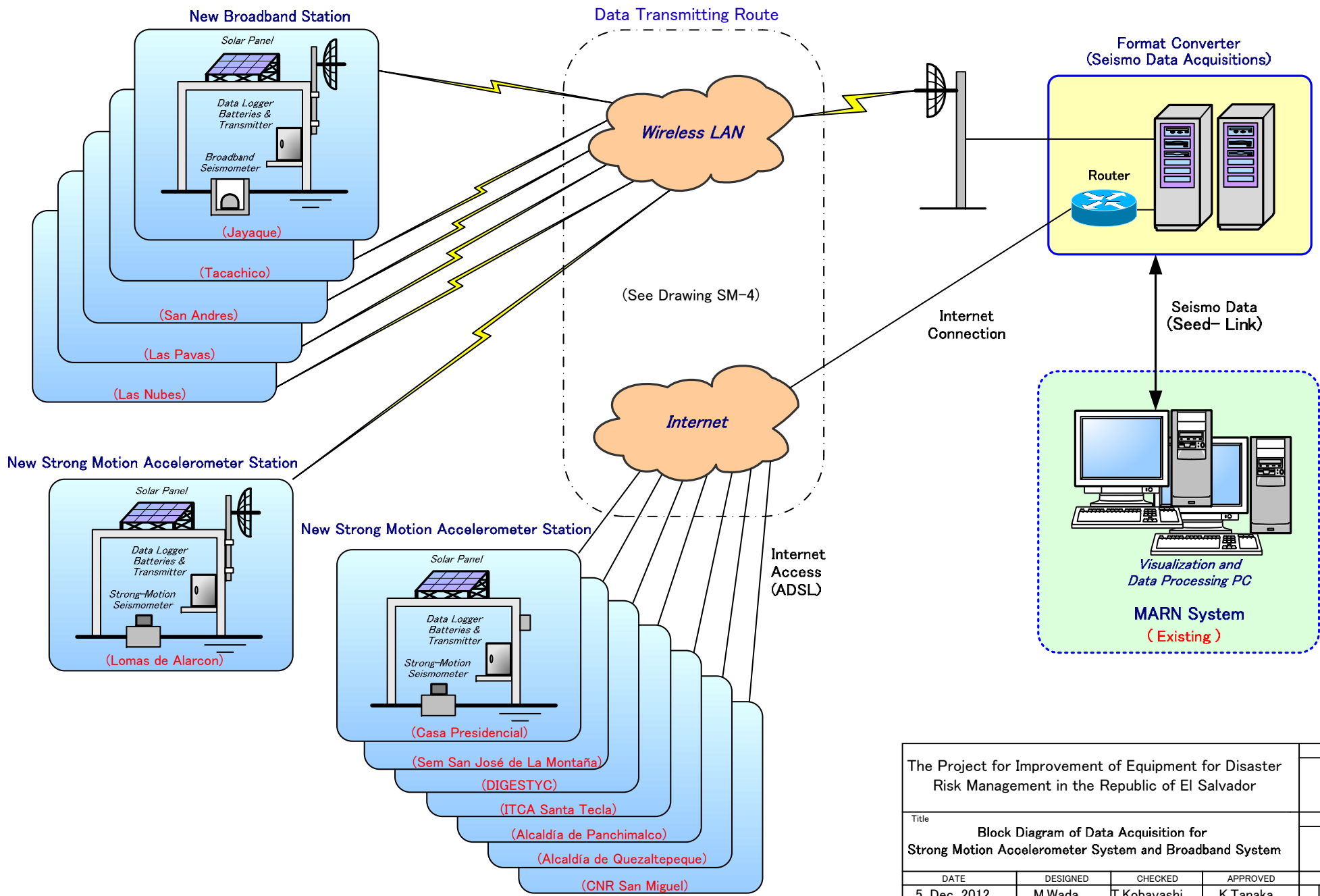
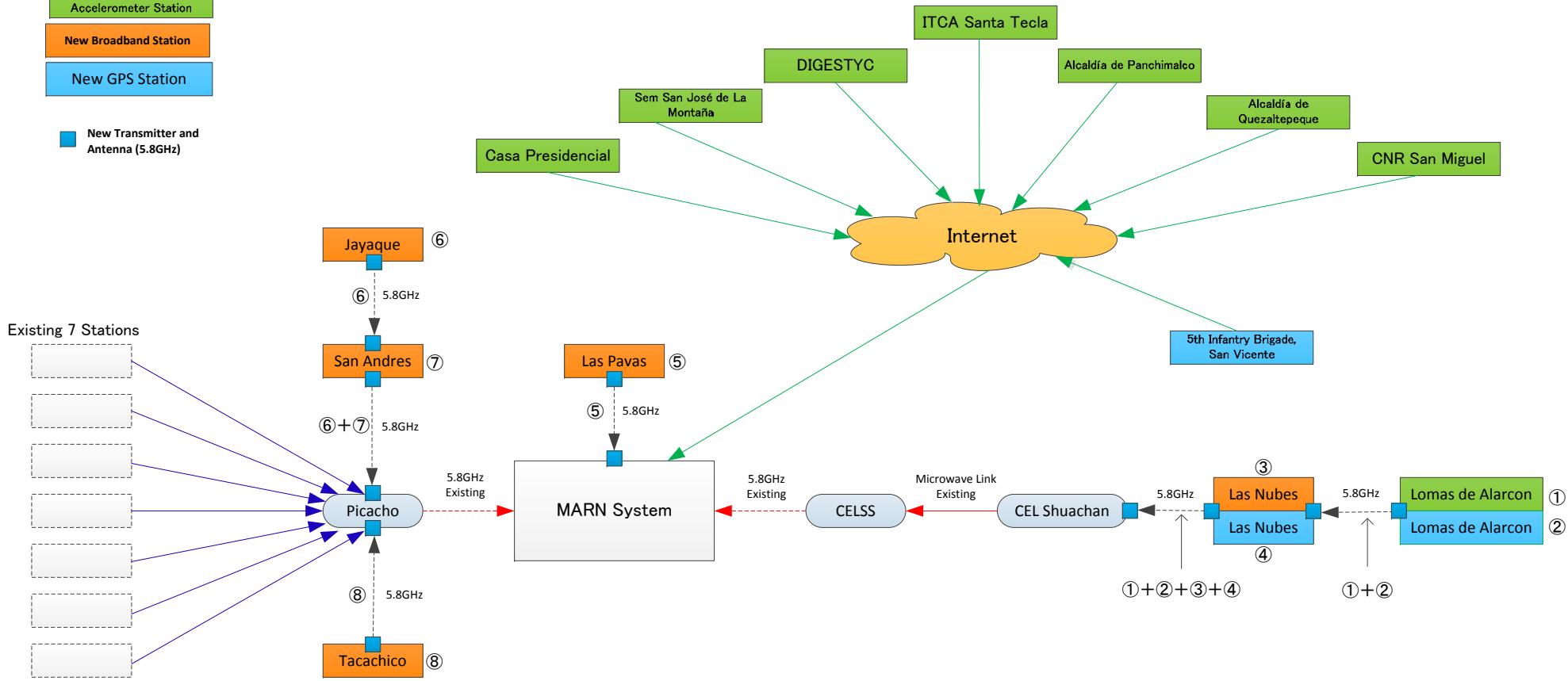


SM-1: 地震計システム、ブロードバンド観測システム構成図



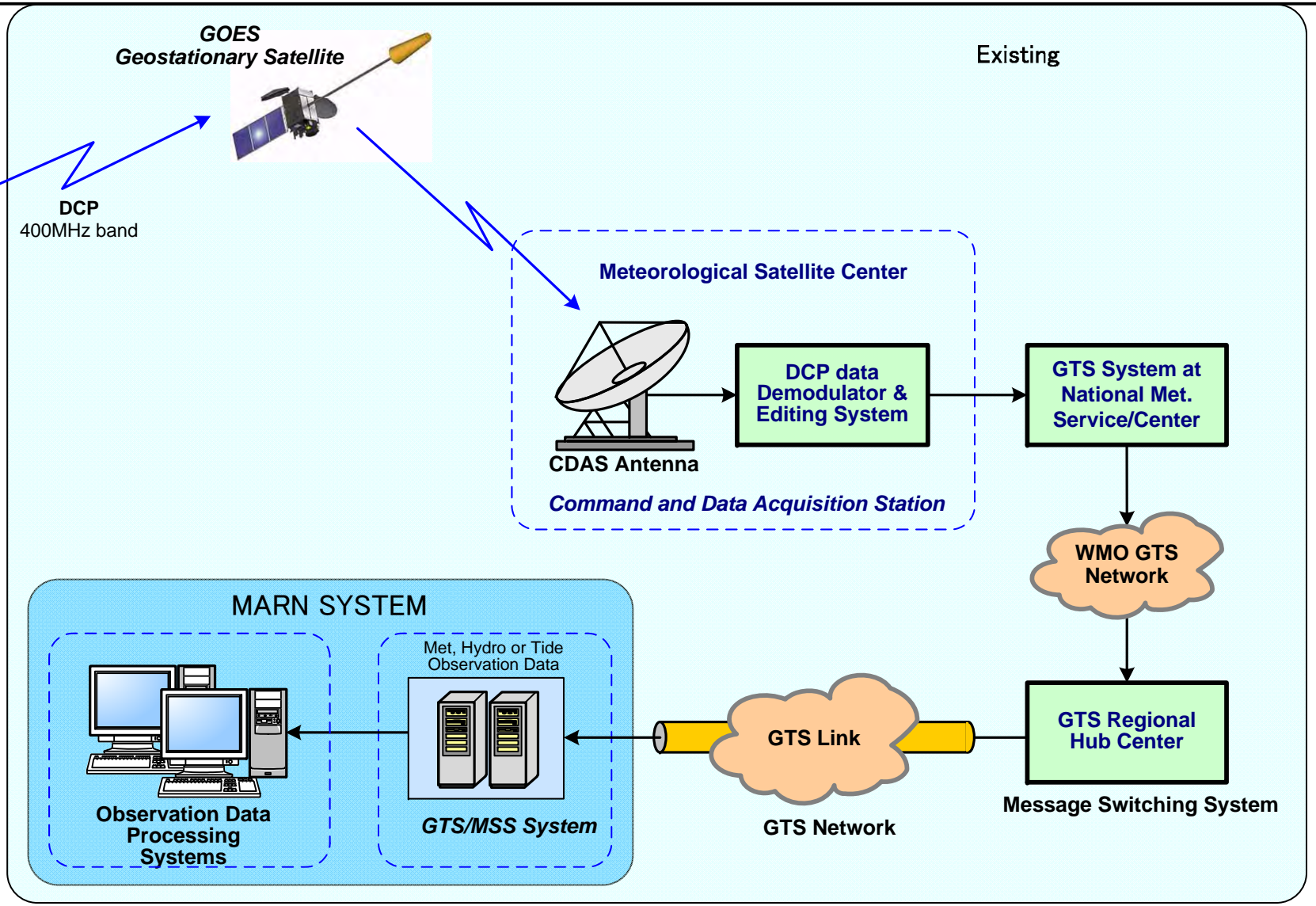
The Project for Improvement of Equipment for Disaster Risk Management in the Republic of El Salvador				
Title Block Diagram of Data Acquisition for Strong Motion Accelerometer System and Broadband System				DWG. No. SM-1
DATE	DESIGNED	CHECKED	APPROVED	REVISION
5. Dec. 2012	M.Wada	T.Kobayashi	K.Tanaka	
YACHIYO ENGINEERING CO., LTD. TOKYO JAPAN				

- Existing Repeater Station
- New Strong Motion Accelerometer Station
- New Broadband Station
- New GPS Station
- New Transmitter and Antenna (5.8GHz)



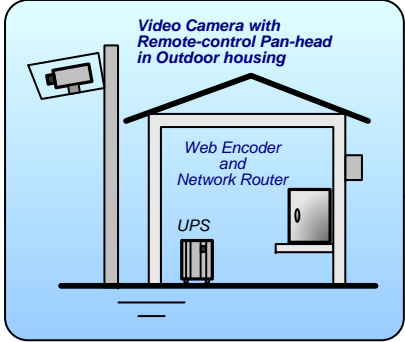
SM-2: データ伝送ルート図

The Project for Improvement of Equipment for Disaster Risk Management in the Republic of El Salvador				
Title Data Transmitting Route of Strong Motion Accelerometer System, Broadband System and GPS Station System				DWG. No. SM-2
DATE	DESIGNED	CHECKED	APPROVED	REVISION
5. Dec. 2012	M.Wada	T.Kobayashi	K.Tanaka	
YACHIYO ENGINEERING CO., LTD. TOKYO JAPAN				



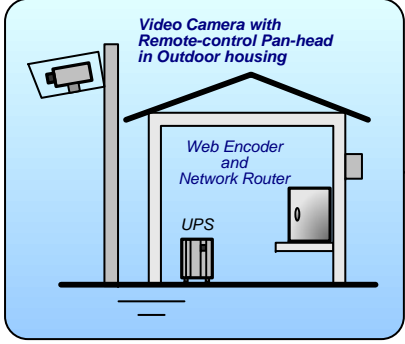
The Project for Improvement of Equipment for Disaster Risk Management in the Republic of El Salvador				
Title				DWG. No.
System Diagram of Tide Observation System				SM-3
DATE	DESIGNED	CHECKED	APPROVED	REVISION
5. Dec. 2012	M.Wada	T.Kobayashi	K.Tanaka	
YACHIYO ENGINEERING CO., L.TD. TOKYO JAPAN				

Monitoring Web Camera Station (Puerto de Acajutla, Sonsonate)

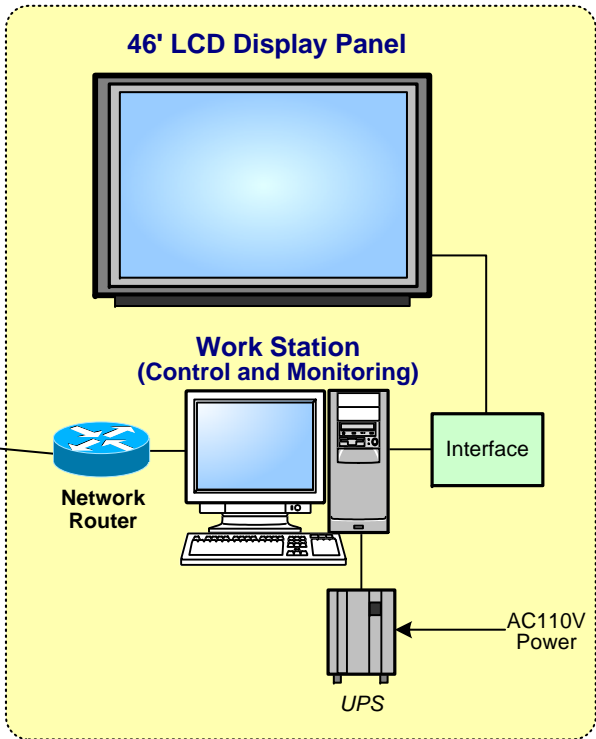


Internet Access
(ADSL)

Monitoring Web Camera Station (Puerto de La Libertad)



