

USAF support to Japan crisis



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 - Massive tidal wave strikes Japan/spreads across pacific
 - Fukushima nuclear reactor crisis
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Event overview



- 9.0 quake near Sendai, Japan on March 11
 - 4th largest in history; aftershocks up to 7.1
 - Images of the massive tidal wave are seen around the world
- Resulting tsunami produced 10m (30 foot) waves
 - Water reached up to 10km inland
 - Tsunami warnings issued to 50 countries
- Tremendous infrastructure damage
- Cooling system failures at several nuclear plants
 - Creates a significant radiation threat
 - 20km evacuation zone around Fukushima plant as of March 16
 - Government of Japan reports 416k people in 2,500 shelters
 - 10% of homes lost power

Operation Tomodachi



- USPACOM expresses its condolences to the people of Japan who are experiencing terrible losses in the aftermath of the earthquakes and tsunami
- U.S. military continues positioning assets to provide the most expedient support needed at the request of the Japan Self-Defense Force, which is leading the disaster relief efforts
- The PACOM Joint Operations Center (JOC) and all HQ command operations centers have been activated. The Hawaii National Guard (HING) JOC is activated. Joint Task Force - Homeland Defense (JTF-HD) Emergency Operation Center (EOC) is activated. USCG and HING liaison teams at the State EOC.
- **March 11** – 11 commercial aircraft containing over 500 passengers are diverted to Yokota Air Base from Narita International Airport in Tokyo after it closed as a result of the earthquake. The AF provided shelter, food, water and cots for 500 passengers from 2 aircraft that diverted overnight.
- **March 11** - The Air Force begins planning, and the U.S. Government approves assistance pending government of Japan request.
- **March 12** - A C-17 Globemaster III carrying more than 12 Airmen from the 517th Airlift Squadron took off from Joint Base Elmendorf-Richardson Saturday, to fly support missions.



Operation Tomodachi



- **March 12** - A C-17 Globemaster III carrying approximately 20 Pacific Air Forces Airmen departed Hickam Air Force Base to support ongoing disaster relief efforts in Japan.
- **March 13** - Airmen from Misawa Air Base, Japan, off loaded pallets of disaster relief supplies from a C-17 Globemaster III supporting Operation Tomodachi.
- **March 16** - Members of the 320th Special Tactics Squadron help clear the runway and make it ready for fixed-wing aircraft traffic March 16, at Sendai Airport, Japan.
- **March 18** - An MC-130P Combat Shadow crew from Kadena Air Base's 17th Special Operations Squadron successfully refueled four HH-60 helicopters conducting search and rescue operations off the shores of northeastern Japan.
- **March 18** - A Joint Base Elmendorf-Richardson, Alaska C-17 transports members of the 15th Brigade, Japan Ground Self Defense Force and four of their trucks full of relief supplies from Yokota AB to mainland Japan.

Fukushima nuclear crisis



- No damage or significant injuries from the earthquake or tsunami were reported at any of the U.S. military facilities in Japan.
- In response to the nuclear reactor incident in Fukushima Prefecture, Pacific Command (PACOM) personnel take precautionary measures to mitigate exposure to radiation. As of now, military personnel are not exposed to medically significant doses of radiation outside of the nuclear evacuation zone.
- Radiological support teams deploy and assist with the assessment efforts. Teams have the necessary expertise, guidance, equipment, and manpower to ensure humanitarian efforts will be conducted safely on aircraft and ships operating in radiological environments.
- Airmen from the 374th Aerospace Medicine Squadron and 374th Civil Engineer Squadron emergency management flight members assess military members returning from missions in and over contaminated areas for possible radiation exposure.
- **March 16** - PACAF officials utilize a Global Hawk from Anderson AFB Guam, provide near real-time imagery to assess damage caused to nuclear plant.

Fukushima nuclear crisis



- **March 17** - USAF delivered 100 NBC suits to firefighters supporting Fukushima effort.
- **March 18** - Precautionary radiation assessment measures in effect for all aircraft arriving at U.S. military installation in Japan from operations in north within affected Fukushima area.
- **March 19** - Air Force aircrews from the 36th Airlift Squadron fly from Yokota Air Base to Hyakuri Air Base to deliver seven pallets of boron to the Japanese Air Self-Defense Force. The boron is used to help stabilization efforts at the Fukushima Daiichi nuclear plant.
- **March 19** - A C-130H Hercules from the 36th Airlift Squadron Yokota AB, Japan, flies medical supplies to Sendai and Hanamaki Airport for distribution to local hospitals and evacuation centers.
- **20 March** - C-17 flew from Yokota AB to Sendai with 90,000 pounds of medical and relief supplies.

