test machine to validate compliance of critical systems.

New Hampshire State Liquor Commission (Continued)

- No formal test plans have been developed. Limited test results of completed tests exist. A comprehensive test plan should be developed and fully documented.
- Manufacturer reports mainframe is compliant.

Continuity And Contingency Planning.

Revenue Collection (Financial Management) Continuity And Contingency Plan **Phase:** Planning.

- Agency has a draft disaster preparation and business recovery plan focused on recovering information technology services within it headquarters. This plan remains in development. The agency has a working group to address this topic.
- The agency could improve its plan in several ways. Most importantly, it should broaden the scope of the plan to address other agency functions. Currently, store operations and other important functions are not addressed in the agency's plan. Additionally, the agency could develop contingency plans should Year 2000 remediation efforts fail. The plan should also assess risks posed by loss of electrical power, environmental control, transportation, external interfaces, and telecommunications; rank critical functions and prioritize recovery; estimate resources needed; detail Year 2000 specific "zero day" procedures; and address safety and security.
- Agency reports that several events have tested parts of its contingency plans but the scope and results of these events are not documented.

Store Operations (Point of Sale System And Warehouse Inventory Management) Continuity And Contingency Plan **Phase:** Impact Analysis.

- As noted above, agency needs to address store operations continuity and contingency plans.

RETIREMENT SYSTEM

Year 2000 Remediation.

Annuity Payments **Status:** Compliant.

- The Retirement System has cancelled development of a Year 2000 compliant client/server system that would have replaced the existing mainframe computer system located in Pittsburgh, Pennsylvania.
- Existing mainframe application has been renovated to be Year 2000 compliant. The renovated application was parallel tested from June 1, 1999 to June 14, 1999. The agency reports no discrepancies were noted.
- Full implementation planned for July 6, 1999. (Note: The agency critical date is July 1, 1999 (beginning of State fiscal year 2000)).
- Formal written test plans exist and processing of annuity payments was successfully tested. The Retirement System is currently using the Year 2000 compliant system.

Automatic Data Processing **Status:** Compliant.

- Automatic Data Processing processes tapes to generate annuity payroll checks for retirees.
- Application called Automatic Data Processing PCPERS (Payroll Processing & Communications) used. Correspondence from vendor states application is "century enabled" using a windowing technique.
- No formal written test plan. Testing successfully completed with Automatic Data Processing.

Other Issues

- Bottomline Checkwriting **-** Testing revealed application did not work after Year 2000. Once system date was rolled back to 20th Century application worked. Only problem was report date - reports did not show the correct date.
- Year 2000 issues discussed by the Retirement System technology group consisting of all levels of the Retirement System's management and staff along with outside consultants.
- Consultant examined Year 2000 issues in personal computers and servers. Consultant's report stated that one personal computer was non-compliant.

Retirement System (Continued)

Continuity And Contingency Planning.

Annuity Payments Continuity And Contingency Plan **Phase**: Impact Analysis.

- The Retirement System has a written contingency plan. However, the plan does not address how retiree benefits can be provided in the event of computer, telecommunications, or electrical failure. Additionally, the Retirement System has developed a disaster recovery plan for its information systems. The plan does not address Year 2000 specific issues but does address building infrastructure as well as establish disaster recovery teams for each functional area (e.g., payroll production, financial reporting, data entry, operations, etc.).

DEPARTMENT OF REVENUE ADMINISTRATION

Year 2000 Remediation.

Revenue Collection (Tax Information Management System) **Status:** Compliant.

- Revenue is collected quarterly (March, June, September, and December) except for the Tobacco Tax and Meals and Room Tax (collected monthly).
- Revenue collected by the department is processed through the Tax Information Management System. Tax Information Management System is housed on an IBM AS/400 version 4.2 minicomputer. Hardware and operating system are vendor certified compliant. All Tax Information Management System applications have been examined by department staff, corrected, and tested.
- The AS/400 version 4.2 minicomputer has not been independently tested by the department. The department has obtained vendor certification for the AS/400.
- Formal written Year 2000 test plans used for testing. Department stated Tax Information Management System compliant after re-testing; however complete documentation unavailable.

Other Issues

- All computer software and hardware has been tested for Year 2000 compliance.
- Vendor certification for security system has been obtained.
- Letter obtained from Administrative Services regarding Year 2000 status of the Centrex telephone system.
- Letters from data exchange partners have been obtained.
- Letter from building owner states heating, ventilation, and sprinkler systems are compliant.

Continuity And Contingency Planning.

Revenue Collection (Tax Information Management System) Continuity And Contingency Planning **Phase**: Testing.

- Agency has a formal written continuity and contingency plan for the continuation of processing revenues in the event of computer failure. If the Tax Information Management System is not operating, the department can manually deposit revenue into the banks. Agency reports this has occurred several times in the recent past.
- Formal written disaster recovery plans exist for each division.
- The plan could be improved by addressing the disruption of environmental controls such as heating and ventilation systems, the cost of plan implementation, and mechanisms to filter out non-Year 2000 failures.

Department Of Revenue Administration (Continued)

- Agency successfully tested manual processing of revenues on June 23 and 24, 1999. Agency should include other aspects of plan, such as the use of alternative sites as described in the disaster recovery plans, to fully validate contingency process.

DEPARTMENT OF SAFETY

Year 2000 Remediation.

Criminal History (State Police Telecommunications Systems) **Status:** Non-Compliant. Correction Phase.

