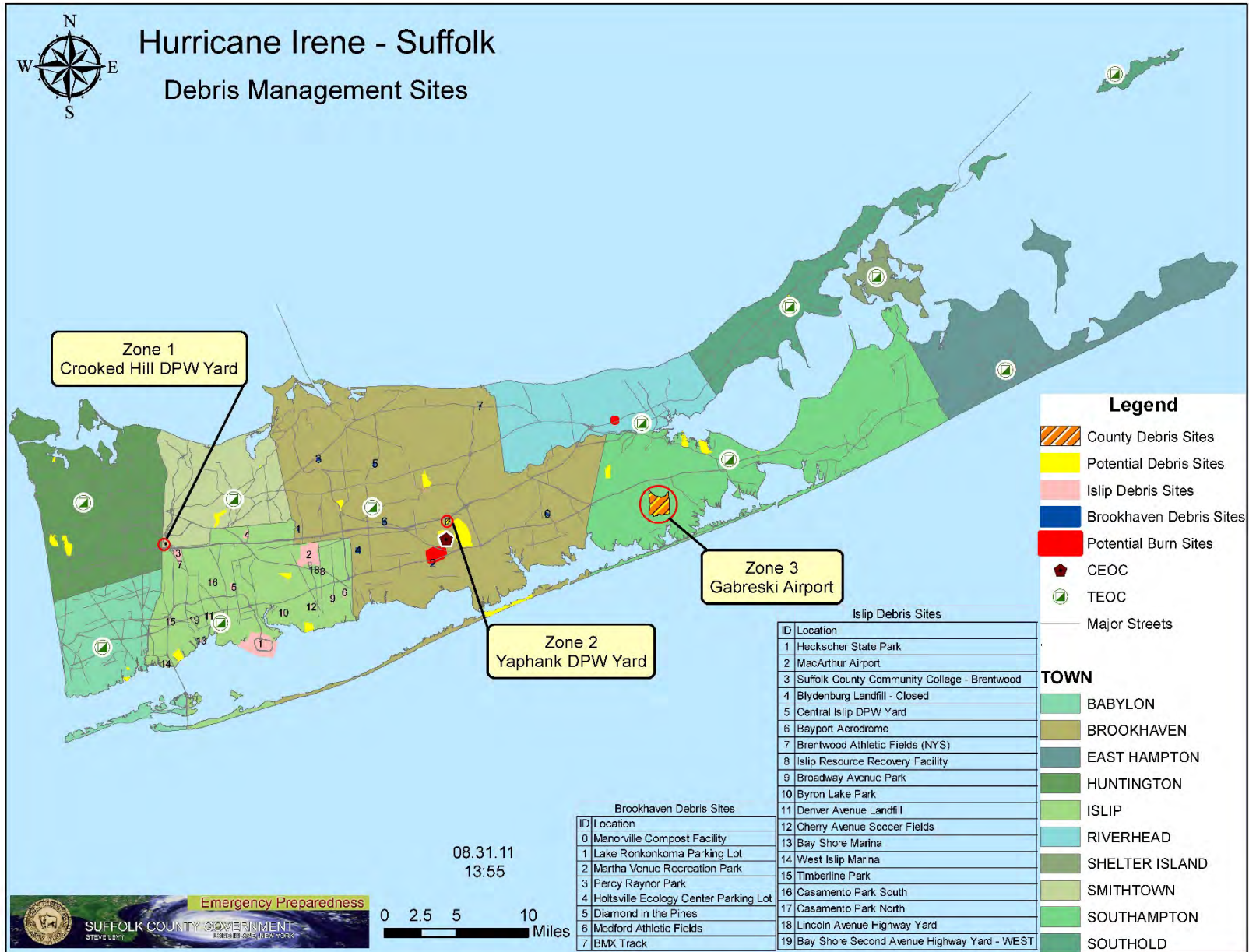


Geospatial support for disasters - the Ohio Incident Management Team and the International Charter Part II

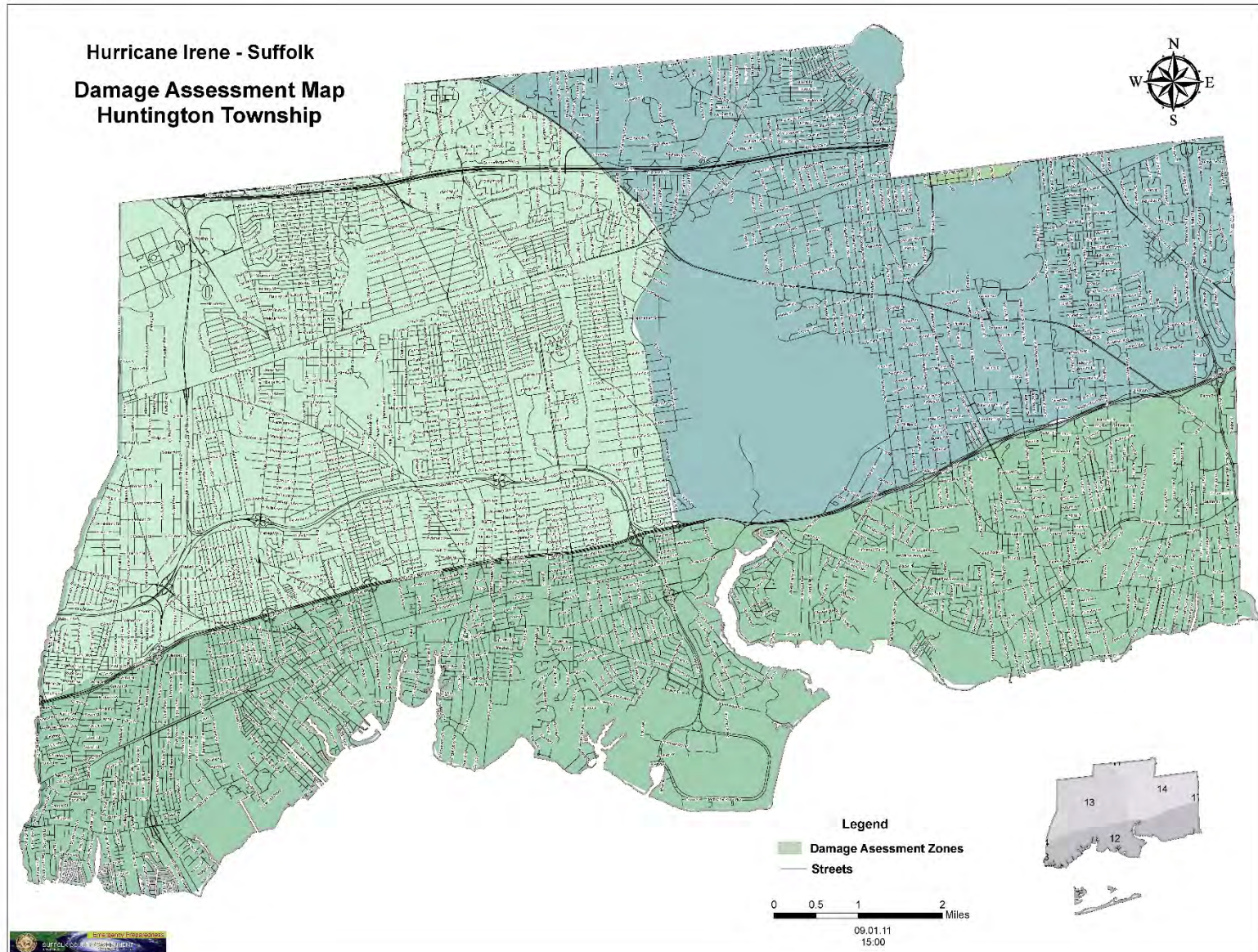
2011 Northern Midwest Public Safety GIS
Workshop
October 14, 2011
Glenview, IL

Richard Kotapish, GISP
GIS Director, Lake County
Ohio All-hazards IMT
International Charter
GISCorps

