



UNITED STATES MARINE CORPS
MARINE CORPS INSTALLATIONS PACIFIC-MCB CAMP BUTLER
UNIT 35001
FPO AP 96373-5001

MCIPAC-MCBBO 3000.2

G-3/5
MAR 09 2020

MARINE CORPS INSTALLATIONS PACIFIC-MCB CAMP BUTLER ORDER 3000.2

From: Commanding General, Marine Corps Installations Pacific-MCB Camp Butler
To: Distribution List

Subj: STANDARD OPERATING PROCEDURES FOR TSUNAMI WARNING RESPONSE
(SHORT TITLE: TSUNAMI SOP)

Ref: (a) MCIPAC-MCBBO 1752.1A, MCCS Mass Casualty/Crisis Action Support
(b) Local Implementation Agreements for Tsunami Evacuation (available from MCIPAC-MCBB, AC/S G-3/5, Installation Emergency Manager (IEM))
(c) Unified Facilities Criteria (UFC) 4-023-10, 1 Jun 16, Safe Havens
(d) USFJ Instruction 32-2, 19 Nov 99

Encl: (1) Watch Officer Tsunami Warning Checklist
(2) MCIPAC-MCBB Installation Tsunami Vulnerability Maps
(3) Camp and Station Local Implementation Agreement (LIA) Tsunami Evacuation Routes
(4) Tsunami Action Sets for Installations/Camps
(5) Sample Tsunami Warning Message

1. Situation. Marine Corps Installations Pacific-MCB Camp Butler (MCIPAC-MCBB) will implement procedures to be used during tsunami threat to Okinawa in accordance with this Order and the references listed.

2. Mission. Upon receipt of a Tsunami Warning for Okinawa, MCIPAC-MCBB implements notification and response procedures to protect the lives of all community members.

3. Execution

a. Commander's Intent

(1) Purpose. To issue planning guidance and to establish response procedures to enhance MCIPAC-MCBB's ability to rapidly implement measures to protect the lives of service members and families in the event of a tsunami.

(2) Method. Protecting lives from the effects of a tsunami involves preparation prior to a tsunami, and, when a Tsunami Warning is issued, the implementation of appropriate response measures. Preparation prior to a tsunami involves the conduct of vulnerability assessments, the establishment of notification procedures and the exercising of response measures. Upon receipt of a Tsunami Warning, MCIPAC-MCBB disseminates the warning on all means of

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communication to ensure widest dissemination, implements response measures appropriate to the threat and coordinates response measures with local authorities.

(3) Endstate. MCIPAC-MCBB commands are prepared to rapidly disseminate Tsunami Warning information and to implement response measures. In the event of a tsunami, service members and families are safely out of harm's way.

b. Concept of Operations

(1) Preparation. Tsunami preparation is a collective process conducted by all commands and local emergency responders to minimize loss of life. Planning is essential to ensure the proper preparedness to execute a timely and effective response upon the receipt of a Tsunami Warning. It encompasses vulnerability assessments, identification of key communications nodes and dissemination methods, safe haven areas, and assignment of responsibilities.

(2) Response Procedures. Actions in response to the receipt of a Tsunami Warning supersede all other responsibilities. However, as there are tsunami warnings and bulletins issued for the Pacific region on a routine basis, a quick assessment is required to determine the significance of the tsunami warning and whether or not actions are required to prevent the loss of life. Tsunami Warning, notification and response procedures must be reviewed and exercised at least annually in order to maintain a proficient level of emergency preparedness.

c. Tasks

(1) MCIPAC-MCBB AC/S G-1. Be prepared to (BPT) provide accountability reports in accordance with published procedures.

(2) MCIPAC-MCBB AC/S G-2

(a) In coordination with III MEF Intelligence Battalion, provide imagery and topographical maps of damaged areas within the Area of Responsibility (AOR).

(b) In coordination with III MEF Intelligence Battalion, provide updated threat assessments as conditions in the AOR change.

(3) MCIPAC-MCBB AC/S G-3/5

(a) Develop and maintain the tsunami planning effort for MCIPAC-MCBB in accordance with the references.

(b) Exercise Tsunami Warning and notification procedures annually.

(c) Conduct tsunami notification communication tests on a monthly basis to exercise all means of communication included in enclosure (1), the Watch Officer's checklist.

(d) Coordinate Tsunami Warning procedures with all external commands and organizations (e.g.: AFN, 18th Wing, CFAO, 10th RG, OPG, and 1st Combined Brigade).

(e) Train Base Emergency Operations Center (BEOC) Watch Officers and Officers of the Day (OOD) on the Tsunami Warning Checklist procedures (encl 1).

(f) BPT establish the BEOC to coordinate disaster relief efforts in the event of a major tsunami.

(g) Coordinate the execution of evacuation operations by the Fire Department and the Provost Marshal's Office (PMO).

(4) MCIPAC-MCBB AC/S G-4

(a) In coordination with tenant commands and agencies, maintain a database of all on-island disaster relief supplies and equipment at our disposal to include tenant command supplies.

(b) In coordination with tenant commands and agencies, provide essential items to personnel within designated safe havens to include: basic toiletries, water, blankets, and other items designated essential.

(5) MCIPAC-MCBB AC/S G-6

(a) Assist the MCIPAC-MCBB AC/S G-3/5 and Camps/Stations in maintaining mass notification systems.

(b) In coordination with III MEF provide non-organic communications support as required for disaster relief operations.

(c) Restore damaged communications specific infrastructure.

(6) MCIPAC-MCBB G-7. Coordinate response efforts with the Government of Japan.

(7) MCIPAC-MCBB G-F

(a) Assist Camp/Station commanders in identifying Tsunami Safe Haven Sites and high occupancy buildings on their respective Camps/Stations.

