



Quantifying Uncertainty of Transport and Dispersion Models for Non-Technical Users

Al Mongeon

July 14, 2010



- Problem –
 - “Emergency Responders do NOT want ATD model predictions couched in terms of mathematical measures of uncertainty or highly technical statements about probability.”
(“Federal Research and Development Needs and Priorities for Atmospheric Transport and Dispersion Modeling”, FCM-R23-2004, Wash DC, September 2004)



User Requirements



- Worst case
- Timely
- Concise
- Consistent





Courses of Action



- Courses of action
 - Worst case
 - Areas safely out of danger
 - Thresholds of interest
- Limiting factors
 - Time
 - Availability of SME's





Background



- Many users are aware of uncertainties
- Most users understand limitations of modeling
- Recent Federal efforts



Suggested COA



- Education
 - Users
 - Modelers
- Combine efforts
 - Joint working groups
 - Users
 - Providers
 - Reachback