- Application is designed to be Year 2000 compliant.
- The department reports the Unix operating system patch was applied.
- Non-compliant desktop personal computers sited in local police departments and other user agencies are being replaced with compliant versions. This process is scheduled for completion in September 1999.
- System relies upon phone lines for data transmission between the users and headquarters.

Communications (including pagers and cell phones) **Status:** Compliant.

- Astro radio system is certified compliant by vendor. System relies on phone lines for connectivity between base units and mountain top transceivers for normal operations. The department reported it plans to eliminate this reliance by late 1999 and that communications can be maintained without the hardwire connection. Each transceiver has a backup generator except for one. The department plans to install a generator for this transceiver by December 1, 1999.
- The department reports all troop stations have back-up power provided by a propane generator able to run for two weeks on one tank. Generators are certified compliant by the vendor.
- Vendors of cellular and paging services report they are in the process of ensuring compliance. No completion date is evident in vendor documents.

State Police Automobiles **Status:** Compliant.

- The department reports its patrol vehicle fleet is comprised of Fords and Chevrolets. The department has obtained Year 2000 certifications.

State Police Aircraft **Status:** Compliant.

- The department has two helicopters that are used for search and rescue operations and locating suspects or bodies. The Adjutant General's Department has been able to verify these ex-military aircraft as Year 2000 compliant.
- Fixed wing aircraft are certified by the vendor as compliant.

Department Of Safety (Continued)

Gun Check System **Status:** Non-Compliant. Correction Phase.

- National Instant Check System relies on federal and State databases to identify potential gun purchasers' criminal records.
- The system, managed by the Federal Bureau of Investigation was built to be Year 2000 compliant. The department has received verbal assurance from the Federal Bureau of Investigation that it is compliant. The system also relies on the Federal Bureau of Investigation's hardware such as network switches and dedicated lines.
- The department reports the Federal Bureau of Investigation plans a system test in late August 1999.
- If the network is down, agency can suspend purchases for five days.

Motor Vehicle Records And Motor Vehicle Financial Sub-Systems **Status:** Non-Compliant. Correction Phase.

- This system's hardware and software are reported compliant by the vendor.
- Financial Subsystem and Violations Subsystem – Some testing has been completed. The department reports minor problems found in testing and will be addressed with a retest in September 1999.

State Fire Marshal **Status:** Non-Compliant. Correction Phase.

- State Fire Marshal is empowered to condemn buildings unfit for use due to fire or other material defects. Function relies on vehicles and telecommunications.
- Telephone system in the Fire Marshal's facility on Sheep Davis Road is reported by State Fire Marshal personnel and Department of Administrative Services documentation as requiring a patch to become Year 2000 compliant.
- The department plans to issue the Fire Marshal a Year 2000 compliant portable radio.
- The department has obtained vehicle certification.
- The department reports the Fire Marshal's cellular telephones and pagers are compliant. However, vendor certifications provided by the department indicate renovations are underway and a completion date has not been established.
  Agency Response: The Department disagrees that the State Fire Marshal status is in correction phase. As indicated in the Department's initial response, the Division of State Police has agreed to hand over a fully compliant portable radio to the Fire Marshal on a specified time and date in December. This radio will be used by the Fire Marshal in case of an emergency. The Fire Marshal also has a vehicle, cellular telephone and a pager that is compliant. Moreover, the telephones in the State Fire Marshal's office, as is the case of other Department of Safety Divisions, are all connected to the State's Centrex telephone system and have been stated as compliant by the Department of Administrative Services. Thus, there is

Department Of Safety (Continued)

no reason to expect that the State Fire Marshal will not be able to respond to any incident in the State. The Department believes, therefore, that the status of the Fire Marshal should be compliant.

Road Toll System **Status:** Non-Compliant. Correction Phase.

- The department reports it has installed new compliant hardware. A contractor is rewriting software.
- Contractor has provided a test plan for the system. Testing schedule is not included other than test results are expected to be available by July 19, 1999.
- System is scheduled for implementation after August 2, 1999.

Other Issues

- Telephone System - The department provided a memo from the Department of Administrative Services stating the Hayes building telephones are compliant.
- Building Systems - Agency relies on the Department of Administrative Services, Bureau of General Services to ensure readiness of the Hayes building. The Department of Safety stated keys can be used to open any door in the Hayes building. The Department of Administrative Services, Bureau of General Services reported the Hayes building heating, fire alarm systems, and elevators are compliant. The department has contacted the City of Concord on the Year 2000 status of the water supply for the headquarters.
- Hayes Building Generator - The generator powers all emergency systems and certain outlets and elevators. The generator is tested regularly and certified compliant by General Services.
- Fuel - The department relies on the Department of Transportation in many areas of the State for fuel. Agency has contacted Transportation on this issue.

Continuity And Contingency Planning.

General

- The department formed a continuity and contingency planning work group. We have noted that the plans are not coordinated as some plans address certain risks while others do not. The department may wish to consider developing a department wide continuity and contingency plan that addresses infrastructure issues (e.g., electricity, telecommunications, etc.) as well as other issues that might be applicable on a department wide basis. This will allow the various divisions to focus on planning specific to their function.

Department Of Safety (Continued)

Criminal History (State Police Telecommunications Systems) **Phase:** Planning.

- The department reports its contingency is to produce a master list of criminal histories for manual checks.

Communications (including pagers and cell phones) **Phase:** Planning.

