



CSA Z1600 – Emergency Management and Business Continuity Programs

Presented by:

John Lindsay, Brandon University Department of Applied Disaster and Emergency Studies and Z1600 Technical Committee member

Developed by:

Ron Meyers, Canadian Standards Association

Presentation Disclaimer

Presented by John Lindsay,

- Brandon University Department of Applied Disaster and Emergency Studies
- Z1600 Technical Committee member

• **Developed by Ron Meyers,**

- Canadian Standards Association
- Z1600 Technical Committee Advisor

- The Z1600 Standard on Emergency Management and Business Continuity Programs was developed over two years by a committee of 20+ people. Today's presentation covers their results and includes my personal commentary. Any errors or deviations from the final Standard are my fault and the credit for this excellent work rests with the CSA Committee.

Presentation Objectives

- **CSA's activities in Emergency Management**
- **Scope / Purpose of the new CSA Z1600 Standard**
- **Harmonization with NFPA 1600 – WHY?**
- **Outline of the Z1600 Draft**
- **Project schedule**
- **Implementation strategy**
- **Questions**

CSA: Addressing Emergency Management / Security

Understanding the Issues and Needs

- **Soliciting feedback from Canadian Stakeholders**
- **Participating in the American Homeland Security Standards Panel (ANSI-HSSP)**
- **Member of the ISO/IEC/ITU Advisory Group on Security**
- **Participating on new ISO TC 223 Societal Security Committee**
- **Developing relationships and promoting CSA**
 - Government agencies (Provincial Emergency Management Organizations)
 - EM & BC Organizations
 - First Responder Groups
 - Presentation at key conferences / workshops

- **Developing a new Standard to Protect First Responders from CBRN Events**
 - Funded by Department of National Defence - CRTI
 - Working Jointly with the Canadian General Standards Board (CGSB)
 - The Standard will specify requirements for protective equipment (clothing , respirator) used by First responders in CBRN events
 - The Standard will provide guidance on the selection, use, maintenance, capabilities of the protective equipment
 - Address interface / interoperability issues
 - There is strong support from Canadian First Responder Groups

Developing a new Emergency Management & Business Continuity Standard, Z1600

- **Funded by Public Safety Canada**
- **High Level / Comprehensive / integrated Standard**
- **All Hazards - Risk Based Approach**
- **Provides a framework that identifies and assesses the probability and severity of risks on the entity and its environments**
- **Provides the benchmark to assess existing programs**
- **Provides reference to Canadian EM/BCP organizations and informational resources**
- **Reflects the convergence seen over the past 10 years of public and private sector planning efforts**
- **Bi-National Harmonization with NFPA**

Committee Membership Matrix Categories

Members shall represent the following categories on the basis of their predominant expertise in, knowledge of and familiarity with emergency management systems, policies and procedures. Consideration shall also be given to geographical representation across Canada:

- User(s) Interest

Those who have and/or represent/implement interest(s) from industry

- First Responders

Those who respond, or manage the response to emergencies

- Government / Regulatory Authority

Bodies with policy or regulatory authority directly related to the emergency management.

- Service Professionals

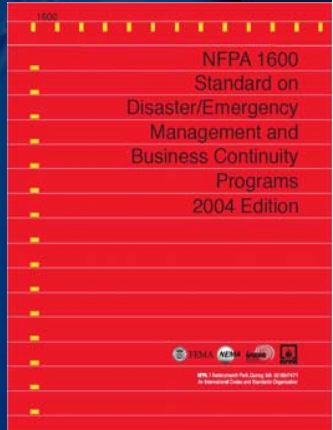
Those who are not associated with implementing, responding or setting policy

Some current and related standards

- **CSA Z731 Emergency Preparedness and Response**
- **CSA Q850 Risk Management**
- **Accident Investigation**
- **Privacy**
- **Health care – Infection Control**
- **Protective Equipment Standards**
 - Selection, use and care of respirators
 - Riot Helmets and Faceshield protection
 - Blunt Trauma Protective Equipment
 - Eye and face Protectors
 - High-Visibility Safety Apparel
 - Protective headwear
 - Hearing Protection

Why Harmonize with NFPA 1600?

