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# AUSTRALIA, WEST COAST – FREMANTLE

# 2013

LAT 32° 03' LONG 115° 44'

TIMES AND HEIGHTS OF HIGH AND LOW WATERS

TIME ZONE -0800

## JANUARY

Time m	Time m	Time m	Time m
1 0643 0.47 2255 0.93 TU	9 0442 0.35 1942 1.13 WE	17 0603 0.54 1441 0.80 TH	25 0522 0.44 2025 1.06 FR
2 0652 0.49 1436 0.72 1516 0.72 2317 0.87 WE	10 0520 0.31 2027 1.14 TH	18 0612 0.52 1521 0.85 FR	26 0529 0.44 2058 1.06 SA
3 0657 0.52 2109 0.81 TH	11 0555 0.30 2112 1.12 FR	19 0554 0.51 1615 0.89 SA	27 0534 0.45 2130 1.04 SU
4 0702 0.54 1602 0.82 FR	12 0628 0.32 2152 1.07 SA	20 0522 0.50 1727 0.93 SU	28 0543 0.46 2159 1.00 MO
5 0709 0.55 1645 0.89 SA	13 0652 0.37 2221 0.99 SU	21 0522 0.49 1812 0.97 MO	29 0553 0.48 1238 0.73 1541 0.68 2226 0.94 TU
6 0617 0.55 1728 0.96 SU	14 0706 0.44 1335 0.67 1514 0.66 2216 0.91 MO	22 0502 0.48 1847 1.00 TU	30 0601 0.51 1304 0.77 1627 0.69 2249 0.88 WE
7 0343 0.50 1812 1.03 MO	15 0707 0.51 1356 0.71 1605 0.69 2211 0.84 TU	23 0501 0.46 1920 1.03 WE	31 0600 0.53 1335 0.80 1721 0.72 2309 0.80 TH
8 0409 0.42 1857 1.09 TU	16 0617 0.54 1413 0.75 1701 0.73 2029 0.79 WE	24 0513 0.45 1953 1.05 TH	

## FEBRUARY

Time m	Time m	Time m	Time m
1 0601 0.54 1409 0.84 FR	9 0525 0.39 2116 1.05 SA	17 0437 0.53 1450 0.92 SU	25 0439 0.53 1115 0.77 1438 0.69 2127 0.99 MO
2 0608 0.55 1447 0.89 SA	10 0534 0.43 1148 0.70 1400 0.67 2156 0.99 SU	18 0442 0.52 1540 0.93 MO	26 0450 0.55 1129 0.80 1525 0.68 2159 0.94 TU
3 0544 0.55 1533 0.93 SU	11 0541 0.49 2223 0.91 MO	19 0444 0.52 1645 0.95 TU	27 0458 0.57 1151 0.84 1616 0.67 2228 0.87 WE
4 0253 0.52 1628 0.98 MO	12 0551 0.54 1225 0.77 1543 0.67 2212 0.84 TU	20 0411 0.51 1812 0.97 WE	28 0450 0.59 1217 0.89 1715 0.67 2249 0.79 TH
5 0317 0.45 1738 1.02 TU	13 0533 0.57 1244 0.81 1636 0.69 2206 0.78 WE	21 0418 0.51 1904 1.00 TH	
6 0349 0.40 1850 1.06 WE	14 0503 0.57 1307 0.85 1734 0.71 2003 0.75 TH	22 0425 0.50 1942 1.02 FR	
7 0424 0.37 1945 1.09 TH	15 0513 0.56 1336 0.88 FR	23 0425 0.51 1143 0.73 1247 0.73 2018 1.03 SA	
8 0458 0.37 2032 1.08 FR	16 0517 0.55 1409 0.90 SA	24 0430 0.51 1118 0.74 1349 0.71 2053 1.02 SU	

