



-Fortuna Favet Paratis-

est. 2006

2014 Year in Review

Cullen Case Jr.
Program Manager, RITN

December 2, 2014

Questions: RITN@nmdp.org

Agenda

- **2014 Highlights**
- **2015 Projects**
- **2015 Tasks**
- **Questions**

Relevant Information

“I continue to be much more concerned when it comes to our security with the prospect of a nuclear weapon going off in Manhattan,”

-President Obama on March 25, 2014

People do strange things

There is a fine line between genius and insanity... and stupidity....



Taylor, seen here in his garage in Reno, Nevada, built a nuclear reactor when he was 14 in the basement of the University of Nevada physics lab. PHOTOGRAPH BY DEANNE FITZMAURICE, NATIONAL GEOGRAPHIC

The Boy Scout who tried to build nuclear reactor



And people do stupid things

KKK member and his friend built 'truck-mounted death ray' and wanted to 'kill President Obama and Muslims in revenge for Boston bombings'

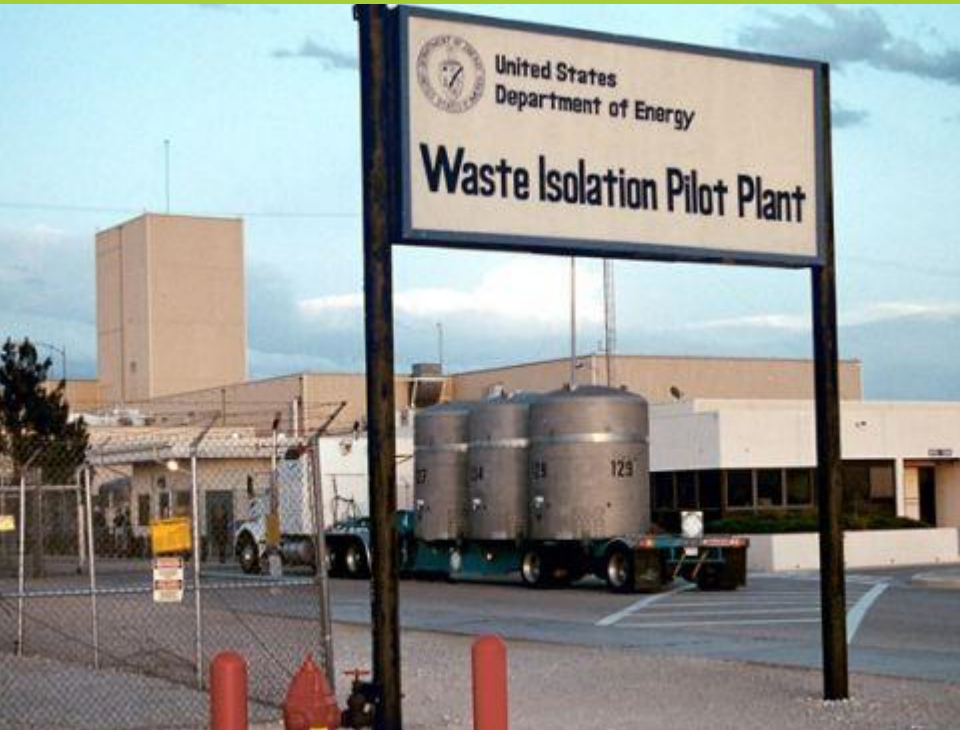
- Undercover agents posing as radiation suppliers tracked pair for a year
- President was alleged target over Boston Marathon bombings
- Industrial mechanic Glendon Crawford says he wanted to target Muslims
- Synagogue called FBI after being offered device to 'kill enemies of Israel'

