There's something new under the sun dial

While perusing the 1914 Sundial booklet, I came across the information that "on one side of the gnomon is an exact table giving the minutes that must be added to or be deducted from sundial time in order to get true local time [clock time]." That table is long gone, but I thought it would be interesting to make a new table. I obtained the data online from NOAA, the National Oceanic and Atmospheric Administration. The underlying mathematics is complex due to the elliptical orbit of the earth around the sun and the tilt of the earth's axis relative to its orbit.

The resulting table has been placed next to the stairs at the south entrance to the Sundial, and hopefully will someday be replaced with a permanent bronze plaque. Sundials can be accurate to one or two minutes; our Ingleside Terraces Sundial with its 28 foot gnomon is one of the few that can be read that precisely. More info is found on our website https://www.sfog.us/solar/sfsundials.htm

How to read the Ingleside Terraces Sundial and convert sundial time to clock time.

latitude	longitude
37.72468	-122.46875

date	minutes	date	minutes	date	minutes
Jan 02	14	May 14	6	Oct 05	-2
Jan 07	16	Jun 02	8	Oct 13	-4
Jan 12	18	Jun 12	10	Oct 24	-6
Jan 17	20	Jun 22	12	Nov 11	-6
Jan 24	22	Jul 01	14	Nov 21	-4
Feb 07	24	Jul 16	16	Nov 28	-2
Feb 15	24	Aug 03	16	Dec 03	0
Mar 01	22	Aug 16	14	Dec 08	2
Mar 10	20	Aug 24	12	Dec 12	4
Mar 17	18	Aug 31	10	Dec 16	6
Mar 24	16	Sep 06	8	Dec 20	8
Mar 30	14	Sep 12	6	Dec 24	10
Apr 06	12	Sep 17	4	Dec 28	12
Apr 14	10	Sep 23	2		
Apr 23	8	Sep 29	0	**2020**	

Add the indicated number of minutes to sundial time to obtain local clock time. Times are arranged in two minute intervals. If daylight savings time is in effect, add one hour to the result.

15', 30', 45', and 1 hour marks are in the concrete around the outer edge of the sundial.
Use the left side of the shadow of the gnomon in the morning and the right side in the afternoon.

DEDICATED OCTOBER 10, 1913. LENGTH OF GNOMON 28 FEET.

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