

**Calgary**



## **Learning the Hard Way – The Evolution of Emergency Management**

Chief Tom Sampson  
Calgary Emergency Management Agency  
(CEMA)





## Vision

Calgary: A great place to make a living, a great place to make a life.

## Common purpose

Making life better every day.

## Mission

Strengthening and empowering partnerships to collaboratively build a resilient Calgary.

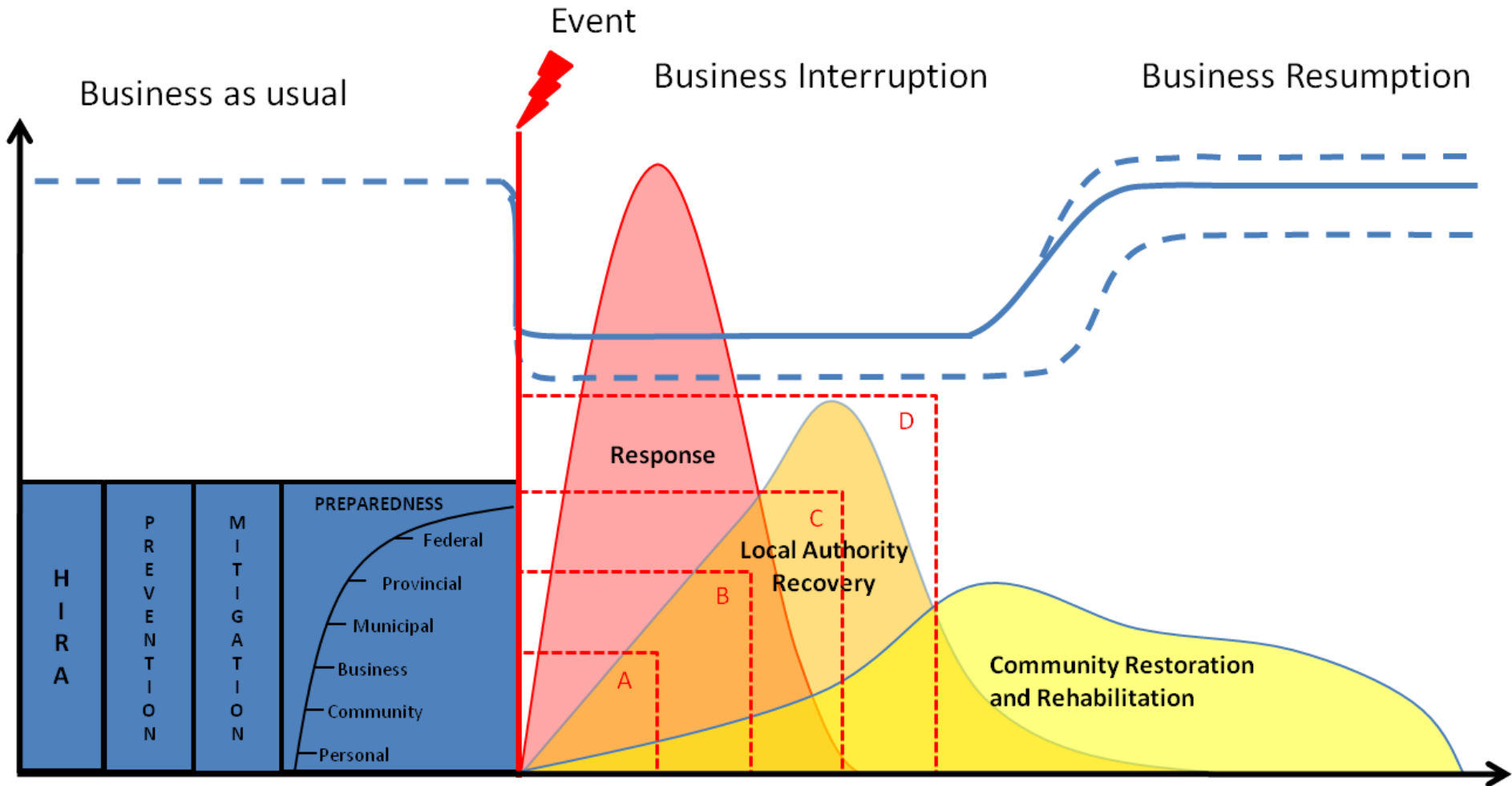
## Values

Individual responsibility, Collective accountability

- One team, collective goals: collaboration for excellence.



