

# Contribution of IPMA to the CaribeWave14-Exercise

Prepared by IPMA  
March 2014

## ***Introduction***

This short document is prepared by the Instituto Português do Mar e Atmosfera (IPMA), from Portugal, candidate to Tsunami Watch Provider (CTWP) for the North East Atlantic Region, in the framework of the Intergovernmental Coordination Group (ICG) for the North East Atlantic, Mediterranean and Connected Sea's Tsunami Warning System (NEAMTWS), in order to contribute to the Caribbean and Northwestern Atlantic Tsunami Warning Exercise "CaribeWave14" (IOC,2013), organized by the ICG for the Tsunami and other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (CARIBE-EWS) and by the Us National Tsunami Hazard Mitigation Program (NTHMP). This exercise will take place in 26th March 2014. The tsunami scenario proposed by the organization of the exercise is a Mw8.5 event similar to the 1755 Lisbon earthquake that is located in the Gulf of Cadiz area.

In order to prepare the CaribeWave14 exercise, IPMA uses the proposed earthquake scenario parameters and numerically simulates the resulting tsunami in terms of wave heights distribution and tsunami travel times in Atlantic Ocean. The modeling results are then used to prepare the warning messages for the NEAM region.

## ***Event information***

- **Origin time of the earthquake**

The origin time of the exercise:

Origin Time	10:00:00 UTC March 26, 2014
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- **Earthquake parameters**

The earthquake hypocenter parameters are based on Barkan, et al. (2009). The fault parameters required for tsunami modeling are listed in Table1.

Table 1: Earthquake Fault parameters based on Barkan et al. 2009

Earthquake Scenario parameters	
Location	Lat 36.04°N, Long 10.75°W
Magnitude	8.5 Mw
Depth	5km
Strike	345°
Dip	40°
Rake	90°
Length	200km
Width	80km
Average Slip	13.1m

Figure 1 depicts the earthquake location and the fault geometry considered in this exercise.

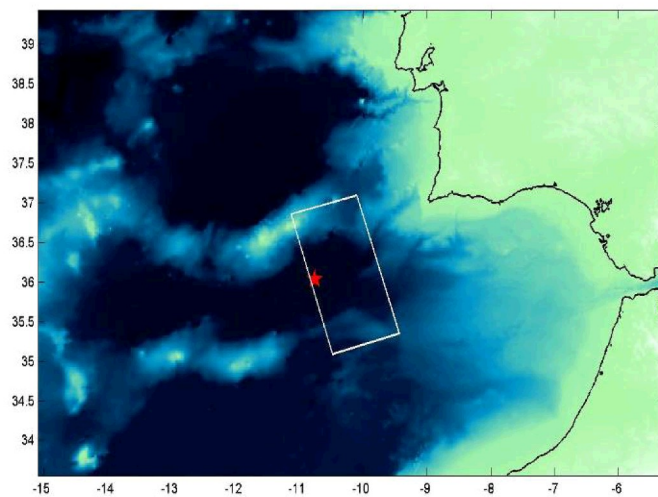


Figure1 : Earthquake location (red star) and the fault geometry (white rectangle)

## Numerical Modelling

### • Tsunami Travel Time

Tsunami travel time was calculated using the TTT software, TTT SDK version 3.2, and a point source that corresponds to the trace fault of the submarine earthquake. This software employs the global bathymetry grids derived from NGDC's ETOPO1 at varying resolutions; here, a 5 arc-minute grid was used to simulate the TTT in the Atlantic region.

Figure 2 depicts the tsunami travel time contours (in hour) from the source area, SW Iberia, towards the Atlantic coasts including the Caribbean coastal areas.

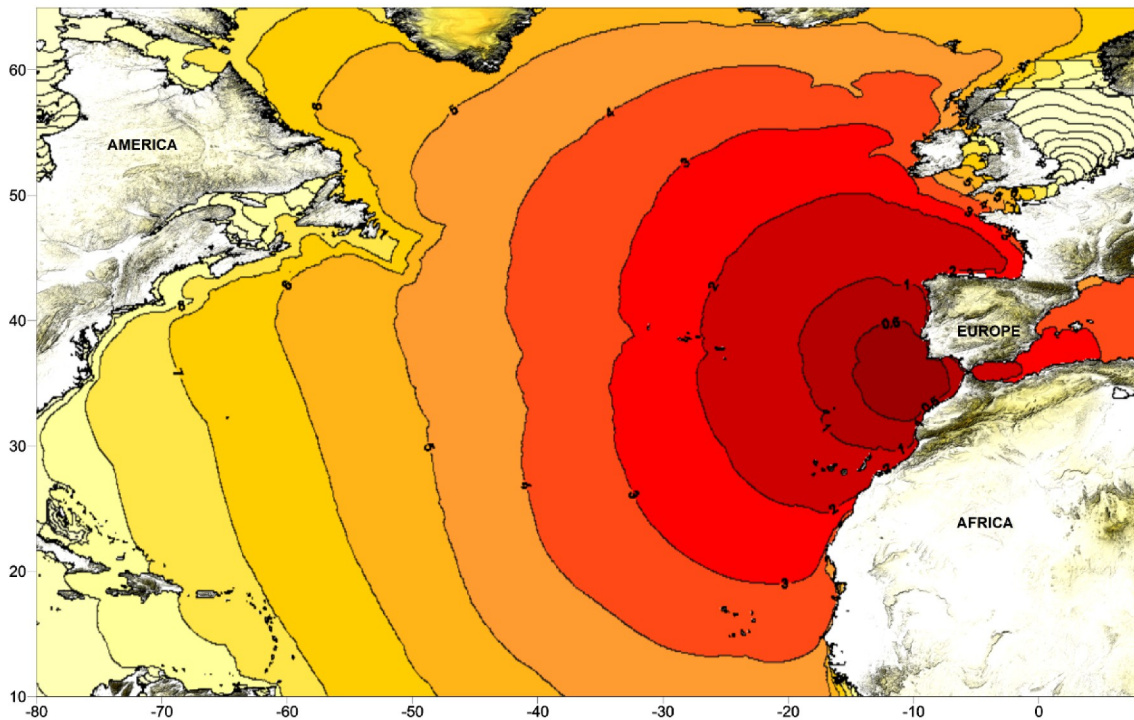


Figure 2: CaribeWave14 Scenario: Tsunami travel time (black contours in hour).

The tsunami reaches the coast of Portugal in less than half hour (0.5h), while it takes about seven hours to travel towards the Caribbean coastal areas.

- **Maximum Wave Heights**

Numerical simulation of tsunami maximum wave heights from the considered submarine earthquake scenarios allows the estimation of wave amplitudes along the Atlantic coasts.

Tsunami propagation from the source to the Atlantic target coasts is performed using the linear shallow water approximation together with the GEBCO 1min arc bathymetric database that was employed to generate the bathymetric/topographic simulation domain grid.

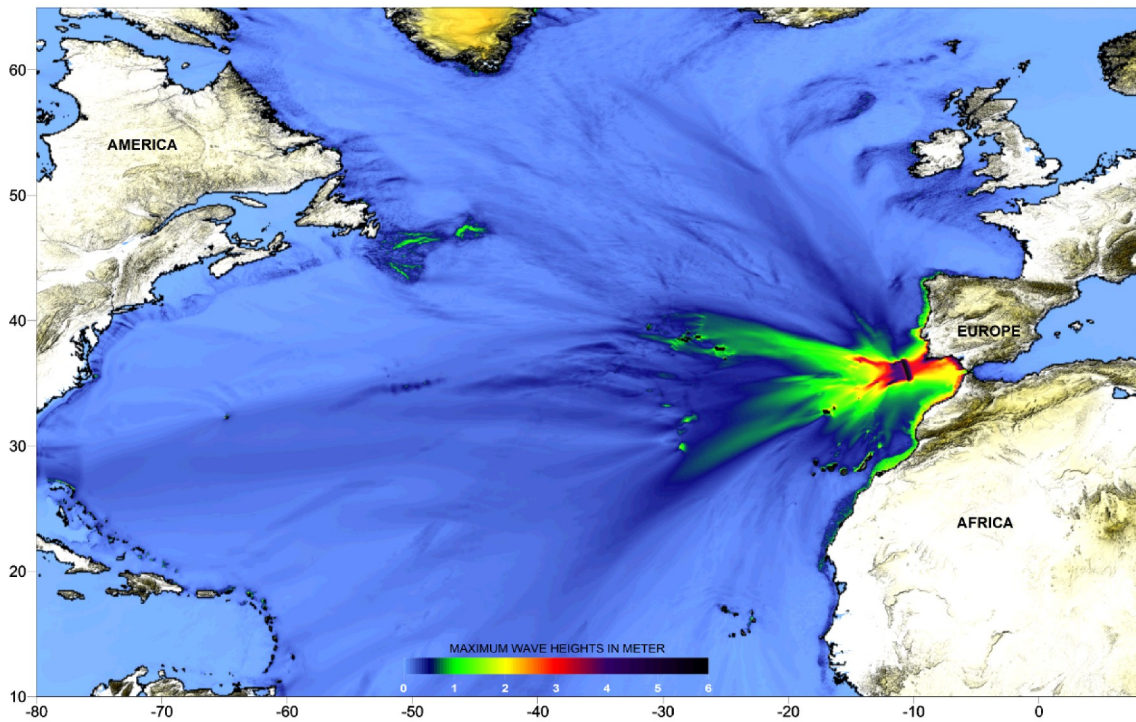
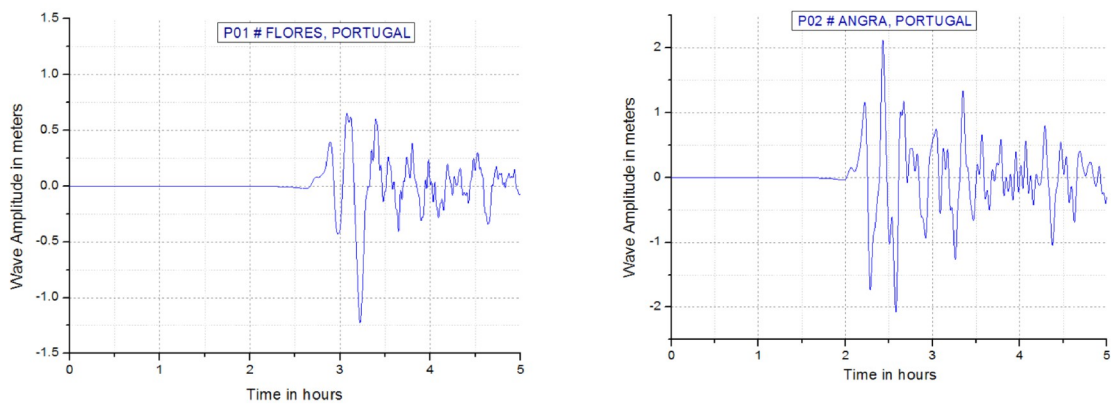


Figure 3: CaribeWave14 Scenario: Tsunami Maximum Wave Heights distribution

- **Tsunami Synthetic Waveforms**

Figure 4 illustrates tsunami synthetic waveforms computed considering the considered Mw8.5 earthquake scenario for the forecast points in Portugal.



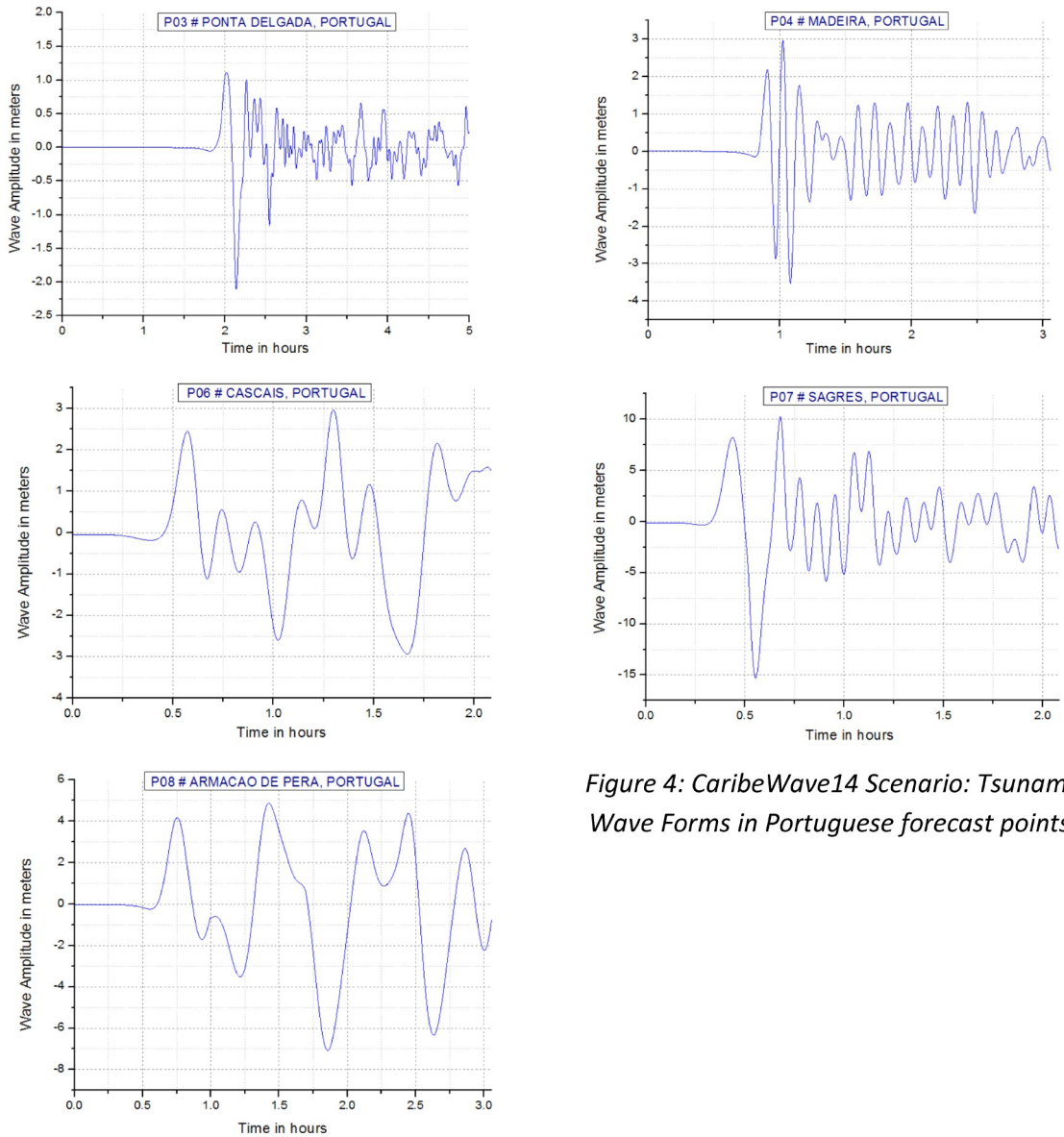


Figure 4: CaribeWave14 Scenario: Tsunami Wave Forms in Portuguese forecast points

- Tsunami Arrival Times and Maximum Amplitudes at NE Atlantic Forecast Points

Country	List of FPs (NEA Region)	Estimated Arrival Time (UTC)	Estimated MWH (m)
Portugal	P01#FLORES	12:43	0.7m
	P02#ANGRA	12:05	1.5m
	P03#PONTADELGA DA	11:53	1.0m

	P04#MADEIRA	10:51	2.5m
	P05#NAZARE	10:45	2.2m
	P06#CASCAIS	10:33	3.0m
	P07#SAGRES	10:20	10.0m
	P08#ARMACAO DE P ERA	10:35	5.3m
<b>Spain</b>	S01#HUELVA	11:17	4.0m
	S02#CADIZ	11:12	3.5m
	S03#ALGECIRAS	11:10	1.0m
	S04#MALAGA	11:37	0.8m
	S05#ALMERIA	12:12	0.05m
	S16#CEUTA	10:10	0.8m
	S17#VIGO	11:20	1.5m
	S18#CORUNHA	11:40	0.85m
	S19#SANTA CRUZ	11:20	0.9m
	S20 # LAS PALMAS	11:20	0.65m
<b>Morocco</b>	MO1#TANGER	11:05	2.3m
	MO2 # RABAT	11:52	3.7m
<b>Ireland</b>	I01 # DUNMORE	15:20	0.6m
	I02 # BALLYCOTTON	14:30	0.45m
	I03#CASTLETOWN B ERE	13:15	0.4m
	I04 # GALWAY PORT	15:00	0.3m
	I05 # DUBLIN PORT	17:30	0.2
	I06 # MALIN HEAD	14:40	0.1m
<b>France</b>	F01 # CALAIS	19:30	~0m

	F02 # LE HAVRE	17:40	0.05m
	F03 # CHERBOURG	16:00	0.08m
	F04 # LE CONQUET	13:05	0.4m
	F05 # LORIENT	13:10	0.43m
	F06 # SAINT-NAZAIRE	14:00	0.37m
	F07 # OLERON	13:30	0.35m
	F08 # BISCARROSSE	12:45	0.25m
	F09 # BAYONNE	12:30	0.25m
<b>UK</b>	UK1 # NEWLYN	14:00	0.55m
	UK2 # ST MARY'S	13:35	0.7m
	UK4 # LERWICK	16:30	0.05m
	UK5 # GIBRALTAR	11:10	1.0m

- **Master schedule events**

Below it can be found a brief time line of the procedures that should be adopted by IPMA CTWP in the exercise, if the scenario would be played in real time.

Another important note has to do with the amplitudes values reported as measured on the coastal sea-level instruments (tide-gauges), which may not be possible to record in case of real events due to the limitations on the dynamic range of the stations.