Internet
Connection



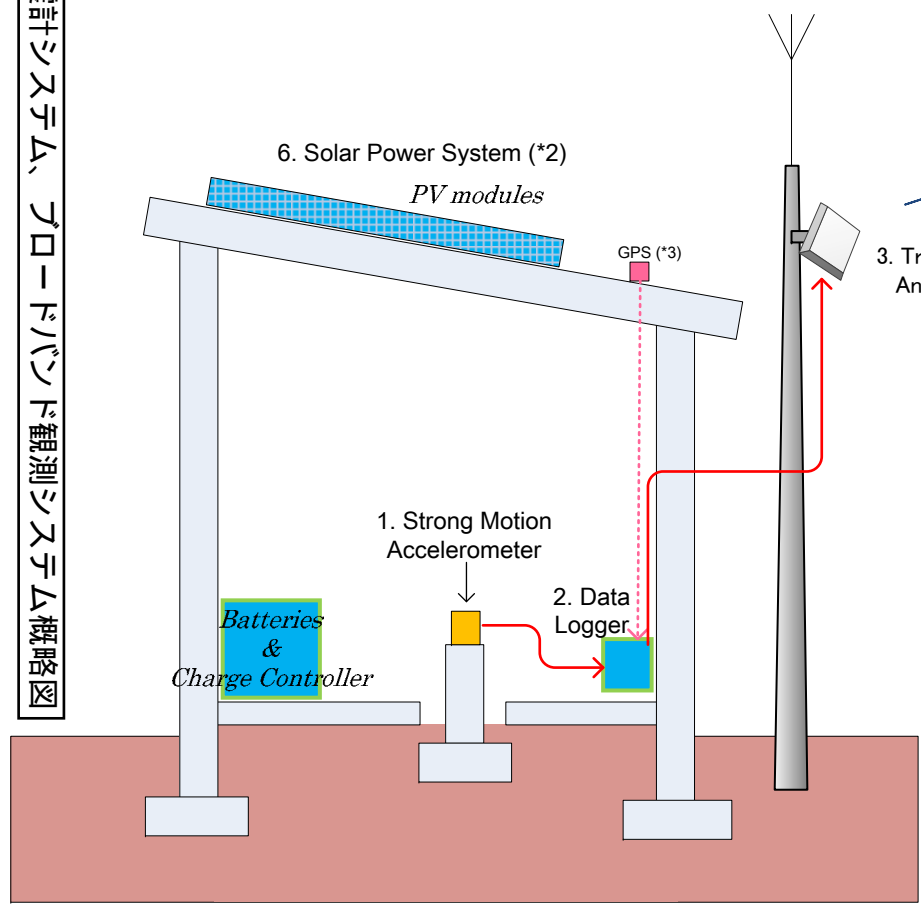
SM-4 : 津波監視カメラシステム構成図

The Project for Improvement of Equipment for Disaster Risk Management in the Republic of El Salvador

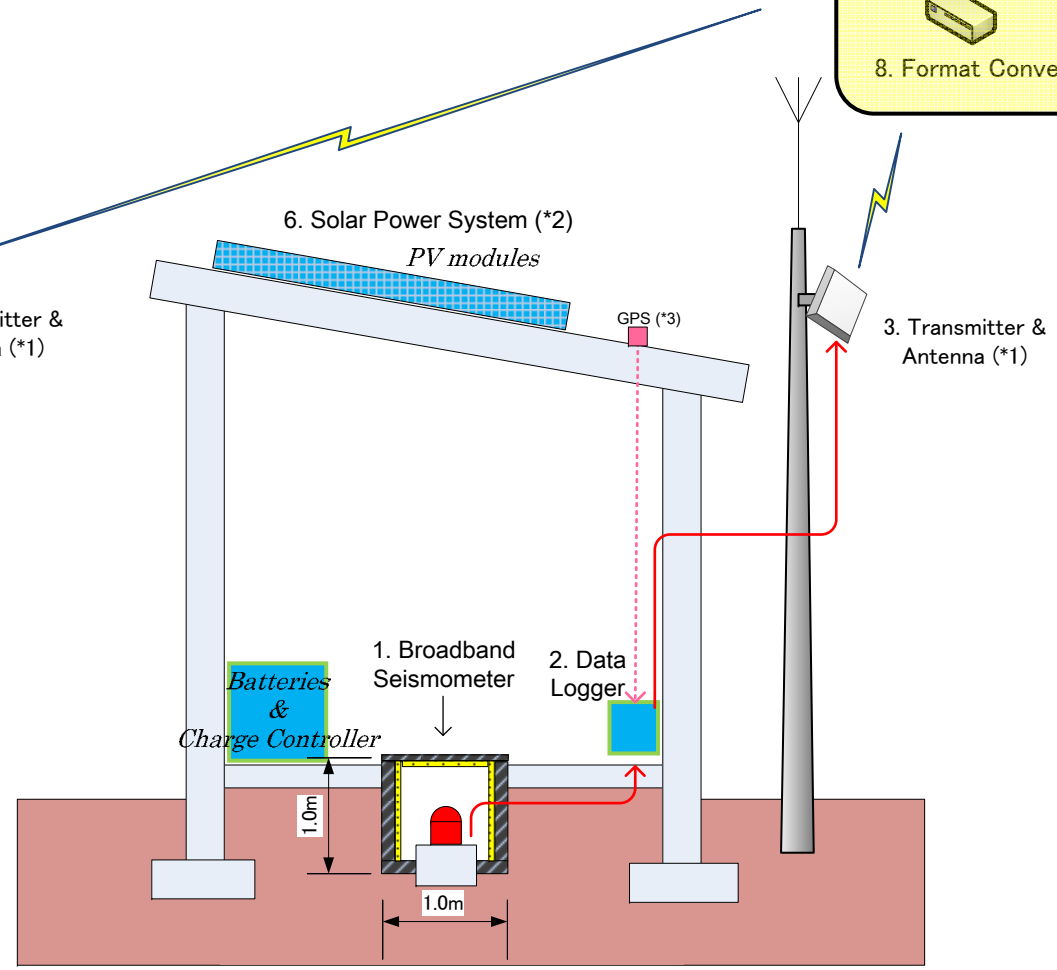
Title
Block Diagram of Monitoring Web Camera System

DWG. No.
SM-4

DATE	DESIGNED	CHECKED	APPROVED	REVISION
5. Dec. 2012	M.Wada	T.Kobayashi	K.Tanaka	



1. Strong Motion Accelerometer System



2. Broadband Station System

MARN

8. Format Converter

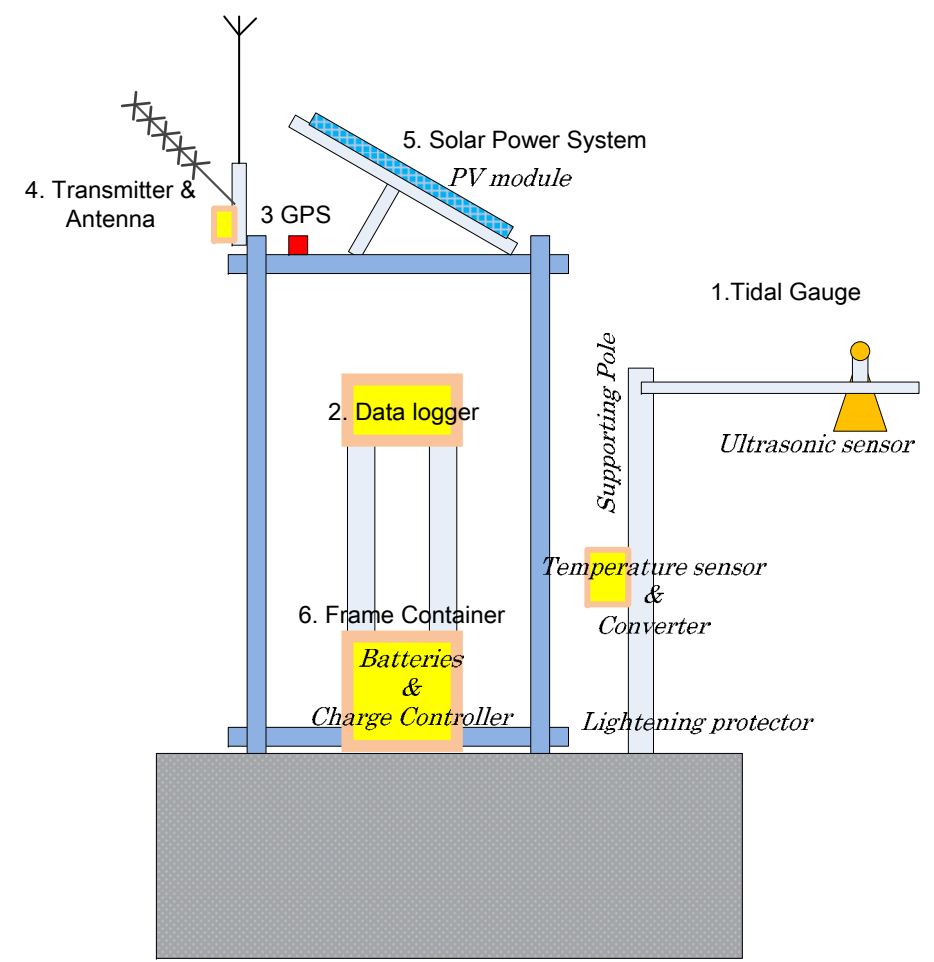
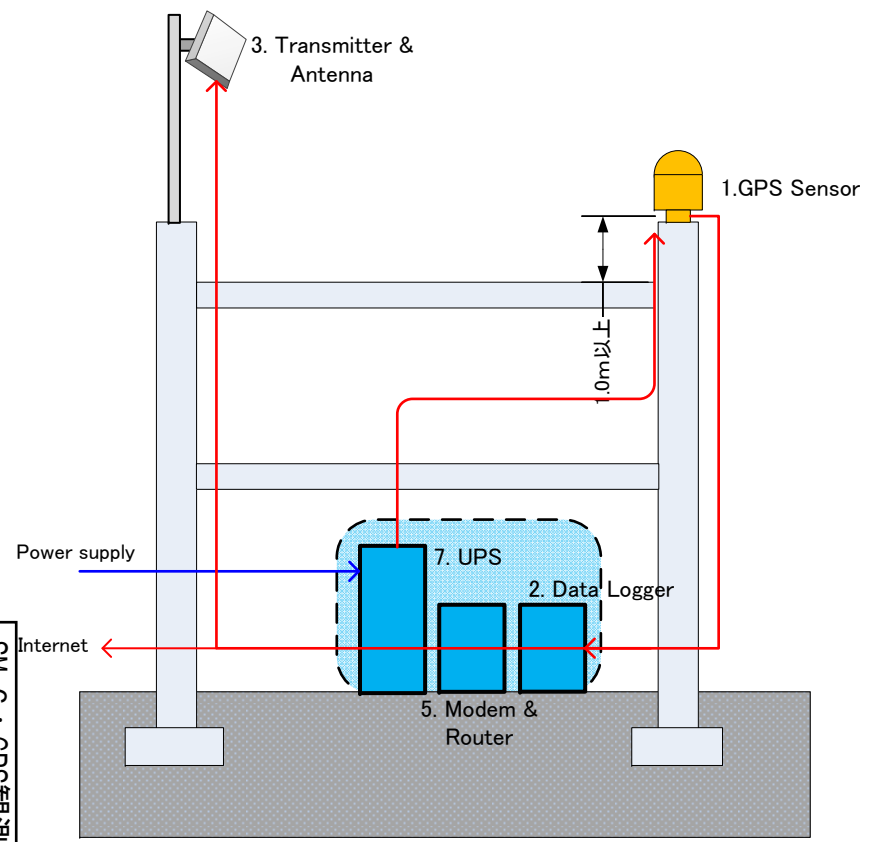
*1. Method of Transmitting has three (3) cases depending on the installation conditions:
 (1) 400MHz UHF (2) 5.8GHz SHF (3) Internet (Modem and Router)

*2. In case that the city power is available at a location, UPS will be provided instead of Solar Power System.

*3. GPS Sensor for time adjusting is included in accessories of Data Logger.

The Project for Improvement of Equipment for Disaster Risk Management in the Republic of El Salvador				
Title Typical Arrangement (1) [1. Strong Motion Accelerometer System and 2. Broadband Station System]				DWG. No. SM-5
DATE	DESIGNED	CHECKED	APPROVED	REVISION
5. Dec. 2012	M.Wada	T.Kobayashi	K.Tanaka	
YACHIYO ENGINEERING CO., LTD. TOKYO JAPAN				

SM-6 : GPS観測システム、潮位計測システム概観図



3. GPS Station System

4. Tide Observation System

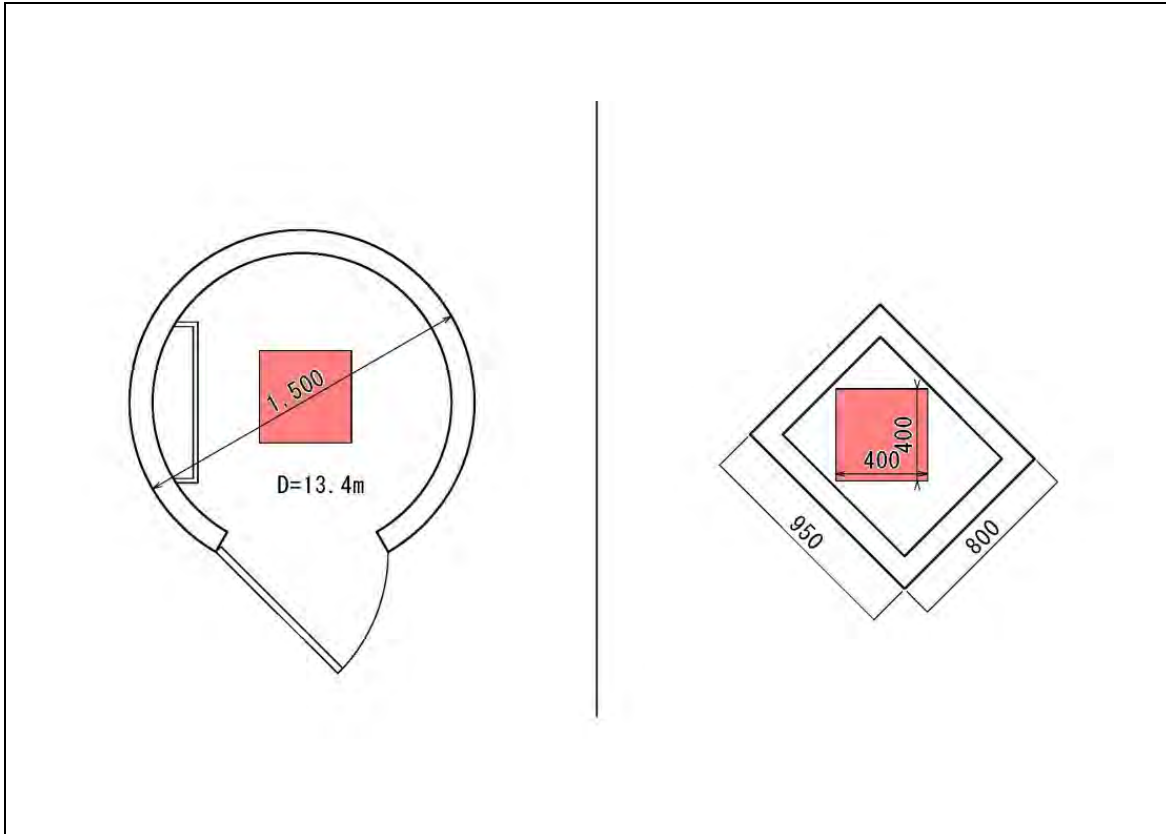
The Project for Improvement of Equipment for Disaster Risk Management in the Republic of El Salvador				
Title Typical Arrangement (2) [3. GPS Station System and 4. Tide Observation System]				DWG. No. SM-6
DATE	DESIGNED	CHECKED	APPROVED	REVISION
5. Dec. 2012	M.Wada	T.Kobayashi	K.Tanaka	
YEC YACHIYO ENGINEERING CO., LTD. TOKYO JAPAN				

