



MINUTES OF MEETING
Northern and Southern NCC TMT Meeting
May 2, 2005
Delaware City Fire Hall



Date: May 13, 2005
Meeting Date: May 2, 2005
Location: Delaware City Fire Hall
Purpose: Northern and Southern NCC Transportation Management Team (TMT) Meeting

List of Meeting Attendees:
See Attached Sheets

I. Opening Remarks

Gene Donaldson (DelDOT TMC) opened the meeting with a brief introduction and thanked Glenn Gillespie (DEMA) and Dave Carpenter (NCC OEM) for arranging the presentation and dinner. Jamie Turner (DEMA) introduced the presenter: Mr. Joe Miketta, Warning Coordination Meteorologist, of the National Weather Service - Mt. Holly, NJ.

II. Tropical Systems Presentation

Mr. Miketta began the presentation with an overview of the Weather Forecast Office in Mount Holly and the various tools and devices that NOAA uses to monitor weather. Joe referred to the Delaware Environmental Observing System (DEOS) website as a valuable resource (www.deos.udel.edu).

Mr. Miketta next discussed the various classifications of tropical storm systems and highlighted several important features.

- Tropical Depression – organized system with max sustained winds of 38 mph
- Tropical Storm – organized system with sustained winds between 39 and 73 mph
- Hurricane – organized system with sustained winds greater than 74 mph
 - Category 1 – 74 to 95 mph
 - Category 2 – 96 to 110 mph
 - Category 3 – 111 to 130 mph
 - Category 4 – 131 to 155 mph
 - Category 5 – greater than 156 mph
- Hurricane forecasts are for sustained winds – gusts are even stronger
- Water – the fuel for Tropical Systems

Joe explained the concept of storm surges, which is the rising of the sea level (not just large waves), and he emphasized the dangerous relationship between storm surges and inland flooding. As an example, Mr. Miketta presented the depth mapping of the storm surge that affected the Chesapeake Bay region during Hurricane Isabel. He also presented the storm surge maps for New Castle and Kent Counties developed by the Army Corps of Engineers for different category hurricanes. The majority of deaths during tropical systems are from inland flooding.

Mr. Miketta briefly discussed how tornados can develop in advance of tropical storms, and he presented photographs and wind speed graphics from the Wilmington Manor tornado in September 2004.



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Next, Joe presented several maps showing a historical perspective and the upcoming hurricane forecast for Delaware. Mr. Miketta stated that although hurricane landfall in Delaware is rare, the area is long overdue for a severe storm.

- Only one hurricane has passed within 25 miles of Delaware in the last 154 years – Hurricane Hazel (1954).
- Tropical storms affecting Delaware often occur (and have a higher probability to occur) in September and October because of the higher ocean temperatures.
- Hurricanes rarely hit north of Cape Hatteras because:
 - Most storms move northeast after latitude 35N
 - Cold water in the north weakens hurricanes
- However, some hurricanes approach from the south:
 - Over-the-water approach
 - Strong and long-lived storms coming from the deep tropics
 - Normally move faster (less time for cold water to weaken them)

Joe Miketta concluded the Tropical Systems presentation by telling the group to be prepared.

- Although they can be predicted, no one can stop the storms.
- Have a plan for bad weather
- Stay informed – monitor the weather by:
 - TV
 - Radio
 - Phone (609) 261-6600
 - Internet at www.nes.noaa.gov.er/phi
- Heed local law enforcement and emergency management officials
- Protect yourself

III. Tsunamis Presentation

Mr. Miketta began the presentation with several definitions and a basic overview of tsunamis.

- “Tsunami” is Japanese meaning “harbor wave”
- What is a Tsunami?
 - A series of waves of extremely long wavelength and long period generated in a body of water by an impulsive disturbance that displaces the water.
 - Even small tsunamis (water height of less than 3 feet) are associated with very strong currents capable of knocking people off their feet.
 - Tsunami waves can persist for many hours after the causative event.
 - NOT tidal waves...they have nothing to do with the tides!
- Difference between wind waves and tsunamis
 - Wind waves space between 5 to 20 seconds and have lengths up to 300 to 600 feet.
 - Tsunami waves space between 10 minutes to 2 hours and can have lengths greater than 300 miles.
- Possible causes of tsunamis
 - Undersea earthquake
 - Landslides (into or under the water)
 - Submarine volcanic activity
 - Oceanic Meteorite Impacts



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Joe presented several graphics that illustrated how tsunamis are created and what happens when tsunamis approach the coast.

- A tsunami may appear as a rapidly rising or falling tide, a series of breaking waves, or even a bore.
- Strong currents and debris carried by waves add to destructive nature of inundating flood.

Mr. Miketta briefly touched on the potential sources for tsunamis affecting Delaware. He stated that a disturbance off the Africa coast could lead to tsunamis impacting the US East Coast within 8-10 hours. Joe also provided a list of tsunami damage to the US West Coast over the past 200 years.

Next, Mr. Miketta presented photographs and video of the destruction from the Sumatra tsunamis on December 26, 2004. He pointed out that many of the people killed actually approached the ocean in amazement because of the extremely low sea level that preceded the tsunamis. He also presented a simulation showing how the energy from the Sumatra event impacted all of the continents.

Mr. Miketta concluded his presentation by discussing tsunami warning and detection. He displayed a map of proposed DART buoy locations in the Pacific and Atlantic Oceans, and he discussed public information dissemination through the US Coast Guard, National Weather Service, and commercial television and radio.