# Comprehensive EM Model





1. Life Safety
2. Property (Critical Infrastructure)
3. Environment
4. Economy



City Manager

City Clerks

Law

PDA

Transportation

UEP

CS&PS

Corporate Services

CFO

Policy & Integration

Transit

Waste & Recycling

CNS

OLSH

Finance & Supply

Local Area Planning

Roads

Water Resources

Recreation

HR

Inspections & Permit Services

Transportation Infrastructure

Water Services

Parks

IT

Assessment

Transportation Planning

E&SM

Fire

IIS

ABS

CPB

Calgary Housing

Fleet

CEMA

CS&C

External Members

AHS

ATCO

Calgary Police

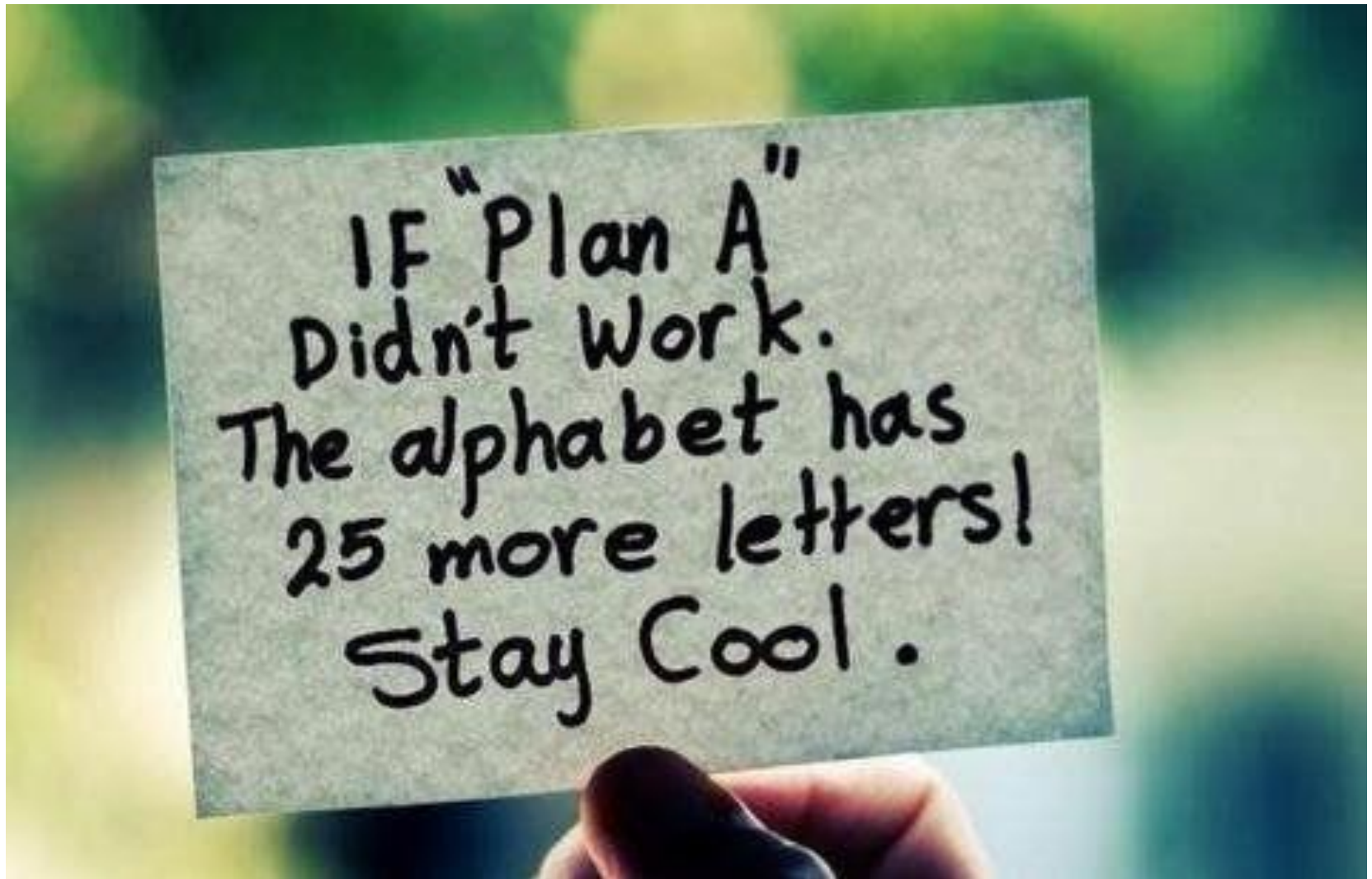
ENMAX

Environment Canada

School boards

● Severe summer storm







- I. The past
- II. The world today
- III. Drivers of change and the future

**Calgary**



# Edmonton Tornado 1987





















*“We can no longer afford to work at the speed of government”*

LA Fire Capt.













# Severe Weather Events 2015





Province of Alberta

## EMERGENCY MANAGEMENT ACT

Revised Statutes of Alberta 2000  
Chapter E-6.8

Current as of December 11, 2013

Office Consolidation

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OFFICE CONSOLIDATION

**BEING A BYLAW OF THE CITY OF CALGARY  
RESPECTING EMERGENCY MANAGEMENT**

**BYLAW NUMBER 25M2002**

Bylaw Number 25M2002

(Amended by B/L 38M2003, 23M2008)  
**WHEREAS** pursuant to the Emergency Management Act, RSA 2000 c. E-6.8 the council of a municipality is required or authorized to establish committees to declare local emergencies, develop emergency plans and direct emergency response;

**NOW, THEREFORE, THE COUNCIL OF THE CITY OF CALGARY ENACTS AS FOLLOWS:**

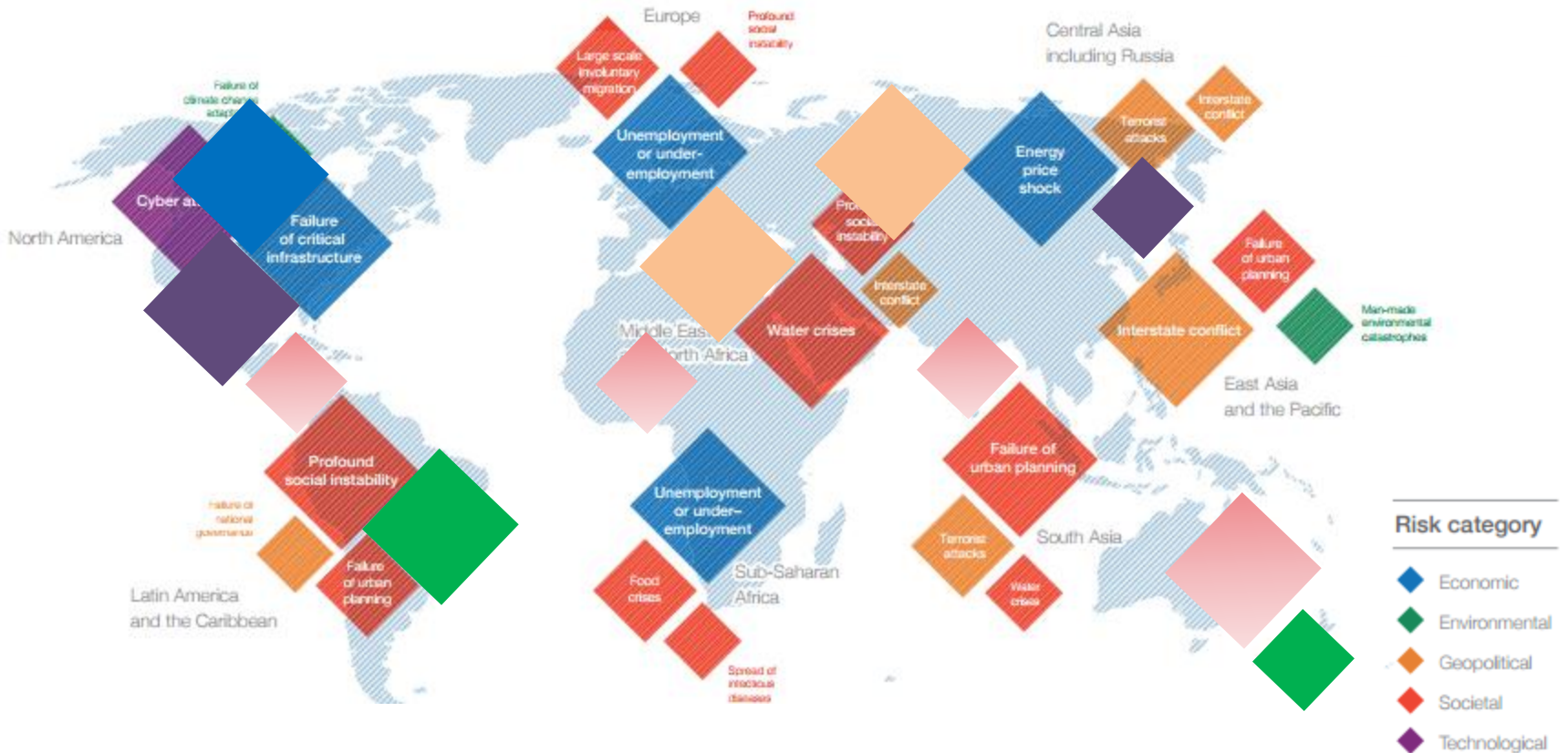
1. This Bylaw may be cited as the "Emergency Management Bylaw" (B/L 23M2008, 2008 April 14)
2. In this Bylaw:
  - (a) "Act" means the Emergency Management Act, RSA 2000 c. E-6.8 as amended from time to time, or any legislation substituted for it;
  - (b) "Agency" means the Calgary Emergency Management Agency established by this Bylaw;
  - (c) "City" means the corporation of the City of Calgary or the area contained within the boundaries of the City as the context may require;
  - (d) "Committee" means the Emergency Management Committee established by this Bylaw;
  - (e) "Council" means the council of the City;
  - (f) "Director" means the Director of the Agency;
  - (g) "Disaster" shall have the same meaning as given to it by the Act;
  - (h) "Emergency" shall have the same meaning as given to it by the Act.
3. **EMERGENCY MANAGEMENT COMMITTEE**
  - (1) There is hereby established a Emergency Management Committee.
  - (2) The Committee shall consist of all council members serving on the Standing Committee on Community and Protective Services of the City. (B/L 23M2008, 2008 April 14)