LT-K-1 Location of the Site and Survey Photos

K-1 : Casa Presidencial

--- Strong Motion Accelerometer System

Date	5/June/2012	10:00
L/L	13.685891°	-89.240129°



Location of the Site



Distant View



Install Area of Accelerometer



Monitoring Well



Installation Box

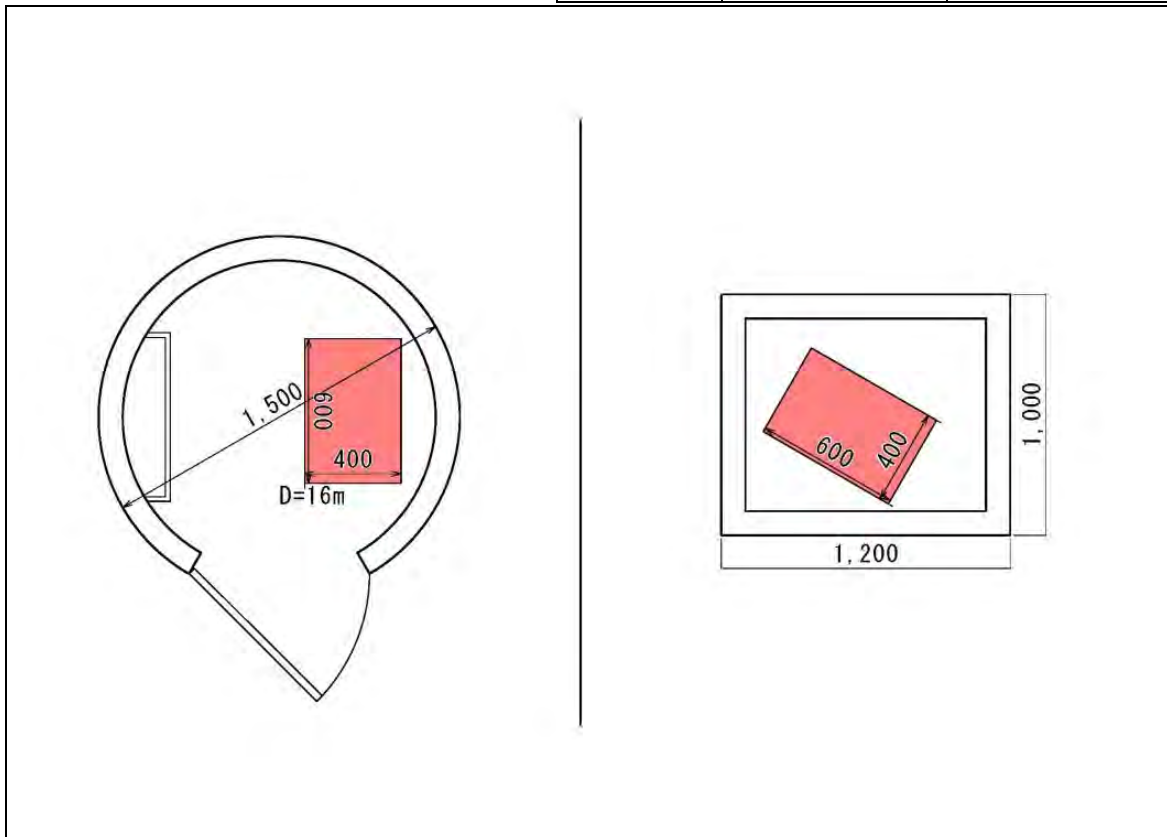
LT-K-1 : 地震計システム設置サイト写真及び配置図-大統領公邸

LT-K-2 Location of the Site and Survey Photos

K-2 : Sem San José de La Montaña

--- Strong Motion Accelerometer System

Date	5/June/2012	9:00
L/L	13.673621°	-89.278195°



Location of the Site



Distant View



Install Area of Accelerometer



Monitoring Well



Install Box

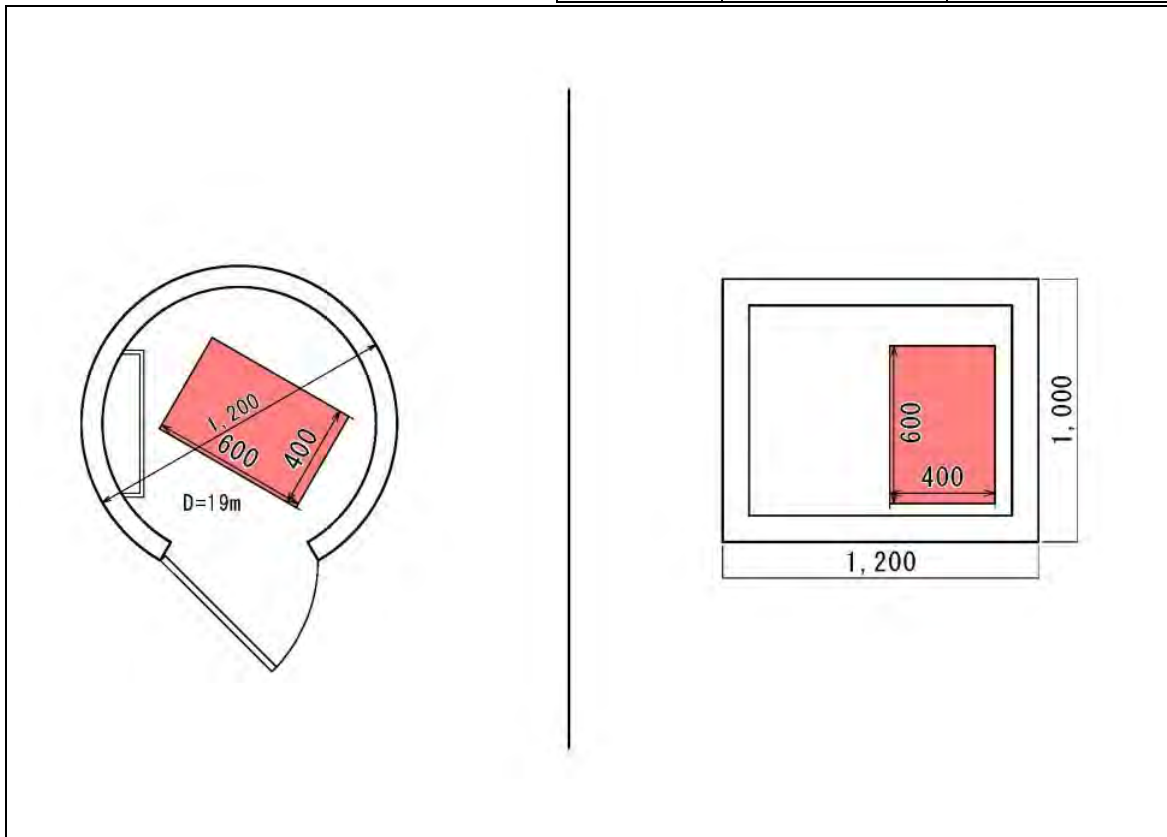
LT-K-2 : 地震計システム設置サイト写真及び配置図-サンホセ デラ モンタナ