<b>Time</b>	<b>Events</b>
T0	Earthquake occurs
T0+4m	Initial earthquake parameters (hypocenter and MW) computed: mag 8.5; deph:5km
T0+5m	First evaluation of possible tsunami impact (DM);

	<b>Issue of first message (#1)</b>
T0+39m	Confirmation of tsunami on the first tide-gauge, Lagos, portuguese mainland SW coast;
T0+43m	<b>Issue of suppl. message (#2)</b>
T0+44m	Tsunami wave arrival to Sines tide-gauge
T0+46m	Tsunami arrival to Cascais tide-gauge
T0+60m	<b>Issue of suppl. message (#3)</b>
T0+1h07m	Tsunami wave arrival to Funchal tide-gauge, Madeira Islands
T0+1h09m	Tsunami wave arrival to Casablanca tide-gauge, Morocco
T0+1h13m	Tsunami wave arrival to Huelva tide-gauge, Spain
T0+2h	<b>Issue of suppl. message (#4)</b>
T0+2h05m	Tsunami wave arrival to Santa Maria tide-gauge, Azores Islands
T0+3h	<b>Issue of suppl. message (#5)</b>
T0+3h26m	Tsunami wave arrival to Castletownbere tide-gauge, Ireland
T0+3h34m	Tsunami wave arrival to Brest tide-gauge, France
T0+4h	<b>Issue of suppl. message (#6)</b>
T0+4h36m	Tsunami wave arrival to Newlyn tide-gauge, United Kingdom
T0+5h	<b>Issue of suppl. message (#7)</b>
T0+6h	<b>Issue of suppl. message (#8)</b>
T0+6h05m	Tsunami wave arrival to Qaqortoq tide-gauge, Greenland, Denmark
T0+6h29m	Tsunami wave arrival to Reykjavil tide-gauge, Iceland
T0+7h	<b>Issue of suppl. message (#9)</b>
T0+9h	<b>Issue of End Tsunami message (#10)</b>

### References

Barkan, R., U.S. ten Brink, J. Lin (2009). Farfield tsunami simulations of the 1755 Lisbon earthquake: Implications for tsunami hazard to the U.S. East Coast and the Caribbean, *Marine Geology*, **264**, 109-122.



*Intergovernmental Oceanographic Commission. 2013. Exercise Caribe Wave/Lantex 14. A Caribbean and Northwestern Atlantic Tsunami Warning Exercise, 26 March 2014. Volume 1: Participant Handbook. IOC Technical Series, 109 vol.1. Paris: UNESCO.*

## Annex I – CTWP/IPMA EXERCISE MESSAGES

WENT40 LPMG 261005  
TSUNAMI EXERCISE MESSAGE NUMBER 001  
NEAM IPMA CANDIDATE TSUNAMI WATCH PROVIDER  
ISSUED AT 1005Z 26 MAR 2014

... TSUNAMI WATCH ...  
THIS ALERT APPLIES TO BELGIUM ... CAPE VERDE ... DENMARK ... FRANCE ...  
GERMANY ... ICELAND ... IRELAND ... MAURITANIA ... MOROCCO ... NETHERLANDS ...  
NORWAY ... PORTUGAL ... SPAIN ... SWEDEN ... UNITED KINGDOM

... TSUNAMI INFORMATION ...  
THIS INFORMATION APPLIES TO RUSSIAN FEDERATION ... POLAND ... LITHUANIA ...  
ESTONIA ... FINLAND ... ALGERIA ... ALBANIA ... BULGARIA ... CROATIA ...  
CYPRUS ... EGYPT ... GEORGIA ... GREECE ... ISRAEL ... ITALY ... LEBANON ...  
LIBYA ... MALTA ... MONACO ... ROMANIA ... SLOVENIA ... SWEDEN ... SYRIA ...  
TUNISIA ... TURKEY ... UKRAINE

THIS MESSAGE IS ISSUED AS ADVICE TO GOVERNMENT AGENCIES. ONLY  
NATIONAL AND LOCAL GOVERNMENT AGENCIES HAVE THE AUTHORITY TO MAKE  
DECISIONS REGARDING THE OFFICIAL STATE OF ALERT IN THEIR AREA AND ANY  
ACTIONS TO BE TAKEN IN RESPONSE

AN EARTHQUAKE HAS OCCURRED WITH THESE PRELIMINARY PARAMETERS  
ORIGIN TIME - 1000Z 26 MAR 2014  
COORDINATES - 36.04 NORTH 10.75 WEST  
DEPTH - 5 KM  
LOCATION - WEST OF GIBRALTAR  
MAGNITUDE - 8.5

EVALUATION OF TSUNAMI WATCH  
IT IS NOT KNOWN THAT A TSUNAMI WAS GENERATED. THIS WARNING IS  
BASED ONLY ON THE EARTHQUAKE EVALUATION.  
AN EARTHQUAKE OF THIS SIZE HAS THE POTENTIAL TO GENERATE A TSUNAMI  
THAT CAN STRIKE COASTLINES WITH WAVE HEIGHT GREATER THAN 0.5M  
AND/OR CAUSE A TSUNAMI RUN-UP GREATER THAN 1M.  
AUTHORITIES SHOULD TAKE APPROPRIATE ACTION IN RESPONSE TO THIS  
POSSIBILITY. THIS CENTER WILL MONITOR SEA LEVEL DATA FROM GAUGES NEAR  
THE EARTHQUAKE TO DETERMINE IF A TSUNAMI WAS GENERATED AND ESTIMATE  
THE SEVERITY OF THE THREAT.  
A TSUNAMI IS A SERIES OF WAVES AND THE FIRST WAVE MAY NOT BE THE  
LARGEST. TSUNAMI WAVE HEIGHTS CANNOT BE PREDICTED AND CAN VARY  
SIGNIFICANTLY ALONG A COAST DUE TO LOCAL EFFECTS. THE TIME FROM ONE  
TSUNAMI WAVE TO THE NEXT CAN BE FIVE MINUTES TO AN HOUR, AND THE  
THREAT CAN CONTINUE FOR MANY HOURS AS MULTIPLE WAVES ARRIVE.

EVALUATION OF TSUNAMI INFORMATION  
BASED ON HISTORICAL EARTHQUAKE AND TSUNAMI MODELLING THERE IS NO  
THREAT THAT A TSUNAMI HAS BEEN GENERATED THAT CAN CAUSE DAMAGE OR  
MAJOR EFFECT IN THE REGION. THIS MESSAGE IS FOR INFORMATION ONLY.

ESTIMATED INITIAL TSUNAMI ARRIVAL TIMES AT FORECAST POINTS WITHIN  
THE WATCH AREA ARE GIVEN BELOW. ACTUAL ARRIVAL TIMES MAY DIFFER AND  
THE INITIAL WAVE MAY NOT BE THE LARGEST. A TSUNAMI IS A SERIES OF WAVES  
AND THE TIME BETWEEN SUCCESSIVE WAVES CAN BE FIVE MINUTES TO ONE  
HOUR.  
LOCATION, FORECAST POINT COORDINATES, ARRIVAL TIME, ALERT LEVEL (ADVISORY,  
WATCH)

PORTUGAL	- SAGRES	37.00N	8.94W	1027Z	26	MAR	2014	WATCH
PORTUGAL	- CASCAIS	38.68N	9.45W	1037Z	26	MAR	2014	WATCH
PORTUGAL	- ARMACAO DE PERA	37.07N	8.37W	1040Z	26	MAR	2014	WATCH
PORTUGAL	- MADEIRA	33.05N	16.32W	1052Z	26	MAR	2014	WATCH
PORTUGAL	- NAZARE	39.60N	9.09W	1054Z	26	MAR	2014	WATCH
PORTUGAL	- PONTA DELGADA	37.67N	25.65W	1156Z	26	MAR	2014	WATCH
PORTUGAL	- ANGRA	38.62N	27.00W	1206Z	26	MAR	2014	WATCH
PORTUGAL	- FLORES	39.43N	31.05W	1245Z	26	MAR	2014	WATCH
MOROCCO	- RABAT	34.04N	6.84W	1056Z	26	MAR	2014	WATCH
MOROCCO	- TANGER	35.79N	5.80W	1108Z	26	MAR	2014	WATCH
SPAIN	- ALGECIRAS	36.13N	5.40W	1113Z	26	MAR	2014	WATCH
SPAIN	- HUELVA	37.16N	6.97W	1113Z	26	MAR	2014	WATCH
SPAIN	- CADIZ	36.53N	6.29W	1113Z	26	MAR	2014	WATCH
SPAIN	- CEUTA	35.89N	5.32W	1124Z	26	MAR	2014	WATCH
SPAIN	- LAS PALMAS	28.15N	15.33W	1124Z	26	MAR	2014	WATCH
SPAIN	- SANTA CRUZ	28.47N	16.19W	1127Z	26	MAR	2014	WATCH
SPAIN	- MALAGA	36.66N	4.40W	1137Z	26	MAR	2014	WATCH
SPAIN	- VIGO	42.24N	8.81W	1142Z	26	MAR	2014	WATCH
SPAIN	- CORUNHA	43.43N	8.40W	1149Z	26	MAR	2014	WATCH
SPAIN	- ALMERIA	36.84N	2.47W	1204Z	26	MAR	2014	WATCH
UNITED KINGDOM-	GIBRALTAR	36.13N	5.35W	1113Z	26	MAR	2014	WATCH
UNITED KINGDOM-	OFF-SHORE SITE2	47.00N	14.00W	1137Z	26	MAR	2014	WATCH
UNITED KINGDOM-	OFF-SHORE SITE1	47.00N	10.00W	1140Z	26	MAR	2014	WATCH
UNITED KINGDOM-	ST MARY'S	49.92N	6.32W	1403Z	26	MAR	2014	WATCH
UNITED KINGDOM-	OFF-SHORE SITE3	60.00N	12.00W	1406Z	26	MAR	2014	WATCH
UNITED KINGDOM-	NEWLYN	50.10N	5.55W	1442Z	26	MAR	2014	WATCH
UNITED KINGDOM-	OFF-SHORE SITE4	62.00N	4.00W	1510Z	26	MAR	2014	WATCH
UNITED KINGDOM-	LERWICK	60.15N	1.13W	1644Z	26	MAR	2014	WATCH
UNITED KINGDOM-	WHITBY	54.48N	0.62W	2134Z	26	MAR	2014	WATCH
FRANCE	- BAYONNE	43.51N	1.60W	1235Z	26	MAR	2014	WATCH
FRANCE	- BISCARROSSE	44.45N	1.34W	1245Z	26	MAR	2014	WATCH
FRANCE	- LE CONQUET	48.35N	4.83W	1318Z	26	MAR	2014	WATCH
FRANCE	- LORIENT	47.66N	3.39W	1322Z	26	MAR	2014	WATCH
FRANCE	- OLERON	46.02N	1.41W	1339Z	26	MAR	2014	WATCH
FRANCE	- SAINT-NAZAIRE	47.24N	2.26W	1409Z	26	MAR	2014	WATCH
FRANCE	- CHERBOURG	49.67N	1.65W	1605Z	26	MAR	2014	WATCH
FRANCE	- LE HAVRE	49.48N	0.08E	1754Z	26	MAR	2014	WATCH
FRANCE	- CALAIS	51.00N	1.84E	1929Z	26	MAR	2014	WATCH
IRELAND	- CASTLETOWNBERE	51.65N	9.91W	1320Z	26	MAR	2014	WATCH
IRELAND	- BALLYCOTTON	51.83N	8.00W	1435Z	26	MAR	2014	WATCH
IRELAND	- MALIN HEAD	55.35N	7.35W	1453Z	26	MAR	2014	WATCH
IRELAND	- GALWAY PORT	53.26N	9.04W	1507Z	26	MAR	2014	WATCH
IRELAND	- DUNMORE	52.14N	7.00W	1524Z	26	MAR	2014	WATCH
IRELAND	- DUBLIN PORT	53.35N	6.16W	1746Z	26	MAR	2014	WATCH
DENMARK	- SUDERØ	61.38N	6.69W	1456Z	26	MAR	2014	WATCH
DENMARK	- THORSHVAN	62.02N	6.73W	1540Z	26	MAR	2014	WATCH
DENMARK	- KLAKSVIG	62.18N	6.61W	1546Z	26	MAR	2014	WATCH
DENMARK	- NANORTALIK	60.12N	45.24W	1603Z	26	MAR	2014	WATCH
DENMARK	- ANGMAGSALIK	65.58N	37.61W	1612Z	26	MAR	2014	WATCH
DENMARK	- NUUK	64.17N	51.76W	1711Z	26	MAR	2014	WATCH
DENMARK	- HIRTSHALS	57.61N	9.93E	1955Z	26	MAR	2014	WATCH
DENMARK	- COPENHAGEN	55.75N	2.67E	2010Z	26	MAR	2014	WATCH
GERMANY	- (LERWICK)	60.15N	1.12W	1644Z	26	MAR	2014	WATCH
GERMANY	- (BLOMØY)	60.53N	4.88E	1716Z	26	MAR	2014	WATCH
GERMANY	- (FLORØ)	61.60N	5.03E	1731Z	26	MAR	2014	WATCH
GERMANY	- (KARMØY)	59.15N	5.25E	1752Z	26	MAR	2014	WATCH

GERMANY	- (ABERDEEN)	57.15N	2.07W	1841Z	26 MAR 2014	WATCH
GERMANY	- (HARTLEPOOL)	54.70N	1.20W	2127Z	26 MAR 2014	WATCH
GERMANY	- WESTERLAND	54.92N	8.27E	2348Z	26 MAR 2014	WATCH
GERMANY	- HELGOLAND	54.18N	7.88E	0027Z	27 MAR 2014	WATCH
GERMANY	- BORKUM	53.55N	6.75E	0104Z	27 MAR 2014	WATCH
GERMANY	- ALTE WESER LT	53.87N	8.13E	0105Z	27 MAR 2014	WATCH
GERMANY	- NORDERNEY	53.70N	7.15E	0111Z	27 MAR 2014	WATCH
GERMANY	- CUXHAVEN	53.87N	8.72E	0205Z	27 MAR 2014	WATCH
GERMANY	- BUSUM	54.12N	8.87E	0245Z	27 MAR 2014	WATCH
NORWAY	- (BLOMOY)	60.53N	4.88E	1716Z	26 MAR 2014	WATCH
NORWAY	- (FLORØ)	61.60N	5.03E	1731Z	26 MAR 2014	WATCH
NORWAY	- (KARMOY)	59.15N	5.25E	1752Z	26 MAR 2014	WATCH
NETHERLANDS	- DOMBURG	51.57N	3.49E	2205Z	26 MAR 2014	WATCH
NETHERLANDS	- ZANDVOORT	52.37N	4.52E	2344Z	26 MAR 2014	WATCH
SWEDEN	- OFF-SHORE SITE1	58.50N	11.00E	1946Z	26 MAR 2014	WATCH
BELGIUM	- OOSTENDE	51.21N	2.88E	2149Z	26 MAR 2014	WATCH
ICELAND	- VIK	63.41N	19.01W	1456Z	26 MAR 2014	WATCH
MAURITANIA	- NOUAKCHOTT	18.08N	16.03W	1424Z	26 MAR 2014	WATCH
CAPE VERDE	- PALMEIRA	16.79N	22.99W	1329Z	26 MAR 2014	WATCH

SUPPLEMENT MESSAGES WILL BE ISSUED AS SOON AS NEW DATA AND EVALUATION ALLOWS. THE TSUNAMI ALERT WILL REMAIN IN EFFECT UNTIL AN END OF ALERT IS BROADCAST.

END OF TSUNAMI EXERCISE MESSAGE NUMBER 001

WENT40 LPMG 261043  
TSUNAMI EXERCISE MESSAGE NUMBER 002  
NEAM IPMA CANDIDATE TSUNAMI WATCH PROVIDER  
ISSUED AT 1043Z 26 MAR 2014

... TSUNAMI WATCH ONGOING ...  
THIS ALERT APPLIES TO BELGIUM ... CAPE VERDE ... DENMARK ... FRANCE ...  
GERMANY ... ICELAND ... IRELAND ... MAURITANIA ... MOROCCO ... NETHERLANDS ...  
NORWAY ... PORTUGAL ... SPAIN ... SWEDEN ... UNITED KINGDOM

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NATIONAL AND LOCAL GOVERNMENT AGENCIES HAVE THE AUTHORITY TO MAKE  
DECISIONS REGARDING THE OFFICIAL STATE OF ALERT IN THEIR AREA AND ANY  
ACTIONS TO BE TAKEN IN RESPONSE

AN EARTHQUAKE HAS OCCURRED WITH THESE PRELIMINARY PARAMETERS  
ORIGIN TIME - 1000Z 26 MAR 2014  
COORDINATES - 36.04 NORTH 10.75 WEST  
DEPTH - 5 KM  
LOCATION - WEST OF GIBRALTAR  
MAGNITUDE - 8.5

MEASUREMENTS OR REPORTS OF TSUNAMI WAVE ACTIVITY  
GAUGE LOCATION LAT LON TIME AMPL PER  
-----  
PORTUGAL - LAGOS 37.10N 8.67W 1039Z 26 MAR 2014 7.00M 10.00MIN

LAT - LATITUDE (N-NORTH, S-SOUTH)  
LON - LONGITUDE (E-EAST, W-WEST)  
TIME - TIME OF THE MEASUREMENT (Z IS UTZ TIME)  
AMPL - TSUNAMI AMPLITUDE MEASURED RELATIVE TO NORMAL SEA LEVEL  
IT IS ...NOT... CREST-TO-TROUGH WAVE HEIGHT.  
VALUES ARE GIVEN IN METERS (M).  
PER - PERIOD OF TIME IN MINUTES (MIN) FROM ONE WAVE TO THE NEXT.

EVALUATION OF TSUNAMI WATCH  
SEA LEVEL READINGS INDICATE A TSUNAMI WAS GENERATED.  
THIS TSUNAMI CAN STRIKE COASTLINES WITH WAVE HEIGHT GREATER THAN  
0.5M AND/OR CAUSE A TSUNAMI RUN-UP GREATER THAN 1M. THIS  
CENTER WILL CONTINUE TO MONITOR SEA LEVEL GAUGSES NEAREST THE  
REGION AND REPORT IF ANY ADDITIONAL TSUNAMI WAVE ACTIVITY IS OBSERVED.  
AUTHORITIES SHOULD TAKE APPROPRIATE ACTION IN RESPONSE TO THIS  
POSSIBILITY.

A TSUNAMI IS A SERIES OF WAVES AND THE FIRST WAVE MAY NOT BE THE  
LARGEST. TSUNAMI WAVE HEIGHTS CANNOT BE PREDICTED AND CAN VARY  
SIGNIFICANTLY ALONG A COAST DUE TO LOCAL EFFECTS. THE TIME FROM ONE  
TSUNAMI WAVE TO THE NEXT CAN BE FIVE MINUTES TO AN HOUR, AND THE  
THREAT CAN CONTINUE FOR MANY HOURS AS MULTIPLE WAVES ARRIVE.

