

Evacuation/Decision Making



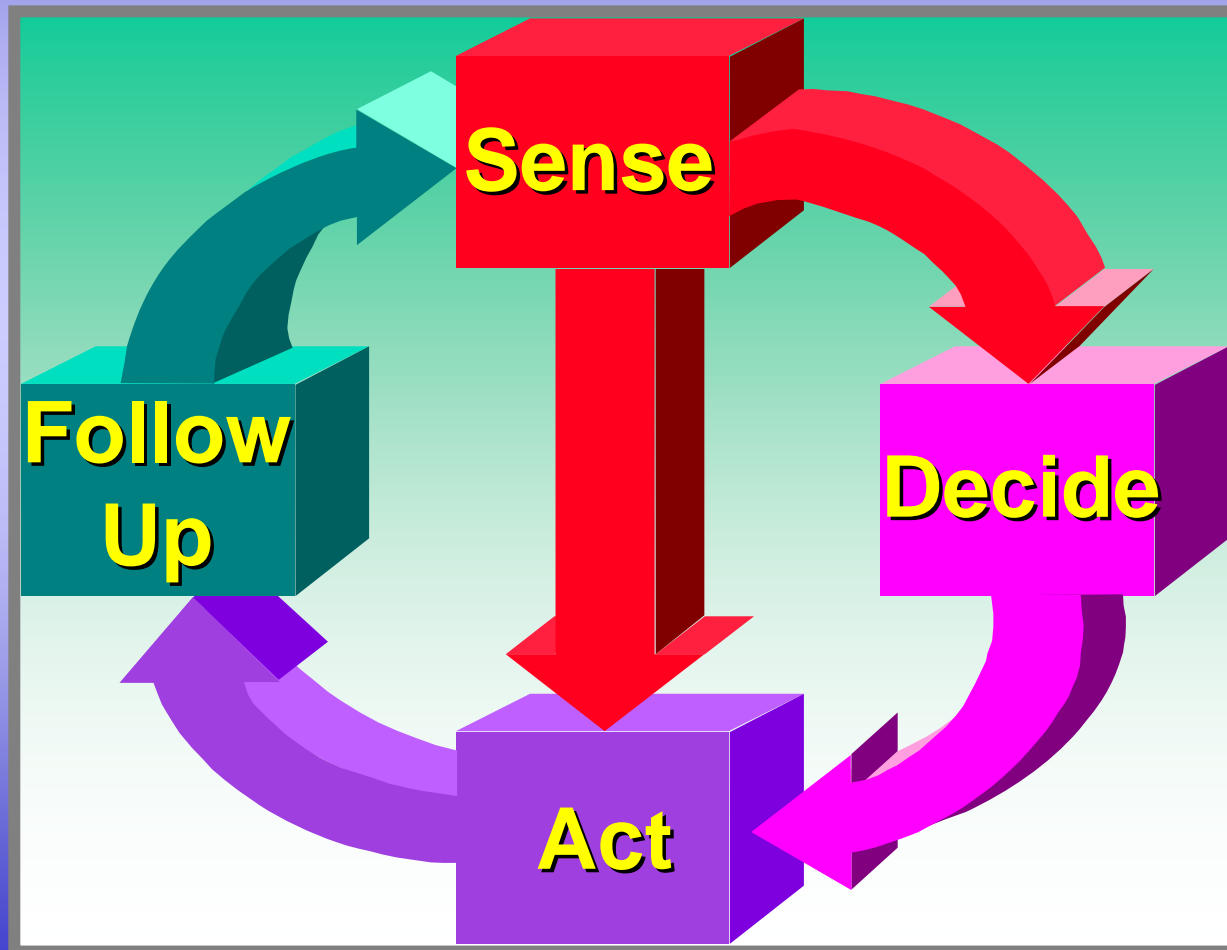


Training Session Speakers

- **The NHC Forecast Process and Products**
 - *Jack Bevin, National Hurricane Center*
- **Storm Surge Overview**
 - *Jamie Rhome, National Hurricane Center*
- **Evacuation Decision Making – A Quantitative Approach**
 - *Bob Collins, Post Buckley, Schuh and Jernigan*
- **Decision Maker's Risk Taking Preferences**
 - *John Wilson, Lee County Public Safety*



Basics of Emergency Decision Making



Factors Influencing Decision Making

- **Time**
- **Experience**
- **Awareness of Situation**
- **Resources Available**
- **Training**

Risk Taking Influences Affecting Decision Making

- **Beliefs, values, assumptions**
- **Organizational Structure**
- **Decision complexity**
- **How change happens**
- **Role in decision making process**
- **Decision Making Style**

Ability to Influence Risk Taking/Decision Making

- **Reduce certainty of making an “unsafe” decision**
- **Communication skills**
 - **Can you hear me?**
 - **My decision or a group decision?**
- **Influence type**

Reduce certainty of unsafe decision

Factors to Consider

- Evacuate for one threat scenario higher than forecast
- Redefining hazard risk/evacuation zones (South Florida)
- Vary % Rate Evacuating by:
 - Storm Track (Perception of Risk)
 - Evacuation Recommendation/Order

Reduce certainty of unsafe decision

Influencing Factors to consider

- Evacuate for one threat scenario higher than forecast
- Redefining hazard risk/evacuation zones
- Vary % Rate Evacuating by:
 - Storm Track (Perception of Risk)
 - Evacuation Recommendation/Order
- Vehicle Usage (number & trip length)
- Traffic management (reverse laning, traffic redirection)
- Use shelters in threatened areas (multi-story)
- Stop evacuation movements at 50 knot winds vs. 34 knot winds

Risk Taking Preferences

What do you do if you blow the call!

