Lamb, S., and Mortimer, N., 2020, Taking time to twist a continent—Multistage origin of the New Zealand orocline: Geology, v. 49, https://doi.org/10.1130/G47805.1

Table S1. Published paleomagnetic data for Cretaceous and Cenozoic sedimentary and volcanic rocks used in this study for analysis of vertical axis rotations in the New Zealand plate-boundary zone (see Fig. 1B, D)

Locality[1]	Long°/Lat°	N[2]	D[3] *is*	I[3] *is*	D[4] *tc*	I[4] *tc*	k[5]	α_{95}[6]	Age Ma	δAge Ma	R[7]	δR[7]	Ref[8]
Northern hinge of Eastern Orocline													
HK4 N	178.23/-37.59	44	12.8	-23.8	24	-53	21.5	4.6	20	1	4	6	1
HK4 R	"	54	198.1	3.5	203	32	10.4	5.9	20	1	3	6	1
HK4 all	"	98	14.7	-12.9	202	-42	11.8	4.1	20	1	2	4	1
TA2	178.27/-37.68	19	208	13.5	203	25	12.9	8.9	20	1	3	8	1
TA6 N	178.33/-37.72	42	264	-82.9	4	-42	14.6	5.7	18	1	-14	6	1
TA3	178.32/-37.76	27	219	29.1	201	36	29.6	5.0	17	1	4	5	1
TA7 R	178.33/37.79	5	168.9	52.5	200	40	21.2	13.6	17	1	3	14	1
TA7 N	"	23	329.7	-52	8	-48	35.6	4.9	17	1	-9	6	1
TA7all	"	28	332.4	-52.4	10	-47	30.9	4.8	17	1	-7	6	1
TA4 (N)	178.33/-37.94	21	20.1	-51.5	359	-46	22.0	6.5	17	1	-18	8	1
TA4 R	"	12	223	36.8	208	40	41.5	6.3	17	1	11	7	1
TA4 (all)	"	33	28.9	-47.4	9	-45	18.5	5.7	17	1	-8	6	1
MA1	178.23/-38.2	35	169.1	31.3	189	44	34.7	4.0	17	1	-9	5	1
MS	177.61/-38.4	27	298	72	199	43	12.6	8.1	20.4	1.4	-1	9	2
OR	177.6/-38.42	39	206.1	56.2	196	48	16.3	5.8	20.4	1.4	-4	7	2
Eastern Orocline													
NP	177.664/-38.635	15	16.5	-74.5	64	-60	28.4	7.3	9.9	1.1	54	12	2
TF	177.715/-38.621	22	15.3	-65.5	54	-60	80	3.5	13.1	2.1	41	6	2
NG	177.552/-38.627	31	297.9	47.6	242	53	26.4	5.1	13.5	2.5	59	7	2
CH	177.719/-38.687	20	313.4	27.8	258	65	35.3	5.6	14.2	1	64	11	2
Mk1	177.66/-38.85	27	39.2	-78.6	63	-63	25.1	5.4	16	0.5	47	10	3
Mk2	177.653/-38.852	6	205.1	60.9	225	50	20.8	5.4	15	0.5	30	7	3
Mk3	177.657/-38.966	6	51.2	-69	95	-62	14.2	15.2	15	0.5	80	28	3
Wk1	177.096/-38.726	16	273	59.1	250	67	6.4	13.9	12	0.5	58	30	3
TI	176.728/-40.021	37	31.2	-64.4	71	-48	64.6	3.0	14.2	1	57	4	2
FP	175.967/-41.236	13	214.6	44.2	251	36	36.8	6.9	19.6	2.1	51	7	2
OK	176.25/-40.836	37	339.7	-58.5	76	-57	31.2	4.3	21.9	1.6	54	6	2
HIN1	175.645/-41.783	20	15	-49	30	-63	48.4	4.7	9	2	21	8	4
HIN2	"	24	23	-53	45	-63	37.8	4.9	9	2	36	9	5
HC3	173.985/-41.997	7	118	-10	106	-70	90	7.0	17	1	106*	15	6
HC2	173.985/-41.995	26	147	21	121	-69	26	17.0	17	1	121*	55	6
BB2	174.231/-41.783	22	309	0	315	55	8	12.0	30	5	135*	17	6
WC1	174.07/-41.93	30	235	45	310	66	67	3.2	59	5	138*	6	6
WC2	174.07/-41.93	4	330	76	318	57	133	8.0	59	5	146*	11	6