ESTIMATED INITIAL TSUNAMI ARRIVAL TIMES AT FORECAST POINTS WITHIN  
THE WATCH AREA ARE GIVEN BELOW. ACTUAL ARRIVAL TIMES MAY DIFFER AND  
THE INITIAL WAVE MAY NOT BE THE LARGEST. A TSUNAMI IS A SERIES OF WAVES  
AND THE TIME BETWEEN SUCCESSIVE WAVES CAN BE FIVE MINUTES TO ONE  
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LOCATION, FORECAST POINT COORDINATES, ARRIVAL TIME, ALERT LEVEL (ADVISORY,  
WATCH)

PORTUGAL	- SAGRES	37.00N	8.94W	1027Z	26	MAR	2014	WATCH
PORTUGAL	- CASCAIS	38.68N	9.45W	1037Z	26	MAR	2014	WATCH
PORTUGAL	- ARMACAO DE PERA	37.07N	8.37W	1040Z	26	MAR	2014	WATCH
PORTUGAL	- MADEIRA	33.05N	16.32W	1052Z	26	MAR	2014	WATCH
PORTUGAL	- NAZARE	39.60N	9.09W	1054Z	26	MAR	2014	WATCH
PORTUGAL	- PONTA DELGADA	37.67N	25.65W	1156Z	26	MAR	2014	WATCH
PORTUGAL	- ANGRA	38.62N	27.00W	1206Z	26	MAR	2014	WATCH
PORTUGAL	- FLORES	39.43N	31.05W	1245Z	26	MAR	2014	WATCH
MOROCCO	- RABAT	34.04N	6.84W	1056Z	26	MAR	2014	WATCH
MOROCCO	- TANGER	35.79N	5.80W	1108Z	26	MAR	2014	WATCH
SPAIN	- ALGECIRAS	36.13N	5.40W	1113Z	26	MAR	2014	WATCH
SPAIN	- HUELVA	37.16N	6.97W	1113Z	26	MAR	2014	WATCH
SPAIN	- CADIZ	36.53N	6.29W	1113Z	26	MAR	2014	WATCH
SPAIN	- CEUTA	35.89N	5.32W	1124Z	26	MAR	2014	WATCH
SPAIN	- LAS PALMAS	28.15N	15.33W	1124Z	26	MAR	2014	WATCH
SPAIN	- SANTA CRUZ	28.47N	16.19W	1127Z	26	MAR	2014	WATCH
SPAIN	- MALAGA	36.66N	4.40W	1137Z	26	MAR	2014	WATCH
SPAIN	- VIGO	42.24N	8.81W	1142Z	26	MAR	2014	WATCH
SPAIN	- CORUNHA	43.43N	8.40W	1149Z	26	MAR	2014	WATCH
SPAIN	- ALMERIA	36.84N	2.47W	1204Z	26	MAR	2014	WATCH
UNITED KINGDOM-	GIBRALTAR	36.13N	5.35W	1113Z	26	MAR	2014	WATCH
UNITED KINGDOM-	OFF-SHORE SITE2	47.00N	14.00W	1137Z	26	MAR	2014	WATCH
UNITED KINGDOM-	OFF-SHORE SITE1	47.00N	10.00W	1140Z	26	MAR	2014	WATCH
UNITED KINGDOM-	ST MARY'S	49.92N	6.32W	1403Z	26	MAR	2014	WATCH
UNITED KINGDOM-	OFF-SHORE SITE3	60.00N	12.00W	1406Z	26	MAR	2014	WATCH
UNITED KINGDOM-	NEWLYN	50.10N	5.55W	1442Z	26	MAR	2014	WATCH
UNITED KINGDOM-	OFF-SHORE SITE4	62.00N	4.00W	1510Z	26	MAR	2014	WATCH
UNITED KINGDOM-	LERWICK	60.15N	1.13W	1644Z	26	MAR	2014	WATCH
UNITED KINGDOM-	WHITBY	54.48N	0.62W	2134Z	26	MAR	2014	WATCH
FRANCE	- BAYONNE	43.51N	1.60W	1235Z	26	MAR	2014	WATCH
FRANCE	- BISCARROSSE	44.45N	1.34W	1245Z	26	MAR	2014	WATCH
FRANCE	- LE CONQUET	48.35N	4.83W	1318Z	26	MAR	2014	WATCH
FRANCE	- LORIENT	47.66N	3.39W	1322Z	26	MAR	2014	WATCH
FRANCE	- OLERON	46.02N	1.41W	1339Z	26	MAR	2014	WATCH
FRANCE	- SAINT-NAZAIRE	47.24N	2.26W	1409Z	26	MAR	2014	WATCH
FRANCE	- CHERBOURG	49.67N	1.65W	1605Z	26	MAR	2014	WATCH
FRANCE	- LE HAVRE	49.48N	0.08E	1754Z	26	MAR	2014	WATCH
FRANCE	- CALAIS	51.00N	1.84E	1929Z	26	MAR	2014	WATCH
IRELAND	- CASTLETOWNBERE	51.65N	9.91W	1320Z	26	MAR	2014	WATCH
IRELAND	- BALLYCOTTON	51.83N	8.00W	1435Z	26	MAR	2014	WATCH
IRELAND	- MALIN HEAD	55.35N	7.35W	1453Z	26	MAR	2014	WATCH
IRELAND	- GALWAY PORT	53.26N	9.04W	1507Z	26	MAR	2014	WATCH
IRELAND	- DUNMORE	52.14N	7.00W	1524Z	26	MAR	2014	WATCH
IRELAND	- DUBLIN PORT	53.35N	6.16W	1746Z	26	MAR	2014	WATCH
DENMARK	- SUDERØ	61.38N	6.69W	1456Z	26	MAR	2014	WATCH
DENMARK	- THORSHVAN	62.02N	6.73W	1540Z	26	MAR	2014	WATCH
DENMARK	- KLAKSVIG	62.18N	6.61W	1546Z	26	MAR	2014	WATCH
DENMARK	- NANORTALIK	60.12N	45.24W	1603Z	26	MAR	2014	WATCH
DENMARK	- ANGMAGSALIK	65.58N	37.61W	1612Z	26	MAR	2014	WATCH
DENMARK	- NUUK	64.17N	51.76W	1711Z	26	MAR	2014	WATCH
DENMARK	- HIRTSHALS	57.61N	9.93E	1955Z	26	MAR	2014	WATCH
DENMARK	- COPENHAGEN	55.75N	2.67E	2010Z	26	MAR	2014	WATCH
GERMANY	- (LERWICK)	60.15N	1.12W	1644Z	26	MAR	2014	WATCH
GERMANY	- (BLOMØY)	60.53N	4.88E	1716Z	26	MAR	2014	WATCH
GERMANY	- (FLORØ)	61.60N	5.03E	1731Z	26	MAR	2014	WATCH
GERMANY	- (KARMØY)	59.15N	5.25E	1752Z	26	MAR	2014	WATCH

GERMANY	- (ABERDEEN)	57.15N	2.07W	1841Z	26 MAR 2014	WATCH
GERMANY	- (HARTLEPOOL)	54.70N	1.20W	2127Z	26 MAR 2014	WATCH
GERMANY	- WESTERLAND	54.92N	8.27E	2348Z	26 MAR 2014	WATCH
GERMANY	- HELGOLAND	54.18N	7.88E	0027Z	27 MAR 2014	WATCH
GERMANY	- BORKUM	53.55N	6.75E	0104Z	27 MAR 2014	WATCH
GERMANY	- ALTE WESER LT	53.87N	8.13E	0105Z	27 MAR 2014	WATCH
GERMANY	- NORDERNEY	53.70N	7.15E	0111Z	27 MAR 2014	WATCH
GERMANY	- CUXHAVEN	53.87N	8.72E	0205Z	27 MAR 2014	WATCH
GERMANY	- BUSUM	54.12N	8.87E	0245Z	27 MAR 2014	WATCH
NORWAY	- (BLOMØY)	60.53N	4.88E	1716Z	26 MAR 2014	WATCH
NORWAY	- (FLORØ)	61.60N	5.03E	1731Z	26 MAR 2014	WATCH
NORWAY	- (KARMØY)	59.15N	5.25E	1752Z	26 MAR 2014	WATCH
NETHERLANDS	- DOMBURG	51.57N	3.49E	2205Z	26 MAR 2014	WATCH
NETHERLANDS	- ZANDVOORT	52.37N	4.52E	2344Z	26 MAR 2014	WATCH
SWEDEN	- OFF-SHORE SITE1	58.50N	11.00E	1946Z	26 MAR 2014	WATCH
BELGIUM	- OOSTENDE	51.21N	2.88E	2149Z	26 MAR 2014	WATCH
ICELAND	- VIK	63.41N	19.01W	1456Z	26 MAR 2014	WATCH
MAURITANIA	- NOUAKCHOTT	18.08N	16.03W	1424Z	26 MAR 2014	WATCH
CAPE VERDE	- PALMEIRA	16.79N	22.99W	1329Z	26 MAR 2014	WATCH

SUPPLEMENT MESSAGES WILL BE ISSUED AS SOON AS NEW DATA AND EVALUATION ALLOWS. THE TSUNAMI ALERT WILL REMAIN IN EFFECT UNTIL AN END OF ALERT IS BROADCAST.

END OF TSUNAMI EXERCISE MESSAGE NUMBER 002



WENT40 LPMG 261100  
TSUNAMI EXERCISE MESSAGE NUMBER 003  
NEAM IPMA CANDIDATE TSUNAMI WATCH PROVIDER  
ISSUED AT 1100Z 26 MAR 2014

... TSUNAMI WATCH ONGOING ...  
THIS ALERT APPLIES TO BELGIUM ... CAPE VERDE ... DENMARK ... FRANCE ...  
GERMANY ... ICELAND ... IRELAND ... MAURITANIA ... MOROCCO ... NETHERLANDS ...  
NORWAY ... PORTUGAL ... SPAIN ... SWEDEN ... UNITED KINGDOM

THIS MESSAGE IS ISSUED AS ADVICE TO GOVERNMENT AGENCIES. ONLY  
NATIONAL AND LOCAL GOVERNMENT AGENCIES HAVE THE AUTHORITY TO MAKE  
DECISIONS REGARDING THE OFFICIAL STATE OF ALERT IN THEIR AREA AND ANY  
ACTIONS TO BE TAKEN IN RESPONSE

AN EARTHQUAKE HAS OCCURRED WITH THESE PRELIMINARY PARAMETERS  
ORIGIN TIME - 1000Z 26 MAR 2014  
COORDINATES - 36.04 NORTH 10.75 WEST  
DEPTH - 5 KM  
LOCATION - WEST OF GIBRALTAR  
MAGNITUDE - 8.5

MEASUREMENTS OR REPORTS OF TSUNAMI WAVE ACTIVITY  
GAUGE LOCATION LAT LON TIME AMPL PER

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PORTUGAL - LAGOS 37.10N 8.67W 1039Z 26 MAR 2014 7.00M 10.00MIN  
PORTUGAL - SINES 37.95N 8.89W 1046Z 26 MAR 2014 4.02M 10.00MIN  
PORTUGAL - CASCAIS 38.69N 9.42W 1049Z 26 MAR 2014 3.00M 8.33MIN  
PORTUGAL - SETUBAL 38.49N 8.93W 1058Z 26 MAR 2014 1.93M 13.33MIN

LAT - LATITUDE (N-NORTH, S-SOUTH)  
LON - LONGITUDE (E-EAST, W-WEST)  
TIME - TIME OF THE MEASUREMENT (Z IS UTZ TIME)  
AMPL - TSUNAMI AMPLITUDE MEASURED RELATIVE TO NORMAL SEA LEVEL  
IT IS ...NOT... CREST-TO-TROUGH WAVE HEIGHT.  
VALUES ARE GIVEN IN METERS (M).  
PER - PERIOD OF TIME IN MINUTES (MIN) FROM ONE WAVE TO THE NEXT.

EVALUATION OF TSUNAMI WATCH  
SEA LEVEL READINGS INDICATE A TSUNAMI WAS GENERATED.  
THIS TSUNAMI CAN STRIKE COASTLINES WITH WAVE HEIGHT GREATER THAN  
0.5M AND/OR CAUSE A TSUNAMI RUN-UP GREATER THAN 1M. THIS  
CENTER WILL CONTINUE TO MONITOR SEA LEVEL GAUGSES NEAREST THE  
REGION AND REPORT IF ANY ADDITIONAL TSUNAMI WAVE ACTIVITY IS OBSERVED.  
AUTHORITIES SHOULD TAKE APPROPRIATE ACTION IN RESPONSE TO THIS  
POSSIBILITY.

A TSUNAMI IS A SERIES OF WAVES AND THE FIRST WAVE MAY NOT BE THE  
LARGEST. TSUNAMI WAVE HEIGHTS CANNOT BE PREDICTED AND CAN VARY  
SIGNIFICANTLY ALONG A COAST DUE TO LOCAL EFFECTS. THE TIME FROM ONE  
TSUNAMI WAVE TO THE NEXT CAN BE FIVE MINUTES TO AN HOUR, AND THE  
THREAT CAN CONTINUE FOR MANY HOURS AS MULTIPLE WAVES ARRIVE.

ESTIMATED INITIAL TSUNAMI ARRIVAL TIMES AT FORECAST POINTS WITHIN

THE WATCH AREA ARE GIVEN BELOW. ACTUAL ARRIVAL TIMES MAY DIFFER AND THE INITIAL WAVE MAY NOT BE THE LARGEST. A TSUNAMI IS A SERIES OF WAVES AND THE TIME BETWEEN SUCCESSIVE WAVES CAN BE FIVE MINUTES TO ONE HOUR.

LOCATION, FORECAST POINT COORDINATES, ARRIVAL TIME, ALERT LEVEL (ADVISORY, WATCH)

PORTUGAL	- SAGRES	37.00N	8.94W	1027Z	26 MAR 2014	WATCH
PORTUGAL	- CASCAIS	38.68N	9.45W	1037Z	26 MAR 2014	WATCH
PORTUGAL	- ARMACAO DE PERA	37.07N	8.37W	1040Z	26 MAR 2014	WATCH
PORTUGAL	- MADEIRA	33.05N	16.32W	1052Z	26 MAR 2014	WATCH
PORTUGAL	- NAZARE	39.60N	9.09W	1054Z	26 MAR 2014	WATCH
PORTUGAL	- PONTA DELGADA	37.67N	25.65W	1156Z	26 MAR 2014	WATCH
PORTUGAL	- ANGRA	38.62N	27.00W	1206Z	26 MAR 2014	WATCH
PORTUGAL	- FLORES	39.43N	31.05W	1245Z	26 MAR 2014	WATCH
MOROCCO	- RABAT	34.04N	6.84W	1056Z	26 MAR 2014	WATCH
MOROCCO	- TANGER	35.79N	5.80W	1108Z	26 MAR 2014	WATCH
SPAIN	- ALGECIRAS	36.13N	5.40W	1113Z	26 MAR 2014	WATCH
SPAIN	- HUELVA	37.16N	6.97W	1113Z	26 MAR 2014	WATCH
SPAIN	- CADIZ	36.53N	6.29W	1113Z	26 MAR 2014	WATCH
SPAIN	- CEUTA	35.89N	5.32W	1124Z	26 MAR 2014	WATCH
SPAIN	- LAS PALMAS	28.15N	15.33W	1124Z	26 MAR 2014	WATCH
SPAIN	- SANTA CRUZ	28.47N	16.19W	1127Z	26 MAR 2014	WATCH
SPAIN	- MALAGA	36.66N	4.40W	1137Z	26 MAR 2014	WATCH
SPAIN	- VIGO	42.24N	8.81W	1142Z	26 MAR 2014	WATCH
SPAIN	- CORUNHA	43.43N	8.40W	1149Z	26 MAR 2014	WATCH
SPAIN	- ALMERIA	36.84N	2.47W	1204Z	26 MAR 2014	WATCH
UNITED KINGDOM-	GIBRALTAR	36.13N	5.35W	1113Z	26 MAR 2014	WATCH
UNITED KINGDOM-	OFF-SHORE SITE2	47.00N	14.00W	1137Z	26 MAR 2014	WATCH
UNITED KINGDOM-	OFF-SHORE SITE1	47.00N	10.00W	1140Z	26 MAR 2014	WATCH
UNITED KINGDOM-	ST MARY'S	49.92N	6.32W	1403Z	26 MAR 2014	WATCH
UNITED KINGDOM-	OFF-SHORE SITE3	60.00N	12.00W	1406Z	26 MAR 2014	WATCH
UNITED KINGDOM-	NEWLYN	50.10N	5.55W	1442Z	26 MAR 2014	WATCH
UNITED KINGDOM-	OFF-SHORE SITE4	62.00N	4.00W	1510Z	26 MAR 2014	WATCH
UNITED KINGDOM-	LERWICK	60.15N	1.13W	1644Z	26 MAR 2014	WATCH
UNITED KINGDOM-	WHITBY	54.48N	0.62W	2134Z	26 MAR 2014	WATCH
FRANCE	- BAYONNE	43.51N	1.60W	1235Z	26 MAR 2014	WATCH
FRANCE	- BISCARROSSE	44.45N	1.34W	1245Z	26 MAR 2014	WATCH
FRANCE	- LE CONQUET	48.35N	4.83W	1318Z	26 MAR 2014	WATCH
FRANCE	- LORIENT	47.66N	3.39W	1322Z	26 MAR 2014	WATCH
FRANCE	- OLERON	46.02N	1.41W	1339Z	26 MAR 2014	WATCH
FRANCE	- SAINT-NAZAIRE	47.24N	2.26W	1409Z	26 MAR 2014	WATCH
FRANCE	- CHERBOURG	49.67N	1.65W	1605Z	26 MAR 2014	WATCH
FRANCE	- LE HAVRE	49.48N	0.08E	1754Z	26 MAR 2014	WATCH
FRANCE	- CALAIS	51.00N	1.84E	1929Z	26 MAR 2014	WATCH
IRELAND	- CASTLETOWNBERE	51.65N	9.91W	1320Z	26 MAR 2014	WATCH
IRELAND	- BALLYCOTTON	51.83N	8.00W	1435Z	26 MAR 2014	WATCH
IRELAND	- MALIN HEAD	55.35N	7.35W	1453Z	26 MAR 2014	WATCH
IRELAND	- GALWAY PORT	53.26N	9.04W	1507Z	26 MAR 2014	WATCH
IRELAND	- DUNMORE	52.14N	7.00W	1524Z	26 MAR 2014	WATCH
IRELAND	- DUBLIN PORT	53.35N	6.16W	1746Z	26 MAR 2014	WATCH
DENMARK	- SUDERø	61.38N	6.69W	1456Z	26 MAR 2014	WATCH
DENMARK	- THORSHVAN	62.02N	6.73W	1540Z	26 MAR 2014	WATCH
DENMARK	- KLAKSVIG	62.18N	6.61W	1546Z	26 MAR 2014	WATCH
DENMARK	- NANORTALIK	60.12N	45.24W	1603Z	26 MAR 2014	WATCH
DENMARK	- ANGMAGSALIK	65.58N	37.61W	1612Z	26 MAR 2014	WATCH