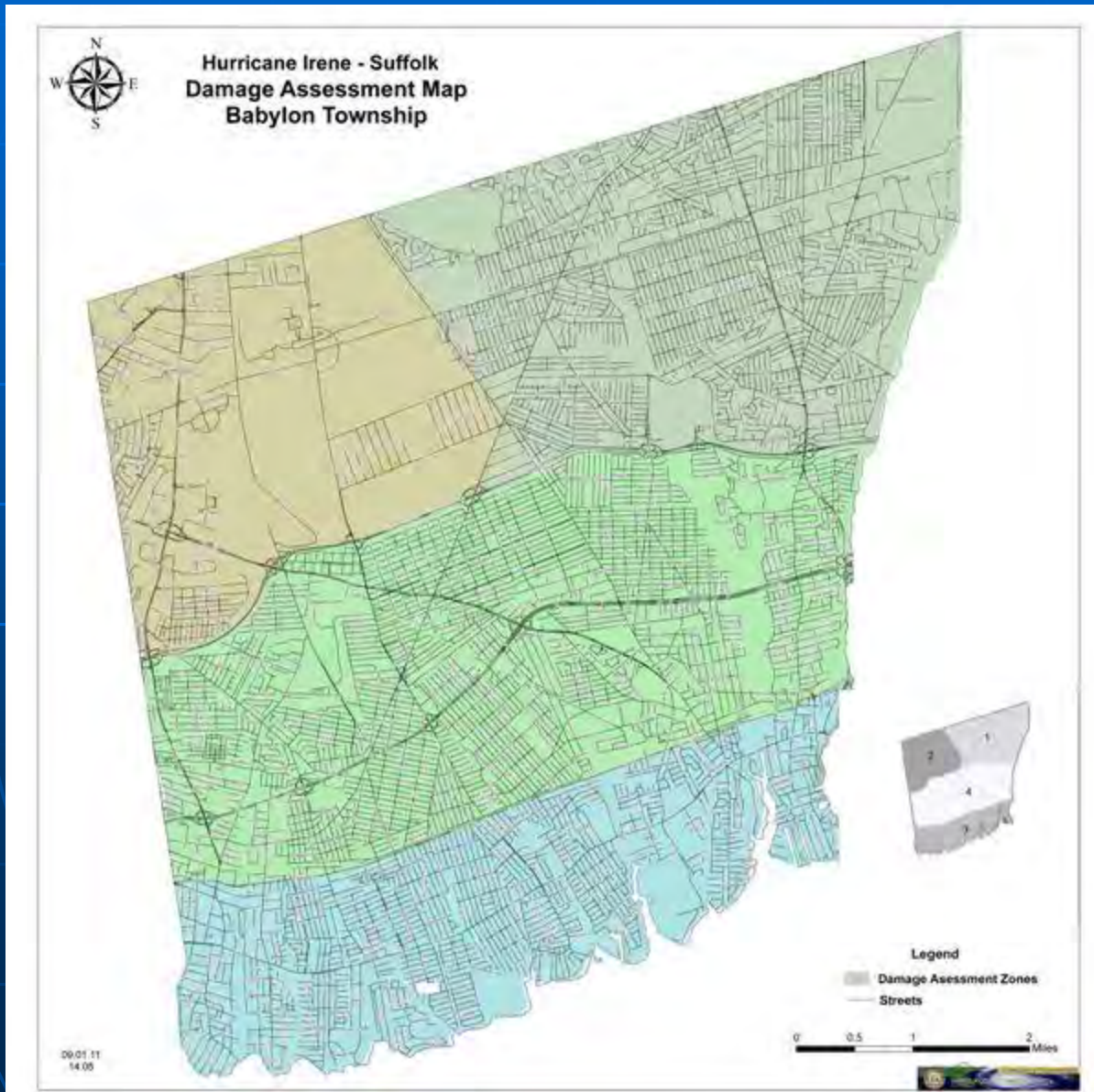
Suffolk County, NY - Hurricane Irene



Suffolk County, NY - Hurricane Irene



Suffolk County, NY - Hurricane Irene



Suffolk County, NY - Hurricane Irene

T-Card Board



Suffolk County, NY - Hurricane Irene

Information Board

What we know

AIR CURTAINS ABOVE-GROUND

What we need to know

OPERATING CONDITIONS

WEATHER - MAXIMUM 20 MPH WIND SPEED

- NO RAINY DAYS
- DAYLIGHT HOURS, PREFERABLY 10AM START (AVOIDING INVERSIONS)
TO AVOID SMOKE GOING OUT NEIGHBORS
- MONDAY THRU SATURDAYS, NO HOLIDAYS
- NO AIR QUALITY ALERT DAYS (shouldn't be issue with Fall Weather)

MINIMUM DISTANCES:

TO HOMES - 500'
TO TREELINE - 250'
TO PILES NOT BEING BURNED - 200'

- HAVE A CURED PILE OF WOOD TO START FIRE AND KEEPING GOING IF TEMP. INSIDE BOX DROPS
- ADEQUATE FIRE PROTECTION EQUIP./PERSONNEL ON SITE
- COMPLETELY EXTINGUISHED FIRE BY SUNDOWN, NO RESIDUAL COALS
- LIMITED TO CLEAN WOOD DEBRIS, NO OTHER SOLID WASTES OR ADULTERATED WOOD
- AVOID AIR LEAKING FROM BOX i.e. Line Bottom CORNERS OF BOX WITH DIRT
(WILL GENERATE SMOKE)
- ADEQUATE SPACING BETWEEN MULTIPLE AIR CURTAIN BURNERS
- WE WOULD LIKE TYPE 1'S (6-10 TONS/HOUR)
(IF AVAILABLE, WITH AUGER TO REMOVE ASH AS IT GOES)
- PAYLOADERS CAN BE USED TO BRING DEBRIS TO BURNING SITE, BUT BURNER SHOULD BE FED BY EXCAVATOR/GRABBER

- NEED SITE PLAN (TO SCALE)

- EMISSIONS REPORTS FROM MANUFACTURER PARTICULARLY CO, NOX, CO₂, OPACITY, DIOXINS, PM, PM_{2.5}

- COST SCHEDULE FROM MANUFACTURER

- ARE UNITS AVAILABLE IN NORTHEAST?

- THROUGH PUT RATE IN TONS + CY/HOUR

- TOTAL QUANTITY TONS/CY TO BE BURNED

- HOW MANY UNITS DO WE NEED?

- GROUND SITE - PAVED OR DIRT?

- WILL MANUFACTURER PROVIDE PERSONNEL TO FEED BURNER?

- WHAT IS ADEQUATE SPACING BETWEEN UNITS?

- DEC PERMIT

- DOES IT MAKE SENSE TO CHIP THEN BURN TO ASSIST SMALL VILLAGES WITH TRANSPORTING TO BURN SITE?

FROM
WHOM

TOB

MANU-
FACTURE

TOB

MANU-
FACT.

TOB

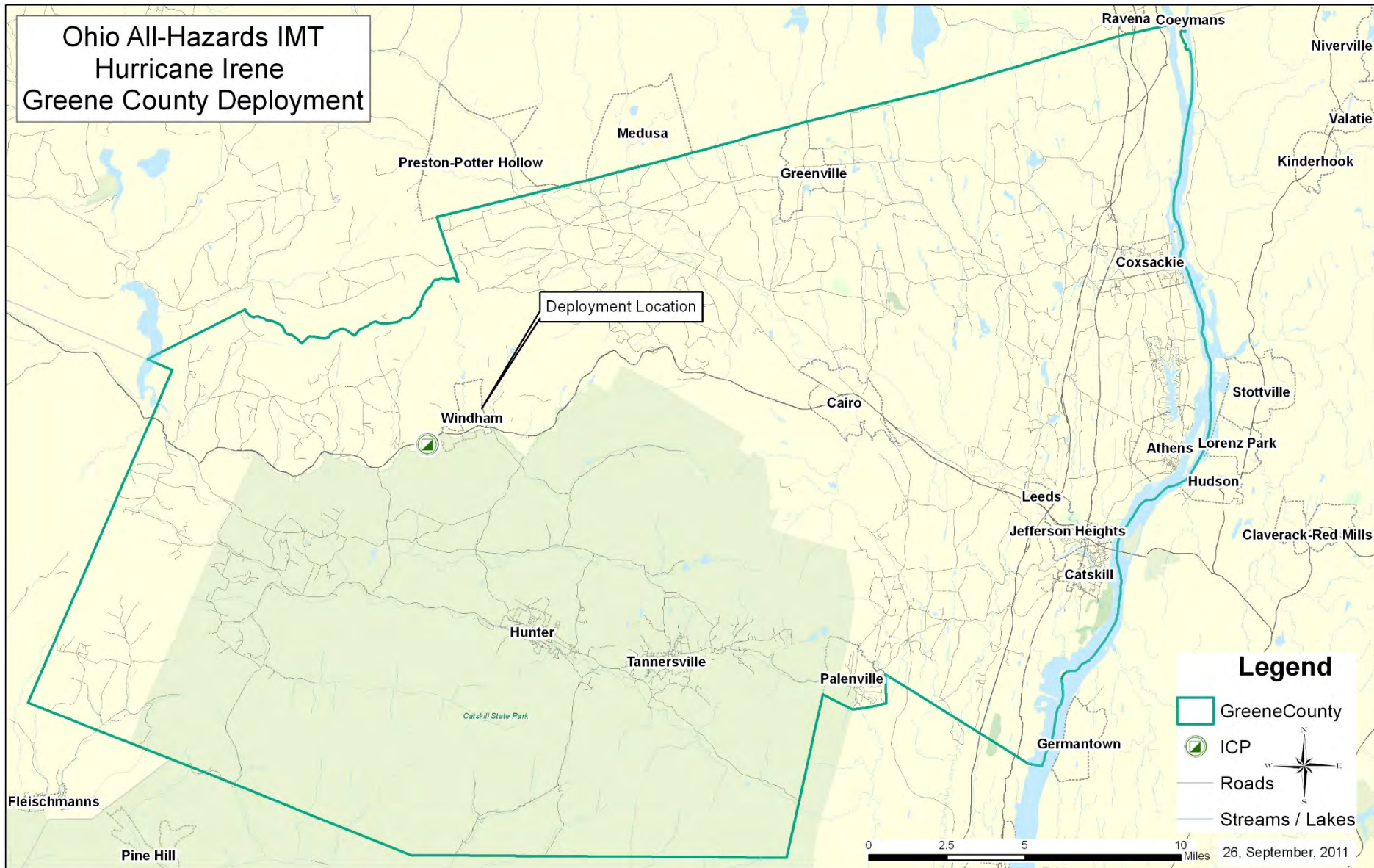
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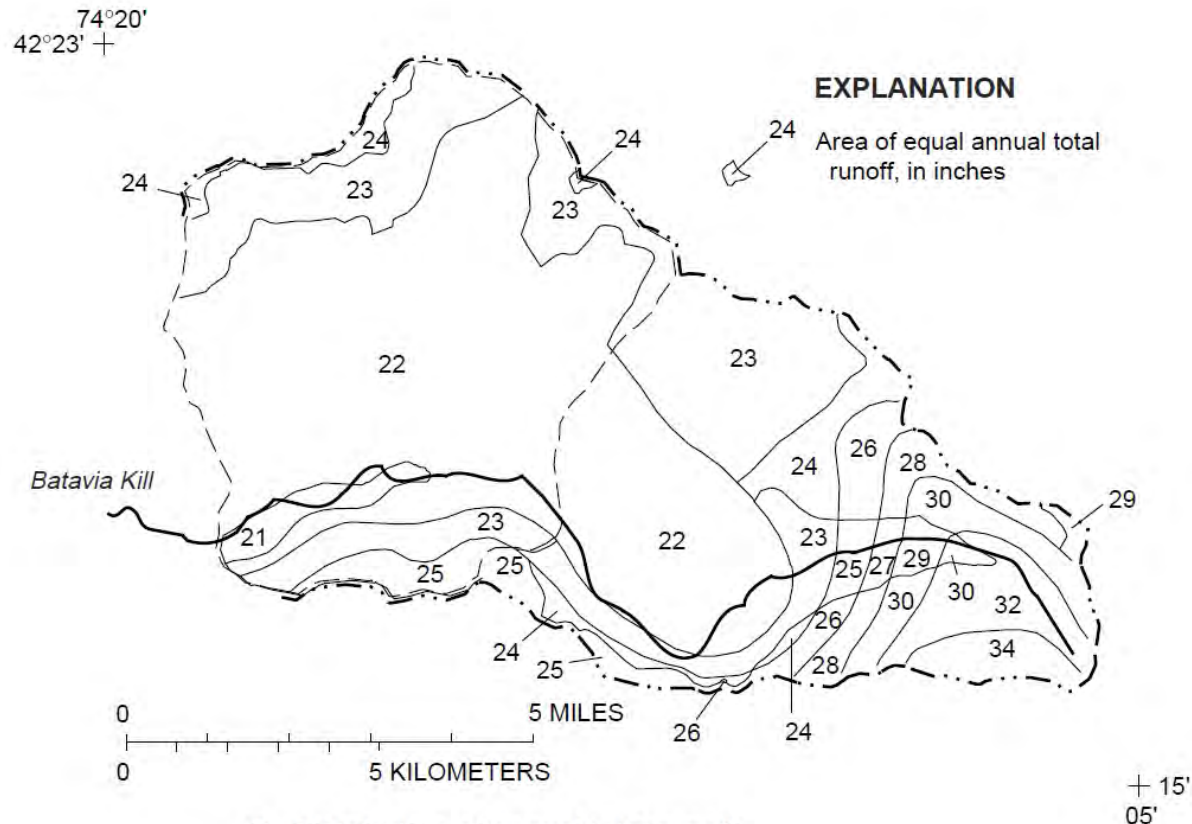
MANU-
FACT.