- **NFPA 1600 is a process-based international standard that identifies key functional areas and an overall strategy for emergency management and business continuity for both public and private sector entities**
- **Provides for a common language**
- **Incorporates a Risk Based - All Hazards approach**
- **Integrates emergency management and business continuity**
- **NFPA standards already widely accepted in Canada**
- **Strong Canadian representation on NFPA 1600**
- **Harmonized approach will facilitate compliance**
- **Recognized as preferred standard in the U.S.**
- **Proposed as a potential base for ISO standard**



1600
NFPA 1600
Standard on
Disaster/Emergency
Management and
Business Continuity
Programs
2004 Edition

- **U.S. (NFPA 1600)**
 - Adoption as a US Homeland Security standard
 - Support and endorsement following the 9/11 Commission inquiry
 - EMAP utilizes NFPA 1600 to audit public sector organizations
- **Canada**
 - Support from Public Safety Canada
 - Support from Provincial / Municipal emergency management organizations
 - Many Canadian organizations already using NFPA 1600

What does Harmonization mean?

- **Substantially the same in Technical Content / Scope / Intent & Purpose**
- **Can vary in style / format / wording**
- **Can have Canadian deviations to reflect differences in:**
 - governmental / regulatory system & requirements
 - Terminology & definitions used by Canadian Stakeholders
 - Specific Canadian industry needs / requirements

Harmonization in Practice

- **The practical implication of harmonization is that an emergency management or business continuity program developed to meet the requirements of one standard will also meet the requirements of the other standard.**
- **Therefore existing NFPA 1600-based programs should meet the CSA Z1600 standard.**
- **Currently the two standards are slightly out of step due to their approval timelines.**

Using the NFPA 1600 Standard as the base for the Canadian Standard

Key Objectives:

- **Develop unique Canadian requirements where appropriate**
- **Involve relevant stakeholders from Public and Private sectors.**
- **Align with government / regulatory initiatives & policy direction**
- **Add value with additional guidance information and tools**
- **Develop and implement a strategy to promote the use and adoption of the Standard**

Scope & Purpose of CSA Z1600

- Establishes a common set of criteria for emergency management and business continuity programs
- Establishes the elements of a continuous improvement process to assess current programs or to develop, implement, and maintain a program that addresses the functions of prevention and mitigation, preparedness, response, and recovery
- The program may consider the functions of prevention and mitigation, preparedness, response and recovery independently or in combinations