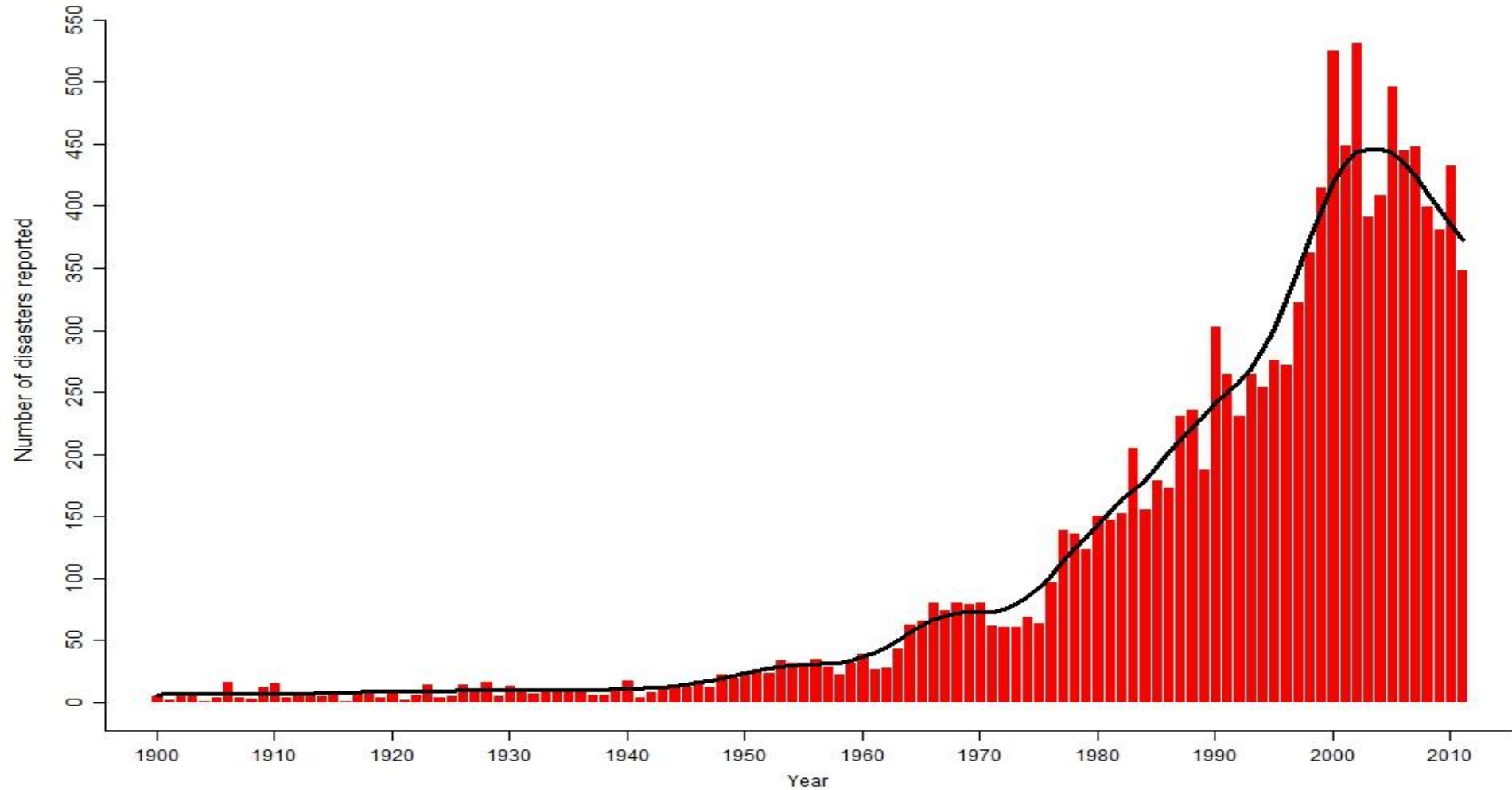


# Economic and political trends





Natural disasters reported 1900 - 2011







Windstorm



Hurricane



\$110 m.