Windham, NY - Hurricane Irene



Windham, NY - Hurricane Irene

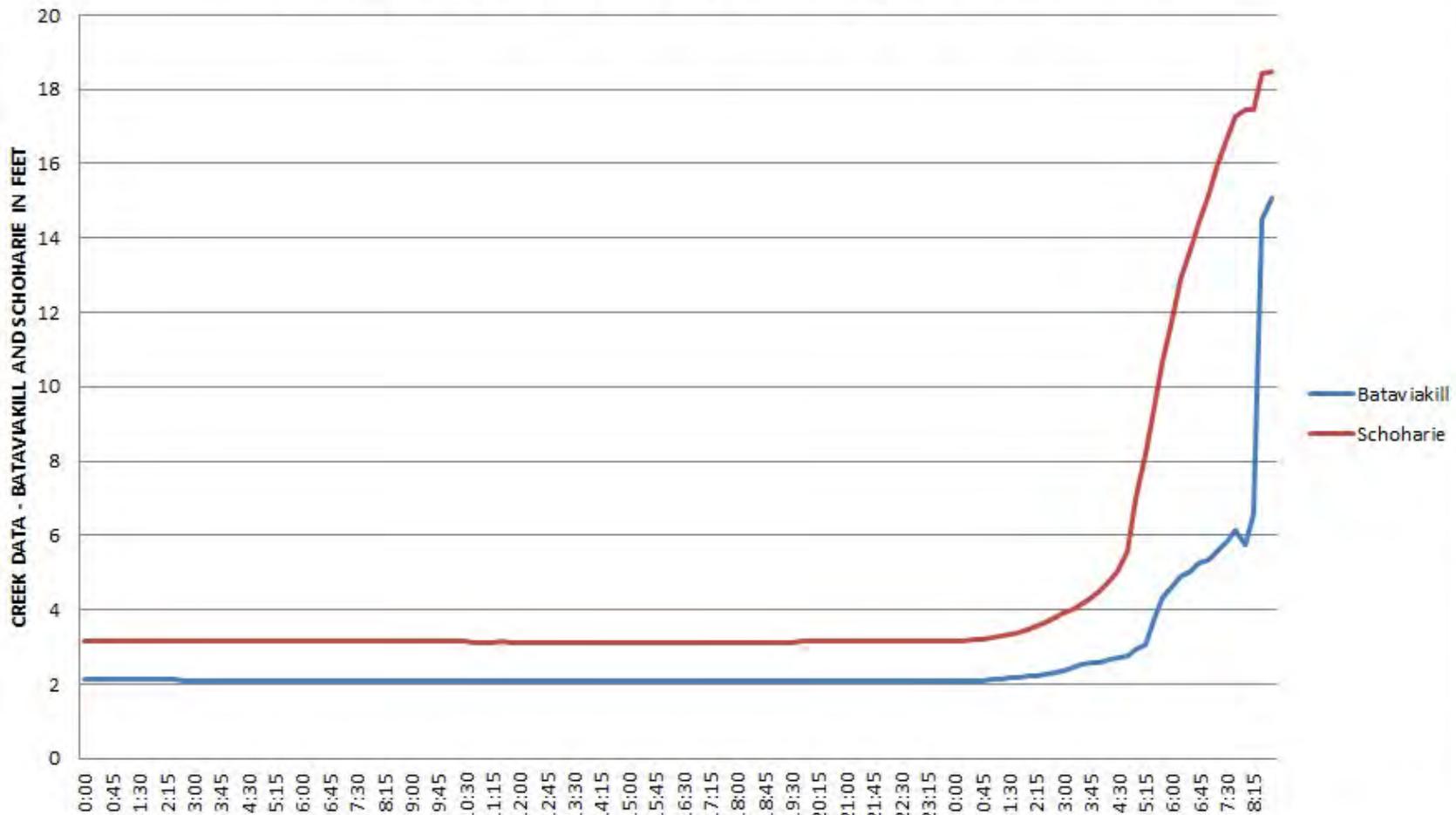
The hilly terrain funneled to the torrential rain and the river saw a 27 foot rise in a matter of hours and then the gauge broke off.



B. Distribution of annual total runoff

Windham, NY - Hurricane Irene

Bataviakill and Schoharie Creeks 8/27 to 8/28/2011
Creek Gauges Knocked Off Line at 8/28/2011 at 0945