## MARCH

Time m	Time m	Time m	Time m
1 0449 0.60 1243 0.92 1827 0.68 2302 0.72 FR	9 0413 0.50 1128 0.75 1255 0.75 2037 1.00 SA	17 0334 0.61 1151 1.00 SU	25 0323 0.62 1002 0.86 1439 0.75 2048 0.97 MO
2 0457 0.60 1310 0.95 SA	10 0411 0.54 1037 0.78 1451 0.72 2122 0.96 SU	18 0341 0.60 1224 1.00 MO	26 0332 0.64 1011 0.91 1538 0.71 2138 0.93 TU
3 0432 0.60 1353 0.98 SU	11 0419 0.58 1054 0.82 1547 0.69 2206 0.91 MO	19 0350 0.59 1302 0.98 TU	27 0333 0.67 1029 0.96 1630 0.67 2247 0.87 WE
4 0137 0.55 1446 0.99 MO	12 0432 0.62 1110 0.87 1628 0.68 2248 0.84 TU	20 0243 0.59 1525 0.97 WE	28 0325 0.68 1047 1.01 1722 0.64 2351 0.81 TH
5 0209 0.50 1543 1.00 TU	13 0416 0.64 1127 0.91 1701 0.67 2219 0.77 WE	21 0301 0.59 1640 0.97 TH	29 0329 0.69 1051 1.05 1833 0.63 FR
6 0243 0.46 1654 1.01 WE	14 0347 0.64 1144 0.94 1726 0.68 2206 0.73 TH	22 0312 0.59 1818 0.97 FR	30 0046 0.74 0336 0.68 1103 1.07 2051 0.61 SA
7 0318 0.45 1854 1.02 TH	15 0402 0.63 1145 0.97 1756 0.69 1934 0.70 FR	23 0314 0.60 1126 0.82 1210 0.82 1918 0.99 SA	31 0141 0.68 0314 0.67 1124 1.09 SU
8 0350 0.47 1949 1.02 FR	16 0410 0.62 1124 0.99 SA	24 0316 0.61 1018 0.83 1332 0.79 2004 0.99 SU	

## APRIL

Time m	Time m	Time m	Time m
1 0009 0.58 1148 1.08 MO	9 0306 0.72 0947 0.98 1607 0.70 2232 0.84 TU	17 0120 0.67 1224 1.06 WE	25 0203 0.78 0917 1.13 1701 0.64 2315 0.84 TH
2 0054 0.55 1408 1.05 TU	10 0218 0.73 0954 1.03 1648 0.68 2314 0.80 WE	18 0144 0.67 1259 1.03 TH	26 0208 0.78 0940 1.18 1812 0.60 FR
3 0133 0.53 1507 1.02 WE	11 0228 0.72 0959 1.06 1728 0.67 2351 0.76 TH	19 0159 0.68 1344 1.00 FR	27 1005 1.20 1937 0.57 SA
4 0210 0.54 1610 0.99 TH	12 0248 0.71 1008 1.09 1931 0.67 FR	20 0201 0.70 1640 0.97 SA	28 1031 1.21 2037 0.56 SU
5 0242 0.57 1848 0.96 FR	13 1025 1.10 2027 0.67 SA	21 0140 0.71 0925 0.92 1300 0.89 1833 0.95 SU	29 1058 1.19 2136 0.58 MO
6 0304 0.62 1047 0.85 1304 0.83 1951 0.95 SA	14 1050 1.11 SU	22 0143 0.73 0838 0.96 1424 0.83 1949 0.94 MO	30 1122 1.15 TU
7 0253 0.66 0924 0.88 1436 0.78 2050 0.92 SU	15 0012 0.68 1120 1.10 MO	23 0153 0.74 0842 1.02 1518 0.76 2105 0.91 TU	
8 0256 0.69 0936 0.93 1524 0.74 2145 0.88 MO	16 0049 0.67 1151 1.09 TU	24 0158 0.76 0855 1.08 1608 0.70 2217 0.88 WE	