Operation Pacific Passage



- U.S. State Department has determined that American citizens who live within 50 miles (80 km) of the Fukushima Dai-ichi Nuclear Power Plant should evacuate the area or take shelter indoors if safe evacuation is not practical. It is important to minimize the exposure of personnel to the greatest degree possible. The safety and security of DoD personnel is always a top priority.
- **March 19** - The first military-assisted, voluntary departure flight from Yokota Air Base, Japan landed at Seattle-Tacoma International Airport at approximately 10 A.M. with 233 passengers onboard. Multiple contracted carriers are scheduled to continue transporting voluntary departure passengers (approx 9,000 as of March 20) over subsequent days.

More information



- Links to more photographs and information

- Photo sets on Flickr

- ✦ [Relief aid to Japan](#)
- ✦ [Airmen supporting relief](#)
- ✦ [Earthquake in Japan set](#)
- ✦ [Earthquake in Japan set 2](#)

- Military sites

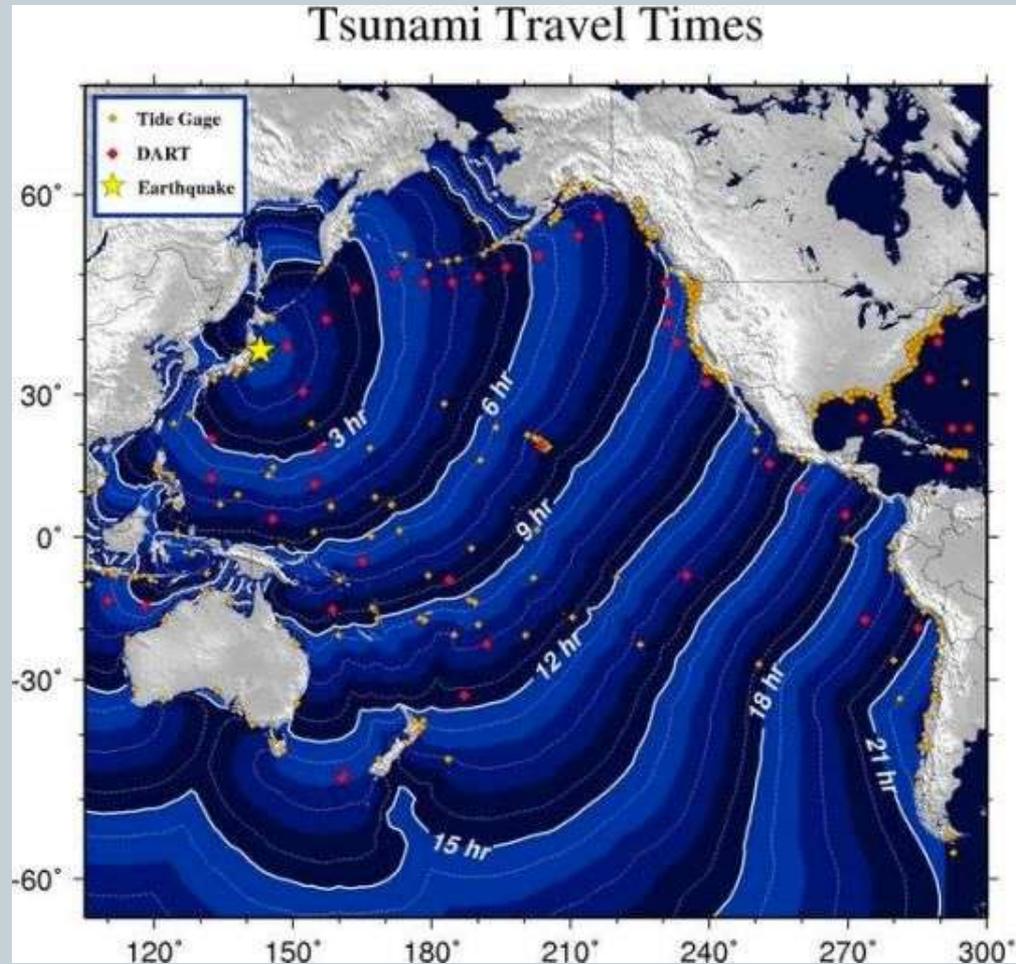
- ✦ [Kadena AB site](#)
 - [Kadena facebook](#)
- ✦ [Yokota AB site](#)
- ✦ [Misawa AB site](#)
- ✦ [Air Force Japan crisis site](#)
- ✦ [HQ Pacific Air Forces site](#)
- ✦ [5th Air Force site](#)



