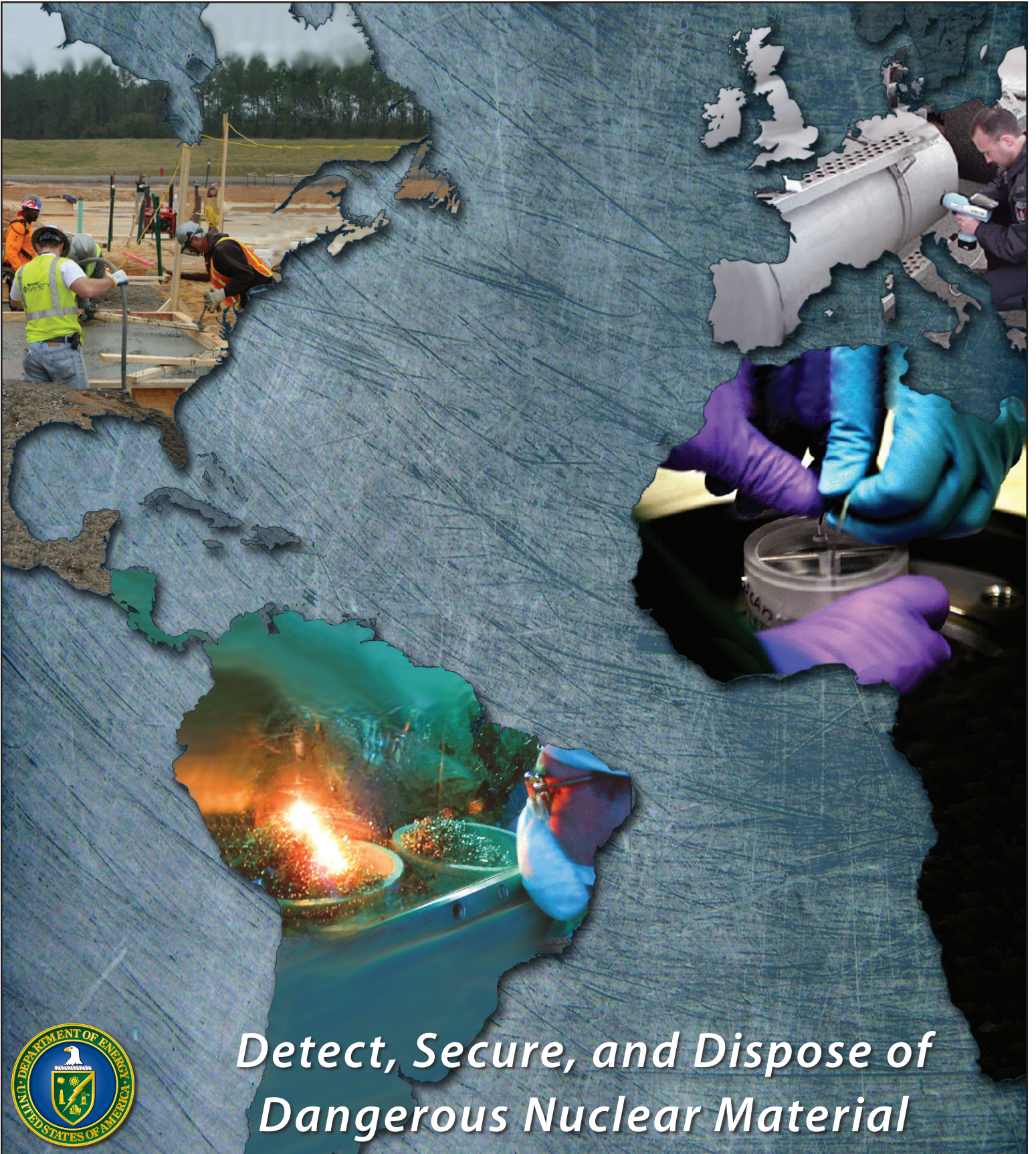




National Nuclear Security Administration Office of Defense Nuclear Nonproliferation

