

BANDEIRA
Janv. 1966

SERVIÇO METEOROLÓGICO DE ANGOLA

Centro de Geofísica de Luanda
C.P. 1228 C Luanda

BULLETIN SÉISMIQUE D'ANGOLA (PORTUGAL)

ANNÉE 2 - No 1

JANVIER 1966

Station sismographique de Sã da Bandeira

Coordonnées de la station:

Latitude géographique: $\phi = 14^{\circ} 54' 08''$ S Longitude $\lambda = 19^{\circ} 28' 39''$ E

Latitude géocentrique: $\phi = 14^{\circ} 48' 29''$ S Altitude: $h = 1761$ m

Nature du sous-sol:

Granite

Constantes des sismographes

Séismographes	T ₀ (s)	T _g (s)	Amplification			
			T _s =0,2 s	T _s =0,6 s	T _s =1,0 s	T _s =15,0 s
Benioff vertical (z)	1,0	0,2	76750	33000	15300	-
Benioff vertical (z)	1,0	21,3	400	1100	1650	120
Benioff vertical (CPZ)	1,0	0,75	38000	150000	100000	-
Benioff N/S (CPN)	1,0	0,85	38000	150000	100000	-
Benioff EW (CPE)	1,0	0,82	38000	150000	100000	-
Sprengnether vertical (LPZ)	15,0	100,0	-	-	-	1500
Sprengnether NS (LPN)	15,0	100,0	-	-	-	1500
Sprengnether EW (LPE)	15,0	100,0	-	-	-	1500

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes(Δ)	Périodes (s)	Sens du mouvement
1966 Jan. 1	Pn Sn	19:46:56,0 19:47:24,6	iCPZNE; iz iCPZNE; iz = 2,2 _g		
	LR	19:33:36,8 19:44:38	iCPZ(0,02)E; iz; iz LPZNE	1 28	c; WE
	U.S.G.G.S.:	Epicentre: 0,6 N, 25,4 W (Atlantique Central) h = 39 km H = 19:25:50,9	Mag: 4,8 (CGS) = 41,0 _g		
2		08:23:19,8	iCPZNE		
3	PKP	19:52:03,6	iCPZ(0,014)N; iz	0,5	d, NS
	U.S.G.G.S.:	Epicentre: 20,9 S, 178,5 W (Iles Fidji) h = 597 km H = 19:33:32,6	Mag: 5,3 (CGS) = 149,0 _g		

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes(μ)	Périodes (s)	Sens du mouvement
1966 Jan. 3	P	18:28:58,0	iCPZ(0,0099); iz	0,8	d
U.S.C.G.S.: Epicentre: 4,7 N, 76,0 W (Colombie) h = 103 km H = 18:16:05,9 Mag: 4,8 (C.G.S.) $\Delta = 90,7^\circ$					
4	P	13:00:09,1	iCPZ(0,054)NE; iz; iz	0,5	d, NS, EW
U.S.C.G.S.: Epicentre: 15,4 S, 70,9 W (Sud du Pérou) h = 189 km H = 12:48:13,2 Mag: 5,4 (C.G.S.) $\Delta = 80,8^\circ$					
5	P LR	17:34:07,6 18:01:00	iCPZ; iz LPZNE	46	d
U.S.C.G.S.: Epicentre: 19,2 N, 95,5 E (Iles Andaman) h = 37 km H = 17:21:28,4 $\Delta = 85,9^\circ$					
7	LR	21:02:00	LPZNE	50	
9	P	09:23:22,5	iCPZ(0,04)N; iz; iz	1	d, NS
	pP	09:23:57,0	iCPZN; iz		d, NS
U.S.C.G.S.: Epicentre: 11,5 N, 62,3 W (Iles Windward) h = 156 km H = 09:11:30,3 Mag: 5,1 (C.G.S.) $\Delta = 79,5^\circ$					
11	LR F	15:22:00 16:15:00	LPZNE LPZ	16	
12		19:40:12,4	iCPZNE; iz		d, NS, EW
13	P PcP	10:43:21,1 10:43:28,5	iCPZ(0,012); iz iCPZ	1	c c
U.S.C.G.S.: Epicentre: 19,1 N, 64,7 W (Iles Vierges) h = 41 km H = 10:30:51,1 Mag: 5,0 (C.G.S.) $\Delta = 84,1^\circ$					
13	PKP LR	11:00:27,8 11:50:00	iCPZ LPZNE	40	d
U.S.C.G.S.: Epicentre: 52,9 N, 172,0 E (Iles Aléoutiennes) h = 14 km H = 10:41:11,0 Mag: 5,6 (C.G.S.) $\Delta = 138,4^\circ$					
14	(P)	17:14:39,2	iCPZNE; iz		
14	P	22:01:40,0	iCPZ(0,01)E; iz	1	d, EW
U.S.C.G.S.: Epicentre: 37,8 S, 73,4 W (Côte du Chile Central) h = 33 km H = 21:49:38,3 Mag: 5,0 (C.G.S.) $\Delta = 78,5^\circ$					
14	LR	22:01:00	LPZNE	20	
15	P	05:21:09,4	iCPZ(0,023)NE; iz; iz	0,8	c, SN, WE
U.S.C.G.S.: Epicentre: 30,8 S, 71,7 W (Côte du Chile Central) h = 52 km H = 05:09:11,0 Mag: 4,8 (C.G.S.) $\Delta = 78,4^\circ$					
15	PKP	11:16:10,5	iCPZ(0,0089) N; iz	0,8	d, NS
U.S.C.G.S.: Epicentre: 20,3 S, 174,5 W (Iles Tonga) h = 33 km H = 10:56:36 Mag: 4,7 (C.G.S.) $\Delta = 143,9^\circ$					
15	(LR)	13:08:36	LPZN	20	
15	P	19:40:44,4	iCPZ(0,03)NE; iz; iz	1	d, NS, EW
U.S.C.G.S.: Epicentre: 33,6 S, 70,1 W (Chile-Argentine) h = 33 km H = 19:28:56,2 Mag: 5,0 (C.G.S.) $\Delta = 76,6^\circ$					

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes(μ)	Périodes (s)	Sens du mouvement
1966 Jan. 15	P	19:41:22,0	iCPZ(0,03)NE; iz;iz	0,5	d,NS,EW
	PcP	19:41:34,5	iCPZNE;iz		d,NS,WE
	SS	19:56:08	LPZNE		
	LR	20:05:00	LRZNE	40	
U.S.C.G.S.: Epicentre: 33,5 S, 69,9 W (Chile-Argentine) h = 36 km H = 19:29:35 Mag: 5,5 (C.G.S.) $\Delta = 76,7^\circ$					
16	LR	00:58:24	LPZNE;iz	40	
16	PKP	09:31:10,0	iCPZ		d
	LR	10:28:00	LPZNE	30	
U.S.C.G.S.: Epicentre: 52,9 N, 171,9 E (Iles Aléoutiennes) h = 25 km H = 09:11:50,0 Mag: 5,7 (C.G.S.) $\Delta = 138,3^\circ$					
16	P	19:00:48,0	iCPZ(0,012)N;iz	0,7	c,SN
	pP	19:00:59,0	icPZN		c,SN
	LR	19:21:00	LPZNE	20	
U.S.C.G.S.: Epicentre: 33,2 N, 26,2 E (Est de la Mer Méditerranée) h = 33 km H = 18:52:00,8 Mag: 5,0 (C.G.S.) $\Delta = 49,6^\circ$					
17	-	07:47:09,0	iCPZNE;iz		
17	PKP	18:08:29,9	iCPZNE;iz;iz		
	U.S.C.G.S.: Epicentre: 20,8 S, 178,5 W (Iles Fidji) h = 543 km H = 17:49:59,3 Mag: 5,7 (C.G.S.) $\Delta = 142,4^\circ$				
18	PKP	06:46:08,5	iCPZ(0,042)NE;iz;iz	0,8	c,SN,WE
	U.S.C.G.S.: Epicentre: 18,6 S, 177,8 W (Iles Fidji) h = 364 km H = 06:27:12,7 Mag: 5,3 (C.G.S.) $\Delta = 144,7^\circ$				
19	P	04:56:39,0	iCPZ(0,02)E;iz	1	c,WE
	pP	04:56:52,5	iCPZE;iz		d,EW
U.S.C.G.S.: Epicentre: 17,8 S, 71,3 W (Côte du Pérou) h = 50 km H = 04:44:28,9 Mag: 5,1 (C.G.S.) $\Delta = 80,6^\circ$					
20	LR	05:34:40	LPZNE	50	
20	LR	09:09:00	LPZNE	30	
	LR	09:50:00	LPZNE	30	
	LQ	10:54:00	LPZNE	24	
20	PKP	15:21:43,3	iCPZ(0,028)NE; iz;iz	1,2	d,NS
	LR	16:09:00	LPZNE	34	
U.S.C.G.S.: Epicentre: 15,3 S, 173,0 W (Iles Samoa) h = 33 km H = 15:01:53,4 Mag: 5,3 (C.G.S.) $\Delta = 149,1^\circ$					
20	LR	22:56:00	LPZNE	32	
21	LR	01:08:00	LPZNE	28	
21	LR	12:59:00	LPZNE	36	
22	P	00:39:11,0	iCPZN;iz		c,SN
	LR	00:51:00	LPZNE	30	
U.S.C.G.S.: Epicentre: 37,7 N, 30,0 E (Turquie) h = 23 km H = 00:23:42,7 Mag: 5,0 (C.G.S.) $\Delta = 54,8^\circ$					
22	LR	05:09:00	LPZN	20	
22	PKP	11:19:38,6	iCPZ(0,026)NE; iz;iz	0,8	c,SN,WE
	U.S.C.G.S.: Epicentre: 17,9 S, 178,5 W (Iles Fidji) h = 598 km H = 11:01:05,3 Mag: 5,3 (C.G.S.) $\Delta = 145,2^\circ$				

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes(L)	Périodes (s)	Sens du mouvement
1966 Jan. 22	P	12:53:20,5	iCPZ;iz		c
	U.S.C.G.S.: Epicentre: 22,3 S, 65,6 W (Argentine) h = 243 km H = 12:42:04,8 Mag: 4,3 (C.G.S.) $\Delta = 74,8^\circ$				
22	PKP PP LR	14:46:31,0 14:49:19,0 15:35:00	iCPZ(0,02)N;iz;iz LPZN LPZNE;Z	1 32	d,NS
	U.S.C.G.S.: Epicentre: 56,0 N, 153,7 W (Sud de l'Alaska) h = 33 km H = 14:27:07,9 Mag: 5,8 (C.G.S.) $\Delta = 137,8^\circ$				
22	PKP	19:56:04,5	iCPZ(0,015)N;iz	1	d,NS
	U.S.C.G.S.: Epicentre: 21,0 S, 174,2 W (Iles Tonga) h = 33 km H = 19:36:32,4 Mag: 5,0 (C.G.S.) $\Delta = 143,3^\circ$				
23	LR	01:52:00	LPZE	30	
24	P	02:26:39,1	iCPZ(0,015);iz	1	
	U.S.C.G.S.: Epicentre: 32,7 N, 67,6 E (Afghanistan) h = 33 km H = 02:15:27,7 Mag: 5,2 (C.G.S.) $\Delta = 70,2^\circ$				
24	P	15:44:05,5	iCPZ(0,014)N;iz	0,9	c,SN
	U.S.C.G.S.: Epicentre: 29,9 N, 69,8 E (West du Pakistan) h = 4 km H = 15:32:48,1 Mag: 5,3 (C.G.S.) $\Delta = 70,3^\circ$				
24	P pP LR	21:19:11,6 21:19:15,5 21:46:00	iCPZ(0,0071)NE; iz;iz iCPZNE;iz LPZE	0,8 22	c,SN,WE c,SN,WE
	U.S.C.G.S.: Epicentre: 23,6 S, 64,2 W (Argentine) h = 14 km H = 21:07:39 Mag: 5,0 (C.G.S.) $\Delta = 73,0^\circ$				
25	Pg Sg	13:10:40,5 13:10:44,3	iCPZNE;iz iCPZNE;iz		c,SN,WE d,NS,EW
25	LR	18:59:00	LPZNE	30	
26	P pP LR	01:09:27,9 01:09:46,5 01:24:00	iCPZ(0,035)NE; iz;iz iCPZNE;iz LPZN	1 34	d,NS,EW
	U.S.C.G.S.: Epicentre: 59,6 S, 26,3 W (Sud des Iles Sandwich) h = 80 km H = 01:00:15,2 Mag: 5,6 (C.G.S.) $\Delta = 53,9^\circ$				
26	PKP	15:49:44,4	iCPZ(0,018)NE;iz	0,6	c,SN,WE
	U.S.C.G.S.: Epicentre: 14,3 S, 167,3 E (Iles Nouvelles Hébrides) h = 207 km H = 15:30:42,7 Mag: 4,8 (C.G.S.) $\Delta = 140,9^\circ$				
26	-	19:20:57,5	iCPZNE;iz		
27	PKP	02:20:10,0	iCPZ(0,028)NE; iz;iz	0,8	d,NS,EW
	U.S.C.G.S.: Epicentre: 17,9 S, 178,6 W (Iles Fidji) h = 600 km H = 02:01:36,7 Mag: 5,1 (C.G.S.) $\Delta = 145,1^\circ$				
28	PKP	04:55:20,5	iCPZ(0,044)NE; LPZ;iz;iz	0,5	d,NS,EW
	U.S.C.G.S.: Epicentre: 17,5 S, 176,9 E (Iles Fidji) h = 558 km H = 04:36:46,1 Mag: 5,6 (C.G.S.) $\Delta = 143,6^\circ$				
28	-	05:43:19,7	iCPZNE		d,NS,EW

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes(μ)	Périodes (s)	Sens du mouvement
1966 Jan. 28	PKP PP LR	06:01:43,1 06:04:42,5 06:46:00	iCPZN;iz eCPZ;eLPZ;ez;eZ LPZNE	40	d d
U.S.C.G.S.: Epicentre: 17,1 S, 168,4 E (Iles Nouvelles Hébrides) h = 24 km H = 05:42:16,4 Mag: 5,7 (C.G.S.) $\Delta = 139,5^e$					
28	-	08:21:44,2	iCPZNE;iz		d,NS,WE
28	P	09:03:58,0	iCPZ(0,0125);iz	1	c
U.S.C.G.S.: Epicentre: 39,3 N, 73,1 E (Tadjik-Sinkiang) h = 20 km H = 08:52:02,2 Mag: 5,4 (C.G.S.) $\Delta = 77,6^e$					
28	PKP	09:46:10,0	iCPZ(0,08)NE; iz;iz	1	d,NS,EW
U.S.C.G.S.: Epicentre: 17,9 S, 178,5 W (Iles Fidji) h = 579 km H = 09:27:34,3 Mag: 5,4 (C.G.S.) $\Delta = 145,1^e$					
28	PKP	19:26:37,6	iCPZ;iz		d
U.S.C.G.S.: Epicentre: 51,7 N, 177,0 W (Iles Aléoutiennes) h = 54 km H = 19:07:14,4 Mag: 5,2 (C.G.S.) $\Delta = 142,2^e$					
28	Pn Sn	22:11:57,0 22:12:25,0	CPZNE; z CPZNE; z		
$\Delta = 2,2^e$					
28	PKP	22:57:17,6	iCPZ(0,011)N;iz	0,5	
U.S.C.G.S.: Epicentre: 51,6 N, 157,0 E (Est de Kamtchatka) h = 107 km H = 22:38:12,2 Mag: 5,6 (C.G.S.) $\Delta = 133,2^e$					
28	-	23:00:35,6	iCPZNE;iLPZ; iz;iz		c,SN,WE
29	Pn Sn	07:48:59,0 07:49:56,5	iCPZNE;iz iCPZNE;iz		
$\Delta = 4,8^e$					
31	Pg Sg	13:52:39,2 13:52:49,1	iCPZNE;iz iCPZNE;iz		
$\Delta = 0,8^e$					
31	P LR	14:12:53,0 14:37:00	iCPZ(0,055)NE;iz LPZNE	1 26	d,NS,EW
U.S.C.G.S.: Epicentre: 24,8 S, 64,4 W (Argentine) h = 43 km H = 14:01:25,4 Mag: 5,8 (C.G.S.) $\Delta = 73,0^e$					

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BULLETIN SÉISMIQUE D'ANGOLA (PORTUGAL)

ANNÉE 2 - No 2

FÉVRIER 1966

Station sismographique de Sá da Bandeira

Coordonnées de la station:

Latitude géographique: $\varphi = 14^{\circ} 54' 08'' S$ Longitude: $\lambda = 13^{\circ} 28' 39'' E$

Latitude géocentrique: $\phi = 14^{\circ} 48' 29''$ Altitude: $h = 1761 m$

Nature du sous-sol:

Granite

Constantes des sismographes

Séismographes	T ₀ (s)	T _g (s)	Amplification			
			T _s =0,2 s	T _s =0,6 s	T _s =1,0 s	T _s =15,0 s
Benioff vertical (z)	1,0	0,2	76750	33000	15300	-
Benioff vertical (Z)	1,0	21,3	400	1100	1650	120
Benioff vertical (CPZ)	1,0	0,75	38000	150000	100000	-
Benioff N/S (CPN)	1,0	0,85	38000	150000	100000	-
Benioff EW (CPE)	1,0	0,82	38000	150000	100000	-
Sprengnether vertical (LPZ)	15,0	100,0	-	-	-	1500
Sprengnether NS (LPN)	15,0	100,0	-	-	-	1500
Sprengnether EW (LPE)	15,0	100,0	-	-	-	1500

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (μ)	Périodes (s)	Sens du mouvement
1966 Fév. 1	P LR F	00:23:18,6 00:35:00 00:50:00	iz; iz Z Z	20	d
	U.S.C.G.S.: Epicentre: 52,3 S, 5,2 W (Atlantique Sud) h = 33 km H = 00:15:09,9 Mag: 5,6 (C.G.S.) $\Delta = 41,0^{\circ}$				
1	(P)	05:18:42,0	iz		d
2	PKP LR	05:53:46,5 06:54:00	icpzn; iz; iz LPZ	20	d, NS
	U.S.C.G.S.: Epicentre: 17,8 S, 173,2 W (Iles Tonga) h = 33 km H = 05:34:01,8 Mag: 5,2 (C.G.S.) $\Delta = 146,6^{\circ}$				
2	-	06:54:31,2	iz		d
2	P	09:31:47,1	icpzne; iz		d, NS, EW
	U.S.C.G.S.: Epicentre: 33,9 N, 73,0 E (West du Pakistan) h = 26 km H = 09:20:07,5 Mag: 5,3 (C.G.S.) $\Delta = 74,8^{\circ}$				

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Date	Phases	Heure T.M.G.	Composantes, nature du mouvement, et amplitudes(I)	Périodes (s)	Sens du mouvement
1966 Fév. 3	P	00:59:03,5	iCPZ(0,028)NE;iz	1	d,NS,EW
			U.S.C.G.S.: Epicentre: 21,7 S, 68,4 W (Chile-Bolivia) h = 116 km H = 00:47:19,2 Mag: 5,3 (C.G.S.) $\Delta = 77,2^{\circ}$		
3	P	02:17:47,2	iCPZ(0,0225) NE;iz	1	d,NS,EW
			U.S.C.G.S.: Epicentre: 33,8 S, 70,1 W (Chile-Argentine) h = 6 km H = 02:05:54,8 Mag: 4,8 (C.G.S.) $\Delta = 76,6^{\circ}$		
4	-	04:37:42,7	iCPZN		d,NS
4	-	05:38:59,5	iCPZ		d
4	LR	06:52:00	LPZN	20	
4	LR	09:10:00	LPZN	16	
4	PKP SKP SS LR	10:58:14,3 11:01:36,6 11:19:00 11:41:00	iCPZNE;iz;iz iCPZNE;iz;iz LPZNE LPZNE		c,SN,EW c,SN,EW
			U.S.C.G.S.: Epicentre: 15,9 S, 167,9 E (Iles des Nouvelles Hébrides) h = 190 km H = 10:39:12,2 Mag: 6,0 (C.G.S.) $\Delta = 140,2^{\circ}$		
5	P	02:11:12,3	iCPZ(0,17)NE; LPZN;iz;iz	1,5	c,NS,EW
	S	02:18:00	LPZNE;Z		
	LR	02:28:00	LPZNE;Z	30	
	F	03:09:00	LPZ		
			U.S.C.G.S.: Epicentre: 39,2 N, 22,0 E (Grèce) h = 38 km H = 02:01:48,3 Mag: 5,8 (C.G.S.) $\Delta = 54,6^{\circ}$		
5	P	15:25:57,9	iCPZNE;iz;iz		d,NS,EW
			U.S.C.G.S.: Epicentre: 26,1 N, 103,1 E (Chine) h = 15 km H = 15:12:29,1 Mag: 6,1 (C.G.S.) $\Delta = 96,2^{\circ}$		
5	LR	15:53:00	LPZN	20	
5	LR	16:05:00	Z	20	
5	PKP PP SKP	16:35:05,1 16:37:36,5 16:38:26,5	iCPZNE;iz;iz iCPZN iCPZ;iz		d,NS,WE d,SN c
			U.S.C.G.S.: Epicentre: 50,2 N, 155,1 E (Iles Kouriles) h = 98 km H = 16:16:01,0 Mag: 5,8 (C.G.S.) $\Delta = 133,0^{\circ}$		
5	P	23:46:20,0	iCPZNE;LPZ; iz;iz		c,NS,EW
			U.S.C.G.S.: Epicentre: 19,6 S, 69,6 W (Nord du Chili) h = 87 km H = 23:34:24,7 Mag: 5,4 (C.G.S.) $\Delta = 78,7^{\circ}$		
6	-	00:53:33,5	iCPZNE;iz		c,SN,WE
6	P LR	10:01:35,5 10:16:00	iCPZNE;iz;iz LPZNE;Z	20	c,NS,EW
			U.S.C.G.S.: Epicentre: 56,8 S, 25,4 W (Sud des Iles Sandwich) h = 13 km H = 09:52:30,2 Mag: 5,7 (C.G.S.) $\Delta = 51,2^{\circ}$		
6	-	10:07:09,8	iCPZNE;iz		d,SN,EW
7	P LR	04:37:26,5 05:00:00	iCPZNE;LPZNE; iz;iz LPZNE;Z	40	d,SN,WE
			U.S.C.G.S.: Epicentre: 29,8 N, 69,7 E (West du Pakistan) h = 39 km H = 04:26:13,9 Mag: 6,0 (C.G.S.) $\Delta = 70,2^{\circ}$		