# DRIVERS OF CHANGE AND THE FUTURE

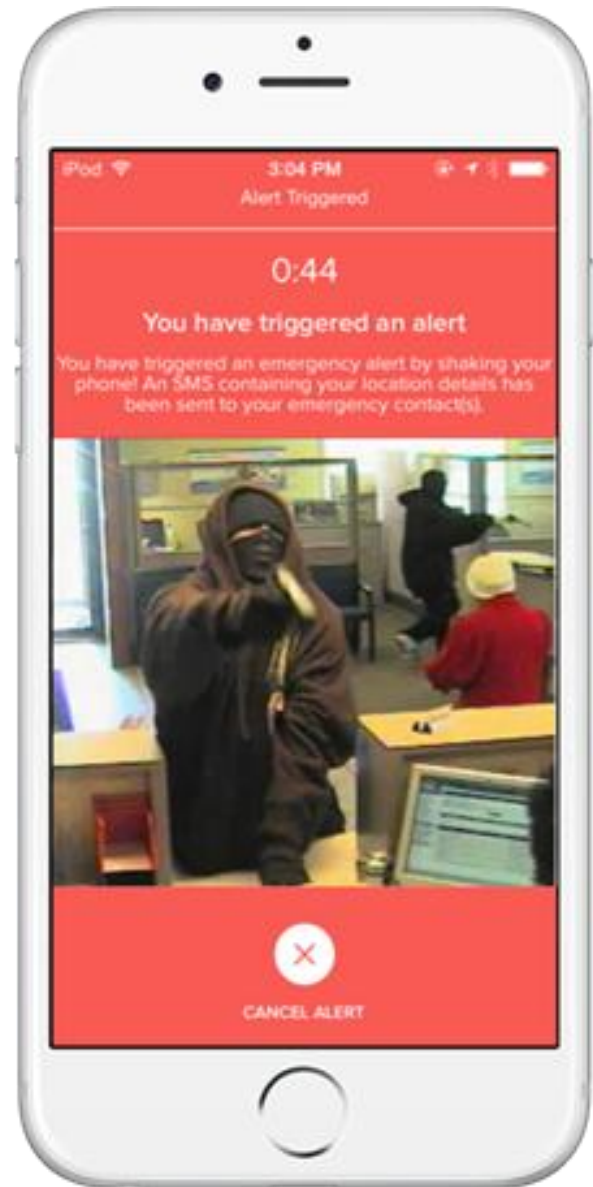
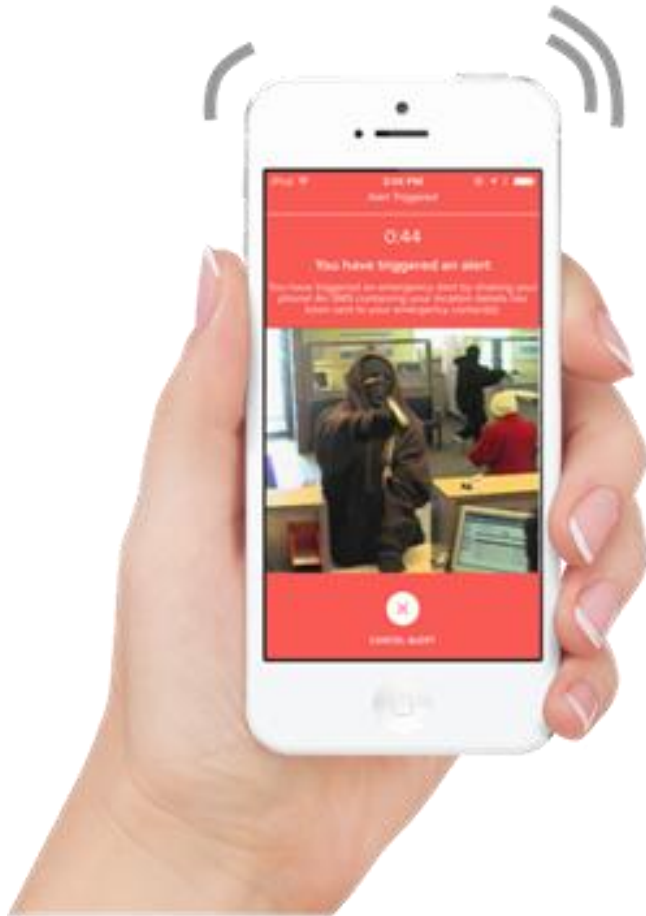


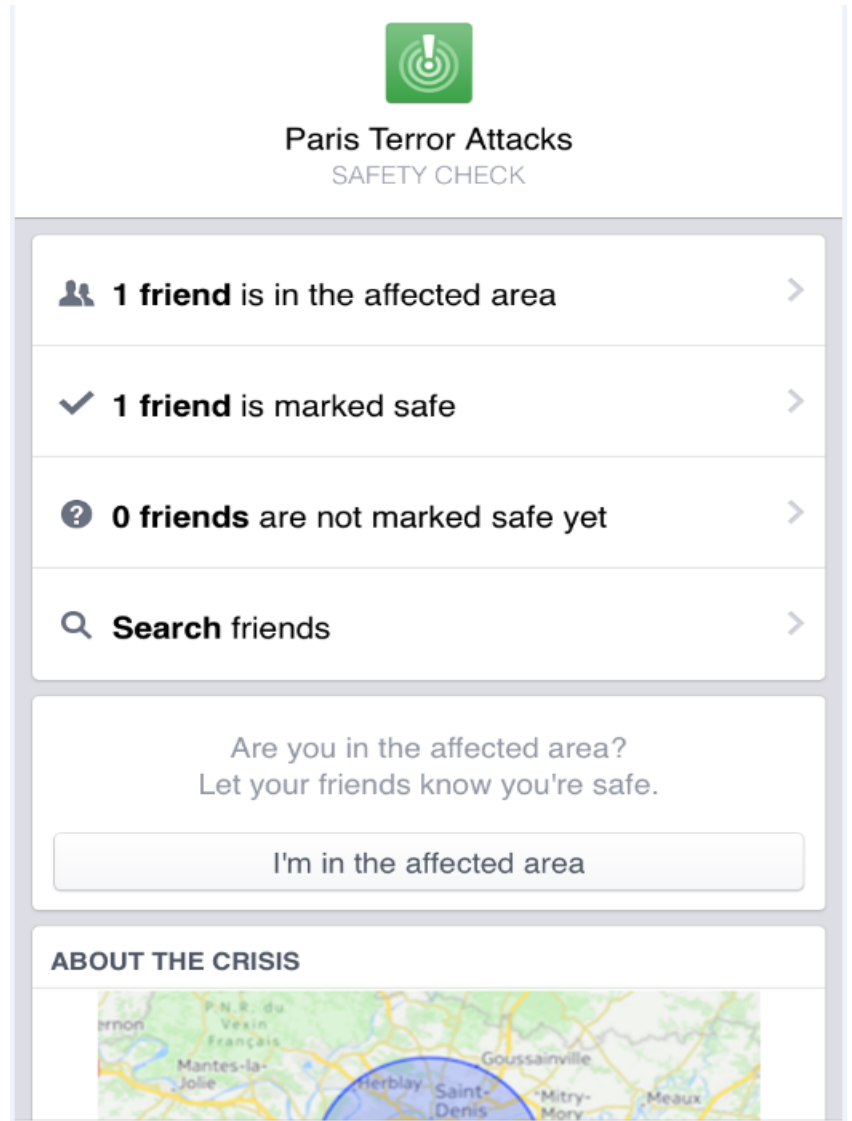
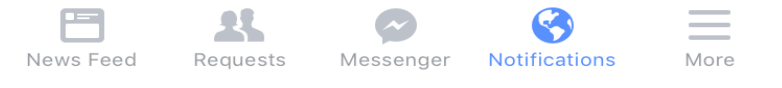
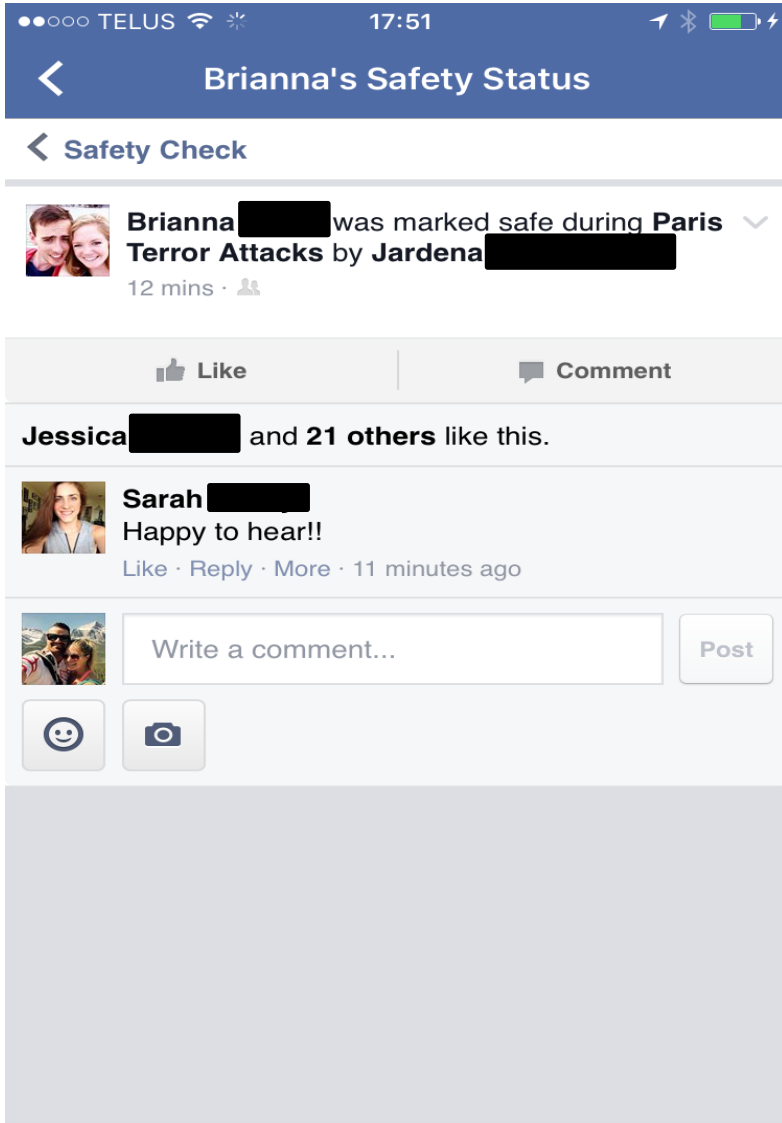
When a defining moment  
comes along,  
you define the moment,  
or the moment defines you.