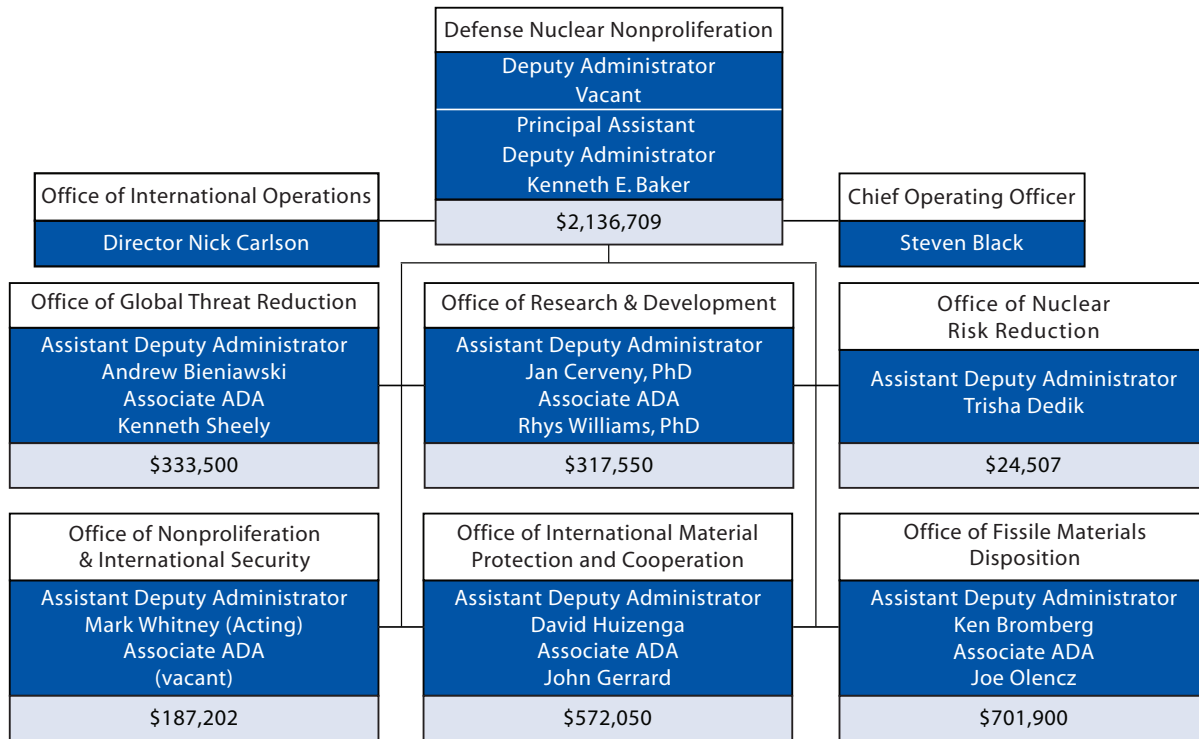


*Detect, Secure, and Dispose of
Dangerous Nuclear Material*



Scope of Commitment

- Over \$2 billion of work planned in FY2010.
- Working with more than 100 countries, the International Atomic Energy Agency (IAEA) and the European Atomic Energy Community (EURATOM).
- Seven countries have contributed \$59 million to our nonproliferation efforts.
- Three *Service to America Award* winners and multiple *Presidential Rank Awards*.



Budget figures in the \$1,000s - FY10 Appropriation

Securing Nuclear and Radiological Materials Worldwide

- Completed security upgrades at 93% of Russian nuclear material and warhead sites of concern; sharing “best practices” in discussions with Russia, China and other international partners.
- Converted 61 reactors in 33 countries from highly-enriched uranium (HEU) to low-enriched uranium (LEU) (an additional 11 shut down).
- Transported 2,791 kilograms of HEU and plutonium from vulnerable sites around the world to secure storage or downblending facilities.
- Secured more than 800 U.S. and foreign buildings containing high-priority nuclear and radiological materials; recovered over 25,000 unwanted or excess high-priority radiological sources in the U.S.
- Trained more than 530 students from more than 50 domestic sites and local law enforcement agencies on how to protect civilian nuclear and radiological facilities in the United States.
- Repacked and removed 550 metric tons (MT) of Iraqi uranium and radiological sources from the Tuwaitha Nuclear Research Complex.
- Trained more than 2,000 foreign officials since the 9/11 terrorist attacks on how to protect nuclear material and facilities.
- Helping commercial partners establish a domestic supply of Molybdenum-99, a critical medical isotope, produced without using HEU.

Nonproliferation Research and Development

- Developed new radiation detection, seismic and radionuclide technologies to support treaty verification and monitoring requirements.
- Developed new methods for detecting special nuclear material production and movement, and for post-detonation nuclear forensics.
- Developed new techniques and technologies to support international nuclear safeguards.
- Designed and built sensors to monitor Earth’s surface, atmosphere, and space for nuclear tests.