LT-K-3 Location of the Site and Survey Photos

K-3 : DIGESTYC

--- Strong Motion Accelerometer System

Date	5/June/2012	11:30
L/L	13.673621°	-89.278195°



Location of the Site



Distant View



Install Area of Accelerometer



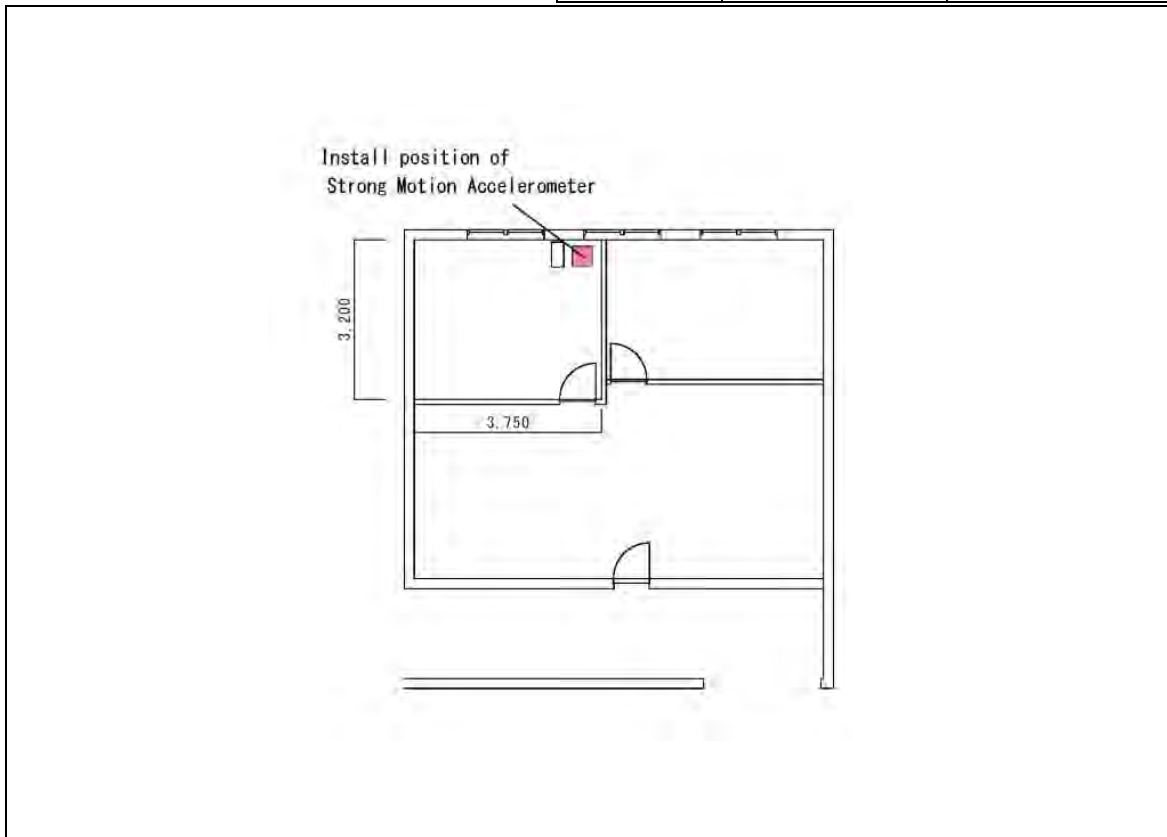
Install Box

LT-K-4 Location of the Site and Survey Photos

K-4 : ITCA, Santa Tecla

--- Strong Motion Accelerometer System

Date	5/June/2012	9:00
L/L	13.673621°	-89.278195°



Location of the Site



Building of Mantenimento

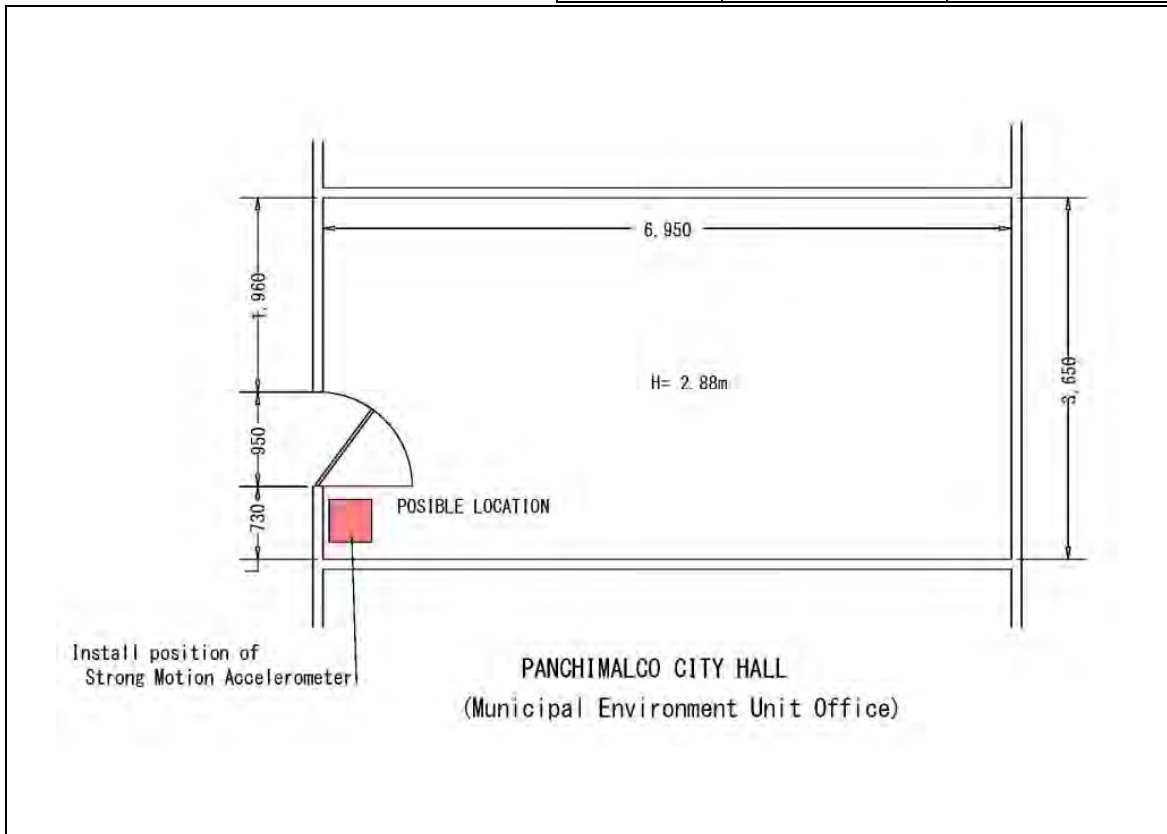
Install Area of Accelerometer

LT-K-05 Location of the Site and Survey Photos

K-5 : Alcaldía de Panchimalco

--- Strong Motion Accelerometers System

Date	7/June/2012	11:30
L/L	13.611638°	-89.179651°



Location of the Site



Building of the Alcaldía de Panchimalco



Municipal Environment Unit Office



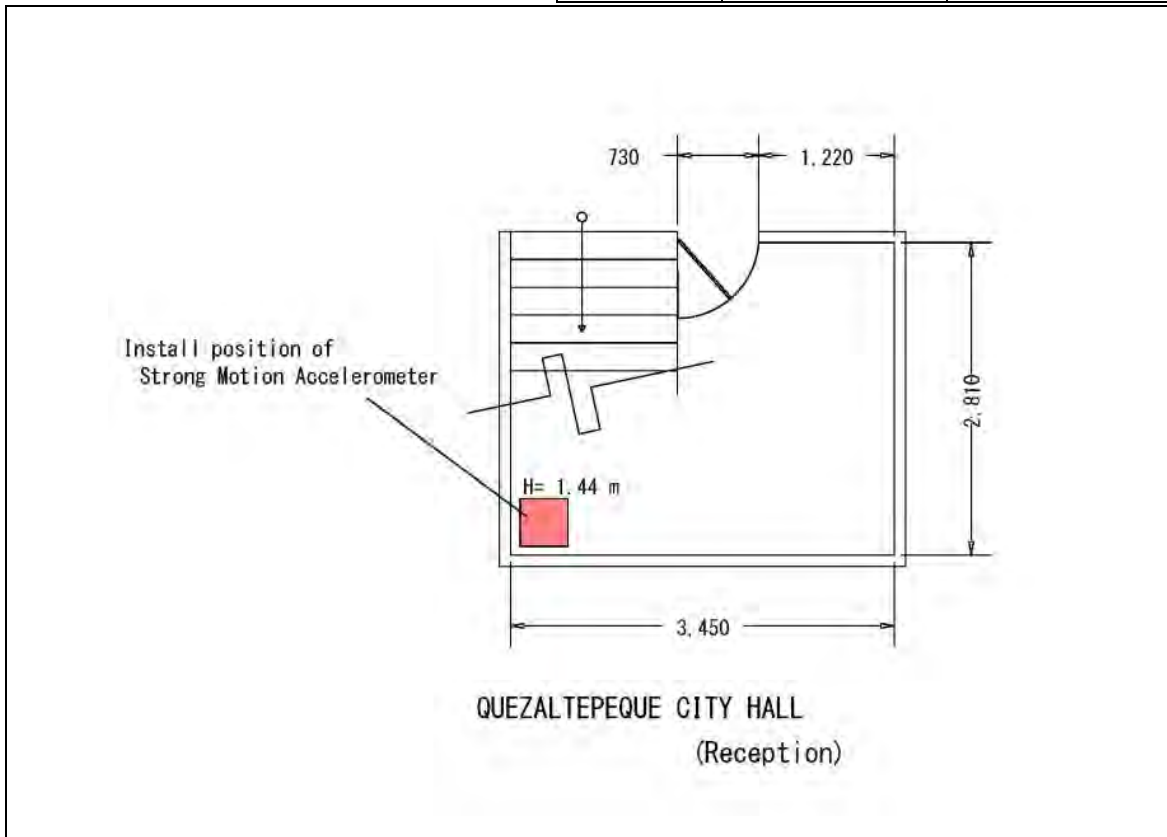
Install position of Accelerometer

LT-K-6 Location of the Site and Survey Photos

K-6 : Alcaldía de Quezaltepeque

--- Strong Motion Accelerometer System

Date	6/June/2012	11:00
L/L	13.834928°	-89.272376°



Location of the Site



Building of Alcaldía de Quezaltepeque

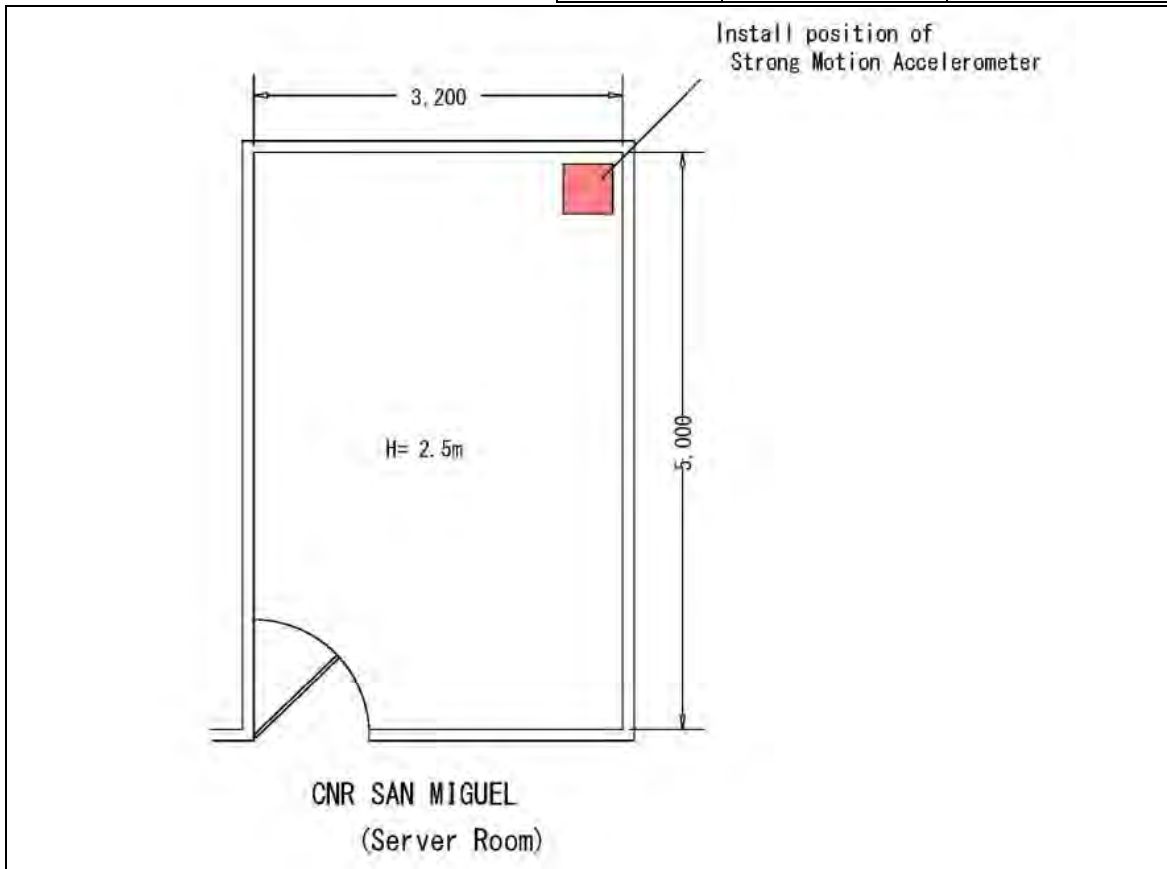
Install Area of Accelerometer

LT-K-7 Location of the Site and Survey Photos

K-7 : CNR, San Miguel

--- Strong Motion Accelerometers System

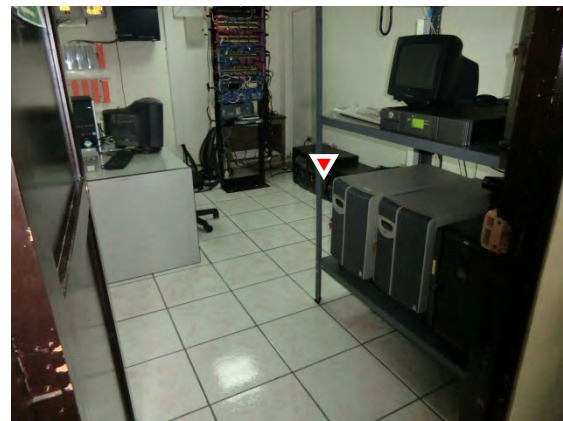
Date	8/June/2012	11:00
L/L	13.474862°	-88.170586°