By JESSICA JERREAT

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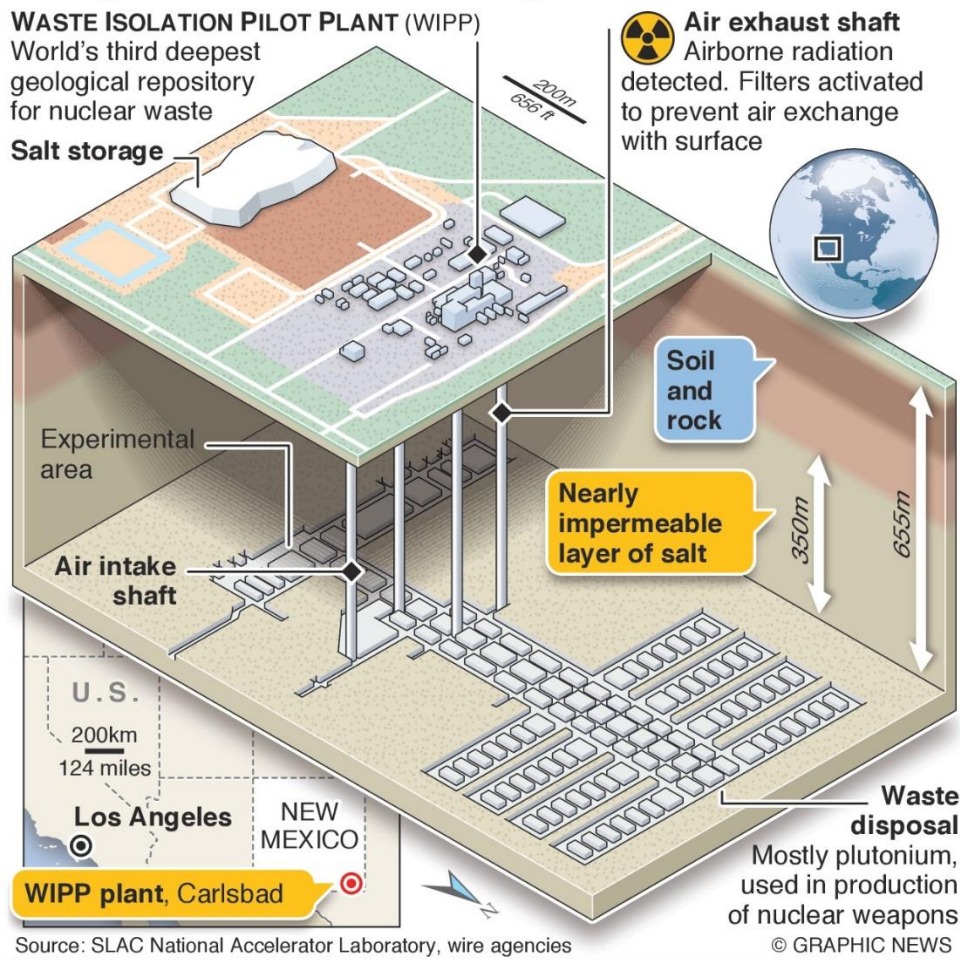
Accident in US (Feb 2014)



Accident in US (Feb 2014)

Radiation scare at New Mexico nuclear plant

U.S. investigators are stressing that no contamination was found at an underground nuclear waste site after high radiation levels were detected



Availability of Materials on black market?

- **2005**

- Ukrainian police [seize](#) six metal containers filled with cesium-137 in a village in Crimea. The containers' radiation level exceed the normal background level by 380 times, prompting officers to evacuate the home in which they were discovered and surrounding houses.

- **2006**

- A Russian man attempting to sell 100 grams of weapons-grade uranium is [arrested](#) through a joint Georgian-CIA operation in Tbilisi, along with several Georgian accomplices. Oleg Khinsagov was carrying a plastic bag full of the highly enriched uranium in his pocket. The capture is one of the largest of its kind, and Khinsagov is sentenced to eight to ten years in prison.

- **2008**

- A staffer of the Ukrainian Embassy in Germany and the security manager of a Ukrainian bank are [arrested](#) with radioactive materials, including uranium and cesium, worth 3.1 millions euros (\$4.1 million) in their car. The material had been stolen from a Kiev holding facility, and the two planned to sell it to a criminal group.

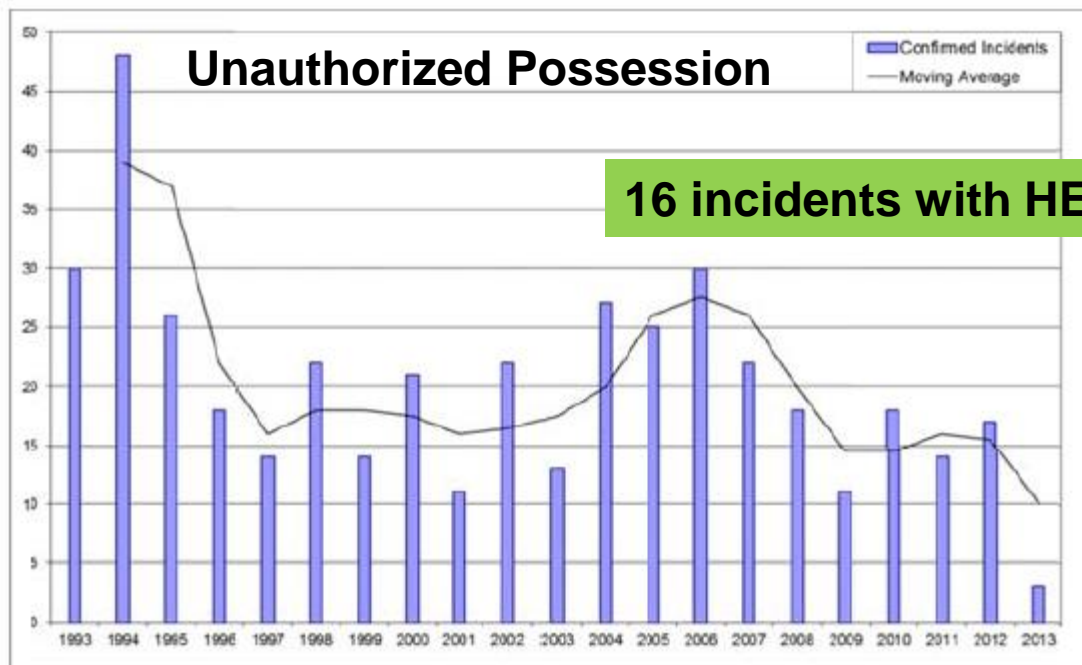
- **2011**

- Moldovan police [arrest](#) six people for attempting to sell more than one kilogram (2.2 pounds) of uranium-235, valued at approximately \$20 million.