- Willingness to move people laterally short distances (based on better track forecast accuracy)
- Willingness to move people upward one or two floors:

Adapt Communication Style/Management Approach

- **Observe (normal & stressful situations)**
- **Self Examination**



To Improve Influence...

HAZARD/RESPONSE

SCENARIO

Category 1

Category 2

Category 3

Category 4/5

ESTIMATED TIME

TO EVACUATE

9 – 15 Hours

14– 17 Hours

18 – 25 Hours

19 – 29 Hours

Hurricane Forecast Probabilities

<u>THEORETICAL MAXIMUM</u>	<u>HOURS AWAY*</u>	<u>MISS/HIT RATIO</u>
10 – 15%	72	9-6 to 1
20 – 25%	48	5-4 to 1
25 - 35%	36	4-3 to 1
40 – 50%	24	2-1 to 1
75 – 85%	12	3/4 to 1

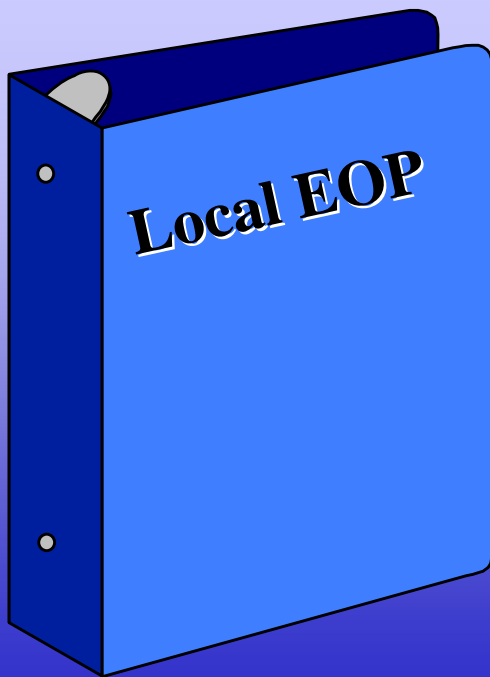
* Hours Before Eye is Forecast to Pass Within 65 Miles of Location

To Improve Influence...

- **Brief Decision Makers**
- **Improves their understanding**
- **Moves toward interpersonal influence**
- **Identify style for making evacuation recommendation**

Process to Implement Decision

- Legal Mechanism
- Planning Information
- Emergency Operations Plan
- Response Procedures (script)
- Real Time Considerations



Preparatory stage	<ul style="list-style-type: none"> • Review hurricane plans • Check equipment and supplies • Make informal contacts with agencies
Awareness stage Eye forecast 69 hours away	<ul style="list-style-type: none"> • Activate the EOC on a limited basis • Determine current population at risk • Continue to disseminate public information periodically • Periodically update shelter personnel and other emergency response agencies • All agencies review plans and procedures
Standby stage Eye forecast 60 hours away	<ul style="list-style-type: none"> • Continue to notify appropriate agencies • Contact the Department of Transportation to stop road construction projects • Advise all agencies check resources and staff • Coordinate with special institutions • Confirm shelter arrangements • Coordinate with inland and adjacent communities
Decision stage Eye forecast 48 hours away	<ul style="list-style-type: none"> • Decide to prepare for evacuation • Partially activate the EOC • Brief agencies and officials (pre-mobilization) • Complete equipment checks • Continue updating media • Place emergency staff on final alert • Make final arrangements for staging
Preparation stage Eye forecast 41 hours away	<ul style="list-style-type: none"> • Fully activate the EOC • Mobilize many resources • Prepare to open shelters • Start documenting expenses • Verify resources and staffing prior to opening shelters • Make public service announcements



Response Motivation - By Generation?

Generation	Birth Years	Age Bracket
Veterans	1922-1942	67-87
Baby Boomers	1943-1960	49-66
Generation X	1961-1980	29-48
Generation Y	1981-2000	9-28

Veterans

Overall	Loyal, believe in "Chain of Command"
Value...	Security, conformity
Traits....	Resist quick changes, respond to direction
Motivated by...	Security, personal touch

Baby Boomers

Overall	Self absorbed, Change Command
Value...	Possessions, immediate gratification
Traits....	"Don't trust anyone over 30"
Motivated by...	Recognition, appreciation, personal touch

Gen X

Overall	Skeptical, Self Command
Value...	Self reliance, pragmatic
Traits....	Give me bottom line, rely on friends
Motivated by...	Clearly stated goals, access to information

Gen Y

Overall	Realistic, Collaborate rather than Command,
Value...	Team work
Traits....	Lighten up!
Motivated by...	Being part of the decision

Evacuation Decision Making Process