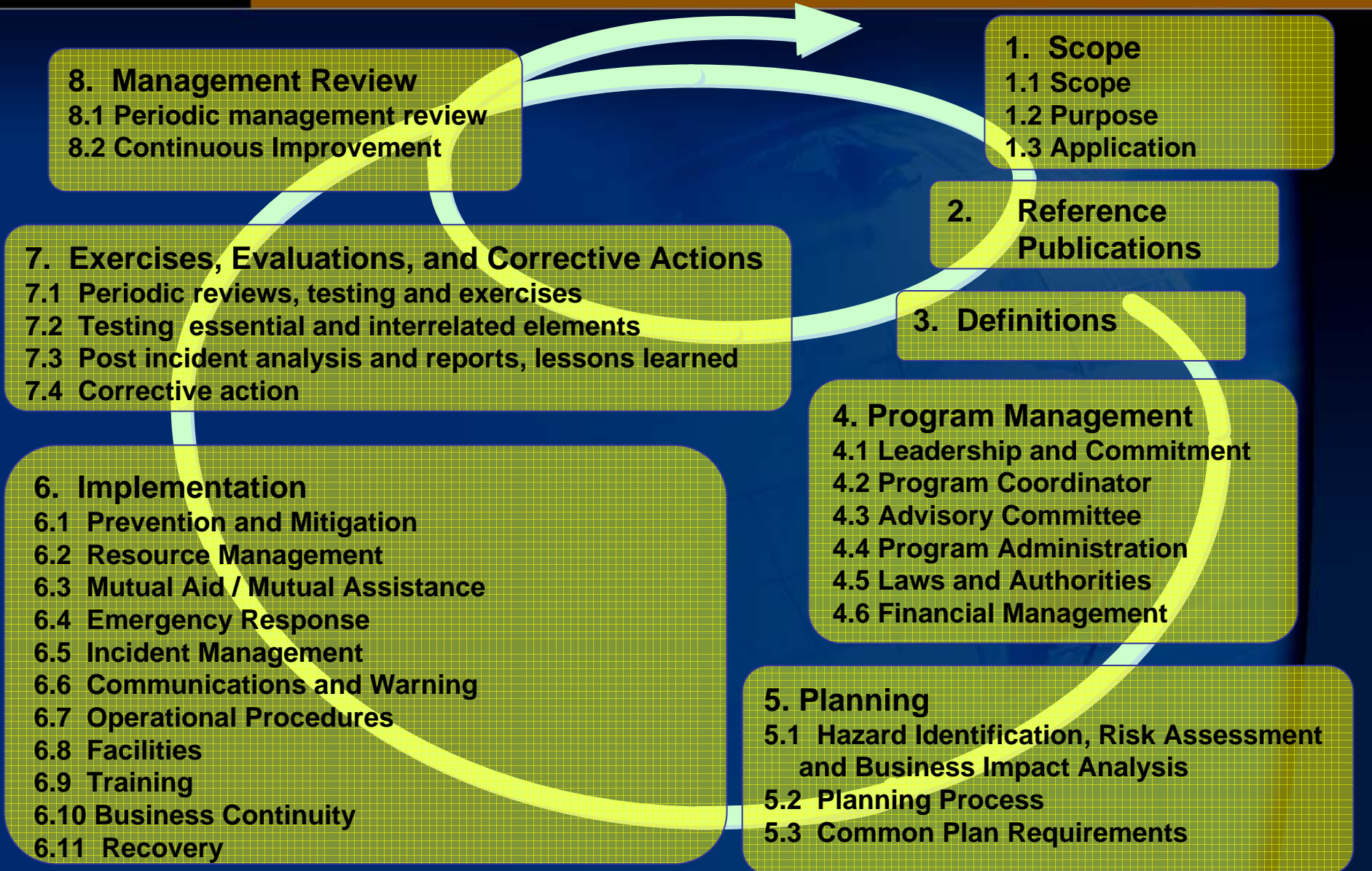
Application

- **The Standard will apply to both public and private sector programs. It is important to have a consistent / harmonized approach between public sector and private sector organizations.**
- **Key focus on the Private sector to provide resources and tools to assist and encourage compliance to the standard.**

Contents

- **Chapter 1:** **Scope, Purpose and Application**
- **Chapter 2:** **Referenced Publications**
- **Chapter 3:** **Definitions**
- **Chapter 4:** **Program Management**
- **Chapter 5:** **Planning**
- **Chapter 6:** **Implementation**
- **Chapter 7:** **Exercises, Evaluations and
Corrective Actions**
- **Chapter 8:** **Management Review**
- **Annex A:** **Explanatory Material**
- **Annex B:** **Listing of EM/BC Organizations and
Informational resources**

Emergency Management and Business Continuity CSA Z1600



Chapter 4 – Program Management

- **Leadership and Commitment**
 - Senior management shall provide leadership and assume overall responsibility, accountability and authority for the program (not in NFPA 1600)
- **Program Coordinator**
 - Shall be appointed and authorized to ...
 - Develop
 - Implement
 - Administer
 - Keep current the Program



- **Advisory Committee**

- The purpose of an Advisory Committee is to provide guidance and advice to improve the program. The Advisory Committee shall include the Program Coordinator and others who have the expertise, knowledge of the entity, and the capability to identify resources from all functional areas. Consideration should be given to include other stakeholders and community representation.



