

# Risk Communication and Space Weather 2012

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# Defining “risk communication”

“the probability of an event occurring, or the likelihood of a hazard happening”

-Presidential/Congressional Commission  
on Risk Assessment and Risk Management

” *an interactive process of exchange of information and opinion among individuals, groups and institutions*” including “discussion about risk types and levels and about methods for managing risks.” *National Research Council*

# Will People Respond to Risk Communication?

(In Phillips, Neal, Webb 2011; *based on* Tierney et al.2001)

“Low salience of disaster in most people’s lives.” Kathleen Tierney, Director, Natural Hazards Center UC Boulder in *Facing the Unexpected*.

● Household Characteristics

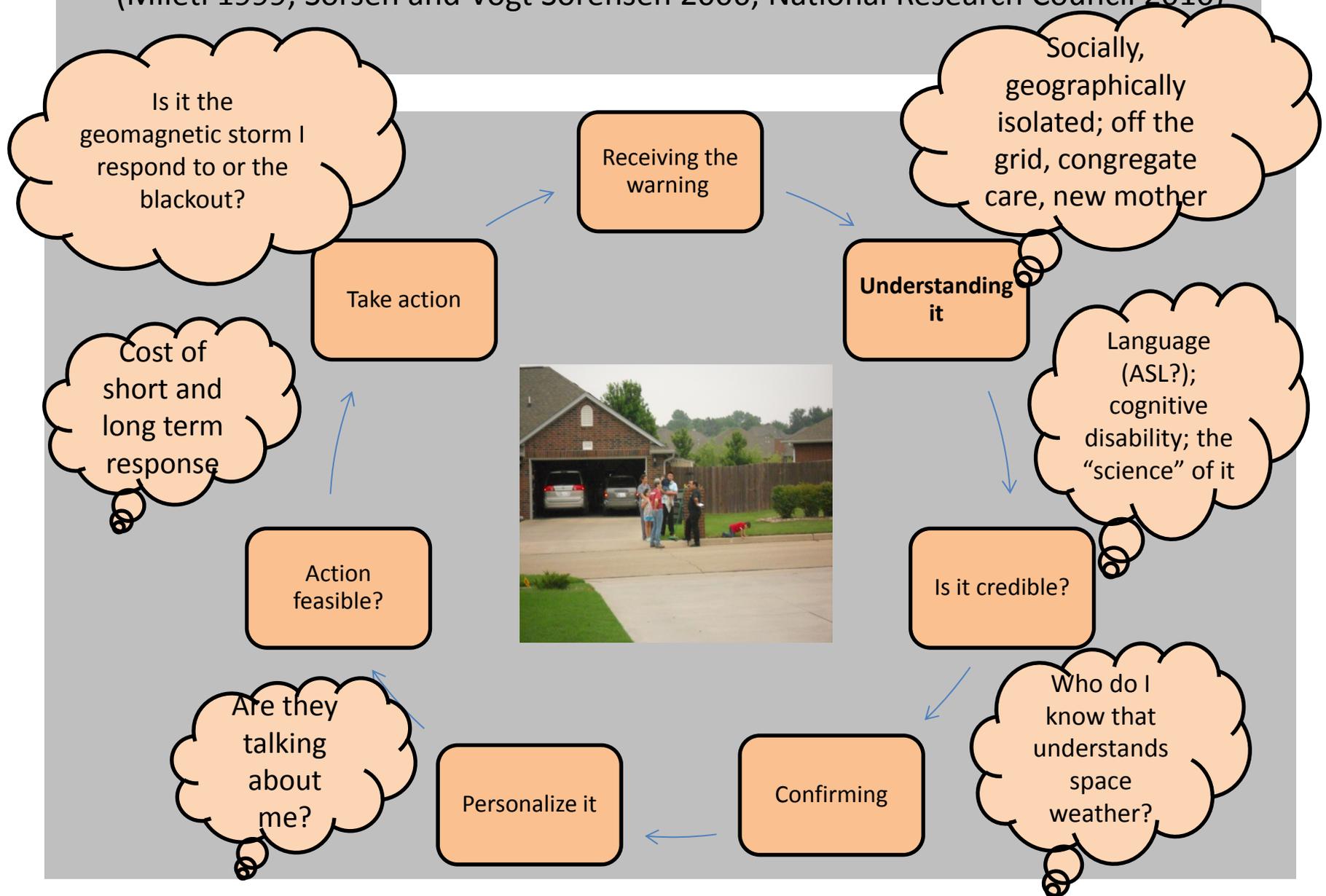
(e.g., presence of children)

