

GSA DATA REPOSITORY 2015252

SUPPLEMENTARY MATERIAL

Teleconnection between the intertropical convergence zone and southern westerly winds throughout the last deglaciation – Montade et al.

Chronology: Core MA97-1 and MD07-3088

Chronology of core MA97-1 and MD07-3088, published in Ledru et al. (2006) and Siani et al. (2013) have been re-calibrated by running the R package CLAM (Blaauw, 2010) based on the SHCal13.14C calibration curve (Reimer et al., 2013). The lacustrine core MA97-1 (located in the northern part of the Northeast Brazil) is based on 17 radiocarbon datings (Table 1). The oceanic core MD07-3088 is based on 24 radiocarbon datings performed on planktic foraminifera. In addition five tephra layers analyzed in this oceanic core provided the surface water reservoir ages allowing to correct the marine reservoir ages of foraminifera datings (Table 2).

Table DR1 core MA97-1

Lab number	Depth (cm)	Age ¹⁴ C (yr BP ±1σ)	Age range (cal yr BP 1σ)
Beta 110192	18-23	3060±50	3082-3333
AA 32146	31-32	3830±60	4010-4285
Beta 115180	40-45	5090±60	5737-5893
AA 32147	48-49	5580±80	6223-6410
AA33915	68-70	6010±50	6740-6881
Beta 110193	95-100	7660±50	8371-8505
AA 32148	118-120	9040±90	9934-10243
Beta 110194	135-140	9720±50	10880-11197
AA 35584	150-151	10220±40	11769-11948
AA 35585	158-160	10170±40	11624-11930
Beta 110195	172-174	10880±50	12698-12749
AA 32149	178-180	11600±120	13272-13535
AA 32150	200-202	12640±135	14623-15199
Beta 115181	215-218	12930±90	15240-15554
AA 32151	241-242	13560±185	16022-16563
AA 32153	259-260	15400±180	18434-18802
Beta 110196	275-277	15870±60	18979-19168