DENMARK	- NUUK	64.17N	51.76W	1711Z	26 MAR 2014	WATCH
DENMARK	- HIRTSHALS	57.61N	9.93E	1955Z	26 MAR 2014	WATCH
DENMARK	- COPENHAGEN	55.75N	2.67E	2010Z	26 MAR 2014	WATCH
GERMANY	- (LERWICK)	60.15N	1.12W	1644Z	26 MAR 2014	WATCH
GERMANY	- (BLOMØY)	60.53N	4.88E	1716Z	26 MAR 2014	WATCH
GERMANY	- (FLORØ)	61.60N	5.03E	1731Z	26 MAR 2014	WATCH
GERMANY	- (KARMØY)	59.15N	5.25E	1752Z	26 MAR 2014	WATCH
GERMANY	- (ABERDEEN)	57.15N	2.07W	1841Z	26 MAR 2014	WATCH
GERMANY	- (HARTLEPOOL)	54.70N	1.20W	2127Z	26 MAR 2014	WATCH
GERMANY	- WESTERLAND	54.92N	8.27E	2348Z	26 MAR 2014	WATCH
GERMANY	- HELGOLAND	54.18N	7.88E	0027Z	27 MAR 2014	WATCH
GERMANY	- BORKUM	53.55N	6.75E	0104Z	27 MAR 2014	WATCH
GERMANY	- ALTE WESER LT	53.87N	8.13E	0105Z	27 MAR 2014	WATCH
GERMANY	- NORDERNEY	53.70N	7.15E	0111Z	27 MAR 2014	WATCH
GERMANY	- CUXHAVEN	53.87N	8.72E	0205Z	27 MAR 2014	WATCH
GERMANY	- BUSUM	54.12N	8.87E	0245Z	27 MAR 2014	WATCH
NORWAY	- (BLOMØY)	60.53N	4.88E	1716Z	26 MAR 2014	WATCH
NORWAY	- (FLORØ)	61.60N	5.03E	1731Z	26 MAR 2014	WATCH
NORWAY	- (KARMØY)	59.15N	5.25E	1752Z	26 MAR 2014	WATCH
NETHERLANDS	- DOMBURG	51.57N	3.49E	2205Z	26 MAR 2014	WATCH
NETHERLANDS	- ZANDVOORT	52.37N	4.52E	2344Z	26 MAR 2014	WATCH
SWEDEN	- OFF-SHORE SITE1	58.50N	11.00E	1946Z	26 MAR 2014	WATCH
BELGIUM	- OOSTENDE	51.21N	2.88E	2149Z	26 MAR 2014	WATCH
ICELAND	- VIK	63.41N	19.01W	1456Z	26 MAR 2014	WATCH
MAURITANIA	- NOUAKCHOTT	18.08N	16.03W	1424Z	26 MAR 2014	WATCH
CAPE VERDE	- PALMEIRA	16.79N	22.99W	1329Z	26 MAR 2014	WATCH

SUPPLEMENT MESSAGES WILL BE ISSUED AS SOON AS NEW DATA AND EVALUATION ALLOWS. THE TSUNAMI ALERT WILL REMAIN IN EFFECT UNTIL AN END OF ALERT IS BROADCAST.

END OF TSUNAMI EXERCISE MESSAGE NUMBER 003

WENT40 LPMG 261200  
TSUNAMI EXERCISE MESSAGE NUMBER 004  
NEAM IPMA CANDIDATE TSUNAMI WATCH PROVIDER  
ISSUED AT 1200Z 26 MAR 2014

... TSUNAMI WATCH ONGOING ...  
THIS ALERT APPLIES TO BELGIUM ... CAPE VERDE ... DENMARK ... FRANCE ...  
GERMANY ... ICELAND ... IRELAND ... MAURITANIA ... MOROCCO ... NETHERLANDS ...  
NORWAY ... PORTUGAL ... SPAIN ... SWEDEN ... UNITED KINGDOM

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NATIONAL AND LOCAL GOVERNMENT AGENCIES HAVE THE AUTHORITY TO MAKE  
DECISIONS REGARDING THE OFFICIAL STATE OF ALERT IN THEIR AREA AND ANY  
ACTIONS TO BE TAKEN IN RESPONSE

AN EARTHQUAKE HAS OCCURRED WITH THESE PRELIMINARY PARAMETERS  
ORIGIN TIME - 1000Z 26 MAR 2014  
COORDINATES - 36.04 NORTH 10.75 WEST  
DEPTH - 5 KM  
LOCATION - WEST OF GIBRALTAR  
MAGNITUDE - 8.5

MEASUREMENTS OR REPORTS OF TSUNAMI WAVE ACTIVITY  
GAUGE LOCATION LAT LON TIME AMPL PER

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PORTUGAL - LAGOS 37.10N 8.67W 1039Z 26 MAR 2014 7.00M 10.00MIN  
PORTUGAL - SINES 37.95N 8.89W 1046Z 26 MAR 2014 4.02M 10.00MIN  
PORTUGAL - CASCAIS 38.69N 9.42W 1049Z 26 MAR 2014 3.00M 8.33MIN  
PORTUGAL - SETUBAL 38.49N 8.93W 1058Z 26 MAR 2014 1.93M 13.33MIN  
PORTUGAL - PENICHE 39.35N 9.37W 1108Z 26 MAR 2014 2.21M 8.50MIN  
PORTUGAL - FUNCHAL 32.64N 16.91W 1110Z 26 MAR 2014 2.51M 8.50MIN  
UNITED KINGDOM - GIBRALTAR 36.13N 5.35W 1113Z 26 MAR 2014 1.00M 8.00MIN  
MOROCCO - CASABLANCA 33.62N 7.59W 1112Z 26 MAR 2014 3.90M 8.50MIN  
SPAIN - HUELVA 37.13N 6.83W 1116Z 26 MAR 2014 4.00M 7.50MIN  
PORTUGAL - LEIXOES 41.19N 8.70W 1140Z 26 MAR 2014 1.50M 8.50MIN  
PORTUGAL - SANTA MARIA 36.95N 24.15W 1150Z 26 MAR 2014 1.30M 8.50MIN  
SPAIN - FERROL1 43.56N 8.33W 1153Z 26 MAR 2014 0.94M 10.00MIN

LAT - LATITUDE (N-NORTH, S-SOUTH)  
LON - LONGITUDE (E-EAST, W-WEST)  
TIME - TIME OF THE MEASUREMENT (Z IS UTZ TIME)  
AMPL - TSUNAMI AMPLITUDE MEASURED RELATIVE TO NORMAL SEA LEVEL  
IT IS ...NOT... CREST-TO-TROUGH WAVE HEIGHT.  
VALUES ARE GIVEN IN METERS (M).  
PER - PERIOD OF TIME IN MINUTES (MIN) FROM ONE WAVE TO THE NEXT.

EVALUATION OF TSUNAMI WATCH  
SEA LEVEL READINGS INDICATE A TSUNAMI WAS GENERATED.  
THIS TSUNAMI CAN STRIKE COASTLINES WITH WAVE HEIGHT GREATER THAN  
0.5M AND/OR CAUSE A TSUNAMI RUN-UP GREATER THAN 1M. THIS  
CENTER WILL CONTINUE TO MONITOR SEA LEVEL GAUGSES NEAREST THE  
REGION AND REPORT IF ANY ADDITIONAL TSUNAMI WAVE ACTIVITY IS OBSERVED.  
AUTHORITIES SHOULD TAKE APPROPRIATE ACTION IN RESPONSE TO THIS  
POSSIBILITY.  
A TSUNAMI IS A SERIES OF WAVES AND THE FIRST WAVE MAY NOT BE THE  
LARGEST. TSUNAMI WAVE HEIGHTS CANNOT BE PREDICTED AND CAN VARY  
SIGNIFICANTLY ALONG A COAST DUE TO LOCAL EFFECTS. THE TIME FROM ONE

TSUNAMI WAVE TO THE NEXT CAN BE FIVE MINUTES TO AN HOUR, AND THE THREAT CAN CONTINUE FOR MANY HOURS AS MULTIPLE WAVES ARRIVE.

ESTIMATED INITIAL TSUNAMI ARRIVAL TIMES AT FORECAST POINTS WITHIN THE WATCH AREA ARE GIVEN BELOW. ACTUAL ARRIVAL TIMES MAY DIFFER AND THE INITIAL WAVE MAY NOT BE THE LARGEST. A TSUNAMI IS A SERIES OF WAVES AND THE TIME BETWEEN SUCCESSIVE WAVES CAN BE FIVE MINUTES TO ONE HOUR.

LOCATION, FORECAST POINT COORDINATES, ARRIVAL TIME, ALERT LEVEL (ADVISORY, WATCH)

PORTUGAL	- SAGRES	37.00N	8.94W	1027Z	26 MAR 2014	WATCH
PORTUGAL	- CASCAIS	38.68N	9.45W	1037Z	26 MAR 2014	WATCH
PORTUGAL	- ARMACAO DE PERA	37.07N	8.37W	1040Z	26 MAR 2014	WATCH
PORTUGAL	- MADEIRA	33.05N	16.32W	1052Z	26 MAR 2014	WATCH
PORTUGAL	- NAZARE	39.60N	9.09W	1054Z	26 MAR 2014	WATCH
PORTUGAL	- PONTA DELGADA	37.67N	25.65W	1156Z	26 MAR 2014	WATCH
PORTUGAL	- ANGRA	38.62N	27.00W	1206Z	26 MAR 2014	WATCH
PORTUGAL	- FLORES	39.43N	31.05W	1245Z	26 MAR 2014	WATCH
MOROCCO	- RABAT	34.04N	6.84W	1056Z	26 MAR 2014	WATCH
MOROCCO	- TANGER	35.79N	5.80W	1108Z	26 MAR 2014	WATCH
SPAIN	- ALGECIRAS	36.13N	5.40W	1113Z	26 MAR 2014	WATCH
SPAIN	- HUELVA	37.16N	6.97W	1113Z	26 MAR 2014	WATCH
SPAIN	- CADIZ	36.53N	6.29W	1113Z	26 MAR 2014	WATCH
SPAIN	- CEUTA	35.89N	5.32W	1124Z	26 MAR 2014	WATCH
SPAIN	- LAS PALMAS	28.15N	15.33W	1124Z	26 MAR 2014	WATCH
SPAIN	- SANTA CRUZ	28.47N	16.19W	1127Z	26 MAR 2014	WATCH
SPAIN	- MALAGA	36.66N	4.40W	1137Z	26 MAR 2014	WATCH
SPAIN	- VIGO	42.24N	8.81W	1142Z	26 MAR 2014	WATCH
SPAIN	- CORUNHA	43.43N	8.40W	1149Z	26 MAR 2014	WATCH
SPAIN	- ALMERIA	36.84N	2.47W	1204Z	26 MAR 2014	WATCH
UNITED KINGDOM-	GIBRALTAR	36.13N	5.35W	1113Z	26 MAR 2014	WATCH
UNITED KINGDOM-	OFF-SHORE SITE2	47.00N	14.00W	1137Z	26 MAR 2014	WATCH
UNITED KINGDOM-	OFF-SHORE SITE1	47.00N	10.00W	1140Z	26 MAR 2014	WATCH
UNITED KINGDOM-	ST MARY'S	49.92N	6.32W	1403Z	26 MAR 2014	WATCH
UNITED KINGDOM-	OFF-SHORE SITE3	60.00N	12.00W	1406Z	26 MAR 2014	WATCH
UNITED KINGDOM-	NEWLYN	50.10N	5.55W	1442Z	26 MAR 2014	WATCH
UNITED KINGDOM-	OFF-SHORE SITE4	62.00N	4.00W	1510Z	26 MAR 2014	WATCH
UNITED KINGDOM-	LERWICK	60.15N	1.13W	1644Z	26 MAR 2014	WATCH
UNITED KINGDOM-	WHITBY	54.48N	0.62W	2134Z	26 MAR 2014	WATCH
FRANCE	- BAYONNE	43.51N	1.60W	1235Z	26 MAR 2014	WATCH
FRANCE	- BISCARROSSE	44.45N	1.34W	1245Z	26 MAR 2014	WATCH
FRANCE	- LE CONQUET	48.35N	4.83W	1318Z	26 MAR 2014	WATCH
FRANCE	- LORIENT	47.66N	3.39W	1322Z	26 MAR 2014	WATCH
FRANCE	- OLERON	46.02N	1.41W	1339Z	26 MAR 2014	WATCH
FRANCE	- SAINT-NAZAIRE	47.24N	2.26W	1409Z	26 MAR 2014	WATCH
FRANCE	- CHERBOURG	49.67N	1.65W	1605Z	26 MAR 2014	WATCH
FRANCE	- LE HAVRE	49.48N	0.08E	1754Z	26 MAR 2014	WATCH
FRANCE	- CALAIS	51.00N	1.84E	1929Z	26 MAR 2014	WATCH
IRELAND	- CASTLETOWNBERE	51.65N	9.91W	1320Z	26 MAR 2014	WATCH
IRELAND	- BALLYCOTTON	51.83N	8.00W	1435Z	26 MAR 2014	WATCH
IRELAND	- MALIN HEAD	55.35N	7.35W	1453Z	26 MAR 2014	WATCH
IRELAND	- GALWAY PORT	53.26N	9.04W	1507Z	26 MAR 2014	WATCH
IRELAND	- DUNMORE	52.14N	7.00W	1524Z	26 MAR 2014	WATCH
IRELAND	- DUBLIN PORT	53.35N	6.16W	1746Z	26 MAR 2014	WATCH
DENMARK	- SUDERØ	61.38N	6.69W	1456Z	26 MAR 2014	WATCH
DENMARK	- THORSHVAN	62.02N	6.73W	1540Z	26 MAR 2014	WATCH

DENMARK	- KLAKSVIG	62.18N	6.61W	1546Z	26 MAR 2014	WATCH
DENMARK	- NANORTALIK	60.12N	45.24W	1603Z	26 MAR 2014	WATCH
DENMARK	- ANGMAGSALIK	65.58N	37.61W	1612Z	26 MAR 2014	WATCH
DENMARK	- NUUK	64.17N	51.76W	1711Z	26 MAR 2014	WATCH
DENMARK	- HIRTSHALS	57.61N	9.93E	1955Z	26 MAR 2014	WATCH
DENMARK	- COPENHAGEN	55.75N	2.67E	2010Z	26 MAR 2014	WATCH
GERMANY	- (LERWICK)	60.15N	1.12W	1644Z	26 MAR 2014	WATCH
GERMANY	- (BLOMØY)	60.53N	4.88E	1716Z	26 MAR 2014	WATCH
GERMANY	- (FLORØ)	61.60N	5.03E	1731Z	26 MAR 2014	WATCH
GERMANY	- (KARMØY)	59.15N	5.25E	1752Z	26 MAR 2014	WATCH
GERMANY	- (ABERDEEN)	57.15N	2.07W	1841Z	26 MAR 2014	WATCH
GERMANY	- (HARTLEPOOL)	54.70N	1.20W	2127Z	26 MAR 2014	WATCH
GERMANY	- WESTERLAND	54.92N	8.27E	2348Z	26 MAR 2014	WATCH
GERMANY	- HELGOLAND	54.18N	7.88E	0027Z	27 MAR 2014	WATCH
GERMANY	- BORKUM	53.55N	6.75E	0104Z	27 MAR 2014	WATCH
GERMANY	- ALTE WESER LT	53.87N	8.13E	0105Z	27 MAR 2014	WATCH
GERMANY	- NORDERNEY	53.70N	7.15E	0111Z	27 MAR 2014	WATCH
GERMANY	- CUXHAVEN	53.87N	8.72E	0205Z	27 MAR 2014	WATCH
GERMANY	- BUSUM	54.12N	8.87E	0245Z	27 MAR 2014	WATCH
NORWAY	- (BLOMØY)	60.53N	4.88E	1716Z	26 MAR 2014	WATCH
NORWAY	- (FLORØ)	61.60N	5.03E	1731Z	26 MAR 2014	WATCH
NORWAY	- (KARMØY)	59.15N	5.25E	1752Z	26 MAR 2014	WATCH
NETHERLANDS	- DOMBURG	51.57N	3.49E	2205Z	26 MAR 2014	WATCH
NETHERLANDS	- ZANDVOORT	52.37N	4.52E	2344Z	26 MAR 2014	WATCH
SWEDEN	- OFF-SHORE SITE1	58.50N	11.00E	1946Z	26 MAR 2014	WATCH
BELGIUM	- OOSTENDE	51.21N	2.88E	2149Z	26 MAR 2014	WATCH
ICELAND	- VIK	63.41N	19.01W	1456Z	26 MAR 2014	WATCH
MAURITANIA	- NOUAKCHOTT	18.08N	16.03W	1424Z	26 MAR 2014	WATCH
CAPE VERDE	- PALMEIRA	16.79N	22.99W	1329Z	26 MAR 2014	WATCH

SUPPLEMENT MESSAGES WILL BE ISSUED AS SOON AS NEW DATA AND EVALUATION ALLOWS. THE TSUNAMI ALERT WILL REMAIN IN EFFECT UNTIL AN END OF ALERT IS BROADCAST.