Strengthening International Nonproliferation Efforts And Regimes

- Trained nearly 7,200 domestic export enforcement officials in WMD technologies and more than 1,300 foreign technical personnel on nuclear safeguards and nuclear infrastructure development.
- Contributed nearly \$50 million to the IAEA to create an international nuclear fuel bank to support the peaceful uses of nuclear energy.
- Worked with 20 countries in the Middle East, North Africa, and South East Asia, on strengthening their safeguards infrastructure; conducting 85 ongoing nuclear safeguards projects in 20 countries.
- Dismantled Libya's WMD program.
- Completed peaceful nuclear cooperation agreements with India, Turkey, and the UAE.
- Engaged more than 17,000 foreign experts (at least 60% WMD) in collaborative research to develop civilian use technologies.
- Pledged \$3 million and assigned a senior NNSA analyst to support the World Institute for Nuclear Security (WINS).
- Implementing the Next Generation Safeguards Initiative to strengthen IAEA safeguards; improving Nuclear Suppliers Group export control guidelines and technology control lists.

Eliminating Weapons-Usable Material

- Monitored downblending of over 388 MT of Russian weapons-origin HEU for use in U.S. power plants, providing 10% of U.S. electricity.
- Downblended more than 130 MT of U.S. HEU to LEU for peaceful use as nuclear reactor fuel, and 13 MT Russian HEU to LEU.
- Shut down final remaining weapons-grade plutonium production reactor in Russia in April 2010, 8 ½ months ahead of schedule.
- Creating a fuel bank of 17.4 MT of U.S. HEU downblended to LEU as an incentive for other countries to forgo indigenous enrichment and reprocessing capabilities.
- Building facilities to dispose of at least 68 MT of weapons-grade plutonium in the U.S. and Russia (enough for approximately 17,000 nuclear weapons).
- Monitoring storage to ensure non-military use of over 9 MT of Russian weapons-grade plutonium (nearly 2,250 warheads).

Detecting and Deterring Illicit International Nuclear Transfers

- Equipped 221 Russian border crossings with radiation detection equipment; Russia equipped a similar number.
- Deployed radiation detection equipment at 105 sites (land borders, airports, and feeder seaports) outside of Russia, including 17 former Soviet, Eastern European, South Asian and Central Asian countries.
- Completed installation of radiation detection equipment at 30 Megaports; work underway at additional Megaports worldwide.
- Trained operators at 250 radiation detection sites and 30 Megaports, and helped transition sites to full host country responsibility.
- Provided WMD-related Commodity Identification Training (CIT) to frontline inspectors in more than 50 countries, with over half of the host countries adopting national CIT plans.
- Worked with major national manufacturers to prevent inadvertent export of WMD-related technologies.
- In 2008: Reviewed 7,380 export licenses/requests for proliferation risk, and denied 197; In 2009: reviewed 6,543 requests, and denied 189.