- The department has developed contingencies to ensure power to its radio communications architecture and has plans to test the system's ability to operate in a contingency mode. The department plans to have maintenance staff available January 1, 2000.
- Contingencies have been developed to address Statewide or regional total collapse of the telecommunications infrastructure. However, existing Standards of Practice for State Police require officers to "call" in several situations.
  Agency Response: The Division of State Police Contingency and Continuity Plan, submitted on July 13, 1999, Sections 5 and 6, address these issues adequately. The LBA identifies in its memo that communications are compliant. Thus, we disagree with this assessment.

State Police Automobiles **Phase:** Planning.

- Agency has contacted the Department of Transportation to ensure availability of vehicular fuel. However, plans submitted do not appear to be comprehensive and detailed enough to execute critical functions in the event of Year 2000 related failures. They do not address alternate means for officers to get to a scene if vehicles can not be utilized for any reason such as embedded technology failures. As an alternative, the Department of Safety may consider developing agreements with other law enforcement agencies to react to emergencies in such a crisis.
- Training on contingency fueling procedures is planned for August 1999.
  Agency Response: The Department disagrees with the statement that it's continuity and contingency planning is not comprehensive and detailed enough to execute critical functions in the event of Year 2000 related failures. The Department has spent a great deal of time and effort ensuring the compliance of these critical functions and we expect to be able to respond to any emergency that arises. The Department has provided the LBA with a contingency and continuity plan for each Division which identifies such Divisions' plans for readiness and continuation of critical functions. The Department's plan also provides numerous documentation supporting its position of readiness and continuity of business. In addition, and as noted in the Department's initial response, the Division of Motor Vehicles and the Division of State Police intend to bring in extra staff on January 1, 2000, and the Division of State Police has cancelled days off for all sworn officers beginning with the new year.

Department Of Safety (Continued)

State Police Aircraft **Phase:** Planning.

- The department has an arrangement with the Adjutant General's Department to access military aircraft if needed.
- The department has not addressed readiness of its fixed aviation facilities or aviation fuel in its plan.
  Agency Response: The Division of State Police Operations has confirmed that the Aircraft Hanger door can be opened with a manual crank and that aircraft maintenance and fueling services are provided by outside contract.

Gun Check System Continuity And Contingency Plan **Phase:** Planning.

- Gun Check System has a written contingency plan that is intended to prevent sales that do not comply with law. The department has a method of checking State databases if federal systems are inoperable.
- The department could improve its plan by determining what other risks the function is subject to; establishing resumption priorities and team(s); developing methods to return to normal operation; and addressing procedures to maintain essential security.

Motor Vehicle Records And Motor Vehicle Financial Sub-Systems Continuity And Contingency Plan **Phase:** Planning.

- The department could improve its plan by establishing business resumption teams; estimating resources required to implement the contingency; addressing safety, information security, and physical security issues; detailing how the function will return to normal operation; detailing procedures to filter out non-Year 2000 failures; and detailing staff notification and recall procedures.
- Plan addresses numerous tasks to be completed in preparation of implementing the plan to include staff awareness efforts, additional contingency procedures to be developed, and a status update process.

State Fire Marshal **Phase:** Impact Analysis.

- Contingency plan consists of issuing the Fire Marshal a radio.

Road Toll System Continuity And Contingency Plan **Phase:** Impact Analysis.

- The department has developed a contingency plan including back up and printout of data for manual processing. The plan could be improved by addressing potential disruption of external interfaces, identifying recovery priorities, addressing disruption due to irrational data generation, unreliable

Department Of Safety (Continued)

results, or other degraded performance, and assessing the cost of plan implementation.

- The department should also address all risks identified in its plan including risks posed by customers and business partners to ensure the whole function is adequately addressed.

NEW HAMPSHIRE SWEEPSTAKES COMMISSION

Year 2000 Remediation.

Revenue Collection (Lottery Management System) **Status**: Compliant.

- System is wholly the responsibility of the vendor, GTECH. Both GTECH and the Commission have conducted independent, live, end-to-end testing to verify compliance. Results of this testing have been provided. Testing dates do not go beyond 2001 because the agency reports it will replace the current system with a new system by July 1, 2000. We recommend the agency develop contingency plans to address potential problems in implementing the new system, which may cause them to rely on the current system beyond 2001.
  Agency Response: The Commission has completed its independent, live, end-to-end on-line testing to verify the results obtained by GTECH, and no problems were discovered during testing. GTECH has implemented the Year 2000 compliant system. This system has been running without any complication or disruption to services since it was implemented. As part of its testing, the Commission has tested all critical dates through 2001. In the unlikely event that something causes the Commission to rely on the current system beyond June 30, 2000, all outstanding "critical dates" beyond 2001 will be tested by December 31, 2000.

Revenue Collection (Retail Terminals) **Status**: Compliant.

- System is wholly the responsibility of GTECH. Both GTECH and the Commission have conducted independent, live, end-to-end testing to verify compliance. Results of this testing have been provided. Testing dates do not go beyond 2001 because the agency reports it will replace the current system with a new system by July 1, 2000. We recommend the agency develop contingency plans to address potential problems in implementing the new system, which may cause them to rely on the current system beyond 2001.
  Agency Response: The Commission has completed its independent, live, end-to-end on-line testing to verify the results obtained by GTECH, and no problems were discovered during testing. GTECH has implemented the Year 2000 compliant system. This system has been running without any complication or disruption to services since it was implemented. As part of its testing, the Commission has tested all critical dates through 2001. In the unlikely event that something causes the Commission to rely on the current system beyond June 30, 2000, all outstanding "critical dates" beyond 2001 will be tested by December 31, 2000.

New Hampshire Sweepstakes Commission (Continued)

Revenue Collection (Ticket Vending Machines) **Status:** Compliant.