END OF TSUNAMI EXERCISE MESSAGE NUMBER 004

WENT40 LPMG 261300  
TSUNAMI EXERCISE MESSAGE NUMBER 005  
NEAM IPMA CANDIDATE TSUNAMI WATCH PROVIDER  
ISSUED AT 1300Z 26 MAR 2014

... TSUNAMI WATCH ONGOING ...  
THIS ALERT APPLIES TO BELGIUM ... CAPE VERDE ... DENMARK ... FRANCE ...  
GERMANY ... ICELAND ... IRELAND ... MAURITANIA ... MOROCCO ... NETHERLANDS ...  
NORWAY ... PORTUGAL ... SPAIN ... SWEDEN ... UNITED KINGDOM

THIS MESSAGE IS ISSUED AS ADVICE TO GOVERNMENT AGENCIES. ONLY  
NATIONAL AND LOCAL GOVERNMENT AGENCIES HAVE THE AUTHORITY TO MAKE  
DECISIONS REGARDING THE OFFICIAL STATE OF ALERT IN THEIR AREA AND ANY  
ACTIONS TO BE TAKEN IN RESPONSE

AN EARTHQUAKE HAS OCCURRED WITH THESE PRELIMINARY PARAMETERS  
ORIGIN TIME - 1000Z 26 MAR 2014  
COORDINATES - 36.04 NORTH 10.75 WEST  
DEPTH - 5 KM  
LOCATION - WEST OF GIBRALTAR  
MAGNITUDE - 8.5

MEASUREMENTS OR REPORTS OF TSUNAMI WAVE ACTIVITY  
GAUGE LOCATION LAT LON TIME AMPL PER

-----  
PORTUGAL - LAGOS 37.10N 8.67W 1039Z 26 MAR 2014 7.00M 10.00MIN  
PORTUGAL - SINES 37.95N 8.89W 1046Z 26 MAR 2014 4.02M 10.00MIN  
PORTUGAL - CASCAIS 38.69N 9.42W 1049Z 26 MAR 2014 3.00M 8.33MIN  
PORTUGAL - SETUBAL 38.49N 8.93W 1058Z 26 MAR 2014 1.93M 13.33MIN  
PORTUGAL - PENICHE 39.35N 9.37W 1108Z 26 MAR 2014 2.21M 8.50MIN  
PORTUGAL - FUNCHAL 32.64N 16.91W 1110Z 26 MAR 2014 2.51M 8.50MIN  
UNITED KINGDOM - GIBRALTAR 36.13N 5.35W 1113Z 26 MAR 2014 1.00M 8.00MIN  
MOROCCO - CASABLANCA 33.62N 7.59W 1112Z 26 MAR 2014 3.90M 8.50MIN  
SPAIN - HUELVA 37.13N 6.83W 1116Z 26 MAR 2014 4.00M 7.50MIN  
PORTUGAL - LEIXOES 41.19N 8.70W 1140Z 26 MAR 2014 1.50M 8.50MIN  
PORTUGAL - SANTA MARIA 36.95N 24.15W 1150Z 26 MAR 2014 1.30M 8.50MIN  
SPAIN - FERROL1 43.56N 8.33W 1153Z 26 MAR 2014 0.94M 10.00MIN  
PORTUGAL - PONTA DELGADA 37.73N 25.68W 1210Z 26 MAR 2014 1.10M 10.00MIN

LAT - LATITUDE (N-NORTH, S-SOUTH)  
LON - LONGITUDE (E-EAST, W-WEST)  
TIME - TIME OF THE MEASUREMENT (Z IS UTZ TIME)  
AMPL - TSUNAMI AMPLITUDE MEASURED RELATIVE TO NORMAL SEA LEVEL  
IT IS ...NOT... CREST-TO-TROUGH WAVE HEIGHT.  
VALUES ARE GIVEN IN METERS (M).  
PER - PERIOD OF TIME IN MINUTES (MIN) FROM ONE WAVE TO THE NEXT.

EVALUATION OF TSUNAMI WATCH  
SEA LEVEL READINGS INDICATE A TSUNAMI WAS GENERATED.  
THIS TSUNAMI CAN STRIKE COASTLINES WITH WAVE HEIGHT GREATER THAN  
0.5M AND/OR CAUSE A TSUNAMI RUN-UP GREATER THAN 1M. THIS  
CENTER WILL CONTINUE TO MONITOR SEA LEVEL GAUGSES NEAREST THE  
REGION AND REPORT IF ANY ADDITIONAL TSUNAMI WAVE ACTIVITY IS OBSERVED.  
AUTHORITIES SHOULD TAKE APPROPRIATE ACTION IN RESPONSE TO THIS  
POSSIBILITY.  
A TSUNAMI IS A SERIES OF WAVES AND THE FIRST WAVE MAY NOT BE THE  
LARGEST. TSUNAMI WAVE HEIGHTS CANNOT BE PREDICTED AND CAN VARY

SIGNIFICANTLY ALONG A COAST DUE TO LOCAL EFFECTS. THE TIME FROM ONE TSUNAMI WAVE TO THE NEXT CAN BE FIVE MINUTES TO AN HOUR, AND THE THREAT CAN CONTINUE FOR MANY HOURS AS MULTIPLE WAVES ARRIVE.

ESTIMATED INITIAL TSUNAMI ARRIVAL TIMES AT FORECAST POINTS WITHIN THE WATCH AREA ARE GIVEN BELOW. ACTUAL ARRIVAL TIMES MAY DIFFER AND THE INITIAL WAVE MAY NOT BE THE LARGEST. A TSUNAMI IS A SERIES OF WAVES AND THE TIME BETWEEN SUCCESSIVE WAVES CAN BE FIVE MINUTES TO ONE HOUR.

LOCATION, FORECAST POINT COORDINATES, ARRIVAL TIME, ALERT LEVEL (ADVISORY, WATCH)

PORTUGAL	- SAGRES	37.00N	8.94W	1027Z	26 MAR 2014	WATCH
PORTUGAL	- CASCAIS	38.68N	9.45W	1037Z	26 MAR 2014	WATCH
PORTUGAL	- ARMACAO DE PERA	37.07N	8.37W	1040Z	26 MAR 2014	WATCH
PORTUGAL	- MADEIRA	33.05N	16.32W	1052Z	26 MAR 2014	WATCH
PORTUGAL	- NAZARE	39.60N	9.09W	1054Z	26 MAR 2014	WATCH
PORTUGAL	- PONTA DELGADA	37.67N	25.65W	1156Z	26 MAR 2014	WATCH
PORTUGAL	- ANGRA	38.62N	27.00W	1206Z	26 MAR 2014	WATCH
PORTUGAL	- FLORES	39.43N	31.05W	1245Z	26 MAR 2014	WATCH
MOROCCO	- RABAT	34.04N	6.84W	1056Z	26 MAR 2014	WATCH
MOROCCO	- TANGER	35.79N	5.80W	1108Z	26 MAR 2014	WATCH
SPAIN	- ALGECIRAS	36.13N	5.40W	1113Z	26 MAR 2014	WATCH
SPAIN	- HUELVA	37.16N	6.97W	1113Z	26 MAR 2014	WATCH
SPAIN	- CADIZ	36.53N	6.29W	1113Z	26 MAR 2014	WATCH
SPAIN	- CEUTA	35.89N	5.32W	1124Z	26 MAR 2014	WATCH
SPAIN	- LAS PALMAS	28.15N	15.33W	1124Z	26 MAR 2014	WATCH
SPAIN	- SANTA CRUZ	28.47N	16.19W	1127Z	26 MAR 2014	WATCH
SPAIN	- MALAGA	36.66N	4.40W	1137Z	26 MAR 2014	WATCH
SPAIN	- VIGO	42.24N	8.81W	1142Z	26 MAR 2014	WATCH
SPAIN	- CORUNHA	43.43N	8.40W	1149Z	26 MAR 2014	WATCH
SPAIN	- ALMERIA	36.84N	2.47W	1204Z	26 MAR 2014	WATCH
UNITED KINGDOM-	GIBRALTAR	36.13N	5.35W	1113Z	26 MAR 2014	WATCH
UNITED KINGDOM-	OFF-SHORE SITE2	47.00N	14.00W	1137Z	26 MAR 2014	WATCH
UNITED KINGDOM-	OFF-SHORE SITE1	47.00N	10.00W	1140Z	26 MAR 2014	WATCH
UNITED KINGDOM-	ST MARY'S	49.92N	6.32W	1403Z	26 MAR 2014	WATCH
UNITED KINGDOM-	OFF-SHORE SITE3	60.00N	12.00W	1406Z	26 MAR 2014	WATCH
UNITED KINGDOM-	NEWLYN	50.10N	5.55W	1442Z	26 MAR 2014	WATCH
UNITED KINGDOM-	OFF-SHORE SITE4	62.00N	4.00W	1510Z	26 MAR 2014	WATCH
UNITED KINGDOM-	LERWICK	60.15N	1.13W	1644Z	26 MAR 2014	WATCH
UNITED KINGDOM-	WHITBY	54.48N	0.62W	2134Z	26 MAR 2014	WATCH
FRANCE	- BAYONNE	43.51N	1.60W	1235Z	26 MAR 2014	WATCH
FRANCE	- BISCARROSSE	44.45N	1.34W	1245Z	26 MAR 2014	WATCH
FRANCE	- LE CONQUET	48.35N	4.83W	1318Z	26 MAR 2014	WATCH
FRANCE	- LORIENT	47.66N	3.39W	1322Z	26 MAR 2014	WATCH
FRANCE	- OLERON	46.02N	1.41W	1339Z	26 MAR 2014	WATCH
FRANCE	- SAINT-NAZAIRE	47.24N	2.26W	1409Z	26 MAR 2014	WATCH
FRANCE	- CHERBOURG	49.67N	1.65W	1605Z	26 MAR 2014	WATCH
FRANCE	- LE HAVRE	49.48N	0.08E	1754Z	26 MAR 2014	WATCH
FRANCE	- CALAIS	51.00N	1.84E	1929Z	26 MAR 2014	WATCH
IRELAND	- CASTLETOWNBERE	51.65N	9.91W	1320Z	26 MAR 2014	WATCH
IRELAND	- BALLYCOTTON	51.83N	8.00W	1435Z	26 MAR 2014	WATCH
IRELAND	- MALIN HEAD	55.35N	7.35W	1453Z	26 MAR 2014	WATCH
IRELAND	- GALWAY PORT	53.26N	9.04W	1507Z	26 MAR 2014	WATCH
IRELAND	- DUNMORE	52.14N	7.00W	1524Z	26 MAR 2014	WATCH
IRELAND	- DUBLIN PORT	53.35N	6.16W	1746Z	26 MAR 2014	WATCH
DENMARK	- SUDERØ	61.38N	6.69W	1456Z	26 MAR 2014	WATCH



DENMARK	- THORSHVAN	62.02N	6.73W	1540Z	26 MAR 2014	WATCH
DENMARK	- KLAKSVIG	62.18N	6.61W	1546Z	26 MAR 2014	WATCH
DENMARK	- NANORTALIK	60.12N	45.24W	1603Z	26 MAR 2014	WATCH
DENMARK	- ANGMAGSALIK	65.58N	37.61W	1612Z	26 MAR 2014	WATCH
DENMARK	- NUUK	64.17N	51.76W	1711Z	26 MAR 2014	WATCH
DENMARK	- HIRTSHALS	57.61N	9.93E	1955Z	26 MAR 2014	WATCH
DENMARK	- COPENHAGEN	55.75N	2.67E	2010Z	26 MAR 2014	WATCH
GERMANY	- (LERWICK)	60.15N	1.12W	1644Z	26 MAR 2014	WATCH
GERMANY	- (BLOMØY)	60.53N	4.88E	1716Z	26 MAR 2014	WATCH
GERMANY	- (FLORØ)	61.60N	5.03E	1731Z	26 MAR 2014	WATCH
GERMANY	- (KARMØY)	59.15N	5.25E	1752Z	26 MAR 2014	WATCH
GERMANY	- (ABERDEEN)	57.15N	2.07W	1841Z	26 MAR 2014	WATCH
GERMANY	- (HARTLEPOOL)	54.70N	1.20W	2127Z	26 MAR 2014	WATCH
GERMANY	- WESTERLAND	54.92N	8.27E	2348Z	26 MAR 2014	WATCH
GERMANY	- HELGOLAND	54.18N	7.88E	0027Z	27 MAR 2014	WATCH
GERMANY	- BORKUM	53.55N	6.75E	0104Z	27 MAR 2014	WATCH
GERMANY	- ALTE WESER LT	53.87N	8.13E	0105Z	27 MAR 2014	WATCH
GERMANY	- NORDERNEY	53.70N	7.15E	0111Z	27 MAR 2014	WATCH
GERMANY	- CUXHAVEN	53.87N	8.72E	0205Z	27 MAR 2014	WATCH
GERMANY	- BUSUM	54.12N	8.87E	0245Z	27 MAR 2014	WATCH
NORWAY	- (BLOMØY)	60.53N	4.88E	1716Z	26 MAR 2014	WATCH
NORWAY	- (FLORØ)	61.60N	5.03E	1731Z	26 MAR 2014	WATCH
NORWAY	- (KARMØY)	59.15N	5.25E	1752Z	26 MAR 2014	WATCH
NETHERLANDS	- DOMBURG	51.57N	3.49E	2205Z	26 MAR 2014	WATCH
NETHERLANDS	- ZANDVOORT	52.37N	4.52E	2344Z	26 MAR 2014	WATCH
SWEDEN	- OFF-SHORE SITE1	58.50N	11.00E	1946Z	26 MAR 2014	WATCH
BELGIUM	- OOSTENDE	51.21N	2.88E	2149Z	26 MAR 2014	WATCH
ICELAND	- VIK	63.41N	19.01W	1456Z	26 MAR 2014	WATCH
MAURITANIA	- NOUAKCHOTT	18.08N	16.03W	1424Z	26 MAR 2014	WATCH
CAPE VERDE	- PALMEIRA	16.79N	22.99W	1329Z	26 MAR 2014	WATCH

SUPPLEMENT MESSAGES WILL BE ISSUED AS SOON AS NEW DATA AND EVALUATION ALLOWS. THE TSUNAMI ALERT WILL REMAIN IN EFFECT UNTIL AN END OF ALERT IS BROADCAST.

END OF TSUNAMI EXERCISE MESSAGE NUMBER 005

WENT40 LPMG 261400  
TSUNAMI EXERCISE MESSAGE NUMBER 006  
NEAM IPMA CANDIDATE TSUNAMI WATCH PROVIDER  
ISSUED AT 1400Z 26 MAR 2014

... TSUNAMI WATCH ONGOING ...  
THIS ALERT APPLIES TO BELGIUM ... CAPE VERDE ... DENMARK ... FRANCE ...  
GERMANY ... ICELAND ... IRELAND ... MAURITANIA ... MOROCCO ... NETHERLANDS ...  
NORWAY ... PORTUGAL ... SPAIN ... SWEDEN ... UNITED KINGDOM

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NATIONAL AND LOCAL GOVERNMENT AGENCIES HAVE THE AUTHORITY TO MAKE  
DECISIONS REGARDING THE OFFICIAL STATE OF ALERT IN THEIR AREA AND ANY  
ACTIONS TO BE TAKEN IN RESPONSE

AN EARTHQUAKE HAS OCCURRED WITH THESE PRELIMINARY PARAMETERS  
ORIGIN TIME - 1000Z 26 MAR 2014  
COORDINATES - 36.04 NORTH 10.75 WEST  
DEPTH - 5 KM  
LOCATION - WEST OF GIBRALTAR  
MAGNITUDE - 8.5

MEASUREMENTS OR REPORTS OF TSUNAMI WAVE ACTIVITY  
GAUGE LOCATION LAT LON TIME AMPL PER

-----  
PORTUGAL - LAGOS 37.10N 8.67W 1039Z 26 MAR 2014 7.00M 10.00MIN  
PORTUGAL - SINES 37.95N 8.89W 1046Z 26 MAR 2014 4.02M 10.00MIN  
PORTUGAL - CASCAIS 38.69N 9.42W 1049Z 26 MAR 2014 3.00M 8.33MIN  
PORTUGAL - SETUBAL 38.49N 8.93W 1058Z 26 MAR 2014 1.93M 13.33MIN  
PORTUGAL - PENICHE 39.35N 9.37W 1108Z 26 MAR 2014 2.21M 8.50MIN  
PORTUGAL - FUNCHAL 32.64N 16.91W 1110Z 26 MAR 2014 2.51M 8.50MIN  
UNITED KINGDOM - GIBRALTAR 36.13N 5.35W 1113Z 26 MAR 2014 1.00M 8.00MIN  
MOROCCO - CASABLANCA 33.62N 7.59W 1112Z 26 MAR 2014 3.90M 8.50MIN  
SPAIN - HUELVA 37.13N 6.83W 1116Z 26 MAR 2014 4.00M 7.50MIN  
PORTUGAL - LEIXOES 41.19N 8.70W 1140Z 26 MAR 2014 1.50M 8.50MIN  
PORTUGAL - SANTA MARIA 36.95N 24.15W 1150Z 26 MAR 2014 1.30M 8.50MIN  
SPAIN - FERROL1 43.56N 8.33W 1153Z 26 MAR 2014 0.94M 10.00MIN  
PORTUGAL - PONTA DELGADA 37.73N 25.68W 1210Z 26 MAR 2014 1.10M 10.00MIN  
IRELAND - CASTLETOWNBERRY 51.65N 9.90W 1330Z 26 MAR 2014 0.42M 10.00MIN  
FRANCE - BREST 48.38N 4.50W 1337Z 26 MAR 2014 0.33M 10.08MIN

LAT - LATITUDE (N-NORTH, S-SOUTH)  
LON - LONGITUDE (E-EAST, W-WEST)  
TIME - TIME OF THE MEASUREMENT (Z IS UTZ TIME)  
AMPL - TSUNAMI AMPLITUDE MEASURED RELATIVE TO NORMAL SEA LEVEL  
IT IS ...NOT... CREST-TO-TROUGH WAVE HEIGHT.  
VALUES ARE GIVEN IN METERS (M).  
PER - PERIOD OF TIME IN MINUTES (MIN) FROM ONE WAVE TO THE NEXT.

EVALUATION OF TSUNAMI WATCH  
SEA LEVEL READINGS INDICATE A TSUNAMI WAS GENERATED.  
THIS TSUNAMI CAN STRIKE COASTLINES WITH WAVE HEIGHT GREATER THAN  
0.5M AND/OR CAUSE A TSUNAMI RUN-UP GREATER THAN 1M. THIS  
CENTER WILL CONTINUE TO MONITOR SEA LEVEL GAUGSES NEAREST THE  
REGION AND REPORT IF ANY ADDITIONAL TSUNAMI WAVE ACTIVITY IS OBSERVED.  
AUTHORITIES SHOULD TAKE APPROPRIATE ACTION IN RESPONSE TO THIS  
POSSIBILITY.

A TSUNAMI IS A SERIES OF WAVES AND THE FIRST WAVE MAY NOT BE THE LARGEST. TSUNAMI WAVE HEIGHTS CANNOT BE PREDICTED AND CAN VARY SIGNIFICANTLY ALONG A COAST DUE TO LOCAL EFFECTS. THE TIME FROM ONE TSUNAMI WAVE TO THE NEXT CAN BE FIVE MINUTES TO AN HOUR, AND THE THREAT CAN CONTINUE FOR MANY HOURS AS MULTIPLE WAVES ARRIVE.

