

GEN 2.7 SUNRISE/SUNSET TABLES

1. Times are rounded to the nearest minute and match with those listed in the annual *Astronomical Almanac* by H.M. Nautical Almanac Office in the U.K. and the United States Naval Observatory. The following tables include 5 aerodromes which are being served by the Israeli air-traffic services.

1.1 The times in the tables are given in UTC for beginning of civil morning twilight (TWIL FROM), sunrise (SR), sunset (SS) and end of civil evening twilight (TWIL TO) for the years 2011 to 2020.

1.2 The times given for the beginning of civil morning twilight and end of civil evening twilight are calculated for an altitude of the sun 6° below the horizon, as commonly used.

1.3 Table 3.1 is calculated for Tel-Aviv/Ben-Gurion airport and is used as a reference for the other airports.

The entries in table 3.2 indicate the average deviation in minutes by airport and month from the time shown in table 3.1 (LLBG). Minus sign (-) means the number of minutes ahead of time indicated in table 3.1. Plus (+) sign means the number of minutes after the time indicated in table 3.1.

1.4 The tables are calculated for the year 2016, which is used as an “average year” for the years from 2011 to 2020. In this period, the times on an arbitrary date and place will deviate less than 2 minutes from the times on the same date and place in the “average year”.

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3. Sunrise – Sunset tables

3.1

TEL-AVIV/BEN GURION LLBG 32° 00' 34"N 034° 52' 37"E						TEL-AVIV/BEN GURION LLBG 32° 00' 34"N 034° 52' 37"E						TEL-AVIV/BEN GURION LLBG 32° 00' 34"N 034° 52' 37"E					
Month	DAY	TWIL FROM	SR	SS	TWIL TO	Month	DAY	TWIL FROM	SR	SS	TWIL TO	Month	Day	TWIL FROM	SR	SS	TWIL TO
JAN	1	0415	0442	1447	1514	MAY	4	0226	0252	1624	1650	SEP	1	0251	0316	1605	1630
-	5	0415	0442	1450	1517	-	8	0222	0249	1627	1653	-	5	0254	0319	1600	1624
-	9	0416	0443	1453	1520	-	12	0219	0245	1630	1656	-	9	0257	0321	1555	1619
-	13	0416	0442	1457	1523	-	16	0216	0243	1632	1659	-	13	0259	0324	1549	1614
-	17	0415	0442	1500	1527	-	20	0213	0240	1635	1702	-	17	0302	0326	1544	1608
-	21	0414	0441	1504	1530	-	24	0211	0238	1638	1705	-	21	0304	0329	1539	1603
-	25	0413	0439	1508	1534	-	28	0209	0237	1640	1708	-	25	0307	0331	1533	1558
-	29	0411	0437	1511	1537	JUN	1	0208	0235	1642	1710	-	29	0309	0334	1528	1552
FEB	2	0409	0434	1515	1541	-	5	0207	0235	1645	1713	OCT	3	0312	0336	1523	1547
-	6	0406	0432	1519	1544	-	9	0206	0234	1646	1715	-	7	0314	0339	1518	1542
-	10	0403	0428	1522	1547	-	13	0206	0234	1648	1716	-	11	0317	0342	1513	1537
-	14	0400	0425	1526	1551	-	17	0206	0234	1649	1718	-	15	0320	0345	1508	1533
-	18	0356	0421	1529	1554	-	21	0207	0235	1650	1719	-	19	0323	0348	1504	1528
-	22	0352	0417	1532	1557	-	25	0208	0236	1651	1719	-	23	0326	0351	1459	1524
-	26	0348	0413	1536	1600	-	39	0209	0238	1651	1719	-	27	0329	0354	1455	1520
-	29	0345	0409	1538	1603	JUL	3	0211	0239	1651	1719	-	31	0332	0357	1452	1517
MAR	2	0342	0407	1540	1604	-	7	0213	0241	1650	1718	NOV	4	0335	0400	1448	1514
-	6	0338	0402	1543	1607	-	11	0215	0243	1650	1717	-	8	0338	0404	1445	1511
-	10	0333	0357	1546	1610	-	15	0218	0245	1648	1716	-	12	0342	0407	1443	1508
-	14	0328	0352	1548	1613	-	19	0220	0248	1646	1714	-	16	0345	0411	1440	1506
-	18	0323	0347	1551	1616	-	23	0223	0250	1644	1711	-	20	0348	0414	1439	1505
-	22	0318	0342	1554	1618	-	27	0226	0253	1642	1708	-	24	0352	0418	1437	1504
-	26	0312	0337	1557	1621	-	31	0229	0256	1639	1705	-	28	0355	0421	1436	1503
-	30	0307	0332	1559	1624	AUG	4	0232	0258	1635	1702	DEC	2	0358	0425	1436	1503
APR	3	0302	0327	1602	1627	-	8	0235	0301	1632	1658	-	6	0401	0428	1436	1503
-	7	0257	0322	1605	1630	-	12	0238	0304	1628	1654	-	10	0404	0431	1437	1504
-	11	0252	0317	1608	1633	-	16	0240	0306	1624	1649	-	14	0407	0434	1438	1505
-	15	0247	0312	1610	1636	-	20	0243	0309	1619	1645	-	18	0409	0436	1439	1506
-	19	0242	0307	1613	1639	-	24	0246	0311	1615	1640	-	22	0411	0438	1441	1508
-	23	0237	0303	1616	1642	-	28	0249	0314	1610	1635	-	26	0413	0440	1443	1510
-	27	0233	0259	1619	1645							-	30	0414	0441	1446	1513
-	30	0230	0256	1621	1647												

3.2

MONTH	HAIFA LLHA 32° 48' 30"N 035° 02' 34"E		EILAT/ILAN & ASAF RAMON LLER 29° 43' 38"N 035° 00' 51"E	
	SR	SS	SR	SS
JAN	+1	-3	-6	+5
FEB	0	-2	-3	+2
MAR	-1	-1	-1	0
APR	-2	0	+2	-3
MAY	-3	+1	+4	-5
JUN	-4	+2	+6	-7
JUL	-4	+2	+5	-6
AUG	-3	0	+3	-4
SEP	-1	-1	0	-1
OCT	0	-2	-2	+2
NOV	+1	-3	-5	+4
DEC	+2	-4	-6	+5