- Ticket vending machines are certified by vendor as compliant and have been independently tested by the agency, verifying Year 2000 compliance.

Other Issues

- Credit Card Validator – Independent testing that verifies vendor certification has been completed.
- Mail Subscription System - Subsystem is wholly the responsibility of GTECH. Both GTECH and the Commission have conducted independent, live, end-to-end testing to verify compliance. Results of this testing have been provided. Testing dates do not go beyond 2001 because the agency reports it will replace the current system with a new system by July 1, 2000. We recommend the agency develop contingency plans to address potential problems in implementing the new system, which may cause them to rely on the current system beyond 2001.
  Agency Response: The Commission has completed its independent, live, end-to-end on-line testing to verify the results obtained by GTECH, and no problems were discovered during testing. GTECH has implemented the Year 2000 compliant system. This system has been running without any complication or disruption to services since it was implemented. As part of its testing, the Commission has tested all critical dates through 2001. In the unlikely event that something causes the Commission to rely on the current system beyond June 30, 2000, all outstanding "critical dates" beyond 2001 will be tested by December 31, 2000.
- The Commission should continue its practice of monitoring GTECH compliance and obtain updated Year 2000 assurances as available.
- Building Systems, Transportation, and Other Infrastructure - Certified Year 2000 compliant by vendors. The Commission has independently tested the security system. The Commission should consider testing dates beyond 2000, however. The Commission should continue to monitor providers of gasoline, natural gas, electricity, and other services.
  Agency Response: The Commission's tests of the security system included dates through to February 29, 2001. The remaining critical test dates of February 29, 2004 and February 28, 2100 will be tested and the results will be forwarded when available. The commission will continue to monitor our other service providers.

New Hampshire Sweepstakes Commission (Continued)

Continuity And Contingency Planning.

Revenue Collection Continuity And Contingency Plan **Phase:** Planning.

- The Commission has a single document governing continuity and contingency plans for all functions.
- The agency could improve its plan by addressing the probability of various potential failures and risks facing the agency, defining recovery timing and priorities, identifying a mechanism to return to normal operations, determining plan implementation costs, and developing mechanisms to filter out non-Year 2000 failures.
- The Commission has a single plan to test its continuity and contingency procedures for one function. Other functions critical to the agency are not addressed in this test plan. Agency should ensure that all functions essential to the agency are addressed in their plan and tested where possible.

DEPARTMENT OF TRANSPORTATION

Year 2000 Remediation.

Ground Traffic Safety **Status:** Compliant.

- Traffic Signals – The department operates approximately 315 traffic signals. Three vendors provide traffic signals to the State. The department has obtained vendor certifications from all manufacturers. The department reports testing confirms traffic signals are Year 2000 compliant.
- Railroad Crossings – Documentation from the Federal Railroad Administration states "grade crossing signals are event driven, rather than time or date driven" and are free of Year 2000 problems.
- Lift Bridges – Two lift bridges are operated by the department. The department has obtained documentation from consulting engineers for the Sarah Long Bridge that the programmable logic controller's processing of the Year 2000 is acceptable for its function and no Year 2000 action is required. The Memorial Bridge is manual.

Air Navigation Safety **Status**: Compliant.

- Department maintains five aeronautical navigational aid sites; not considered critical by the department. The department is currently overseeing the operation of Skyhaven Airport in Rochester.
- Obstacle hazard beacons are controlled by a photocell for day/night operation. Runway and taxiway lighting is activated by pilot through a series of clicks on their microphones. Non-directional radio beacon is used for navigation and monitored with a telephone.
- Agency has vendor certification for air navigational aids.

Highway Maintenance **Status:** Compliant.

- Vehicles – Year 2000 certifications obtained from vehicle vendors.
- Automated Fuel Distribution System – The department operates approximately 90 fueling sites. Approximately 30 are automated and 60 are manual. Automated system is used to control access and track users for billing purposes so the department is properly reimbursed for fuel used by other State agencies and local governments. These sites are the primary fueling stations for State and local governments and other agencies. The department has obtained Year 2000 certification from vendor. The department does not plan to independently test the system for Year 2000 compliance due to cost. The department reports generators have been installed at 17 of the automated sites; generators at the remaining automated sites will be installed and tested before winter. The

department plans to send a memorandum to all users recommending filling all vehicles prior to January 1, 2000.

- Salt spreaders – New units are Year 2000 compliant. Agency is in the process of renovating the older, non-compliant units to be compliant. Functionality is reportedly not effected because it only tracks usage. There is a manual override.

Turnpike Toll Collection **Status:** Non-Compliant. Testing Phase.

- Turnpikes collect approximately $50 million per year.
- Revenue collected at tollbooths is delivered to the bank by armored car on a daily basis. Agency has obtained vendor certification from the bank and a Year 2000 readiness assurance from the armored car service.
- The Turnpike Toll Collection System is used to track and audit revenue collections. The vendor has provided documentation that the software from the lanes to the plaza is Year 2000 compliant. The department is in the process of testing the system for Year 2000 compliance. The department reports testing is expected to be completed August 12, 1999.

Other Issues

- Telecommunications (telephones and pagers) – No vendor certification provided for pagers. Department of Administrative Services memorandum states all Department of Transportation telephones are compliant except for telephones located in Gilford and Hooksett (minor issues). The department plans to replace these phones by the end of July 1999.
  Agency Response: Certification from vendors for pagers is expected by the end of July.
- Radio System – Currently being installed. The department has vendor certification stating radio system is Year 2000 compliant.
- Heat – Vendor certification obtained for the John Morton Building and the District 1 dispatch center. The department is waiting for vendor certification for District 5 dispatch center.
- Generators – Department has obtained certifications for all generators used by the department.