(b) BPT convene the Installation Water Quality Board (IWQB).

(c) BPT liaise with USACE, NAVFAC, and engineering commands to conduct immediate recovery operations and execute acquisition actions.

(d) Upon tsunami notification, stand-up the Maintenance Operations Center, recall key personnel, BPT to conduct Damage Assessment and Recovery Operations, and BPT to maintain generator fuel and maintenance for an extended period.

(e) BPT support installations with water and power generation.

(8) MCIPAC-MCBB COMMSTRAT. Assist Camp/Station commanders in educating their residents on immediate actions taken upon receipt of a Tsunami Warning, vulnerable areas, and important tsunami facts.

(9) MCIPAC-MCBB MCCC. In accordance with reference (a), BPT provide a full range of crisis action support.

(10) MCIPAC-MCBB PMO. In the event of a tsunami, notify all PMO stations and conduct the following actions:

(a) Announce the approaching tsunami via all available loudspeaker systems saturating Red Areas first (encl 2).

(b) Immediately assist Camp Commanders in the evacuation of Red Areas to established Tsunami Safe Havens.

(c) Notify and coordinate with the Okinawa Prefectural Police (OPP) for all required actions.

(d) Establish traffic control points to prevent personnel from entering threatened areas and to facilitate evacuations. See enclosure (3) for Camp and Station Tsunami Evacuation Routes.

(e) Keep the BEOC/OOD informed of the status of the evacuation and of the extent of damage once the tsunami strikes.

(f) Ensure gates designated to be open in Local Implementation Agreements between Camps and Local communities are opened in accordance with reference (b), and allow all individuals to enter the camps to evacuate to higher ground.

(11) MCIPAC-MCBB Installation and Camp Commanders

(a) Using reference (c), identify Tsunami Safe Haven Sites on your respective Camps/Stations that are 100 feet above sea level. If there are no locations above 100 feet, then Tsunami Safe Haven Sites should be located on ground not less than 30 feet above sea level.

(b) Keep tenant units, first responders and residents informed of Tsunami Safe Haven Sites on your respective Camps/Stations.

(c) Ensure Tsunami Evacuation Routes and Safe Haven locations are designated and posted in all high occupancy buildings located less than 30 feet above sea level.

(d) Identify Casualty Collection Points in Safe Haven areas.

(e) Upon receipt of a Tsunami Warning, conduct the following actions:

1. Disseminate Tsunami Warning information via all means available.

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2. Evacuate personnel from Red and Yellow Areas to Tsunami Safe Havens as rapidly as possible.

3. Establish the EOC and coordinate relief efforts after a tsunami.

4. Ensure the appropriate Force Protection Condition (FPCON) measures are implemented before, during, and after a tsunami evacuation.

5. BPT send Evacuation Status Reports to the MCIPAC-MCBB BEOC.

6. BPT alert and assemble Rescue Teams and Damage Assessment Teams.

7. BPT establish Casualty Collection Points and Displaced Persons areas within safe havens.

(12) USNH Okinawa. BPT activate the Emergency Management Plan.

d. Coordinating Instructions

(1) Okinawa is in Region 800 in the Japanese Meteorological Agency's tsunami region notification.

(2) Vulnerable areas due to elevation above sea level for all MCIPAC-MCBB installations on Okinawa are depicted in enclosure (2).

(3) In addition to above directed tasks to MCIPAC-MCBB Installation and Camp Commanders, Commanders can utilize enclosures (4) and (5) as initial guidelines for action sets and response. These action sets shall be supplemented by local action sets to account for local requirements at the Commander's discretion.

(4) Commands and agencies in possession of resources, assets, and capabilities deemed useful in the preparation for, response to, and recovery from a tsunami event will coordinate directly with the MCIPAC-MCBB, AC/S G-4 for the creation and maintenance of a resource database for use during an event.

(5) When selecting areas for safe haven designation, commanders and planners will consider whether they are structures, or protected areas within a structure, that provide protection from man-made, or natural threats for short durations and infrequent intervals. Considerations will be made for transit time to the location, travel route, duration of occupancy, occupancy level, security, safety, and logistical requirements. They are not intended to provide the same level of sustainment found in shelters.

(6) Camp and tenant Commanders shall incorporate Emergency Preparedness training in support of building and fostering resiliency and personal responsibility within the base population. This can be accomplished during safety stand-downs, town halls, or other appropriate venues.

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4. Administration and Logistics. Key points of contact:

- a. MCIPAC-MCBB Officer of the Day (OOD): DSN 645-7218/2644
- b. MCIPAC-MCBB, G-3/5 COPS: DSN 645-7607/7376/3466
- c. III MEF Battle Center: DSN 622-7563/7571/7706
- d. 18th Wing Command Post: DSN 634-1800/1876
- e. 10th RG Duty: DSN 644-4708/090-6861-6159
- f. CFAO Quarter Deck: DSN 622-1410
- g. USFJ Command Center: DSN 223-6065/6066/6067

5. Command and Signala. Command

(1) This Order is applicable to all MCIPAC-MCBB installations, units and tenant commands in Okinawa.

(2) Nothing in this Order prevents installation and camp commanders from establishing or directing additional Tsunami Warning measures, as deemed necessary, to protect life and property.

- b. Signal. This Order is effective the date signed.