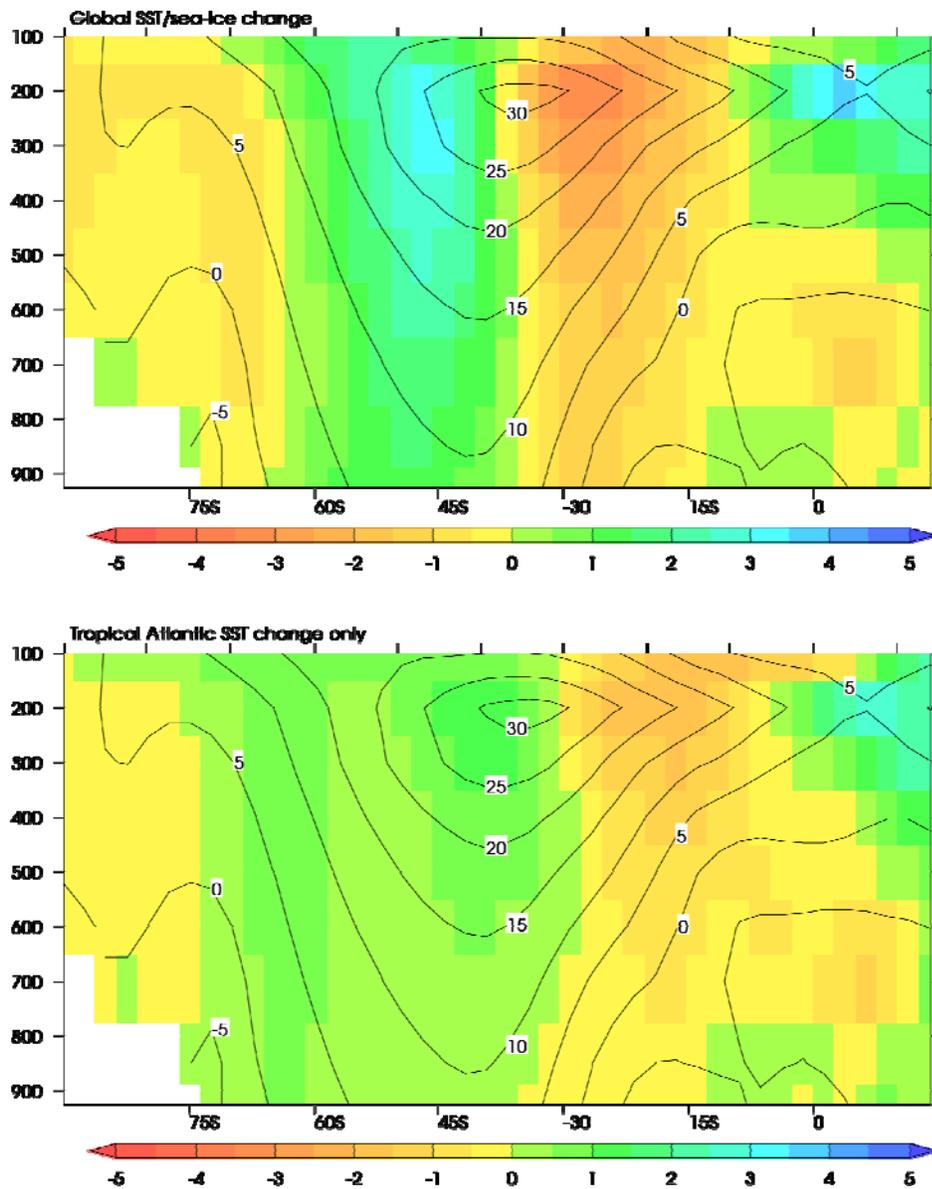
Table DR2 core MD07-3088

Lab number	Depth (cm)	Marine age ¹⁴ C (yr BP $\pm 1\sigma$)	Reservoir age (yr)	Atmospheric and corrected marine age ¹⁴ C (yr BP $\pm 1\sigma$)	Age range (cal yr BP 1σ)
Tephra HW7	160			1720 \pm 160	1384-1780
SacA 10552	160	2510 \pm 30	790		
Tephra H2	280			3670 \pm 135	3726-4147
SacA 12815	280	4475 \pm 30	805		
SacA 12816	361	5975 \pm 35	805	5170 \pm 144	5662-6094
SacA 12817	500	8430 \pm 30	805	7625 \pm 143	8212-8540
SacA 10553	540	9080 \pm 30	805	8275 \pm 143	9029-9400
SacA 12819	610	10050 \pm 35	805	9245 \pm 144	10235-10554
Tephra HW3	670			9960 \pm 105	11224-11601
SacA 10554	660	10880 \pm 35	920		
SacA 21648	700	11765 \pm 35	920	10845 \pm 144	12560-12843
Tephra HW2	740			11910 \pm 80	13584-13755
SacA 12820	750	12885 \pm 40	975		
SacA 21649	780	13185 \pm 45	975	12210 \pm 152	13774-14273
Tephra HW1	800			12435 \pm 65	14243-14651
SacA 12821	800	13755 \pm 35	1320		
UCIAM-S97349	810	13840 \pm 45	1320	12520 \pm 157	14310-14974
UCIAM-S97350	830	14290 \pm 50	1320	12970 \pm 158	15228-15697
UCIAM-S97351	850	14560 \pm 50	1320	13240 \pm 158	15619-16095
SacA 12822	870	14970 \pm 80	1320	13650 \pm 170	16157-16669
UCIAM-S97352	880	15145 \pm 50	1320	13825 \pm 158	16419-16924
SacA 21650G.	900	15365 \pm 50	1320	14045 \pm 158	16735-17251
UCIAM-S97353	940	15540 \pm 70	975	14565 \pm 166	17501-17897
SacA 12824	990	16295 \pm 50	1320	14975 \pm 158	17972-18343
SacA 21651	1020	15990 \pm 50	950	15040 \pm 158	18032-18412
SacA 12825	1040	15755 \pm 45	805	14950 \pm 157	17951-18320
SacA 10555	1171	16320 \pm 45	805	15515 \pm 157	18583-18887
SacA 12827	1710	17610 \pm 50	805	16805 \pm 158	20038-20432
SacA 12828	1890	18800 \pm 60	805	17995 \pm 162	21509-21948