Continuity And Contingency Planning.

General

- The department should consider reviewing its continuity and contingency plans and developing a department wide continuity and contingency plan that addresses infrastructure issues (e.g., electricity, telecommunications, etc.) as well

as other issues that might be applicable on a department wide basis. This will allow the various divisions to focus on planning specific to their function.

Ground Traffic Safety Continuity And Contingency Plan **Phase**: Planning.

- Traffic Signals **–** The plan could be improved by preparing for total failure of telecommunications. The plan could also be improved by discussing costs associated with implementation of the plan or discussing procedures to contact staff. The department does not have a formal written plan to test the ground safety continuity and contingency plan.
  Agency Response: Traffic signals noted a deficiency in the assumption that vehicles and telecommunications of some form will function. If you refer to Highway Maintenance ***Status:*** *Compliant. #1 states that* ***all vehicles*** *within the Department have no issues. The statement from Bell Atlantic delivered to your office [LBA] on June 25th, states that they will be compliant. Also the trucks have Ericsson radios for which you have a statement of Y2K compliancy, and there are some cell phones for backup. Costs for the implementation of the contingency plan will be absorbed from the regular overtime budget. The issue of procedures to contact staff was addressed in the Bureau of Traffic Y2K Contingency Plan for Traffic Signal Maintenance:*
  - *July – they will schedule and notify employees who will be working or on-call December 31 and January 1.*
  - *November – review methods of communication.*
  - *December – separate signal crews so each person can respond more quickly to problem calls.*
- Lift Bridges – The plan could be improved by assessing telecommunications, describing procedures for returning to normal operations and describing alternatives if police are unavailable to re-route traffic. The department has used parts of the plan in the past to address mechanical and electrical failures. Agency does not have any plans to further test the traffic signals contingency plan.
  Agency Response: [A memo] from [the] Administrator of the Bureau of Bridge Maintenance explains (a) the dates when the contingency plans have been used as a matter of routine operation which negates the need to test the contingency plan for Y2k, (b) continuity which also happened on these same dates, (c) communications, and (d) police response.

Air Navigation Safety Continuity And Contingency Plan **Phase:** Impact Analysis.

- The plan states the Skyhaven Airport would be closed at night if lighting inoperative. The department would inform the Bangor Flight Service Station (Federal Aviation Administration) and issue a Notice to Airmen. Once repairs

are completed, a follow-up call will be made to the Bangor Flight Service Station and the Notice to Airmen would be cancelled.

- The plan could be improved by assessing the Year 2000 status and contingency plan for the Bangor Flight Service Station.

Highway Maintenance Continuity And Contingency Plan **Phase:** Planning.

- The plan could be improved by assessing the probability of various potential failures (e.g., telecommunications or supplier's ability to "top off" fuel tanks located at the fueling stations), cost estimates to implement the plan, procedures for alternative communications, or means to resume normal operations.
- The department does not have a formal written plan to test the highway maintenance continuity and contingency plan.
  *Agency Response: The telecommunications issue is the same as noted in the Ground Traffic Continuity and Contingency Plan **Phase:** Planning.*

Turnpike Toll Collection Continuity And Contingency Plan **Phase:** Impact Analysis.

- The department's plans discuss its generators for backup power and the ability to store revenue collection data on tape at the various plazas. The department does not identify how it will manage if automatic lanes are not functioning, the need for staffing (e.g., the number of staff needed if automatic lanes fail), or heating the toll plazas.
  Agency Response: The non-functioning of the automatic lanes is addressed…in the memo from [the] Administrator of Turnpikes. Staffing is handled from a substantial pool of spare (part-time) toll attendants who are available on short notice. The heat in the plazas is also addressed in… the routine operation of plazas on generators. The heat is part of the 'equipment' that continues to operate.

TREASURY DEPARTMENT

Year 2000 Remediation.

Investment And Debt Management **Status:** Non-Compliant. Testing Phase.

- Agency currently has two networks operating simultaneously: a non-compliant Netware network used for production purposes and a Windows NT network used for testing. Testing completed indicates Treasury On-Line System application is processing dates beyond January 1, 2000 on the Windows NT test network. Complete migration from the Netware network to the Windows production NT network is planned for late July or early August 1999.

Cash Management **Status:** Non-Compliant. Testing Phase.

- Agency currently has two networks operating simultaneously: a non-compliant Netware network used for production purposes and a Windows NT network used for testing. Testing completed indicates the Treasury On-Line System application is processing dates beyond January 1, 2000 on the Windows NT test network. Complete migration from the Netware network to the Windows NT production network is planned late July or early August 1999.
- Agency has contacted partner banks and the Department of Administrative Services but has not formally determined Year 2000 status.

General Fund Distribution **Status:** Non-Complaint. Testing Phase.

- Agency currently has two networks operating simultaneously: a non-compliant Netware network used for production purposes and a Windows NT network used for testing. Testing completed indicates the Treasury On-Line System application is processing dates beyond January 1, 2000 on the Windows NT test network. Complete migration from the Netware network to the Windows NT production network is planned late July or early August 1999.

External Interfaces And Data Exchanges

- Agency has not formally contacted State agencies that are data exchange partners. Agency has contacted banks on which it relies.
- Agency has assessed potential State fiscal year 2000 (beginning July 1, 1999) impact on its systems and applications. Agency reports that applications are probably compliant since the applications can handle dates beyond December 31, 1999.