W. J. BOWERS

DISTRIBUTION: List C

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Watch Officer Tsunami Warning Checklist

1. CLASSIFICATION UNCLASSIFIED	2. DATE PREPARED (YYYYMMDD)	3. PAGE 1 OF 1 PAGES
4. WATCH OFFICER CHECKLIST TITLE TSUNAMI/EARTHQUAKE WARNING RUN THIS CHECKLIST IF YOU RECEIVE A TSUNAMI WARNING OR AN EARTHQUAKE IS FELT OR REPORTED.		
* NOTE: Latest Tsunami warning can be retrieved from the following websites:		
http://www.jma.go.jp/en/tsunami http://ptwc.weather.gov/index.php		
1. Confirm correct checklist. (Time) _____ L / _____ Initials		
2. Copy information from bulletin or notifying agency:		
For Tsunami:		
ETA: _____ L Expected Impact Area: _____		
Time & Point of Origin: _____		
Wave Height: <u>Less than 1 Meter (Go to Step 3)</u> <u>Greater than 1 Meter (Go to Step 4)</u> (1 Meter = 3 Feet)		
Additional Information: _____		

For Earthquake:		
Occurred at: _____ L Magnitude _____		
Location: _____		
3. For Tsunami Advisories LESS THAN 1 METER OR EARTHQUAKE FELT OR REPORTED WITH NO		
ISSUED WARNINGS , notify the following:		
_____ MCIPAC G-3/5 CURRENT OPERATIONS OFFICER (080-8955-5582)		
_____ MCIPAC AC/S G-3/5 (080-2738-2288)		
_____ END NOTIFICATIONS AND MONITOR SITUATION.		
4. For Tsunami WARNINGS GREATER THAN 1 METER AND AFTER APPROVAL BY ONE OF THE		
ABOVE INDIVIDUALS:		
* NOTE: IF UNABLE TO REACH ONE OF THE ABOVE INDIVIDUALS AFTER A MINIMUM OF TWO ATTEMPTS		
EXECUTE BELOW:		
_____ IMMEDIATELY PRESS THE RED BUTTON ACTIVATING THE TSUNAMI WARNING SYSTEM.		
5. Once the Tsunami Warning System is activated, recall the following individuals:		
_____ MCIPAC G-3/5 DEPUTY CURRENT OPERATIONS OFFICER (070-3802-2921)		
_____ MCIPAC G-3/5 EMERGENCY MANAGER (090-9784-1922/098-936-9575)		

5. REFERENCES REF:	6. CLASSIFICATION UNCLASSIFIED	

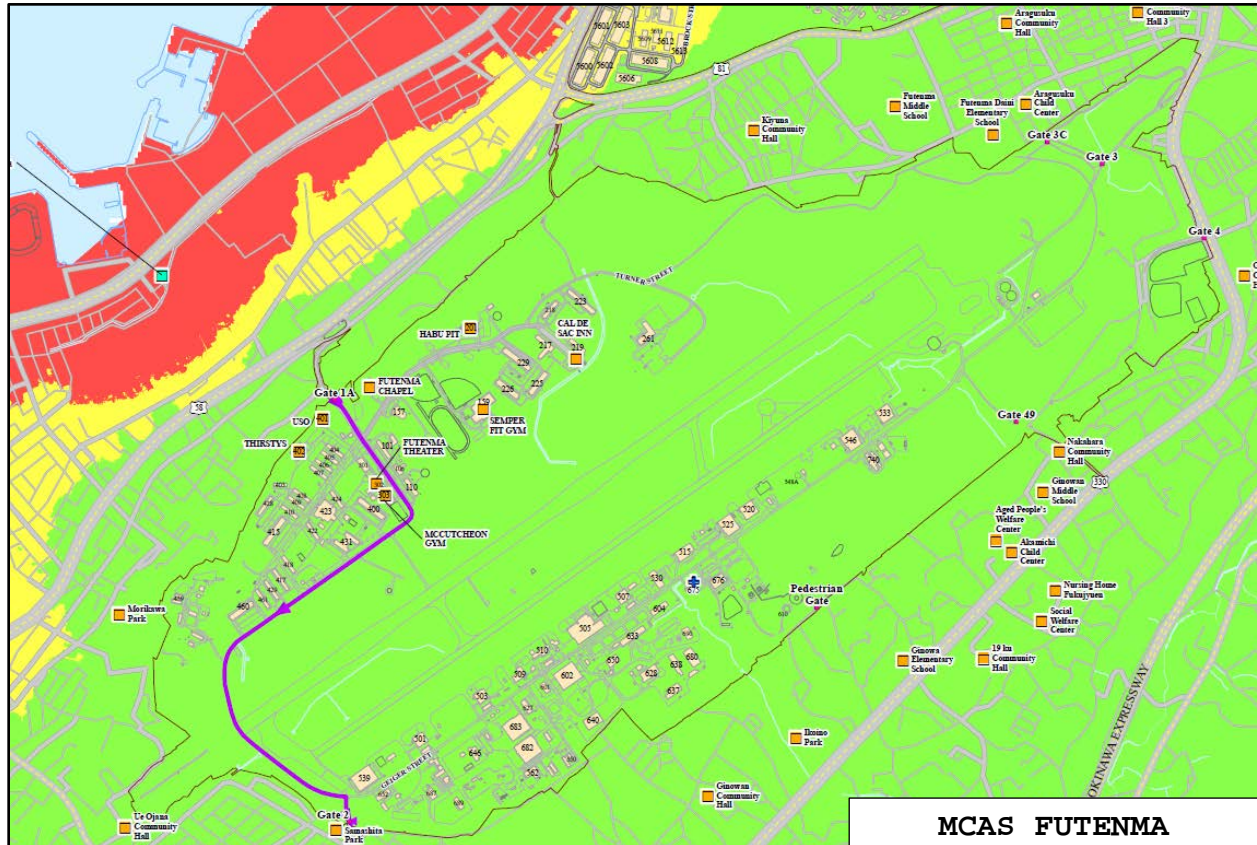
MCIPAC-MCBB Installation Tsunami Vulnerability Maps