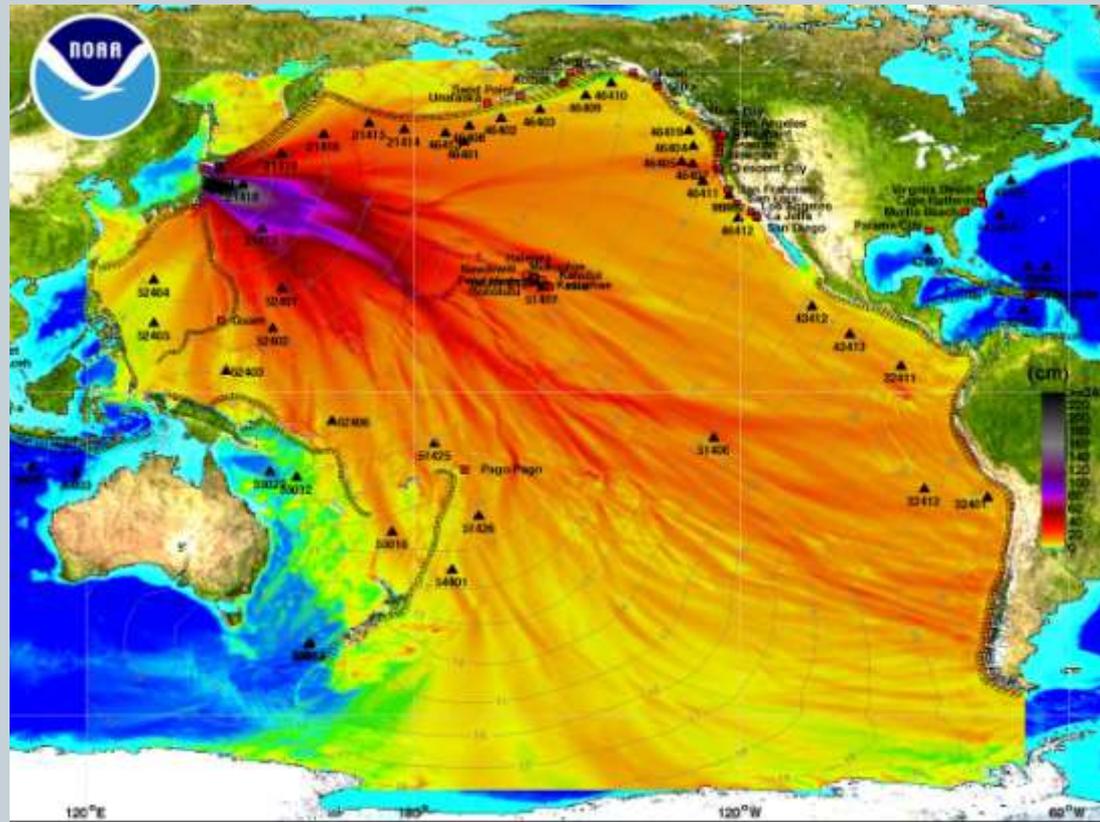
Devastating earthquake and tsunami



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Good to know facts about **RADIATION**

Common levels of ionizing radiation exposure (mREM)

4 mREM = A single cross country flight

10 mREM = A single chest X-ray

400 mREM = A single mammogram study

620 mREM = Average background radiation annually

1,800 mREM = A single CT scan

10,000 mREM = Chernobyl evacuation zone

Exposure term equivalency chart

1 Sievert (sv) = 100 Centi-sievert

1 Centi-sievert (cSv) = 1 Roentgen Equivalent to Man (REM)

1 Roentgen Equivalent to Man (REM) = 1,000 mREM

Information courtesy of Defense Threat Reduction Agency

How to reduce radiation exposure



1 Time: The concept of time works in two ways. Limiting or minimizing the amount of exposure time will reduce the dose from the radiation source. Also, allowing radioactive material as much time as possible to decay before exposure will minimize radiation exposure when that material needs to be handled.

Information courtesy of U.S. Nuclear Regulatory Commission



2 Distance: Increasing the distance from the radiation source will sharply decrease exposure. The intensity of radiation decreases the further you are from the source in the same way that the heat from a fire is less intense the further away you are from



3 Shielding: Inserting a solid material or shield between yourself and a radiation source will greatly reduce the radiation dose. Barriers of lead, concrete or water provide protection from radiation from gamma rays and neutrons. This is why certain radioactive materials are stored under water or in concrete or lead-lined rooms.

Operation Pacific Passage



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