Mr. Miketta's takeaway points:

- Tsunamis impact the coastal zone.
- Coastal growth continues at a rapid pace. Vulnerability is increasing.
- There is/will be a National Tsunami Warning System for the Atlantic Basin.
- Probability-based forecasts for future tsunamis are not possible.
- Tsunamis will occur – although very rarely.
- The goal is to reduce loss of life from tsunamis.
- Leveraging existing program resources in all-hazards approach will save time, effort, and money.
- It is cheaper to anticipate than respond.
- Education and planning will help mitigate impact.
- For more information visit:
 - www.nws.noaa.gov/er/phi/reports/tsunami.htm or
 - <http://wcatwc.arh.noaa.gov>

IV. Next Meeting

The local TMT meetings will continue again in June.

- **N. NCC TMT meeting - June 6, 7:00pm at the DE Fire School in New Castle**
- **S. NCC TMT meeting - June 14, 7:00pm at the Townsend Fire Company**

Any questions or concerns can be directed to Joe Miketta at Joseph.Miketta@noaa.gov or (609) 261-6602. Additionally, Edwards and Kelcey is providing consulting support and helping assist DelDOT in coordinating the TMT efforts. Matt Buckley and Mike Domboski can be reached at mbuckley@ekmail.com / (610) 701-7000 and mdomboski@ekmail.com / (610) 701-7000, respectively.



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Alexander	Mark	DeIDOT Canal District	mark.alexander@state.de.us
Alfree	Larry	Civil Air Patrol	rlalfree@aol.com
Austin	Steve	Emergency Responder Safety Institute	steveaustin@earthlink.net
Barcus	Patrick	NCC Fire Police (Task Force Officer)	firefighter269a@aol.com
Barcus, Jr.	Raymond	Townsend Fire Company	rbarcusjr@townsendfirecompany.org
Blevins	Dan	WILMAPCO	dblevins@wilmapco.org
Buckley	Matt	Edwards and Kelcey	mbuckley@ekmail.com
Carpenter, Jr.	Dave	NCC – Emergency Preparedness	dcarpenter@co.new-castle.de.us
Clacher	Jim	DeIDOT/TMC	jim.clacher@state.de.us
Clark, Jr.	Rickie	Townsend Fire Company	
Connelly	Thomas	Townsend Fire Company	manxtpcat57@aol.com
Daniels	Jerry	NCC Fire Police Assoc. (Former Pres.)	
Domboski	Mike	Edwards and Kelcey	mdomboski@ekmail.com
Domorod	James	DE Health and Social Services/ PHPS	James.Domorod@state.de.us
Donaldson	Gene	DeIDOT/TMC	gene.donaldson@state.de.us
Faust	Patricia	DeIDOT/TMC	patricia.faust@state.de.us
Ford	Paul	DeIDOT/DTC	pford2@state.de.us
Gavin	Joe	Army Corp of Engineers (Philadelphia)	Joseph.P.Gavin@usace.army.mil
Gillespie	Glenn	DEMA	glenn.gillespie@state.de.us
Hahn	Robert	DE Fire Police Assoc. (1st Vice Pres.)	gw189c@aol.com
Haines	Dwain	Townsend Fire Co.	
Hess	Tory	DeIDOT/TMC	tory.hess@state.de.us
Horn	Wendy	Civil Air Patrol	Wendy@WendyRN.com
Kalinowski	Joseph	City of Wilmington Fire Department	jkalinowski@wfd.state.de.us
Kavanagh	Steve	Aetna of Newark Fire Company	Chief@aetnahhl.org
Kresge	Gary	DSP – Troop 1 (Traffic)	gary.kresge@state.de.us
Lagemann	William	DE Fire Police Assoc.	fp41.31@comcast.net
Leonetti	Joseph	NCC – Emergency Preparedness	jleonetti@co.new-castle.de.us
Littleton	Bert	Delaware River & Bay Authority	bert.littleton@drba.net
Maichle	Stephen	Wilmington Manor Fire Company	red2832@aol.com
Majewski	David	Good Will of New Castle Fire Company	bijdm@aol.com
Marsh	Chris	DeIDOT/TMC	chris.marsh@state.de.us
McDerby	Kevin	City of New Castle Police	kmcderby@newcastlepd.state.de.us
Paige	Jim	DSP – Troop 9	jpaige@state.de.us
Quimby	Paul	NCC Fire Police Assoc. (Pres.)	pquimby@nksdistributors.com
Quinn	Dennis	NCC – 911 Communications	dmquinn@co.new-castle.de.us
Shoemaker	Keith	Townsend Fire Co. & NCC Fire Police	
Simpson	William	Good Will of New Castle Fire Company	billsimpson@erols.com
Subda	John	Minquadale Fire Company	
Taylor	Paul	DSP – Troop 2 (Traffic)	Paul.taylor@state.de.us
Truitt	Mike	NCC Fire Police (Task Force Officer)	
Turner, III	James	DEMA	jamie.turner@state.de.us
Van Den Heuvel	Harry	Civil Air Patrol	harrywhoqb@netzero.net
Walls	Charles	Kent Co. Fire Police Assoc. (Pres.)	
Weishaupt	Jonathan	DeIDOT/TMC	jonathan.weishaupt@state.de.us



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Wormley	James	DeIDOT Canal District	jim.wormley@state.de.us
Wyatt, Jr.	Fred	Kent Co. Fire Police Assoc. (1st Vice Pres.)	
Zeroles	Joseph	DE Fire Police Assoc. (2nd Vice Pres.)	