Camp Kinser Tsunami Vulnerability Map



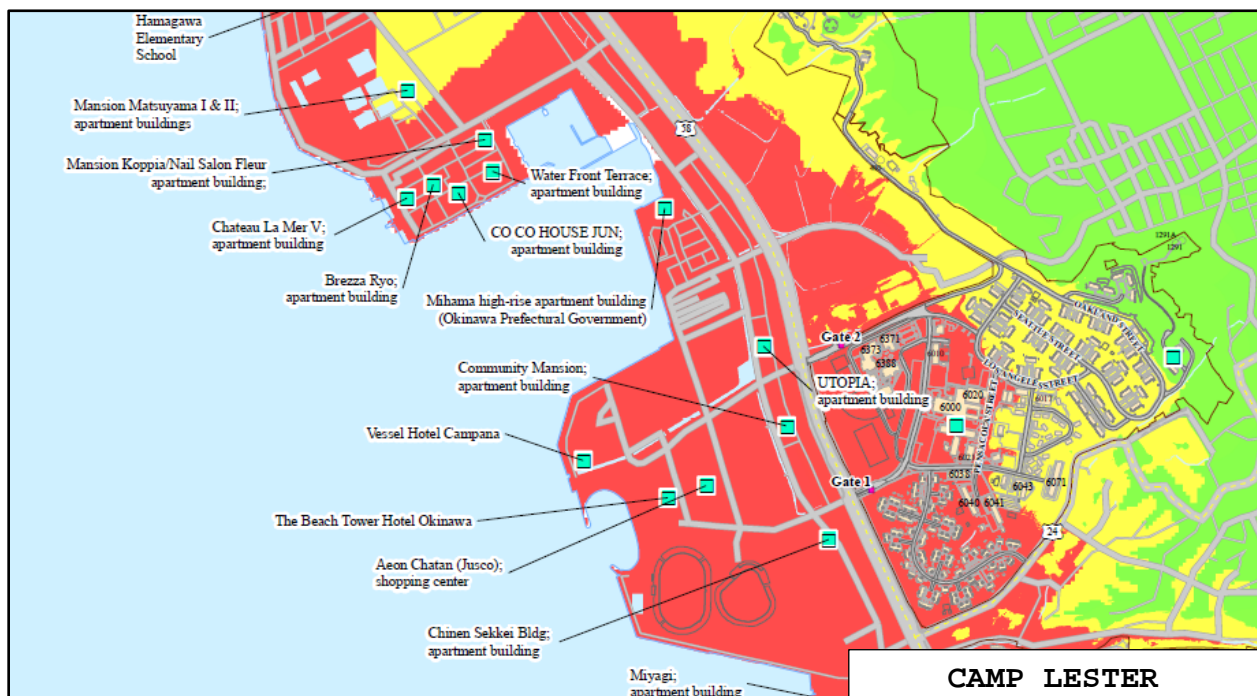
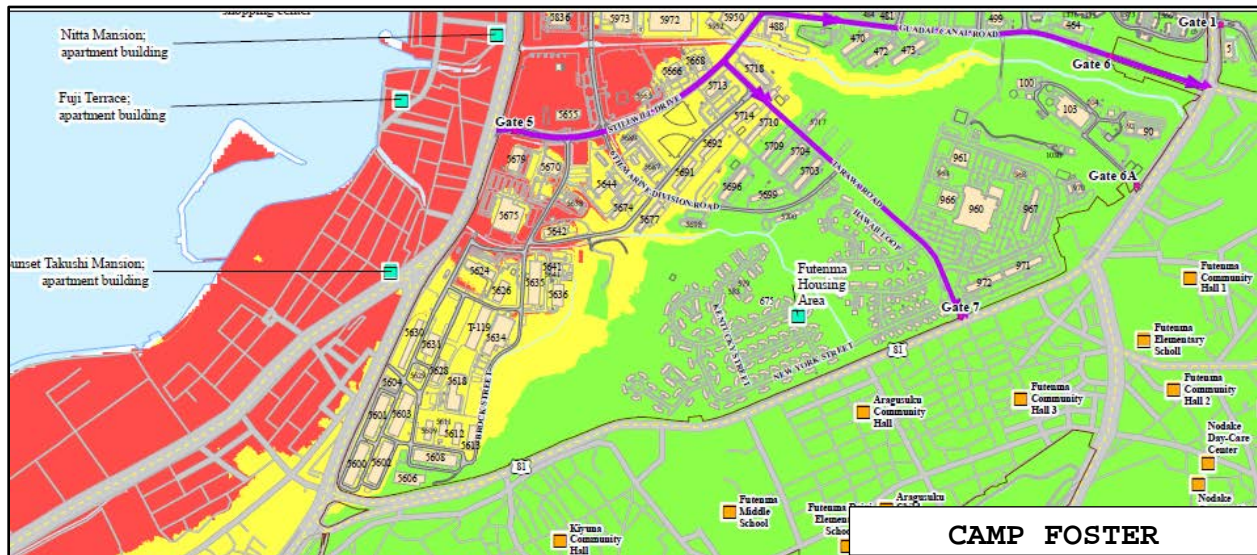
Details found at: <https://mcipacviewer.mcidsus.mcids.usmc.mil/okinawa/>

MCAS Futenma Tsunami Vulnerability Map (Of Note: No Threat)