Chapter 4 – Program Management

- **Program Administration**

- The entity shall have a document program that includes:
 - A written Policy approved by the executive.
 - Established program goals and objectives
 - Established program plans and procedures
 - A program budget
 - A records management process to demonstrate conformity
 - A review process for continuous improvement

- **Laws and Authorities**

- The program shall comply with applicable legislation, policies, regulatory requirements, and directives.

• Financial Management

- The entity shall develop financial and administrative procedures to support the program before, during, and after an emergency or a disaster.
 - Procedures spelled out in the plan to ensure financial decisions expedited in accordance with authorization limits and fiscal policy
 - Procedures shall include the following:
 - ❖ Defined responsibilities for program finance authority
 - ❖ Procurement procedures
 - ❖ Accounting systems to track and document costs
 - ❖ Management of funding from external sources

Chapter 5 – Planning

• Hazard Identification, Risk Assessment and Business Impact Analysis

- Critical element to identify and monitor hazards that may have an impact on the entity.
- Hazards shall be evaluated for the following three areas:

- Natural hazards
- Human-induced events
- Technological events



- The Risk Assessment evaluates the likelihood of the hazard occurring, taking into account factors such as threat analysis, frequency, history, trends and probability.

Chapter 5 – Planning

- **Hazard Identification, Risk Assessment and Business Impact Analysis**
 - The results of the Business Impact Analysis (BIA) become the cornerstone in establishing the continuity and recovery processes for the entity.
 - The BIA builds on the findings from the risk assessment by addressing what could happen should an event occur, and how it could affect the entity over time.
 - The Standard provides additional explanatory information in the annex on conducting a BIA.

Chapter 5 – Planning

- **Planning Process**

- The entity shall follow a planning process to develop and maintain its EM/BC program.
- The planning process shall result in integrated or single plan documents, or a combination thereof.
- Recognizes that organizations and jurisdictions have different mandates and capabilities while still emphasizing a comprehensive approach to emergency management.

Chapter 5 – Planning

- **Common Plan Requirements**
 - Plans shall have clearly stated objectives
 - Plans shall identify functional roles and responsibilities
 - Plans shall identify lines of authority
 - Plans shall identify resource requirements
 - Plans shall identify the process for managing communication and the flow of information, both internally and externally

Chapter 6 – Implementation

- **Prevention and Mitigation**

- The entity shall develop and implement a strategy to reduce risk through prevention and mitigation activities.
- Prevention and mitigation activities frequently overlap and entities may consider these together.
- The Standard provides examples of both prevention strategies and mitigation strategies.
- The prevention and mitigation strategies shall be based on the information obtained from the hazard identification, risk assessment, and business impact analysis.

Chapter 6 – Implementation

- **Resource Management**

- An assessment shall be conducted to identify the resource capability shortfalls and the steps necessary to overcome any shortfalls.
- A current inventory of internal and external resources shall be maintained.
- Donations of goods, services, personnel, and facilities, solicited and unsolicited, and the management thereof, shall be addressed.

Chapter 6 – Implementation

- **Mutual Aid / Mutual Assistance**
 - The term Mutual Aid / Mutual Assistance as used in the standard includes cooperative assistance agreements, service level agreements, intergovernmental compacts, or other terms commonly used for the sharing of resources.
 - Mutual aid agreements between entities are an effective means to obtain resources and should be developed whenever possible.

Chapter 6 – Implementation

- **Response Planning**

- The entity shall develop and implement a strategy and plan to respond to emergencies that threaten people, property, and the environment.

- **Incident Management**

- The entity shall use an incident management system to direct, control, and coordinate response and recovery operations.
- The standard does not prescribe any one type of incident management system (e.g. ICS).
- There is reference to NFPA 1561 Standard on Emergency Services Incident Management System.

Chapter 6 – Implementation

- **Communications and Warning**
 - Expanded section and additional annex material to address the needs for telecommunication and other communication systems to support all elements of the program.
 - The entity shall address interoperability of communication systems especially where multiple responding organizations are involved.
 - Addresses emergency communication and warning systems and procedures to alert people impacted by an actual or impending emergency

Chapter 6 – Implementation

- **Communications and Warning**
 - Public awareness and public education programs shall be implemented where the public is potentially impacted.
 - The entity shall establish and maintain the capability to provide crisis communication during an incident.
 - Information in the annex on establishing a Joint Information Centre to develop, coordinate and provide information on the incident to the public, media and other agencies.