● Hazard Awareness and Risk Perception

● Previous Disaster Experience

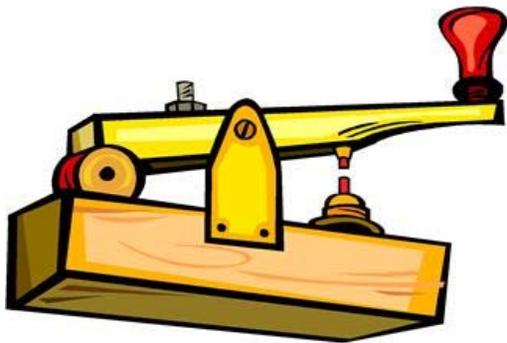
# Steps in Responding

(Mileti 1999; Sorsen and Vogt Sorensen 2006; National Research Council 2010)



# Risk Communication is a Process

- RC is a process that involves joint effects of source and message characteristics
- We have to pay attention to three key parts:
  - Message
  - Sender
  - Receiver



Source: Tierney et al. *Facing the Unexpected*

# Messages

- Base it on what people know: on previous disasters, like blackouts, power outages
- User-friendly materials
  - A big blob of sun? Show the *human* impact and *effects*!
- Use familiar terms – watch, warning
- Specificity
- Personalized with possible action to take
- *Redundant and diversified* (including social media!)

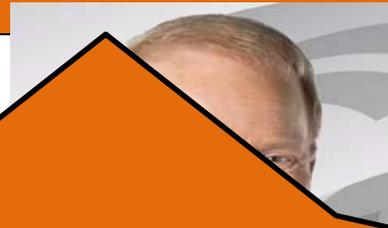


# Space Weather in the context of daily life

**It's not something you see everyday. But, it certainly is cool.** According to The Space Weather Prediction Center, a dramatic eruption, known as a Geomagnetic Storm, occurred earlier today on the sun that is expected to impact us earthlings by Wednesday beginning as early as the lunch time hour. The “disturbance” is hauling at a speed of 3.1 million mph.... This means that there is a **good chance that we could experience a small disruption in radio and radar** as well as in magnetic compasses and the possibility of seeing the “Northern Lights” at much lower latitudes.....**Either or, grab a blanket..cause this is gonna be cool. (OK, bad joke there).** (KOCO TV, OKC,facebook page linked to weatherblog, June 7, 2011)



# Senders



Gary England,  
News 9, OKC

***Social Confirmation:***

***Family  
Friends***

***People We Know***

Involve people that people relate to:  
Heisman Award Winner Mark  
Ingram helps the Alabama EMA.



Jim Davis,  
Pittsylvania  
County, VA,  
EM

***Competent, Objective, Consistent, Honest, Trustworthy, Familiar***

# Receivers: Use Social Networks

- **Key partners**
  - Family, social networks, agencies, VOADs, CERTs
  - Emergency managers
  - Weather “family”
- **People’s daily lives**
  - Social media – where’s the facebook page? Blogs for specific user groups
  - Events – Grandparents’ day, Cinco de Mayo
  - Grocery store “recycle” bags
  - PSA’s – Spanish language stations; Schools
  - Home health agencies
  - Sci Fi Channel – why not?



Top, FEMA MOU with NVOADs; Bottom, Alabama post disaster meeting in a local church (FEMA/Tim Burkitt).