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National Tidal Centre

Height datum is Chart Datum

Moon Symbols

● New Moon

◐ First Quarter

○ Full Moon

◑ Last Quarter

# AUSTRALIA, WEST COAST – FREMANTLE

# 2013

LAT 32° 03' LONG 115° 44'

TIMES AND HEIGHTS OF HIGH AND LOW WATERS

TIME ZONE -0800

## MAY

Time	m	Time	m	Time	m	Time	m
1	0014 0.59 1145 1.10	9	0102 0.79 0844 1.17 1802 0.69 2336 0.81	17	1226 1.08 2258 0.76	25	0024 0.82 0912 1.29 1838 0.55
WE		TH		FR		SA	
2	0059 0.62 1209 1.04	10	0130 0.79 0905 1.19 1836 0.67	18	1255 1.03 2327 0.78	26	0947 1.29 1931 0.54
TH		FR		SA		SU	
3	0135 0.66 1526 0.97	11	0929 1.20 1914 0.66	19	0926 0.98 2350 0.80	27	1022 1.27 2020 0.56
FR		SA		SU		MO	
4	0201 0.72 1001 0.94	12	0956 1.20 1953 0.67	20	0726 1.02 1457 0.90 1717 0.91	28	1050 1.22 2107 0.60
SA		SU		MO		TU	
5	0113 0.77 0806 0.98 1554 0.84 2005 0.87	13	1026 1.19 2032 0.68	21	0007 0.82 0725 1.08 1509 0.82 2003 0.88	29	1104 1.16 2152 0.66
SU		MO		TU		WE	
6	0116 0.80 0815 1.03 1640 0.79 2119 0.85	14	1057 1.18 2109 0.70	22	0020 0.83 0740 1.15 1550 0.74 2141 0.86	30	1117 1.09
MO		TU		WE		TH	
7	0054 0.81 0820 1.08 1716 0.75 2210 0.83	15	1128 1.15 2147 0.72	23	0024 0.84 0806 1.21 1640 0.66 2243 0.85	31	0020 0.73 1134 1.02 FR 2247 0.78
TU		WE		TH		FR	
8	0034 0.80 0827 1.13 1743 0.71 2254 0.82	16	1158 1.12 2223 0.74	24	0013 0.84 0838 1.26 FR 1740 0.60 2341 0.82		
WE		TH		FR			

## JUNE

Time	m	Time	m	Time	m	Time	m
1	0917 0.99 2008 0.82	9	0907 1.24 1852 0.66	17	0621 1.00 2023 0.80	25	1037 1.24 1956 0.58
SA		SU		MO		TU	
2	0654 1.01 2020 0.81	10	0939 1.23 1921 0.66	18	0613 1.06 2031 0.81	26	1135 1.16 2030 0.64
SU		MO		TU		WE	
3	0706 1.07 1802 0.79	11	1011 1.21 1942 0.68	19	0628 1.13 1554 0.75	27	1224 1.08 2055 0.71
MO		TU		WE		TH	
4	0716 1.12 1712 0.75	12	1043 1.19 1921 0.70	20	0659 1.20 1625 0.67	28	1051 1.01 2105 0.77
TU		WE		TH		FR	
5	0727 1.17 1731 0.72	13	1113 1.15 1928 0.72	21	0737 1.26 1705 0.59	29	0844 0.96 1853 0.77
WE		TH		FR		SA	
6	0747 1.20 1751 0.69	14	1140 1.11 1943 0.74	22	0818 1.30 1748 0.54	30	0528 0.96 1902 0.75
TH		FR		SA		SU	
7	0811 1.22 1807 0.67	15	1205 1.06 1958 0.76	23	0902 1.31 1833 0.52		
FR		SA		SU			
8	0839 1.24 1826 0.66	16	1228 1.00 2010 0.78	24	0947 1.29 1916 0.53		
SA		SU		MO			