Treasury Department (Continued)

Embedded Systems And Building Infrastructure

- Agency relies on limited telecommunications for its critical functions. No alternatives have been formalized.
- Agency has not completed its assessment of building infrastructure, specifically fire alarm and suppression systems.
- Agency can not operate without power as the uninterruptable power supply only supplies the agency's server and not desktop personal computers or other necessary equipment.

Other Issues

- A compliant check writing system is required for full compliance. A new check writing system is planned for production in September 1999. Treasury does not own this system or the State's disbursement applications but there is a data exchange that is critical to the Treasury Department. A comprehensive, detailed plan to manage its Year 2000 effort has been developed.
- Server is vendor certified as Year 2000 compliant. Agency has tested desktop personal computers.
- Agency test plans lack end to end testing.

Continuity And Contingency Planning.

Departmental Continuity And Contingency Plan **Phase:** Initiation.

- Agency has not formalized continuity and contingency plans for critical systems. However, a continuity and contingency plan outline has been developed. An executive level continuity and contingency planning group has been developed.
- Agency does not have disaster recovery plans to ensure timely recovery of critical functions.

DEPARTMENT OF YOUTH DEVELOPMENT SERVICES

Year 2000 Remediation.

Secure Detention **Status:** Non-Compliant. Correction Phase.

- Spaulding, King, and East cottages use electronic locks. If electrical power fails, doors remain in the positions they were in at time of outage. If power remains out, doors can be opened or closed using manual keys. Remaining buildings use manual keys to open and close doors.
- Agency has sought but not obtained Year 2000 certifications for fire alarm systems and radios.
- Agency has obtained Year 2000 certifications or disclosures for its boilers, generators, and telephone systems.
- Agency has obtained Year 2000 certifications from the utility companies providing electricity and steam to the Concord facilities. Agency has sought but not obtained certifications for the electric and water supply for the Manchester facilities.

Continuity And Contingency Planning.

Secure Detention Continuity And Contingency Plan **Phase**: Impact Analysis.

- Agency has a draft written contingency plan for secure detention at the Youth Development Center. No plan has been developed for Youth Detention Services.
- The plan could be improved by assessing the function's Year 2000 risks, and ensuring the planning process receives quality assurance review. The plan could be further improved by assessing recovery priorities and timing, risk reduction strategies, plan implementation costs, plan triggers, zero day strategies, escalation of responses based on event severity, resource estimates required for plan implementation, and plans to return to normal operations.
- The agency plans to test its continuity and contingency plan.
  Agency Response: You mentioned that we do not have a sufficient risk management process and a lack of quality assurance review. This is correct. We do not have enough staff, especially technical staff, to assist in this. So in order to work around this problem and become compliant, we are planning to get back together our original Y2K team. In addition, we will involve our Directors who can assist in helping us to identify risks and help establish some sort of reporting system/format with which to track problems and resolutions. This will be done in both locations. (As soon as an Information Technology person is hired, they will be the person in charge of this project.)

  We do not have a Business Administrator at this time, so any costs associated with this Y2K project will have to be estimated. Once we have hired a new

Department Of Youth Development Services (Continued)

Business Administrator, then these costs will be addressed promptly. These costs are to include extra staffing should the need arise if the power goes out; supplies, i.e. food, clothing, and blankets for the juveniles in our care; staff training and any outside contractors needed to assist in the testing of our equipment.

Another deficiency noted is that our agency does not address recovery priorities and timing, risk reduction strategies, or plan implementation costs. (Costs see above)

Our Department is not as technologically advanced as it needs to be, thus much of our work is still done manually. Recovery priorities for our department would not be as much of a concern as other departments. We have paper trail documentation with every position. So if the power goes out for us, other than payroll which is done on the GHRS system, we still can function quite well manually. I will be checking with Administrative Services to see what their back up plan is with regards to payroll and what their plans are if the power goes out.

Our maintenance team is very much aware of what needs to be done with regards to maintaining equipment and are currently testing the equipment on a monthly basis.

Our two computer teachers are also very much aware of the Y2K problem and have checked and upgraded/changed BIOS on computers, etc. so that there shouldn't be much of an interruption. Also, many computers have been replaced.

Kitchen staff is very much aware that they will need to stockpile additional foods prior to January 1st and are planning to do so keeping in mind their budgets. (They currently keep at least a two weeks' supply on hand now.)

Business office staff is aware that they will need to maintain good paper trails for several months before and after January 1st but this is something that they already do. Our school departments, medical departments, operations all have paper trail documentation. Once our Agency Steward returns, there will be a discussion about keeping extra clothing supplies as well as blankets, flashlights, batteries, etc. on hand.

I feel that the main focus for our department is to take care of the juveniles in our facilities. Should the power go out, our concerns would be: detention of the juveniles, keeping them safe, secure, warm and fed to the best of our ability.

As for YDSU and Tobey School, as mentioned earlier in the YSC policy, these juveniles would be moved to the Howard Rec. Building on NHH grounds. The YDSU juveniles would have to be secured by handcuffs prior to moving and

Department Of Youth Development Services (Continued)

would be escorted either by staff and/or NHH security. If there was a real serious emergency, we could call upon the local police department and/or the National Guard. Depending upon the weather, the juveniles would be moved either by vans or walking. Tobey School students would be moved also, but kept separate from YDSU. All juveniles would be given extra clothing supplies and blankets. Staff will be on grounds and with juveniles at all times—around the clock staffing, which is currently done. Nursing staff will be moved with the juveniles as well as any medications that they might need. Nursing staff will ensure that there is a supply of medication should the pharmacies be unable to fill orders for a period of time. All medications will be secured by nursing staff.

