Effects of a blackout at telematics and other infrastructures

GAREC Zurich, 27.6.2013

Peter Wüthrich, COO Infrastructure
Swiss Federal Office for Civil Protection FOCP
Swiss Federal Office for Civil Protection

Introduction

alert
inform
communicate
Introduction

- alert
- inform
- communicate

GAREC Zurich, 27.6.2013
Swiss Federal Office for Civil Protection

Introduction

- alert
- inform
- communicate
Swiss Federal Office for Civil Protection

Introduction

alert

inform

communicate
Introduction

TOPICS

1. review of actual disasters
2. concepts and solutions
3. conclusion
electrical power outage
Swiss Federal Office for Civil Protection

Systems

KEY SUCCESS FACTORS

- High autonomous
- Crisis resistant

GAREC Zurich, 27.6.2013
Swiss Federal Office for Civil Protection

Partners

- Civil Leading Groups
- Police
- Civil Protection
- Border Guard
- Public Health Organisations
- Technical Services
- Fire Brigade
- Air Rescue

GAREC Zurich, 27.6.2013
Public GSM over loaded
Different events – same solutions

- Not planned events
- Planned events

Disaster +24h +48h dd,mm,yyyy

Swiss Federal Office for Civil Protection
GAREC Zurich, 27.6.2013
Phases during electrical power outage

Alert, information and telecommunication systems

Electrical power systems

1 2 3 4 5 6 7

time

performance

Swiss Federal Office for Civil Protection

GAREC Zurich, 27.6.2013
Swiss Federal Office for Civil Protection

Preparations

ADJUSTMENTS

providers

government

TRAINING

population

emergency forces

INFORMATION

population

authorities
several applications on one network
reduce costs
Swiss Federal Office for Civil Protection

how to reach people?

LOCATION

day

night

at home

en route

abroad
Swiss Federal Office for Civil Protection

electrical features

- base station & networks
- power stations
- local emergency power
- rechargeable battery pack

AUTONOMY

terminals

GAREC Zurich, 27.6.2013
Switzerland

Swiss Secure Radio Network

alerting system

TELEMATIC SYSTEMS

sirens of general- and water alert

reach public radio receivers

used 7x24 by emergency forces

information system

Swiss

GAREC Zurich, 27.6.2013
Swiss Federal Office for Civil Protection
Swiss Secure Radio Network (POLYCOM)

MODES OF OPERATION

infrastructure (normally)
Swiss Secure Radio Network (POLYCOM)

MODES OF OPERATION

repeater
(fallback)

digital Repeater
Swiss Secure Radio Network (POLYCOM)

MODES OF OPERATION

terminal to terminal (fallback)
Conclusion

Swiss secure radio network

POWER OUTAGE, CRISIS

increase autonomy

alert- & information systems

good experience 7x24

real test still pending

concepts & solutions available

financed by public money
to work reliable all the time

Swiss Federal Office for Civil Protection