Storm Data Modernization Overview Webinar

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About Today's Webinar

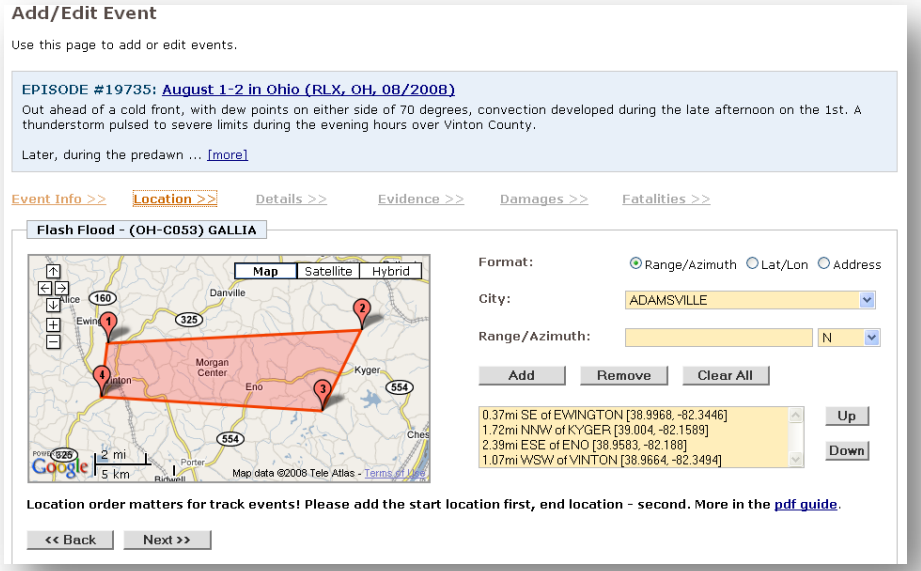
- Everyone except the presenter will be muted
- Use the questions feature of the Webinar software to ask questions
- I will try my best to answer all questions at the end of the Webinar
- Webinar will be recorded and made available on Performance Management website

Topics To Discuss

- Storm Data: Where We Are Today
- NWS Headquarters Re-organization
  - Performance and Evaluation Branch
- Reinvestment in Storm Data
- Storm Data Requirements
  - Data Entry
  - Layers to Overlay
  - Database and Output

Storm Data: Where We Are Today

- Current Version of StormDat
  - Web-based application
  - Developed in 2006
  - Uses Google Maps
  - Fails to meet needs of Storm Data Focal Points, as well as storm events database users



Current Storm Data Deficiencies

- Event Entry (Storm Data Focal Points)
  - Small mapping interface (429px x 244px)
  - Lack of county and CWA boundary overlays
  - Convective events crossing county boundaries must be broken up into county-based segments
  - Entry of zone-based events is difficult and repetitive
  - Limited to two points for a storm swath or eight points for a flood area
  - Inability to import events from DAT program

Current Storm Data Deficiencies

- Database (Users of Events Database)
  - Output is only in CSV format
  - Difficult to determine when events are updated
  - Storm tracks are not representative of the area in which the event occurred
  - NWS constantly changes zone configuration leading to inability to create climatology for zone-based events

NWS Headquarters Re-organization

- Re-organization took place on April 1, 2015
- Performance Branch is now "Performance and Evaluation Branch"
- Work for Office of Chief Operating Officer (COO)
  - Meeting took place with COO on April 2nd regarding a modernized performance management plan
  - Updating Storm Data collection is #1 priority
    - This is the cornerstone to being able to support high-impact verification

Reinvestment in Storm Data

- In order to support high-impact verification, management realizes the StormDat program needs to be modernized
- Plan is to hire a GIS-experienced developer to overhaul the StormDat program
- Development scheduled to begin in Q1-FY16 and take approximately one year

Storm Data Requirements

- Requirements have been actively gathered since the last Storm Data Users Meeting in April 2010
  - Field office visits
  - Troubleshooting and answering SDFP questions
  - Talking to external partners
- Requirements and specifications document will be written and reviewed in Summer 2015

Data Entry Requirements

- High resolution convective weather events
  - Using entry of events similar to DAT program
  - Damage/fatality/injury information along track
  - Width and intensity along track
  - Photo evidence along track
  - No need to break events up into county-based segments
  - Source of estimates for event magnitude

Data Entry Requirements

- No need to break up events spanning two or more months.
  - Events like Drought can be labeled as ongoing
- Users will draw impacted area for non-convective events.
  - No need to break up into zone-based segments
  - Great for events like winter storm and high wind which impact a large area

Data Entry Requirements

- Storm system type for convective events
  - Pulse, super cell, etc.
- Multiple source types
  - Program currently only allows for the entry of a single source

Data Entry Requirements

- Ability to add additional evidence such as radar estimates of EF-scale
- Higher resolution lat/lon values
  - Currently lat/lons limited to two values past the decimal point (e.g., 45.73, -90.23)
- Event simplification
  - High Wind and Strong Winds combined
  - Remove "Marine" prefix from events over water

Layer Overlay Requirements

- Standard GIS layers (e.g., counties, cities, roads)
- Tracks from DAT program
- Local Storm Reports (LSR)
- Radar
- Satellite
- Rotation Track product
- MESH product
- Local Spotter Databases

Back End of Database

- Microsoft SQL Server 2014
- GIS-based entries
- KMZ and shapefiles available for download
- Ability to output data in legacy format
- METADATA added

Additional Requirements

- What else are we missing?
- How can we better log data to meet your needs and uses?
- Email us at: Brent.MacAloney@noaa.gov