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (μ)	Périodes (s)	Sens du mouvement
1966 - Fév. 7	P	05:33:02,0	iCPZNE;iz;iz		d,NS,EW
			U.S.C.G.S.: Epicentre: 30,0 N, 69,9 E (West du Pakistan) h = 10 km H = 05:21:44,6 Mag: 5,4 (C.G.S.) $\Delta = 70,4^{\circ}$		
7	P	05:41:30,6	iCPZNE;iz;iz		d,SN,WE
			U.S.C.G.S.: Epicentre: 30,0 N, 69,6 E (West du Pakistan) h = 48 km H = 05:30:19,2 Mag: 5,3 (C.G.S.) $\Delta = 70,2^{\circ}$		
7	P	15:11:30,8	iCPZ;iz		d
			U.S.C.G.S.: Epicentre: 24,8 S, 68,7 W (Chili-Argentine) h = 94 km H = 14:59:48,0 Mag: 4,5 (C.G.S.) $\Delta = 76,8^{\circ}$		
7	P LR	23:17:52,4 23:44:00	iCPZNE;LPZ;iz;iz LPZNE;Z	26	d,NS,EW
			U.S.C.G.S.: Epicentre: 30,2 N, 69,8 E (West du Pakistan) h = 10 km H = 23:06:34,5 Mag: 5,8 (C.G.S.) $\Delta = 70,5^{\circ}$		
9	P LR F	04:49:31,5 05:04:00 07:00:00	iCPZNE;iLPZNE; iz;iz LPZNE;Z LPZ	26	d,NS,WE
			U.S.C.G.S.: Epicentre: 56,7 S, 25,7 W (Sud des Iles Sandwich) h = 27 km H = 04:40:28,4 Mag: 5,9 (C.G.S.) $\Delta = 51,2^{\circ}$		
9	P	08:33:32,5	iCPZNE;iz;iz		d,SN,WE
			U.S.C.G.S.: Epicentre: 29,8 N, 69,8 E (West du Pakistan) h = 29 km H = 08:22:17,9 Mag: 5,2 (C.G.S.) $\Delta = 70,3^{\circ}$		
9	P LR	10:55:57,0 11:12:00	iCPZNE;iz;iz LPZNE	20	d,NS,EW
			U.S.C.G.S.: Epicentre: 56,6 S, 25,3 W (Sud des Iles Sandwich) h = 33 km H = 10:46:56,3 Mag: 5,6 (C.G.S.) $\Delta = 51,0^{\circ}$		
9	P LR	15:26:02,4 15:57:00	iCPZNE;iz;iz LPZN	26	d,NS,EW
			U.S.C.G.S.: Epicentre: 15,2 S, 75,2 W (Côte du Perou) h = 54 km H = 15:13:30,1 Mag: 5,5 (C.G.S.) $\Delta = 85,0^{\circ}$		
9	P LR	20:05:57,4 20:20:00	iCPZN;iz;iz LPZN	28	c,SN
			U.S.C.G.S.: Epicentre: 56,6 S, 25,5 W (Sud des Iles Sandwich) h = 33 km H = 19:56:51,9 $\Delta = 51,1^{\circ}$		
10	PKIKP PKP LR	14:40:15,0 14:40:26,5 15:19:00	iCPZE iCPZNE;iz;iz LPZNE;Z	40	c,WE c,SN,EW
			U.S.C.G.S.: Epicentre: 20,8 N, 146,3 E (Région des Iles Mariannes) h = 49 km H = 14:21:10,9 Mag: 6,2 (C.G.S.) $\Delta = 134,8^{\circ}$		
10	PKP	15:17:45,0	iCPZNE;iz;iz		d,SN
			U.S.C.G.S.: Epicentre: 19,4 S, 173,1 W (Iles Tonga) h = 10 km H = 14:58:04 Mag: 5,1 (C.G.S.) $\Delta = 145,1^{\circ}$		
12	PKP	11:58:47,0	iCPZNE;iz;iz		c,NS,WE
			U.S.C.G.S.: Epicentre: 18,3 S, 174,8 W (Iles Tonga) h = 190 km H = 11:39:25,5 Mag: 5,6 (C.G.S.) $\Delta = 146,8^{\circ}$		

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (j)	Périodes (s)	Sens du mouvement
1966, Fév. 13	P	05:10:40,7	iCPZNE; iz; iz		c, NS, EW
			U.S.C.G.S.: Epicentre: 49,8 N, 78,1 E (Est du Kazakh-U.R.S.S.) h = 0 km H = 04:57:57,7 Mag: 6,3 (C.G.S.) $\Delta = 85,8^{\circ}$		
13	-	06:19:13,4	iCPZNE; iz		c, NS, EW
13	P LR	10:58:08,7 11:30:00	iCPZ; iz; iz LPZNE	40	c
			U.S.C.G.S.: Epicentre: 26,1 N, 109,2 E (Province de l'Yunnan-Chine) h = 39 km H = 10:44:41,0 Mag: 5,7 (C.G.S.) $\Delta = 96,3^{\circ}$		
13		12:15:17,0	iCPZ; iz; iz		d
13	P	19:21:00,0	iCPZNE		c, SN, WE
			U.S.C.G.S.: Epicentre: 29,8 N, 69,7 E (West du Pakistan) h = 33 km H = 19:09:47,4 Mag: 5,1 (C.G.S.) $\Delta = 70,2^{\circ}$		
14	(P) LR	17:18:15,4 18:26:00	iCPZE LPZNE	20	d, EW
15	LR	11:05:00	LPZNE	30	
15	PKP	22:52:21,9	iCPZ; iz		d
			U.S.C.G.S.: Epicentre: 26,5 S, 178,2 E (Sud des Iles Fidji) h = 593 km H = 22:34:05,4 Mag: 5,6 (C.G.S.) $\Delta = 196,0^{\circ}$		
15	-	22:54:58,0	iCPZNE; iz		d, NS, WE
16	PKP pPKP PP LR	03:37:45,0 03:37:54,5 03:40:41,5 04:25:00	iCPZNE; iz iCPZNE; iz iCPZNE; iz LPZNE; Z	30	c, SN, WE d, NS, EW d, NS, EW
			U.S.C.G.S.: Epicentre: 17,7 S, 167,9 E (Iles des Nouvelles Hébrides) h = 31 km H = 03:18:27,2 Mag: 6,5 (C.G.S.) $\Delta = 138,8^{\circ}$		
16	(S)	21:09:48,0	iCPZNE; iz		d, SN, WE
16	PKP	23:56:45,2	iCPZNE; iz; iz		d, NS, EW
			U.S.C.G.S.: Epicentre: 18,1 S, 173,8 W (Iles Tonga) h = 33 km H = 23:37:05 Mag: 5,2 (C.G.S.) $\Delta = 146,2^{\circ}$		
17	P LR	11:58:38,4 12:13:00	iCPZNE; LPZNE; iz; iz LPZNE; Z	24	d, NS, WE
			U.S.C.G.S.: Epicentre: 32,2 S, 78,9 E (Océan Indien) h = 33 km H = 11:48:00,8 Mag: 6,4 (C.G.S.) $\Delta = 61,5^{\circ}$		
17	P	12:53:39,5	iCPZNE; iz; iz		d, NS, EW
			U.S.C.G.S.: Epicentre: 32,2 S, 79,0 E (Amsterdam - Océan Indien) h = 33 km H = 12:49:01,1 Mag: 5,7 (C.G.S.) $\Delta = 61,6^{\circ}$		
18	(P) LR	11:47:00 11:52:16,5 12:51:00	iCPZNE; iz iCPZNE; iz; iz LPZNE	36	d, SN, WE
18		12:41:33,0	iCPZNE		c, NS
19	P	13:02:12,5	iCPZNE; iz; iz		c, SN, EW
			U.S.C.G.S.: Epicentre: 35,3 N, 70,9 E (Hindou Kush) h = 59 km H = 12:50:42,1 Mag: 5,1 (C.G.S.) $\Delta = 74,0^{\circ}$		
20	Ph Sn	18:36:32,0 18:37:18,0	iCPZNE; iz iCPZNE; iz		

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes(μ)	Périodes (s)	Sens du mouvement
1966 Fév. 21	P	00:31:31,0	iCPZNE;LPZN;iz; iz	1	c,SN,EW
	LR	00:46:00	LPZNE;Z	30	
	U.S.C.G.S.: Epicentre: 55,6 S, 26,9 W (Sud des Iles Sandwich) h = 33 km H = 00:22:29,7 Δ = 51,0°				
21	P	00:37:32,5	iCPZNE;iz;iz		c,SN,WE
	U.S.C.G.S.: Epicentre: 55,7 S, 26,7 W (Sud des Iles Sandwich) h = 9 km H = 00:28:27,0 Mag: 5,5 (C.G.S.) Δ = 51,0°				
22	P	00:26:32,5	iCPZN;iz;iz		c,SN
	U.S.C.G.S.: Epicentre: 60,5 S, 26,9 W (Sud des Iles Sandwich) h = 33 km H = 00:17:09,2 Mag: 5,6 (C.G.S.) Δ = 54,1°				
22	-	02:01:11,4	iCPZN;iz;iz		c,NS
22	PKIKP	05:21:37,7	iCPZNE;iz		c,SN,WE
	PKP	05:21:50,9	iCPZNE;iz;iz		d,SN,EW
	pPKP	05:22:00,6	iCPZNE;iz;iz		c,SN,WE
	SKP	05:25:20,5	iCPZNE;iz;iz		c,EW
	LR	06:07:00	LPZNE;Z	30	
	U.S.C.G.S.: Epicentre: 5,4 S, 151,5 E (Nouvelle Bretagne) h = 28 km H = 05:02:37,2 Mag: 6,2 (C.G.S.) Δ = 133,6°				
23	P	12:53:38,8	iCPZNE;iz;iz		d,NS,WE
	LR	13:04:00	LPZN	30	
	U.S.C.G.S.: Epicentre: 48,3 S, 9,8 W (Atlantique Sud) h = 33 km H = 12:46:18,4 Mag: 4,9 (C.G.S.) Δ = 38,5°				
24	P	00:29:20,5	iCPZNE;iz;iz		d,SN,WE
	U.S.C.G.S.: Epicentre: 26,4 N, 91,5 E (Est de l'Inde) h = 47 km H = 00:16:40,5 Mag: 5,1 (C.G.S.) Δ = 85,8°				
24	PKP	20:28:04,0	iCPZNE;iz;iz		d,NS,WE
	U.S.C.G.S.: Epicentre: 6,1 S, 147,4 E (Est de la Nouvelle Guinée) h = 59 km H = 20:08:57,0 Mag: 5,5 (C.G.S.) Δ = 129,8°				
24	P	21:29:47,5	iCPZE		c,WE
	LR	21:42:00	LPZE	30	
	U.S.C.G.S.: Epicentre: 1,6 N, 29,4 W (Atlantique Central) h = 33 km H = 21:21:32,2 Mag: 4,7 (C.G.S.) Δ = 45,6°				
25	PKP	23:10:34,7	iCPZ;iz		c
	LR	00:02:00	LPZN	30	
	U.S.C.G.S.: Epicentre: 15,1 S, 179,2° W (Iles Tonga) h = 33 km H = 22:50:47,1 Mag: 5,5 (C.G.S.) Δ = 149,2°				
26	-	10:34:19,0	iz; iz		c
26	PKP	11:42:49,8	iz;iz		d
	LR	12:34:00	LPZN	30	
	U.S.C.G.S.: Epicentre: 15,4 S, 179,4 W (Iles Tonga) h = 127 km H = 11:21:57 Mag: 4,9 (C.G.S.) Δ = 149,0°				
27	P	00:42:17,6	iz;iz		c
	pP	00:42:26,8	iz;iz		c
	U.S.C.G.S.: Epicentre: 60,8 S, 22,5 W (Sud des Iles Sandwich) h = 33 km H = 00:31:52 Mag: 5,4 (C.G.S.) Δ = 52,7°				

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (u)	Périodes (s)	Sens du mouvement
1966 Fév. 27	P	02:59:25,4	iz;iz		
U.S.C.G.S.: Epicentre: 58,9 S, 25,8 W (Sud des Iles Sandwich)					
h = 33 km H = 02:49:00 Mag: 4,9 (C.G.S.)					
△ = 52,6e					
	PKP	02:20:49,5	iCPZ		d
	pPKP	02:21:50,8	iCPZ		d
	PP	02:22:45,0	iCPZ		d
	pPP	02:23:38,5	iCPZ		c
U.S.C.G.S.: Epicentre: 43,7 N, 139,6 E (Mer du Japon)					
h = 225 km H = 02:02:13,6 Mag: 5,5 (C.G.S.)					
△ = 125,9e					
28	P	21:50:48,0	iCPZNE;iz;iz	0,7	d,SN,EW
	pP	21:51:05,8	iCPZNE;iz;iz		c,NS,WE
U.S.C.G.S.: Epicentre: 26,0 S, 70,4 W (Côte Nord du Chili)					
h = 67 km H = 21:38:52,4 Mag: 5,7 (C.G.S.)					
△ = 78,2e					
	P	12:20:00,0	LR		SE
	LR	12:20:00,0	LR		SE
U.S.C.G.S.: Epicentre: 40,3 S, 29,8 W (Aléoutiennes Sud)					
h = 33 km H = 12:16:18,4 Mag: 4,3 (C.G.S.)					
△ = 38,2e					
	P	00:29:20,5	iCPZNE;iz;iz		SE
U.S.C.G.S.: Epicentre: 26,4 N, 91,2 E (Est de l'Inde)					
h = 47 km H = 00:16:40,5 Mag: 2,1 (C.G.S.)					
△ = 85,0e					
	PKP	22:58:04,0	iCPZNE;iz;iz		SE
U.S.C.G.S.: Epicentre: 6,3 S, 17,4 E (Est de la Nouvelle Guinée)					
h = 33 km H = 22:52:17,7 Mag: 2,5 (C.G.S.)					
△ = 122,0e					
	P	21:22:00,0	LR		SE
	LR	21:22:00,0	LR		SE
U.S.C.G.S.: Epicentre: 28,3 S, 170,2 W (Iles Tonga)					
h = 22 km H = 21:19:07,1 Mag: 2,5 (C.G.S.)					
△ = 143,0e					
	PKP	11:42:43,8	LR		SE
	LR	11:42:43,8	LR		SE
U.S.C.G.S.: Epicentre: 27,4 S, 172,4 W (Iles Tonga)					
h = 22 km H = 11:37:27,7 Mag: 2,3 (C.G.S.)					
△ = 143,0e					
	P	00:42:17,2	LR		SE
	LR	00:42:17,2	LR		SE
U.S.C.G.S.: Epicentre: 60,8 S, 22,2 W (Sud des Iles Sandwich)					
h = 33 km H = 00:31:32,8 Mag: 2,4 (C.G.S.)					
△ = 25,7e					

BANDEIRA

MARCH - JUNE
1966.

SERVIÇO METEOROLÓGICO DE ANGOLA

Centro de Geofísica de Luanda
C.P. 1228 G Luanda

BULLETIN SÉISMIQUE D'ANGOLA (PORTUGAL)

ANNÉE 2 - No 3

MARS 1966

Station sismographique de Sá da Bandeira

Coordonnées de la station:

Latitude géographique: $\phi = 14^{\circ} 54' 08''$ S Longitude: $\lambda = 13^{\circ} 28' 39''$ E
Latitude géocentrique: $\Phi = 14^{\circ} 48' 23''$ S Altitude: h = 1761 m

Nature du sous-sol:
Granite

Constantes des sismographes

Sismographes	To (s)	Tg (s)	Amplification			
			Ts=0,2 s	Ts=0,6 s	Ts=1,0 s	Ts=15,0 s
Benioff vertical (z)	1,0	0,2	76750	33000	15300	-
Benioff vertical (z)	1,0	21,3	400	1100	1650	120
Benioff vertical (CPZ)	1,0	0,75	38000	150000	100000	-
Benioff N/S (CPN)	1,0	0,85	38000	150000	100000	-
Benioff EW (CPE)	1,0	0,82	38000	150000	100000	-
Sprengnether vertical (LPZ)	15,0	100,0	-	-	-	1500
Sprengnether NS (LPN)	15,0	100,0	-	-	-	1500
Sprengnether EW (LPE)	15,0	100,0	-	-	-	1500

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (μ)	Périodes (s)	Sens du mouvement
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1966 Mars 1 P 12:33:32,0 iCPZ(0,017)NE; iz 0,4 d

U.S.C.G.S.: Epicentre: 23,3 S, 68,1 W (Nord du Chili)
h = 120 km H = 12:21:51,4 Mag: 5,0 (C.G.S.)
 $\Delta = 76,6^{\circ}$

3 PKP 03:44:41,6 iCPZ(0,009); iz 0,6 d
SKP 03:48:13,3 iCPZNE c,SN,WE
LR 04:38:00 LPZNE 30

U.S.C.G.S.: Epicentre: 48,3 N, 154,3 E (Iles Kouriles)
h = 45 km H = 03:25:28,0 Mag: 5,9 (C.G.S.)
 $\Delta = 133,7^{\circ}$

3 LR 10:48:00 LPZNE;Z 26

4 PKP 17:48:54,9 iCPZNE; iz

U.S.C.G.S.: Epicentre: 24,2 S, 177,1 W (Sud des Iles Fidji)
h = 33 km H = 17:29:26 Mag: 4,8 (C.G.S.)
 $\Delta = 139,6^{\circ}$



Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (u)	Périodes (s)	Sens du mouvement
1966 Mars 5	- LR	00:16:55,5 01:00:00	ICPZN;iz LPZNE;z	30	d,NS
U.S.C.G.S.: Epicentre: 38,8 S, 177,9 E (Ile du Nord, Nouvelle-Zélande) h = 27 km H = 23:58:55,9 Mag: 6,1 (C.G.S.) $\Delta = 124,4^{\circ}$					
5	P S (SS) LR	21:01:34,4 21:07:00 21:09:20,0 21:11:00	ICPZ(0,014)NE; eLPZE;iz,iz eLPZE LPZNE LPZNE;z	0,6 20	d,NS,EW c,SN,WE
U.S.C.G.S.: Epicentre: 0,0, 18,0 W (Nord de l'île Ascension) h = 33 km H = 20:54:45,7 Mag: 5,2 (C.G.S.) $\Delta = 34,5^{\circ}$					
6	P	02:23:00,5	ICPZ(0,033)E	1,1	c,EW
U.S.C.G.S.: Epicentre: 31,6 N, 80,5 E (Tibet) h = 35 km H = 02:10:56,8 Mag: 5,4 (C.G.S.) $\Delta = 79,3^{\circ}$					
6	P SS SSS LR	02:27:58,2 02:38:07,0 02:46:00 02:50:00	ICPZ(0,16)NE; eLPZNE eLPZNE eLPZNE LPZNE	1,5 44	d,SN,WE c,SN,WE
U.S.C.G.S.: Epicentre: 31,6 N, 80,5 E (Tibet) h = 44 km H = 02:15:56,7 Mag: 6,1 (C.G.S.) $\Delta = 79,3^{\circ}$					
6	LR F	19:08:00 20:20:00	LPZNE LPZ	40	
U.S.C.G.S.: Epicentre: 24,1 S, 176,9 W (Sud des Iles Fidji) h = 33 km H = 18:01:50,0 Mag: 5,4 (C.G.S.) $\Delta = 139,7^{\circ}$					
7	P LR F	01:26:15,3 01:43:00 03:00:00	ICPZ(0,022)NE; iz LPZNE;z LPZ	1,2 40	c
U.S.C.G.S.: Epicentre: 39,1 N, 41,7 E (Turquie) h = 13 km H = 01:16:05,8 Mag: 5,5 (C.G.S.) $\Delta = 60,1^{\circ}$					
7	(Pn)	15:04:21,3	ICPZNE;iz,iz		c,NS,EW
7	P LR	20:44:54,5 20:51:00	ICPZ;iz LPZNE	24	
U.S.C.G.S.: Epicentre: 14,2 S, 14,5 W (Atlantique Sud) h = 33 km H = 20:39:14,2 Mag: 4,6 (C.G.S.) $\Delta = 27,0^{\circ}$					
7	PP (SP) SS SSS LR F	21:48:10,0 21:57:40,0 22:03:00,0 22:07:00,0 22:27:00 00:37:00	eLPZ eLPZNE;eZ eLPZNE eLPZNE LPZNE;z LPZ	30	d d,SN,WE
U.S.C.G.S.: Epicentre: 37,2 N, 114,8 E (Chine) h = 33 km H = 21:29:17,0 Mag: 5,8 (C.G.S.) $\Delta = 107,8^{\circ}$					
8	PKP pPKP LR	00:37:48,1 00:38:00,0 01:34:00	ICPZ(0,015)NE; eLPZ;iz,iz ICPZ;iz LPZNE	0,6 20	c,SN c
U.S.C.G.S.: Epicentre: 18,9 S, 173,3 W (Iles Tonga) h = 33 km H = 00:18:09,8 Mag: 5,3 (C.G.S.) $\Delta = 145,5^{\circ}$					
8	PKP - LR	01:33:06,6 01:36:51,1 02:21:00	ICPZ(0,023)NE; eLPZ;iz,iz ICPZNE;iz,iz LPZNE;z	0,7 96	d
U.S.C.G.S.: Epicentre: 13,9 S, 166,6 E (Iles des Nouvelles Hébrides) h = 37 km H = 01:13:42,3 Mag: 5,8 (C.G.S.) $\Delta = 140,8^{\circ}$					



Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (μ)	Périodes (s)	Sens du mouvement
1966 Mars 8	PP PS LR	06:00:24 06:09:52 06:34:00	eLPZE LPZE LPZNE;Z	32	
U.S.C.G.S.: Epicentre: 1,9 N, 126,4 E (Iles Moluques) h = 39 km H = 05:41:04,5 Mag: 5,9 (C.G.S.) Δ = 111,6°					
8	(P) -	20:58:00,3 20:58:30,0	iCPZNE;iz iCPZNE;iz		c,SN,WE d
9	P Lg	03:18:09,5 03:25:33,5	iCPZ(0,015)NE; iz iCPZNE;iz	1	c,NS,EW
U.S.C.G.S.: Epicentre: 2,2 N, 31,5 E (Ouganda) h = 35 km H = 03:12:48,2 Mag: 5,3 (C.G.S.) Δ = 24,6°					
9	Sn	17:08:08,2	iCPZNE;iz		
9	p	23:26:49,7	iCPZ(0,025)E;iz	1	c,WE
U.S.C.G.S.: Epicentre: 7,4 S, 108,4 E (Java) h = 148 km H = 23:13:52 Mag: 5,6 (C.G.S.) Δ = 92,9°					
10	PKP	04:44:39,4	iCPZ(0,012)N;iz	0,6	d,NS
U.S.C.G.S.: Epicentre: 32,2 N, 137,5 E (Sud du Japon) h = 382 km H = 04:26:19,6 Mag: 5,6 (C.G.S.) Δ = 126,5°					
10	PKP	12:34:19,0	iCPZ(0,015)NE; iz,iz	0,6	c,NS,EW
U.S.C.G.S.: Epicentre: 19,3 S, 177,0 W (Iles Fidji) h = 320 km H = 12:15:19,4 Mag: 5,5 (C.G.S.) Δ = 144,2°					
11	P	02:00:25,0	iCPZ(0,02)NE;iz; iz	1	c,SN,WE
U.S.C.G.S.: Epicentre: 19,5 S, 69,2 (Nord du Chili) h = 115 km H = 01:48:34,8 Mag: 4,7 (C.G.S.) Δ = 78,4°					
11	P pP	09:42:36,0 09:42:57,0	iCPZ(0,006)E;iz iCPZE;iz	0,6	c, WE
U.S.C.G.S.: Epicentre: 23,7 S, 69,2 W (Nord d'Antofagasta) h = 67 km H = 09:30:42,0 Mag: 5,5 (C.G.S.) Δ = 77,5°					
12	-	01:27:58,2	iCPZNE;iz		c,SN,WE
12	PKP F	16:49:51,1 22:00:00	iCPZ(0,015)NE; eLPZNE;iz,iz LPZC:TI	1	
U.S.C.G.S.: Epicentre: 24,1 N, 122,6 E (Taiwan) h = 63 km H = 16:31:21,8 Mag: 6,7 (C.G.S.) Δ = 113,2°					
12	P pP	18:38:33,0 18:38:42,0	iCPZ(0,025)NE; iz,iz iCPZNE;iz,iz	1	c, SN,WE d,NS,EW
U.S.C.G.S.: Epicentre: 34,3 S, 72,3 W (Côte Central du Chili) h = 55 km H = 18:26:35,4 Mag: 4,9 (C.G.S.) Δ = 78,2°					
12	-	18:42:33,3 18:42:42,6	iCPZ;iz,iz iCPZE;iz,iz		d d, EW
13	PKP	19:00:08,0	iCPZ(0,015)NE;iz,iz	0,6	c,SN,WE
U.S.C.G.S.: Epicentre: 20,9 S, 175,4 W (Iles Tonga) h = 65 km H = 18:40:40,7 Mag: 5,2 (C.G.S.) Δ = 143,2°					



Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (i, z)	Périodes (s)	Sens du mouvement
1966 Mars 13	LR	18:46:00	LPZNE	28	
14	P LR	03:29:37,4 03:41:00	iCPZE LPZNE	26	c, WE
U.S.C.G.S.: Epicentre: 0,9 N, 27,7 W (Atlantique Central) h = 33 km H = 03:21:31,7 Mag: 5,2 (C.G.S.) $\Delta = 43,6^\circ$					
14	(P) (Lg)	04:45:28,3 04:50:54,5	iCPZE; iz iCPZNE; iz		d, WE
15	P Lg	15:45:04,5 15:50:05,5	iCPZ(0,01)NE; iz iCPZNE; iz	1	
U.S.C.G.S.: Epicentre: 26,2 S, 28,0 E (Union Sud-Africaine) h = 33 km H = 15:40:59,9 Mag: 4,6 (C.G.S.) $\Delta = 17,8^\circ$					
16	PKP	12:32:29,9	iCPZ(0,02)N; iz	1	d, SN
U.S.C.G.S.: Epicentre: 21,2 S, 174,3 W (Iles Tonga) h = 66 km H = 12:13:02,4 Mag: 5,4 (C.G.S.) $\Delta = 143,1^\circ$					
16	LR	21:32:00	LPZE	30	
U.S.C.G.S.: Epicentre: 9,5 N, 121,9 E (Mer du Sulu) h = 24 km H = 20:38:23,5 Mag: 5,4 (C.G.S.) $\Delta = 110,1^\circ$					
17	P* Sg	01:14:06,8 01:14:20,4	iCPZNE; iz iCPZNE; iz		
$\Delta = 13,1^\circ$					
17	LR	04:56:00	LPZNE	34	
U.S.C.G.S.: Epicentre: 2,0 N, 126,4 E (Iles Moluques) h = 79 km H = 03:57:27,0 Mag: 5,4 (C.G.S.) $\Delta = 112,6^\circ$					
17	PKP pPKP - SS LR	16:08:53,0 16:11:14,5 16:19:56,7 16:34:00 17:10:00	iCPZ(0,064)NE; iLPZNE; iz, iz iCPZNE; eLPZ; iz, iz iCPZN; iz LPZNE LPZNE	1	d, SN, WE c, NS, EW c, NS
U.S.C.G.S.: Epicentre: 21,1 S, 179,2 W (Iles Fidji) h = 626 km H = 15:50:32,2 Mag: 6,2 (C.G.S.) $\Delta = 141,6^\circ$					
18	- - -	06:19:33,0 06:24:17,0 06:27:00	iCPZNE; iz iCPZ; iz, iz eLPZNE		d, SN, WE d
18	LR LR LR	16:31:00 17:34:00 19:15:00	LPZ LPZ LPZ	26 26 22	
19	LR	14:54:00	LPZNE	24	
U.S.C.G.S.: Epicentre: 9,4 S, 159,2 E (Iles Salomon) h = 33 km H = 19:42:27,2 Mag: 5,4 (C.G.S.) $\Delta = 138,2^\circ$					
19	P S SSS LR	17:23:59,5 17:27:00,0 17:34:00,0 17:40:00	iCPZNE; eLPZN; iz, iz eLPZNE eLPZNE LPZNE; Z	20	c, SN, EW c, SN, WE d, NS, EW
U.S.C.G.S.: Epicentre: 52,7 S, 19,9 E (Afrique du Sud-Ouest) h = 33 km H = 17:16:40,9 Mag: 5,4 (C.G.S.) $\Delta = 38,2^\circ$					
19	- -	23:09:44,5 23:14:33,6	iCPZNE; iz, iz iCPZNE; iz, iz		c, NS, EW d, NS, WE

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes(μ)	Périodes (s)	Sens du mouvement
1966 Mars 20	P	01:47:46,5	iCPZ(0,03)NE;	1	c,NS,EW
	(S)	01:52:05,7	iLPZNE;iz,iz iCPZNE;iLPZNE;		d,NS,EW
	Lg	01:53:37,5	iz,iz iCPZNE;iLPZNE;		c,SN,NE
	LR F	01:56:00 05:37:00	iz,iz LPZNE;Z LPZ	12	
U.S.C.G.S.: Epicentre: 0,6 N, 30,2 E (Ouganda) h = 36 km H = 01:42:49,9 Mag: 6,1 (C.G.S.) Δ = 22,6°					
20	P	03:27:45,5	iCPZNE;iz		d,SN,WE
	Lg	03:34:36,2	iCPZNE;iz		c,NS,EW
U.S.C.G.S.: Epicentre: 1,0 N, 29,8 E (République du Congo) h = 33 km H = 03:22:48 Mag: 5,1 (C.G.S.) Δ = 22,8°					
20	-	06:02:40,5	iCPZNE;iz,iz		c,NS,EW
20	PKP	08:07:24,0	iCPZ(0,053)NE; iz,iz	1	c,SN,EW
U.S.C.G.S.: Epicentre: 17,0 S, 174,3 W (Iles Tonga) h = 117 km H = 07:47:50,2 Mag: 5,7 (C.G.S.) Δ = 147,2°					
20	P	09:00:36,0	iCPZ(0,025)NE; iz,iz	1	c,NS,EW
	pp PP	09:00:40,3 09:01:09,0	iCPZNE;iz,iz iCPZNE;iz,iz		c,NS,EW d,NS,EW
	(S)	09:05:10,0	iCPZNE;iz,iz		c,NS,EW
	Lg	09:07:16,0	iCPZNE;eLPZE; iz,iz		d,NS,WE
	LR	09:08:00	LPZNE	12	
U.S.C.G.S.: Epicentre: 0,8 N, 29,8 E (République du Congo) h = 12 km H = 08:55:35,5 Mag: 5,3 (C.G.S.) Δ = 22,6°					
20	LR	10:09:00	LPZNE	30	
U.S.C.G.S.: Epicentre: 21,0 S, 174,5 W (Iles Tonga) h = 95 km H = 09:04:31,8 Mag: 5,2 (C.G.S.) Δ = 143,2°					
20	-	13:49:36,0	iCPZNE		c,SN,WE
20	LR	19:17:00	LPZNE	30	
U.S.C.G.S.: Epicentre: 12,3 S, 167,4 E (Iles Sainte Croix) h = 57 km H = 18:09:09,5 Mag: 5,4 (C.G.S.) Δ = 142,5°					
21	P	01:35:39,5	iCPZ(0,007)NE; iz,iz	0,4	d,SN,WE
	(S)	01:40:27,0	iCPZNE;iz,iz		c,SN,WE
	Lg	01:42:24,5	iCPZNE;iLPZNE; iz,iz		c,SN,WE
	LR	01:43:00	LPZNE	12	
U.S.C.G.S.: Epicentre: 0,8 N, 30,0 E (Ouganda) h = 33 km H = 01:30:41,6 Mag: 5,2 (C.G.S.) Δ = 22,6°					
21	P	09:28:51,2	iCPZ(0,01)NE; iz,iz	0,6	c,NS,EW
	(S)	09:33:58,0	iCPZNE;iz,iz		d,NS,EW
	Lg	09:35:36,0	iCPZNE;eLPZNE; iz,iz		d,NS,EW
	LR	09:37:00	LPZNE	12	
U.S.C.G.S.: Epicentre: 0,8 N, 30,0 E (Ouganda) h = 33 km H = 09:23:53,2 Mag: 4,8 (C.G.S.) Δ = 22,6°					

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (μ)	Périodes (s)	Sens du mouvement
1966 Mars 22	LR	09:14:00	LPZNE;Z	20	
	-	09:28:00,0	iCPZN	30	
	-	09:37:24,0	iCPZ		c
	F	09:38:26,0	eLPZNE;eZ		d, NS, EW
		12:10:00	LPZ		
U.S.C.G.S.: Epicentre: 37,5 N, 115,1 E (Chine) h = 33 km H = 08:19:33,8 Mag: 6,0 (C.G.S.) Δ = 108,1°					
23	PKIKP	00:22:16,5	iCPZ;iz		d
	PKP	00:23:09,0	iCPZ;iz		c
	-	00:33:40,0	eLPZE		d, EW
	SS	00:40:00	LPZNE	40	
	LR	01:06:00	LPZNE;Z	22	
U.S.C.G.S.: Epicentre: 23,8 N, 122,8 E (Taiwan) h = 51 km H = 00:04:34,7 Mag: 6,3 (C.G.S.) Δ = 113,4°					
23	P	04:23:38,5	iCPZ(0,025)NE; iz, iz	1	c, SN, WE
	pp	04:23:44,4	iCPZNE;iz, iz		d, SN, WE
	LR	04:50:00	LPZNE	26	
U.S.C.G.S.: Epicentre: 38,1 S, 73,6 W (Côte Central du Chili) h = 33 km H = 04:11:36,1 Mag: 5,3 (C.G.S.) Δ = 78,6°					
23	-	15:16:53,0	iCPZNE		d, SN, WE
24	PKP	04:24:05,4	iCPZ(0,02)NE; iz, iz	1	d, NS, EW
U.S.C.G.S.: Epicentre: 21,5 S, 176,4 W (Iles Fidji) h = 191 km H = 04:04:55,5 Mag: 5,2 (C.G.S.) Δ = 142,3°					
24	PKP	08:47:13,0	iCPZ(0,03)NE; iz, iz	1	c, SN, EW
	(SKP)	08:50:58,6	iCPZN;iz, iz		d, SN
	LR	09:36:00	LPZNE	30	
U.S.C.G.S.: Epicentre: 13,7 S, 166,8 E (Iles des Nouvelles Hébrides) h = 43 km H = 08:27:51,3 Mag: 5,2 (C.G.S.) Δ = 140,8°					
24	-	13:18:03,8	iCPZNE		d, NS, EW
24	LR	20:51:00	LPZ	30	
U.S.C.G.S.: Epicentre: 9,2 S, 113,5 E (Sud de Java) h = 75 km H = 20:02:30,6 Mag: 5,0 (C.G.S.) Δ = 97,2°					
24	PKP	22:27:19,0	iCPZ(0,025)NE; iz, iz	1	d, NS, WE
U.S.C.G.S.: Epicentre: 19,7 S, 176,1 W (Iles Fidji) h = 262 km H = 22:08:11,7 Mag: 4,3 (C.G.S.) Δ = 144,2°					
25	-	02:34:43,5	iCPZNE;iz		c, NS, EW
	-	02:40:02,0	iCPZNE;iz		d, NS, EW
25	P	13:54:49,8	iCPZNE;iz, iz		c, NS, EW
	(S)	13:59:36,0	iCPZNE;iz		d, NS, WE
	Lg	14:01:42,4	iCPZNE;eLPZNE; iz, iz		
	LR	14:03:00	LPZNE	10	
U.S.C.G.S.: Epicentre: 0,8 N, 30,5 E (Ouganda) h = 33 km H = 13:49,3 Mag: 4,6 (C.G.S.) Δ = 22,6°					
25	P	22:02:40,0	iCPZNE;iz		d, SN, WE
	(S)	22:07:44,5	iCPZNE;iz		c, SN, EW
	Lg	22:09:32,0	iCPZNE;iz, iz		d, SN, EW
U.S.C.G.S.: Epicentre: 0,8 N, 30,5 E (Ouganda) h = 33 km H = 21:57:37,7 Δ = 22,6°					

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes(μ)	Périodes (s)	Sens du mouvement
1966 Mars 26	P S Lg LR	09:45:18,5 09:47:38,0 09:48:57,5 09:49:00	iCPZNE; iz, iz iCPZNE; iz, iz iCPZNE; eLPZNE; iz, iz LPZNE	10	d, NS, WE c, SN, WE c, SN, WE
U.S.C.G.S.: Epicentre: 18,5 S, 26,2 E (Rhodésie) h = 16 km H = 09:42:17,8 Mag: 5,2 (C.G.S.) $\Delta = 12,7^\circ$					
26	LR	16:14:00	LPZNE	30	
U.S.C.G.S.: Epicentre: 37,8 N, 114,9 E (Chine) h = 33 km H = 15:14:34 Mag: 4,8 (C.G.S.) $\Delta = 107,8^\circ$					
27	P LR	05:51:42,8 06:03:00	iCPZN; iz, iz LPZNE	24	c, SN
U.S.C.G.S.: Epicentre: 55,4 S, 1,5 W (Ile Bouvet) h = 33 km H = 05:43:51,1 Mag: 5,1 (C.G.S.) $\Delta = 42,1^\circ$					
27	LR	19:42:00	LPZNE	26	
U.S.C.G.S.: Epicentre: 8,9 N, 83,4 W (Costa Rica) h = 40 km H = 18:53:41,3 Mag: 5,6 (C.G.S.) $\Delta = 98,9^\circ$					
28	P LR	12:16:31,5 12:28:00	iCPZ(0,01)N; iz LPZNE	0,5 26	d, NS
U.S.C.G.S.: Epicentre: 55,4 S, 1,4 W (Ile Bouvet) h = 33 km H = 12:08:40,0 Mag: 4,6 (C.G.S.) $\Delta = 42,1^\circ$					
28	LR	16:16:00	LPZNE; Z	30	
U.S.C.G.S.: Epicentre: 3,9 S, 80,9 W (Pérou-Equateur) h = 19 km H = 15:29:18,4 Mag: 5,1 (C.G.S.) $\Delta = 93,2^\circ$					
28	LR	18:29:00	LPZNE; Z	30	
U.S.C.G.S.: Epicentre: 4,0 S, 80,8 W (Pérou-Equateur) h = 52 km H = 17:42:47,6 Mag: 5,3 (C.G.S.) $\Delta = 93,2^\circ$					
29	Pn Sn	01:42:15,0 01:42:36,8	iCPZNE; iz iCPZNE; iz, iz		c, SN, EW c, NS, WE
$\Delta = 1,6^\circ$					
29	PKP PKS	02:36:44,5 02:39:59,5	iCPZ(0,014); iz, iz iCPZ; iz, iz	0,5	d c
U.S.C.G.S.: Epicentre: 23,7 N, 142,1 E (Iles Vulcano) h = 79 km H = 02:17:38,5 Mag: 5,9 (C.G.S.) $\Delta = 131,0^\circ$					
29	PKP	11:01:41,0	iCPZNE; iz, iz		d, SN, EW
U.S.C.G.S.: Epicentre: 20,0 S, 175,3 W (Iles Tonga) h = 95 km H = 10:42:15,1 Mag: 5,1 (C.G.S.) $\Delta = 144,0^\circ$					
29	P (S) Lg LR	17:29:13,3 17:34:05,0 17:36:00,0 17:37:00	iCPZNE; iz, iz iCPZNE; iz iCPZNE; iz, iz LPZNE; Z	10	d, SN, WE d, SN, WE c, SN, WE
U.S.C.G.S.: Epicentre: 0,8 N, 30,4 E (Ouganda) h = 33 km H = 17:24:13 $\Delta = 22,6^\circ$					
30	P pP LR	04:28:47,0 04:28:55,0 04:50:00	iCPZNE; iz, iz iCPZNE; iz, iz LPZN	24	d, NS, EW d, SN, EW
U.S.C.G.S.: Epicentre: 21,8 N, 62,2 E (Mer de l'Arabie) h = 33 km H = 04:18:38,1 Mag: 5,6 (C.G.S.) $\Delta = 60,2^\circ$					



Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes()	Périodes (s)	Sens du mouvement
1966 Mars 30	P	05:05:34,5	iCPZ(0,012)NE;	0,6	c,NS,EW
	pP	05:06:00,0	iz,iZ; iCPZNE;iz,iZ		
U.S.C.G.S.: Epicentre: 29,9 S, 71,4 W (Côte Central du Chili) h = 87 km H = 04:53:41,0 Mag: 4,8 (C.G.S.) = 78,3°					
30	LR	19:45:00	LPZN	30	
U.S.C.G.S.: Epicentre: 49,8 N, 129,7 W (Ile Vancouver) h = 33 km H = 12:40:01,0 Mag: 5,3 (C.G.S.) = 134,1°					
30	LR	21:53:00	LPZN	20	
U.S.C.G.S.: Epicentre: 32,5 S, 178,0 W (Iles Kermadec) h = 16 km H = 20:40:44,1 Mag: 4,8 (C.G.S.) = 131,3°					
31	LR	06:14:00	LPZN	24	
U.S.C.G.S.: Epicentre: 17,3 S, 167,8 E (Iles des Nouvelles Hébrides) h = 34 km H = 05:05:54,7 Mag: 5,4 (C.G.S.) = 139,0°					
31	P	22:41:43,7	iCPZN;iz,iZ	30	d,NS d,SN
	pP	22:41:54,2	iCPZN;iz		
	LR	22:52:00	LPZNE		
U.S.C.G.S.: Epicentre: 53,7 S, 3,0 W (Atlantique Sud) h = 33 km H = 22:34:04,4 Mag: 4,9 (C.G.S.) = 40,9°					
31	P	23:49:18,0	iCPZ(0,02)NE;	1	c,NS,EW
	pP	23:50:06,0	iz,iZ; iCPZN;iz		
U.S.C.G.S.: Epicentre: 36,4 N, 70,8 E (Hindu Kush) h = 200 km H = 23:38:00,5 Mag: 5,6 (C.G.S.) = 74,5°					



SERVIÇO METEOROLÓGICO DE ANGOLA

Centro de Geofísica de Luanda
C.P. 1228 G Luanda

BULLETIN SÉISMIQUE D'ANGOLA (PORTUGAL)

ANNÉE 2 - No 4

AVRIL 1966

Station sismographique de Sá da Bandeira

Coordonnées de la station:

Latitude géographique: $\phi = 14^{\circ} 54' 08''$ S Longitudes: $\lambda = 13^{\circ} 28' 39''$ E
Latitude géocentrique: $\phi = 14^{\circ} 48' 23''$ S Altitude: $h = 1761$ m

Nature du sous-sol:

Granite

Constantes des sismographes:

Sismographes	T ₀ (s)	T _g (s)	Amplification			
			T _s =0,2 s	T _s =0,6 s	T _s =1,0 s	T _s =15,0 s
Benioff vertical (z)	1,0	0,2	76750	33000	15300	-
Benioff vertical (z)	1,0	21,3	400	1100	1650	120
Benioff vertical (CPZ)	1,0	0,75	38000	150000	100000	-
Benioff N/S (CPN)	1,0	0,85	38000	150000	100000	-
Benioff EW (CPE)	1,0	0,82	38000	150000	100000	-
Sprengnether vertical (LPZ)	15,0	100,0	-	-	-	1500
Sprengnether NS (LPN)	15,0	100,0	-	-	-	1500
Sprengnether EW (LPE)	15,00	100,0	-	-	-	1500

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (A)	Périodes (s)	Sens du mouvement
1966 Avr. 1	P	08:04:38,6	iCPZ;iz		c, NS
	-	08:11:21,5	iCPZ		c
	U.S.C.G.S.:	h = 33 km	Epicentre: 1,1 N, 30,0 E (Ouganda) H = 07:59:37 Mag: 4,4 (C.G.S.) $\Delta = 22,9^{\circ}$		
3	-	05:02:43,0	iCPZ		d
4	LR	06:24:00	LPZNE;Z	40	
	U.S.C.G.S.:	h = 33 km	Epicentre: 54,7 S 146,2 E (Westde l'île Macquarie) H = 05:37:50 Mag: 5,4 (C.G.S.) $\Delta = 99,7^{\circ}$		
4	P	06:54:38,0	iCPZ		d
	LR	07:26:00	Z	26	
	U.S.C.G.S.:	h = 33 km	Epicentre: 12,1 N, 92,7 E (Iles Andaman) H = 06:42:13,9 Mag: 5,0 (C.G.S.) $\Delta = 83,0^{\circ}$		



Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (μ)	Périodes (s)	Sens du mouvement
1966 Avr. 5	P S PcP	06:21:34,5 06:14:13,5 06:16:46,0	iCPZNE;iz iCPZNE;iz iLPZE;iz		d,NS,EW c c,EW
U.S.C.G.S.: Epicentre: 16,4 S, 28,5 E (Nord Rhodésie) h = 27 km H = 06:08:09,4 $\Delta = 14,6^\circ$					
5	LR	14:49:00	LPZN	30	
6	P ScS SSS LR F	03:10:39,5 03:20:00 03:29:00 03:34:00 05:53:00	iCPZ(0,06)NE, eLPZNE;iz,iz LPZNE LPZ LPZNE;Z LPZ	1,5 32	c,SN,WE
U.S.C.G.S.: Epicentre: 45,8 S, 96,1 E (Océan Indien) h = 33 km H = 02:59:01,7 Mag: 5,8 (C.G.S.) $\Delta = 74,3^\circ$					
7	LR	06:19:00	LPZN	22	
U.S.C.G.S.: Epicentre: 15,5 S, 174,1 W (Iles Tonga) h = 33 km H = 05:02:57 Mag: 4,9 (C.G.S.) $\Delta = 148,7^\circ$					
7	Pn Sn	06:35:26,0 06:36:11,0	iCPZNE;iz iCPZNE;iz		c,NS
$\Delta = 3,8^\circ$					
7	LR -	15:53:00 16:16:04	LPZN iCPZNE;iz	20	c,SN,WE
8	PKP PP SS SSS LR F	02:05:59,4 02:08:31,0 02:26:00 02:31:40 02:52:00 04:30:00	eCPZ(0,035)NE; eLPZ;ez;eZ iCPZNE;eLPZNE; iz,eZ LPZN LPZNE LPZNE;Z LPZ	1 40	c,SN,WE d,SN,WE
U.S.C.G.S.: Epicentre: 51,2 N, 157,7 E (Côte de Kamtchatka) h = 471 km H = 01:46:44,9 Mag: 5,9 (CGS) $\Delta = 133,8^\circ$					
8	PKP LR	11:30:09,6 12:25:00	iCPZ(0,03)NE;iz LPZN	30	d,NS,EW
U.S.C.G.S.: Epicentre: 15,0 S, 175,3 W (Iles Samoa) h = 33 km H = 11:10:21,5 Mag: 5,2 (C.G.S.) $\Delta = 148,8^\circ$					
8	LR	14:47:00	LPZN	30	
8	LR	23:57:00	LPZNE	20	
U.S.C.G.S.: Epicentre: 56,7 N, 152,1 W (Iles Kodiak) h = 33 km H = 22:33:51 Mag: 4,6 (C.G.S.) $\Delta = 136,8^\circ$					
9	LR	02:28:00	LPZNE	20	
U.S.C.G.S.: Epicentre: 9,4 N, 84,2 W (Costa Rica) h = 40 km H = 02:34:23,0 Mag: 5,3 (C.G.S.) $\Delta = 99,7^\circ$					
9	PKP	15:08:43,5	iCPZ(0,0093) NE;iz	0,5	c,SN,WE
U.S.C.G.S.: Epicentre: 14,1 S, 166,7 E (Iles des Nouvelles Hébrides) h = 47 km H = 14:49:22,8 Mag: 5,4 (C.G.S.) $\Delta = 140,8^\circ$					
10	Pn Sn	10:04:30,0 10:05:51,0	iCPZNE;iz iCPZNE;iz		

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (L)	Périodes (s)	Sens du mouvement
1966 Avr. 10	P pP S LR	16:48:07,7 16:48:25,5 16:57:56,0 17:12:40	iCPZ(0,0375)NE; iLPZNE;iz,iz iCPZNE;iz,iz eLPZNE LPZNE;Z	1 40	c,SN,WE
U.S.C.G.S.: Epicentre: 31,5 S, 71,2 W (Côte Central du Chili) h = 64 km H = 16:36:14,6 Mag: 5,7 (C.G.S.) $\Delta = 77,9^\circ$					
12	P S sS LR	23:49:39,0 23:59:30,0 23:59:46,0 00:18:00	eCPZ(0,05)NE; eLPZNE;iz,iz LPZNE iCPZNE;iz,eZ CPZNE;LPZNE;Z	1 50	d,NS,EW
U.S.C.G.S.: Epicentre: 38,1 S, 73,0 W (Côte Central du Chili) h = 44 km H = 23:37:42,1 Mag: 5,7 (C.G.S.) $\Delta = 78,2^\circ$					
13	P pP	02:19:22,7 02:19:29,3	iCPZ(0,055) iCPZNE;iz,iz	1,2	c,NS,EW
U.S.C.G.S.: Epicentre: 1,1 N, 29,9 E (République du Congo) h = 23 km H = 02:14:20 $\Delta = 22,8^\circ$					
13	(S)	02:26:21,5 02:27:43,0	iCPZNE;iLPNE; iz,iz LPZE;Z		d,NS,EW
13	P LR	03:47:15,6 04:12:00	iCPZ(0,077) NE;iLPZNE;iz,iz LPZNE;Z	1,2 30	c,SN,WE
U.S.C.G.S.: Epicentre: 38,2 S, 73,2 W (Côte Central du Chili) h = 40 km H = 03:35:16,3 Mag: 5,8 (C.G.S.) $\Delta = 78,2^\circ$					
13	Pn Sn	07:38:53,4 07:39:25,8	iz iz		
$\Delta = 2,6^\circ$					
13	P LR	09:22:58,0 09:51:00	iCPZ(0,02)NE;iz LPZN	1 20	c,SN,WE
U.S.C.G.S.: Epicentre: 38,3 S, 73,2 W (Côte Central du Chili) h = 37 km H = 09:10:57,7 Mag: 4,9 (C.G.S.) $\Delta = 78,2^\circ$					
13	P Lg	09:48:09,0 09:54:56,6	iCPZ(0,025)NE; iLPN;iz iCPZNE;iLPN	1	c,SN,WE d,NS,EW
U.S.C.G.S.: Epicentre: 1,1 N, 30,2 E (Ouganda) h = 81 km H = 09:43:05 Mag: 4,0 (C.G.S.) $\Delta = 23,0^\circ$					
13	(Sn)	13:04:19,9	iCPZNE;iz		
14	P Lg	13:21:21,4 13:28:06,2	iCPZ(0,018)NE; iz,iz iCPZNE;eLPN; iz, eZ	0,8	d,NS,EW
U.S.C.G.S.: Epicentre: 0,7 N, 30,2 E (Ouganda) h = 21 km H = 13:16:21 Mag: 4,9 (C.G.S.) $\Delta = 22,8^\circ$					
14	Pn Sn	14:44:39,4 14:45:07,5	iCPZNE;iz iCPZNE;iz		
$\Delta = 2,2^\circ$					
14	P	21:18:01,5	iCPZ(0,026)N;iz,iz	1	c,SN
U.S.C.G.S.: Epicentre: 38,9 N, 70,6 E (Afganistan - URSS) h = 33 km H = 21:06:17,4 Mag: 5,2 (C.G.S.) $\Delta = 75,8^\circ$					

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (u)	Périodes (s)	Sens du
1966 Avr. 15	P Lg	09:13:14,5 09:19:48,0	iCPZ(0,018)NE;iz iCPZNE;iLPN;iz	0,9	d,SN,WE
U.S.C.G.S.: Epicentre: 0,9 N, 29,9 E (République du Congo) h = 33 km H = 09:08:16,3 Mag: 5,3 (C.G.S.) $\Delta = 22,7^{\circ}$					
16	PKP PP SPP SS LR	01:47:36,4 01:49:20 02:01:24,0 02:07:26 02:32:00	iCPZ(0,02)E;iz LPZN LPZN LPNE LPZNE	1 30	d,EW
U.S.C.G.S.: Epicentre: 57,0 N, 153,6 W (Iles Kodiak) h = 33 km H = 01:27:15,3 Mag: 5,7 (C.G.S.) $\Delta = 136,8^{\circ}$					
16	P S Lg LR	14:48:19,0 14:52:26,0 14:55:01,6 14:56:22,0	iCPZ(0,04)NE; eLPZ;iz,iz eLPZNE iCPZNE;eLPNE; iz, iz LPZNE;Z	1 10	d,NS,WE
U.S.C.G.S.: Epicentre: 0,8 N, 29,9 E (République du Congo) h = 33 km H = 14:43:20,5 Mag: 5,3 (C.G.S.) $\Delta = 22,6^{\circ}$					
16	PKP	15:42:02,5	iCPZNE;iz		c
U.S.C.G.S.: Epicentre: 21,1 S, 178,6 W (Iles Fidji) h = 511 km H = 15:23:29,3 Mag: 5,4 (C.G.S.) $\Delta = 142,0^{\circ}$					
16	(P) (S)	18:12:24,6 18:15:00,0	iCPZNE;iz iCPZNE;iLPZNE; iz, iz		
17	- LR	00:06:20,5 00:11:00	iCPZNE LPZNE	34	
18	P LR	08:22:24,8 08:40:27	iCPZNE;iz LPZNE	12	d,NS,EW
U.S.C.G.S.: Epicentre: 12,9 N, 48,3 E (Golfe de Aden) h = 57 km H = 08:14:18,8 Mag: 5,4 (C.G.S.) $\Delta = 44,3^{\circ}$					
19	-	10:03:15,6	iCPZNE;iz		c,NS,EW
19	PKP	10:07:26,0	iCPZ(0,006);iz	0,5	d
U.S.C.G.S.: Epicentre: 19,7 S, 175,9 W (Iles Tonga) h = 149 km H = 09:48:08 $\Delta = 144,2^{\circ}$					
20	LR	03:41:00	LPZE	30	
20	P SS LR	16:52:42,2 17:01:00 17:18:00	iCPZ(0,043) NE;iz, iz LPZNE LPZNE;Z	1 26	c,NS,WE
U.S.C.G.S.: Epicentre: 41,7 N, 48,2 E (Est du Caucase) h = 19 km H = 16:42:03,7 Mag: 5,5 (C.G.S.) $\Delta = 65,0^{\circ}$					
20	-	19:36:41,5	iCPZNE;iz		d,NS,EW
21	P	04:10:41,0	iCPZ(0,019)NE; iz, iz	1	d,SN,WE
U.S.C.G.S.: Epicentre: 49,8 N, 78,0 E (Est de Kazakh - R.S.S.) h = 0 km H = 03:57:58,0 Mag: 5,5 (C.G.S.) $\Delta = 85,8^{\circ}$					
21	-	04:20:29,5	iCPZNE;iz,iz		c,NS,EW
21	PKP SS LR	16:31:20,8 16:52:00 17:29:00	iCPZ(0,017)N;iz,iz LPZ LPZNE	0,6 20	c,SN
U.S.C.G.S.: Epicentre: 20,4 S, 178,0 W (Iles Fidji) h = 511 km H = 16:12:45,1 Mag: 4,5 (C.G.S.) $\Delta = 143,0^{\circ}$					

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes(L)	Périodes (s)	Sens du mouvement
1966 Avr. 22	P	03:18:36,0	iCPZ(0,115)NE; iLPZNE;iz,iz	1	c,SN,WE
	PP	03:18:43,0	iCPZNE;iz,iz		d,NS,EW
	LR	03:43:00	LPZNE;Z	30	
U.S.C.G.S.: Epicentre: 37,8 S, 73,4 W (Côte Central du Chili) h = 18 km H = 03:06:32,8 Mag: 5,7 (C.G.S.) $\Delta = 78,5^\circ$					
22	P	12:26:57,4	iCPZN;iz		c,SN
U.S.C.G.S.: Epicentre: 60,5 S, 25,4 W (Sud des Iles Sandwich) h = 33 km H = 12:17:36,0 Mag: 5,7 (C.G.S.) $\Delta = 53,6^\circ$					
22	PKP	17:13:47,2	iCPZ(0,017)N	0,5	c,SN
U.S.C.G.S.: Epicentre: 18,0 S, 178,4 W (Iles Fidji) h = 542 km H = 16:55:08 Mag: 4,2 (C.G.S.) $\Delta = 145,0^\circ$					
22	P	21:13:30,5	iCPZE;iz		c,SN,WE
	S	21:16:02,0	iOPZNE;iz,iz		
22	PKP	23:46:40,6	iCPZ(0,016); iz,iz	0,6	d
U.S.C.G.S.: Epicentre: 57,5 N, 152,1 W (Iles Kodiak) h = 22 km H = 23:27:20,5 Mag: 5,9 (C.G.S.) $\Delta = 136,0^\circ$					
23	P dif.	00:23:54,8	eLPZ		d,EW
	PP	00:28:19,4	iCPZE;eLPZE; iz, eZ		
	(S)	00:36:00,0	LPZNE		
	LR	01:03:00	Z	30	
	F	03:30	LPZ		
U.S.C.G.S.: Epicentre: 0,9 S, 122,4 E (Iles Célebes) h = 45 km H = 00:09:34,4 Mag: 6,0 (C.G.S.) $\Delta = 108,0^\circ$					
23	PP	09:15:31,2	iCPZ		d
	LR	09:49:00	LPZNE;Z	30	
U.S.C.G.S.: Epicentre: 0,5 S, 122,2 E (Iles Célebes) h = 79 km H = 08:56:46 Mag: 5,8 (C.G.S.) $\Delta = 108,0^\circ$					
23	Pn	10:44:52,8	CPZN;z		
	Sn	10:45:17,8	CPZNE;z		
$\Delta = 1,9^\circ$					
24	PKP	03:47:13,7	iCPZ(0,05)NE; iz,iz	1	d,NS,EW
U.S.C.G.S.: Epicentre: 12,8 S, 169,5 E (Iles Sainte Croix) h = 660 km H = 03:28:50,5 Mag: 4,6 (C.G.S.) $\Delta = 143,8^\circ$					
24	-	10:42:45,8	iCPZNE;iz		d,NS,EW
25	P	04:44:35,5	iCPZ;iz		c
U.S.C.G.S.: Epicentre: 42,3, 75,6 W (Côte Sud du Chili) h = 35 km H = 04:32:30 Mag: 4,9 (C.G.S.) $\Delta = 79,4^\circ$					
25	P	09:27:36,6	iCPZ(0,02)E;iz,iz	1	d,EW
	LR	09:34:00	LPZE	24	
U.S.C.G.S.: Epicentre: 6,9 S, 11,7 W (Iles Ascension) h = 33 km H = 09:22:05 Mag: 4,5 (C.G.S.) $\Delta = 26,0^\circ$					
25	PKP	11:00:27,0	iCPZNE;iz,iz		c,SN,WE
U.S.C.G.S.: Epicentre: 21,0 S, 178,7 W (Iles Fidji) h = 561 km H = 10:41:58,2 Mag: 5,3 (C.G.S.) $\Delta = 142,2^\circ$					



Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (u)	Périodes (s)	Sens du mouvement
1966 Avr. 25	P	23:34:39,7	iCPZ(0,0025)N; iz, iz	1	c,SN
			U.S.C.G.S.: Epicentre: 41,2 N, 69,3 E (Kirgiz - RSS) h = 33 km H = 23:22:52,6 Mag: 5,0 (C.G.S.) $\Delta = 76,2^\circ$		
26	Pn Sn	02:26:11,9 02:26:39,5	CPZ CPZNE; z		
			$\Delta = 2,2^\circ$		
26	PKP	19:52:31,8	iCPZ(0,003)N; iz, iz	0,8	d,NS
			U.S.C.G.S.: Epicentre: 20,0 S, 178,3 W (Iles Fidji) h = 551 km H = 19:34:00 Mag: 4,6 (C.G.S.) $\Delta = 142,1^\circ$		
27	P LR	19:58:53,5 20:17:00	iCPZN;iz,iz LPZNE	40	c, NS
			U.S.C.G.S.: Epicentre: 38,2 N, 42,7 E (Turquie) h = 25 km H = 19:48:49,8 Mag: 4,9 (C.G.S.) $\Delta = 59,8^\circ$		
28	PKP LR	17:15:58,0 18:09:00	iCPZN;iz, iz LPZNE	22	d, NS
			U.S.C.G.S.: Epicentre: 19,1 S, 173,6 W (Iles Tonga) h = 27 km H = 16:56:20 Mag: 5,2 (C.G.S.) $\Delta = 145,3^\circ$		
28	PKP	17:33:09,8	iCPZ(5,6)NE;iz,iz	1,6	d,NS,EW
			U.S.C.G.S.: 19,3 S, 173,5 W (Iles Tonga) h = 33 km H = 17:13:31,6 Mag: 5,2 (C.G.S.) $\Delta = 145,1^\circ$		
28	Pn Sn	07:27:19,0 07:28:15,8	z, Z z, Z		
			$\Delta = 4,6^\circ$		
30	P	13:53:06,8	iCPZ;iz, iz		d
			U.S.C.G.S.: Epicentre: 41,0 N, 72,1 E (Kirgiz - R.S.S.) h = 19 km H = 13:41:09,1 Mag: 5,1 (C.G.S.) $\Delta = 77,6^\circ$		
30	P	20:43:46,6	iCPZNE;iz		d,NS,EW
			U.S.C.G.S.: Epicentre: 0,7 N, 29,8 E (République du Congo) h = 33 km H = 20:38:47 Mag: 5,0 (C.G.S.) $\Delta = 22,4^\circ$		
30	-	20:50:23,4	iCPZNE; iz		d,NS,WE

SERVIÇO METEOROLÓGICO DE ANGOLA

Centro de Geofísica de Luanda

C.P. 1228 C Luanda

BULLETIN SÉISMIQUE D'ANGOLA (PORTUGAL)

ANNÉE 2 - No 5

MAI 1966

Station sismographique de Sá da Bandeira

Coordonnées de la station:

Latitude géographique: $\phi = 14^{\circ} 54' 08''$ S Longitude: $\lambda = 13^{\circ} 28' 39''$ E

Latitude géocentrique: $\phi = 14^{\circ} 48' 23''$ S Altitude: $h = 1761$ m

Nature du sous-sol:

Granite

Constantes des sismographes

Séismographes	To (s)	Tg (s)	Amplification			
			Ts=0,2 s	Ts=0,6 s	Ts=1,0 s	Ts=15,0 s
Benioff vertical (z)	1,0	0,2	76750	33000	15300	-
Benioff vertical (z)	1,0	21,3	400	1100	1650	120
Benioff vertical (CPZ)	1,0	0,75	38000	150000	100000	-
Benioff N/S (CPN)	1,0	0,85	38000	150000	100000	-
Benioff EW (CPE)	1,0	0,82	38000	150000	100000	-
Sprengnether vertical (LPZ)	15,0	100,0	-	-	-	1500
Sprengnether NS (LPN)	15,0	100,0	-	-	-	1500
Sprengnether EW (LPE)	15,0	100,0	-	-	-	1500

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (μ)	Périodes (s)	Sens du mouvement
1966 Mai 1	P	16:35:16,9	iCPZ(0,026)NE;	0,5	d,NS,EW
	pP	16:35:58,0	eLPZE;iz,iz		
	PP	16:38:38,0	iCPZNE;eLPZE;	30	d,NS,EW
	LR	17:02:00	iz,iz		
	F	18:15:00	eLPZE LPZNE;Z LPZ		

U.S.C.G.S.: Epicentre: 8,5 S, 74,3 W (Pérou - Brésil)
 $h = 165$ km $H = 16:22:56,3$ Mag: 5,7 (C.G.S.)
 $\Delta = 85,6^{\circ}$

2	PKP	10:11:59,5	iCPZ(0,011);iz	0,8	d
	SKP	10:15:25,5	iCPZ;iz		
	LR	10:57:00	LPZNE;Z	34	

U.S.C.G.S.: Epicentre: 6,0 S, 149,7 E (Nouvelle Bretagne)
 $h = 52$ km $H = 09:52:48,5$ Mag: 5,2 (C.G.S.)
 $\Delta = 131,8^{\circ}$



Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (μ)	Périodes (s)	Sens du mouvement
1966 Mai 2	PKP	11:12:07,6	iCPZ(0,025)N;iz	1	d,NS
	U.S.C.G.S.: Epicentre: 18,0 S, 178,3 W (Iles Fidji) h = 537 km H = 10:53:28 Mag: 4,9 (C.G.S.) Δ = 145,1 ^o				
2	-	12:25:15,9	iCPZ		
2	LR	23:44:00	LPZNE	22	
4	LR	17:42:00	LPZN	30	
4	PKP	20:38:38,8	iCPZ;iz		c
	U.S.C.G.S.: Epicentre: 16,0 S, 173,9 W (Iles Tonga) h = 107 km H = 20:19:03 Mag: 5,0 (C.G.S.) Δ = 148,3 ^o				
4	P	21:58:24,3	iCPZ;iz		
	LR	22:18:00	LPZNE	30	
	F	22:40:00	LPZ		
	U.S.C.G.S.: Epicentre: 37,7 N, 27,9 E (Turquie) h = 14 km H = 21:48:58 Mag: 4,7 (C.G.S.) Δ = 54,4 ^o				
5	P*	12:05:10,3	iCPZNE;iz		
	S*	12:05:26,9	iCPZNE;iz		
	Δ = 1,2 ^o				
5	LR	15:13:00	LPZNE	30	
	U.S.C.G.S.: Epicentre: 24,4 N, 122,6 E (Taiwan) h = 60 km H = 14:21:22,7 Mag: 5,7 (C.G.S.) Δ = 113,2 ^o				
5	-	23:06:30,4	iCPZNE;iz		
6	P	02:41:33,0	iCPZNE;eLPZE; iz, IZ		c,NS,EW
	S	02:45:20	eLPZNE;eZ		
	(Lg)	02:46:57,0	eLPN		
	F	02:48:41,6	eLPZE;iz		
	F	04:00:00	LPZ		
	U.S.C.G.S.: Epicentre: 15,7 S, 34,4 E (Malawi) h = 33 km H = 02:36:56,8 Mag: 5,5 (C.G.S.) Δ = 20,2 ^o				
6	P	17:31:43,8	iCPZNE;iz		d,NS,WE
	U.S.C.G.S.: Epicentre: 26,1 S, 28,0 E (Union Sud Africaine) h = 15 km H = 17:27:37,4 Mag: 4,5 (C.G.S.) Δ = 17,6 ^o				
6	PKP	20:13:18,5	iCPZE;iz, IZ		c, WE
	U.S.C.G.S.: Epicentre: 19,4 S, 173,7 W (Iles Tonga) h = 112 km H = 19:53:47,0 Mag: 4,9 (C.G.S.) Δ = 147,2 ^o				
7	PKP	09:24:15,2	iCPZ		c
	U.S.C.G.S.: Epicentre: 50,9 N, 179,5 E (Iles Aléoutiennes) h = 70 km H = 09:04:54 Mag: 4,5 (C.G.S.) Δ = 142,3 ^o				
7	LR	10:43:00	LPZNE	26	
	U.S.C.G.S.: Epicentre: 0,7 S, 122,2 E (Iles Célebes) h = 43 km H = 09:48:03,0 Mag: 5,6 (C.G.S.) Δ = 108,1 ^o				
7	P	13:17:43,2	iCPZN;iz,iz		c,NS
	LR	13:36:00	LPZNE;Z	30	
	U.S.C.G.S.: Epicentre: 37,8 N, 27,9 E (Turquie) h = 12 km H = 13:08:16,0 Mag: 5,2 (C.G.S.) Δ = 54,4 ^o				
8	Pn	20:15:29,4	iCPZNE;iz		
	Sn	20:15:55,1	iCPZNE;iz		
	Δ = 2,0 ^o				

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (μ)	Périodes (s)	Sens du mouvement
1966 Mai 9	P	00:51:53,3	iCPZ(0,029) NE;	0,9	
	S	00:59:00	eLPZ;iz, iz		
	LR	01:07:00	eLPZNE		
	LR	01:14:00	LPZNE;Z		
U.S.C.G.S.: Epicentre: 34,5 N, 26,5 E (Grète) h = 33 km H = 00:42:55,6 Mag: 5,5 (C.G.S.) △ = 50,9°					
9	Pn	15:27:44,2	iCPZNE;iz		
	Sn	15:28:30,5	iCPZNE;iz		
9	LR	21:46:00	LPZNE;Z	30	
U.S.C.G.S.: Epicentre: 42,1 S, 87,6 E (Océan Indien) h = 33 km H = 21:13:30 Mag: 4,6 (C.G.S.) △ = 68,0°					
10	P	07:52:10,4	iCPZNE;iz		d,SN,WE
U.S.C.G.S.: Epicentre: 24,8 S, 13,5 W (Atlantique Sud) h = 33 km H = 07:46:27,7 Mag: 5,2 (C.G.S.) △ = 27,2°					
11	Pn	08:08:37,2	iCPZNE;iz		
	Sn	08:09:05,0	iCPZNE;iz		
△ = 2,2°					
11	Sn	09:22:58,6	iCPZNE;iz		
11	PKP	14:36:54,5	iCPZ(0,02);iz	1	
	PP	14:39:30,0	eLPZ		
	LR	15:26:00	LPZNE		
	F	17:10:00	LPZ		
U.S.C.G.S.: Epicentre: 48,9 N, 156,2 E (Iles Kouriles) h = 17 km H = 14:17:34,1 Mag: 5,8 (C.G.S.) △ = 134,4°					
11	LR	22:48:00	LPZNE	34	
12	-	00:52:36,1	iCPZNE;iz		
12	LR	12:37:00	LPZN	40	
13	LR	13:44:00	Z	14	
14	P	20:39:38,9	iCPZ(0,045)E; iz,iz	1	d,WE
U.S.C.G.S.: Epicentre: 10,5 N, 63,0 W (Côte de Venezuela) h = 16 km H = 20:27:27,4 Mag: 5,5 (C.G.S.) △ = 79,9°					
15	PKP	15:05:33,6	iCPZ(0,015)NE;	0,5	d,SN,EW
	PP	15:08:43,6	eLPZ;iz, iz		
	LR	15:55:00	iCPZ;eLPZN;iz, iz		
	F	17:00:00	LPZNE;Z		
U.S.C.G.S.: Epicentre: 51,5 N, 178,4 W (Iles Aléoutiennes) h = 31 km H = 14:46:06,5 Mag: 5,8 (C.G.S.) △ = 142,2°					
16	P	05:49:19,0	iCPZ(0,025)NE;iz,iz	1	d,SN,WE
	Lg	05:55:55,7	iCPZNE;eLPZNE;iz,iz		
U.S.C.G.S.: Epicentre: 0,6 N, 30,2 E (Ouganda) h = 36 km H = 05:44:19,6 △ = 22,7°					
16	-	18:00:00	LPZNE;Z		



Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (u)	Périodes (s)	Sens du mouvement
1966 Mai 27	LR	01:07:00	LPZNE	20	
	U.S.C.G.S.: Epicentre: 24,4 N, 122,5 E (Taiwan) h = 33 km H = 00:03:56,8 Mag: 5,7 (C.G.S.) $\Delta = 113,2^{\circ}$				
28	Pn Sn	07:23:55,6 07:24:24,4	iz iz		
	$\Delta = 2,2^{\circ}$				
29	P (Lg)	02:31:12,9 02:37:53,0	iCPZNE;iz iCPZNE;iz		
	U.S.C.G.S.: Epicentre: 0,6 N, 29,8 E (République du Congo) h = 33 km H = 02:26:13 Mag: 4,7 (C.G.S.) $\Delta = 22,4^{\circ}$				
29	PKP	14:03:04,0	iCPZ(0,012)NE;iz	0,5	d,NS,EW
	U.S.C.G.S.: Epicentre: 21,6 S, 178,7 W (Iles Fidji) h = 516 km H = 13:44:32,9 Mag: 5,2 (C.G.S.) $\Delta = 141,6^{\circ}$				
30	-	06:45:46,9	iCPZNE		



SERVIÇO METEOROLÓGICO DE ANGOLA

Centro de Geofísica de Luanda
C.P. 1228 C Luanda

BULLETIN SÉISMIQUE D'ANGOLA (PORTUGAL)

ANNÉE 2 - No 6

JUIN 1966

Station sismographique de Sá da Bandeira

Coordonnées de la station:

Latitude géographique: $\phi = 14^{\circ} 54' 08''$ S Longitude: $\lambda = 19^{\circ} 28' 39''$ E
Latitude géocentrique: $\phi = 14^{\circ} 48' 23''$ S Altitude: h = 1761

Nature du sous-sol:

Granite

Constantes des sismographes

Séismographes	To (s)	Tg (s)	Amplification			
			Ts=0,2 s	Ts=0,6 s	Ts=1,0 s	Ts=15,0 s
Benioff vertical (z)	1,0	0,2	76750	39000	15900	
Benioff vertical (Z)	1,0	21,3	400	1100	1615	120
Benioff vertical (CPZ)	1,0	0,75	38000	150000	100000	-
Benioff N/S (CPN)	1,0	0,85	38000	150000	100000	-
Benioff EW (CPE)	1,0	0,82	38000	150000	100000	-
Sprengnether vertical (LPZ)	15,0	100,0	-	-	-	1500
Sprengnether NS (LPN)	15,0	100,0	-	-	-	1500
Sprengnether EW (LPE)	15,0	100,0	-	-	-	1500

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (u)	Périodes (s)	Sens du mouvement
1966 Juin 1	PKP	10:34:04,3	1CPZ;iz		d
U.S.C.G.S.: Epicentre: 13,8 S, 166,6 E (Iles Nouvelles Hébrides) h = 48 km H = 10:14:43,2 Mag: 5,5 (C.G.S.) $\Delta = 140,8^{\circ}$					
1	PKP LR	12:07:01,4 12:59:00	1CPZN;iz,iz LPZNE	27	c,SN
U.S.C.G.S.: Epicentre: 23,4 S, 174,9 W (Iles Tonga) h = 24 km H = 11:47:33,1 Mag: 5,9 (C.G.S.) $\Delta = 140,8^{\circ}$					
1	PKP PKS	12:53:49,5 12:57:25,6	1CPZ;iz 1CPZ;iz,iz		c c
U.S.C.G.S.: Epicentre: 15,2 S, 167,2 E (Iles Nouvelles Hébrides) h = 93 km H = 12:34:33,5 Mag: 5,6 (C.G.S.) $\Delta = 140,2^{\circ}$					



- 2 -

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (μ)	Périodes (s)	Sens du mouvement
1966 Juin 2	PKP LR	03:47:15,4 04:55:00	ICPZ; iz, iz LPZ	24	c
U.S.C.G.S.: Epicentre: 51,1 N, 176,0 E (Iles Aléoutiennes) h = 41 km H = 03:27:53,3 Mag: 6,0 (C.G.S.) Δ = 141,2°					
2	PKP LR	17:12:54,4 17:13:31,6 18:09:00	ICPZ ICPZ; iz LPZN	22	d
U.S.C.G.S.: Epicentre: 18,6 S, 173,4 W (Iles Tonga) h = 33 km H = 16:53:56,6 Mag: 5,0 (C.G.S.) Δ = 145,8°					
3	-	10:53:36,5 10:54:05,0	ICPZNE; iz, iz ICPZNE		d, NS, WE d, SN, WE
3	PKP	14:07:51,6	iz, iz		
U.S.C.G.S.: Epicentre: 17,9 S, 178,8 W (Iles Fidji) h = 643 km H = 13:49:13,8 Mag: 5,3 (C.G.S.) Δ = 145,0°					
3	Pn Sn	22:17:03,0 22:17:26,8	iz iz, iz		
Δ = 1,8°					
4	P	05:23:18,6	iz, iz		
U.S.C.G.S.: Epicentre: 36,3 N, 70,8 E (Hindu Kush) h = 207 km H = 05:11:54,2 Mag: 5,7 (C.G.S.) Δ = 74,4°					
4	PKP	08:53:45,0	iz, iz		
U.S.C.G.S.: Epicentre: 14,8 S, 171,2 E (Iles Nouvelles Hébrides) h = 660 km H = 08:35:15,4 Mag: 4,6 (C.G.S.) Δ = 143,0°					
5	PKP pPKP	00:07:43,2 00:07:57,8	iz, iz iz, iz		
U.S.C.G.S.: Epicentre: 46,5 N, 152,5 E (Iles Kouriles) h = 27 km H = 29:48:17,8 Mag: 5,9 (C.G.S.) Δ = 133,6°					
6	P pP SS LR	07:57:46,8 07:58:40,4 08:07:00 08:33:00	iz, iz iz, iz Z Z	18	
U.S.C.G.S.: Epicentre: 36,3 N, 71,2 E (Afghanistan - URSS) h = 225 km H = 07:46:16,2 Mag: 6,3 (C.G.S.) Δ = 74,7°					
6	P	10:08:28,0	iz, iz		
U.S.C.G.S.: Epicentre: 30,6 S, 69,3 W (Chili - Argentine) h = 109 km H = 09:56:33,4 Mag: 4,8 (C.G.S.) Δ = 76,4°					
7	P pP LR	01:12:37,0 01:12:46,6 01:41:00	iz, iz iz, eZ Z	26	
U.S.C.G.S.: Epicentre: 15,0 S, 75,8 W (Gôte du Pérou) h = 48 km H = 00:59:46,6 Mag: 5,5 (C.G.S.) Δ = 85,5°					
7	PKP pPKP PP SS LR	14:18:35,0 14:18:44,5 14:20:41,5 14:30:33,4 14:59:00	ICPZ; iz, iz ICPZN; iLPZ; iz, iz ICPZNE; iLPZ; ICPZE; iLPZNE; iz, iz LPZNE; Z	30	d c, NS c, SN
U.S.C.G.S.: Epicentre: 11,3 N, 139,6 E (Iles Carolines) h = 50 km H = 13:59:36,0 Mag: 6,5 (C.G.S.) Δ = 127,5°					

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (μ)	Périodes (s)	Sens du mouvement
1966 Juin 7	P	15:27:18,4	iCPZ;iz		c
			U.S.C.G.S.: Epicentre: 15,1 S 75,8 W (Côte du Pérou) h = 51 km H = 15:14:42,1 Mag: 4,8 (C.G.S.) △ = 85,5 ^o		
7	PKP	19:24:09,5	iCPZNE;iz,iZ		d,SN,WE
			U.S.C.G.S.: Epicentre: 21,4 S, 179,3 W (Iles Fidji) h = 606 km H = 19:05:47,4 Mag: 5,2 (C.G.S.) △ = 141,6 ^o		
8	PKP	05:51:16,2	iCPZNE;iz,iZ		d,SN,WE
			U.S.C.G.S.: Epicentre: 18,0 S, 178,1 W (Iles Fidji) h = 562 km H = 05:32:38,5 Mag: 4,1 (C.G.S.) △ = 145,2 ^o		
8	P	15:09:30,5	iCPZNE;iz		c,SN,WE
			U.S.C.G.S.: Epicentre: 15,2 S, 75,8 W (Côte du Pérou) h = 39 km H = 14:56:54 Mag: 4,4 (C.G.S.) △ = 85,4 ^o		
8	P LR	15:13:21,5 15:43:00	iCPZNE;iz LPZE	24	d,NS,WE
			U.S.C.G.S.: Epicentre: 23,0 S, 66,3 W (Province de Jujuy - Argentine) h = 233 km H = 15:02:02,6 Mag: 4,6 (C.G.S.) △ = 75,0 ^o		
8	- PKP LR	20:15:35,4 20:15:42,0 21:13:00	iCPZ iCPZNE LPZNE	30	c d,NS,EW
			U.S.C.G.S.: Epicentre: 53,1 N, 171,1 E (Iles Aléoutiennes) h = 20 km H = 19:56:21,3 Mag: 5,4 (C.G.S.) △ = 137,9 ^o		
9	P pP LR	00:24:32,4 00:24:42,4 00:48:00	iCPZ;iz,iZ iCPZE;iz,iZ LPZNE;Z	30	c d,WE
			U.S.C.G.S.: Epicentre: 7,6 N, 94,1 E (Iles Nicobar) h = 55 km H = 00:12:12,1 Mag: 5,3 (C.G.S.) △ = 83,0 ^o		
9	-	03:11:49,0	iCPZNE;iz		c,SN,WE
9	-	04:29:08,8 04:33:15,3	iCPZE iCPZNE;iz		c,EW d,NS,WE
9	PKP	15:58:30,5	iCPZE;iz,iZ		d,WE
			U.S.C.G.S.: Epicentre: 44,3 N, 147,6 E (Iles Kouriles) h = 110 km H = 15:39:27,8 Mag: 5,5 (C.G.S.) △ = 131,4 ^o		
9	P	22:34:26,9	iCPZE;iz,iZ		d,WE
			U.S.C.G.S.: Epicentre: 27,6 N, 52,5 E (Iran) h = 8 km H = 22:24:39,0 Mag: 4,9 (C.G.S.) △ = 56,9 ^o		
10	LR	09:00:00	LPZE	20	
10	-	09:20:05,2	iCPZNE;iz		c,SN,WE
13	LR	08:29:00	LPNE	40	
	LR	08:39:00	LPZNE	34	
	LR	08:45:00	Z	20	
			U.S.C.G.S.: Epicentre: 21,2 S 174,1 E (Iles Nouvelles Hébrides) h = 49 km H = 07:33:13,4 Mag: 5,9 (C.G.S.) △ = 139,2 ^o		
13	PKP	18:27:39,2	iCPZ(0,105)NE; iLPZ;iz,iZ	1	d,NS,WE
	pPKP	18:28:55,0	iZ		
	PP	18:30:59,0	iCPZNE;iLPZ;iz,iZ		d,NS,EW
	LR	19:05:00	LPZNE	30	
	F	20:24:00	LPZ		
			U.S.C.G.S.: Epicentre: 12,2 S, 167,1 E (Iles Sainte Croix) h = 259 km H = 18:08:38,4 Mag: 6,2 (C.G.S.) △ = 142,4 ^o		



Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (μ)	Périodes (s)	Sens du mouvement
1966 Juin 14	Pn	09:37:28,0	cPZNE;z		
	Sn	09:38:01,2	cPZNE;z,Z		
	(Lg)	09:38:30,6	cPZNE;z,Z		
			$\Delta = 2,6\Omega$		
14	-	15:42:33,5	iCPZNE;iz		c,NS,EW
	-	15:47:20,2	iCPZNE;iz		c,NS,EW
14	P	23:55:42,0	iCPZNE;iz		c,EW
	pP	23:55:52,3	iCPZNE;iz		d,SN,WE
	-	00:00:43,9	iCPZNE		d,SN,EW
	-	00:02:44,5	iCPZNE;iz,iz		d,NS,WE
U.S.C.G.S.: Epicentre: 1,1 N, 30,0 E (République du Congo) h = 32 km H = 23:50:41 Mag: 4,6 (C.G.S.) $\Delta = 22,8\Omega$					
15	PKP	01:19:06,0	iCPZ(0,02)NE; eLPZNE;eLPZNE; iz,iz	1	d,NS,EW
	pPKP	01:19:20,6	iCPZNE;iz,iz		c,SN,EW
	PP	01:22:08,4	iCPZNE;iz,iz		d,NS,WE
	LR	02:03:00	LPZNE;z, Z	15	
	F	06:45:00	LPZ		
U.S.C.G.S.: Epicentre: 10,4 S, 160,8 E (Iles Salomon) h = 31 km H = 00:59:45,8 Mag: 6,1 (C.G.S.) $\Delta = 138,9$					
15	PKP	01:52:14,5	iCPZ(0,02)NE; iz	1	d,SN,WE
U.S.C.G.S.: Epicentre: 10,2 S, 161,1 E (Iles Salomon) h = 33 km H = 01:32:55,5 Mag: 6,2 (C.G.S.) $\Delta = 138,0\Omega$					
15	LR	07:23:00	LPZNE;Z	22	
U.S.C.G.S.: Epicentre: 10,1 S, 161,0 E (Iles Salomon) h = 39 km H = 06:13:52,3 Mag: 5,9 (C.G.S.) $\Delta = 138,5\Omega$					
15	PKP	16:55:45,0	iCPZ(0,033)NE	0,5	d,NS,EW
	LR	17:46:00	LPZNE;Z	28	
U.S.C.G.S.: Epicentre: 10,3 S, 160,7 E (Iles Salomon) h = 18 km H = 16:36:24,1 Mag: 5,8 (C.G.S.) $\Delta = 138,9\Omega$					
15	PKP	23:03:00,7	iCPZ;iz, iz		d
	LR	23:53:00	LPZNE	30	
U.S.C.G.S.: Epicentre: 11,2 S, 167,0 E (Iles Sainte Croix) h = 107 km H = 22:43:38,2 Mag: 4,9 (C.G.S.) $\Delta = 143,0\Omega$					
16	LR	01:14:00	CPZ	26	
16	LR	15:43:00	CPZNE	30	
16	P	16:58:47,4	iCPZN;iz		c,SN
U.S.C.G.S.: Epicentre: 29,3 S, 71,1 W (Côte Central du Chili) h = 51 km H = 16:46:49 Mag: 4,5 (C.G.S.) $\Delta = 78,2\Omega$					
16	LR	18:27:00	CPZNE	40	
16	P	20:43:58,4	iCPZ(0,047)NE; NE,iz, iz	1	c,NS,WE
U.S.C.G.S.: Epicentre: 22,1 S, 67,2 W (Chili - Bolivie) h = 190 km H = 20:32:24,1 Mag: 5,5 (C.G.S.) $\Delta = 76,3\Omega$					
16	P	22:39:38,2	iCPZ(0,01)N; iz,iz	1	d,WE
	LR	22:56:00	LPZNE	26	
U.S.C.G.S.: Epicentre: 26,2 S, 70,8 E (Océan Indien) h = 33 km H = 22:30:04,2 Mag: 5,1 (C.G.S.) $\Delta = 55,5\Omega$					

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (μ)	Périodes (s)	Sens du
1966 Juin 17	P	18:36:52,6	iCPZ(0,038)NE; iz,iz	1	c,NS,EW
	pP	18:37:01,5	iCPZNE;iz,iz		c,NS,WE
	PP	18:37:24,0	iCPZNE;iz,iz		c,NS,EW
	Lg	18:43:25,0	iCPZNE;iLPZNE; iz,iz		c,SN,EW
U.S.C.G.S.: Epicentre: 0,8 N, 30,0 E (République du Congo) h = 33 km H = 18:31:55,1 Δ = 22,6 ^o					
18	P	05:25:49,3	iCPZNE;iz		c,SN,WE
	PP	05:26:09,4	iCPZNE;iz,iz		c,SN,EW
	S	05:29:28,3	iCPZNE;iz,iz		d,SN,WE
	Lg	05:31:50,0	iCPZNE;iz,iz		c,NS,EW
	LR	05:33:00	LPZNE	16	
U.S.C.G.S.: Epicentre: 29,5 S, 29,5 E (République de l'Afrique du Sud) h = 33 km H = 05:21:07,5 Δ = 20,8 ^o					
18	LR	20:24:00	LPZNE;Z	20	
U.S.C.G.S.: Epicentre: 3,3 S, 143,2 E (Nouvelle Guinée) h = 17 km H = 19:15:24,4 Mag: 5,2 (C.G.S.) Δ = 127,0 ^o					
18	-	22:29:01,5	iCPZNE		c,SN,EW
19	P	00:59:50,0	iCPZNE;iz,iz		c,NS,EW
	-	01:06:14,6	iCPNE		NS,EW
	-	01:06:23,8	iCPZNE;iz,iz		c,SN,EW
U.S.C.G.S.: Epicentre: 0,8 N, 29,8 E (République du Congo) h = 33 km H = 00:54:52 Mag: 5,0 (C.G.S.) Δ = 22,6 ^o					
19	Pn	17:55:59,0	cPZNE;z		
	Sn	17:56:23,2	cPZNE;z		
			Δ = 1,8 ^o		
19	PKP	19:48:08,0	iCPZ(0,015)NE; iz,iz	1	c,NS,WE
U.S.C.G.S.: Epicentre: 51,7 N, 176,2 W (Iles Andreanuf) h = 57 km H = 19:28:49,1 Mag: 5,2 (C.G.S.) Δ = 142,4 ^o					
20	Pn	04:44:08,5	cPZNE;z		
	Sn	04:45:33,3	cPZNE;z,Z		
			Δ = 7,4 ^o		
20	-	09:26:49,2	iCPZ		d
20	-	19:28:31,3	iCPZ;iz		d
21	PKP	01:02:41,5	iCPZ;iz		
	-	01:43:00	LPNE	40	
	LR	01:51:00	LPZNE	24	
	-	02:00:00	Z	20	
U.S.C.G.S.: Epicentre: 10,9 S, 165,3 E (Iles Sainte Croix) h = 25 km H = 00:43:13,5 Mag: 5,3 (C.G.S.) Δ = 142,0 ^o					
21	P	13:08:11,4	iCPZNE;iz,iz		d,NS,EW
	LR	13:23:00	LPZNE	26	
U.S.C.G.S.: Epicentre: 57,9 S, 25,7 W (Iles Sandwich) h = 16 km H = 12:59:00,1 Mag: 5,4 (C.G.S.) Δ = 52,4 ^o					
21	P	23:46:29,0	iCPZN;iz		c,SN
U.S.C.G.S.: Epicentre: 56,0 S, 27,8 W (Iles Sandwich) h = 112 km H = 23:37:31,3 Mag: 5,1 (C.G.S.) Δ = 51,8 ^o					
22	Pdif	20:42:35,5	iCPZNE;iz		c,SN,EW
	pP	20:44:35,4	iCPZ;iz,iz		d
	PP	20:47:04,0	iCPZNE;iLPZNE;iz,iz		c,NS,EW
	SP	20:55:45,2	iCPZNE;iLPZNE		d,NS,EW
	LR	21:23:00	LPZNE;Z	20	
	F	23:12:00	LPZ		
U.S.C.G.S.: Epicentre: 7,2 S, 124,6 E (Mer de Banda) h = 507 km H = 20:29:03,6 Mag: 6,1 (C.G.S.) Δ = 108,3 ^o					



Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (u)	Périodes (s)	Sens du mouvement
1966 Juin 23	P* S*	07:57:01,6 07:57:17,6	iCPZNE;iz iCPZNE;iz,iz		d,NS,EW
		$\Delta = 1,2^{\circ}$			
23	P S Lg	09:38:58,7 09:40:21,5 09:41:12,2	iCPZE;iz,iz iCPZNE;iz,iz iCPZNE;iz,iz		d,WE d,NS,EW d,NS,EW
	U.S.C.G.S.: Epicentre: 14,4 S, 21,8 E (Angola) h = 33 km H = 09:37:03 Mag: 5,3 (C.G.S.) $\Delta = 8,1^{\circ}$				
27	-	06:19:22,7	iCPZNE;iz		c,SN,WE
27	P	10:53:09,0	iCPZ(0,025)NE; iLPZNE;iz,iz	1	d,NS,WE
	pP SS LR	10:53:20,0 11:08:00 11:22:00	iCPZNE;iz,iz eLPZNE LPZNE;Z		c,NS,EW 24
	U.S.C.G.S.: Epicentre: 29,7 N, 80,9 E (Nepal - Inde) h = 37 km H = 10:41:08,6 Mag: 6,1 (C.G.S.) $\Delta = 78,8^{\circ}$				
27	P	11:01:50,6	iCPZ(0,09)NE; iz,iz	1	d,NS,WE
	U.S.C.G.S.: Epicentre: 29,8 N, 80,7 E (Nepal - Inde) h = 33 km H = 10:49:50,0 Mag: 5,8 (C.G.S.) $\Delta = 78,8^{\circ}$				
27	P	11:11:18,8	iCPZ(0,036)NE; iz,iz	1	c,NS,EW
	U.S.C.G.S.: Epicentre: 29,7 N, 81,0 E (Nepal - Inde) h = 40 km H = 10:59:18,1 Mag: 6,0 (C.G.S.) $\Delta = 78,8^{\circ}$				
27	P	11:33:44,0	iCPZ(0,015)NE; iz	1	d,SN,WE
	U.S.C.G.S.: Epicentre: 29,7 N, 80,8 E (Nepal - Inde) h = 33 km H = 11:21:43 Mag: 5,4 (C.G.S.) $\Delta = 78,8^{\circ}$				
27	P	14:07:53,0	iCPZ(0,02)E;iz,iz	1	d,WE
	U.S.C.G.S.: Epicentre: 29,6 N, 80,8 E (Nepal - Inde) h = 35 km H = 13:55:51,9 Mag: 5,4 (C.G.S.) $\Delta = 78,8^{\circ}$				
27	PKP -	22:05:58,8 22:06:26,4	iCPZ(0,055)NE;iz,iz iCPZNE;iz,iz	1	d,NS,EW c,SN,WE
	U.S.C.G.S.: Epicentre: 38,0 S, 177,2 E (Nouvelles Zélande) h = 54 km H = 21:47:05,5 Mag: 5,7 (C.G.S.) $\Delta = 125,0^{\circ}$				
28	LQ LR	05:23:00 05:30:00	LPZNE LPZNE;Z	50 40	
	U.S.C.G.S.: Epicentre: 35,9 N, 120,5 W (Californie) h = 4 km H = 04:26:12,4 Mag: 5,3 (C.G.S.) $\Delta = 134,0^{\circ}$				
29	LQ LR	23:24:00 23:27:00	LPZNE LPZNE	30 22	
30	LR	13:27:00	LPZE	22	
	U.S.C.G.S.: Epicentre: 9,6 N, 126,7 E (Mindanao) h = 44 km H = 12:27:41,9 Mag: 5,4 (C.G.S.) $\Delta = 114,8^{\circ}$				

4 MAR 1968

SERVIÇO METEOROLÓGICO DE ANGOLA

Centro de Geofísica de Luanda

C.P. 1228 C Luanda

BULLETIN SÉISMIQUE D'ANGOLA (PORTUGAL)

ANNÉE 2 - No 7

JUILLET 1966

Station sismographique de Sá da Bandeira

Coordonnées de la station:

Latitude géographique: $\psi = 14^{\circ} 54' 08''$ S Longitude: $\lambda = 13^{\circ} 28' 39''$ E

Latitude géocentrique: $\Phi = 14^{\circ} 48' 23''$ S Altitude: $h = 1761$ m

Nature du sous-sol:

Granite

Constantes des sismographes

Sismographes	T_0 (s)	T_g (s)	Amplification			
			$T_s=0,2$ s	$T_s=0,6$ s	$T_s=1,0$ s	$T_s=15,0$ s
Benloff vertical (z)	1,0	0,2	76750	33000	15300	-
Benloff vertical (Z)	1,0	21,3	400	1100	1650	120
Benloff vertical (CPZ)	1,0	0,75	38000	150000	100000	-
Benloff N/S (CPN)	1,0	0,85	38000	150000	100000	-
Benloff EW (CPE)	1,0	0,82	38000	150000	100000	-
Sprengnether vertical (LPZ)	15,0	100,0	-	-	-	1500
Sprengnether NS (LPN)	15,0	100,0	-	-	-	1500
Sprengnether EW (LPE)	15,0	100,0	-	-	-	1500

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (μ)	Périodes (s)	Sens du mouvement
1966 Jul. 1	-	06:09:03,5	ICPZ; iz, IZ		c d
	-	06:19:26,0	eLPZ		
	LQ	06:37:00	LPZNE	50	
	LR	06:49:00	LPZNE	24	
2	P	11:26:30,0	ICPZ(0,13)NE iz, IZ	1	d, NS, EW
	pP	11:26:38,8	ICPZNE; iz, IZ		d, NS, EW
	S	11:30:37,0	ICPZNE		c, SN, EW
	Lg	11:33:20,5	ICPZNE; iz, IZ		d, NS, EW
	LR	11:34:00	LPZNE	10	
U.S.C.G.S.: Epicentre: 0,9 N 30,1 E (Ouganda) h = 33 km H = 11:21:30,4 Mag: 4,8 (C.G.S.) $\Delta = 22,8^{\circ}$					
3	-	04:29:02,0	ICPZ; iz		d
4	-	03:14:57,8	ICPZ		a
	-	03:15:07,0	ICPZN		d, SN

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (μ)	Périodes (s)	Sens du mouvement
1966 Jul. 4	P LR	12:25:56,5 12:46:00	iCPZ(0,06)NE LPZNE	1 26	c,NS,WE
U.S.C.G.S.: Epicentre: 37,5 N 24,8 W (Iles Agores) h = 33 km H = 12:15:28,1 Mag: 5,5 (C.G.S.) $\Delta = 63,6^{\circ}$					
4	PKP SS LR F	18:53:09,5 19:14:00 19:51:00 23:17:00	iCPZ;LPZ;iz,iZ eLPZNE;eZ LPZNE;Z LPZ	30	d
U.S.C.G.S.: Epicentre: 51,7 N, 179,9 E (Iles Aléoutiennes) h = 13 km H = 18:33:35,7 Mag: 6,2 (C.G.S.) $\Delta = 141,6^{\circ}$					
5	PKP	03:42:06,5	iCPZ(0,38)N iz,iZ	1	c,SN
U.S.C.G.S.: Epicentre: 15,2 S 174,9 W (Iles Tonga) h = 252 km H = 03:22:45,2 Mag: 5,1 (C.G.S.) $\Delta = 148,8^{\circ}$					
5	LR	03:42:00	LPZNE	20	
5	PKP	04:07:26,5	iCPZ;iz,iZ		c
U.S.C.G.S.: Epicentre: 17,9 S 178,7 W (Iles Fidji) h = 550 km H = 03:48:47,6 Mag: 4,1 (C.G.S.) $\Delta = 145,0^{\circ}$					
6	P LR	00:18:29,6 00:49:00	iCPZE;iz,iZ LPZNE	20	d,WE
U.S.C.G.S.: Epicentre: 15,3 S 75,5 W (Côte du Perou) h = 7 km H = 00:05:51,0 Mag: 5,1 (C.G.S.) $\Delta = 85,2^{\circ}$					
6	-	03:03:44,5 03:08:25,5	iCPZNE;iz iCPZNE;iz		d,SN,WE c,NS,EW
6	LR	20:22:00	LPZE	26	
U.S.C.G.S.: Epicentre: 4,4 S 104,9 W (Iles Cordillera) h = 33 km H = 19:23:28 Mag: 4,8 (C.G.S.) $\Delta = 116,0^{\circ}$					
7	PKP	23:41:46,8	iCPZ(0,04)NE iz,iZ	1	d,SN,WE
U.S.C.G.S.: Epicentre: 17,8 S, 173,6 W (Iles Tonga) h = 26 km H = 23:22:07,3 Mag: 5,3 (C.G.S.) $\Delta = 146,6^{\circ}$					
8	PKP	22:32:04,5	iCPZN;iz,iZ		d,NS
U.S.C.G.S.: Epicentre: 19,0 S 174,5 W (Iles Tonga) h = 5 km H = 22:12:23,2 Mag: 5,3 (C.G.S.) $\Delta = 145,2^{\circ}$					
8	-	23:28:33,4 23:28:40,5	iCPN iCPZ		d SN
9	-	00:22:27,0	iCPZNE		c,SN,WE
10	-	10:22:20,6 10:23:20,6	iCPZN iCPZ;iz		
10	LR	11:05:00	LPZN	30	
U.S.C.G.S.: Epicentre: 30,5 S 177,8 W (Iles Kermadec) h = 40 km H = 10:00:39,1 Mag: 5,8 (C.G.S.) $\Delta = 141,8^{\circ}$					
10	LR	17:08:00	LPZNE	30	
U.S.C.G.S.: Epicentre: 24,2 N 125,2 E (Iles Rioukiou) h = 28 km H = 16:12:41,5 Mag: 5,9 (C.G.S.) $\Delta = 115,6^{\circ}$					
11	PKP LR	23:05:33,2 23:57:00	iCPZ(0,01)NE LPZNE	1 24	c,SN,EW
U.S.C.G.S.: Epicentre: 19,2 S 173,6 W (Iles Tonga) h = 120 km H = 22:46:05,7 Mag: 5,6 (C.G.S.) $\Delta = 145,2^{\circ}$					