ESTIMATED INITIAL TSUNAMI ARRIVAL TIMES AT FORECAST POINTS WITHIN THE WATCH AREA ARE GIVEN BELOW. ACTUAL ARRIVAL TIMES MAY DIFFER AND THE INITIAL WAVE MAY NOT BE THE LARGEST. A TSUNAMI IS A SERIES OF WAVES AND THE TIME BETWEEN SUCCESSIVE WAVES CAN BE FIVE MINUTES TO ONE HOUR.

LOCATION, FORECAST POINT COORDINATES, ARRIVAL TIME, ALERT LEVEL (ADVISORY, WATCH)

PORTUGAL	- SAGRES	37.00N	8.94W	1027Z	26 MAR 2014	WATCH
PORTUGAL	- CASCAIS	38.68N	9.45W	1037Z	26 MAR 2014	WATCH
PORTUGAL	- ARMACAO DE PERA	37.07N	8.37W	1040Z	26 MAR 2014	WATCH
PORTUGAL	- MADEIRA	33.05N	16.32W	1052Z	26 MAR 2014	WATCH
PORTUGAL	- NAZARE	39.60N	9.09W	1054Z	26 MAR 2014	WATCH
PORTUGAL	- PONTA DELGADA	37.67N	25.65W	1156Z	26 MAR 2014	WATCH
PORTUGAL	- ANGRA	38.62N	27.00W	1206Z	26 MAR 2014	WATCH
PORTUGAL	- FLORES	39.43N	31.05W	1245Z	26 MAR 2014	WATCH
MOROCCO	- RABAT	34.04N	6.84W	1056Z	26 MAR 2014	WATCH
MOROCCO	- TANGER	35.79N	5.80W	1108Z	26 MAR 2014	WATCH
SPAIN	- ALGECIRAS	36.13N	5.40W	1113Z	26 MAR 2014	WATCH
SPAIN	- HUELVA	37.16N	6.97W	1113Z	26 MAR 2014	WATCH
SPAIN	- CADIZ	36.53N	6.29W	1113Z	26 MAR 2014	WATCH
SPAIN	- CEUTA	35.89N	5.32W	1124Z	26 MAR 2014	WATCH
SPAIN	- LAS PALMAS	28.15N	15.33W	1124Z	26 MAR 2014	WATCH
SPAIN	- SANTA CRUZ	28.47N	16.19W	1127Z	26 MAR 2014	WATCH
SPAIN	- MALAGA	36.66N	4.40W	1137Z	26 MAR 2014	WATCH
SPAIN	- VIGO	42.24N	8.81W	1142Z	26 MAR 2014	WATCH
SPAIN	- CORUNHA	43.43N	8.40W	1149Z	26 MAR 2014	WATCH
SPAIN	- ALMERIA	36.84N	2.47W	1204Z	26 MAR 2014	WATCH
UNITED KINGDOM	- GIBRALTAR	36.13N	5.35W	1113Z	26 MAR 2014	WATCH
UNITED KINGDOM	- OFF-SHORE SITE2	47.00N	14.00W	1137Z	26 MAR 2014	WATCH
UNITED KINGDOM	- OFF-SHORE SITE1	47.00N	10.00W	1140Z	26 MAR 2014	WATCH
UNITED KINGDOM	- ST MARY'S	49.92N	6.32W	1403Z	26 MAR 2014	WATCH
UNITED KINGDOM	- OFF-SHORE SITE3	60.00N	12.00W	1406Z	26 MAR 2014	WATCH
UNITED KINGDOM	- NEWLYN	50.10N	5.55W	1442Z	26 MAR 2014	WATCH
UNITED KINGDOM	- OFF-SHORE SITE4	62.00N	4.00W	1510Z	26 MAR 2014	WATCH
UNITED KINGDOM	- LERWICK	60.15N	1.13W	1644Z	26 MAR 2014	WATCH
UNITED KINGDOM	- WHITBY	54.48N	0.62W	2134Z	26 MAR 2014	WATCH
FRANCE	- BAYONNE	43.51N	1.60W	1235Z	26 MAR 2014	WATCH
FRANCE	- BISCARROSSE	44.45N	1.34W	1245Z	26 MAR 2014	WATCH
FRANCE	- LE CONQUET	48.35N	4.83W	1318Z	26 MAR 2014	WATCH
FRANCE	- LORIENT	47.66N	3.39W	1322Z	26 MAR 2014	WATCH
FRANCE	- OLERON	46.02N	1.41W	1339Z	26 MAR 2014	WATCH
FRANCE	- SAINT-NAZAIRE	47.24N	2.26W	1409Z	26 MAR 2014	WATCH
FRANCE	- CHERBOURG	49.67N	1.65W	1605Z	26 MAR 2014	WATCH
FRANCE	- LE HAVRE	49.48N	0.08E	1754Z	26 MAR 2014	WATCH
FRANCE	- CALAIS	51.00N	1.84E	1929Z	26 MAR 2014	WATCH
IRELAND	- CASTLETOWNBERE	51.65N	9.91W	1320Z	26 MAR 2014	WATCH
IRELAND	- BALLYCOTTON	51.83N	8.00W	1435Z	26 MAR 2014	WATCH
IRELAND	- MALIN HEAD	55.35N	7.35W	1453Z	26 MAR 2014	WATCH
IRELAND	- GALWAY PORT	53.26N	9.04W	1507Z	26 MAR 2014	WATCH
IRELAND	- DUNMORE	52.14N	7.00W	1524Z	26 MAR 2014	WATCH

IRELAND	- DUBLIN PORT	53.35N	6.16W	1746Z	26 MAR 2014	WATCH
DENMARK	- SUDERØ	61.38N	6.69W	1456Z	26 MAR 2014	WATCH
DENMARK	- THORSHVAN	62.02N	6.73W	1540Z	26 MAR 2014	WATCH
DENMARK	- KLAKSVIG	62.18N	6.61W	1546Z	26 MAR 2014	WATCH
DENMARK	- NANORTALIK	60.12N	45.24W	1603Z	26 MAR 2014	WATCH
DENMARK	- ANMAGSALIK	65.58N	37.61W	1612Z	26 MAR 2014	WATCH
DENMARK	- NUUK	64.17N	51.76W	1711Z	26 MAR 2014	WATCH
DENMARK	- HIRTSHALS	57.61N	9.93E	1955Z	26 MAR 2014	WATCH
DENMARK	- COPENHAGEN	55.75N	2.67E	2010Z	26 MAR 2014	WATCH
GERMANY	- (LERWICK)	60.15N	1.12W	1644Z	26 MAR 2014	WATCH
GERMANY	- (BLOMØY)	60.53N	4.88E	1716Z	26 MAR 2014	WATCH
GERMANY	- (FLORØ)	61.60N	5.03E	1731Z	26 MAR 2014	WATCH
GERMANY	- (KARMOY)	59.15N	5.25E	1752Z	26 MAR 2014	WATCH
GERMANY	- (ABERDEEN)	57.15N	2.07W	1841Z	26 MAR 2014	WATCH
GERMANY	- (HARTLEPOOL)	54.70N	1.20W	2127Z	26 MAR 2014	WATCH
GERMANY	- WESTERLAND	54.92N	8.27E	2348Z	26 MAR 2014	WATCH
GERMANY	- HELGOLAND	54.18N	7.88E	0027Z	27 MAR 2014	WATCH
GERMANY	- BORKUM	53.55N	6.75E	0104Z	27 MAR 2014	WATCH
GERMANY	- ALTE WESER LT	53.87N	8.13E	0105Z	27 MAR 2014	WATCH
GERMANY	- NORDERNEY	53.70N	7.15E	0111Z	27 MAR 2014	WATCH
GERMANY	- CUXHAVEN	53.87N	8.72E	0205Z	27 MAR 2014	WATCH
GERMANY	- BUSUM	54.12N	8.87E	0245Z	27 MAR 2014	WATCH
NORWAY	- (BLOMØY)	60.53N	4.88E	1716Z	26 MAR 2014	WATCH
NORWAY	- (FLORØ)	61.60N	5.03E	1731Z	26 MAR 2014	WATCH
NORWAY	- (KARMOY)	59.15N	5.25E	1752Z	26 MAR 2014	WATCH
NETHERLANDS	- DOMBURG	51.57N	3.49E	2205Z	26 MAR 2014	WATCH
NETHERLANDS	- ZANDVOORT	52.37N	4.52E	2344Z	26 MAR 2014	WATCH
SWEDEN	- OFF-SHORE SITE1	58.50N	11.00E	1946Z	26 MAR 2014	WATCH
BELGIUM	- OOSTENDE	51.21N	2.88E	2149Z	26 MAR 2014	WATCH
ICELAND	- VIK	63.41N	19.01W	1456Z	26 MAR 2014	WATCH
MAURITANIA	- NOUAKCHOTT	18.08N	16.03W	1424Z	26 MAR 2014	WATCH
CAPE VERDE	- PALMEIRA	16.79N	22.99W	1329Z	26 MAR 2014	WATCH

SUPPLEMENT MESSAGES WILL BE ISSUED AS SOON AS NEW DATA AND EVALUATION ALLOWS. THE TSUNAMI ALERT WILL REMAIN IN EFFECT UNTIL AN END OF ALERT IS BROADCAST.

END OF TSUNAMI EXERCISE MESSAGE NUMBER 006

WENT40 LPMG 261500  
TSUNAMI EXERCISE MESSAGE NUMBER 007  
NEAM IPMA CANDIDATE TSUNAMI WATCH PROVIDER  
ISSUED AT 1500Z 26 MAR 2014

... TSUNAMI WATCH ONGOING ...  
THIS ALERT APPLIES TO BELGIUM ... CAPE VERDE ... DENMARK ... FRANCE ...  
GERMANY ... ICELAND ... IRELAND ... MAURITANIA ... MOROCCO ... NETHERLANDS ...  
NORWAY ... PORTUGAL ... SPAIN ... SWEDEN ... UNITED KINGDOM

THIS MESSAGE IS ISSUED AS ADVICE TO GOVERNMENT AGENCIES. ONLY  
NATIONAL AND LOCAL GOVERNMENT AGENCIES HAVE THE AUTHORITY TO MAKE  
DECISIONS REGARDING THE OFFICIAL STATE OF ALERT IN THEIR AREA AND ANY  
ACTIONS TO BE TAKEN IN RESPONSE

AN EARTHQUAKE HAS OCCURRED WITH THESE PRELIMINARY PARAMETERS  
ORIGIN TIME - 1000Z 26 MAR 2014  
COORDINATES - 36.04 NORTH 10.75 WEST  
DEPTH - 5 KM  
LOCATION - WEST OF GIBRALTAR  
MAGNITUDE - 8.5

MEASUREMENTS OR REPORTS OF TSUNAMI WAVE ACTIVITY  
GAUGE LOCATION LAT LON TIME AMPL PER

-----  
PORTUGAL - LAGOS 37.10N 8.67W 1039Z 26 MAR 2014 7.00M 10.00MIN  
PORTUGAL - SINES 37.95N 8.89W 1046Z 26 MAR 2014 4.02M 10.00MIN  
PORTUGAL - CASCAIS 38.69N 9.42W 1049Z 26 MAR 2014 3.00M 8.33MIN  
PORTUGAL - SETUBAL 38.49N 8.93W 1058Z 26 MAR 2014 1.93M 13.33MIN  
PORTUGAL - PENICHE 39.35N 9.37W 1108Z 26 MAR 2014 2.21M 8.50MIN  
PORTUGAL - FUNCHAL 32.64N 16.91W 1110Z 26 MAR 2014 2.51M 8.50MIN  
UNITED KINGDOM - GIBRALTAR 36.13N 5.35W 1113Z 26 MAR 2014 1.00M 8.00MIN  
MOROCCO - CASABLANCA 33.62N 7.59W 1112Z 26 MAR 2014 3.90M 8.50MIN  
SPAIN - HUELVA 37.13N 6.83W 1116Z 26 MAR 2014 4.00M 7.50MIN  
PORTUGAL - LEIXOES 41.19N 8.70W 1140Z 26 MAR 2014 1.50M 8.50MIN  
PORTUGAL - SANTA MARIA 36.95N 24.15W 1150Z 26 MAR 2014 1.30M 8.50MIN  
SPAIN - FERROL1 43.56N 8.33W 1153Z 26 MAR 2014 0.94M 10.00MIN  
PORTUGAL - PONTA DELGADA 37.73N 25.68W 1210Z 26 MAR 2014 1.10M 10.00MIN  
IRELAND - CASTLETOWNBERE 51.65N 9.90W 1330Z 26 MAR 2014 0.42M 10.00MIN  
FRANCE - BREST 48.38N 4.50W 1337Z 26 MAR 2014 0.33M 10.08MIN  
IRELAND - BALLYGLASS PIER 54.25N 9.89W 1405Z 26 MAR 2014 0.43M 10.03MIN  
UNITED KINGDOM - NEWLYN2 50.10N 5.54W 1440Z 26 MAR 2014 0.33M 10.08MIN

LAT - LATITUDE (N-NORTH, S-SOUTH)  
LON - LONGITUDE (E-EAST, W-WEST)  
TIME - TIME OF THE MEASUREMENT (Z IS UTZ TIME)  
AMPL - TSUNAMI AMPLITUDE MEASURED RELATIVE TO NORMAL SEA LEVEL  
IT IS ...NOT... CREST-TO-TROUGH WAVE HEIGHT.  
VALUES ARE GIVEN IN METERS (M).  
PER - PERIOD OF TIME IN MINUTES (MIN) FROM ONE WAVE TO THE NEXT.

EVALUATION OF TSUNAMI WATCH  
SEA LEVEL READINGS INDICATE A TSUNAMI WAS GENERATED.  
THIS TSUNAMI CAN STRIKE COASTLINES WITH WAVE HEIGHT GREATER THAN  
0.5M AND/OR CAUSE A TSUNAMI RUN-UP GREATER THAN 1M. THIS  
CENTER WILL CONTINUE TO MONITOR SEA LEVEL GAUGSES NEAREST THE  
REGION AND REPORT IF ANY ADDITIONAL TSUNAMI WAVE ACTIVITY IS OBSERVED.

AUTHORITIES SHOULD TAKE APPROPRIATE ACTION IN RESPONSE TO THIS POSSIBILITY.

A TSUNAMI IS A SERIES OF WAVES AND THE FIRST WAVE MAY NOT BE THE LARGEST. TSUNAMI WAVE HEIGHTS CANNOT BE PREDICTED AND CAN VARY SIGNIFICANTLY ALONG A COAST DUE TO LOCAL EFFECTS. THE TIME FROM ONE TSUNAMI WAVE TO THE NEXT CAN BE FIVE MINUTES TO AN HOUR, AND THE THREAT CAN CONTINUE FOR MANY HOURS AS MULTIPLE WAVES ARRIVE.

ESTIMATED INITIAL TSUNAMI ARRIVAL TIMES AT FORECAST POINTS WITHIN THE WATCH AREA ARE GIVEN BELOW. ACTUAL ARRIVAL TIMES MAY DIFFER AND THE INITIAL WAVE MAY NOT BE THE LARGEST. A TSUNAMI IS A SERIES OF WAVES AND THE TIME BETWEEN SUCCESSIVE WAVES CAN BE FIVE MINUTES TO ONE HOUR.

LOCATION, FORECAST POINT COORDINATES, ARRIVAL TIME, ALERT LEVEL (ADVISORY, WATCH)

PORTUGAL	- SAGRES	37.00N	8.94W	1027Z	26 MAR 2014	WATCH
PORTUGAL	- CASCAIS	38.68N	9.45W	1037Z	26 MAR 2014	WATCH
PORTUGAL	- ARMACAO DE PERA	37.07N	8.37W	1040Z	26 MAR 2014	WATCH
PORTUGAL	- MADEIRA	33.05N	16.32W	1052Z	26 MAR 2014	WATCH
PORTUGAL	- NAZARE	39.60N	9.09W	1054Z	26 MAR 2014	WATCH
PORTUGAL	- PONTA DELGADA	37.67N	25.65W	1156Z	26 MAR 2014	WATCH
PORTUGAL	- ANGRA	38.62N	27.00W	1206Z	26 MAR 2014	WATCH
PORTUGAL	- FLORES	39.43N	31.05W	1245Z	26 MAR 2014	WATCH
MOROCCO	- RABAT	34.04N	6.84W	1056Z	26 MAR 2014	WATCH
MOROCCO	- TANGER	35.79N	5.80W	1108Z	26 MAR 2014	WATCH
SPAIN	- ALGECIRAS	36.13N	5.40W	1113Z	26 MAR 2014	WATCH
SPAIN	- HUELVA	37.16N	6.97W	1113Z	26 MAR 2014	WATCH
SPAIN	- CADIZ	36.53N	6.29W	1113Z	26 MAR 2014	WATCH
SPAIN	- CEUTA	35.89N	5.32W	1124Z	26 MAR 2014	WATCH
SPAIN	- LAS PALMAS	28.15N	15.33W	1124Z	26 MAR 2014	WATCH
SPAIN	- SANTA CRUZ	28.47N	16.19W	1127Z	26 MAR 2014	WATCH
SPAIN	- MALAGA	36.66N	4.40W	1137Z	26 MAR 2014	WATCH
SPAIN	- VIGO	42.24N	8.81W	1142Z	26 MAR 2014	WATCH
SPAIN	- CORUNHA	43.43N	8.40W	1149Z	26 MAR 2014	WATCH
SPAIN	- ALMERIA	36.84N	2.47W	1204Z	26 MAR 2014	WATCH
UNITED KINGDOM-	GIBRALTAR	36.13N	5.35W	1113Z	26 MAR 2014	WATCH
UNITED KINGDOM-	OFF-SHORE SITE2	47.00N	14.00W	1137Z	26 MAR 2014	WATCH
UNITED KINGDOM-	OFF-SHORE SITE1	47.00N	10.00W	1140Z	26 MAR 2014	WATCH
UNITED KINGDOM-	ST MARY'S	49.92N	6.32W	1403Z	26 MAR 2014	WATCH
UNITED KINGDOM-	OFF-SHORE SITE3	60.00N	12.00W	1406Z	26 MAR 2014	WATCH
UNITED KINGDOM-	NEWLYN	50.10N	5.55W	1442Z	26 MAR 2014	WATCH
UNITED KINGDOM-	OFF-SHORE SITE4	62.00N	4.00W	1510Z	26 MAR 2014	WATCH
UNITED KINGDOM-	LERWICK	60.15N	1.13W	1644Z	26 MAR 2014	WATCH
UNITED KINGDOM-	WHITBY	54.48N	0.62W	2134Z	26 MAR 2014	WATCH
FRANCE	- BAYONNE	43.51N	1.60W	1235Z	26 MAR 2014	WATCH
FRANCE	- BISCARROSSE	44.45N	1.34W	1245Z	26 MAR 2014	WATCH
FRANCE	- LE CONQUET	48.35N	4.83W	1318Z	26 MAR 2014	WATCH
FRANCE	- LORIENT	47.66N	3.39W	1322Z	26 MAR 2014	WATCH
FRANCE	- OLERON	46.02N	1.41W	1339Z	26 MAR 2014	WATCH
FRANCE	- SAINT-NAZAIRE	47.24N	2.26W	1409Z	26 MAR 2014	WATCH
FRANCE	- CHERBOURG	49.67N	1.65W	1605Z	26 MAR 2014	WATCH
FRANCE	- LE HAVRE	49.48N	0.08E	1754Z	26 MAR 2014	WATCH
FRANCE	- CALAIS	51.00N	1.84E	1929Z	26 MAR 2014	WATCH
IRELAND	- CASTLETOWNBERE	51.65N	9.91W	1320Z	26 MAR 2014	WATCH
IRELAND	- BALLYCOTTON	51.83N	8.00W	1435Z	26 MAR 2014	WATCH
IRELAND	- MALIN HEAD	55.35N	7.35W	1453Z	26 MAR 2014	WATCH