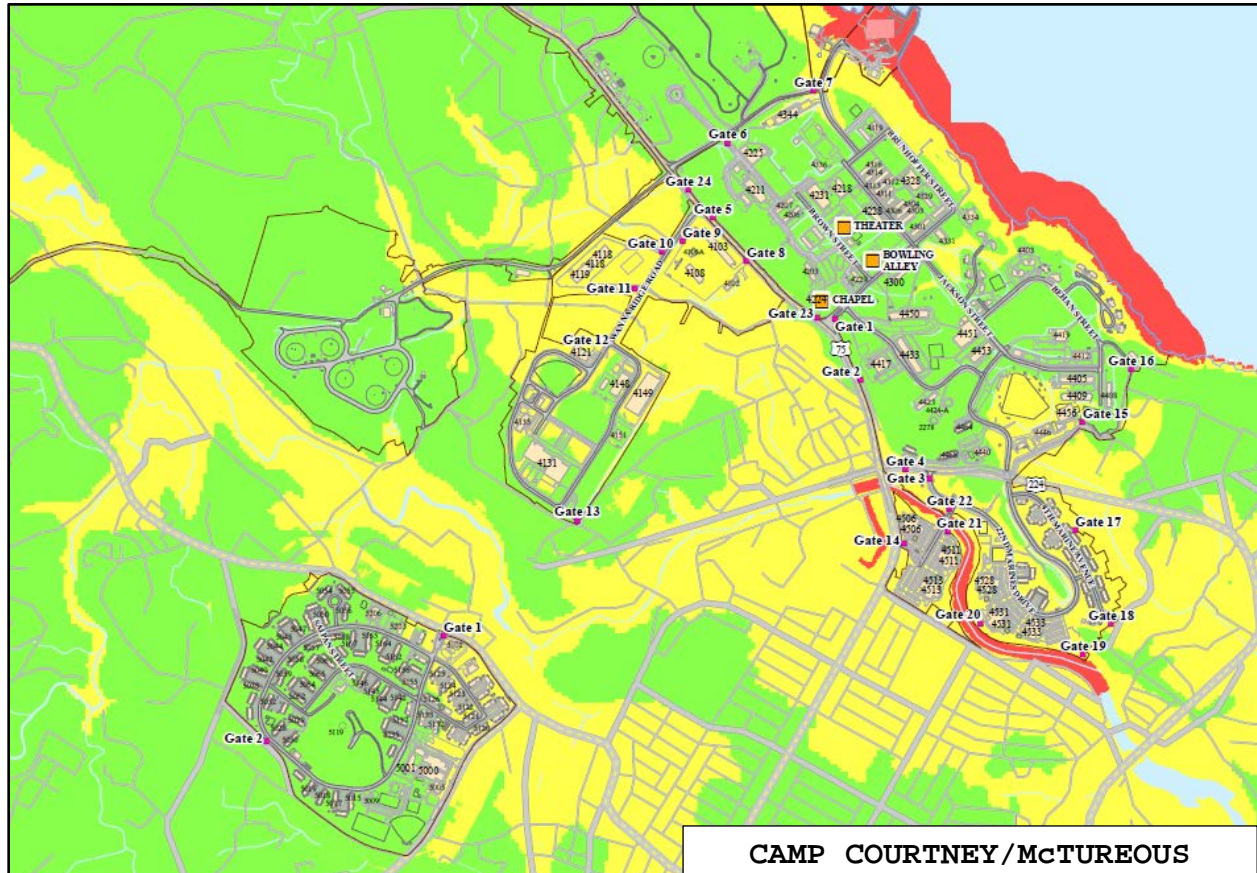
Details found at: <https://mcipacviewer.mcdsus.mcds.usmc.mil/okinawa/>

Camp Foster/Lester Tsunami Vulnerability Map



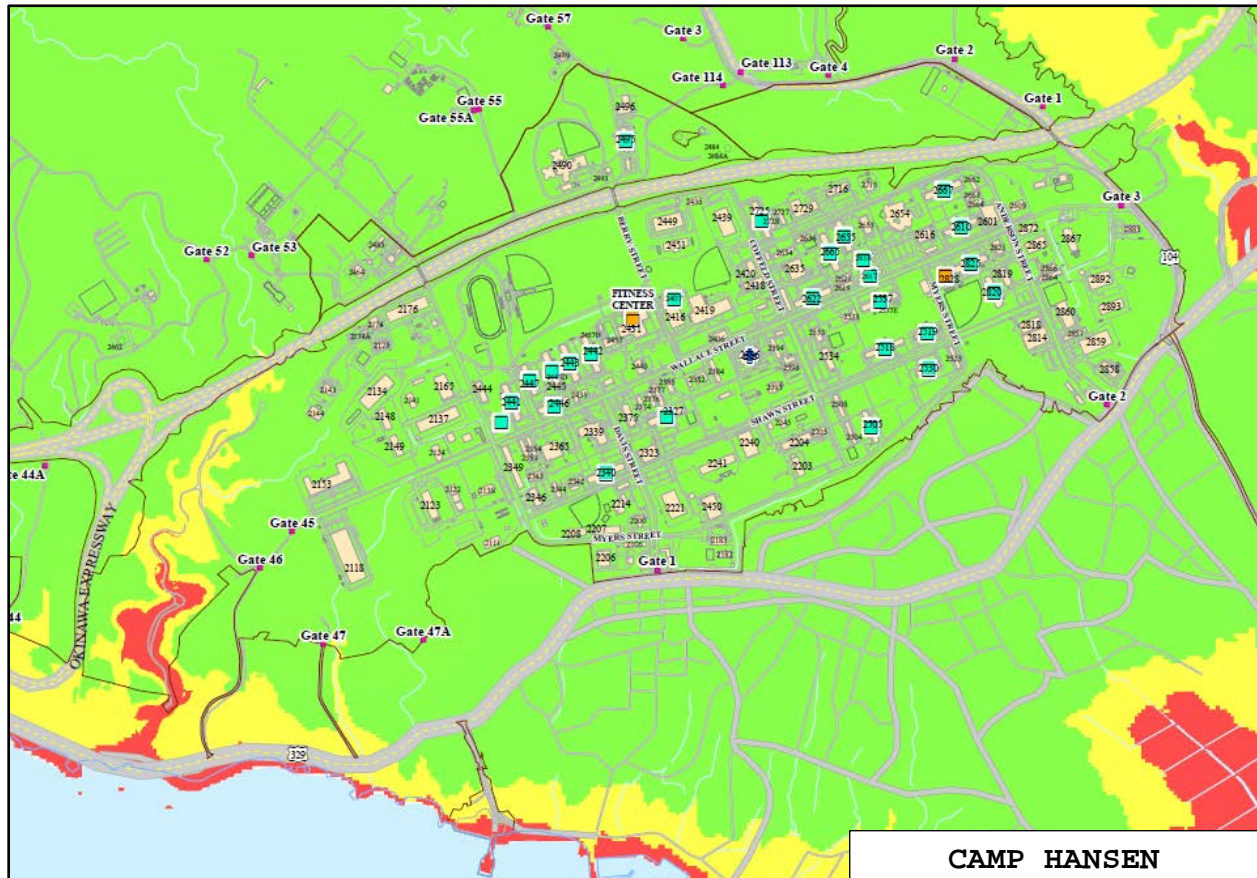
Details found at: <https://mcipacviewer.mcidsus.mcids.usmc.mil/okinawa/>