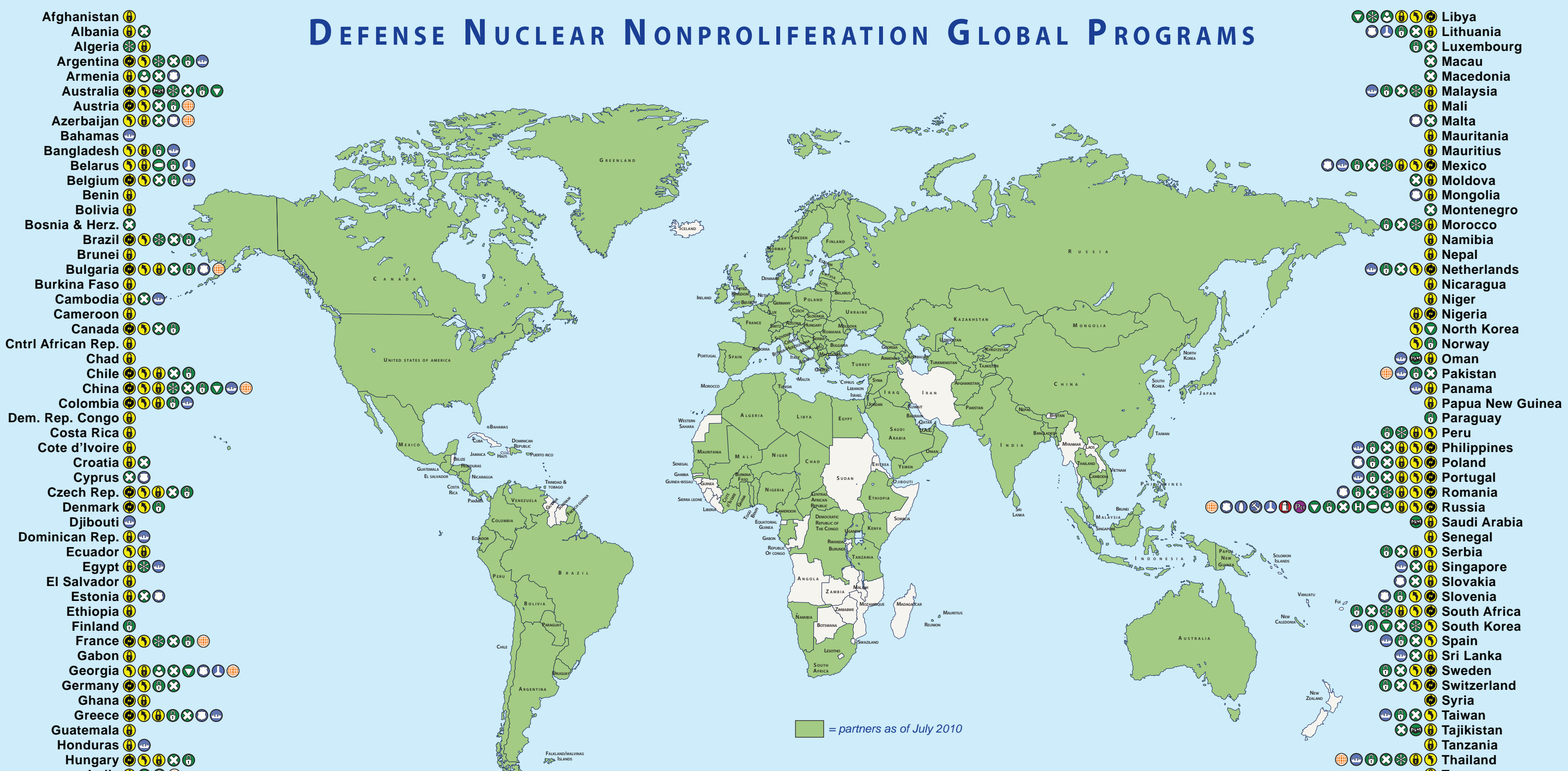
July 2010

Contact Information



U.S. Department of Energy
National Nuclear Security Administration
Office of Defense Nuclear Nonproliferation
1000 Independence Ave., SW
Washington, D.C. 20585
(202) 586-0645
<http://nnsa.energy.gov/aboutus/ourprograms/nonproliferation>

DEFENSE NUCLEAR NONPROLIFERATION GLOBAL PROGRAMS



Afghanistan	Libya
Albania	Lithuania
Algeria	Luxembourg
Argentina	Macau
Armenia	Macedonia
Australia	Malaysia
Austria	Mali
Azerbaijan	Malta
Bahamas	Mauritania
Bangladesh	Mauritius
Belarus	Mexico
Belgium	Moldova
Benin	Mongolia
Bolivia	Montenegro
Bosnia & Herz.	Morocco
Brazil	Namibia
Brunei	Nepal
Bulgaria	Netherlands
Burkina Faso	Nicaragua
Cambodia	Niger
Cameroon	Nigeria
Canada	North Korea
Cntrl African Rep.	Norway
Chad	Oman
Chile	Pakistan
China	Panama
Colombia	Papua New Guinea
Dem. Rep. Congo	Paraguay
Costa Rica	Peru
Cote d'Ivoire	Philippines
Croatia	Poland
Cyprus	Portugal
Czech Rep.	Romania
Denmark	Russia
Djibouti	Saudi Arabia
Dominican Rep.	Senegal
Ecuador	Serbia
Egypt	Singapore
El Salvador	Slovakia
Estonia	Slovenia
Ethiopia	South Africa
Finland	South Korea
France	Spain
Gabon	Sri Lanka
Georgia	Sweden
Germany	Switzerland
Ghana	Syria
Greece	Taiwan
Guatemala	Tajikistan
Honduras	Tanzania
Hungary	Thailand
India	Togo
Indonesia	Trinidad & Tobago
Iraq	Tunisia
Ireland	Turkey
Israel	Turkmenistan
Italy	Uganda
Jamaica	Ukraine
Japan	UAE(Dubai)
Jordan	United Kingdom
Kazakhstan	United States
Kenya	Uruguay
Kuwait	Uzbekistan
Kyrgyzstan	Venezuela
Laos	Vietnam
Latvia	Yemen
Lebanon	

(#) = number of partners