Read more: <http://www.smithsonianmag.com/science-nature/Top-Ten-Cases-of-Nuclear-Thefts-Gone-Wrong-189690171.html#ixzz2a09xBnbQ>

IAEA Reported Incidents 1993-2013

Unauthorized Possession



Theft or Loss

>2400 reported incidents of theft or loss

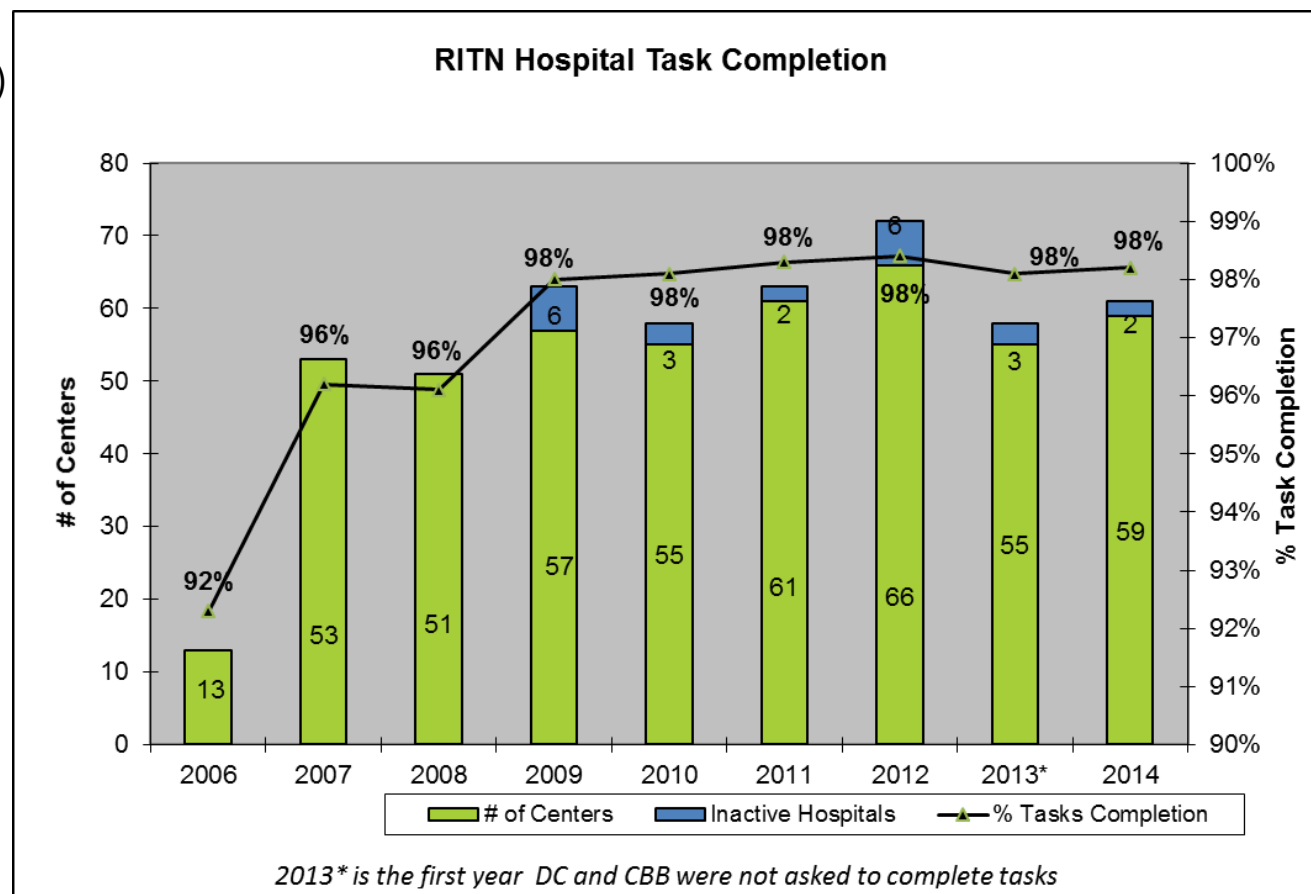


**This is only what
is being reported**

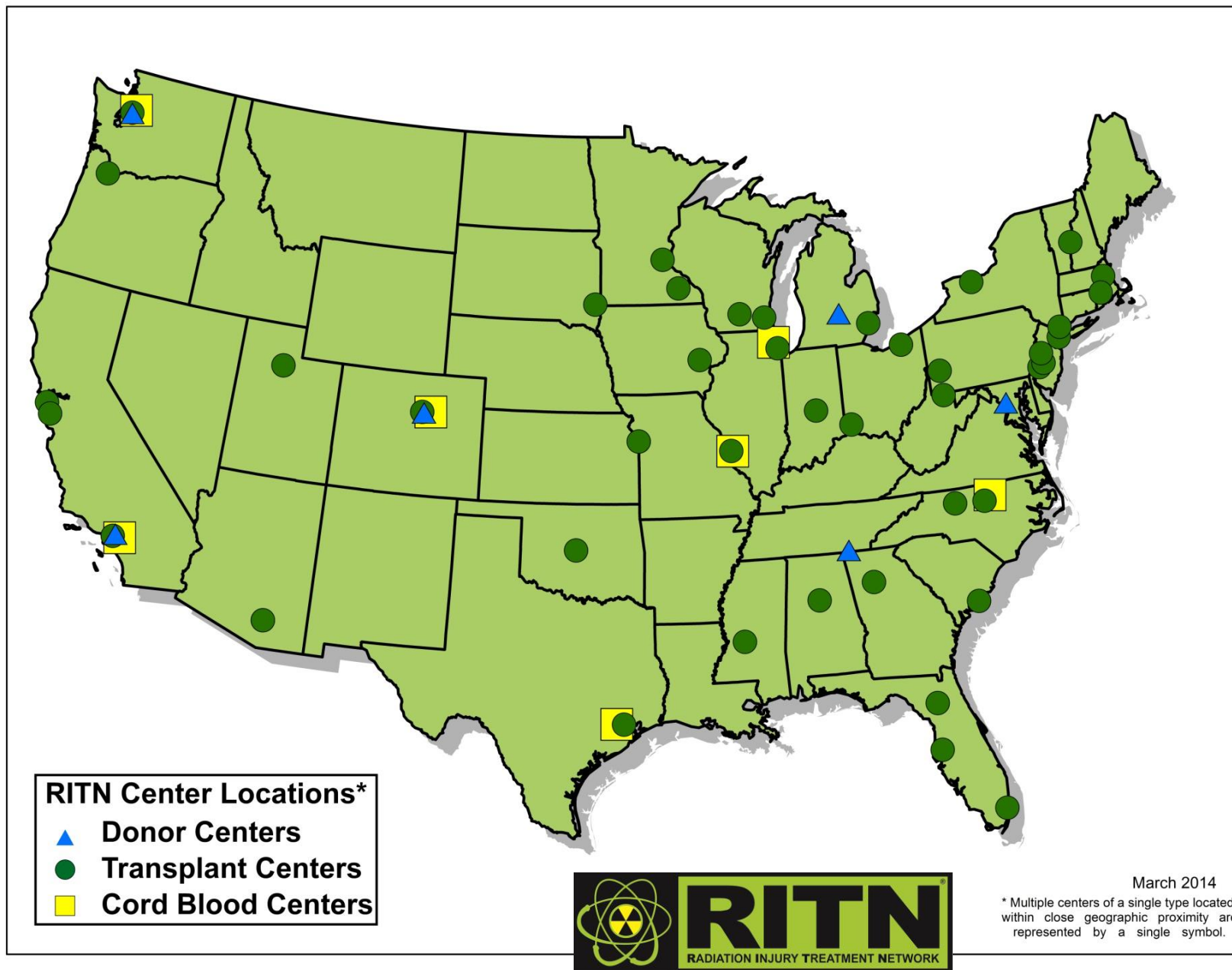
2014 Highlights

Growth

- Two centers were inactive during 2014: Univ of Iowa & Westchester
- Four centers joined RITN during 2014:
 - Univ. of Colorado-Aurora (CO)
 - Northwestern University (IL)
 - Emory University (GA)
 - NorthShore University (NY)



RITN Center Locations



Radiation Injury Treatment Network

Transplant Centers

AL - University of Alabama at Birmingham
 AZ - University Medical Center
 CA - UCSF Medical Center
 CA - City of Hope National Medical Center
 CA - Stanford Hospital and Clinics
 CO - Presbyterian/St. Lukes Medical Center
 CO - University of Colorado (Aurora)
 FL - All Children's Hospital
 FL - H. Lee Moffitt Cancer Center
 FL - Shands Hospital at the University of Florida
 FL - University of Miami
 GA - Northside Hospital
 GA - Emory University
 IA - University of Iowa Hospitals and Clinics
 IL - Rush University Medical Center
 IL - Northwestern University MC
 IN - St. Francis Hospital and Health Centers
 KS - University of Kansas Medical Center
 MA - Children's Hospital of Boston
 MA - Dana Farber/Partners Cancer Care
 MA - Massachusetts General Hospital
 MI - Barbara Ann Karmanos Cancer Center
 MN - Mayo Clinic Rochester
 MN - University of Minnesota BMT Program
 MO - Barnes-Jewish Hospital at Washington
 MO - The Children's Mercy Hospital
 MS - University of Mississippi Medical Center
 NC - UNC Hospitals
 NC - Wake Forest Univ Baptist Medical Center
 NC - Duke University Medical Center
 NH - Dartmouth-Hitchcock Medical Center
 NY - Strong Memorial Hospital
 NY - Memorial Sloan-Kettering Cancer Center
 NY - Mount Sinai Hospital
 NY - Westchester Medical Center
 NY - NorthShore Medical Center