# A connected world







## Alerts

- **Wildfire** 8m  
Kneehill County  
There is a serious fire which is affecting a community. Smoke may severely reduce visibility an...
- **Possible Tornado** 10m  
Central Alberta  
Doppler radar is tracking a rotating severe thunderstorm. This dangerous storm is likely produc...
- **Strong Winds** 3m  
Parts of Southern Alberta
- **High Water Level** 6m  
Parts of Southern Alberta
- **Water Quality** 9h  
Crossfield



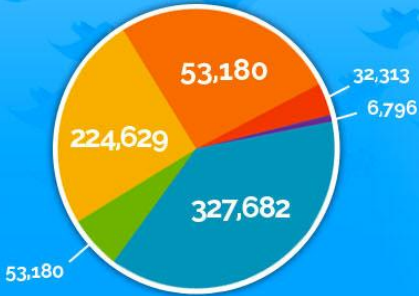




# Twitter

Most Popular Hashtags (# of Tweets)

Combined Amount of Tweets for the Six Most Popular Hashtags.



**857**  
Thousand

- #Calgary
- #ABFlood
- #YYC
- #YYCHelps
- #CalgaryFlood
- #YYCFlood

## Most Retweeted Users

City of Calgary @CityOfCalgary	Calgary Police @CalgaryPolice	Global Calgary @GlobalCalgary	Eric Francis @EricFrancis	Weather Network @WeatherNetwork



**70,757**  
Retweets



# facebook

The flood as it happened.



Start

**The Calgary Sun**  
June 20

There is flooding across southwestern Alberta, with mudslides in Banff and Kananaskis, overland flooding in Black Diamond and Canmore.

Homes in Canmore near Cougar Creek are being evacuated.

Photo courtesy Justin Parsons at the Canmore Leader

<http://www.calgarysun.com/2013/06/20/heavy-rain-in-banff-canmore-area-causes-flooding-forces-evacuations>

Like - Comment - Share

**Naheed Nenshi** shared a link.  
June 20

**STATE OF LOCAL EMERGENCY DECLARED**

Pursuant to Section 21 of the Emergency Management Act (R.S.A. 2000 Ch. D-13) and Section 4 of The City of Calgary Bylaw 25M2002, a State of Local Emergency (SOLE) has been declared in The City of Calgary ... See More

The City of Calgary - Flooding in Calgary  
calgary.ca

Like - Comment - Share

**Naheed Nenshi**  
June 20

**URGENT: EVACUATION PLAN - PLEASE SHARE**

If you live in the following communities, please evacuate now: Mission, Elbow Park, Stanley Park, Roxboro, Rideau and Discovery Ridge.

Here is the full release:

The City has declared a State of Local Emergency.

To address the safety and security of citizens in low-lying areas, mandatory evacuation orders have been issued for six communities along the Elbo... See More

Like - Comment - Share



2014 SEPTEMBER SNOW STORM & TREE DEBRIS CLEAN UP

THE **CLEAN-UP**

PITCH-IN, PICK-UP and PULL-TOGETHER



The City has **500,000 trees** in its inventory, each of which requires ongoing assessment and/or pruning.



**City landfills extend hours and waive tipping fees** for those bringing in clean tree debris.



The City opens **33 leaf and pumpkin recycling depots** – **two weeks earlier than usual** - to accommodate community tree debris.