Camp Courtney/McTureous Tsunami Vulnerability Map



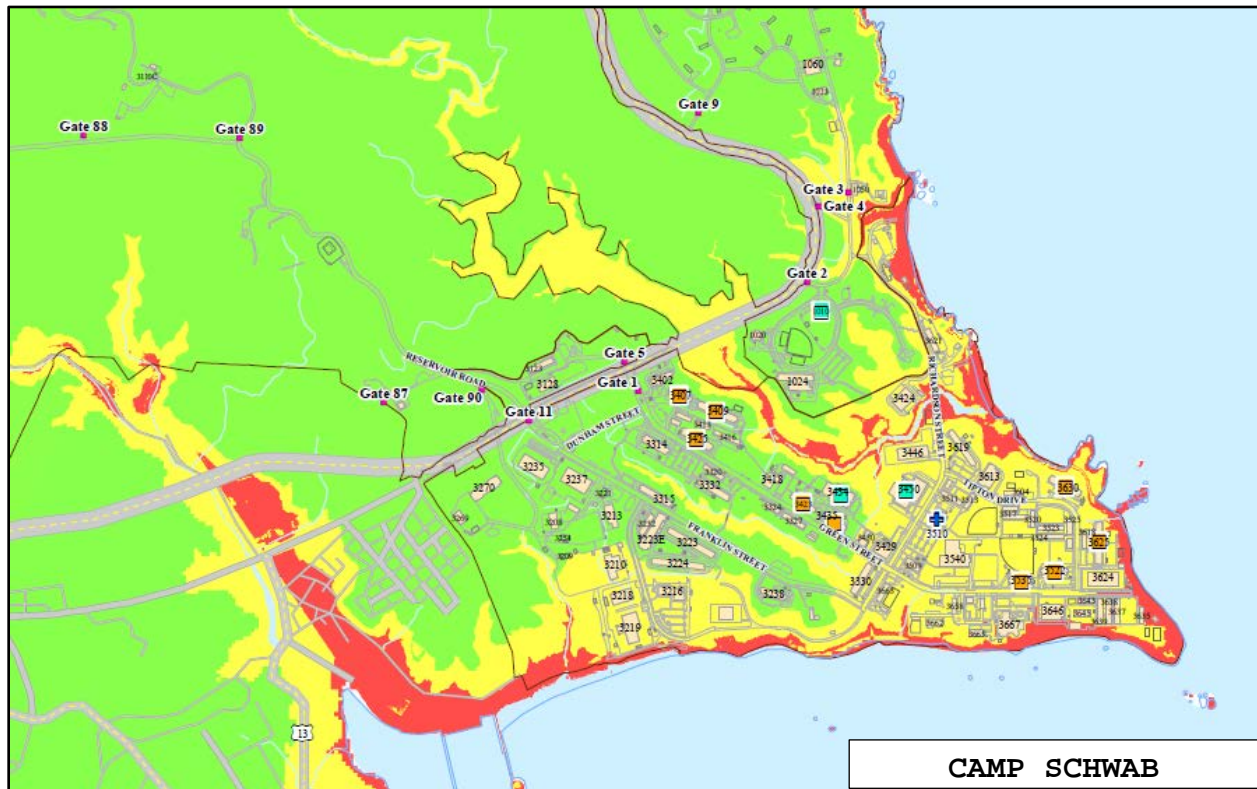
Details found at: <https://mcipacviewer.mcidsus.mcids.usmc.mil/okinawa/>

Camp Hansen Tsunami Vulnerability Map (Of Note: No Threat to Camp Hansen proper, but Kin Red and Blue (training areas) are vulnerable).