IRELAND	- GALWAY PORT	53.26N	9.04W	1507Z	26 MAR 2014	WATCH
IRELAND	- DUNMORE	52.14N	7.00W	1524Z	26 MAR 2014	WATCH
IRELAND	- DUBLIN PORT	53.35N	6.16W	1746Z	26 MAR 2014	WATCH
DENMARK	- SUDERØ	61.38N	6.69W	1456Z	26 MAR 2014	WATCH
DENMARK	- THORSHVAN	62.02N	6.73W	1540Z	26 MAR 2014	WATCH
DENMARK	- KLAKSIVIG	62.18N	6.61W	1546Z	26 MAR 2014	WATCH
DENMARK	- NANORTALIK	60.12N	45.24W	1603Z	26 MAR 2014	WATCH
DENMARK	- ANGMAGSALIK	65.58N	37.61W	1612Z	26 MAR 2014	WATCH
DENMARK	- NUUK	64.17N	51.76W	1711Z	26 MAR 2014	WATCH
DENMARK	- HIRTSHALS	57.61N	9.93E	1955Z	26 MAR 2014	WATCH
DENMARK	- COPENHAGEN	55.75N	2.67E	2010Z	26 MAR 2014	WATCH
GERMANY	- (LERWICK)	60.15N	1.12W	1644Z	26 MAR 2014	WATCH
GERMANY	- (BLOMOY)	60.53N	4.88E	1716Z	26 MAR 2014	WATCH
GERMANY	- (FLORØ)	61.60N	5.03E	1731Z	26 MAR 2014	WATCH
GERMANY	- (KARMOY)	59.15N	5.25E	1752Z	26 MAR 2014	WATCH
GERMANY	- (ABERDEEN)	57.15N	2.07W	1841Z	26 MAR 2014	WATCH
GERMANY	- (HARTLEPOOL)	54.70N	1.20W	2127Z	26 MAR 2014	WATCH
GERMANY	- WESTERLAND	54.92N	8.27E	2348Z	26 MAR 2014	WATCH
GERMANY	- HELGOLAND	54.18N	7.88E	0027Z	27 MAR 2014	WATCH
GERMANY	- BORKUM	53.55N	6.75E	0104Z	27 MAR 2014	WATCH
GERMANY	- ALTE WESER LT	53.87N	8.13E	0105Z	27 MAR 2014	WATCH
GERMANY	- NORDERNEY	53.70N	7.15E	0111Z	27 MAR 2014	WATCH
GERMANY	- CUXHAVEN	53.87N	8.72E	0205Z	27 MAR 2014	WATCH
GERMANY	- BUSUM	54.12N	8.87E	0245Z	27 MAR 2014	WATCH
NORWAY	- (BLOMOY)	60.53N	4.88E	1716Z	26 MAR 2014	WATCH
NORWAY	- (FLORØ)	61.60N	5.03E	1731Z	26 MAR 2014	WATCH
NORWAY	- (KARMOY)	59.15N	5.25E	1752Z	26 MAR 2014	WATCH
NETHERLANDS	- DOMBURG	51.57N	3.49E	2205Z	26 MAR 2014	WATCH
NETHERLANDS	- ZANDVOORT	52.37N	4.52E	2344Z	26 MAR 2014	WATCH
SWEDEN	- OFF-SHORE SITE1	58.50N	11.00E	1946Z	26 MAR 2014	WATCH
BELGIUM	- OOSTENDE	51.21N	2.88E	2149Z	26 MAR 2014	WATCH
ICELAND	- VIK	63.41N	19.01W	1456Z	26 MAR 2014	WATCH
MAURITANIA	- NOUAKCHOTT	18.08N	16.03W	1424Z	26 MAR 2014	WATCH
CAPE VERDE	- PALMEIRA	16.79N	22.99W	1329Z	26 MAR 2014	WATCH

SUPPLEMENT MESSAGES WILL BE ISSUED AS SOON AS NEW DATA AND EVALUATION ALLOWS. THE TSUNAMI ALERT WILL REMAIN IN EFFECT UNTIL AN END OF ALERT IS BROADCAST.

END OF TSUNAMI EXERCISE MESSAGE NUMBER 007

WENT40 LPMG 261600  
TSUNAMI EXERCISE MESSAGE NUMBER 008  
NEAM IPMA CANDIDATE TSUNAMI WATCH PROVIDER  
ISSUED AT 1600Z 26 MAR 2014

... TSUNAMI WATCH ONGOING ...  
THIS ALERT APPLIES TO BELGIUM ... CAPE VERDE ... DENMARK ... FRANCE ...  
GERMANY ... ICELAND ... IRELAND ... MAURITANIA ... MOROCCO ... NETHERLANDS ...  
NORWAY ... PORTUGAL ... SPAIN ... SWEDEN ... UNITED KINGDOM

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DECISIONS REGARDING THE OFFICIAL STATE OF ALERT IN THEIR AREA AND ANY  
ACTIONS TO BE TAKEN IN RESPONSE

AN EARTHQUAKE HAS OCCURRED WITH THESE PRELIMINARY PARAMETERS  
ORIGIN TIME - 1000Z 26 MAR 2014  
COORDINATES - 36.04 NORTH 10.75 WEST  
DEPTH - 5 KM  
LOCATION - WEST OF GIBRALTAR  
MAGNITUDE - 8.5

MEASUREMENTS OR REPORTS OF TSUNAMI WAVE ACTIVITY  
GAUGE LOCATION LAT LON TIME AMPL PER

-----  
PORTUGAL - LAGOS 37.10N 8.67W 1039Z 26 MAR 2014 7.00M 10.00MIN  
PORTUGAL - SINES 37.95N 8.89W 1046Z 26 MAR 2014 4.02M 10.00MIN  
PORTUGAL - CASCAIS 38.69N 9.42W 1049Z 26 MAR 2014 3.00M 8.33MIN  
PORTUGAL - SETUBAL 38.49N 8.93W 1058Z 26 MAR 2014 1.93M 13.33MIN  
PORTUGAL - PENICHE 39.35N 9.37W 1108Z 26 MAR 2014 2.21M 8.50MIN  
PORTUGAL - FUNCHAL 32.64N 16.91W 1110Z 26 MAR 2014 2.51M 8.50MIN  
UNITED KINGDOM - GIBRALTAR 36.13N 5.35W 1113Z 26 MAR 2014 1.00M 8.00MIN  
MOROCCO - CASABLANCA 33.62N 7.59W 1112Z 26 MAR 2014 3.90M 8.50MIN  
SPAIN - HUELVA 37.13N 6.83W 1116Z 26 MAR 2014 4.00M 7.50MIN  
PORTUGAL - LEIXOES 41.19N 8.70W 1140Z 26 MAR 2014 1.50M 8.50MIN  
PORTUGAL - SANTA MARIA 36.95N 24.15W 1150Z 26 MAR 2014 1.30M 8.50MIN  
SPAIN - FERROL1 43.56N 8.33W 1153Z 26 MAR 2014 0.94M 10.00MIN  
PORTUGAL - PONTA DELGADA 37.73N 25.68W 1210Z 26 MAR 2014 1.10M 10.00MIN  
IRELAND - CASTLETOWNBERE 51.65N 9.90W 1330Z 26 MAR 2014 0.42M 10.00MIN  
FRANCE - BREST 48.38N 4.50W 1337Z 26 MAR 2014 0.33M 10.08MIN  
IRELAND - BALLYGLASS PIER 54.25N 9.89W 1405Z 26 MAR 2014 0.43M 10.03MIN  
UNITED KINGDOM - NEWLYN2 50.10N 5.54W 1440Z 26 MAR 2014 0.33M 10.08MIN  
FRANCE - SAINT\_NAZAIRE 47.26N 2.20W 1539Z 26 MAR 2014 0.70M 10.17MIN

LAT - LATITUDE (N-NORTH, S-SOUTH)  
LON - LONGITUDE (E-EAST, W-WEST)  
TIME - TIME OF THE MEASUREMENT (Z IS UTZ TIME)  
AMPL - TSUNAMI AMPLITUDE MEASURED RELATIVE TO NORMAL SEA LEVEL  
IT IS ...NOT... CREST-TO-TROUGH WAVE HEIGHT.  
VALUES ARE GIVEN IN METERS (M).  
PER - PERIOD OF TIME IN MINUTES (MIN) FROM ONE WAVE TO THE NEXT.

EVALUATION OF TSUNAMI WATCH  
SEA LEVEL READINGS INDICATE A TSUNAMI WAS GENERATED.  
THIS TSUNAMI CAN STRIKE COASTLINES WITH WAVE HEIGHT GREATER THAN  
0.5M AND/OR CAUSE A TSUNAMI RUN-UP GREATER THAN 1M. THIS  
CENTER WILL CONTINUE TO MONITOR SEA LEVEL GAUGSES NEAREST THE



REGION AND REPORT IF ANY ADDITIONAL TSUNAMI WAVE ACTIVITY IS OBSERVED. AUTHORITIES SHOULD TAKE APPROPRIATE ACTION IN RESPONSE TO THIS POSSIBILITY.

A TSUNAMI IS A SERIES OF WAVES AND THE FIRST WAVE MAY NOT BE THE LARGEST. TSUNAMI WAVE HEIGHTS CANNOT BE PREDICTED AND CAN VARY SIGNIFICANTLY ALONG A COAST DUE TO LOCAL EFFECTS. THE TIME FROM ONE TSUNAMI WAVE TO THE NEXT CAN BE FIVE MINUTES TO AN HOUR, AND THE THREAT CAN CONTINUE FOR MANY HOURS AS MULTIPLE WAVES ARRIVE.

ESTIMATED INITIAL TSUNAMI ARRIVAL TIMES AT FORECAST POINTS WITHIN THE WATCH AREA ARE GIVEN BELOW. ACTUAL ARRIVAL TIMES MAY DIFFER AND THE INITIAL WAVE MAY NOT BE THE LARGEST. A TSUNAMI IS A SERIES OF WAVES AND THE TIME BETWEEN SUCCESSIVE WAVES CAN BE FIVE MINUTES TO ONE HOUR.

LOCATION, FORECAST POINT COORDINATES, ARRIVAL TIME, ALERT LEVEL (ADVISORY, WATCH)

PORTUGAL	- SAGRES	37.00N	8.94W	1027Z	26 MAR 2014	WATCH
PORTUGAL	- CASCAIS	38.68N	9.45W	1037Z	26 MAR 2014	WATCH
PORTUGAL	- ARMACAO DE PERA	37.07N	8.37W	1040Z	26 MAR 2014	WATCH
PORTUGAL	- MADEIRA	33.05N	16.32W	1052Z	26 MAR 2014	WATCH
PORTUGAL	- NAZARE	39.60N	9.09W	1054Z	26 MAR 2014	WATCH
PORTUGAL	- PONTA DELGADA	37.67N	25.65W	1156Z	26 MAR 2014	WATCH
PORTUGAL	- ANGRA	38.62N	27.00W	1206Z	26 MAR 2014	WATCH
PORTUGAL	- FLORES	39.43N	31.05W	1245Z	26 MAR 2014	WATCH
MOROCCO	- RABAT	34.04N	6.84W	1056Z	26 MAR 2014	WATCH
MOROCCO	- TANGER	35.79N	5.80W	1108Z	26 MAR 2014	WATCH
SPAIN	- ALGECIRAS	36.13N	5.40W	1113Z	26 MAR 2014	WATCH
SPAIN	- HUELVA	37.16N	6.97W	1113Z	26 MAR 2014	WATCH
SPAIN	- CADIZ	36.53N	6.29W	1113Z	26 MAR 2014	WATCH
SPAIN	- CEUTA	35.89N	5.32W	1124Z	26 MAR 2014	WATCH
SPAIN	- LAS PALMAS	28.15N	15.33W	1124Z	26 MAR 2014	WATCH
SPAIN	- SANTA CRUZ	28.47N	16.19W	1127Z	26 MAR 2014	WATCH
SPAIN	- MALAGA	36.66N	4.40W	1137Z	26 MAR 2014	WATCH
SPAIN	- VIGO	42.24N	8.81W	1142Z	26 MAR 2014	WATCH
SPAIN	- CORUNHA	43.43N	8.40W	1149Z	26 MAR 2014	WATCH
SPAIN	- ALMERIA	36.84N	2.47W	1204Z	26 MAR 2014	WATCH
UNITED KINGDOM	- GIBRALTAR	36.13N	5.35W	1113Z	26 MAR 2014	WATCH
UNITED KINGDOM	- OFF-SHORE SITE2	47.00N	14.00W	1137Z	26 MAR 2014	WATCH
UNITED KINGDOM	- OFF-SHORE SITE1	47.00N	10.00W	1140Z	26 MAR 2014	WATCH
UNITED KINGDOM	- ST MARY'S	49.92N	6.32W	1403Z	26 MAR 2014	WATCH
UNITED KINGDOM	- OFF-SHORE SITE3	60.00N	12.00W	1406Z	26 MAR 2014	WATCH
UNITED KINGDOM	- NEWLYN	50.10N	5.55W	1442Z	26 MAR 2014	WATCH
UNITED KINGDOM	- OFF-SHORE SITE4	62.00N	4.00W	1510Z	26 MAR 2014	WATCH
UNITED KINGDOM	- LERWICK	60.15N	1.13W	1644Z	26 MAR 2014	WATCH
UNITED KINGDOM	- WHITBY	54.48N	0.62W	2134Z	26 MAR 2014	WATCH
FRANCE	- BAYONNE	43.51N	1.60W	1235Z	26 MAR 2014	WATCH
FRANCE	- BISCARROSSE	44.45N	1.34W	1245Z	26 MAR 2014	WATCH
FRANCE	- LE CONQUET	48.35N	4.83W	1318Z	26 MAR 2014	WATCH
FRANCE	- LORIENT	47.66N	3.39W	1322Z	26 MAR 2014	WATCH
FRANCE	- OLERON	46.02N	1.41W	1339Z	26 MAR 2014	WATCH
FRANCE	- SAINT-NAZAIRE	47.24N	2.26W	1409Z	26 MAR 2014	WATCH
FRANCE	- CHERBOURG	49.67N	1.65W	1605Z	26 MAR 2014	WATCH
FRANCE	- LE HAVRE	49.48N	0.08E	1754Z	26 MAR 2014	WATCH
FRANCE	- CALAIS	51.00N	1.84E	1929Z	26 MAR 2014	WATCH
IRELAND	- CASTLETOWNBERE	51.65N	9.91W	1320Z	26 MAR 2014	WATCH
IRELAND	- BALLYCOTTON	51.83N	8.00W	1435Z	26 MAR 2014	WATCH

IRELAND	- MALIN HEAD	55.35N	7.35W	1453Z	26 MAR 2014	WATCH
IRELAND	- GALWAY PORT	53.26N	9.04W	1507Z	26 MAR 2014	WATCH
IRELAND	- DUNMORE	52.14N	7.00W	1524Z	26 MAR 2014	WATCH
IRELAND	- DUBLIN PORT	53.35N	6.16W	1746Z	26 MAR 2014	WATCH
DENMARK	- SUDERØ	61.38N	6.69W	1456Z	26 MAR 2014	WATCH
DENMARK	- THORSHVAN	62.02N	6.73W	1540Z	26 MAR 2014	WATCH
DENMARK	- KLAKSVIG	62.18N	6.61W	1546Z	26 MAR 2014	WATCH
DENMARK	- NANORTALIK	60.12N	45.24W	1603Z	26 MAR 2014	WATCH
DENMARK	- ANGMAGSALIK	65.58N	37.61W	1612Z	26 MAR 2014	WATCH
DENMARK	- NUUK	64.17N	51.76W	1711Z	26 MAR 2014	WATCH
DENMARK	- HIRTSHALS	57.61N	9.93E	1955Z	26 MAR 2014	WATCH
DENMARK	- COPENHAGEN	55.75N	2.67E	2010Z	26 MAR 2014	WATCH
GERMANY	- (LERWICK)	60.15N	1.12W	1644Z	26 MAR 2014	WATCH
GERMANY	- (BLOMØY)	60.53N	4.88E	1716Z	26 MAR 2014	WATCH
GERMANY	- (FLORØ)	61.60N	5.03E	1731Z	26 MAR 2014	WATCH
GERMANY	- (KARMØY)	59.15N	5.25E	1752Z	26 MAR 2014	WATCH
GERMANY	- (ABERDEEN)	57.15N	2.07W	1841Z	26 MAR 2014	WATCH
GERMANY	- (HARTLEPOOL)	54.70N	1.20W	2127Z	26 MAR 2014	WATCH
GERMANY	- WESTERLAND	54.92N	8.27E	2348Z	26 MAR 2014	WATCH
GERMANY	- HELGOLAND	54.18N	7.88E	0027Z	27 MAR 2014	WATCH
GERMANY	- BORKUM	53.55N	6.75E	0104Z	27 MAR 2014	WATCH
GERMANY	- ALTE WESER LT	53.87N	8.13E	0105Z	27 MAR 2014	WATCH
GERMANY	- NORDERNEY	53.70N	7.15E	0111Z	27 MAR 2014	WATCH
GERMANY	- CUXHAVEN	53.87N	8.72E	0205Z	27 MAR 2014	WATCH
GERMANY	- BUSUM	54.12N	8.87E	0245Z	27 MAR 2014	WATCH
NORWAY	- (BLOMØY)	60.53N	4.88E	1716Z	26 MAR 2014	WATCH
NORWAY	- (FLORØ)	61.60N	5.03E	1731Z	26 MAR 2014	WATCH
NORWAY	- (KARMØY)	59.15N	5.25E	1752Z	26 MAR 2014	WATCH
NETHERLANDS	- DOMBURG	51.57N	3.49E	2205Z	26 MAR 2014	WATCH
NETHERLANDS	- ZANDVOORT	52.37N	4.52E	2344Z	26 MAR 2014	WATCH
SWEDEN	- OFF-SHORE SITE1	58.50N	11.00E	1946Z	26 MAR 2014	WATCH
BELGIUM	- OOSTENDE	51.21N	2.88E	2149Z	26 MAR 2014	WATCH
ICELAND	- VIK	63.41N	19.01W	1456Z	26 MAR 2014	WATCH
MAURITANIA	- NOUAKCHOTT	18.08N	16.03W	1424Z	26 MAR 2014	WATCH
CAPE VERDE	- PALMEIRA	16.79N	22.99W	1329Z	26 MAR 2014	WATCH

SUPPLEMENT MESSAGES WILL BE ISSUED AS SOON AS NEW DATA AND EVALUATION ALLOWS. THE TSUNAMI ALERT WILL REMAIN IN EFFECT UNTIL AN END OF ALERT IS BROADCAST.