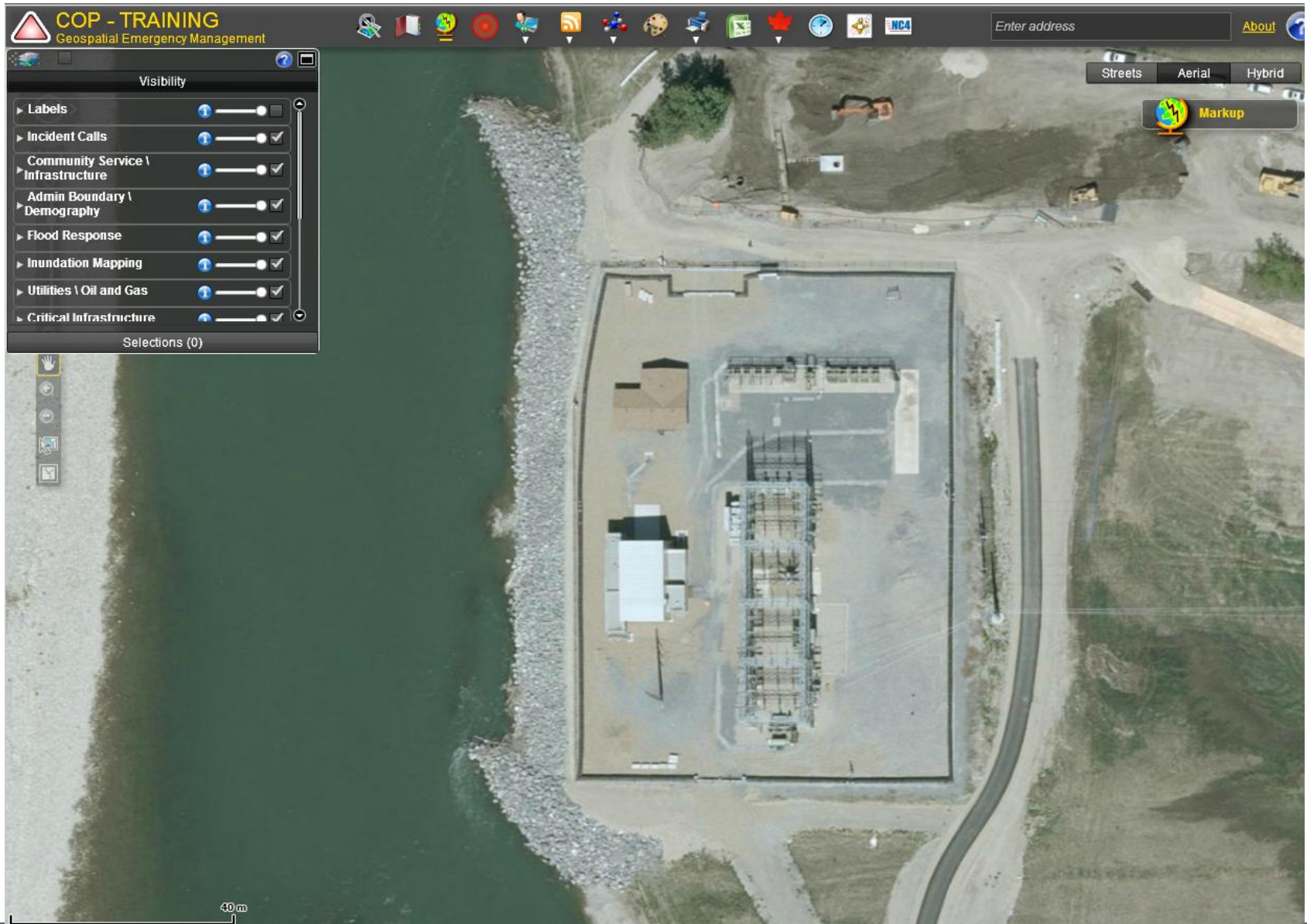


**10,000 loads** representing **5 million kgs** of tree debris has been collected in Calgary landfills alone.  
(as of Sept 17, that's enough tree debris to fill McMahon Stadium 3m high).





# The power of preplanning





# The power of preplanning







## Community Engagement

Emergency and disaster relief volunteers  
Organized volunteer groups  
Spontaneous volunteers

Engaging volunteer organizations and citizens  
in providing support and assistance following a  
disaster