Following policy procedures will help us to prepare for January 1st. What our department needs to do is train the staff by going over the policy procedures with them so they will be informed and know what to do in the event of a real emergency. The Training department will need to institute training as soon as vacations are over, beginning in September. It will be mandatory training for all staff

We will also have to have "shut down" drills—shutting off power for a day, to see how everyone copes and find where our weaknesses are. The drills will be monthly starting in September and ending in December and will be unannounced. This, too, will be started as soon as staff is trained. The Directors and the Y2K team will assess the results of the drills and make adjustments wherever necessary to prevent future problems.

House Leaders and Residential Services Director will need to meet to prepare cottage schedules and the addition of staff for the upcoming January 1st. YDSU and Tobey Dorm House Leaders will also meet and determine what they will need for staffing at this time.

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APPENDIX C

CONTINUITY AND CONTINGENCY PLAN CHECKLIST

COMPLIANCE POINT QUESTION	Y/N/NA/U
INITIATION	
Has the continuity planning process received quality assurance review?	
Does the plan identify (LBA Identified) critical functions?	
IMPACT ANALYSIS	
Have supporting mission-critical systems and infrastructure supports for each core process been identified?	
Is a deliberate risk management process evident in the plan?	
Have risks, including Y2K specific risks, and their impacts been defined, analyzed, and assessed?	
Is the potential impact of a loss of all mission-critical information systems due to post-implementation failures assessed in terms of operations and functions, probability, and expected loss?	
Is the potential impact of encountering Y2K date problems earlier than expected assessed in terms of operations and functions, probability, and expected loss?	
Is the potential risk posed by customers, suppliers, information technology vendors, and partners assessed in terms of operations and functions, probability, and expected loss?	
Is the potential impact of disruption of electric power assessed in terms of operations and functions, probability, and expected loss?	
Is the potential impact of disruption of environmental control assessed in terms of operations and functions, probability, and expected loss?	
Is the potential impact of disruption of transportation assessed in terms of operations and functions, probability, and expected loss?	
Is the potential impact of disruption of external interfaces assessed in terms of operations and functions, probability, and expected loss?	
Is the potential impact of internal information system failures assessed in terms of operations and functions, probability, and expected loss?	

Appendix C – Continuity And Contingency Plan Checklist (Continued)

Is the potential impact of disruption of telecommunications assessed in terms of operations and functions, probability, and expected loss?	
Is the potential impact of disruption due to system shutdown, degraded performance, irrational data generation, unreliable or unpredictable results, corrupted files, or lost files assessed in terms of operations and functions, probability, and expected loss?	
Is the potential disruption of a failure of renovation and testing timelines assessed in terms of operations and functions, probability, and expected loss?	
Are critical functions ranked?	
Are recovery priorities and timing identified?	
Are agency continuity and contingency planning efforts focused on likely failure scenarios?	
Does the plan include risk reduction strategies?	
Has the cost of plan implementation been estimated?	
PLANNING	
Does the plan define triggers, such as failure due to early arrival, of renovated/replaced systems, of compliant systems, of certified system, of interfaces, due to implementation schedules, and of infrastructure, for activating contingency plans for each critical function?	
Does the plan identify an escalation of responses that is based on event severity?	
Is there sufficient time to fully implement the continuity/contingency plan before triggers are reached?	
Is there sufficient time to fully implement Y2K plans before triggers are reached?	
Are concerns regarding external data partners addressed in contingency plans?	
Have core process owners established resumption priorities?	
Have business resumption teams been established?	
Has the minimum acceptable level of output and the recovery time objective been defined for each process?	

Appendix C – Continuity And Contingency Plan Checklist (Continued)

Is a **strategy** that is practical, cost-effective, and appropriate to the organization selected?	
Are alternative **processes** capable of meeting minimum acceptable output requirements for each critical function or system developed?	
Is alternative equipment and location use considered?	
Does the plan estimate resource requirements for each contingency in terms of cost of hardware?	
Does the plan estimate resource requirements for each contingency in terms of cost of software?	
Does the plan estimate resource requirements for each contingency in terms of cost of staff?	
Does the plan estimate resource requirements for each contingency in terms of cost of availability of resources?	
Does the plan identify additional resources that are indicated in these estimates?	
Have before, during, and after event risk-reduction strategies and procedures ("zero day" strategies) for critical dates (including the millennium roll-over period) been developed and documented?	
Do contingencies include changing the method of date calculation, disabling date function?	
Do contingencies include performing automated procedures manually?	
Do contingencies include recall of staff procedures and alternative modes of getting staff to work?	
Do contingencies include alternative communications modes?	
Do contingencies include transfer of function to another agency, system, or contractor?	
Do contingencies include alternative power mode, including how long the generator must run?	
Do contingencies include safety, information security, and physical security?	
Do contingencies include resumption of normal operations?	
Do contingencies include documenting events, restore/restart systems, check and verify results, correct/restore corrupt/lost data, and backups?	
Are procedures to verify event and verify it is Y2K related and not the result of other problems, hackers, sabotage, etc., in place?	
Are procedures to notify key staff in place to include name, phone numbers, alternate means of contact?	
Are plan implementation approval and escalation mechanisms in place?	

