



FEMA



Planetary Impact Emergency Response Working Group (PIERWG) Charter

August 2015

1.0 PURPOSE

The Planetary Impact Emergency Response Working Group (PIERWG) is established by the partnership of the Federal Emergency Management Agency (FEMA) and National Aeronautics and Space Administration (NASA) to develop guidance to prepare for any potential impact of our planet by a large natural object. The risks are inherently unique and there are currently no national policy covering this particular threat. This charter provides the framework for the structure and processes of this interagency team. The PIERWG will coordinate responsibilities and resolve preparedness and operational issues relating to interagency response and recovery activities at the national level in preparation for a predicted or actual impact of an asteroid or comet that could affect the United States or its territories. This charter describes the roles, responsibilities, and membership therein.

2.0 SCOPE

The PIERWG is established to guide U.S. Federal agencies in preparing for and engaging in ground-based activities to protect and preserve human life and property in response to a predicted or actual near-Earth object (NEO), i.e. asteroid or comet, impact. This charter applies to the Federal organizations and agencies cited in this document and also includes other organizations that may join PIERWG in the future.

3.0 OBJECTIVE

The PIERWG provides a forum for affected U.S. Departments and Agencies to develop the essential information and recommendations needed by senior leadership to make informed decisions to respond to the unique challenges of an impending near earth object impact.

4.0 AUTHORITIES AND REFERENCES

a. Authorities

1. The National Aeronautics and Space Act, 51 U.S.C. Section 20101, et seq
2. Section 804 of the National Aeronautics and Space Administration Authorization Act of 2008
3. Presidential Policy Directive / PPD-8: National Preparedness
4. Executive Office of the President, Office of Science and Technology Policy (OSTP) Letter to Congress, dated, 15 October 2010

5. Joint NASA-FEMA Letter to the Office of Science and Technology Policy dated 12 February 2014
 6. Robert T. Stafford Disaster Relief and Emergency Assistance Act, Pub. L. No. 93-288 (as amended primarily at 42 U.S.C. §§ 5121-5207)
 7. Homeland Security Act of 2002, Pub. L. No. 107-296 (codified as amended at 6 U.S.C. §§ 101-1405)
 8. Post-Katrina Emergency Management Reform Act (PKEMRA) of 2006, Pub. L. No. 109-295
- b. References
1. Summary Report of Tabletop Exercise (TTX) #1, Tabletop Exercise for Asteroid Impact, NASA HQ, Science Mission Directorate, Planetary Science Division, NEO Observations Program dated 29 April 2013
 2. Summary Report of TTX#2, Tabletop Exercise for Asteroid Impact, NASA Hq. Science Mission Directorate, Planetary Science Division, NEO Observations Program dated September 2014

5.0 BACKGROUND

In a letter from the OSTP to Congress on October 15, 2010, OSTP reaffirmed U.S. Government roles and responsibilities in the event of a predicted or actual NEO impact on Earth. The crucial first step is to detect, accurately track, and characterize these celestial bodies. NASA is the lead U.S. Government agency to coordinate the detection, tracking, and characterization information of NEOs from all organizations, domestic and international, within the astronomical observation community. NASA's notification procedures are set into motion only after the necessary observations, analyses, and characterization efforts have taken place to determine that a space object indeed represents a credible threat to people or property. This is a low probability, but extremely high consequence event.

Upon notification from NASA of an impending NEO impact threat to the United States, FEMA takes the lead to notify appropriate Federal, State, and Local authorities and emergency response institutions utilizing existing resources and mechanisms. This is analogous to large re-entering space debris and/or hurricane warning procedures; however the information to make an informed decision about implementing these procedures will likely be sparse. Additionally, timelines for decision making can vary from years to days or hours.

A recent example of the potential consequences of a NEO impact was seen worldwide on February 15, 2013, when the city of Chelyabinsk, Russia experienced the effects of the entry into Earth's atmosphere of an asteroid estimated at 17 to 20 meters in diameter. The overpressure from the entry and explosion of the object collapsed building walls, shattered windows, reportedly injured over 1,600 people, and caused property damage exceeding \$30 million. The small asteroid that caused this destruction was not detected by any system prior to atmospheric entry. On the same day as the Chelyabinsk event, the 40-meter diameter asteroid 2012 DA14 passed Earth with a minimum close approach distance less than that of the United States' geosynchronous satellites. This larger object had been discovered approximately one year before close approach.

6.0 PIERWG MEMBERSHIP

Representatives from FEMA, NASA, the Department of Defense (DoD), the White House Office of Science and Technology Policy (OSTP), the Department of State, members of the interagency Emergency Support Function Leadership Group (ESFLG)¹, Recovery Support Function Leadership Group (RSFLG), and other organizations, will make up the membership of PIERWG. The membership of this working group will include individuals who can speak authoritatively on behalf of their respective organizations.