Calgary



Community Engagement





Calgary



# Community Engagement









Calgary



# Community Engagement

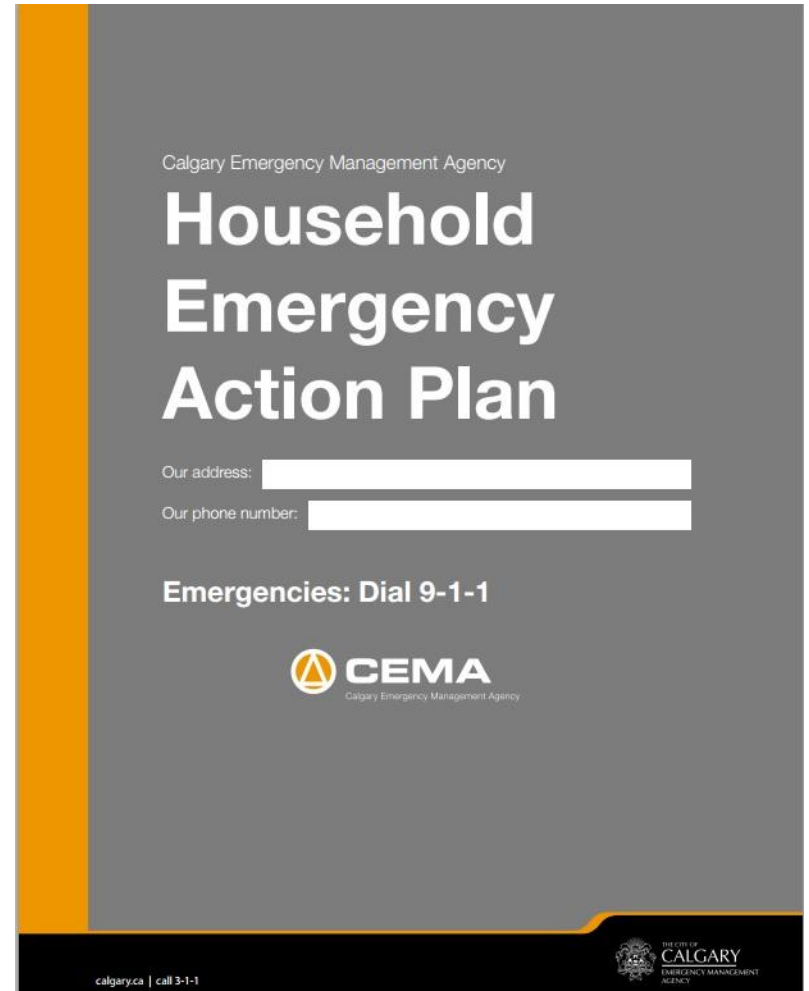




# Having our message heard

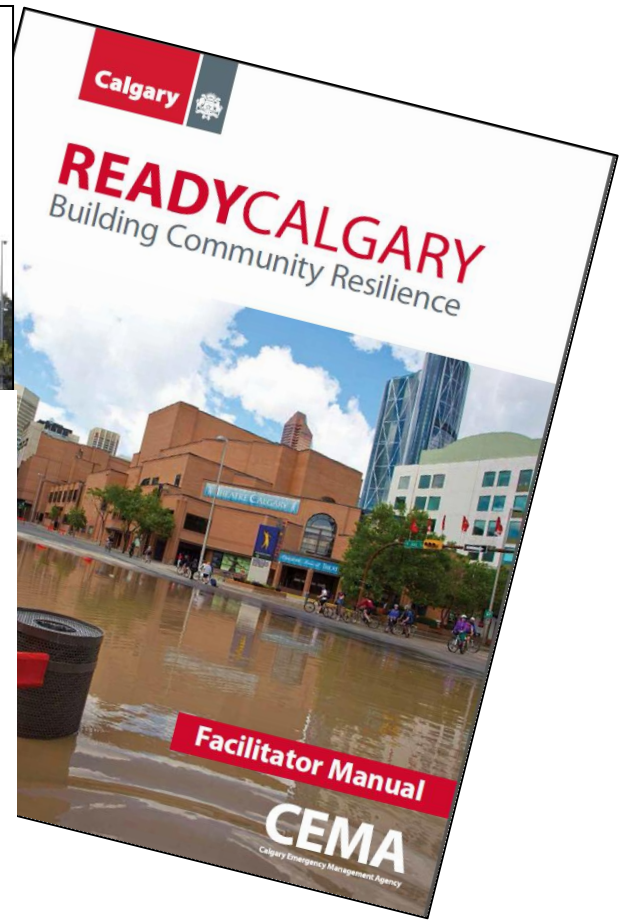


34% of  
Calgarians



48% of  
Calgarians





Calgary Emergency  
Management Agency  
READYCalgary Kids

Emergency  
Preparedness  
Teacher Guide



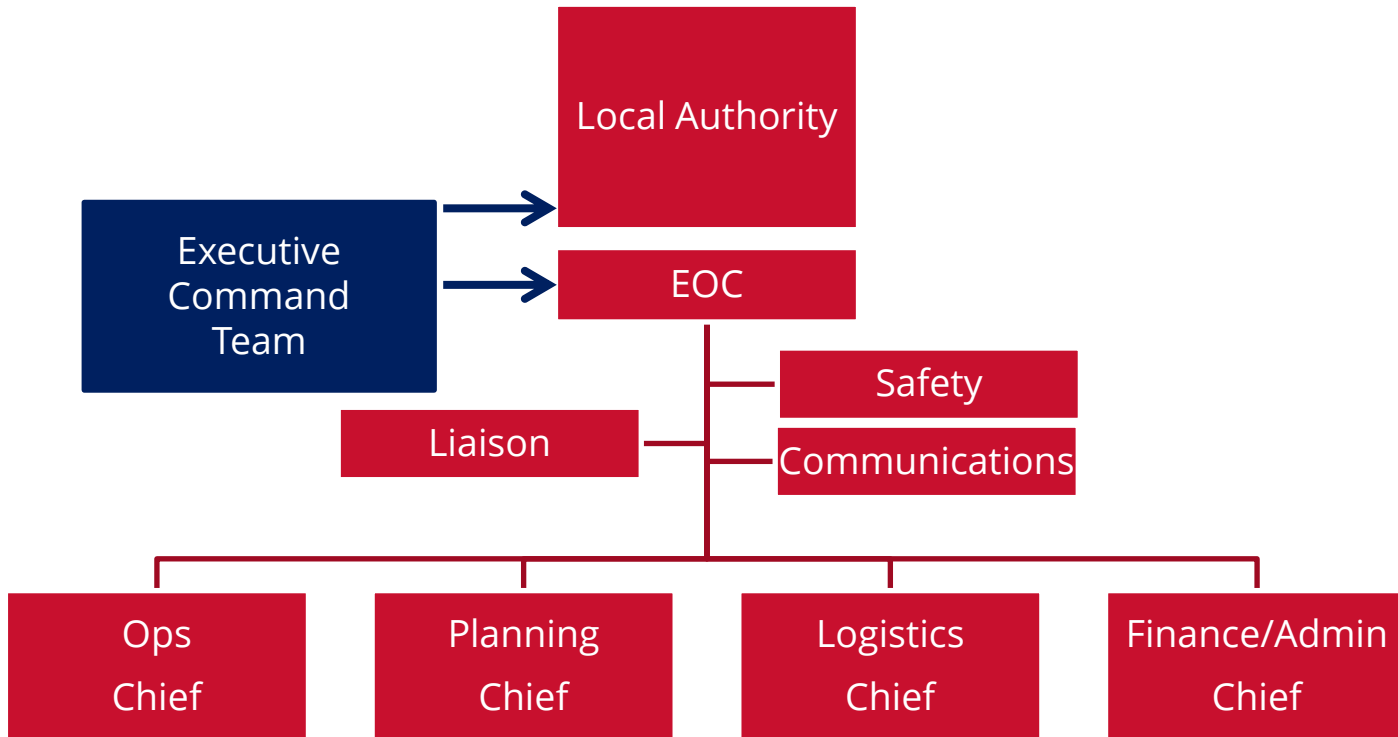


A rapid deployment, all-hazards disaster response team available to assist local authorities in large-scale emergencies and disasters.



- Experienced emergency managers
  - Multi-disciplinary
  - Incident Command System trained
- Future of Executive Command:
  - Steering Committee
  - Multi-jurisdictional
  - Common level of training







- Available immediately
- Trained and experienced with demonstrated successes
- Leverage existing resource investments
- Opportunities for participation by all municipalities







# Partnerships

**CEMA**  
Calgary Emergency Management Agency

Is your business prepared?

calgary.ca | contact 311

**THE CITY OF CALGARY**

**Onward!** CEMA creates a culture of preparedness through public education and events.







- I. Corner of the desk
- II. Candidates of tomorrow
- III. Tap into genius
- IV. Response focused
- V. No execution
- VI. Selling