Details found at: <https://mcipacviewer.mcidsus.mcids.usmc.mil/okinawa/>

Camp Schwab Tsunami Vulnerability Map



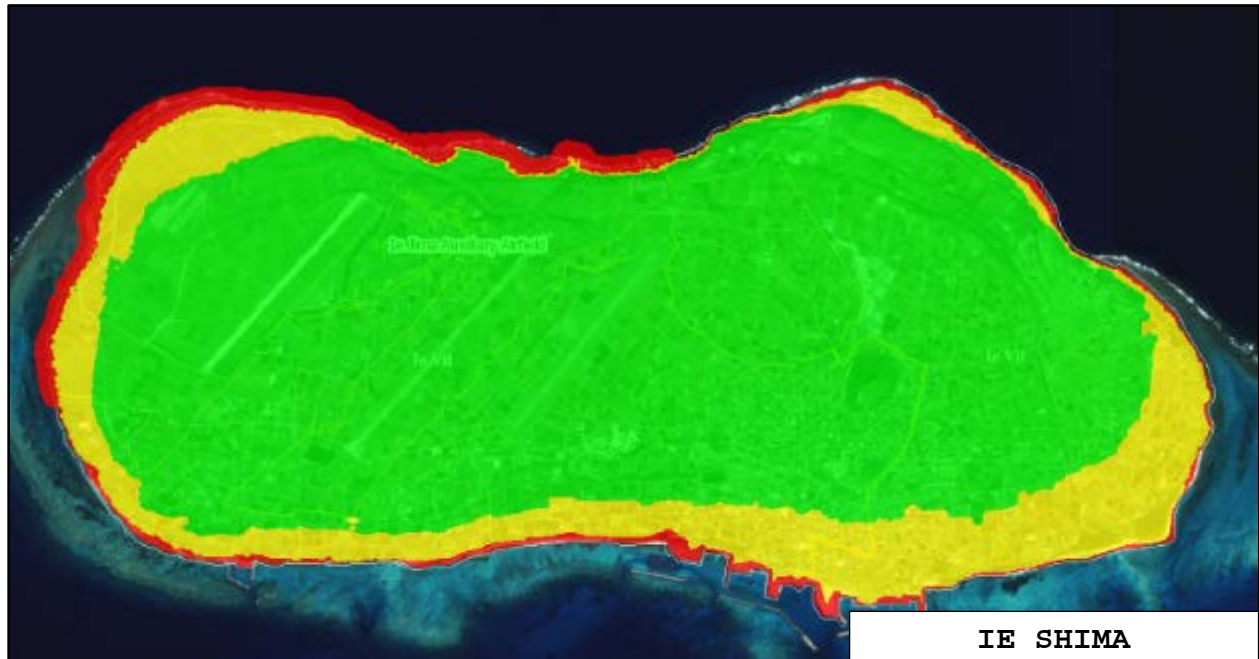
Details found at: <https://mcipacviewer.mcidsus.mcids.usmc.mil/okinawa/>

Camp Gonsalves Tsunami Vulnerability Map (Of Note: No Threat)