Date	Phases	Heure T.M.G	Composantes, nature du mouvement et amplitudes (μ)	Périodes (s)	Sens du mouvement
1966 Juil. 12	LR	16:56:00	LPN	20	
12	P	19:03:35,0	iCPZ(0,047)NE eLPZ;iz,iz	1,5	c,NS,WE
	LR	19:24:00	LPZNE	30	
U.S.C.G.S.: Epicentre: 44,6 N 37,4 E (Gaucase) h = 26 km H = 18:53:08,5 Mag: 5,9 (C.G.S.) $\Delta = 63,4^{\circ}$					
14	-	05:46:38,5	iCPZNE;iz,iz		c,NS,EW
14	P	20:07:31,5	iCPZ(0,043)NE iz,iz	1	c,SN,EW
	LR	20:18:00	LPZN	30	
U.S.C.G.S.: Epicentre: 52,9 S 27,5 E (Sud d'Afrique) h = 33 km H = 20:00:02,5 Mag: 5,4 (C.G.S.) $\Delta = 39,6^{\circ}$					
15	P _n	17:06:09,5	iCPZNE;iz		
	S _n	17:07:15,5	iCPZNE;iz,iz		
$\Delta = 5,6^{\circ}$					
17	(P)	02:29:35,0	iCPZNE;iz		c,SN,WE
	(S)	02:33:06,6	iCPZNE;iz,iz		d,NS,EW
17	PKP	16:23:49,2	iCPZ(0,02)NE;iz	0,5	
U.S.C.G.S.: Epicentre: 19,6 S 175,7 W (Iles Tonga) h = 220 km H = 16:04:37,1 Mag: 4,9 (C.G.S.) $\Delta = 144,4^{\circ}$					
18	LR	10:24:00	LPZNE	30	
U.S.C.G.S.: Epicentre: 13,1 N 57,6 E (Mer de l'Arabie) h = 33 km H = 09:59:10,0 Mag: 5,1 (C.G.S.) $\Delta = 51,9^{\circ}$					
18	LR	23:00:00	LPZNE	30	
U.S.C.G.S.: Epicentre: 38,3 S 99,7 W (Ouest du Chili) h = 33 km H = 22:15:38 Mag: 5,1 (C.G.S.) $\Delta = 99,7^{\circ}$					
19	LQ	02:47:00	LPZNE	50	
	LR	02:57:00	LPZNE;z	30	
U.S.C.G.S.: Epicentre: 56,2 N 164,9 E (Région des Iles Komandorsky) h = 18 km H = 01:40:59,9 Mag: 5,4 (C.G.S.) $\Delta = 132,6^{\circ}$					
19	P _n	14:00:56,2	iCPZNE;iz		
	S _n	14:01:20,2	iCPZNE;iz		
$\Delta = 1,8^{\circ}$					
19	P _g	15:42:30,0	cPZNE;z		
	S _g	15:42:40,1	cPZNE;z		
$\Delta = 0,8^{\circ}$					
19	P _n	16:51:23,2	cPZNE;z		
	S _n	16:52:21,6	cPZNE;z		
19	P*	19:41:00,4	cPZNE;z		
	S*	19:41:15,2	cPZNE;z		
20	LR	11:55:00	LPZNE	30	
U.S.C.G.S.: Epicentre: 4,1 S 104,5 W (Iles Cordillera) h = 33 km H = 10:55:57 Mag: 4,6 (C.G.S.) $\Delta = 116,0^{\circ}$					
20	LR	14:20:00	LPZNE	26	
U.S.C.G.S.: Epicentre: 13,3 S 111,4 W (Iles Cordillera) h = 33 km H = 13:22:54 Mag: 5,0 (C.G.S.) $\Delta = 121,2^{\circ}$					



Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (M)	Périodes (s)	Sens du mouvement
1966 . Juil. 21	LR	04:30:00	LPZN	20	
			U.S.C.G.S.: Epicentre: 52,8 S 160,3 E (Iles Macquarie) h = 34 km H = 03:33:09,6 Mag: 5,6 (C.G.S.) $\Delta = 106,6^{\circ}$		
21	LR	06:31:00	LPZE	28	
			U.S.C.G.S.: Epicentre: 3,9 S 104,3 W (Iles Cordillera) h = 33 km H = 05:32:18,2 Mag: 5,1 (C.G.S.) $\Delta = 115,6^{\circ}$		
21	PKP	18:48:50,0	1CPZ(0,014)NE iz, iz	1	d, NS, EW
			U.S.C.G.S.: Epicentre: 17,8 S 178,6 W (Iles Fidji) h = 591 km H = 18:30:14,9 Mag: 5,6 (C.G.S.) $\Delta = 145,0^{\circ}$		
21	P* S*	23:52:12,0 23:52:29,5	cPZNE; iz cPZNE; iz		
			1,3 ^o		
22	P (S) Lg	02:56:21,5 03:01:08,0 03:03:02,6	1CPZNE; iz, iz 1CPZNE; iz, iz 1CPZNE; iz, iz		d, SN, EW c, SN, WE c, SN, WE
			U.S.C.G.S.: Epicentre: 0,6 N 29,9 E (République du Congo) h = 33 km H = 02:51:25 Mag: 4,6 (C.G.S.) $\Delta = 22,4^{\circ}$		
22	P	03:52:44,7	1CPZ(0,04)NE iz, iz	1	d, NS, EW
			U.S.C.G.S.: Epicentre: 42,8 N 84,5 E (Sinkiang, Chine) h = 33 km H = 03:39:59,7 Mag: 5,2 (C.G.S.) $\Delta = 86,8^{\circ}$		
22	- PKP	08:44:56,8 08:45:04,5	1CPZE; iz, iz 1CPZE; iz, iz		c, EW c, WE
			U.S.C.G.S.: Epicentre: 16,0 S 168,0 E (Iles Nouvelles Hébrides) h = 187 km H = 08:25:54,7 Mag: 5,5 (C.G.S.) $\Delta = 140,1^{\circ}$		
22	PKP pPKP SSS LR	10:36:48,5 10:37:02,2 11:04:00 11:41:00	1CPZ(0,06)iz, iz 1CPZNE; iz, iz LPZNE LPZNE	1 20	d d, NS, EW
			U.S.C.G.S.: Epicentre: 51,7 N 173,5 W (Iles Aléoutiennes) h = 56 km H = 10:17:22,5 Mag: 5,6 (C.G.S.) $\Delta = 142,8^{\circ}$		
23	PKP LR	14:51:18,0 15:55:00	1CPZNE; iz, iz LPZNE	20	d, NS, EW
			U.S.C.G.S.: Epicentre: 51,7 N 173,5 W (Iles Aléoutiennes) h = 55 km H = 14:31:51,2 Mag: 5,3 (C.G.S.) $\Delta = 142,8^{\circ}$		
24	-	08:57:01,7	1CPZ		d
24	LR	10:13:00	1LPZN	20	
			U.S.C.G.S.: Epicentre: 16,3 S 172,8 W (Iles Samoa) h = 49 km H = 08:52:13 Mag: 4,8 (C.G.S.) $\Delta = 148,2^{\circ}$		
24	PKP	17:37:40,4	1CPZ(0,07)NE	0,5	c, SN, WE
			U.S.C.G.S.: Epicentre: 20,4 S 175,8 W (Iles Tonga) h = 112 km H = 17:18:17,6 Mag: 5,2 (C.G.S.) $\Delta = 143,6^{\circ}$		
29	LR	12:58:00	1LPZNE	20	
			U.S.C.G.S.: Epicentre: 10,5 S 162,8 E (Iles Solomon) h = 75 km H = 11:46:15,6 Mag: 5,4 (C.G.S.) $\Delta = 140,4^{\circ}$		



Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (μ)	Périodes (s)	Sens du mouvement
1966 Jul. 30	(P)	06:29:42,5	iCPZNE;iz		c,SN,WE
	(S)	06:34:38,5	iCPZNE;iz,IZ		c,NS,EW
	(Lg)	06:36:21,5	iCPZNE;iz,IZ		d,NS,WE
31	P*	09:09:42,0	iCPZ;iz		
	S*	09:09:57,0	iCPZ;iz		c

$\Delta = 1,10$



BANDEIRA Aug. 1966

SERVIÇO METEOROLÓGICO DE ANGOLA

Centro de Geofísica de Luanda
C.P. 1228 G Luanda

BULLETIN SÉISMIQUE D'ANGOLA (PORTUGAL)

ANNÉE 2 - No 8

AOÛT 1966

Station sismographique de São da Bandeira

Coordonnées de la station:

Latitude géographique: $\phi = 14^{\circ} 54' 08''$ S Longitude: $\lambda = 13^{\circ} 28' 39''$ E
Latitude géocentrique: $\phi' = 14^{\circ} 48' 23''$ S Altitude: $h = 1761$ m

Nature du sous-sol:

Granite

Constantes des sismographes

Séismographes	T_0 (s)	T_g (s)	Amplification			
			$T_s=0,2$ s	$T_s=0,6$ s	$T_s=1,0$ s	$T_s=15,0$ s
Benioff vertical (z)	1,0	0,2	76750	33000	15300	-
Benioff vertical (Z)	1,0	21,3	400	1100	1650	120
Benioff vertical (CPZ)	1,0	0,75	38000	150000	100000	-
Benioff N/S (CPN)	1,0	0,85	38000	150000	100000	-
Benioff EW (CPE)	1,0	0,82	38000	150000	100000	-
Sprengnether vertical (LPZ)	15,0	100,0	-	-	-	1500
Sprengnether NS (LPN)	15,0	100,0	-	-	-	1500
Sprengnether EW (LPE)	15,0	100,0	-	-	-	1500

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (li)	Périodes (s)	Sens du mouvement
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1966 Août	1	-	17:21:43,5	iCPZN; iz	-	-
			17:28:08,5	iCPZNE; iz	-	-
1	P	19:21:04,0	iCPZ(0,03)NE	1	c, SN, WE	
			eLPZ; iz, iz			
		LR	19:43:00	LPZNE; Z	40	

U.S.C.G.S.: Epicentre: 29,9 N 68,8 E (Ouest du Pakistan)
h = 33 km H = 19:09:55,1 Mag: 5,8 (C.G.S.)
 $\Delta = 69,6^{\circ}$

1	PKP	20:04:53,5	iCPZ(0,08)N; iz	0,6	d, NS
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U.S.C.G.S.: Epicentre: 19,7 S 174,3 W (Iles Tonga)
h = 33 km H = 19:45:17 Mag: 5,0 (C.G.S.)
 $\Delta = 144,6^{\circ}$



- 2 -

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (μ)	Périodes (s)	Sens du mouvement	
1966 Août	1	P	20:42:05,0	iCPZ(0,033)NE; iz,iz	1,2	d,SN,WE
		LQ	21:01:00	LPNE	50	
		LR	21:06:00	LPZNE	36	
		U.S.C.G.S.: Epicentre: 29,9 N 68,6 E (Ouest du Pakistan) h = 33 km H = 20:30:57,0 Mag: 5,7 (C.G.S.) $\Delta = 69,5^{\circ}$				
	1	P	21:14:08,5	iCPZ(0,066)NE; iz,iz	1,1	c,NS,EW
		pp	21:14:17,0	iCPZNE;iz,iz		
		LR	21:40:00	Z	26	
		U.S.C.G.S.: Epicentre: 30,0 N 68,7 E (Ouest du Pakistan) h = 33 km H = 21:02:59,6 Mag: 6,2 (C.G.S.) 6 3/4 (PAS) $\Delta = 69,6^{\circ}$				
	5	P	01:15:07,6	iCPZ(0,029)NE; iz,iz	0,9	c,SN,WE
		U.S.C.G.S.: Epicentre: 32,6 N 79,6 E (Région du Kaschmir - Tibet) h = 55 km H = 01:03:04,4 Mag: 5,3 (C.G.S.) $\Delta = 79,0^{\circ}$				
	5	PKP	04:52:22,3	iCPZ(0,02)iz	1	c
		LR	05:43:00	LPZNE;Z	24	
		F	06:20	LPZ		
		U.S.C.G.S.: Epicentre: 10,9 S 162,3 E (Iles Solomon) h = 93 km H = 04:33:07,4 Mag: 5,7 (C.G.S.) $\Delta = 139,8^{\circ}$				
	7	PKP	02:32:36,6	iCPZ(0,034)NE LPZN;iz,iz	0,9	d,NS,EW
		pp	02:32:46,0	iCPE		
		PP	02:35:52,5	iCPZN eLPZN;iz,iz		d,(SN)
		(SP)	02:46:14,0	eLPZNE		c,SN,WE
		SS	02:54:30,0	eLPZNE		d,SN,WE
		LR	03:16:00	LPZNE	50	
		LR ₁	03:26:00	Z	32	
		F	05:30	LPZ		
		U.S.C.G.S.: Epicentre: 50,6 N 171,3 W (Région des Iles Aléoutiennes) h = 39 km H = 02:13:05,1 Mag: 6,5 (C.G.S.) $\Delta = 144,0^{\circ}$				
	7	LR	18:39:00	LPZNE	30	
		LR ₁	18:42:00	Z	24	
	8	LR	09:06:00	LPZE	24	
		U.S.C.G.S.: Epicentre: 19,3 N 108,1 W (Région des Iles Revilla Gigedo) h = 33 km H = 08:02:45,8 Mag: 5,5 - 5,9 (BRK) 5,4 (C.G.S.) $\Delta = 124,2^{\circ}$				
	10	P	05:20:34,9	iCPZNE eLPZNE;iz,iz		d,NS,WE
		S	05:23:49,9	iCPZNE eLPZN;iz,iz		d,NS,WE
		$\Delta = 18^{\circ}$				
	10	PKP	12:52:(53,5)	iCPZ		
		LR	13:43:00	LPZNE	26	
		U.S.C.G.S.: Epicentre: 5,5 S 151,8 E (Région de la Nouvelle Bretagne) h = 40 km H = 12:33:42,2 Mag: 5 - 5,5 (BRK) 5,3 (C.G.S.) $\Delta = 134,1^{\circ}$				
	10	P	22:17:18,1	iCPZ(0,012)NE iz	0,7	d,SN,WE
		U.S.C.G.S.: Epicentre: 38,4 N 69,6 E (Tadjik SSR) h = 4 km H = 22:05:35,0 Mag: 5,5 (C.G.S.) $\Delta = 74,8^{\circ}$				
	11	PKP	05:32:19,5	iCPZ(0,06)NE eLPZ;iz,iz	1	c,SN,EW
		LR	06:27:00	LPZNE; Z	24	
		U.S.C.G.S.: Epicentre: 19,3 S 173,9 W (Iles Tonga) h = 33 km H = 05:12:42,2 Mag: 4,7 - 5,2 (BRK) 5,5 (C.G.S.) $\Delta = 145,0^{\circ}$				

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (M)	Périodes (s)	Sens du mouvement
1966 Août 11	P	10:18:43,1	iCPZNE		c,SN,WE
11	-	11:05:22,0	iCPZ		d
12	LR	00:34:00	LPZNE; Z	24	
U.S.C.G.S.: Epicentre: 23,4 S 175,9 W (Région des Iles Tonga) h = 97 km H = 23:25:37,9 Mag: 5,4 - 5,8 (BRK) 5,3 (C.G.S.) $\Delta = 140,6^\circ$					
12	-	19:31:35,3	iCPZN; iz		d,NS
	LR	19:42:00	LPZN	30	
14	LR	05:59:00	LPZN	24	
U.S.C.G.S.: Epicentre: 38,3 N 73,7 E (Région Tadjik-Sinkiang) h = 102 km H = 05:08:30,8 Mag: 5,1 (C.G.S.) $\Delta = 77,4^\circ$					
15	P	02:27:22,5	iCPZ; iz, iZ		c
	LR	02:57:00	LPZNE	26	
U.S.C.G.S.: Epicentre: 28,7 N 78,9 E (Nord de l'Inde) h = 50 km H = 02:15:33,8 Mag: 5,8 (C.G.S.) $\Delta = 76,8^\circ$					
15	PKP	02:31:25,0	iCPZ(0,02)N; iz	0,8	d,SN
U.S.C.G.S.: Epicentre: 28,7 N 78,9 E (Région des Iles Fidji) h = 556 km H = 02:12:47,1 Mag: 4,8 (C.G.S.) $\Delta = 145,4^\circ$					
15	LQ	03:32:00	LPN	40	
	LR	03:40:00	LPZNE; Z	34	
U.S.C.G.S.: Epicentre: 13,3 N 121,3 E (Iles Philippines) h = 14 km H = 02:45:32,3 Mag: 5,7 (C.G.S.) $\Delta = 110,3^\circ$					
15	P	10:30:02,1	iCPZ(0,015)E	1	c,EW
	(ss)	10:37:46,4	eLPZ; iz, iZ		d,NS
	LR	10:46:00	eLPZ; eZ LPZNE; Z	40	
U.S.C.G.S.: Epicentre: 3,8 N 64,0 E (Carlsburg Ridge) h = 37 km H = 10:20:42,2 Mag: 5,6 (C.G.S.) $\Delta = 53,4^\circ$					
15	-	19:43:56,2	iCPNE		NS,EW
16	P	02:27:37,8	iCPZ(0,1)NE; iz, iZ	1,2	c,NS,EW
U.S.C.G.S.: Epicentre: 36,4 N 70,8 E (Région de Hindu Kush) h = 199 km H = 02:16:19,7 Mag: 5,7 (C.G.S.) $\Delta = 74,4^\circ$					
16	LR	20:50:00	LPZNE; Z	46	
U.S.C.G.S.: Epicentre: 21,4 S 171,3 E (Région des Iles Loyaute) h = 36 km H = 19:45:38,7 Mag: 5,6 - 6,0 (BRK) 5,3 (C.G.S.) $\Delta = 137,6^\circ$					
17	LR	22:13:00	LPZNE	30	
18	LQ	11:18:00	LPN	52	
	LR	11:24:00	LPZNE; Z	30	
18	LR	15:26:00	LPZNE; Z	40	
U.S.C.G.S.: Epicentre: 0,2 S 125,1 E (M. des Moluques) h = 56 km H = 14:33:59,8 Mag: 6,3 (C.G.S.) $\Delta = 110,8^\circ$					
19	P	12:32:15,9	iCPZ(0,06)NE; eLPZN; iz, iZ	1	c,SN,WE
	S	12:32:15,9	eLPZNE		
	(LR)	12:51:00	Z	30	
	F	16:40	LPZ		
U.S.C.G.S.: Epicentre: 32,2 N 41,7 E (Turquie) h = 26 km H = 12:22:09,6 Mag: 6,1 (C.G.S.) $\Delta = 60,2^\circ$					

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (μ)	Périodes (s)	Sens du mouvement
1966 Août 19	P	14:04:28,9	iCPZ; iz		
	U.S.C.G.S.: Epicentre: 38,9 N 41,7 E (Turquie) h = 33 km H = 13:54:24,9 Mag: 5,3 (C.G.S.) $\Delta = 59,9^{\circ}$				
20	P	07:56:16,0	iCPZ; iz		
	U.S.C.G.S.: Epicentre: 3,2 S 77,2 W (Région frontière Perou-Equateur) h = 116 km H = 07:43:27,6 Mag: 5,6 (C.G.S.) $\Delta = 90,2^{\circ}$				
20	P	12:09:15,0	iCPZ(0,025)NE	1	d, NS, EW
	S	12:17:31,0	iz, iZ		
	SSS	12:23:55,0	eLPZNE		c, SN, EW
	(LR)	12:30:35,0	eLPZNE	18	
	LR ₁	12:26:00	CPZNE	50	
	U.S.C.G.S.: Epicentre: 42,3 N 18,6 E (Yougoslavie) h = 22 km H = 12:05:19,0 Mag: 5,5 (C.G.S.) $\Delta = 57,4^{\circ}$				
20	P	12:15:04,4	iCPZ(0,025)N	1	d, SN
			iz, iZ		
	U.S.C.G.S.: Epicentre: 42,3 N 18,6 E (Yougoslavie) h = 22 km H = 12:05:19,0 Mag: 5,5 (C.G.S.) $\Delta = 57,4^{\circ}$				
20	P	23:14:27,5	iCPZ		
	PP	23:17:29,4	iCPZ		
	(LQ)	23:54:00	LPE	60	
	LR	00:02:00	LPZNE	36	
	U.S.C.G.S.: Epicentre: 23,4 S 176,0 W (Sud des Iles Fidji) h = 57 km H = 22:55:03,0 Mag: 5,6 (C.G.S.) 5 3/4 (PAS) 5,6 - 5,8 (BRK) $\Delta = 140,6^{\circ}$				
21	PKP	05:19:02,5	iCPZ(0,008)iz	0,6	d
	LR	05:55:00	LPZNE	40	
	U.S.C.G.S.: Epicentre: 8,5 N 126,7 E (Iles Philippines, Mindanao) h = 67 km H = 05:00:26,8 Mag: 6,6 - 6,9 (BRK) 6,0 (C.G.S.) $\Delta = 114,5^{\circ}$				
22	LR	03:43:00	LPZNE	20	
22	-	14:41:34,1	iCPZN; iz, iZ		c, NS
22	P	17:12:55,3	iCPZ		d
	U.S.C.G.S.: Epicentre: 22,5 S 70,4 W (Près de la côte nord du Chili) h = 59 km H = 17:00:57,2 Mag: 4,9 (C.G.S.) $\Delta = 78,8^{\circ}$				
22	P	18:01:30,0	iCPZ; eLPZ		c
	SPP	18:16:18,0	iz, iZ		
	SS	18:22:00,0	eLPZN		
	LR	18:46:00	eLPZNE	40	
	F	20:50	LPZNE; Z		
	U.S.C.G.S.: Epicentre: 22,4 S 170,6 E (Région des Iles Loyauté) h = 39 km H = 17:42:10,6 Mag: 6,7 - 7,1 (BRK) 5,5 (C.G.S.) $\Delta = 136,5^{\circ}$				
23	PKP	22:54:48,0	iCPZ(0,02); iz	1	d
	U.S.C.G.S.: Epicentre: 16,3 S 173,2 W (Iles Tonga) h = 33 km H = 22:35:02 Mag: 5,0 (C.G.S.) $\Delta = 148,2^{\circ}$				
24	PKP	02:39:35,6	iCPZ(0,02)NE	0,9	d, NS
	U.S.C.G.S.: Epicentre: 19,0 S 177,7 W (Région des Iles Fidji) h = 442 km H = 02:20:49 Mag: 4,4 (C.G.S.) $\Delta = 144,9^{\circ}$				
25	P	23:30:35,4	iCPZ(0,024)NE	0,7	c, SN, WE
			iz, iZ		
	U.S.C.G.S.: Epicentre: 22,4 S 68,6 W (Nord du Chili) h = 112 km H = 23:18:50,8 Mag: 5,3 (C.G.S.) $\Delta = 77,1^{\circ}$				