Ped = Pediatric patient only facility

P/A = Pediatric and adult capable facility

**If no capability is annotated the facility is adult only

NDMS = National Disaster Medical System Center

HPP = Hospital Preparedness Program

**please report any corrections to this document to RITN@nmdp.org

Transplant Centers

P/A NDMS HPP OH - Cincinnati Children's Hospital Medical Center
 P/A NDMS HPP OH - Cleveland Clinic Foundation
 P/A NDMS HPP OH - University Hospitals of Case Medical Center
 P/A NDMS HPP OK - Oklahoma Univ. Medical Center & Childrens Hospital
 P/A NDMS HPP OR - Oregon Health & Science University
 NDMS HPP PA - Children's Hospital of Philadelphia
 P/A NDMS HPP PA - Temple University
 Ped NDMS HPP PA - University of Pennsylvania Medical Center
 P/A NDMS PA - Western Pennsylvania Cancer Institute
 P/A HPP PA - Thomas Jefferson
 NDMS HPP RI - Roger Williams Medical Center
 HPP SC - Medical University of South Carolina
 HPP SD - Avera McKennan Transplant Institute
 P/A NDMS HPP TX - M.D. Anderson Cancer Center
 Ped NDMS HPP TX - Texas Children's Hospital
 NDMS UT - LDS Hospital
 NDMS HPP UT - Primary Children's Medical Center
 NDMS HPP UT - University of Utah
 Ped NDMS HPP WA - Seattle Cancer Care Alliance
 P/A NDMS WV - West Virginia University Hospitals
 NDMS HPP WI - Children's Hosp of WI & Midwest Children's CC
 Ped NDMS HPP WI - Froedtert Memorial Lutheran Hospital
 NDMS WI - Univ. of Wisconsin at Madison
 P/A NDMS HPP

Donor Centers

Ped NDMS HPP CA - City of Hope National Medical Center
 P/A NDMS HPP CO - Colorado Marrow Donor Program
 P/A NDMS HPP MD - C.W. Bill Young Marrow Donor Center
 NDMS HPP MI - NMDP operated donor center
 P/A NDMS HPP TN - Blood Assurance
 WA - Puget Sound Blood Center

Cord Blood Banks

P/A NDMS HPP CA - StemCyte International Cord Blood Center
 P/A NDMS HPP CO - University of Colorado
 NDMS HPP IL - ITxM Cord Blood Services
 NDMS HPP MO - St. Louis Cord Blood Bank
 NDMS HPP NC - Carolinas Cord Blood Bank
 HPP TX - MD Anderson
 WA - Puget Sound Blood Center



TC	59
DC	6
CBB	7
Total	72

As of 29 Oct 2014

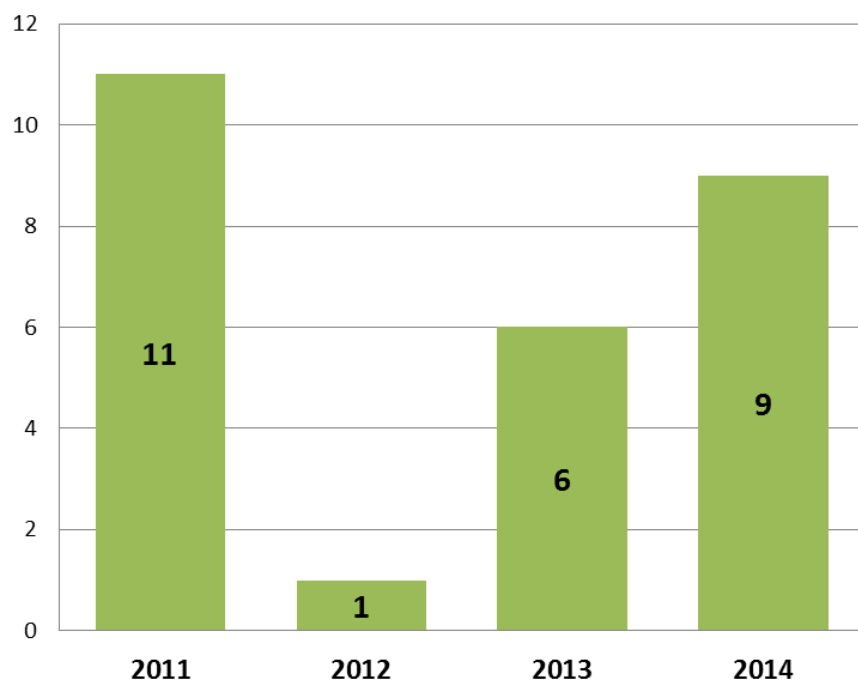
Total NDMS Centers	45	76%
Total HPP Centers	46	78%
Total Pediatric or Ped/Adult	31	53%