Location of the Site



Building of CNR of San Miguel



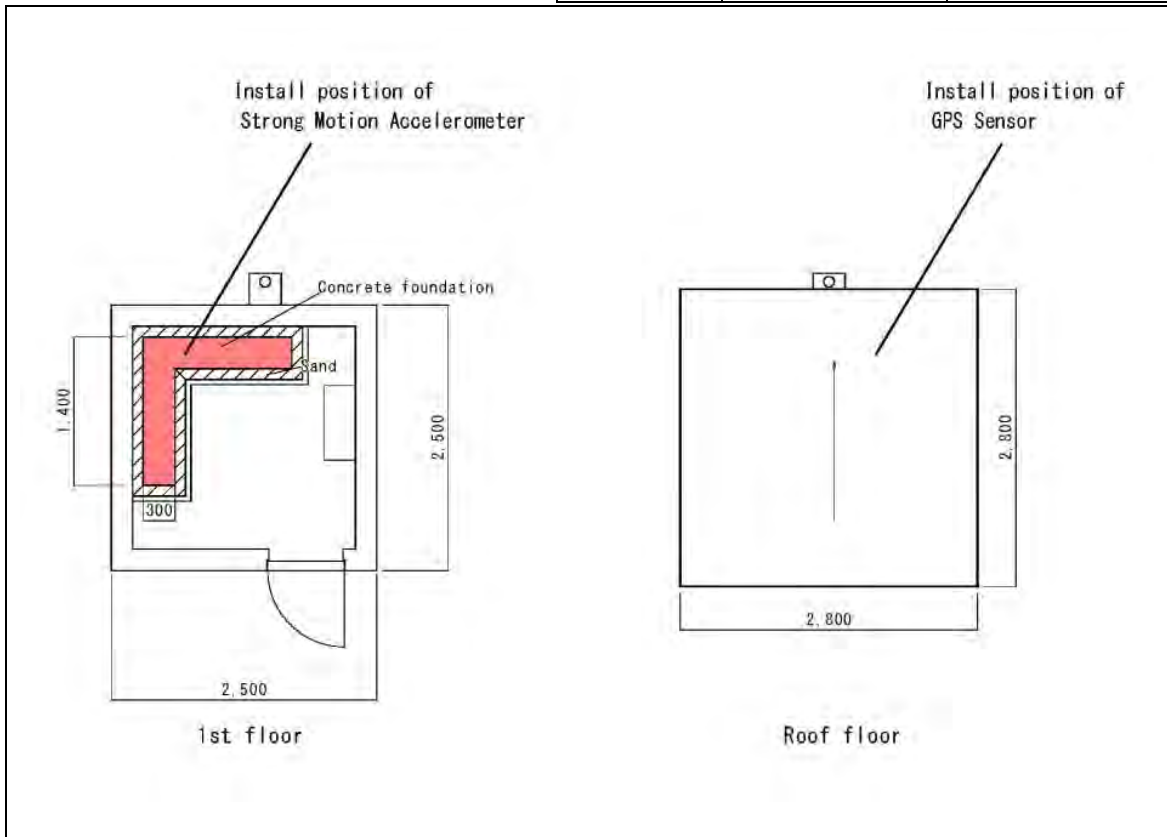
Install position of the Accelerometers

LT-K-8 Location of the Site and Survey Photos

K-8 : Lomas de Alarcon

--- Strong Motion Accelerometer System

Date	31/May/2012	10:30
L/L	13.998278°	-89.780494°



Location of the Site



Distant View



Install Area of Accelerometer



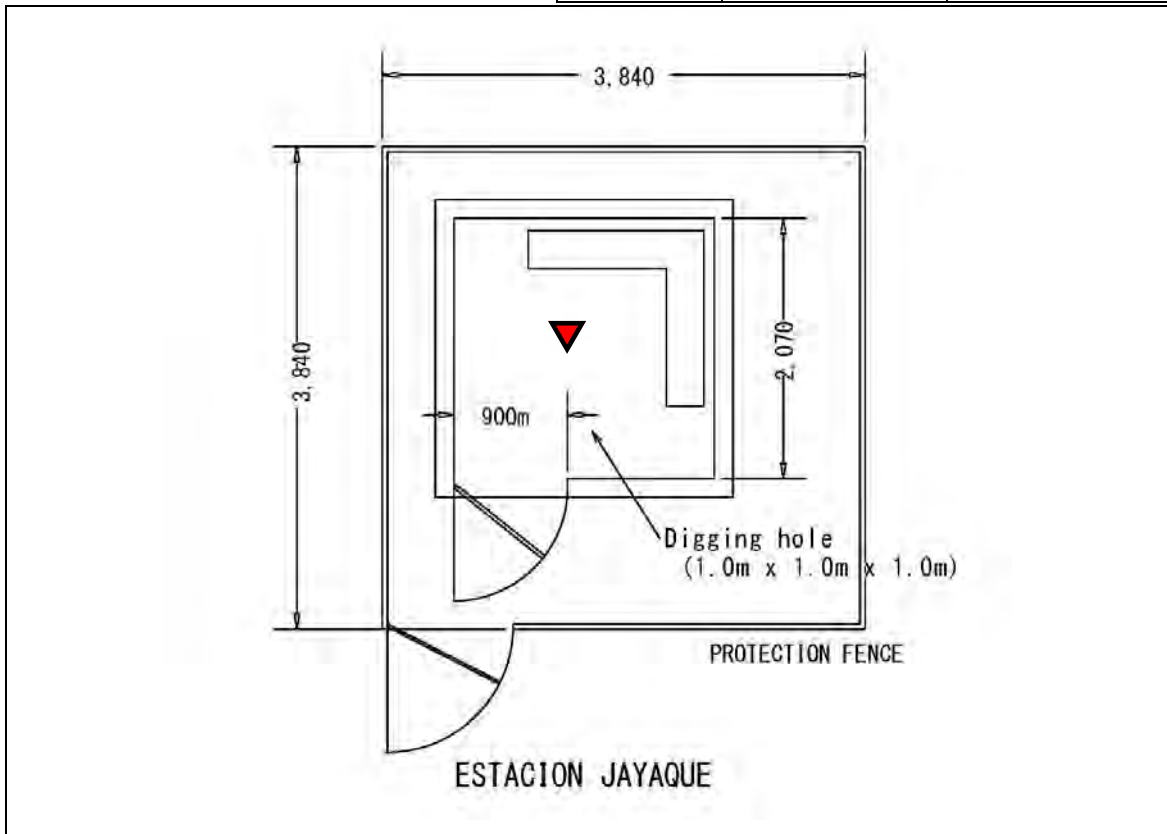
Install position of GPS sensor

LT-B-1 Location of the Site and Survey Photos

B-1 : Jayaque

---Broadband Station System

Date	5/June/2012	10:30
L/L	13.654330°	-89.498960°



Location of the Site



Distant View



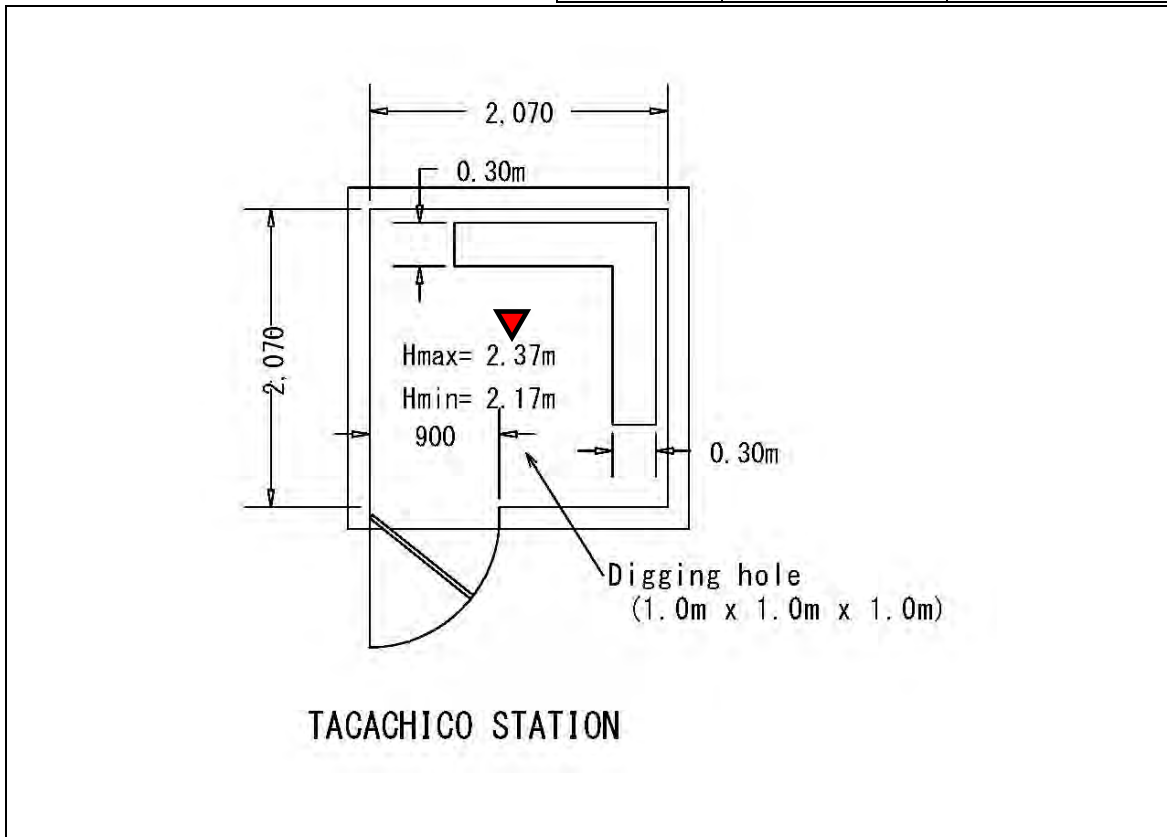
Install Area of Broadband Seismometer

LT-B-2 Location of the Site and Survey Photos

B-2 : Tacachico

---Broadband Station System

Date	4/June/2012	14:30
L/L	13.969980°	-89.353690°



Location of the Site



Distant View



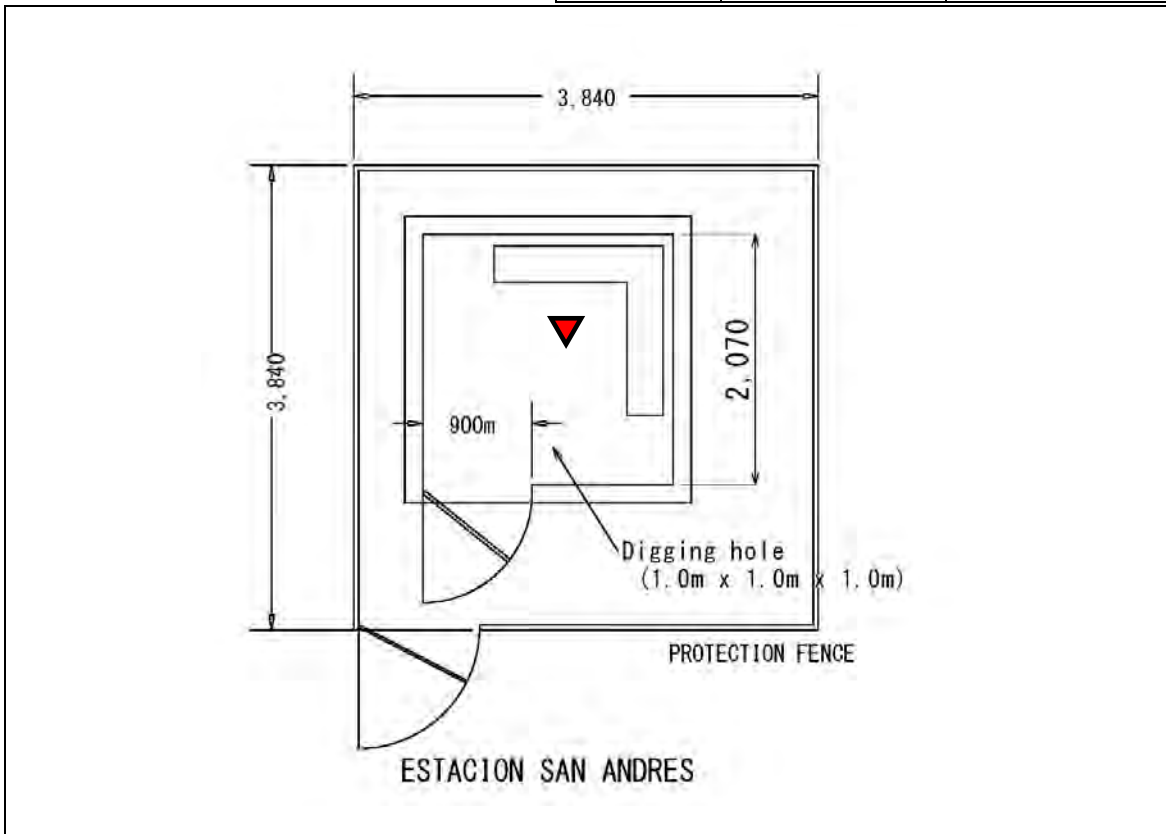
Install Area of Broadband Seismometer

LT-B-3 Location of the Site and Survey Photos

B-3 : San Andres

---Broadband Station System

Date	5/June/2012	12:00
L/L	13.802722°	-89.394806°



Location of the Site



Distant View



Install Area of Broadband Seismometer



Existing PV Panel

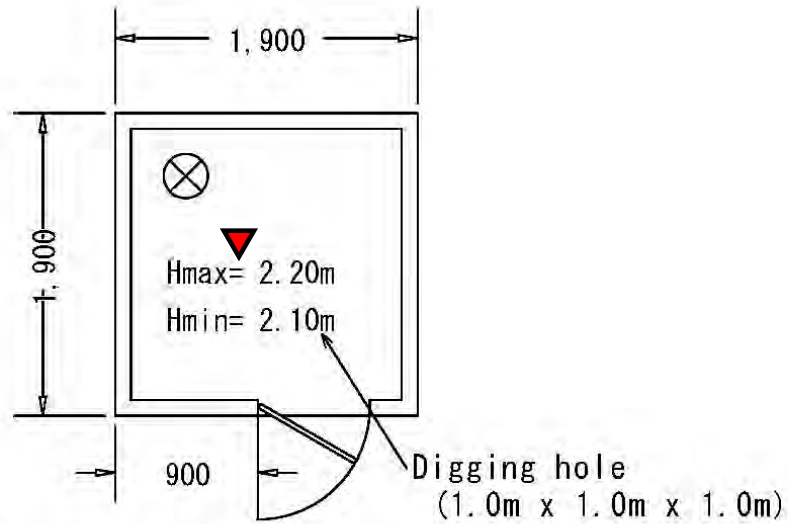
LT-B-3 : ブロードバンド観測システム設置サイト写真及び配置図-サンアンドレス

LT-B-4 Location of the Site and Survey Photos

B-4 : Las Pavas

---Broadband Station System

Date	5/June/2012	13:30
L/L	13.713254°	-88.937204°



ESTACION LAS PAVAS

Location of the Site



Distant View



Install Area of Broadband Seismometer



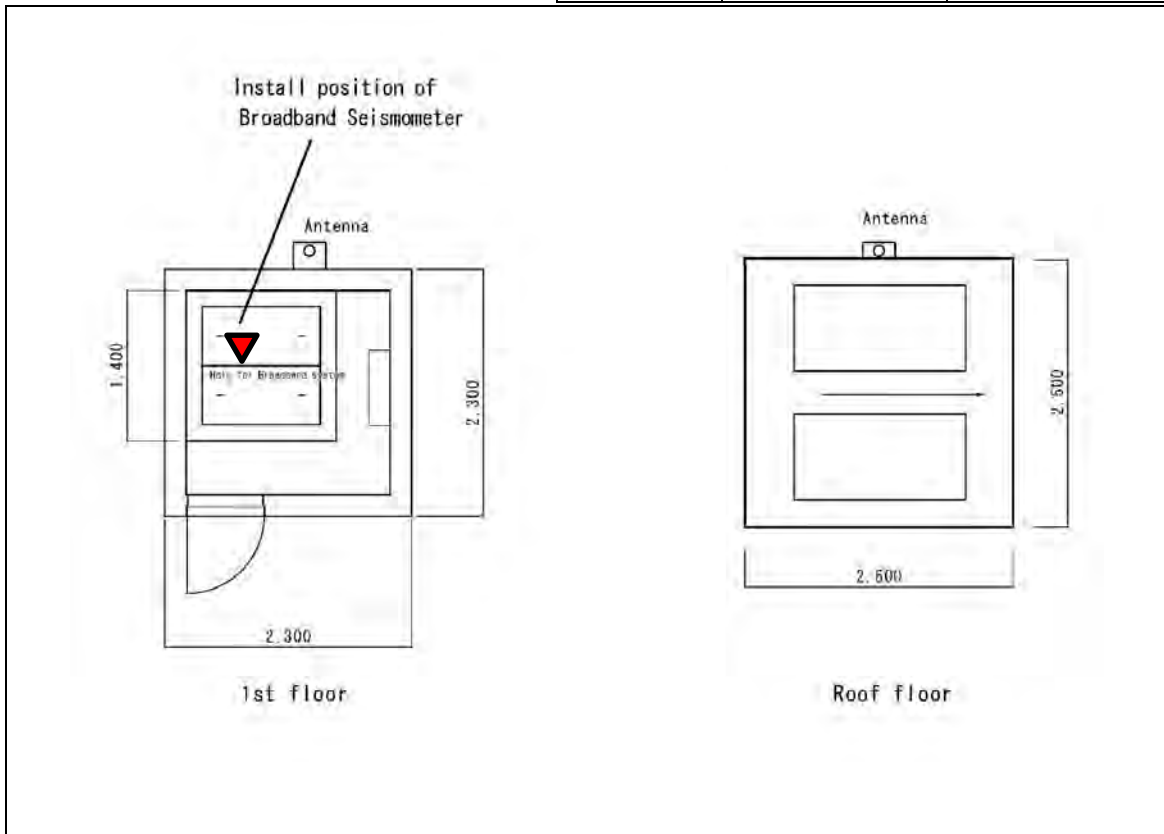
Existing PV Panel

LT—B-5 Location of the Site and Survey Photos

B-5 : Las Nuves

--- Broadband Station System

Date	11/June/2012	11:30
L/L	13.902200	-89.779950



Location of the Site



Distant View



Roof



Install position of Broadband Seismometer



Security

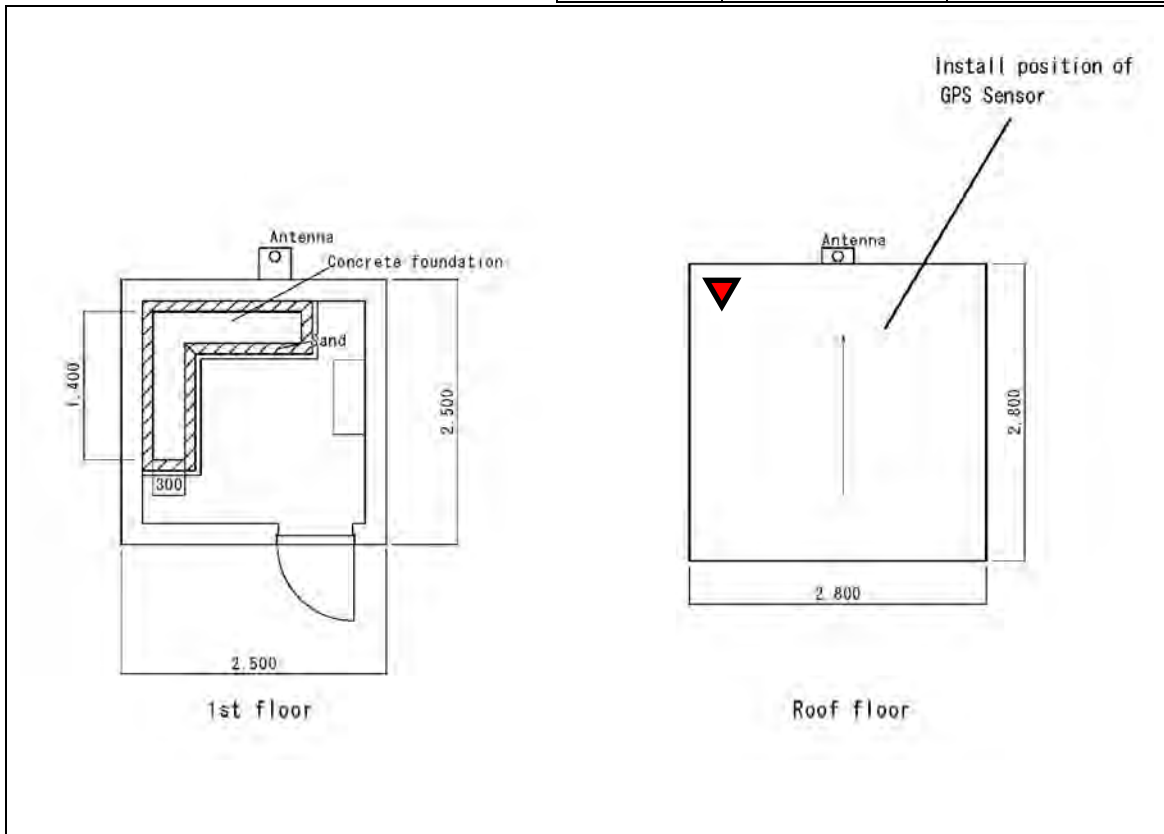
LT-B-5 : ブロードバンド観測システム設置サイト写真及び配置図-ラスヌベス