Windham, NY - Hurricane Irene

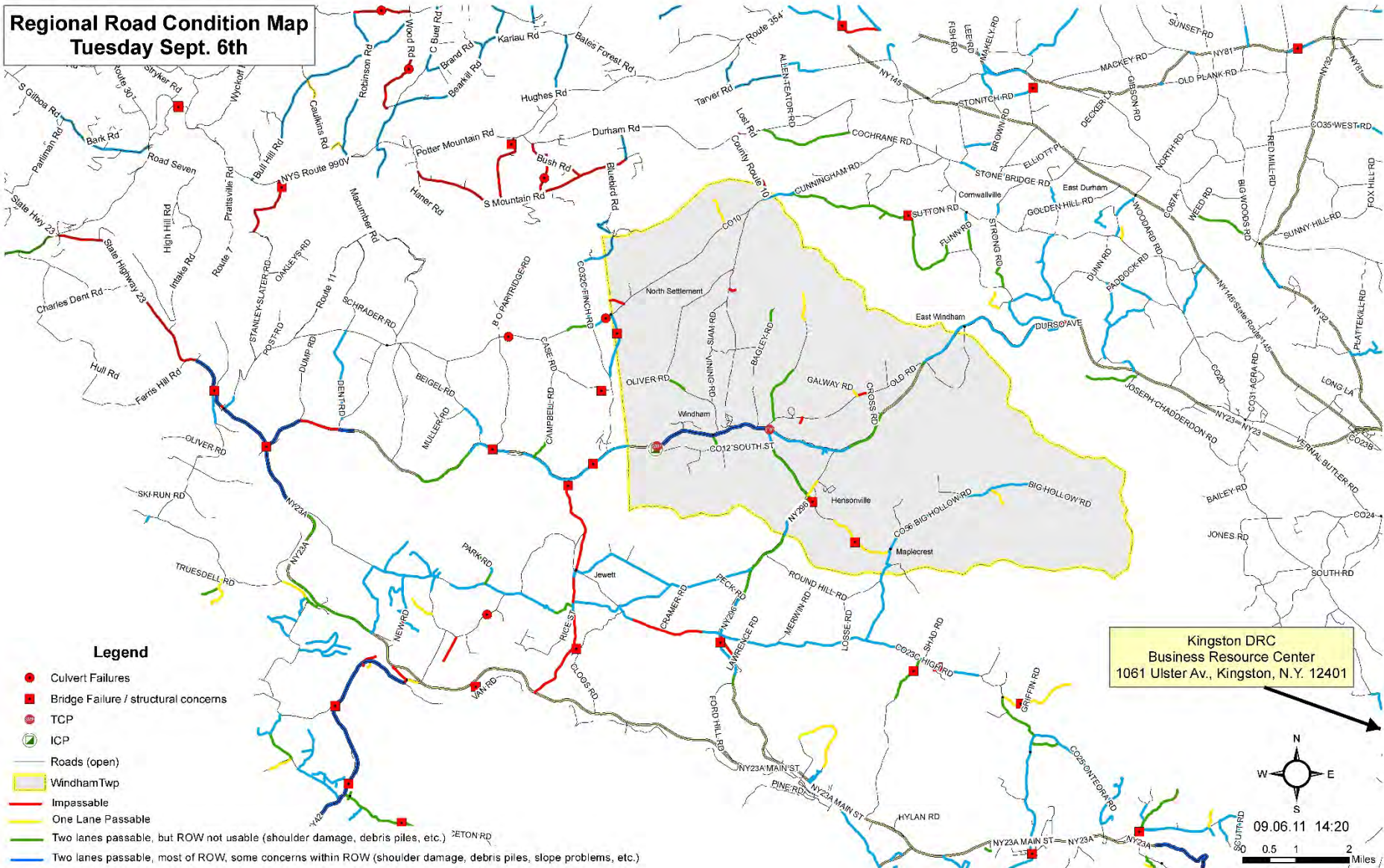


Windham, NY - Hurricane Irene

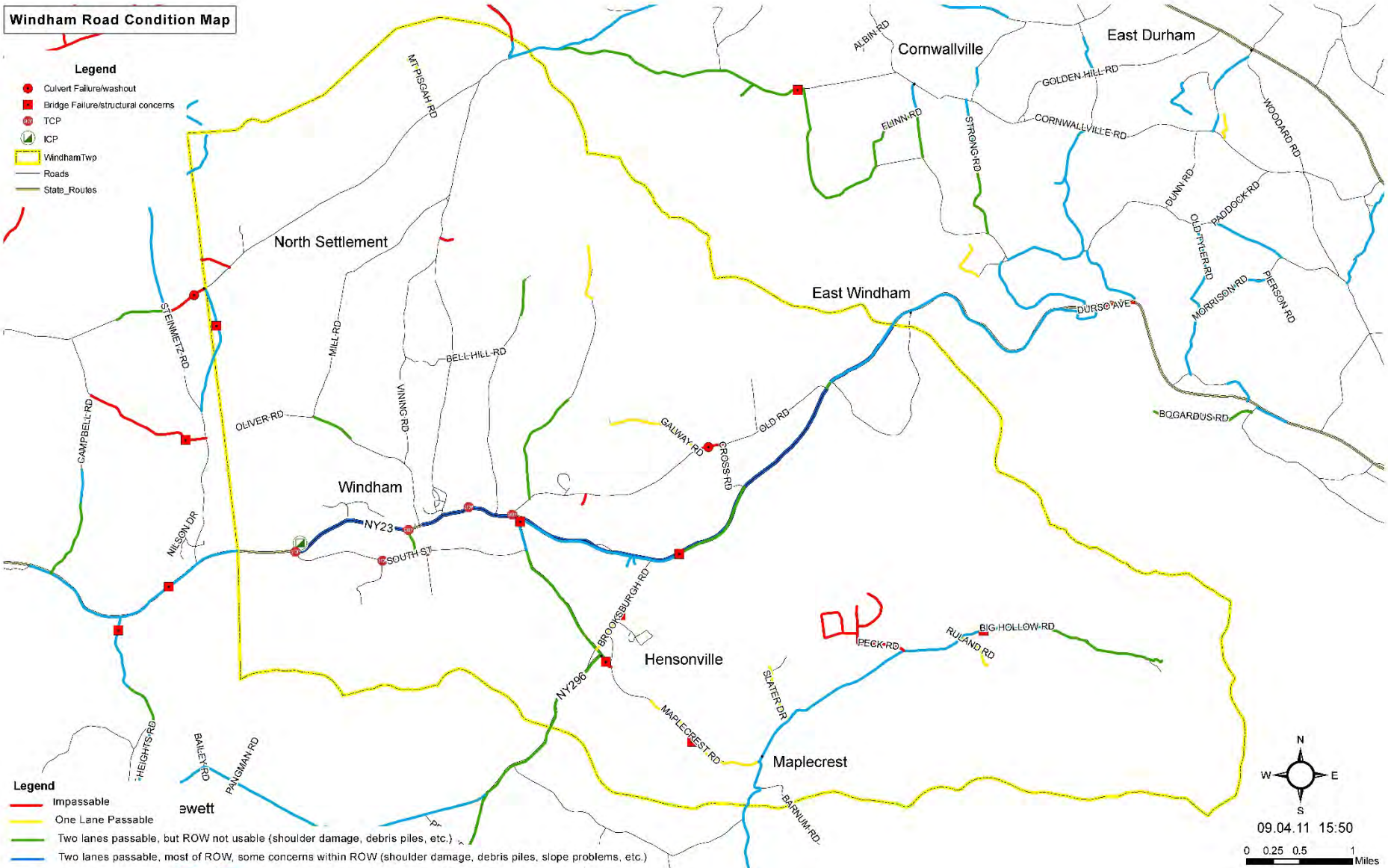


Windham, NY - Hurricane Irene

Regional Road Condition Map
Tuesday Sept. 6th

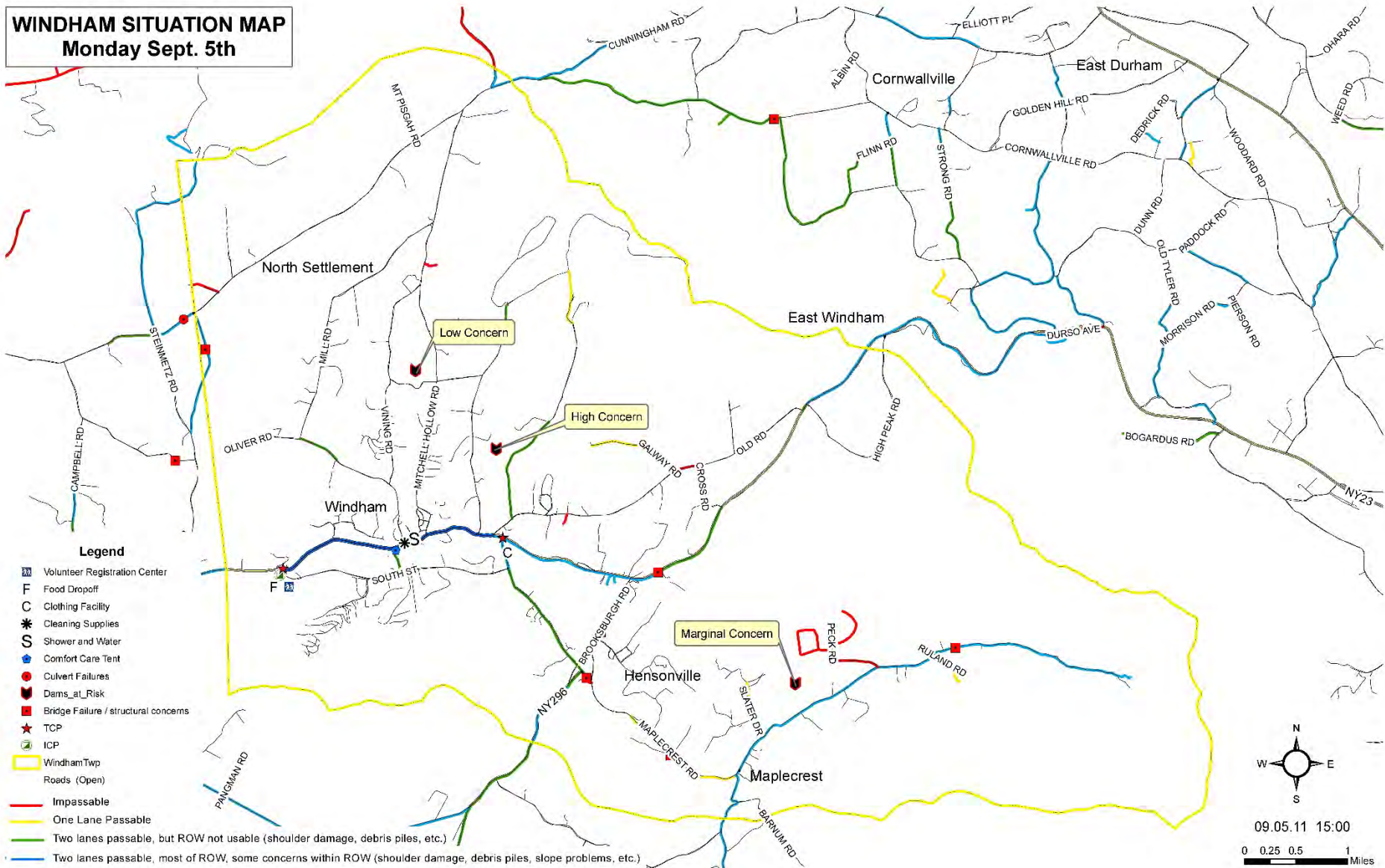


Windham, NY - Hurricane Irene



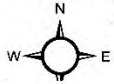
Windham, NY - Hurricane Irene

WINDHAM SITUATION MAP
Monday Sept. 5th