## JULY

Time	m	Time	m	Time	m	Time	m
1	0553 1.02 1751 0.73	9	0931 1.19 1824 0.65	17	0442 1.05 1517 0.72	25	0051 0.79 0308 0.75 TH 1139 1.03 1909 0.67
MO		TU		WE		TH	
2	0614 1.07 1748 0.71	10	1003 1.16 1823 0.66	18	0536 1.11 1542 0.64	26	0117 0.82 0359 0.77 FR 1221 0.94 1843 0.72
TU		WE		TH		FR	
3	0633 1.11 1729 0.69	11	0054 0.81 0315 0.80 TH 1034 1.12 1830 0.68	19	0631 1.16 1616 0.57	27	0141 0.86 0454 0.81 SA 1028 0.88 1747 0.71
WE		TH		FR		SA	
4	0656 1.15 1721 0.67	12	0117 0.83 0351 0.82 FR 1101 1.08 1840 0.69	20	0723 1.21 1654 0.52	28	0209 0.90 1756 0.69
TH		FR		SA		SU	
5	0724 1.17 1734 0.66	13	0149 0.86 0435 0.85 SA 1126 1.02 1849 0.71	21	0813 1.23 1733 0.50	29	0245 0.94 1735 0.67
FR		SA		SU		MO	
6	0754 1.19 1748 0.65	14	0227 0.90 0537 0.88 SU 1148 0.96 1857 0.72	22	0902 1.23 1811 0.51	30	0328 0.97 1703 0.65
SA		SU		MO		TU	
7	0826 1.20 1802 0.64	15	0308 0.94 0715 0.90 MO 1205 0.90 1907 0.73	23	0954 1.19 1843 0.55	31	0423 1.00 1713 0.63
SU		MO		TU		WE	
8	0858 1.20 1818 0.64	16	0352 0.99 1910 0.74	24	1047 1.12 1903 0.60		
MO		TU		WE			

## AUGUST

Time	m	Time	m	Time	m	Time	m
1	0536 1.02 1654 0.63	9	0003 0.81 0338 0.72 FR 1025 1.00 1737 0.65	17	0613 1.06 1550 0.49	25	0042 0.87 1644 0.64 SU 2329 0.89
TH		FR		SA		SU	
2	0633 1.05 1647 0.62	10	0027 0.84 0422 0.73 SA 1051 0.94 1739 0.66	18	0723 1.09 1624 0.48	26	1628 0.62 2351 0.91
FR		SA		SU		MO	
3	0713 1.08 1658 0.61	11	0056 0.87 0510 0.75 SU 1113 0.88 1744 0.67	19	0817 1.10 1651 0.50 MO 2301 0.72	27	1600 0.59
SA		SU		MO		TU	
4	0747 1.10 1703 0.61 SU 2358 0.76	12	0128 0.90 1755 0.67	20	0047 0.72 0907 1.08 TU 1701 0.53 2308 0.74	28	0026 0.92 1615 0.58
SU		MO		TU		WE	
5	0011 0.76 0821 1.10 MO 1703 0.60 2335 0.76	13	0207 0.93 1753 0.67	21	0155 0.69 1000 1.03 WE 1715 0.58 2331 0.77	29	0314 0.92 1512 0.58
MO		TU		WE		TH	
6	0130 0.75 0853 1.10 TU 1711 0.61 2336 0.77	14	0254 0.96 1417 0.65	22	0247 0.68 1054 0.95 TH 1732 0.63 2355 0.81	30	0412 0.92 1532 0.57
TU		WE		TH		FR	
7	0215 0.73 0925 1.08 WE 1720 0.62 2345 0.79	15	0347 0.99 1443 0.58	23	0338 0.68 1143 0.87 FR 1729 0.67	31	0548 0.93 1547 0.57
WE		TH		FR		SA	
8	0257 0.73 0956 1.05 TH 1729 0.63	16	0451 1.03 1516 0.53	24	0017 0.84 0432 0.69 SA 1224 0.78 1632 0.66		
TH		FR		SA			