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (μ)	Périodes (s)	Sens du mouvement
1966 Août 26	PKP	01:11:09,7	iCPZ; iz		d
	PP	01:19:54,0	iCPZ		d
	LR	01:58:00	LPZN	40	
U.S.C.G.S.: Epicentre: 27,5 S 177,3 W (Iles Kermadec) h = 59 km H = 00:51:51,3 Mag: 5,7 - 6,1 (BRK) 5,7 (C.G.S.) $\Delta = 136,3^e$					
26	LR	10:10:00	LPZNE; Z	40	
U.S.C.G.S.: Epicentre: 22,1 S 170,0 E (Région des Iles Loyauté) h = 33 km H = 09:06:50,4 Mag: 5,4 - 5,8 (BRK) 5,6 (C.G.S.) $\Delta = 136,4^e$					
29	LR	13:57:00	LPZN	40	
U.S.C.G.S.: Epicentre: 65,2 S 176,9 E (Région des Iles Balleny) h = 33 km H = 13:10:27 Mag: 5,5 (C.G.S.) $\Delta = 98,9^e$					
30	LR	21:29:00	LPZNE	36	
U.S.C.G.S.: Epicentre: 61,3 N 147,5 W (Sud du Alaska) h = 36 km H = 20:20:54,0 Mag: 5 3/4 6 (PAS) 4,9 - 5,3 (BRK) 5 3/4 (PAL) 5,0 (C.G.S.) $\Delta = 131,7^e$					
31	-	04:05:30,5	iCPZ		
31	P	19:51:08,7	iCPZ		c
	pP	19:51:18,6	iCPZ		c
U.S.C.G.S.: Epicentre: 37,6 S 73,0 W (Chili central) h = 33 km H = 19:39:09,5 Mag: 5,0 (C.G.S.) $\Delta = 78,2^e$					

4 MAR 1968

SERVIÇO METEOROLÓGICO DE ANGOLA

Centro de Geofísica de Luanda
G.P. 1228 G Luanda

BULLETIN SÉISMIQUE D'ANGOLA (PORTUGAL)

ANNÉE 2 - No 9

SEPTEMBRE 1966

Station sismographique de Sá da Bandeira

Coordonnées de la station:

Latitude géographique: $\phi = 14^{\circ} 54' 08''$ S Longitude: $\lambda = 13^{\circ} 28' 39''$ E
Latitude géocentrique: $\Phi = 14^{\circ} 48' 23''$ S Altitude: $h = 1761$ m

Nature du sous-sol:

Granite

Constantes des sismographes

Séismographes	T ₀ (s)	T _g (s)	Amplification			
			T _s =0,2 s	T _s =0,6 s	T _s =1,0 s	T _s =15,0 s
Benioff vertical (z)	1,0	0,2	76750	33000	15300	-
Benioff vertical (z)	1,0	21,3	400	1100	1650	120
Benioff vertical (CPZ)	1,0	0,75	38000	150000	100000	-
Benioff N/S (CPN)	1,0	0,85	38000	150000	100000	-
Benioff EW (CPE)	1,0	0,82	38000	150000	100000	-
Sprengnether vertical (LPZ)	15,0	100,0	-	-	-	1500
Sprengnether NS (LPN)	15,0	100,0	-	-	-	1500
Sprengnether EW (LPE)	15,0	100,0	-	-	-	1500

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (L)	Périodes (s)	Sens du mouvement
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1966 Sept. 1 P. 14:32:12,8 ICPZ(0,04)NE;iz,iz 1 e,NS,EW
LR 14:51:00 LPZNE 30

U.S.C.G.S.: Epicentre: 37,5 N 22,1 E (Grèce)
h = 17 km H = 14:22:57,0 Mag: 5,3 (C.G.S.)
 $\Delta = 53,0^{\circ}$

1 PKP 15:44:31,0 ICPZ(0,04)NE;iz,iz 0,6 c,SN,EW

U.S.C.G.S.: Epicentre: 20,6 S 175,4 W (Iles Tonga)
h = 33 km H = 15:24:59,2 Mag: 5,2 (C.G.S.)
 $\Delta = 143,4^{\circ}$

2 P 00:14:18,5 ICPZ(0,04)NE;iz,iz 1 c,NS,WE
(S) 00:19:23,3 ICPZNE;iz c,SN,EW
Lg 00:21:03,0 ICPZNE;iz c,SN,EW
LR 00:22:44 LPZNE;Z 10

U.S.C.G.S.: Epicentre: 1,0 N 30,2 E (Ouganda)
h = 19 km H = 00:09:16
 $\Delta = 23,0^{\circ}$

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (μ)	Périodes (s)	Sens du mouvement
1966 Sept. 2	LQ	08:49:00	LPZNE	44	
	LR	08:59:00	LPZNE;Z	26	
U.S.C.G.S.: Epicentre: 4,5 S 105,9 W (Iles Cordillera) h = 99 km H = 07:59:05,7 Mag: 5,1 (C.G.S.) $\Delta = 116,9^{\circ}$					
2	(Pn)	11:50:41,5	iCPZNE;iz,iz		d,NS,WE
	(Sn)	11:51:01,5	iCPZNE;iz,iz		c,SN,WE
	(Lg)	11:51:46,4	iCPZNE;iz,iz		c,NS,EW
3	-	12:17:43,0	iCPZNE		d,NS,EW
3	LR	12:33:00	LPZN	20	
3	LR	17:27:00	LPZE	20	
U.S.C.G.S.: Epicentre: 10,2 N 104,2 W (Côte du Mexique) h = 47 km H = 16:24:20,7 Mag: 5,3 (C.G.S.) $\Delta = 119,2^{\circ}$					
4	LR	10:50:00	LPZNE	20	
4	LR	22:58:00	LPZNE	30	
5	P	09:10:58,0	iCPZNE;iz,iz		d,NS,EW
	S	09:13:09,5	iCPZNE;iz,iz		d,NS,EW
	Lg	09:14:10,5	iCPZNE;LPZNE; iz,iz		c,SN,EW
	LR	09:15:00,0	LPZNE	6	
$\Delta = 11,5^{\circ}$					
6	Pn	22:40:03,4	iCPZN		
	Sn	22:41:28,4	iCPZNE;iz		
$= 7,4^{\circ}$					
9	P	04:31:22,0	iCPZNE;iz		c,NS,WE
	S	04:31:59,7	iCPZNE;iz		d,NS,EW
	Lg	04:32:08,0	iCPZNE;iz		
$\Delta = 3,0^{\circ}$					
8	P	08:40:14,0	iCPZ(0,06)NE iz,iz	0,5	c,SN,WE
U.S.C.G.S.: Epicentre: 23,5 S 66,6 W (Province de Jujuy - Argentine) h = 204 km H = 08:28:52,1 Mag: 5,4 (C.G.S.) $\Delta = 75,2^{\circ}$					
8	P	12:13:03,0	iCPZ(0,04)NE iz,iz	1	c,SN,WE
	LR	12:18:00	LPZNE	20	
U.S.C.G.S.: Epicentre: 22,5 S 10,7 W (Atlantique Sud) h = 33 km H = 12:07:50 Mag: 5,4 (C.G.S.) $\Delta = 24,1^{\circ}$					
8	P	12:29:28,0	iCPZ(0,03)NE	1	c,NS,WE
U.S.C.G.S.: Epicentre: 36,4 N 70,2 E (Hindu Kush) h = 223 km H = 12:18:14,8 Mag: 4,9 (C.G.S.) $\Delta = 74,1^{\circ}$					
8	PKP	16:56:37,0	iCPZ(0,05)NE	1	c,SN,EW
U.S.C.G.S.: Epicentre: 19,8 S 175,8 W (Iles Tonga) h = 183 km H = 16:37:22 Mag: 4,0 (C.G.S.) $\Delta = 144,1^{\circ}$					
8	PKP	21:34:25,5	iCPZNE;iz,iz		d,NS,WE
	PP	21:35:22,0	iCPZNE;LPZNE;iz,iz		d,SN,EW
	PS	21:45:11,5	iCPZE;eLPZNE		c,EW
	LR	22:23:00	LPZNE;Z	20	
U.S.C.G.S.: Epicentre: 2,4 N 128,4 E (Halmahera) h = 96 km H = 21:15:52,8 Mag: 6,9 (C.G.S.) $\Delta = 114,7^{\circ}$					
9	-	12:17:23,0	iCPZE;iz		d,WE
	-	12:17:38,8	iCPZE;iz		d,EW
9	P	18:52:44,5	iCPZE;iz		d,EW
	LR	19:22:00	LPZE	20	
U.S.C.G.S.: Epicentre: 10,8 N 69,5 W (Venezuela) h = 12 km H = 18:39:58,2 Mag: 5,0 (C.G.S.) $\Delta = 86,1^{\circ}$					

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (μ)	Périodes (s)	Sens du mouvement
1966 Sept. 9	LR	21:09:00	LPZNE	20	
10	P	14:24:47,0	iGPZ(0,05)NE iz, iZ	1	c, NS, EW
	LR	14:54:00	LPZ	20	
		U.S.C.G.S.: Epicentre: 31,7 S 72,0 W (Côte Central du Chili) h = 20 km H = 14:12:46,2 Mag: 4,9 (C.G.S.) $\Delta = 78,5^\circ$			
11	-	01:41:08,8	iGPZNE		c, SN, WE
11	P	03:58:26,6	iGPZN; iz, iZ		d, SN
	LR	04:13:00	LPZNE	20	
		U.S.C.G.S.: Epicentre: 58,9 S 25,7 W (Iles Sandwich) h = 33 km H = 03:49:13 Mag: 5,4 (C.G.S.) $\Delta = 52,6^\circ$			
11	P	17:50:39,4	iGPZE; iz, iZ		d, EW
		U.S.C.G.S.: Epicentre: 6,8 N 72,9 W (Colombie) h = 167 km H = 17:38:04,2 Mag: 5,9 (C.G.S.) $\Delta = 88,3^\circ$			
12	(PKIKP) PKP	11:48:47,9 11:49:00,0	iGPZ; iz iGPZ(0,09)NE; LPZ; iz, iZ	1	d d, SN, WE
	PP	11:51:38,0	iGPZNE; LPZNE; iz, iZ		d, SN, WE
12	PS PPS LQ LR F	12:00:00,9 12:03:46,0 12:32:00 12:45:00 14:30:00	LPZNE; eZ LPZNE; eZ LPZNE; Z LPZNE; Z LPZ	50 18	c, SN, EW
		U.S.C.G.S.: 23,1 S 170,6 E (Iles Loyauté) h = 49 km H = 11:29:40,3 Mag: 6,1 (C.G.S.) $\Delta = 135,9^\circ$			
12	LR	17:44:00	LPZNE	30	
		U.S.C.G.S.: Epicentre: 39,4 N 120,1 W (Nord de Californie) h = 8 km H = 16:41:01,7 Mag: 5,4 (C.G.S.) $\Delta = 132,7^\circ$			
13	LR	16:37:00	LPZN	24	
13	LR	20:53:00	LPNE	30	
14	LR	00:13:00	LPZN	20	
14	LR	01:16:00	LPZNE	20	
14	LR	04:18:00	LPZE	24	
14	P	23:28:04,5	iGPZNE; eLPZNE; iz, iZ		c, SN, WE
	pP	23:28:13,0	iGPZNE; iz, iZ		c, SN, WE
	S	23:35:35,5	iGPZNE; eLPZNE iz, iZ		c, SN, EW
	LR	23:44:00	CPZNE; LPZNE; iz	24	
	F	03:38:00	LPZ		
		U.S.C.G.S.: Epicentre: 60,1 S 27,0 W (Sud des Iles Sandwich) h = 33 km H = 23:18:41,6 Mag: 6,2 (C.G.S.) $\Delta = 53,9^\circ$			
15	P	01:55:52,3	iz, iZ		c
		U.S.C.G.S.: Epicentre: 60,3 S 26,8 W (Sud des Iles Sandwich) h = 33 km H = 01:46:28,7 Mag: 5,2 (C.G.S.) $\Delta = 53,9^\circ$			
15	P	02:34:14,3	iz, iZ		d
		U.S.C.G.S.: Epicentre: 60,2 S 26,6 W (Sud des Iles Sandwich) h = 33 km H = 02:24:51,4 Mag: 5,5 (C.G.S.) $\Delta = 53,9^\circ$			

Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes(μ)	Périodes (s)	Sens du mouvement
1966 Sept. 15	P	03:03:01,7	iz,iz		c
		U.S.C.G.S.: Epicentre: 60,4 S 26,6 W (Sud des Iles Sandwich) h = 33 km H = 02:53:38 Mag: 5,5 (C.G.S.) $\Delta = 53,9^{\circ}$			
15	LR	05:19:00	LPZNE	24	
15	P	06:17:17,2	iz,iz		d
		U.S.C.G.S.: Epicentre: 60,2 S 26,8 W (Sud des Iles Sandwich) h = 31 km H = 06:08:56 Mag: 5,3 (C.G.S.) $\Delta = 53,9^{\circ}$			
15	P	06:31:29,8	iz,iz		
		U.S.C.G.S.: Epicentre: 60,2 S 26,8 W (Sud des Iles Sandwich) h = 33 km H = 06:22:07 Mag: 5,4 (C.G.S.) $\Delta = 53,9^{\circ}$			
15	P	12:01:18,5	iCPZ(0,07)NE; iLPZNE;iz,iz	1	d,NS,EW
	S	12:08:51,0	iCPZNE;eLPZNE; iz,iz		d,SN,EW
	LR	12:17:00	LPZNE;Z	24	
		U.S.C.G.S.: Epicentre: 60,3 S 26,7 W (Sud des Iles Sandwich) h = 33 km H = 11:51:55,7 Mag: 5,7 (C.G.S.) $\Delta = 53,9^{\circ}$			
15	LR	18:13:00	LPZNE	20	
17	-	17:05:38,9	iCPZNE;iz,iz		d,SN,EW
17	PKP	21:24:36,0	iCPZ(0,02)NE; iz,iz	0,6	c,SN,EW
		U.S.C.G.S.: Epicentre: 20,7 S 176,3 W (Iles Fidji) h = 220 km H = 21:05:26,8 Mag: 4,6 (C.G.S.) $\Delta = 143,2^{\circ}$			
17	LR	21:32:00	LPZNE	20	
18	Pn	04:30:07,5	iCPZNE;iz,iz		d,NS,EW
	Sn	04:39:28,3	iCPZNE;iz,iz		c,SN,WE
		$\Delta = 7,0^{\circ}$			
18	P	15:23:48,3	iCPZNE;eLPZN; iz,iz		c,SN,EW
	pP	15:23:58,6	iCPZNE;iz,iz		c,SN,EW
	(S)	15:23:28,0	eLPZNE		c,NS,EW
	LR	15:40:00	LPZNE;Z	22	
		U.S.C.G.S.: Epicentre: 60,4 S 27,0 W (Sud des Iles Sandwich) h = 33 km H = 15:14:24,9 Mag: 5,4 (C.G.S.) $\Delta = 53,9^{\circ}$			
18	P	18:07:44,2	iCPZNE;iz,iz		c,SN,WE
	LQ	18:23:00	LPZN	30	
	LR	18:30:00	LPZN	14	
		U.S.C.G.S.: Epicentre: 60,4 S 27,1 W (Sud des Iles Sandwich) h = 38 km H = 17:58:20,1 Mag: 5,5 (C.G.S.) $\Delta = 53,9^{\circ}$			
18	P	20:53:48,5	iCPZNE;iLPZNE; iz,iz		c,NS,EW
	LR	21:15:00	LPZNE; Z	20	
		U.S.C.G.S.: Epicentre: 27,8 N 54,3 E (Iran) h = 16 km H = 20:43:53,3 Mag: 6,2 (C.G.S.) $\Delta = 58,2^{\circ}$			
19	P	18:56:24,3	iCPZ(0,06)NE; iz	1	c,SN,WE
		U.S.C.G.S.: Epicentre: 60,5 S 27,2 W (Sud des Iles Sandwich) h = 33 km H = 18:46:59,8 Mag: 4,9 (C.G.S.) $\Delta = 53,9^{\circ}$			
20	P	09:33:26,0	iCPZ(0,04)NE;iz	1	d,NS,WE
	pP	09:33:36,0	iCPZNE;iz,iz		d,NS,WE
	LR	09:50:00	LPZNE	20	
		U.S.C.G.S.: Epicentre: 60,6 S 26,2 W (Sud des Iles Sandwich) h = 33 km H = 09:24:02,8 Mag: 5,5 (C.G.S.) $\Delta = 53,9^{\circ}$			



Date	Phases	Heure T.M.G.	Composantes, nature du mouvement et amplitudes (μ)	Périodes (s)	Sens du mouvement
1966 Sept. 20	LR	18:46:00	LPZNE	20	
22	LR	19:04:00	LPZNE	24	
22	LR	22:56:00	LPZN	20	
23	LR	02:52:00	LPZN	20	
23	P	18:35:11,5	iCPZ(0,075)NE; iz, iZ	1	d, NS, EW
	LR	18:50:00	LPZNE	30	
U.S.C.G.S.: Epicentre: 59,5 S, 26,3 W (Sud des Iles Sandwich) h = 33 km H = 18:25:53,0 Mag: 5,6 (C.G.S.) $\Delta = 53,2^\circ$					
24	PKP pPKP	09:16:46,3 09:16:56,3	iz, iZ iz, iZ		
U.S.C.G.S.: Epicentre: 12,0 N, 130,8 W (Nord de l'Océan Pacifique) h = 33 km H = 08:57:10,2 Mag: 5,3 (C.G.S.) $\Delta = 145,2^\circ$					
24	P	10:10:37,4	iz, iZ		d
U.S.C.G.S.: Epicentre: 27,4 N, 54,5 E (Iran) h = 33 km H = 10:00:46,4 Mag: 5,4 (C.G.S.) $\Delta = 58,2^\circ$					
24	-	13:43:38,6	ez, eZ		c
26	-	04:41:39,0	iCPZNE; eLPZNE; iz, iZ		d, NS, WE
26	P pP LR	05:23:45,5 05:23:50,5 06:01:00	iCPZ; iz iCPZE; iz LPZNE	20	d c
U.S.C.G.S.: Epicentre: 27,5 N, 92,6 E (Inde - Chine) h = 33 km H = 05:10:58,1 Mag: 5,6 (C.G.S.) $\Delta = 87,5^\circ$					
28	P PP (S) SS LR	14:13:39,0 14:17:29,0 14:24:24,0 14:31:05,0 14:48:00	iCPZNE; eLPZ; iz, iZ iCPZE; eLPZ; iz eLPZNE eLPZE LPZNE; Z	30	c, SN, WE c, EW c, SN, WE
U.S.C.G.S.: Epicentre: 27,4 N, 100,1 E (Hunan) h = 33 km H = 14:00:22,9 Mag: 6,2 (C.G.S.) $\Delta = 99,9^\circ$					
29	PKP	03:03:26,8	iCPZ(0,04)NE; iz	0,6	d, NS, EW
U.S.C.G.S.: Epicentre: 19,9 S, 176,2 W (Iles Fidji) h = 246 km H = 02:44:19,0 Mag: 5,5 (C.G.S.) $\Delta = 143,2^\circ$					
29	P* Sg	23:55:52,2 23:56:05,8	iz iz, iZ		c c
$\Delta = 1,0^\circ$					
30	P	09:41:04,8	iz, iZ		c
U.S.C.G.S.: Epicentre: 18,3 S, 69,7 W (Nord du Chili) h = 122 km H = 09:29:11,6 Mag: 5,2 (C.G.S.) $\Delta = 79,1^\circ$					