LT-G-1 Location of the Site and Survey Photos

G-1 : Lomas de Alarcon

--- GPS Station System

Date	31/May/2012	10:30
L/L	13.998278°	-89.780494°



Location of the Site



Distant View



Install position of Seismometer



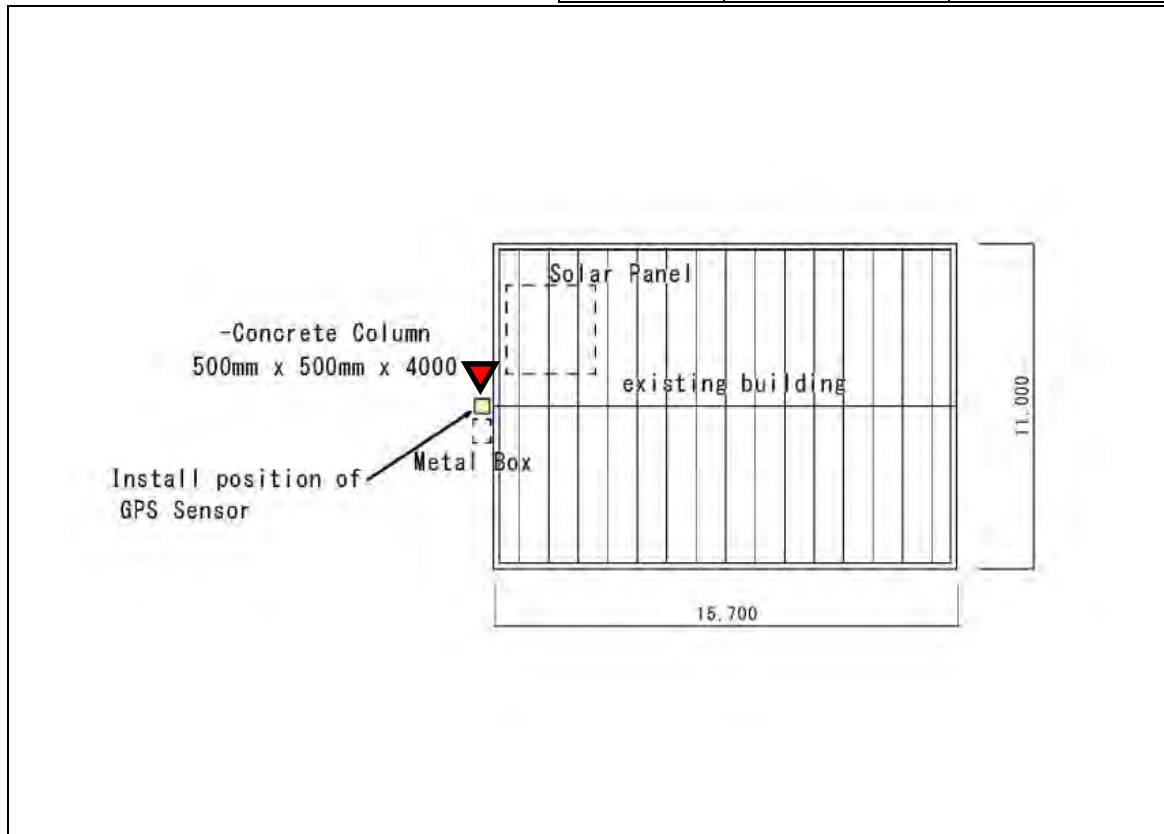
Install position of GPS sensor 2

LT-G-2 Location of the Site and Survey Photos

G-2 : San Vicente

--- GPS Station System

Date	18/Jun/2012	9:30
L/L	13.637000°	-88.792000°



Location of the Site



Distant View



Install position of GPS sensor



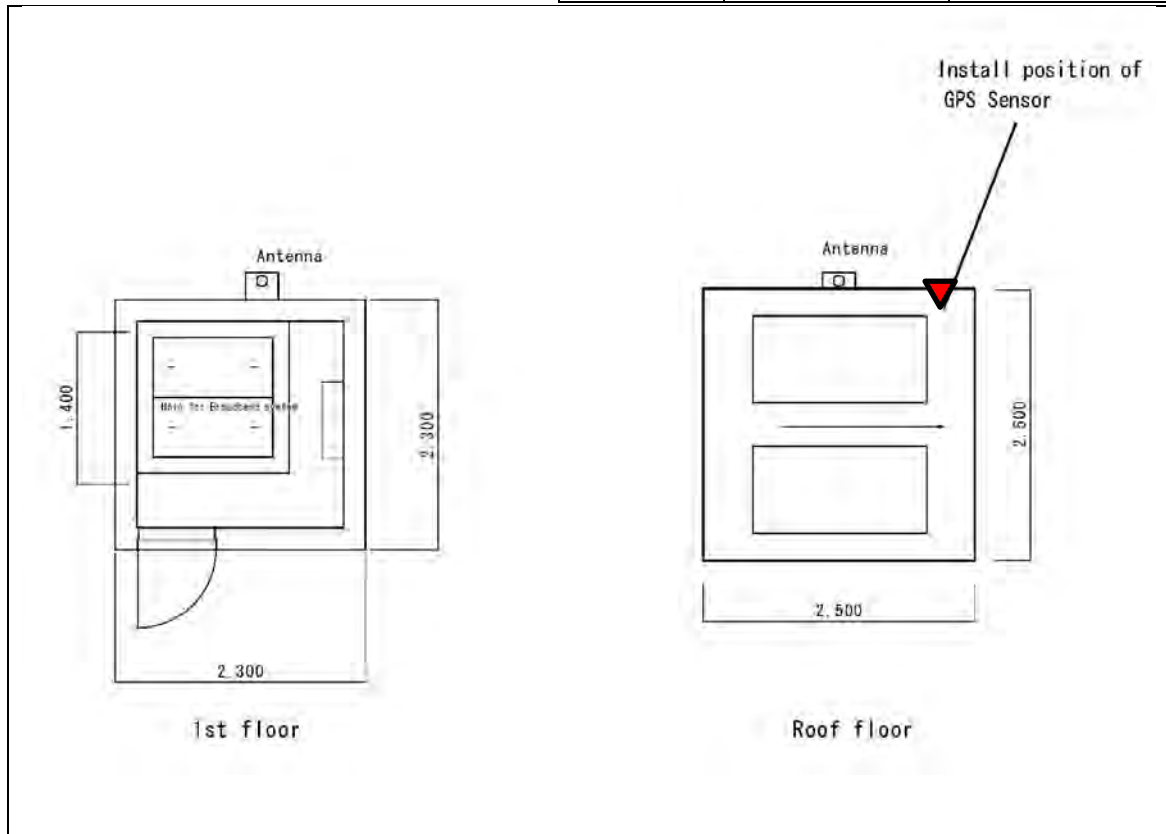
Install position of GPS sensor 2

LT-G-3 Location of the Site and Survey Photos

G-3 : Las Nuves

---GPS Station System

Date	11/June/2012	11:30
L/L	13.902200	-89.779950



Location of the Site



Distant View



Install Position



Existing Broadband Station System



Security

LT- T-1 Location of the Site and Survey Photos

T-1 : Puerto de La Libertad

---Tide Observation System

Date	30/May/2012	14:30
L/L	13.484957°	-89.319267°



Location of the Site



Distant View



Install Area of Tide Observation System

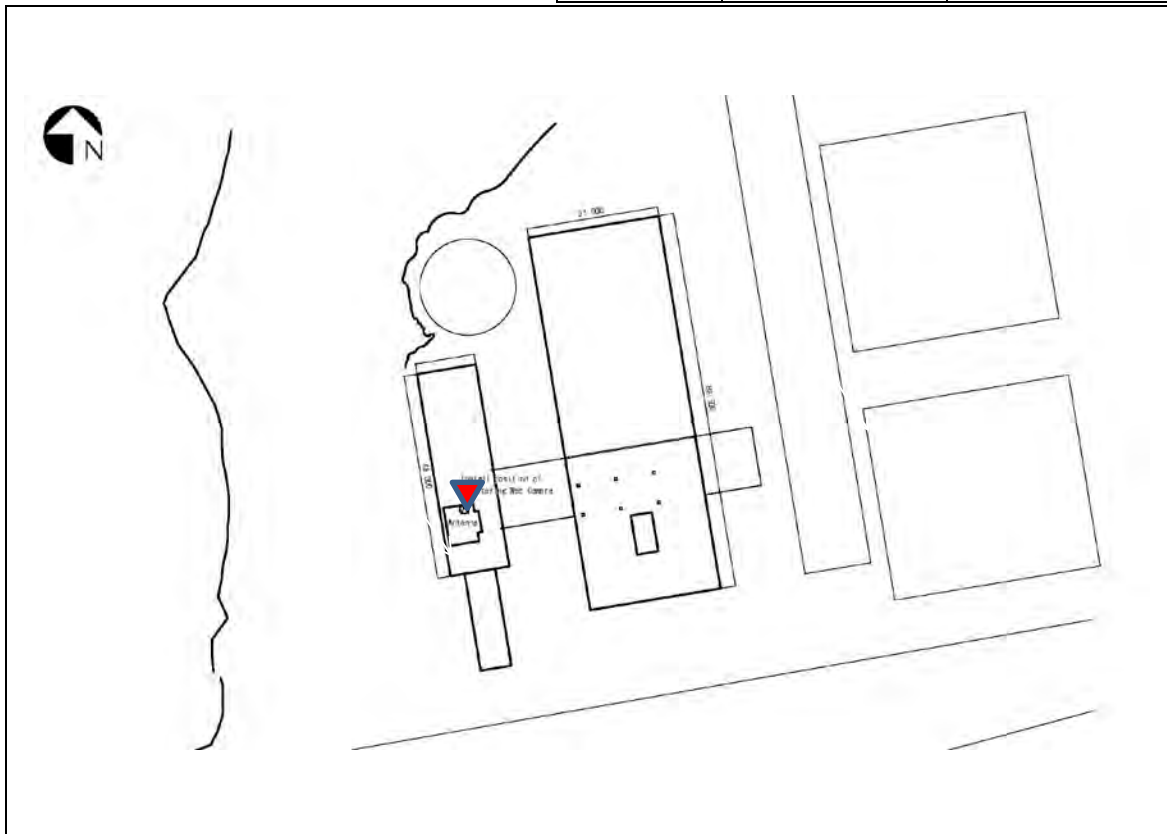
LT-T-1 : 潮位計測システム設置サイト写真及び配置図-ラリベルタ港

LT-W-1 Location of the Site and Survey Photos

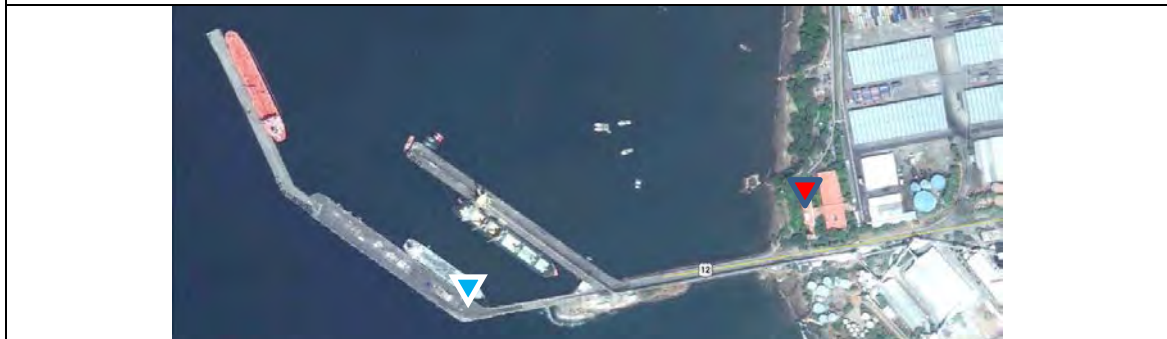
W-1 : Puerto de Acajutla

---Monitoring Web Camera System

Date	30/May/2012	10:30
L/L	13.575139°	-89.833722°



Location of the Site



Distant View from install position



Install area(Top of staircase of CEPA's Building)