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National Tidal Centre

Height datum is Chart Datum

Moon Symbols ● New Moon ◐ First Quarter ○ Full Moon ◑ Last Quarter \* Extra Tides

# AUSTRALIA, WEST COAST – FREMANTLE

LAT 32° 03' LONG 115° 44'

# 2013

TIMES AND HEIGHTS OF HIGH AND LOW WATERS

TIME ZONE -0800

## SEPTEMBER

Time	m	Time	m	Time	m	Time	m
1	0701 0.95 1548 0.57	9	0551 0.62 1111 0.71 1635 0.63 2322 0.92	17	0113 0.69 0827 0.93 1538 0.54 2150 0.74	25	1506 0.56 2351 0.91
SU		MO		TU		WE	
2	0740 0.97 1549 0.58 2235 0.73	10	1611 0.63 2348 0.94	18	0238 0.64 0923 0.90 1551 0.57 2209 0.78	26	1342 0.54
MO		TU		WE		TH	
3	0100 0.71 0815 0.98 1557 0.58 2223 0.75	11	1304 0.57	19	0336 0.60 1018 0.85 1607 0.61 2227 0.82	27	0027 0.88 1412 0.55
TU		WE		TH		FR	
4	0150 0.69 0849 0.97 1609 0.59 2230 0.77	12	0019 0.94 1337 0.52	20	0423 0.58 1108 0.79 1533 0.64 2239 0.86	28	0111 0.85 1433 0.55
WE		TH		FR		SA	
5	0235 0.66 0923 0.95 1618 0.61 2242 0.80	13	0307 0.93 1411 0.49	21	0503 0.57 1151 0.72 1514 0.63 2232 0.89	29	0412 0.83 1441 0.56
TH		FR		SA		SU	
6	0319 0.64 0957 0.90 1618 0.62 2249 0.83	14	0413 0.93 1445 0.47	22	0536 0.58 1229 0.66 1528 0.61 2229 0.91	30	0617 0.83 1440 0.57 2143 0.74
FR		SA		SU		MO	
7	0406 0.62 1030 0.85 1615 0.63 2247 0.87	15	0609 0.94 1516 0.48	23	0556 0.59 1304 0.61 1517 0.60 2248 0.92		
SA		SU		MO			
8	0456 0.62 1056 0.78 1624 0.63 2301 0.90	16	0730 0.94 1537 0.50 2148 0.71	24	1224 0.57 2317 0.92		
SU		MO		TU			

## OCTOBER

Time	m	Time	m	Time	m	Time	m
1	0047 0.71 0722 0.85 1441 0.58 2102 0.76	9	0909 0.48 2315 0.96	17	0311 0.57 0948 0.75 1436 0.63 2047 0.88	25	1253 0.54 2351 0.89
TU		WE		TH		FR	
2	0145 0.67 0807 0.85 1446 0.59 2104 0.79	10	1217 0.48 2345 0.94	18	0354 0.52 1037 0.71 1346 0.64 2058 0.92	26	1319 0.56
WE		TH		FR		SA	
3	0240 0.63 0853 0.83 1450 0.60 2107 0.83	11	1301 0.46	19	0437 0.50 1122 0.67 1356 0.62 2114 0.95	27	0022 0.85 1141 0.57
TH		FR		SA		SU	
4	0327 0.58 0944 0.81 1448 0.62 2119 0.87	12	0016 0.89 1338 0.46	20	0520 0.48 2131 0.97	28	0052 0.80 1223 0.58 2137 0.77
FR		SA		SU		MO	
5	0412 0.54 1043 0.77 1453 0.62 2137 0.91	13	0338 0.84 1411 0.49	21	0608 0.48 2152 0.97	29	0237 0.75 0404 0.75 1245 0.60 1958 0.79
SA		SU		MO		TU	
6	0458 0.51 1139 0.72 1505 0.62 2157 0.95	14	0619 0.80 1433 0.53 2034 0.74	22	0751 0.49 2218 0.97	30	0208 0.70 0640 0.73 1302 0.61 1956 0.83
SU		MO		TU		WE	
7	0551 0.50 1231 0.67 1512 0.62 2221 0.97	15	0056 0.69 0742 0.79 1421 0.57 2033 0.78	23	0839 0.50 2247 0.95	31	0237 0.64 0807 0.73 1313 0.62 1959 0.88
MO		TU		WE		TH	
8	0753 0.49 2247 0.97	16	0223 0.63 0850 0.77 1425 0.60 2043 0.83	24	1217 0.54 2320 0.92		
TU		WE		TH			