2014 Projects

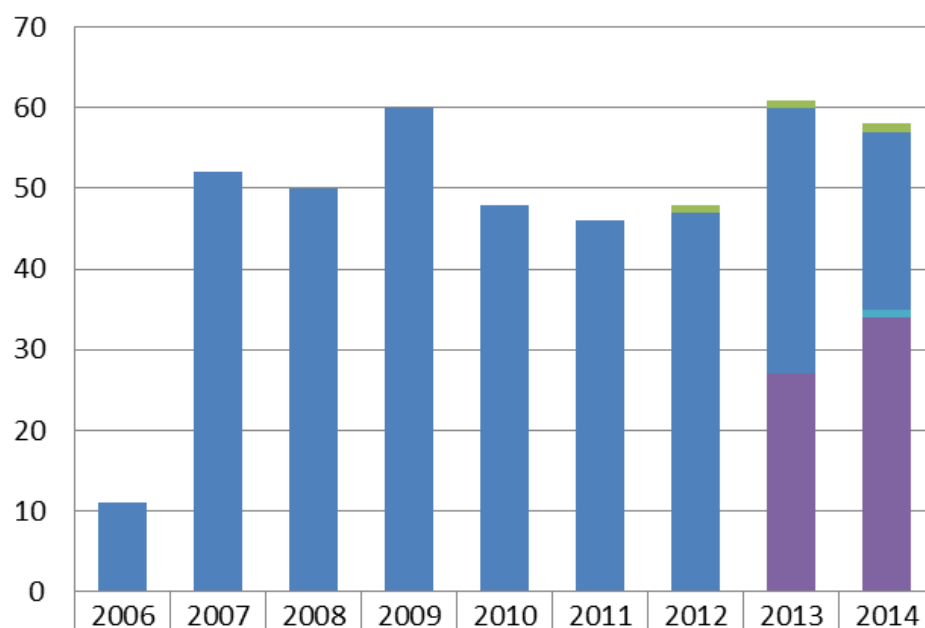
- Exercises:
 - Regional Tabletop in NYC (MSKCC hosted)
 - Fullscale Exercise in Boston (DFCI conducted)
 - 3 Web based tabletops
- Creation of Radiation Safety Communication course
- Released Referral Guidelines
- Collaboration with REMM.nlm.gov on treatment orders
- Site Assessments
- G-CSF distribution project with ASTHO and CDC
- Review of updated REMM ARS guidelines
- Web based data collection forms
- Member of National Alliance for Radiation Readiness

RITN Preparedness Efforts

RITN Site Preparedness Assessments
Grand Total = 27



RITN Exercises by Year
Grand Total = 434



■ Fullscale							1	1	1
■ Tabletop	11	52	50	60	48	46	47	33	22
■ Regional Tabletop									1
■ Web-based Tabletop								27	34
■ Functional									

Summary of RITN Training & Education

Grand Total = 11,528

11,528 total

Totals since 2006:

- 342 REAC/TS
- 3,240 GR
- 3,922 BRT
- 3,171 Overview
- 541 Conference

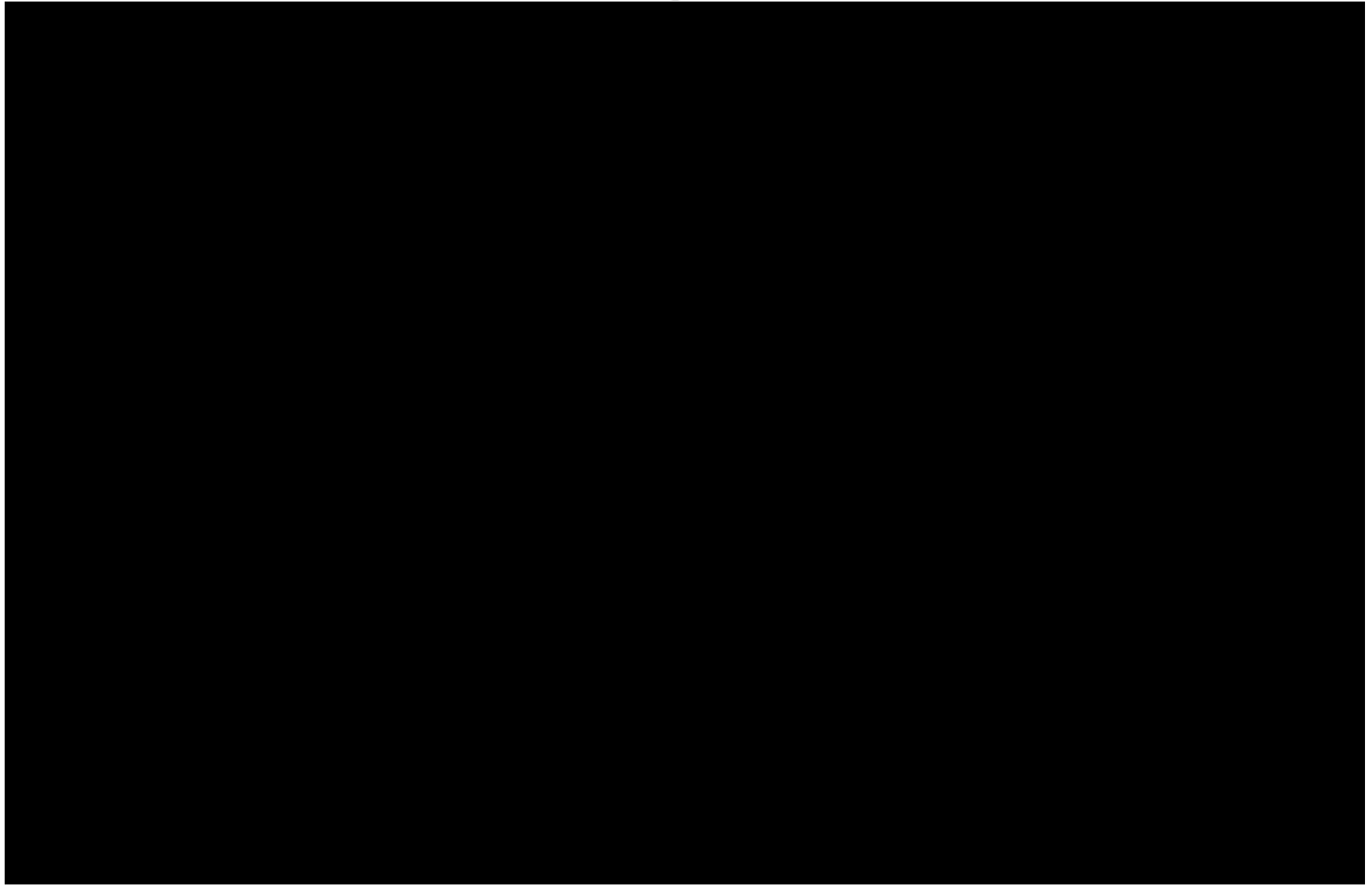
	2006	2007	2008	2009	2010	2011	2012	2013	2014
Other RITN Web Courses								192	120
REAC/TS			38	26	46	45	26	84	77
Grandrounds			677	564	763	460	314	203	259
Basic Rad Tng	30	752	895	320	301	322	744	316	242
Outreach Presentation			317	139	112	1322	394	389	498
Biennial Conference		149		92		125		175	

Partners are Critical to Success

- American Society for Blood and Marrow Transplantation
- Department of Defense - Office of Naval Research
- Dept. of Health & Human Services-Asst. Sec. for Preparedness & Response
- Health Resources and Services Administration
- Radiation Emergency Medical Management website: www.remm.nlm.gov
- National Assoc. of City and County Health Officials
- Assoc. of State and Territorial Health Officials
- National Alliance for Radiation Readiness www.radiationready.org
- AABB-Disasters Task Force
- Radiation Emergency Assistance Center/Training Site
- New England Center for Emergency Preparedness
- European Group for Blood and Marrow Transplantation-Nuclear Accident Committee
- Center for International Blood and Marrow Transplant Research

2015 Projects and Tasks

Funding of RITN



2015 Projects

- Growth of RITN (up to 5 new centers)
- Triage guidelines
- Tele Consult Project
- Exercises:
 - Full Scale Exercise: CHOP, WVU
 - Functional Exercise: Univ CO (Aurora), Karmanos (MI), Wake Forest (NC)
 - Regional TTX: Chicago, Seattle, Rochester (MN)
 - 5 x RITN Web based tabletops
- 2 x Mobile REAC/TS training sessions
- Public Health Awareness project with NACCHO
- Meeting at Tandem
- Biennial conference in DC (July 14 & 15, 2015)
 - Travel “scholarships” for 53 to attend (just airfare to DC)
 - Registration will open next week

2015 Tasks (Oct 1, 2014-Aug 31, 2015)

1. Administrative

- a) SOP update, contact update, GETS test, HCS, satellite phone, IRB consents
- b) **New: Must have Emergency Manager contact**

2. Exercise

- a) Primary choice will be web based on 5 scheduled dates
- b) Can coordinate and host own if prefer

3. Training

- a) Options: 20 x BRT, MD to REAC/TS, Grandrounds, Overview to external preparedness group, site assessment, MD/AP education,
- b) **New: new RITN centers must complete online training, 20 x RITN Rad. Safety Communication training, CDC Rad Training, Exercise, Host Mobile REAC/TS**