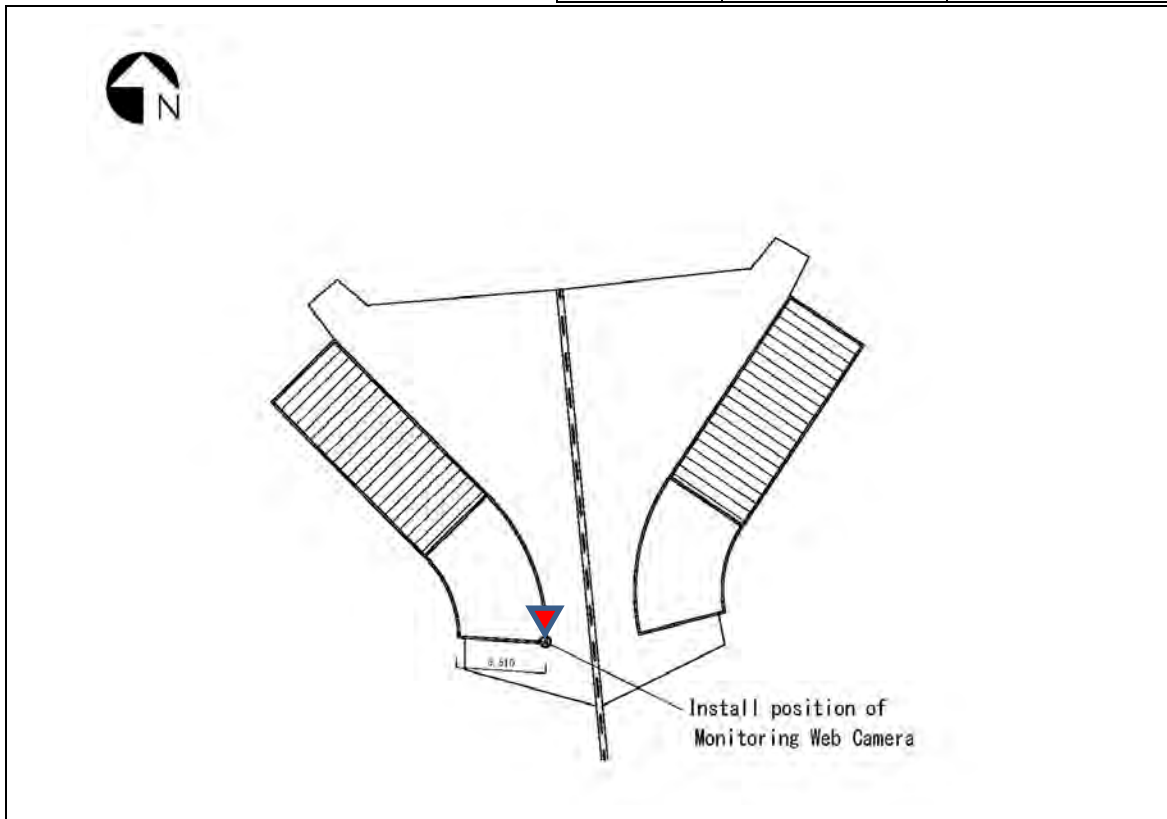
Install Position

LT-W-2 Location of the Site and Survey Photos

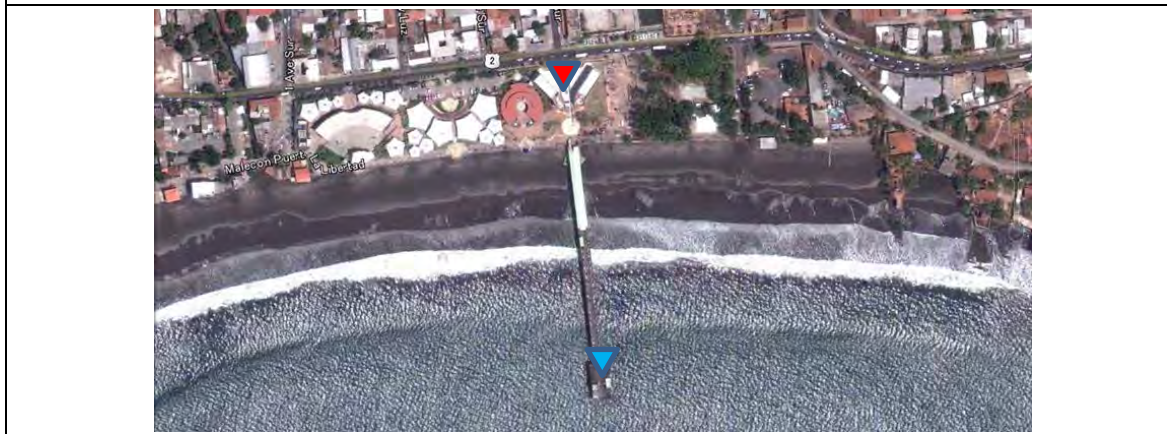
W-2 : Puerto de La Libertad

---Monitoring Web Camera System

Date	30/May/2012	14:30
L/L	13.487046°	-89.319400°



Location of the Site



Distant View from install position

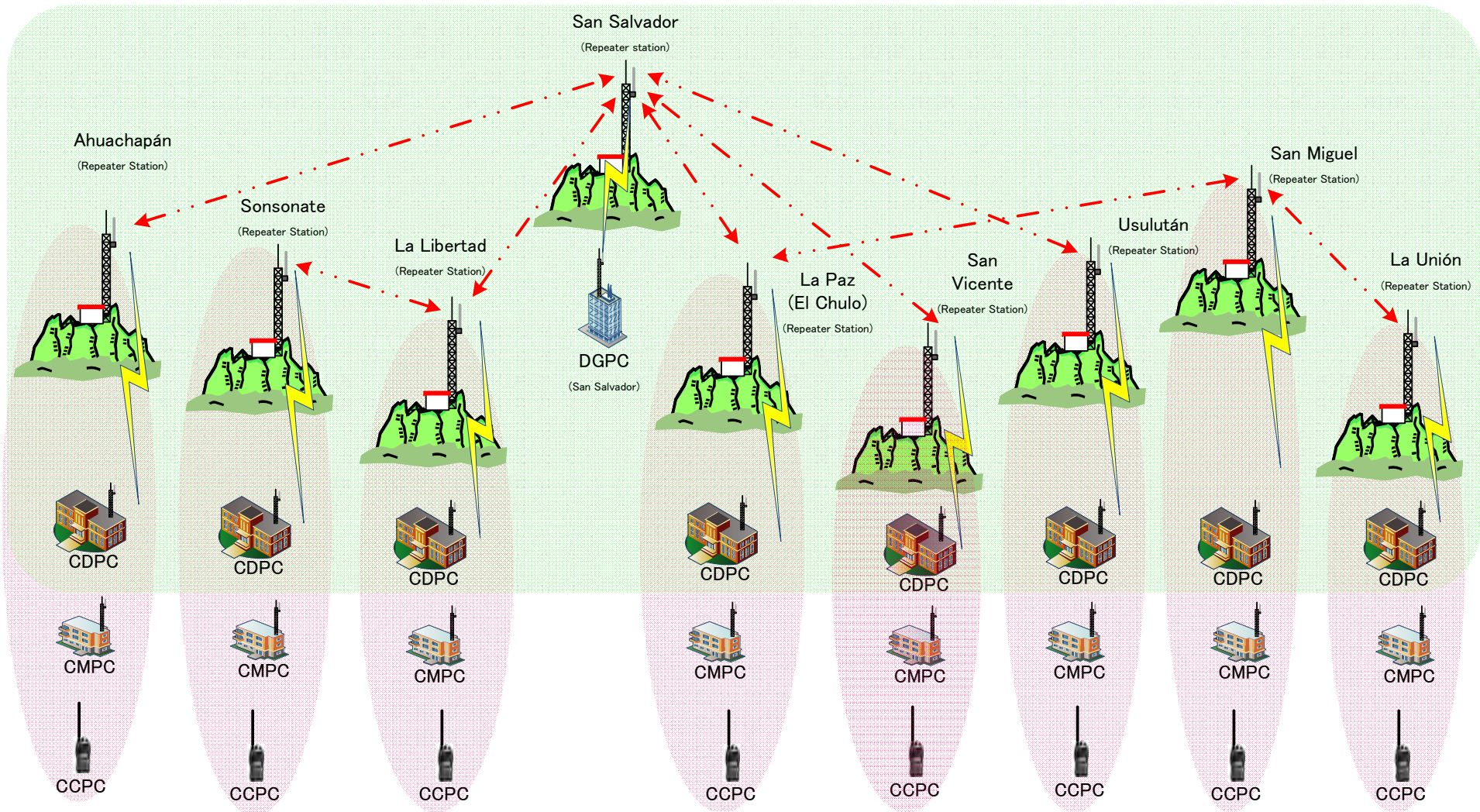


Distant View

Install Position

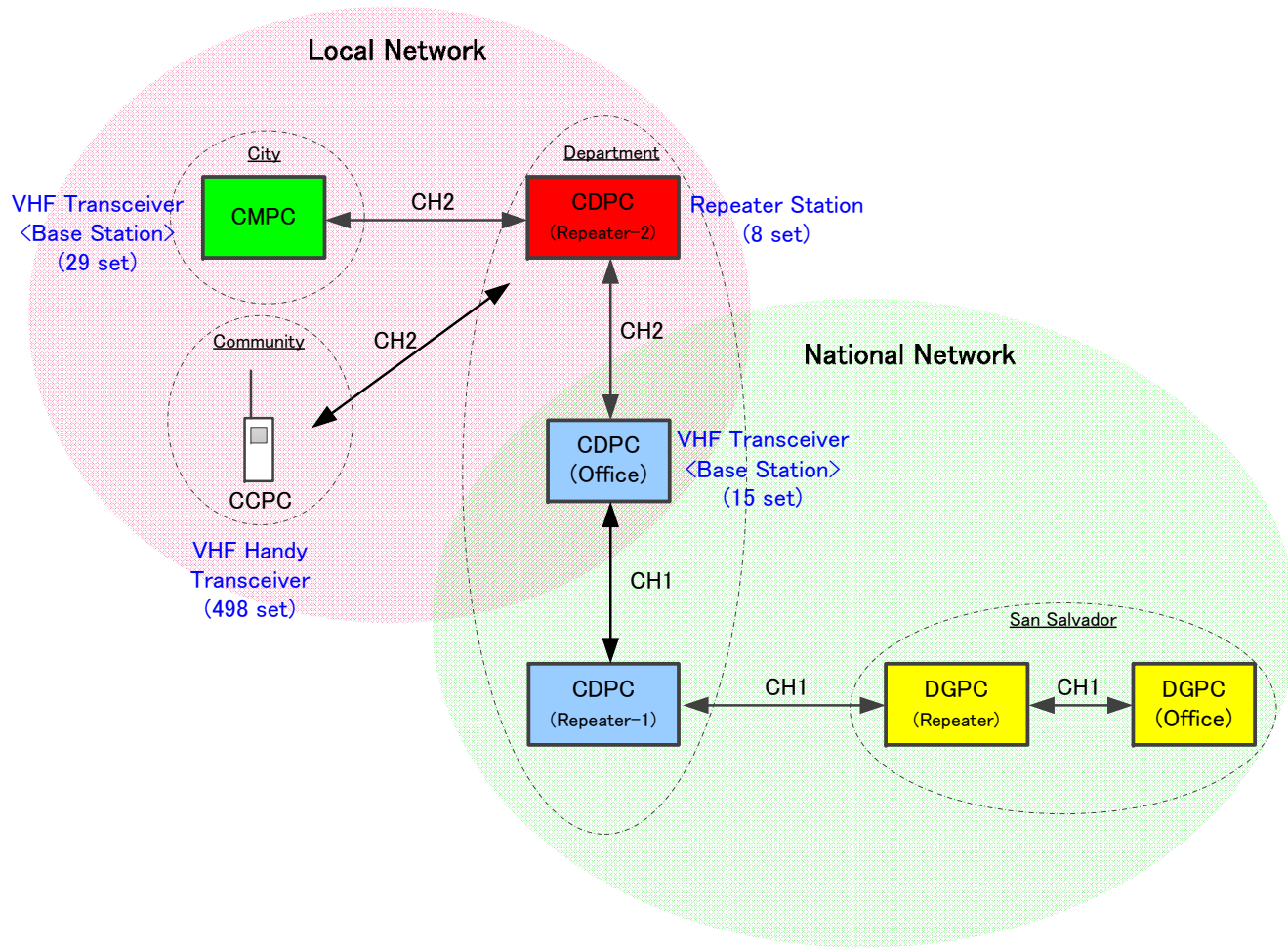
LT-W-2 : 津波監視カメラシステム設置サイト写真及び配置図-ラリベルタ港


SR-1: VHF コミュニケーションネットワーク



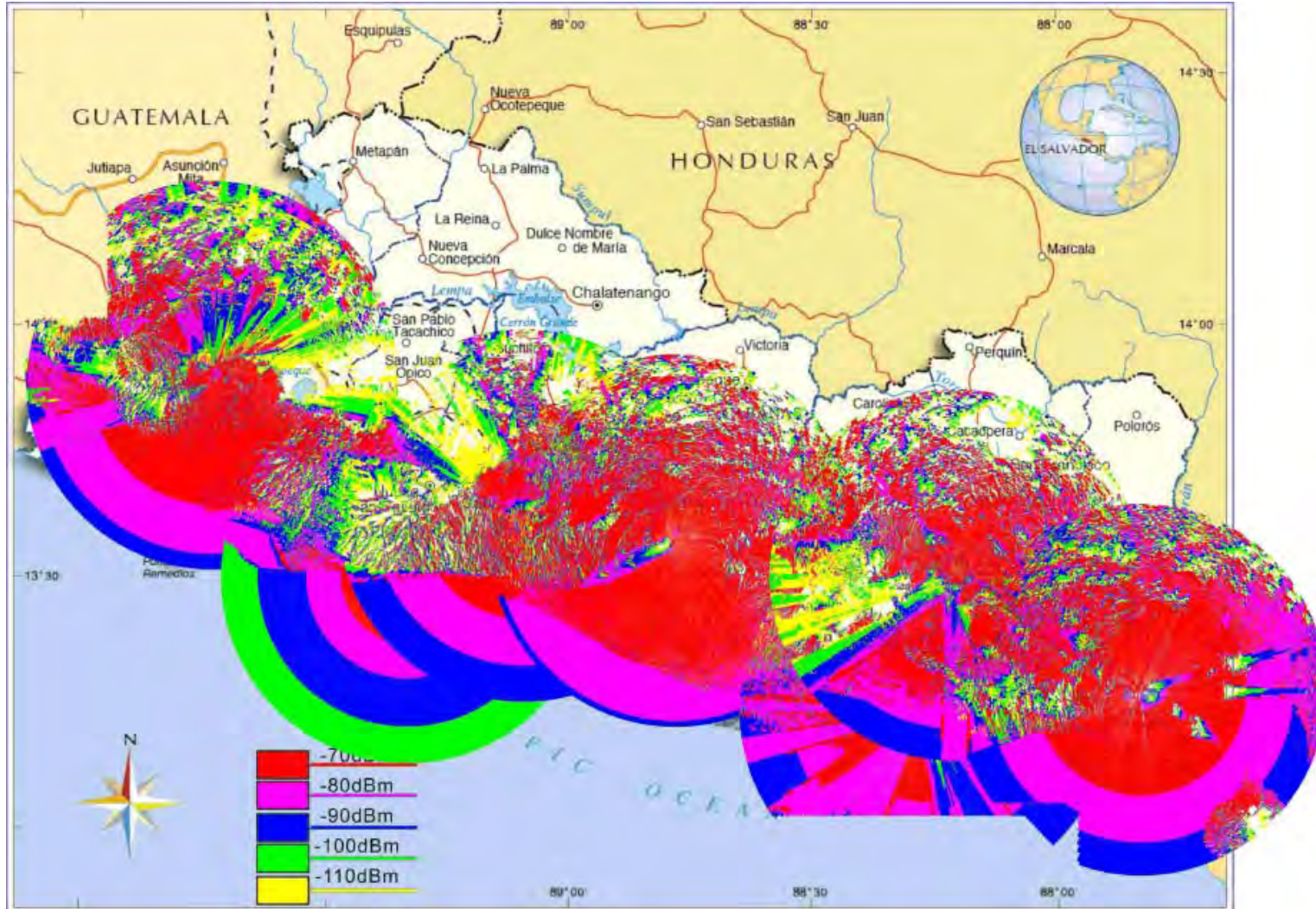
National Network
Local Network


The Project for Improvement of Equipment for Disaster Risk Management in the Republic of El Salvador				
Title				DWG. No.
VHF Communication Network of Protection Civil				SR-1
DATE	DESIGNED	CHECKED	APPROVED	REVISION
5. Dec. 2012	M.Wada	T.Kobayashi	K.Tanaka	
YACHIYO ENGINEERING CO., LTD. TOKYO JAPAN				



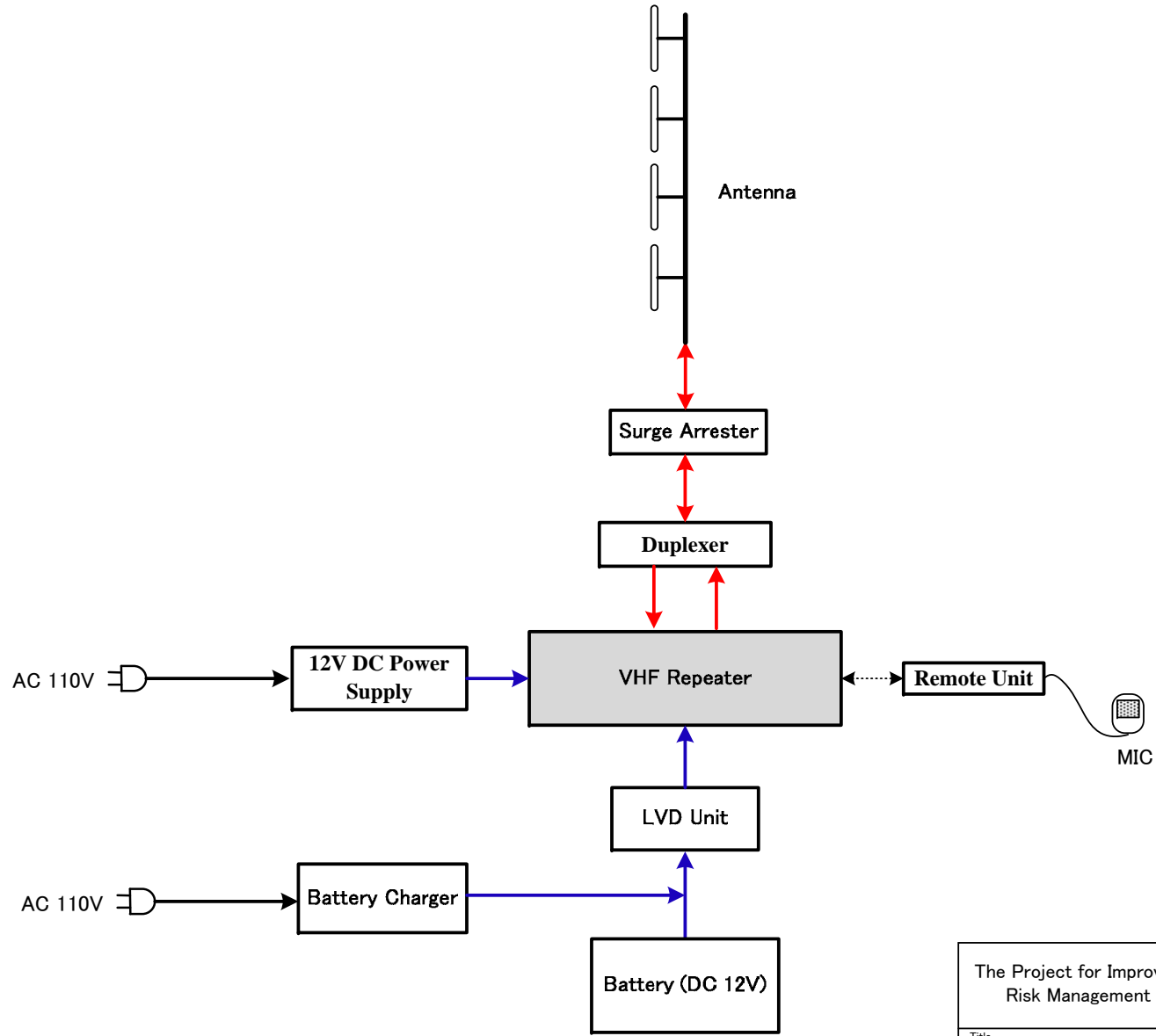
The Project for Improvement of Equipment for Disaster Risk Management in the Republic of El Salvador				
Title				DWG. No.
Relation of National and Local network				SR-2
DATE	DESIGNED	CHECKED	APPROVED	REVISION
5. Dec. 2012	M.Wada	T.Kobayashi	K.Tanaka	
 YACHIYO ENGINEERING CO., LTD. TOKYO JAPAN				


