A BILL

To provide for the establishment of the National Volcano Early Warning and Monitoring System.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the “National Volcano Early Warning and Monitoring System Act”.

SEC. 2. FINDINGS.

Congress finds that—

1. the United States and the territories of the United States contain 169 hazardous volcanoes;
(2) since 1980, eruptions have claimed many lives and cost billions of dollars in property damage in the United States;

(3) ash eruptions pose a hazard to high-flying jet aircraft, including the more than 20,000 passengers who travel on jets over Alaska every day;

(4) in 1989, an eruption of Redoubt Volcano, Alaska, caused in-flight failure of all 4 engines of a passenger Boeing 747 aircraft;

(5) international flights over the Commonwealth of the Northern Mariana Islands and the intense domestic air traffic of the Pacific Northwest also face potential engine failure in the event of an eruption;

(6) mudflows from ice-clad Cascade volcanoes of the States of Washington, Oregon, and California pose a serious hazard to cities and transportation arteries in the Pacific Northwest;

(7) lava flows, toxic gas emissions, and explosions impact residents and visitors to Hawaii and have the potential to cause catastrophic property damage;

(8) frequent seismic unrest requires careful monitoring in the Mammoth Lakes area of California and Yellowstone National Park in the States of Wyoming, Montana, and Idaho;
(9) modern technology, in the form of geo-
physical monitoring networks on the ground and the
use of near-real time satellite data, makes possible
warnings before eruptions, giving emergency re-
response agencies and the public time to prepare,
which minimizes potential damage to property and
loss of life;

(10) the efficacy of monitoring is being dem-
onstrated by the forecast and subsequent tracking of
explosive eruptions of Redoubt Volcano by the Alas-
ka Volcano Observatory, a partnership of the United
States Geological Survey, the University of Alaska
Fairbanks, and the Alaska Division of Geological
and Geophysical Surveys;

(11) the United States Geological Survey and
the university and State partners of the United
States Geological Survey operate—

(A) the Alaska Volcano Observatory lo-
cated in Anchorage and Fairbanks, Alaska;

(B) the Cascades Volcano Observatory lo-
cated in Vancouver, Washington;

(C) the Hawaiian Volcano Observatory lo-
cated in Hawaiian Volcanoes National Park, Hawaii;
(D) the Yellowstone Volcano Observatory located in Yellowstone National Park in the State of Wyoming, Montana, and Idaho; and

(E) the Long Valley Observatory, located in Mammoth Lakes and Menlo Park, California; and

(12) a detailed survey of the volcanoes in the United States and the monitoring status of those volcanoes has revealed a serious monitoring gap, leaving the United States exposed to preventable damage from large volcanic eruptions.

SEC. 3. DEFINITIONS.

In this Act:

(1) SECRETARY.—The term “Secretary” means the Secretary of the Interior, acting through the Director of the United States Geological Survey.

(2) SYSTEM.—The term “System” means the National Volcano Early Warning and Monitoring System established under section 4(a)(1).

SEC. 4. NATIONAL VOLCANO EARLY WARNING AND MONITORING SYSTEM.

(a) ESTABLISHMENT.—

(1) IN GENERAL.—The Secretary shall establish within the United States Geological Survey a program, to be known as the “National Volcano Early
Warning and Monitoring System”, to monitor, warn, and protect citizens of the United States from undue and avoidable harm from volcanic activity.

(2) PURPOSES.—The purposes of the System are—

(A) to organize, modernize, standardize, and stabilize the monitoring systems of the volcano observatories in the United States; and

(B) to unify the monitoring systems of volcano observatories in the United States into a single interoperative system.

(3) OBJECTIVE.—The objective of the System is to monitor all the volcanoes in the United States at a level commensurate with the threat posed by the volcanoes by—

(A) upgrading existing networks on monitored volcanoes; and

(B) installing new networks on unmonitored volcanoes.

(b) SYSTEM COMPONENTS.—

(1) IN GENERAL.—The System shall include—

(A) a national volcano watch office that is operational 24 hours a day and 7 days a week;

(B) a national volcano data center; and
(C) an external grants program to support research in volcano monitoring science and technology.

(2) MODERNIZATION ACTIVITIES.—Modernization activities under the System shall include the comprehensive application of emerging technologies, including digital broadband seismometers, real-time continuous global positioning systems, radar satellite interferometry, and spectrometry to measure gas emission.

(c) MANAGEMENT.—

(1) MANAGEMENT PLAN.—

(A) IN GENERAL.—Not later than 90 days after the date of enactment of this Act, the Secretary shall submit to Congress a 5-year management plan for establishing and operating the System.

(B) INCLUSIONS.—The management plan submitted under subparagraph (A) shall include—

(i) annual cost estimates for modernization activities and operation of the System;

(ii) annual milestones, standards, and performance goals; and
(iii) recommendations for, and progress towards, establishing new, or enhancing existing, partnerships to leverage resources.

(2) ADVISORY COMMITTEE.—The Secretary shall establish an advisory committee to assist the Secretary in implementing the System, to be comprised of representatives of relevant agencies and members of the scientific community appointed by the Secretary.

(3) PARTNERSHIPS.—The Secretary may enter into cooperative agreements with universities and State agencies designating the universities and agencies as volcano observatory partners for the System.

(4) COORDINATION.—The Secretary shall coordinate the activities under this Act with the heads of relevant Federal agencies, including—

(A) the Secretary of Transportation;

(B) the Administrator of the Federal Aviation Administration;

(C) the Administrator of the National Oceanic and Atmospheric Administration; and

(D) the Director of the Federal Emergency Management Administration.
(d) **ANNUAL REPORT.**—Annually, the Secretary shall submit to Congress a report that describes the activities carried out under this Act.

**SEC. 5. AUTHORIZATION OF APPROPRIATIONS.**

There is authorized to be appropriated to the Secretary to carry out this Act $15,000,000 for fiscal year 2009 and each fiscal year thereafter.