The PIERWG members will be responsible for reviewing developments and maintaining situational awareness with regard to this issue. As communications and early warning procedures are developed and discussed, this group will forward any findings to the ESFLG and RSFLG leadership for their consideration. Proposed membership is as follows:

PIERWG Primary Agencies

Department of Homeland Security-Federal Emergency Management Agency
National Aeronautics and Space Administration

PIERWG Coordinating Agencies

White House Office of Science and Technology Policy
Department of Homeland Security-Science and Technology
Department of Commerce-National Oceanic and Atmospheric Administration (PMEL)
Department of State-Office of Space and Advanced Technology (OES/SAT)
Department of Defense-Office of the Secretary of Defense (OSD), Office of the Assistant Secretary of Defense (OASD), and the Joint Chiefs of Staff
Department of Energy-National Nuclear Security Agency
Department of Agriculture-US Forest Service
Department of the Interior-US Geological Survey

7.0 PIERWG LEADERSHIP

The PIERWG leadership consists of the following personnel:

Co-Chairs: FEMA, Response Directorate; NASA, Planetary Defense Coordination Office of the Planetary Sciences Division (or their designees).

Secretariat: FEMA, Response Directorate, Operations Division, Field Operations Branch

8.0 POLICIES AND PROCEDURES

During PIERWG meetings, members participate in detailed discussions to:

- a. Promote cohesiveness in planning, organization, equipment, training, exercises, and operations to facilitate interagency response, recovery, and preparedness.
- b. Identify policy issues affecting the interagency community to elevate to decision-makers that must be made to ensure a collaborative and coordinated approach.
- c. Serve as a steering committee for all phases of interagency risk and planning analysis, including informing strategy, procedural courses of actions, draft products, and approving completed products.

¹ The ESFLG is an interagency body for identification and resolution of operational issues related to the National Response Framework (NRF), the National Disaster Recovery Framework (NDRF), appropriate Homeland Security Presidential Directives (HSPD), and other related directives.

d. Determine how PIERWG recommendations could be integrated into Department/Agency planning initiatives and doctrine.

Specific PIERWG roles and responsibilities include:

- e.** Advising senior leadership to ensure a consistent and coordinated Federal response in preparing for, during, and after any NEO impact scenario.
- g.** Identifying interagency emergency management issues that cannot be resolved by the Task Teams (see below), especially those identified through ongoing all-hazards planning efforts.
- h.** When necessary, link PIERWG issues, concerns, and recommendations with their respective agency or department program office.
- i.** Informing and providing insights to the development and maintenance of Federal interagency operational plans that may be applied to address the hazards of a NEO impact.
- j.** Providing subject matter expertise and advice through all phases of interagency risk analysis, strategic planning, and capability building related to response and recovery.
- k.** Developing and documenting collaborative interagency courses of action for executing recommendations by the PIERWG.
- l.** Developing, authorizing, and distributing national-level event focused public information guidelines with key themes, messages, and talking points for use during a NEO impact scenario.
- m.** Establishing PIERWG task teams that address issues of immediate concern.

The Secretariat will be responsible for:

- n.** Scheduling meetings, preparing reports and information for briefings, distributing meeting notes, and managing deliverable deadlines.
- o.** Coordinating support by designated personnel from the ESFs and the ESFLG/RSFLG.

9.0 TASK TEAMS

The PIERWG may establish task team(s) as needed. These task teams will include appropriate expertise and representation to guide the development of the requisite procedures for response and recovery activities under the NRF and NDRF, as well as other Federal Interagency and National planning efforts. Representation on task groups will be open to selected departments and agencies and FEMA Regions, as appropriate.

A task team's purpose may be to:

- Convene when necessary for specific issues, and disband upon completion of the specific assigned task;
- Inform the inclusion of NEO risks within national risk and capability analysis efforts;
- Address issues that require appropriate department/agency participation for researching and developing procedures to operationalize and execute policy decisions;
- Identify and suggest process improvements to the PIERWG for approval;
- Provide input from subject matter experts; and
- Provide expertise to FEMA to address tasks including the research and development of potential options/courses of action and drafting of documents, recommendations, and procedures to improve Federal interagency coordination, integration, and incident response.

10.0 NO FUNDS TRANSFER

This Charter does not support an obligation of funds, and each party shall be responsible for any and all expenses or liabilities incurred by that party relating to this Charter, and no party will be responsible for any expense or liability incurred by another party hereto unless specifically agreed to in a writing separate from and independent of this Charter. All activities under or pursuant to this Agreement are subject to the availability of funds, and no provision of this Agreement shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act (31 U.S.C. § 1341).

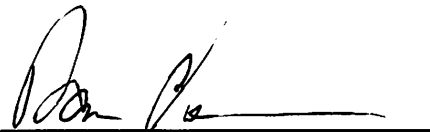
11.0 NON-EXCLUSIVITY

Nothing in this Charter shall be interpreted as limiting, superseding, or otherwise affecting a party from conducting normal operations or making decisions in carrying out its mission and duties. This Charter does not limit or restrict the parties from participating in similar activities or arrangements with other entities.

12.0 SHARING OF INFORMATION

The parties agree that the information and data exchanged in furtherance of the activities under this Charter will be exchanged without use and disclosure restrictions unless required by national security regulations (e.g., classified information) or agreed to by and among the parties for specifically identified information or data (e.g., information or data specifically marked with a restrictive notice).

13. APPROVALS



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James Green
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