SR-3 : 地方防災無線網サービスエリア



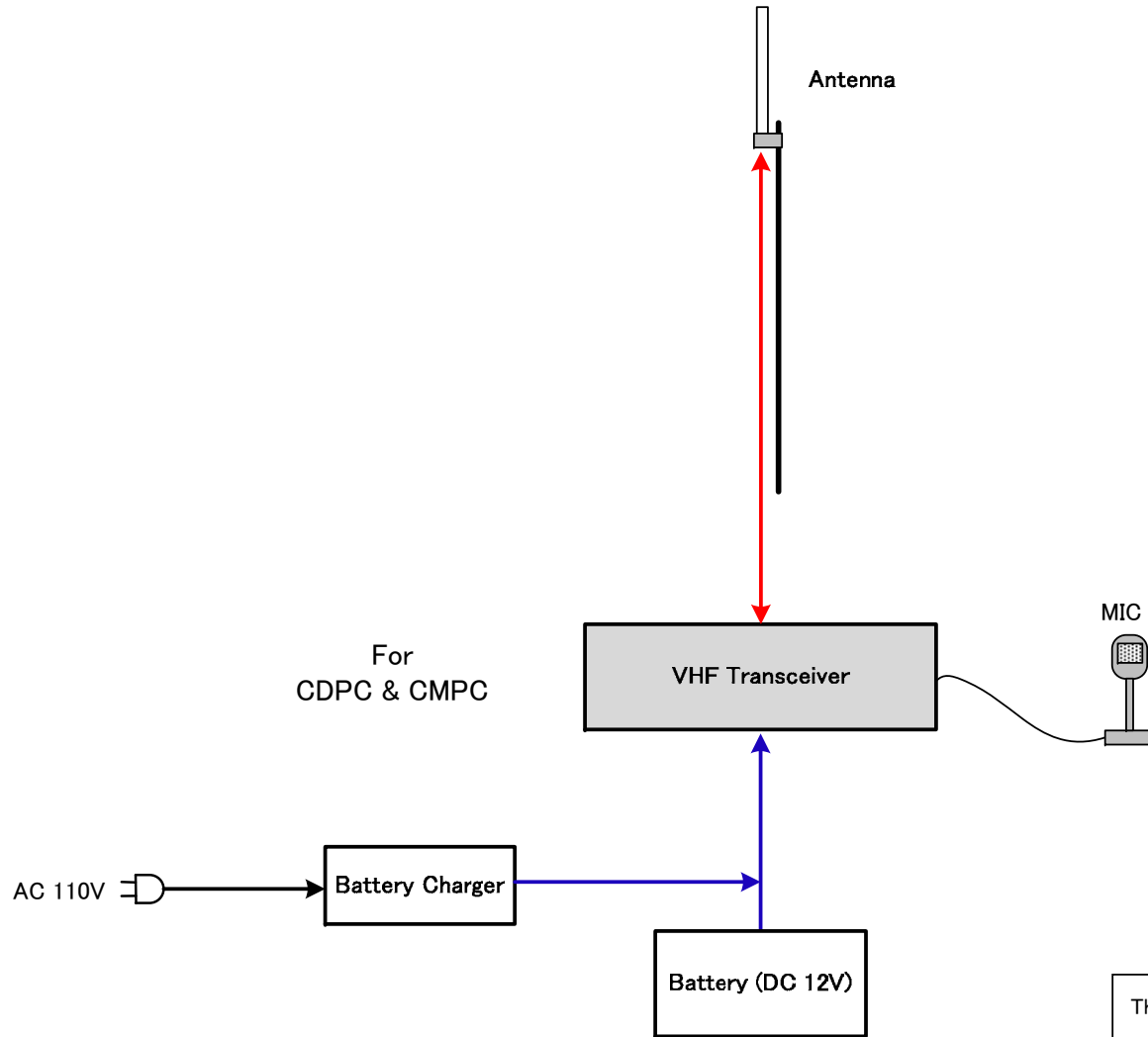
The Project for Improvement of Equipment for Disaster Risk Management in the Republic of El Salvador				
Title				DWG. No.
Expected Service Area of Local network				SR-3
DATE	DESIGNED	CHECKED	APPROVED	REVISION
5. Dec. 2012	M.Wada	T.Kobayashi	K.Tanaka	
 YACHIYO ENGINEERING CO., LTD. TOKYO JAPAN				

SR-4 : 無線中継システム構成図




The Project for Improvement of Equipment for Disaster Risk Management in the Republic of El Salvador				
Title				DWG. No.
Block Diagram of VHF Repeater System				SR-4
DATE	DESIGNED	CHECKED	APPROVED	REVISION
5. Dec. 2012	M.Wada	T.Kobayashi	K.Tanaka	
 YACHIYO ENGINEERING CO., LTD. TOKYO JAPAN				

SR-5 : VHF固定無線機システム構成図



For
CDPC & CMPC



The Project for Improvement of Equipment for Disaster Risk Management in the Republic of El Salvador				
Title				DWG. No.
Block Diagram of VHF Base Station System				SR-5
DATE	DESIGNED	CHECKED	APPROVED	REVISION
5. Dec. 2012	M.Wada	T.Kobayashi	K.Tanaka	
 YACHIYO ENGINEERING CO., LTD. TOKYO JAPAN				

資料－8 VHF 携帯無線機及び VHF 固定無線機
設置場所と計画台数

8. VHF 携帯無線機及び VHF 固定無線機設置場所と計画台数

CDPC(県)			CMPC(市)			CCPC(コミュニティ)		
No.	場所	台数	No.	場所	台数	No.	場所	台数
1	Ahuachapán	1	1	SAN FRANCISCO MENÉNDEZ	1	1	CARA SUCIA	4
						2	LA CEIBA	3
						3	LA HACHADURA	4
						4	GARITA PALMERA	4
						5	EL ZAPOTE	4
			2	JUJUTLA	1	6	BARRA DE SANTIAGO	4
						7	FAYA (TACACHOL)	4
						8	GUAYAPA ABAJO	3
						9	SAN ANTONIO	3
2	Sonsonate	1	3	ACAJUTLA	1	10	METALÍO	4
						11	EL SUNCITA	4
						12	ACAJUTLA	4
						13	SAN JULIÁN	4
						14	PUNTA REMEDIOS	3
		4	SONSONATE	1	15	MIRALVALLE	3	
					16	TONALA	3	
					17	EL PRESIDIO	3	
					18	SALINAS DE AYACACHAPA	3	
5	SANTA ISABEL ISHUATAN	1	19	LAS PIEDRAS	4			
3	La Libertad	1	6	TEOTEPEQUE	1	20	MIZATA	4
						21	CANTON SAN ISIDRO	4
						22	SIHUAPILAPA PLAYA	4
			7	JICALAPA	1	23	CANTON LA ARGENTINA CRIO. CUMAISLAND	4
						24	CASERIO LA PEDRERA CANTON LA PERLA	4
						25	CASERIO TRES RIOS CANTON LA PERLA	4
						26	CASERIO LA PLAYA CTON PERLA	4
			8	CHILTIUPAN	1	27	TAQUILLO	4
						28	JULUPE	4
						29	EL ZONTE	4
			9	TAMANIQUE	1	30	EL ZUNZAL	4
						31	SAN ALFONZO	4
						32	COMUNIDAD TARPEYA	4
						33	BUENOS AIRES	4
			10	LA LIBERTAD	1	34	SAN ANTONIO MAJAGUAL	4
						35	APOLONIO MORALES CANTON SAN DIEGO	4
						36	PEÑA PARTIDA AREA URBANA	4
						37	ESTERO MAR CANTON SAN DIEGO	4
						38	SANTA CRUZ	4
						39	TIHUAPA SUR, CANTON CANGREJERA	4
			4	La Paz	1	11	SAN LUIS TALPA	1
41	SAN FRANCISCO AMATEPEC	4						
42	NUEVO EDÉN	4						
43	SAN MARCOS JIBOA	4						
44	CUCHILLA COMALAPA	4						
45	AMATECAMPO	3						

CDPC(県)			CMPC(市)			CCPC(コミュニティ)		
No.	場所	台数	No.	場所	台数	No.	場所	台数
						46	ZAMBOMBERA	4
						47	TECUALUYA	3
						48	EL PORVENIR	3
			12	SAN PEDRO MASAHUAT	1	49	LAS ISLETAS	3
						50	EL ACHIOTAL	3
						51	SAN MARCELINO	3
						52	LAS FLORES	3
						53	LAS HOJAS	3
						54	ANIMAS ABAJO	3
			13	ZACATECOLUCA	1	55	HATOS DE LOS REYES	3
						56	ANIMAS ARRIBA	3
						57	SAN MARCOS DE LA CRUZ	3
						58	SAN JOSÉ LA MONTADA	3
						59	AZACUALPA	3
						60	LAS TABLAS	3
						61	TIERRA BLANCA	3
						62	EL DESPOBLADO	3
						63	LUCÍAS MARÍAS	3
			14	SAN LUIS LA HERRADURA	1	64	SAN ANTONIO LOS BLANCOS	4
						65	EL ESCOBAL	4
						66	EL CORDONCILLO	4
67	EL LLANO	4						
68	GUADALUPE LA ZORRA	4						
15	SANTIAGO NONUALCO	1	69	CASERÍO EL SAUCE	4			
			70	CANTÓN SAN FRANCISCO EL PORFIADO	4			
			71	LAS GUARUMAS	4			
			72	EL GOLFO	4			
5	San Vicente	1	16	TECOLUCA	1	73	LAS MESAS	4
						74	LAS ANONAS	4
						75	SAN CARLOS LEMPA	3
						76	BARRIO NUEVO	4
						77	SAN RAMÓN GRIFAL	4
						78	EL PACÚN	3
6	Usulután	1	17	CONCEPCION BATRES	1	79	SAN FELIPE	3
						80	LA DANTA	3
						81	SAN ANTONIO	3
			18	USULUTAN	1	82	LOS DESMONTES	4
						83	CAPITÁN LAZO	4
						84	JOYA DEL TOMASITO	3
						85	LAS SALINAS	3
			19	JUCUARAN	1	86	EL JÍCARO	3
						87	EL ZAPOTE	3
						88	EL LLANO	3
						89	SAMURIA	3
			20	SAN DIONISIO	1	90	SAN FRANCISCO	3
						91	NUEVO MUNDO	3
92	IGLESIA VIEJA	3						
93	AREA URBANA	3						
21	PUERTO EL TRIUNFO	1	94	CHAGUANTIQUE	3			
			95	ESPIRITU SANTO	4			
			96	CEIBA DOBLADA	4			
			97	EL SITIO SANTA LUCIA	3			

CDPC(県)			CMPC(市)			CCPC(コミュニティ)											
No.	場所	台数	No.	場所	台数	No.	場所	台数									
			22	JIQUILISCO	1	98	AREA URBANA	3									
						99	CORRAL DE MULAS	4									
						100	MADRE SAL	4									
						101	ISLA MONTECRISTO	3									
						102	SAN JUAN DEL GOZO	4									
						103	EL ZAMORANO	3									
						104	SALINAS DEL POTRERO	4									
						105	SALINAS DE SISIGUAYO	4									
						106	ISLA DE MENDEZ	4									
						107	PUERTO ABALOS	3									
						108	LA TIRANA	3									
						109	LA CANOA	4									
			23	CHIRILAGUA	1	110	EL MARILLO	4									
						111	LA CRUSADILLA DE SAN JUAN	3									
						112	SAN MARCOS LEMPA	3									
						113	EL CUCO	4									
						114	CHIRILAGUA	4									
						115	CASERIO LOS RIITOS	3									
						116	CAPULIN	3									
							San Miguel	1	24	INTIPUCA	1	117	EL CARAO	3			
												118	LA LEONA	3			
												25	CONCHAGUA	1	119	LLANO LOS PATOS	4
															120	YOLOGUAL	4
															121	EL CACAO	3
122	HUISQUIL	3															
26	Meanguera del Golfo	1	123	EL TAMARINDO	3												
			124	GUERRERO	4												
			125	SALVADORCITO	3												
27	Pasaquina	1	126	URBANA	3												
			127	ISLA CONCHAGUITA	3												
			128	EL TABLÓN	3												
28	San Alejo	1	129	PIEDRAS BLANCAS	3												
			130	SAN FELIPE	3												
			131	LOS JIOTES	3												
			132	HATO NUEVO	3												
			133	LAS MADERAS	3												
29	LA UNIÓN	1	134	LA UNIÓN	3												
			135	LOMA LARGA	3												
			136	AGUA ESCONDIDA	3												
			137	AMAPOLITA	3												
			138	LAS CHACHAS	4												
			139	ISLA ZACATILLO	4												
			140	ISLA PERICO	4												
			141	ISLA PERIQUITO	4												
			142	SI RAMA	4												
9	San Salvador	7															
CDPC 合計		15	CMPC 合計		29	CCPC 合計		498									
VHF 固定無線機 44 台						VHF 携帯無線機 498 台											

資料－9 本プロジェクトの無線中継装置カバレッジ(想定)
及び VHF 無線機配布先配置図

9. 本プロジェクトの無線中継装置カバレッジ(想定)及びVHF無線機配布先位置図

