TABLE DR1. RADIOCARBON AGES USED TO CONSTRAIN TIMES OF DEFORMATION EVENTS IN TRENCHES

Trenches and surface-deformation event(s)*	Age on Figs. 3-5 (x 1000 cal yr BP)†	Unit No.§	Calibrated age (cal yr BP at 2)#	Lab-reported age (^{14}C yr BP at 1)**	Radiocarbon Lab No.††
Blacktail trench					
Post-unit-5 folding	-	-	-	-	-
Deposition of unit 7	11.4	7c	11,550-11,200	9912±30 (2)	OS-25270
	11.2	7c	11,600-10,750	9800±90	OS-25343
	7.8	7c	7940-7670	6980±70s	OS-28471
Post-unit-8 folding	1.2	9	1300-1170	1320±40	GX-26089
	1.2	10a	1330-1170	1340±45	OS-23308
	0.9	10b	1060-720	980±80	Beta-137175
Bear's Lair trench					
Post-unit-3 folding	-	-	-	-	-
Post-unit-5 folding	11.5	5a	12,000-11,500	9980±95s	OS-25440
	8.3	5c	8410-8200	7530±40s	OS-25279
	8.0	5b	8150-7870	7190±42s (2)	OS-24807
	7.8	5b	7970-7690	7040±65s	OS-25342
	7.5	5b	7660-7430	6680±50	Beta-125830
	6.5	5b	3350-3070	3030±40s	CAMS-70167
Fissuring event D	1.5	9c	1570-1380	1590±40	GX-26075
	1.1	9c	1230-960	1160±50	Beta-125831
Saddle trench					
Post-unit-4 faulting	-	-	-	-	-
Post-unit-5 folding	-	-	-	-	-
Post-unit-7 faulting	3.5	7	3700-3390	3320±65	OS-24906
event B? (and C? or D?)	3.4	7	3560-3350	3220±45s	OS-25278
	3.2	7	3360-3060	3020±50	Beta-125683
Mossy Lane trench					
Pre-unit-3 folding	-	-	-	-	-
Faulting event C	1.5	2	1730-1280	1590±110s	OS-25649
	1.3	2	1350-1170	1360±40s	Beta-141781
	1.3	2	1420-1060	1360±85	OS-25852
	1.3	2	1530-1170	1440±90	OS-25648
	1.3	2	1390-1260	1410±40	GX-26087
	1.2	2	1270-1060	1240±35s	OS-25812
Faulting event D	1.5	4	1540-1350	1570±40	GX-26085
	1.4	4	1520-1300	1500±40	Beta-141780
	1.3	4	1370-1170	1370±50	GX-26086
	1.2	4	1290-1170	1300±21 (4)	OS-25852
	1.2	4	1270-1060	1230±30	OS-27359
Crane Lake trench					
Event A (?)§§	2.5	6c	2720-2330	2390±50s	OS-28473
Faulting event B	2.6	7	2760-2490	2550±30	OS-23302
	2.5	8a	2720-2350	2440±30	GX-26072
Faulting event C	1.9	9	2050-1880	2010±30	OS-24762
	1.9	9	2050-1820	1990±40	Beta-141777
	1.9	9	2000-1810	1940±40	GX-26074
	1.8	10	1900-1730	1896±19 (3)	OS-23306
	1.7	9	1880-1560	1810±60	Beta-137174
	1.6	10	1700-1520	1680±30s	OS-23303
	1.4	10	1520-1310	1520±40s	Beta-141778
Faulting event D	1.3	12	1490-1290	1470±40	GX-26081
	1.3	13	1360-1240	1390±35	OS-23312
	1.2	12	1290-1170	1290±30	OS-23307
	1.2	14	1290-1050	1240±50	GX-26082
	1.0	14	1060-920	1060±30	OS-23309

Notes: Ages used to estimate age of datums in Table 1. Only ages inferred, through comparison with other ages and stratigraphic relations within and among trenches (Fig. 6), to be within 500 years of time that unit was deposited are listed (solid triangles on Figs. 3-5). Ages are on unabraded fragments of wood charcoal, except for the following: Beta-125830, deciduous leaf base and wood fragments; GX-26075, wood fragment; Beta-125831, *Thuja plicata* leaf; OS-25812, 43 seeds or fecal pellets; and OS-25852, outer 7-10 rings of a charcoal log. In each sample, the largest, most angular, least decayed fragments of charcoal or plant material were selected to minimize the chance of analyzing carbon much older than the host sediment. In most samples, fragments with root-like morphology were avoided to minimize the chance of analyzing roots much younger than the host sediment. Except for a few of the most delicate fragments, sediment adhering to fragments was removed with brushes or dental tools in distilled water at 12-50X magnification. Complete ^{14}C data in Nelson et al. (2002). Dash indicates no ages available.

[*] Events listed from oldest to youngest. Most folding cannot be assigned to a single earthquake (Fig. 6), but stratigraphy and ^{14}C ages constrain at least maximum age of folding.

[†] Ages (x 1000 cal yr BP) are modes of calibrated-age distribution for each age rounded to nearest 100 years.

[§] Unit number as shown on Figs. 3-7 (only units mentioned in text are labeled on figures) and/or in detailed trench logs in Nelson et al. (2002).

[#] Ages in solar years (cal yr BP) calculated using OxCal (version 3.4; Bronk Ramsey, 1998; probability method) with the INTCAL98 dataset of Stuiver et al. (1998). Dating laboratories have stated that no additional interlaboratory variance (error multiplier, e.g., Taylor et al., 1996) is required for calibration. National Ocean Sciences AMS Facility (OS-) and Lawrence Livermore's (GX-, CAMS-) results from the Third International Radiocarbon Comparison show minimal offset from comparison means (e.g., Elder et al., 1998). Calibrated ages show time intervals of >95% probability distribution at 2σ.

** AMS (accelerator mass spectrometer) ^{14}C ages reported by radiocarbon laboratory (^{14}C yr BP; methods described in Gagnon et al., 2000), except for samples Beta-137174 and Beta-137175, which are conventional liquid-scintillation ages. Quoted error for each AMS analysis is the larger of counting error or target reproducibility error. An "s" following the reported age indicates samples that were picked from 1-mm and/or 0.5-mm sieves following wet sieving of bulk sediment samples (50-800 g sediment). Numbers in parentheses are number of ages on the same charcoal fragment averaged to obtain the mean age listed.

[††] C Laboratories are: OS, National Ocean Sciences AMS Facility, Woods Hole Oceanographic Institution, Woods Hole, Massachusetts; GX, Geochron Laboratories, Cambridge, Massachusetts (above group of GX samples analyzed on an accelerator at Lawrence Livermore National Laboratories); Beta, Beta Analytic, Inc., Miami, Florida; CAMS, Lawrence Livermore National Laboratories, Livermore, California.

[§§] As explained in text, event A may or may not record an earthquake.

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