Details found at: <https://mcipacviewer.mcdsus.mcds.usmc.mil/okinawa/>

Ie Shima Training Facility

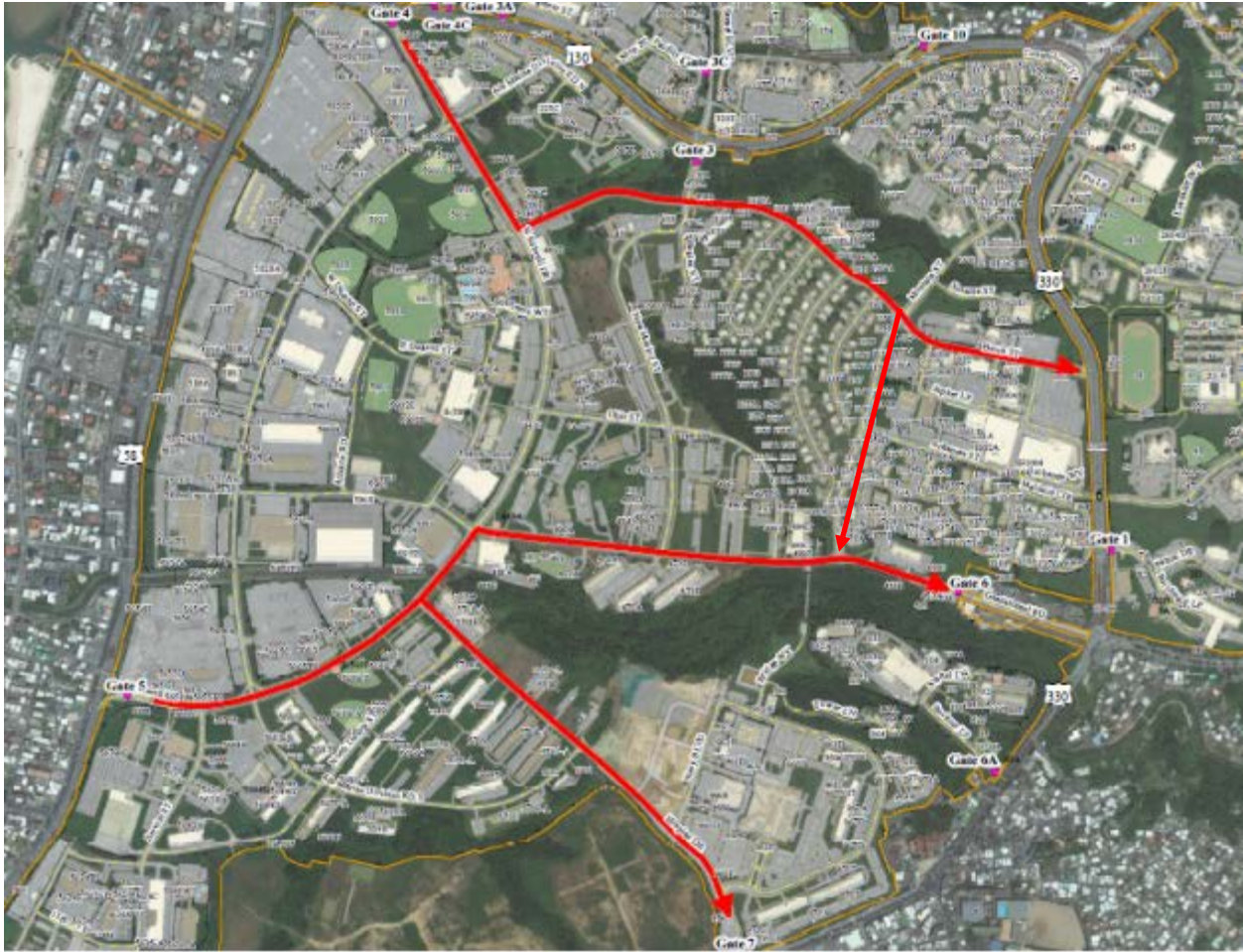


Details found at: <https://mcipacviewer.mcds.usmc.mil/okinawa/>

Marine Corps Air Station Futenma Tsunami Evacuation Route (LIA)



Camp Foster Tsunami Evacuation Routes (LIA)



Camp Hansen Tsunami Evacuation Routes (LIA)



Tsunami Action Sets for Installations/Camps

Tsunami Alert Status:

- **Tsunami Watch:** Danger level not yet known. Stay alert for more information.
- **Tsunami Advisory:** Strong currents possible. Stay away from the shoreline, creeks, and rivers that enter the ocean.
- **Tsunami Warning:** Inundating waves possible. Full evacuation probable.

Alert Status	Installation/Camp Action
Tsunami Watch	Pass the word that there has been a Tsunami generating event.
	Establish POC for receiving follow-on information IRT Tsunami Alert
Tsunami Advisory	Notify recreation facilities bordering shoreline that there is a Tsunami Advisory in effect.
	Notify POC for tenant commands that there is an Advisory in effect.
	Units training in low-lying areas will be directed to cancel training and to move to higher ground until the advisory is cancelled.
	Commands will consider posting SAF or other control measures to ensure Personnel do not enter water due to potential hazards.
	Commands will consider moving Mission Essential Equipment from low-lying areas to higher ground until the Tsunami threat is resolved.
	Commands should ensure tenants are aware of the advisory, and what actions are required on behalf of personnel.
Tsunami Warning	If warranted, Tsunami Alarm will be sounded by appropriate Authority.
	Commands use time as a planning tool to maximize movement of personnel and equipment to higher ground.
	Commands begin accountability of personnel and notification process.
	Commands Populate information to Social Media.
	Once Evacuation of flood zone is complete Notify HHQ.

Sample Tsunami Warning Message

000
WEPA40 PHEB 141726
TSUPAC

TSUNAMI MESSAGE NUMBER 2
NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI
1725 UTC THU NOV 14 2019

...PTWC FINAL TSUNAMI THREAT MESSAGE...

**** NOTICE **** NOTICE **** NOTICE **** NOTICE **** NOTICE ****

THIS MESSAGE IS ISSUED FOR INFORMATION ONLY IN SUPPORT OF THE
UNESCO/IOC PACIFIC TSUNAMI WARNING AND MITIGATION SYSTEM AND IS
MEANT FOR NATIONAL AUTHORITIES IN EACH COUNTRY OF THAT SYSTEM.

NATIONAL AUTHORITIES WILL DETERMINE THE APPROPRIATE LEVEL OF
ALERT FOR EACH COUNTRY AND MAY ISSUE ADDITIONAL OR MORE REFINED
INFORMATION.

**** NOTICE **** NOTICE **** NOTICE **** NOTICE **** NOTICE ****

THE TSUNAMI FORECAST IS UPDATED IN THIS MESSAGE.

PRELIMINARY EARTHQUAKE PARAMETERS

* MAGNITUDE 7.1
* ORIGIN TIME 1618 UTC NOV 14 2019
* COORDINATES 1.5 NORTH 126.4 EAST
* DEPTH 62 KM / 39 MILES
* LOCATION MOLUCCA SEA

EVALUATION

* AN EARTHQUAKE WITH A PRELIMINARY MAGNITUDE OF 7.1 OCCURRED IN
THE MOLUCCA SEA AT 1618 UTC ON THURSDAY NOVEMBER 14 2019.

* BASED ON ALL AVAILABLE DATA... THE TSUNAMI THREAT FROM THIS EARTHQUAKE HAS NOW PASSED.

TSUNAMI THREAT FORECAST...UPDATED

* THERE IS NO LONGER A TSUNAMI THREAT FROM THIS EARTHQUAKE.

RECOMMENDED ACTIONS

* REMAIN OBSERVANT AND EXERCISE NORMAL CAUTION NEAR THE SEA. OTHERWISE... NO ACTION IS REQUIRED.

POTENTIAL IMPACTS

* MINOR SEA LEVEL FLUCTUATIONS MAY OCCUR IN SOME COASTAL AREAS NEAR THE EARTHQUAKE OVER THE NEXT FEW HOURS.

NEXT UPDATE AND ADDITIONAL INFORMATION

* THIS WILL BE THE FINAL STATEMENT ISSUED FOR THIS EVENT UNLESS NEW INFORMATION IS RECEIVED OR THE SITUATION CHANGES.

* AUTHORITATIVE INFORMATION ABOUT THE EARTHQUAKE FROM THE U.S. GEOLOGICAL SURVEY CAN BE FOUND ON THE INTERNET AT EARTHQUAKE.USGS.GOV.

* FURTHER INFORMATION ABOUT THIS EVENT MAY BE FOUND AT WWW.TSUNAMI.GOV.