Chapter 6 – Implementation

- **Operational Procedures**

- The entity shall develop, coordinate, and implement procedures to support the program and execution of its plans.
- Procedures shall address:
 - health and safety, incident stabilization, operational/business continuity, property conservation, and protection of the environment under the jurisdiction of the entity.

- **Facilities**

- The entity shall establish a primary and an alternate emergency operations centre (EOC) physical or virtual, capable of managing continuity, response, and recovery operations.
- Additional annex information on establishing the EOC

Chapter 6 – Implementation

- **Training**

- Shall develop and implement a training/educational curriculum to support the program.
- The objective of the training shall be to create awareness and enhance the skills required to develop, implement, maintain, and execute the program.
- Frequency and scope of training shall be identified.
- Personnel shall be trained in the entity's incident management system.
- Training records shall be maintained.

Chapter 6 – Implementation

- **Recovery (not currently in NFPA 1600)**
 - The entity shall develop and implement a recovery strategy to support short-term and long-term priorities for recovery of functions, services, resources, facilities, programs, and infrastructure.
 - The recovery strategy is based on the results of hazard identification and risk assessment, business impact analysis, program constraints, operational experience, and cost-benefit analysis.
 - Recovery plans are developed based upon the recovery strategy.
 - The standard provides information on developing business continuity plans.

Chapter 7 – Exercises, Evaluations, and Corrective Actions

- **The entity shall evaluate program plans, procedures, and capabilities through periodic reviews, testing and exercises.**
- **Exercises shall be designed to test individual essential elements, interrelated elements, or the entire plan(s).**
- **Additional evaluations shall be based on post - incident analysis and reports, lessons learned and performance evaluations.**
- **Procedures shall be established to take corrective action on any substantive deficiency identified.**

Chapter 8 – Management Review

- **The entity shall conduct a periodic management review of the program based on the goals, objectives and evaluation of the program.**
- **Management shall assess opportunities to continuously improve the program**

Annex Material

- **Provides additional explanation and guidance information**
- **Intent to add value with useful implementation tools / templates**
- **Provides a reference to Canadian EM/BCP organizations and informational resources**
- **Specific Canadian context added**

Project Schedule

- **Establish Technical Committee April – June 2005**
 - **Organizing Meeting – June 2005**
- **Develop National Standard September 2005 – May 2007**
 - **1st TC Meeting – September 19 & 20, 2005**
 - **2nd TC Meeting – December 2005 / January 2006**
 - **3rd TC Meeting – May/June 2006**
 - **4th TC Meeting – October 2006**
 - **5th TC Meeting – February 2007**
 - **6th TC Meeting – May 2007**
 - **Consensus Draft – June 2007**
 - **Public Review - July – September, 2007**
 - **6th TC Meeting – September 26-28, 2007**
 - **Technical / Quality Edit**
 - **Letter Ballot – March 2008**
- **Publication**
 - **Quality / Internal Reviews**
 - **Publication – August 2008**

Implementation Strategy

The objective of the Implementation strategy is to:

- **Promote a broad base of public awareness of the CSA Z1600 Standard**
- **Communicate the benefits of using / adopting the standard**
- **Identify opportunities for development of associated stakeholder guidance / support materials and education and training services**
- **Identify and propose specific standards development opportunities to fill identified gaps under the new Z1600 framework standard**
- **Describe how the associated CSA Z731 Emergency Preparedness and Response standard and CSA Q850 standard will relate to the new Z1600**

CSA: Expert. Agile. Engaged. Trusted.

**Expert on
building
consensus
and creating
standards**

**Agile to anticipate
and respond to
pressing
marketplace
demand**

**Engaged at the
forefront of
standards
development
& solutions in
Canada**



expert agile engaged

Trusted and credible in the public arena



CANADIAN STANDARDS
ASSOCIATION

Thank you
Questions?