

<https://www.esrl.noaa.gov/gmd/grad/solcalc/index.html>

From NOAA

		Latitude	Longitude		
Sacramento coordinates		38.58deg,	-121.49deg		
date,2021	Z2	solar noon	elevation	solar declination	
April 9,	30.65	13:07:16	59.35deg	7.89deg	
April 10,	30.28	13:07:00	59.72deg	8.26deg	
April 11,	29.91	13:06:45	60.09deg	8.62deg	

Use these distances between site z2 and z1

Los Angeles - Sacramento, D = 500km

Santa Barbara - Sacramento, D = 467km