Appendix C – Continuity And Contingency Plan Checklist (Continued)

TESTING	
Is there a documented test plan?	
Has the plan been approved by executive management?	
Has a test team been established?	
Are test teams properly prepared (trained, documents available, etc.) to carry out testing?	
Do test plans address the test objectives and approach, required equipment and personnel, schedules, location, procedures, expected results, and exit criteria?	
Are test results examined for accuracy and consistency, shortcomings resolved, and are all discrepancies noted?	
Is each contingency plan shown to have adequate capability to manage, record, and track transactions through the alternative process?	
Are manual activities shown to meet an acceptable level of performance?	
Is the alternative process shown to meet an acceptable level of performance?	
Is the alternative process shown to have an acceptable level of quality control?	
Is the alternative database shown to have an acceptable level of integrity and consistency?	
Is the alternative mechanism shown to have an adequate level of security (data, physical, etc.)?	
Are resumption teams rehearsed to ensure that each team and team member is familiar with resumption procedures and their roles?	
Is a re-test required to ensure that the problems do not recur and the updated plan provides the specified capability?	
IMPLEMENTATION	
Are contingency, continuity, and disaster recovery plans updated when hardware and software, communications, contingency applications, and operations change?	
Is a re-test required to ensure validity of the updated plan and that it continues to provide the specified capability?	
Is each updated plan approved and signed by the chief executive/manager?	
Is the Y2K readiness of public infrastructure, including power and telecommunications services monitored?	
Is the Y2K readiness of customers, suppliers, IT vendors, and partners monitored?	
REMARKS	

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APPENDIX D

VETERANS HOME RESPONSE

New Hampshire Veterans Home
P.O. Box 229, 139 Winter Street
Tilton, New Hampshire 03276-0229

Barry E. Conway
Commandant

Telephone 603-286-4412
FAX # 286-2416

July 1, 1999

Catherine A. Provencher
Director of Audits
Office of Legislative Budget Assistant
State House, Room 102
Concord, NH 03301

Dear Ms. Provencher:

In response to your letter of June 17, 1999, and per our telephone discussion of June 26, 1999, regarding the Veterans Home's readiness for the Year 2000, we offer the following responses to your questions:

1. Does the Veterans Home have a written contingency plan to manage problems, such as power outages or failure embedded systems in medical equipment, that might be associated with the Year 2000? ***Enclosed is a copy of our letter to you of February 3, 1999, addressing power outages. Also enclosed is documentation stating our generators are not date or time sensitive per the manufacturer. The New Hampshire Veterans Home Power Outage Policy & Procedure ensuring that essential services will be provided for residents during times emergency power source is utilized is also included.***

   The New Hampshire Veterans Home is requesting certification from vendors that we deal with that their products are Y2K Compliant. We have enclosed statements received to date and will continue to accumulate and forward additional certifications to you.

2. Does the Veterans Home have Year 2000 vendor certifications for its critical functions such as generators? ***(See above).*** telecommunications? ***(Y2K Compliant statement enclosed).*** vehicles? ***(The vehicles will be filled with gas between Christmas and New Year's. Many vehicles are not critical pertaining to residents).*** patient management? ***(The pharmacy has submitted Y2K compliance – attached. MDS System is Y2K compliant. Resident Accounts System is Y2K compliant.)***

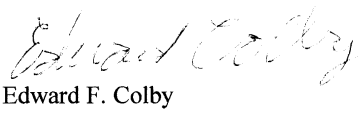
TDD Access: Relay NH 1-800-735-2964

3. Does the Veterans Home have Year 2000 vendor certifications for all electronic medical equipment possessed by the Veterans Home? ***The Veterans Home is in the process of requesting Y2K compliance forms for our electronic medical equipment. The type of equipment that we will be requesting certification on does not fall into the category of life threatening. Emergency generators at the Home are able to provide power to maintain the defibrillators in operation during a power failure. Oxygen tanks are also kept in supply as a backup, which do not require power.***

The New Hampshire Veterans Home policy is to always have on hand, at all times, provisions for a minimum of two weeks of meals. Alternate food plans are in place. The Veterans Home has its own supply of well water for emergencies.

Please contact me if you have any questions or if I can be of further assistance to you.

Sincerely,



Edward F. Colby
Business Administrator

EFC:amb

Appendix D – Veterans Home Response (Continued)

New Hampshire Veterans Home
P.O. Box 229, Winter Street
Tilton, New Hampshire 03276-0229

Barry E. Conway
Commandant

Telephone 603-286-4412
FAX # 286-2416

Wayne Grover - Plant Maintenance Engineer / Director Environmental Services
Ext. 220
e-mail w_grover@conknet.com

June 30, 1999

To: Ed Colby
NHVH Business Administrator
RE: Y2K Compliancy

Dear Mr. Colby,
Following and attached is the Y2K information you requested.

Back-up Electricity Generators And Transfer Switches	Not time and date sensitive, refer to attached documents
Secure Care Doors	Not time and date sensitive, refer to attached documents
Simplex Fire Alarm	Not time and date sensitive, Documents being sent
Water Supply System	Not time and date sensitive, Documents being sent
Back-up Water Supply	Not time and date sensitive, System switched Manually
Motor Vehicles:	All of our vehicles will be fueled and ready for use
86 Ford Wheel Chair Van	We have 45 Gallons of vehicle fuel on-site with a
92 Ford Bus	hand pump system
92 Plymouth Acclaim	No vehicle is mission critical
93 Plymouth Mini-Van	
94 Ford F-250	
98 Chevrolet Malibu	
98 Chevrolet S-10 EV	

Respectfully Submitted
Wayne Grover

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