References:

www.RITN.net



www.REMM.NLM.gov

U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES

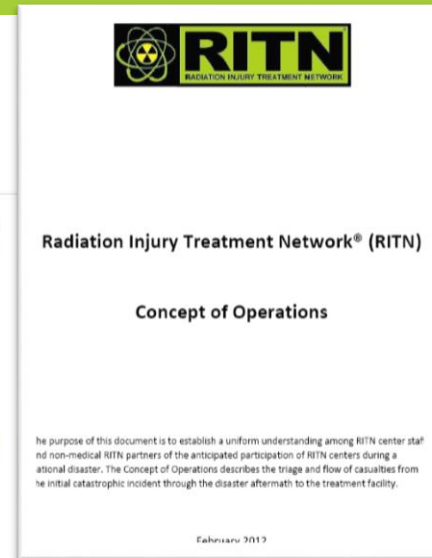
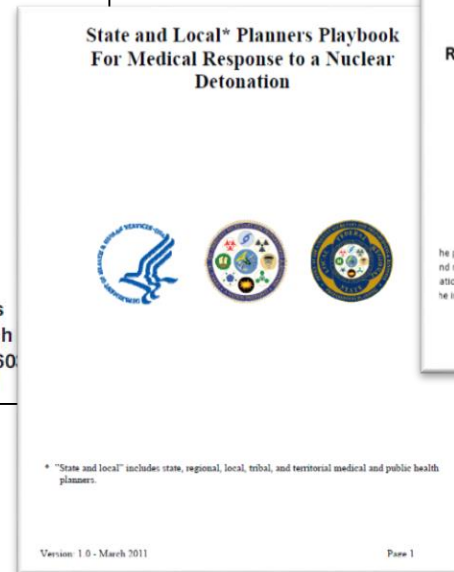
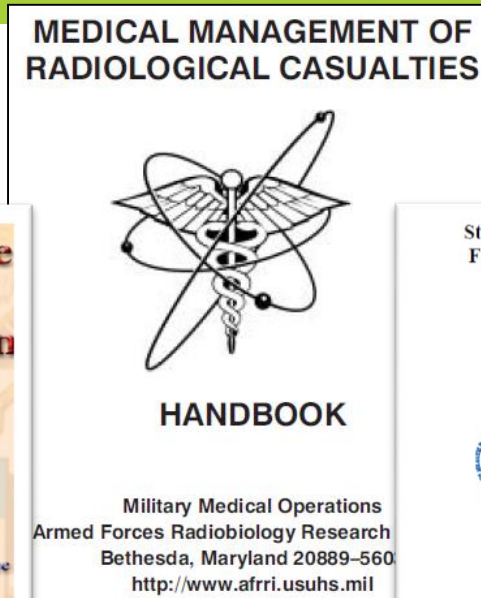
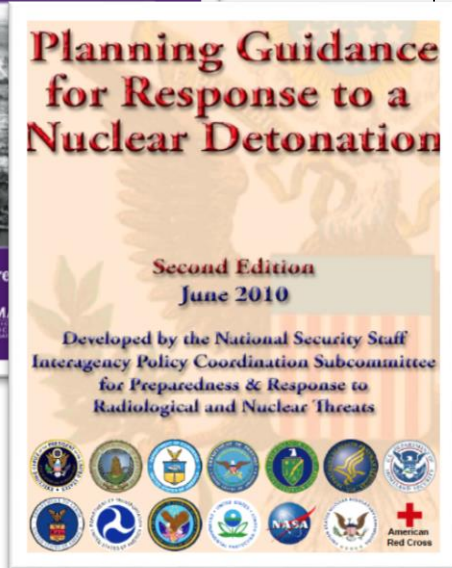
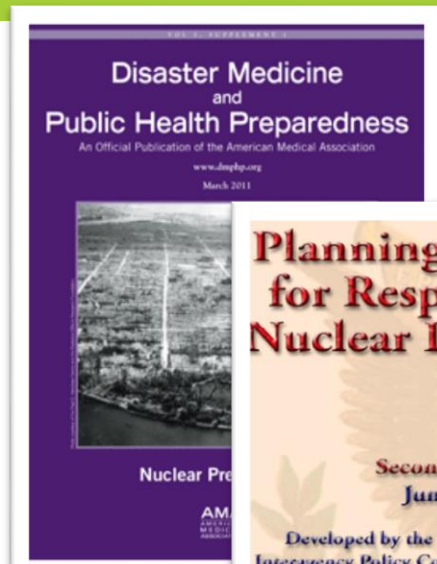
REMM

RADIATION EMERGENCY MEDICAL MANAGEMENT

Guidance on Diagnosis & Treatment for Health Care Providers

**REMM Website Updated Nov 2014
Download the App!!**

Free Resources



- <http://journals.cambridge.org/action/displayIssue?jid=DMP&volumeId=5&seriesId=0&issueId=S1>
- <http://www.remm.nlm.gov/PlanningGuidanceNuclearDetonation.pdf>
- <http://www.phe.gov/Preparedness/planning/playbooks/stateandlocal/nuclear/Documents/statelocalplaybook-v1.pdf>
- <http://www.usuhs.edu/afri/outreach/4thEdition.html#acute>
- <http://www.ritn.net/About/>

Questions?