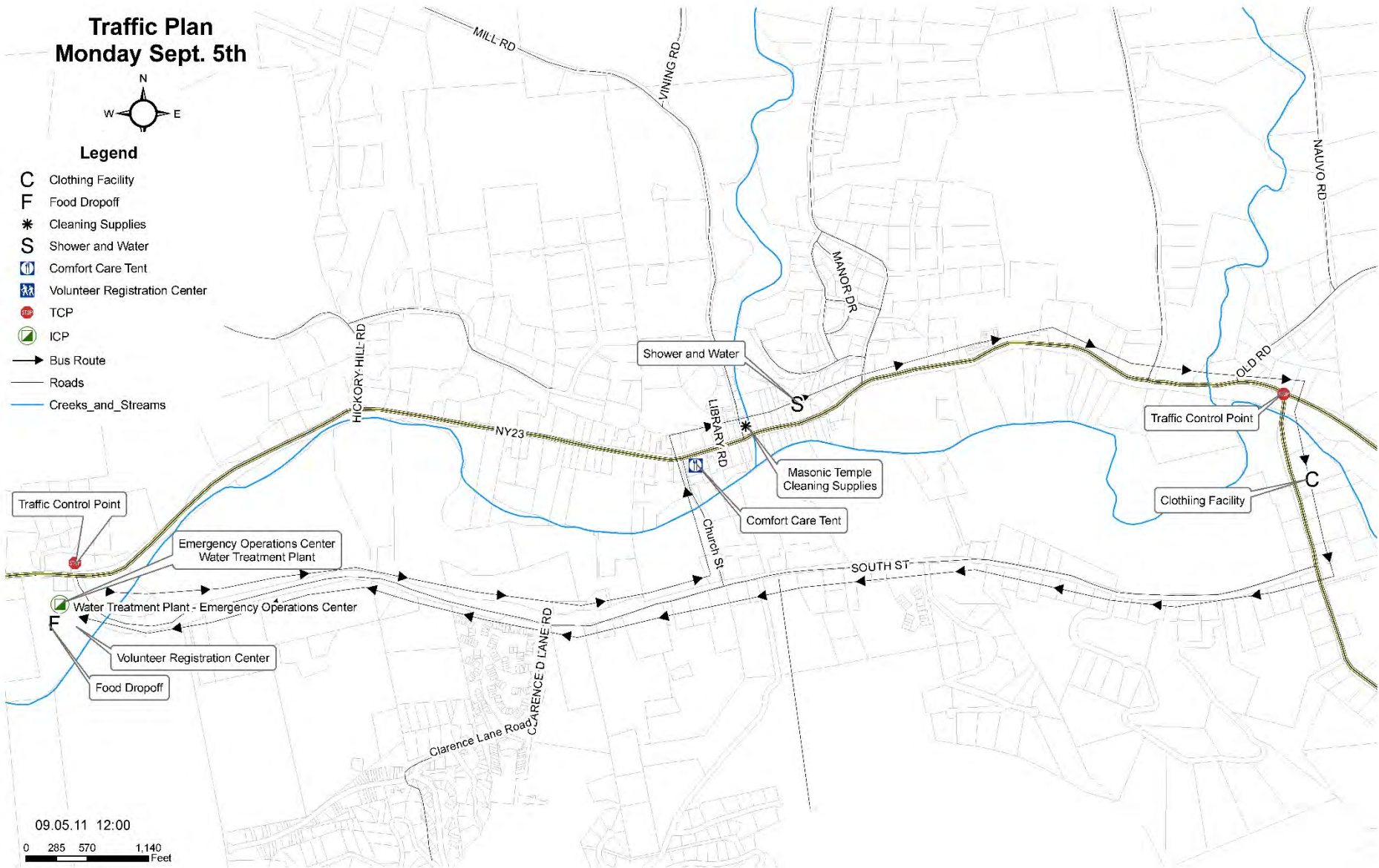
Windham, NY - Hurricane Irene

Traffic Plan Monday Sept. 5th

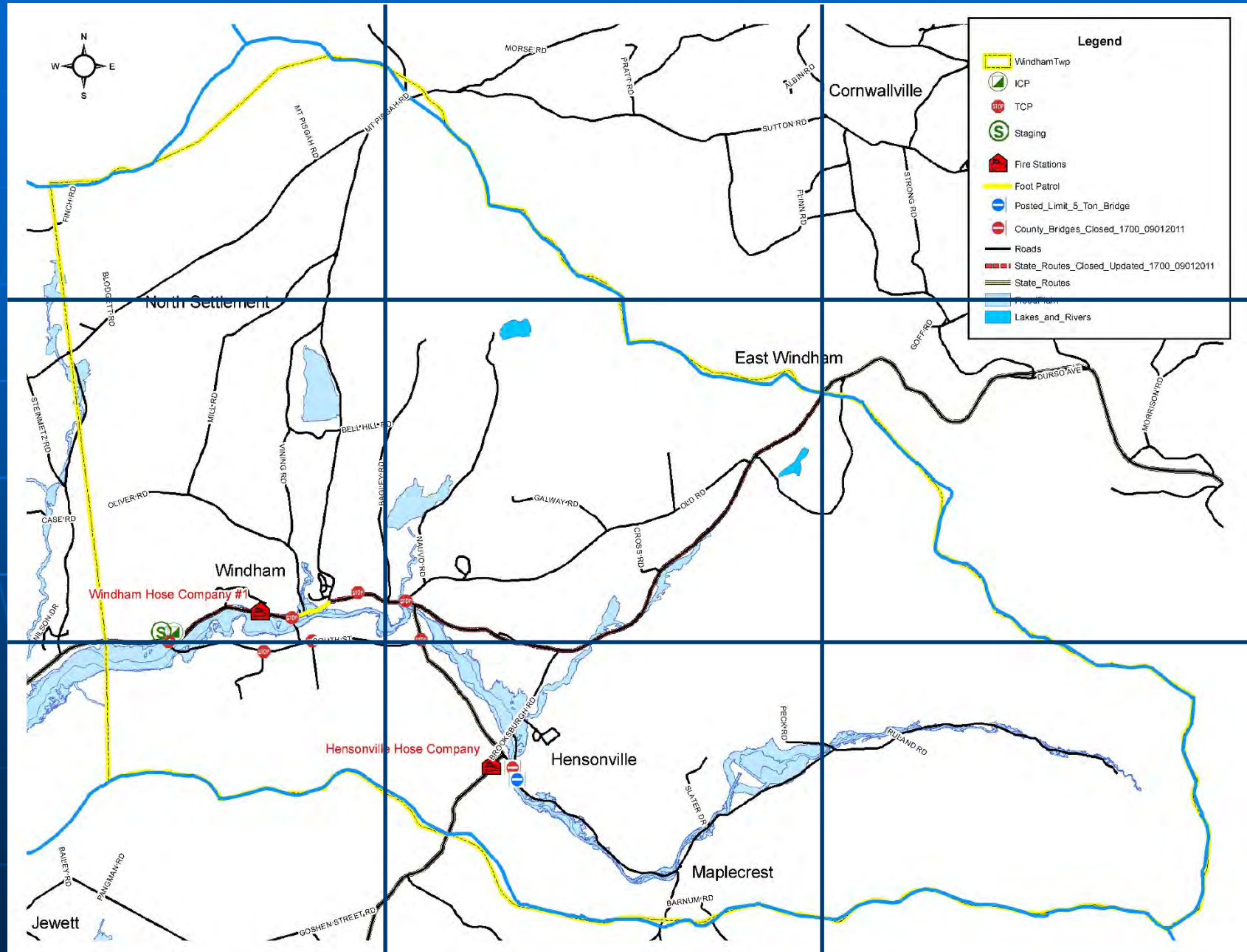


Legend

- C Clothing Facility
- F Food Dropoff
- * Cleaning Supplies
- S Shower and Water
- [Icon: Tent] Comfort Care Tent
- [Icon: People] Volunteer Registration Center
- [Icon: Stop] TCP
- [Icon: Green Circle] ICP
- Bus Route
- Roads
- Creeks_and_Streams