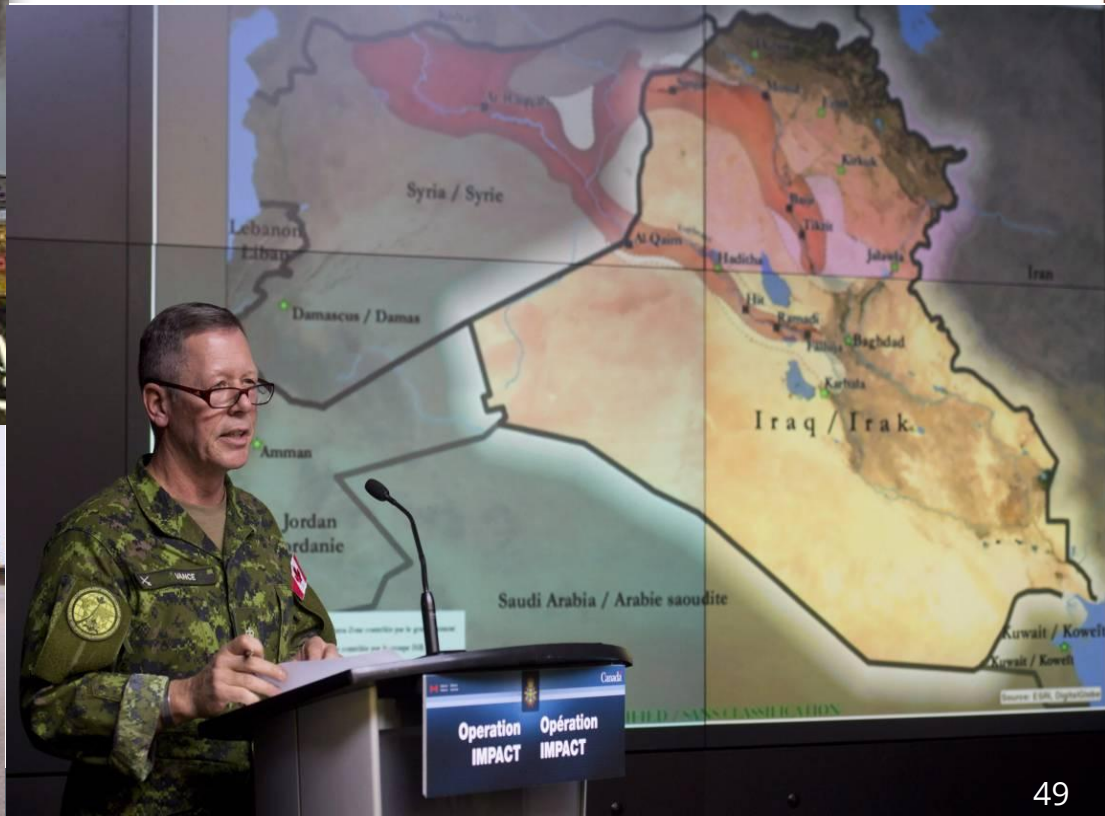
# Candidates of Tomorrow







## Master of Arts in Disaster and Emergency Management

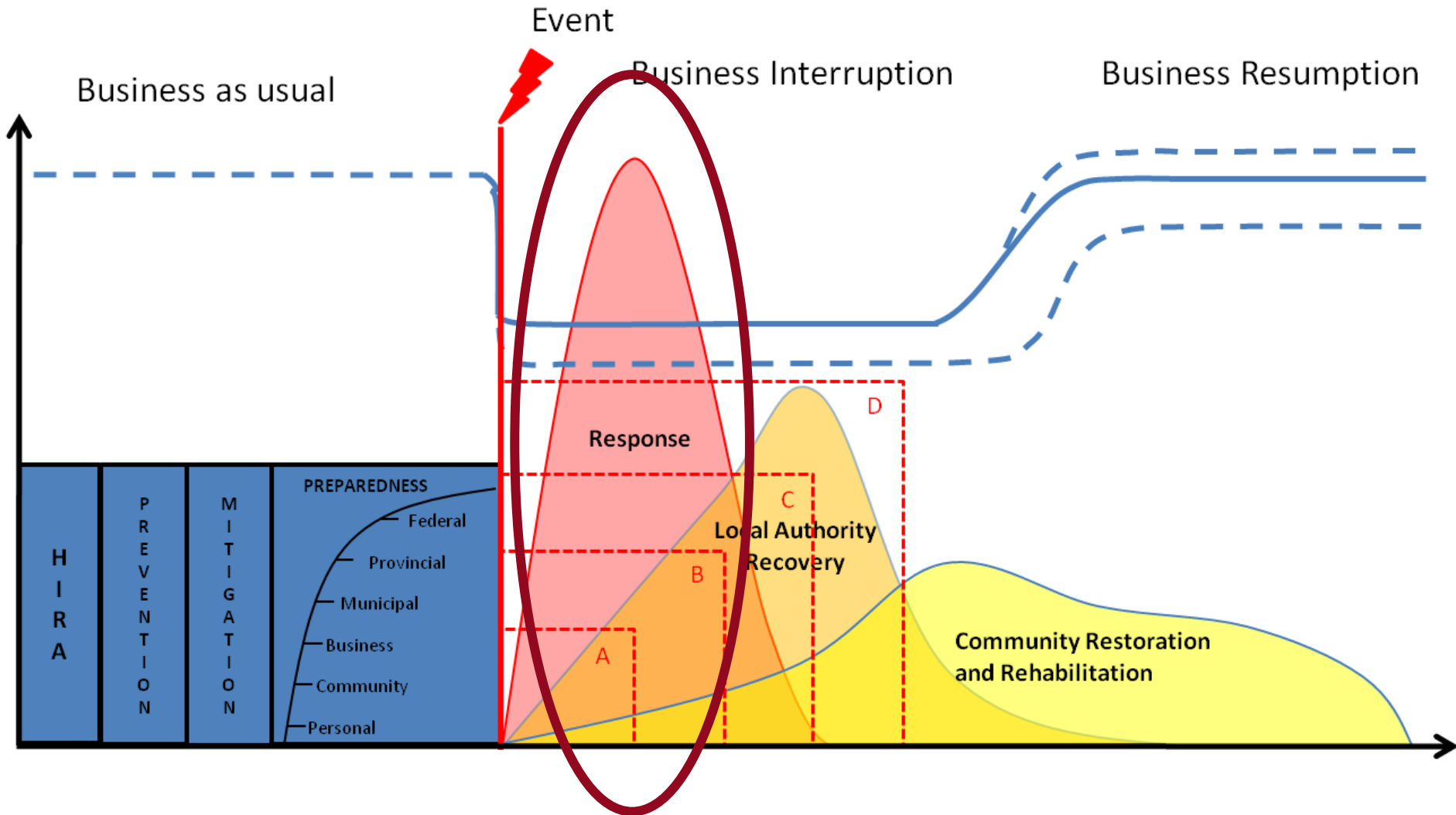








# Comprehensive EM Model - Response focussed









faster



Observe

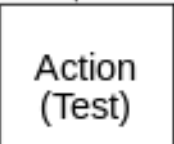
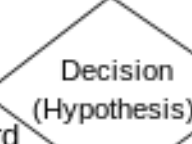
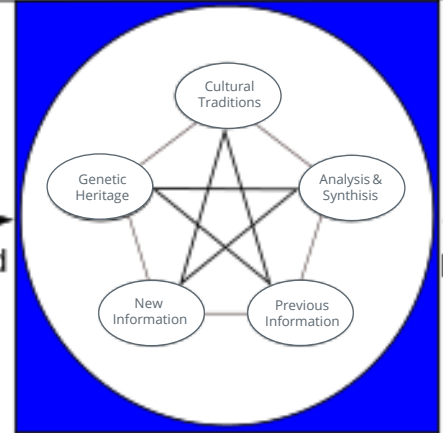
Orient

Decide

Act

Implicit  
Guidance  
& Control

Implicit  
Guidance  
& Control



Unfolding  
Circumstances

Outside  
Information

Unfolding  
Interaction  
With  
Environment

Feed  
Forward

Feed  
Forward

Feed  
Forward

Feedback  
Feedback  
Feedback

Unfolding  
Interaction  
With  
Environment

John Boyd's OODA Loop



and faster

Adapted from Wikipedia



# Selling the program









**The only thing that is  
constant is change.  
~ Heraclitus**



WE LOST SOME STUFF  
WE GAINED A COMMUNITY  
THANK YOU!







Comments or Questions?