END OF TSUNAMI EXERCISE MESSAGE NUMBER 008

WENT40 LPMG 261700  
TSUNAMI EXERCISE MESSAGE NUMBER 009  
NEAM IPMA CANDIDATE TSUNAMI WATCH PROVIDER  
ISSUED AT 1700Z 26 MAR 2014

... TSUNAMI WATCH ONGOING ...  
THIS ALERT APPLIES TO BELGIUM ... CAPE VERDE ... DENMARK ... FRANCE ...  
GERMANY ... ICELAND ... IRELAND ... MAURITANIA ... MOROCCO ... NETHERLANDS ...  
NORWAY ... PORTUGAL ... SPAIN ... SWEDEN ... UNITED KINGDOM

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NATIONAL AND LOCAL GOVERNMENT AGENCIES HAVE THE AUTHORITY TO MAKE  
DECISIONS REGARDING THE OFFICIAL STATE OF ALERT IN THEIR AREA AND ANY  
ACTIONS TO BE TAKEN IN RESPONSE

AN EARTHQUAKE HAS OCCURRED WITH THESE PRELIMINARY PARAMETERS  
ORIGIN TIME - 1000Z 26 MAR 2014  
COORDINATES - 36.04 NORTH 10.75 WEST  
DEPTH - 5 KM  
LOCATION - WEST OF GIBRALTAR  
MAGNITUDE - 8.5

MEASUREMENTS OR REPORTS OF TSUNAMI WAVE ACTIVITY  
GAUGE LOCATION LAT LON TIME AMPL PER

-----  
PORTUGAL - LAGOS 37.10N 8.67W 1039Z 26 MAR 2014 7.00M 10.00MIN  
PORTUGAL - SINES 37.95N 8.89W 1046Z 26 MAR 2014 4.02M 10.00MIN  
PORTUGAL - CASCAIS 38.69N 9.42W 1049Z 26 MAR 2014 3.00M 8.33MIN  
PORTUGAL - SETUBAL 38.49N 8.93W 1058Z 26 MAR 2014 1.93M 13.33MIN  
PORTUGAL - PENICHE 39.35N 9.37W 1108Z 26 MAR 2014 2.21M 8.50MIN  
PORTUGAL - FUNCHAL 32.64N 16.91W 1110Z 26 MAR 2014 2.51M 8.50MIN  
UNITED KINGDOM - GIBRALTAR 36.13N 5.35W 1113Z 26 MAR 2014 1.00M 8.00MIN  
MOROCCO - CASABLANCA 33.62N 7.59W 1112Z 26 MAR 2014 3.90M 8.50MIN  
SPAIN - HUELVA 37.13N 6.83W 1116Z 26 MAR 2014 4.00M 7.50MIN  
PORTUGAL - LEIXOES 41.19N 8.70W 1140Z 26 MAR 2014 1.50M 8.50MIN  
PORTUGAL - SANTA MARIA 36.95N 24.15W 1150Z 26 MAR 2014 1.30M 8.50MIN  
SPAIN - FERROL1 43.56N 8.33W 1153Z 26 MAR 2014 0.94M 10.00MIN  
PORTUGAL - PONTA DELGADA 37.73N 25.68W 1210Z 26 MAR 2014 1.10M 10.00MIN  
IRELAND - CASTLETOWNBERE 51.65N 9.90W 1330Z 26 MAR 2014 0.42M 10.00MIN  
FRANCE - BREST 48.38N 4.50W 1337Z 26 MAR 2014 0.33M 10.08MIN  
IRELAND - BALLYGLASS PIER 54.25N 9.89W 1405Z 26 MAR 2014 0.43M 10.03MIN  
UNITED KINGDOM - NEWLYN2 50.10N 5.54W 1440Z 26 MAR 2014 0.33M 10.08MIN  
FRANCE - SAINT\_NAZAIRE 47.26N 2.20W 1539Z 26 MAR 2014 0.70M 10.17MIN  
DENMARK - QAQORTOQ 60.72N 46.03W 1609Z 26 MAR 2014 1.04M 13.17MIN  
ICELAND - REYKJAVIK 64.15N 21.93W 1632Z 26 MAR 2014 0.40M 31.67MIN

LAT - LATITUDE (N-NORTH, S-SOUTH)  
LON - LONGITUDE (E-EAST, W-WEST)  
TIME - TIME OF THE MEASUREMENT (Z IS UTZ TIME)  
AMPL - TSUNAMI AMPLITUDE MEASURED RELATIVE TO NORMAL SEA LEVEL  
IT IS ...NOT... CREST-TO-TROUGH WAVE HEIGHT.  
VALUES ARE GIVEN IN METERS (M).  
PER - PERIOD OF TIME IN MINUTES (MIN) FROM ONE WAVE TO THE NEXT.

EVALUATION OF TSUNAMI WATCH  
SEA LEVEL READINGS INDICATE A TSUNAMI WAS GENERATED.  
THIS TSUNAMI CAN STRIKE COASTLINES WITH WAVE HEIGHT GREATER THAN

0.5M AND/OR CAUSE A TSUNAMI RUN-UP GREATER THAN 1M. THIS CENTER WILL CONTINUE TO MONITOR SEA LEVEL GAUGSES NEAREST THE REGION AND REPORT IF ANY ADDITIONAL TSUNAMI WAVE ACTIVITY IS OBSERVED. AUTHORITIES SHOULD TAKE APPROPRIATE ACTION IN RESPONSE TO THIS POSSIBILITY.

A TSUNAMI IS A SERIES OF WAVES AND THE FIRST WAVE MAY NOT BE THE LARGEST. TSUNAMI WAVE HEIGHTS CANNOT BE PREDICTED AND CAN VARY SIGNIFICANTLY ALONG A COAST DUE TO LOCAL EFFECTS. THE TIME FROM ONE TSUNAMI WAVE TO THE NEXT CAN BE FIVE MINUTES TO AN HOUR, AND THE THREAT CAN CONTINUE FOR MANY HOURS AS MULTIPLE WAVES ARRIVE.

ESTIMATED INITIAL TSUNAMI ARRIVAL TIMES AT FORECAST POINTS WITHIN THE WATCH AREA ARE GIVEN BELOW. ACTUAL ARRIVAL TIMES MAY DIFFER AND THE INITIAL WAVE MAY NOT BE THE LARGEST. A TSUNAMI IS A SERIES OF WAVES AND THE TIME BETWEEN SUCCESSIVE WAVES CAN BE FIVE MINUTES TO ONE HOUR.

LOCATION, FORECAST POINT COORDINATES, ARRIVAL TIME, ALERT LEVEL (ADVISORY, WATCH)

PORTUGAL	- SAGRES	37.00N	8.94W	1027Z	26 MAR 2014	WATCH
PORTUGAL	- CASCAIS	38.68N	9.45W	1037Z	26 MAR 2014	WATCH
PORTUGAL	- ARMACAO DE PERA	37.07N	8.37W	1040Z	26 MAR 2014	WATCH
PORTUGAL	- MADEIRA	33.05N	16.32W	1052Z	26 MAR 2014	WATCH
PORTUGAL	- NAZARE	39.60N	9.09W	1054Z	26 MAR 2014	WATCH
PORTUGAL	- PONTA DELGADA	37.67N	25.65W	1156Z	26 MAR 2014	WATCH
PORTUGAL	- ANGRA	38.62N	27.00W	1206Z	26 MAR 2014	WATCH
PORTUGAL	- FLORES	39.43N	31.05W	1245Z	26 MAR 2014	WATCH
MOROCCO	- RABAT	34.04N	6.84W	1056Z	26 MAR 2014	WATCH
MOROCCO	- TANGER	35.79N	5.80W	1108Z	26 MAR 2014	WATCH
SPAIN	- ALGECIRAS	36.13N	5.40W	1113Z	26 MAR 2014	WATCH
SPAIN	- HUELVA	37.16N	6.97W	1113Z	26 MAR 2014	WATCH
SPAIN	- CADIZ	36.53N	6.29W	1113Z	26 MAR 2014	WATCH
SPAIN	- CEUTA	35.89N	5.32W	1124Z	26 MAR 2014	WATCH
SPAIN	- LAS PALMAS	28.15N	15.33W	1124Z	26 MAR 2014	WATCH
SPAIN	- SANTA CRUZ	28.47N	16.19W	1127Z	26 MAR 2014	WATCH
SPAIN	- MALAGA	36.66N	4.40W	1137Z	26 MAR 2014	WATCH
SPAIN	- VIGO	42.24N	8.81W	1142Z	26 MAR 2014	WATCH
SPAIN	- CORUNHA	43.43N	8.40W	1149Z	26 MAR 2014	WATCH
SPAIN	- ALMERIA	36.84N	2.47W	1204Z	26 MAR 2014	WATCH
UNITED KINGDOM-	GIBRALTAR	36.13N	5.35W	1113Z	26 MAR 2014	WATCH
UNITED KINGDOM-	OFF-SHORE SITE2	47.00N	14.00W	1137Z	26 MAR 2014	WATCH
UNITED KINGDOM-	OFF-SHORE SITE1	47.00N	10.00W	1140Z	26 MAR 2014	WATCH
UNITED KINGDOM-	ST MARY'S	49.92N	6.32W	1403Z	26 MAR 2014	WATCH
UNITED KINGDOM-	OFF-SHORE SITE3	60.00N	12.00W	1406Z	26 MAR 2014	WATCH
UNITED KINGDOM-	NEWLYN	50.10N	5.55W	1442Z	26 MAR 2014	WATCH
UNITED KINGDOM-	OFF-SHORE SITE4	62.00N	4.00W	1510Z	26 MAR 2014	WATCH
UNITED KINGDOM-	LERWICK	60.15N	1.13W	1644Z	26 MAR 2014	WATCH
UNITED KINGDOM-	WHITBY	54.48N	0.62W	2134Z	26 MAR 2014	WATCH
FRANCE	- BAYONNE	43.51N	1.60W	1235Z	26 MAR 2014	WATCH
FRANCE	- BISCARROSSE	44.45N	1.34W	1245Z	26 MAR 2014	WATCH
FRANCE	- LE CONQUET	48.35N	4.83W	1318Z	26 MAR 2014	WATCH
FRANCE	- LORIENT	47.66N	3.39W	1322Z	26 MAR 2014	WATCH
FRANCE	- OLERON	46.02N	1.41W	1339Z	26 MAR 2014	WATCH
FRANCE	- SAINT-NAZAIRE	47.24N	2.26W	1409Z	26 MAR 2014	WATCH
FRANCE	- CHERBOURG	49.67N	1.65W	1605Z	26 MAR 2014	WATCH
FRANCE	- LE HAVRE	49.48N	0.08E	1754Z	26 MAR 2014	WATCH
FRANCE	- CALAIS	51.00N	1.84E	1929Z	26 MAR 2014	WATCH

IRELAND	- CASTLETOWNBЕРЕ	51.65N	9.91W	1320Z	26 MAR 2014	WATCH
IRELAND	- BALLYCOTTON	51.83N	8.00W	1435Z	26 MAR 2014	WATCH
IRELAND	- MALIN HEAD	55.35N	7.35W	1453Z	26 MAR 2014	WATCH
IRELAND	- GALWAY PORT	53.26N	9.04W	1507Z	26 MAR 2014	WATCH
IRELAND	- DUNMORE	52.14N	7.00W	1524Z	26 MAR 2014	WATCH
IRELAND	- DUBLIN PORT	53.35N	6.16W	1746Z	26 MAR 2014	WATCH
DENMARK	- SUDERø	61.38N	6.69W	1456Z	26 MAR 2014	WATCH
DENMARK	- THORSHVAN	62.02N	6.73W	1540Z	26 MAR 2014	WATCH
DENMARK	- KLAKSVIG	62.18N	6.61W	1546Z	26 MAR 2014	WATCH
DENMARK	- NANORTALIK	60.12N	45.24W	1603Z	26 MAR 2014	WATCH
DENMARK	- ANGMAGSALIK	65.58N	37.61W	1612Z	26 MAR 2014	WATCH
DENMARK	- NUUK	64.17N	51.76W	1711Z	26 MAR 2014	WATCH
DENMARK	- HIRTSHALS	57.61N	9.93E	1955Z	26 MAR 2014	WATCH
DENMARK	- COPENHAGEN	55.75N	2.67E	2010Z	26 MAR 2014	WATCH
GERMANY	- (LERWICK)	60.15N	1.12W	1644Z	26 MAR 2014	WATCH
GERMANY	- (BLOMOY)	60.53N	4.88E	1716Z	26 MAR 2014	WATCH
GERMANY	- (FLORø)	61.60N	5.03E	1731Z	26 MAR 2014	WATCH
GERMANY	- (KARMOY)	59.15N	5.25E	1752Z	26 MAR 2014	WATCH
GERMANY	- (ABERDEEN)	57.15N	2.07W	1841Z	26 MAR 2014	WATCH
GERMANY	- (HARTLEPOOL)	54.70N	1.20W	2127Z	26 MAR 2014	WATCH
GERMANY	- WESTERLAND	54.92N	8.27E	2348Z	26 MAR 2014	WATCH
GERMANY	- HELGOLAND	54.18N	7.88E	0027Z	27 MAR 2014	WATCH
GERMANY	- BORKUM	53.55N	6.75E	0104Z	27 MAR 2014	WATCH
GERMANY	- ALTE WESER LT	53.87N	8.13E	0105Z	27 MAR 2014	WATCH
GERMANY	- NORDERNEY	53.70N	7.15E	0111Z	27 MAR 2014	WATCH
GERMANY	- CUXHAVEN	53.87N	8.72E	0205Z	27 MAR 2014	WATCH
GERMANY	- BUSUM	54.12N	8.87E	0245Z	27 MAR 2014	WATCH
NORWAY	- (BLOMOY)	60.53N	4.88E	1716Z	26 MAR 2014	WATCH
NORWAY	- (FLORø)	61.60N	5.03E	1731Z	26 MAR 2014	WATCH
NORWAY	- (KARMOY)	59.15N	5.25E	1752Z	26 MAR 2014	WATCH
NETHERLANDS	- DOMBURG	51.57N	3.49E	2205Z	26 MAR 2014	WATCH
NETHERLANDS	- ZANDVOORT	52.37N	4.52E	2344Z	26 MAR 2014	WATCH
SWEDEN	- OFF-SHORE SITE1	58.50N	11.00E	1946Z	26 MAR 2014	WATCH
BELGIUM	- OOSTENDE	51.21N	2.88E	2149Z	26 MAR 2014	WATCH
ICELAND	- VIK	63.41N	19.01W	1456Z	26 MAR 2014	WATCH
MAURITANIA	- NOUAKCHOTT	18.08N	16.03W	1424Z	26 MAR 2014	WATCH
CAPE VERDE	- PALMEIRA	16.79N	22.99W	1329Z	26 MAR 2014	WATCH

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END OF TSUNAMI EXERCISE MESSAGE NUMBER 009

WENT40 LPMG 261900  
TSUNAMI EXERCISE MESSAGE NUMBER 010  
NEAM IPMA CANDIDATE TSUNAMI WATCH PROVIDER  
ISSUED AT 1900Z 26 MAR 2014

... END OF TSUNAMI WATCH ...  
THIS ALERT APPLIES TO BELGIUM ... CAPE VERDE ... DENMARK ... FRANCE ...  
GERMANY ... ICELAND ... IRELAND ... MAURITANIA ... MOROCCO ... NETHERLANDS ...  
NORWAY ... PORTUGAL ... SPAIN ... SWEDEN ... UNITED KINGDOM

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ACTIONS TO BE TAKEN IN RESPONSE

AN EARTHQUAKE HAS OCCURRED WITH THESE PRELIMINARY PARAMETERS  
ORIGIN TIME - 1000Z 26 MAR 2014  
COORDINATES - 36.04 NORTH 10.75 WEST  
DEPTH - 5 KM  
LOCATION - WEST OF GIBRALTAR  
MAGNITUDE - 8.5

EVALUATION OF TSUNAMI WATCH  
SEA LEVEL READINGS INDICATE A TSUNAMI WAS GENERATED.  
OBSERVATIONS AND MODELS INDICATE THAT NO MORE TSUNAMI WAVES ARE  
EXPECTED.  
WHEN NO MAJOR WAVES ARE OBSERVED FOR TWO HOURS AFTER THE  
ESTIMATED TIME OF ARRIVAL OR DAMAGING WAVES HAVE NOT OCCURRED FOR  
AT LEAST TWO HOURS THEN LOCAL AUTHORITIES CAN ASSUME THE THREAT IS  
PASSED. DANGER TO BOATS AND COASTAL STRUCTURES CAN CONTINUE FOR  
SEVERAL HOURS DUE TO THE CONTINUING SEA LEVEL CHANGES AND RAPID  
CURRENTS. AS LOCAL CONDITIONS CAN CAUSE A WIDE VARIATION IN TSUNAMI  
WAVE ACTION THE ALL CLEAR DETERMINATION MUST BE MADE BY LOCAL  
AUTHORITIES.

THIS WILL BE THE FINAL MESSAGE ISSUED FOR THIS EVENT UNLESS ADDITIONAL  
INFORMATION BECOMES AVAILABLE.

END OF TSUNAMI EXERCISE MESSAGE NUMBER 010