Windham, NY - Hurricane Irene



Hurricane Irene

Data Sources

USGS/International Charter Telecons

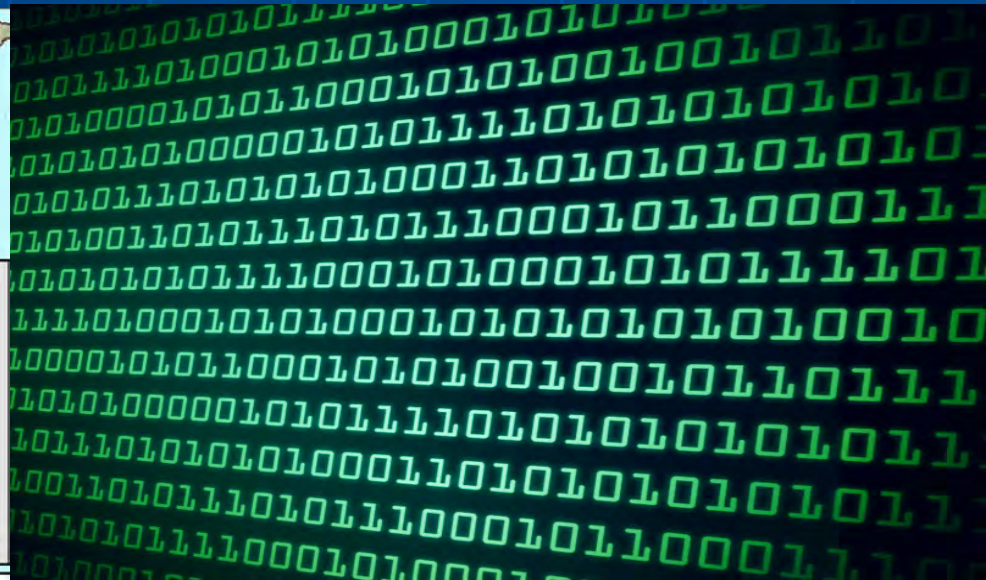
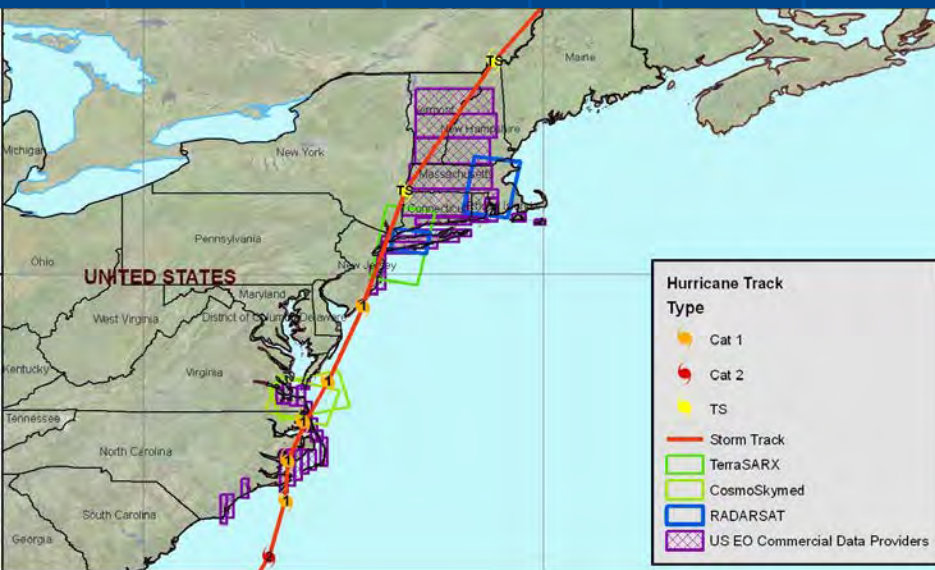
HDDS

Data sources web page

Delta State USNG Geo-PDF Download Viewer

New York State GIS Clearinghouse

Local GIS Departments



August 29, 2011

Hurricane Irene

Data Sources

USGS/International Charter Telecons

1. 79 attendees from various Federal, State, and local agencies
2. Maryland – No aerial collection plans
3. New York – Have serious impacts upstate. Exploring aerial collection options with the CAP and RIT. Need specific AOIs for the flooded areas as the concerns have shifted from the coastal damage to inland flooding.
4. North Carolina – In the process of flying. The Outer Banks are accessible only by boat. Waiting for the imagery to be processed. NOAA will provide a link for historical Lidar data for the state.

<http://csc-s-maps-q.csc.noaa.gov/dataviewer/viewer.html>

We are serving historical lidar data of the Cape Hatteras area and Highway 12 from 1996, 97, 98, 99, 04, 05 and 08.

5. Rhode Island – Imagery is being collected through the Charter and CAP requests. They have 37 AOIs. EagleVision is collecting SPOT today.
6. Vermont – The primary GIS facility for the State is flooded. Most of the southern part of the state is affected. Will provide a list of primary areas needed for collections. Need to get Vermont added to the maps showing the affected state.
7. Connecticut – Will supply a list of AOIs needed for collection. Radarsat 1 collected yesterday covers Connecticut.
8. NOAA – King Air is flying today. Filling holes in the Lidar and DSS coverage and then flying north to Chesapeake Bay.
9. EagleVision – SPOT collections are posted on the servers. They will be doing coastal collections today and have also scheduled some Cartosat collections on the 31st, 1st and 2nd.
10. USACE – Waiting for HQs tasking. They have posted pre-event imagery for Long Island and coast from New Jersey to Maryland on HDDS. It should be up by Wed or Thurs. It is 30 cm imagery that goes 500-1000 meters in land. They are not flying up the Hudson.
11. NGA – Focusing on the New York and New Jersey areas working to capture the flash and standing flooding. Have completed assessments for NC and VA. Will be working on VT and MA.
12. NASA – ASTER will be collected from Myrtle Beach to Raleigh and from Moorehead City to Philadelphia. September 1 collect from Wilmington to Bangor. Need AOIs to schedule more collects. East New York and the Hudson Valley were suggested and the Connecticut River valley.

Hurricane Irene

Data Sources

HDDS

Hazards Data Distribution System (HDDS) - Windows Internet Explorer

http://hdds.usgs.gov/hdds2/search-results

File Edit View Favorites Tools Help

USGS science for a changing world

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Hazards Data Distribution System (HDDS)

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Results per page: 50 100 250












« Redefine Search Criteria Export results

Event: 201108_Hurricane_Irene Show Additional Filters

Ingested Data

Results 1 - 50 of 135

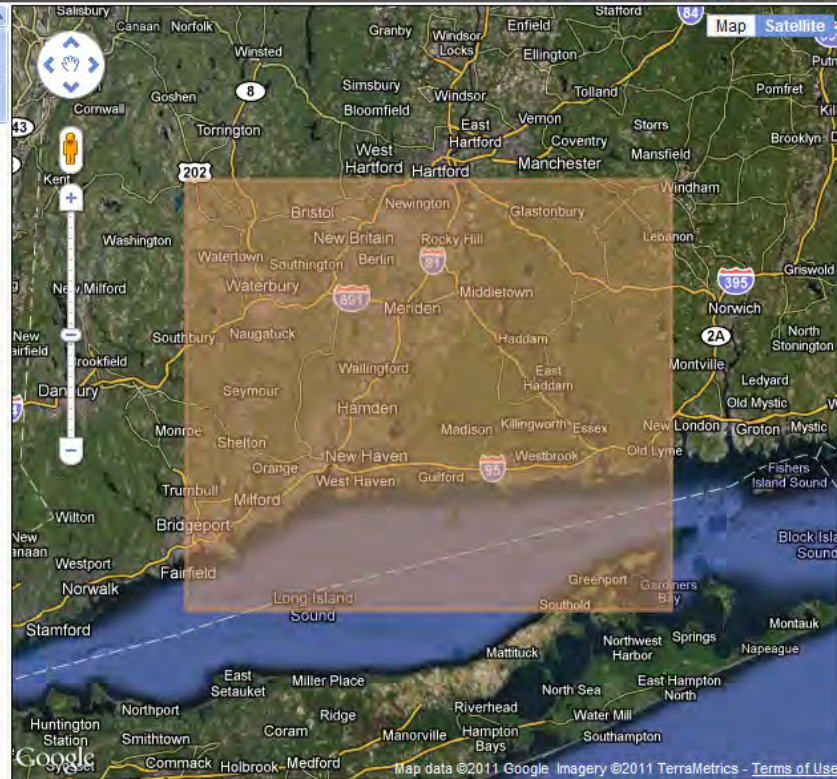
1 2 3 Next

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	ID: SP05N42_220797W074_023260201109020000000MS00 Acquisition Date: 2011-09-02 Platform: SPOT-5 Sensor: MSI Agency: DOD File Format: GEOTIFF	Footprint: <input type="checkbox"/> Browse: <input type="checkbox"/> Download: 
	ID: SP04N41_494356W072_866930201109020000000MS00 Acquisition Date: 2011-09-02 Platform: SPOT-4 Sensor: MSI Agency: DOD File Format: GEOTIFF	Footprint: <input type="checkbox"/> Browse: <input type="checkbox"/> Download: 

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U.S. Department of the Interior | U.S. Geological Survey
URL: <http://hdds.usgs.gov/hdds2/search-results>
Page Contact Information: ecustserv@usgs.gov
Page Last Modified: 2011-10-6