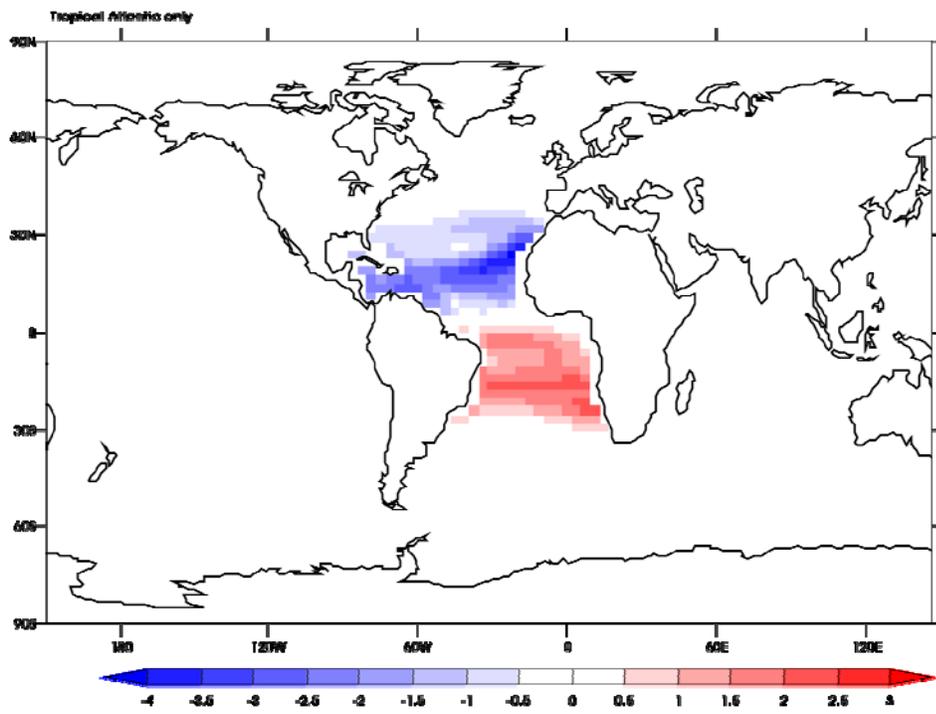
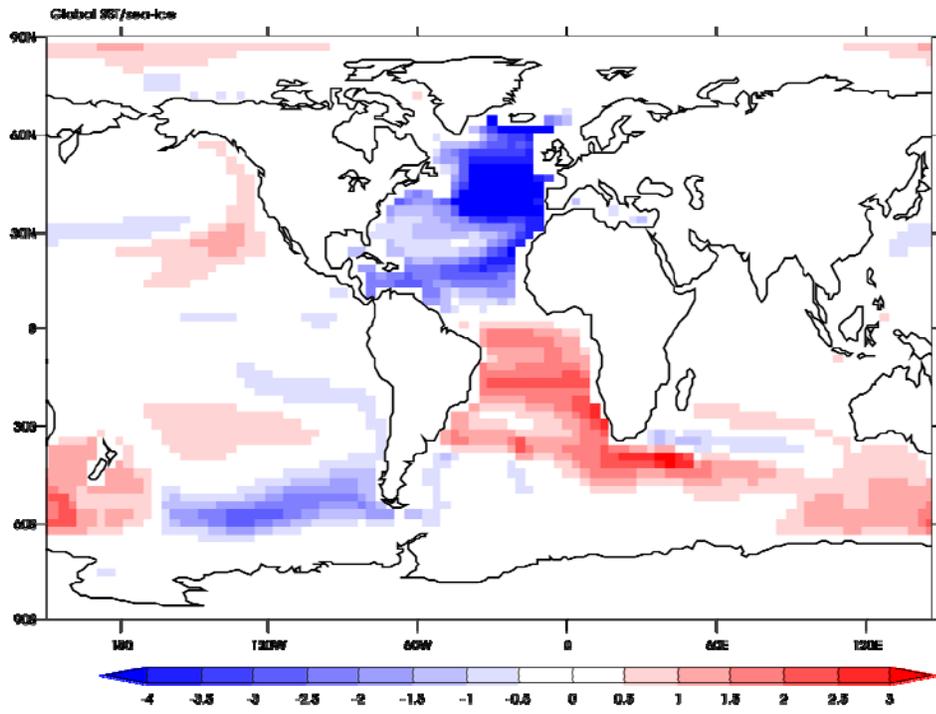
Climate simulations

Zonal winds along the Pacific coast of South America (100°E-80°E), simulated by the LMDZ AGCM. Contours on both figures: zonal winds for the reference LMDZ simulation, using the SSTs and sea-ice from the "LGM AMOC on" IPSL_CM4 simulation. Shading, top plot: zonal wind anomaly ("LGM AMOC off" *minus* "LGM AMOC on"). Shading, bottom plot: same as top

plot but for the run using the tropical Atlantic SSTs from the "LGM AMOC off" experiment and the SSTs and sea-ice from the "LGM AMOC off" experiment elsewhere.



Annual means of the SST anomalies imposed in the LMDZ AGCM sensitivity experiments. In both cases, the reference run uses the SSTs (and sea-ice) from the "LGM AMOC on" coupled simulation. Top: SST anomaly imposed in the "Global" case; bottom: SST anomaly imposed in the "Tropical Atlantic only" case.



REFERENCES CITED

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