MEA	173.79/-41.96	84	344.4	-32.9	58.5	-64.9	7.2	6.2	47	5	63*	11	7
CAV	173.52/-41.97	36	340	-68	83	-79	41.4	3.5	95	5	77*	22	5
DEE	173.75/-42	20	1	-50	76	-56	18.6	7.8	53	2	88*	14	5
DS	173.953/-42.05	46	157	59	279	59	10.5	6.4	18	2	99*	10	8
SS	173.859/-42.091	8	118	54	122	-44	37	11.0	20	4	122*	12	6
KAI	173.7/-42.42	10	106.3	-53.6	22	-58	32	9.9	49	5	41*	17	9
PUH	173.28/-42.28	14	7.6	-12.7	61	-69	34	7.2	66	2	84*	19	9
LOT	173.05/-42.5	86	195	30	219	62	9.9	5.1	30	4	51*	10	5
LYF	173.17/-42.51	54	5	-40	42	-57	20.6	4.4	30	4	54*	11	5
Southern hinge of Eastern Orocline													
CLA	173.45/-42.61	12	117.9	-61.5	352	-64	34.8	8.3	54	4	10*	17	9
Western Orocline													
PR (N)	174.82/-37.39	14	29	-59	30	-65		4	35	5	-1	7	8
BS (R)	174.73/-38.65	29	211	67	31	-66		5	35	5	-1	11	8,10
TA	175.18/-38.94	29	209	52	25	-65		5	25	5	4	9	8,10
RA	175.38/-39.11	34	204	52	22	-65		2	20	5	2	4	8,10
RH (all)	172.8/-40.81	7	45	-70	32	-68		8	35	5	13	22	11
TQ (N)	175.9/-40.83	55	15	-64				3	17.5	1			11
TQ (R)	"	65	196	61				2	17.5	1			11
TQ (all)	"	120	15	-63	20	-66		2	17.5	1	-5	4	11
MP (R)	173.26/-41.27	31	205	69	32	69		7	30	5	-4	11	11
CF (N)	171.5/-41.75	4	352	-48				14	10	2			11
CF (R)	"	7	145	64				25	10	2			11
CF (all)	"	11	345	-57	13	-66		14	10	2	-28	26	11
GB (R)	171.48/-41.75	59	210	49	32	-69		7	34	5	-2	10	11
IN (N)	171.93/-41.84	10	38	-65				5	36	1			8,11
IN (R)	"	10	211	60				3	36	1			8,11
IN (all)	"	20	34	-63	32	-69		3	36	1	2	6	8,11
WV (R)	167.67/-45.72	11	169	64	355	-67		6	18	2	-6*	10	8,10
BB (N)	167.57/-45.95	80	345	-57				3	15	1			12
BB (R)	"	64	165	55				6	15	1			12
BB (all)	"	144	345	-56	355	-67		4	15	1	-10*	8	12

Notes: 1, locality with normal (N) or reversed (R) components or both (all); 2, number of samples; 3, in situ (geographic) orientation; 4, tilt corrected (stratigraphic) orientation; 5, Fisher precision parameter; 6, 95% cone of confidence for mean; 7, deviation (+ve clockwise) of mean tilt corrected declination from that expected for Australian or Pacific (*) Plates (Veevers and Li 1991, Beaman et al. 2007), with error $0.8\sin^{-1}(\sin(\alpha_{95})/\cos(I))$ (Demarest 1981); 8, 1 = Mumme et al. 1989, 2 = Rowan and Roberts 2008, 3 = Walcott and Mumme 1982, 4 = Walcott et al. 1981, 5 = Randall et al. 2011, 6 = Vickery and Lamb 1995, 7 = Dallanave et al. 2014, 8 = Mumme and Walcott 1985, 9 = Hall et al. 2004, 10 = Lamb et al. 2016, 11 = Turner et al. 2007, 2012, 12 = Ohneisser et al. 2014.

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