USA.gov TAKE PRIDE IN AMERICA



Hurricane Irene

Data Sources

HDDS **RESTRICTED**

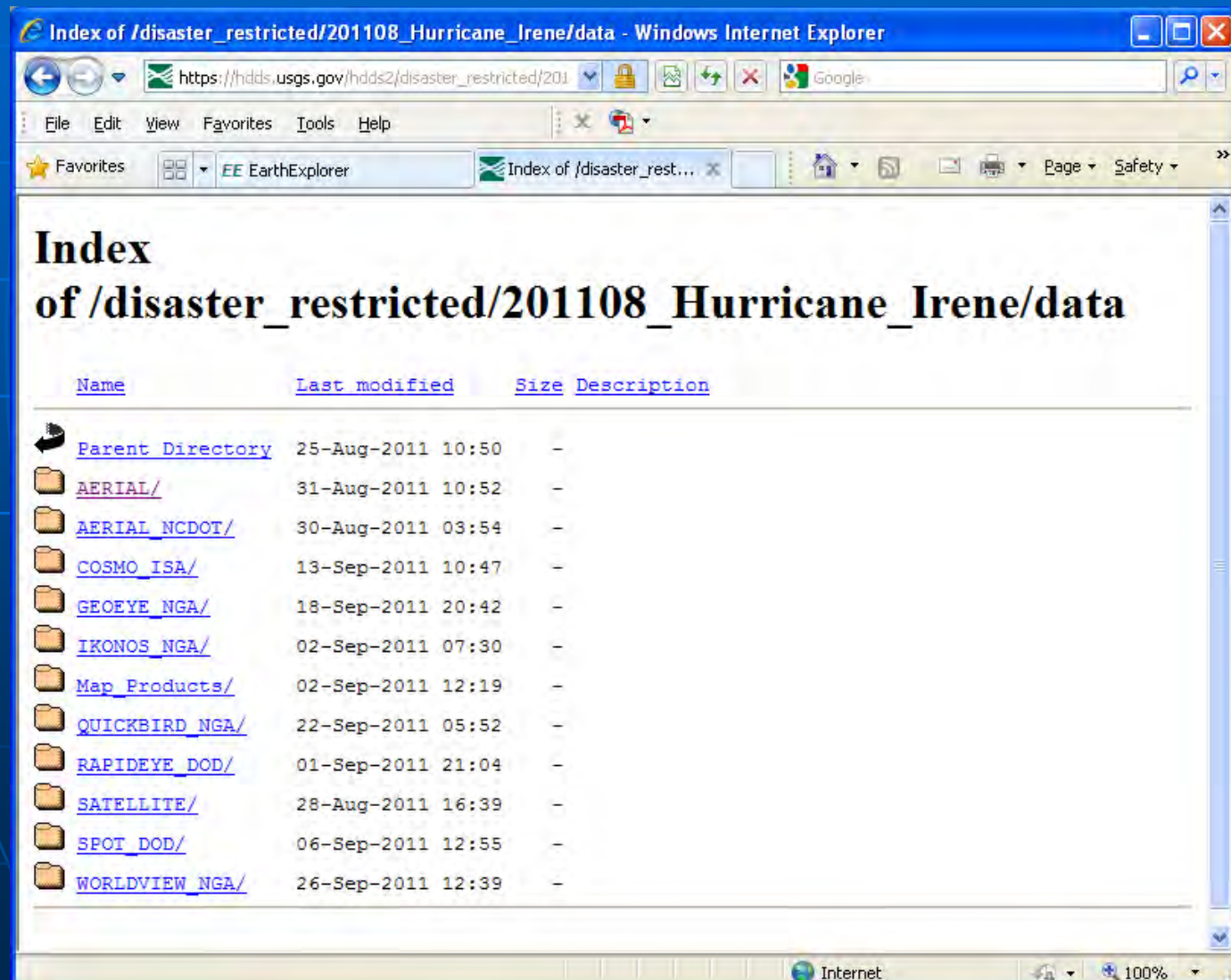
Access may be granted on a need to know basis. You will need to be officially involved in the disaster response to gain access to this site of restricted data.

Contact the author of this presentation for details on acquiring credentials for access

Hurricane Irene

Data Sources

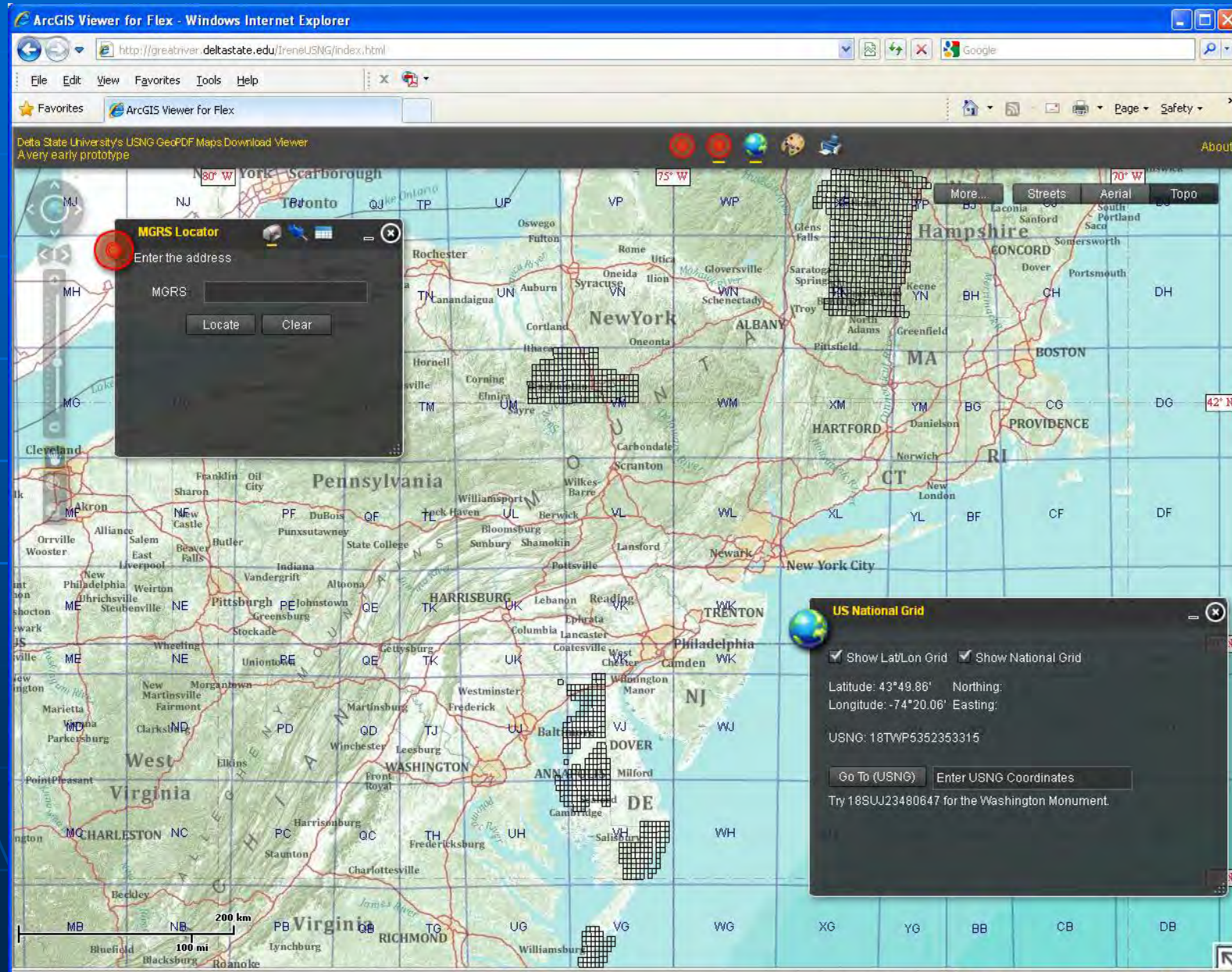
HDDS **RESTRICTED**



Hurricane Irene

Data Sources

Delta
State
USNG
Geo-PDF
Download
Viewer



Hurricane Irene

Data Sources

New York State GIS Clearinghouse

NYS GIS Clearinghouse - Windows Internet Explorer

http://www.nysgis.state.ny.us/

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Division of Homeland Security and Emergency Services

NYS OFFICE OF CYBER SECURITY GIS DATA COORDINATION PROGRAM ORTHOIMAGERY PROGRAM OUTREACH

GIS IN THE NEWS: [Location Intelligence: We Need Smarter People, Not Smarter Locations](#)

Greene County Orthoimagery

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- [Orthoimagery Program Status Information](#)

Greene County Data Sets

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- [Search for Data in Greene County](#)
- [Greene Countys Inventory List](#)

Greene County Outreach

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Greene County

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Windham, NY - Hurricane Irene

Incident Command System

101

During the initial stages of incident management, planners must develop a simple plan that can be communicated through concise verbal briefings. Frequently, this plan must be developed very quickly and with incomplete situation information.

As the incident management effort evolves over time, additional lead time, staff, information systems, and technologies enable more detailed planning and cataloging of events and "lessons learned."

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Incident Command System 101

Command: Develops the overall incident objectives and strategy, approves resource orders and demobilization, and approves the IAP by signature.

**Incident
Commander**

Finance/Admin:

Develops cost analyses, ensures that the IAP is within the financial limits established by the IC, develops contracts, and pays for the resources.

**Operations
Section**

**Planning
Section**

**Logistics
Section**

**Finance/Admin
Section**

Operations: Assists with developing strategy, and identifies, assigns, and supervises the resources needed to accomplish the incident objectives.

Planning: Provides status reports, manages the planning process, and produces the IAP.

Logistics: Orders resources and develops the Transportation, Communications, and Medical Plans.

Windham, NY - Hurricane Irene

The Planning P

Planning involves:

- Evaluating the situation.
- Developing incident objectives.
- Selecting a strategy.
- Deciding which resources should be used to achieve the objectives in the safest, most efficient and cost-effective manner



International Charter

Disaster Charter - Homepage - Windows Internet Explorer

http://www.disasterscharter.org/home

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Disaster Charter - Homepage



INTERNATIONAL CHARTER
SPACE AND MAJOR DISASTERS

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esa

The International Charter The International Charter aims at providing a unified system of space data acquisition and delivery to those affected by natural or man-made disasters through Authorized Users. Each member agency has committed resources to support the provisions of the Charter and thus is helping to mitigate the effects of disasters on human life and property.

[More](#) [Charter Members](#) [Text of the Charter](#)

Latest Charter Activation



Flood in El Bayadh (Algeria)
Wednesday, October 5, 2011
Flooding in Algeria kills 13 people, many people are injured and hundreds of homes have been destroyed in el-Bayadh, south of the capital, Algiers. [Read more](#)

[RSS](#) [XML](#)

Recent Activations

- [Flood in El Bayadh \(Algeria\)](#)
- [Earthquake, Landslide, Sikkim - North East India](#)
- [Flood and landslide in Japan](#)
- [Flood in Nigeria](#)
- [Ocean Storm East Coast USA](#)
- [Activations Archive](#)

Latest Charter News

Charter develops geographic tool
Wednesday, August 31, 2011

The French space agency (CNES) has developed a geographic tool for the Charter in order to display footprints and characteristics of satellite data provided in the frame of each activation. The purpose of the tool is to describe earth observation (EO) data used in the framework of Charter activations to help users identify and possibly order them; it does not provide the image files.

[Read more](#)

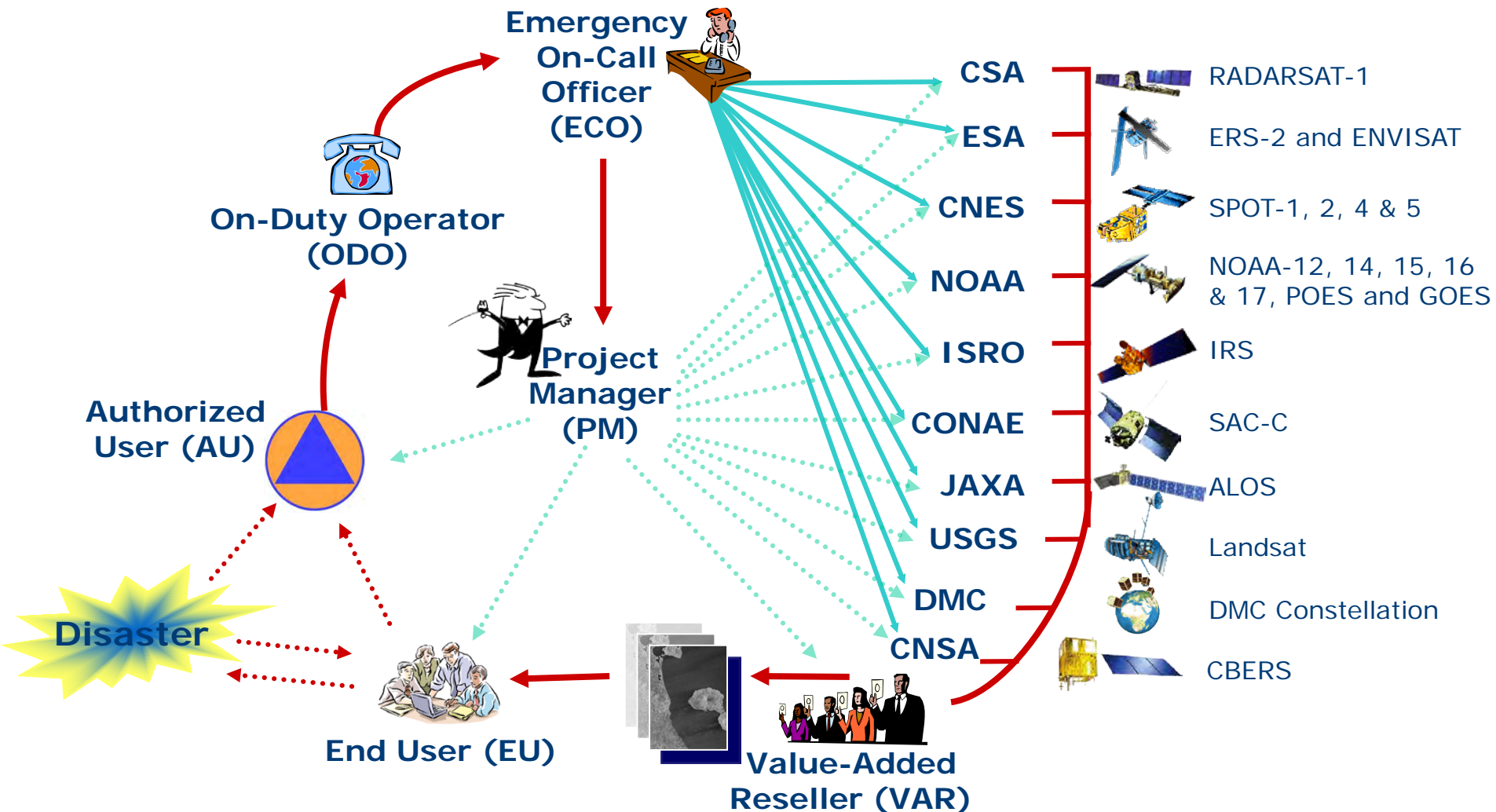
Copyright © 2000 - 2009 | Last Update: 26 July 2011

The International Charter aims at providing a unified system of space data acquisition and delivery to those affected by natural or man-made disasters through Authorized Users.


Charter Member Agencies



Charter Operational Loop



Activation Distribution Map




International Charter Space & Major Disasters
Charte Internationale Espace et Catastrophes Majeures

INTERNATIONAL CHARTER
SPACE AND MAJOR DISASTERS

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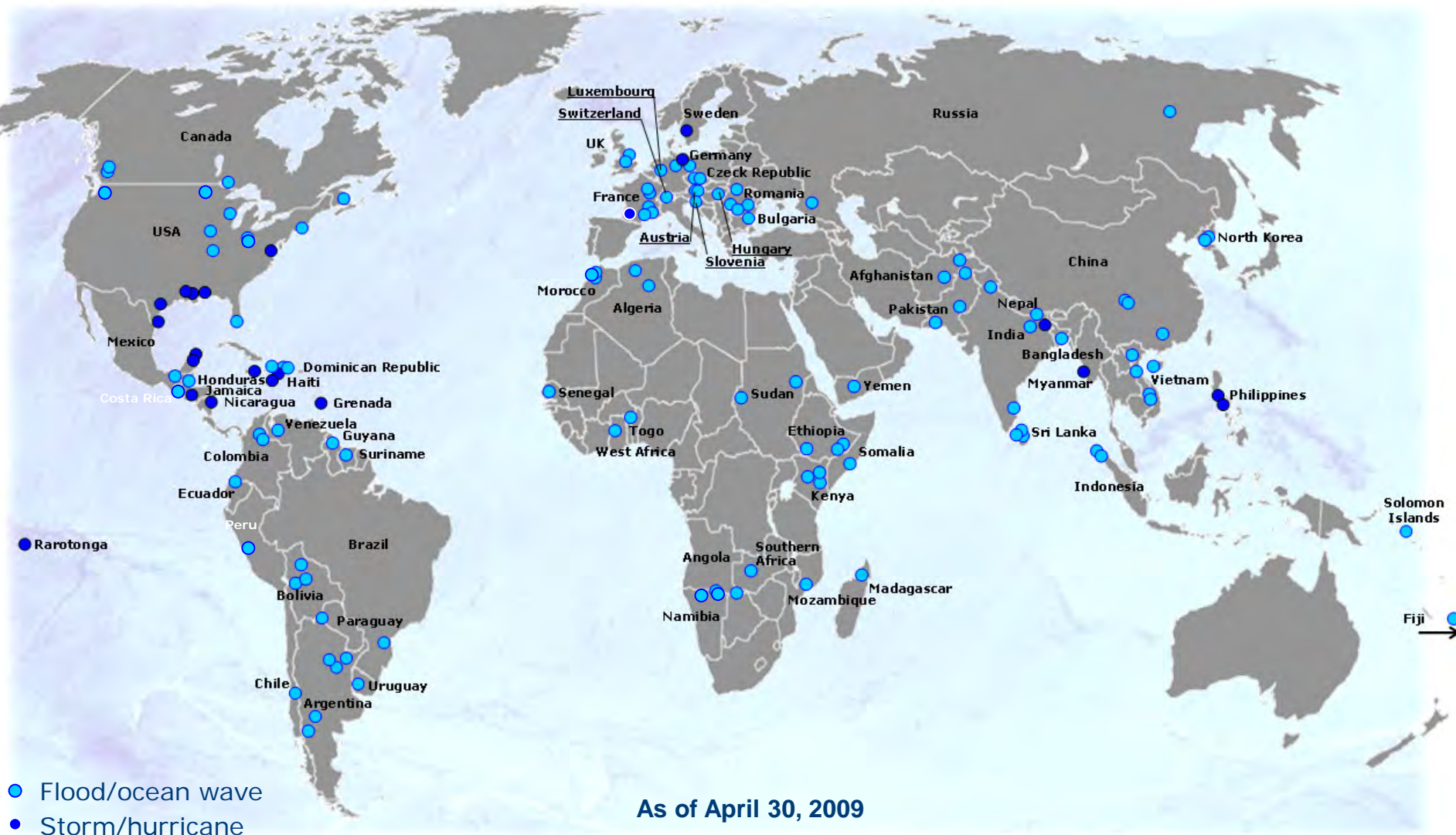
Imagery ©2011 NASA - Terms of Use

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Activation	Date	Description
Flood in El Bayadh (Algeria)	05 October 2011	Flooding in Algeria kills 13 people, many people are injured and hundreds of homes have been destroyed in el-Bayadh, south of the capital, Algiers.
Earthquake, Landslide, Sikkim - North East India	18 September 2011	The epicentre of India's North-eastern state, Sikkim, was struck by an earthquake at a magnitude of 6.8 on Sunday. Shortly after the quake, two strong aftershocks followed also affecting Nepal and Tibet.
Flood and landslide in Japan	04 September 2011	Typhoon Talas hit Kinki and Shikoku regions, Japan, on Saturday. The typhoon passed into the Sea of Japan on Sunday. At least 26 people have died and 55 people are missing after the storm.
Flood in Nigeria	29 August 2011	A devastating flood which resulted from an over spill from Lake Eleyele swept over communities in Ibadan, Nigeria.
Ocean Storm East Coast USA	27 August 2011	A North Atlantic tropical cyclone, Hurricane Irene, inflicted extensive damage on the Caribbean causing landfall in North Carolina and the East Coast of the United States. The cyclone passed through inland New York and Vermont causing devastating damage.
Flood in Niigata, Japan	30 July 2011	Local governments in Niigata and Fukushima prefectures on Friday issued evacuation advisories to thousands of residents due to record rainfall in the two prefectures.

Activation Distribution

Floods and storms



The International Charter 'Space and Major Disasters' website:

www.disasterscharter.org