## NOVEMBER

Time	m	Time	m	Time	m	Time	m
1	0314 0.57 0917 0.72 1323 0.63 2014 0.94	9	1217 0.47 2339 0.86	17	0545 0.45 1150 0.63 1252 0.62 2040 1.03	25	0802 0.56 2138 0.82
FR		SA		SU		MO	
2	0355 0.51 1015 0.71 1336 0.64 2036 0.98	10	1302 0.51 2127 0.80	18	0603 0.43 2103 1.03	26	0827 0.58 1922 0.81
SA		SU		MO		TU	
3	0440 0.45 1106 0.68 1346 0.64 2101 1.02	11	1330 0.56 2104 0.78	19	0637 0.43 2128 1.02	27	0848 0.61 1904 0.86
SU		MO		TU		WE	
4	0532 0.41 1155 0.65 1349 0.63 2127 1.04	12	0252 0.69 0403 0.69 1218 0.61 1929 0.82	20	0711 0.44 2156 1.00	28	0905 0.63 1904 0.91
MO		TU		WE		TH	
5	0639 0.39 2154 1.04	13	0335 0.62 0820 0.66 1238 0.64 1939 0.88	21	0742 0.46 2226 0.98	29	0343 0.59 1916 0.97
TU		WE		TH		FR	
6	0749 0.38 2223 1.02	14	0417 0.56 1945 0.93	22	0655 0.48 2256 0.94	30	0354 0.52 1940 1.03
WE		TH		FR		SA	
7	0846 0.39 2250 0.98	15	0456 0.51 1957 0.98	23	0711 0.50 2323 0.90		
TH		FR		SA			
8	0938 0.43 2315 0.93	16	0526 0.47 1106 0.64 1216 0.63 2017 1.01	24	0737 0.53 2346 0.86		
FR		SA		SU			

## DECEMBER

Time	m	Time	m	Time	m	Time	m
1	0426 0.44 2010 1.08	9	0958 0.57 2041 0.81	17	0605 0.41 2048 1.06	25	0727 0.55 1812 0.83
SU		MO		TU		WE	
2	0508 0.38 2041 1.11	10	0730 0.59 1831 0.83	18	0621 0.41 2117 1.04	26	0736 0.57 1807 0.89
MO		TU		WE		TH	
3	0555 0.33 2114 1.11	11	0558 0.58 1847 0.89	19	0637 0.43 2147 1.02	27	0653 0.58 1814 0.95
TU		WE		TH		FR	
4	0645 0.32 2146 1.09	12	0536 0.54 1901 0.95	20	0638 0.45 2216 0.99	28	0413 0.53 1842 1.02
WE		TH		FR		SA	
5	0732 0.33 2214 1.04	13	0449 0.49 1912 0.99	21	0637 0.47 2244 0.95	29	0422 0.46 1918 1.08
TH		FR		SA		SU	
6	0817 0.37 2236 0.97	14	0511 0.46 1931 1.03	22	0648 0.49 2307 0.90	30	0447 0.39 1956 1.12
FR		SA		SU		MO	
7	0858 0.43 2251 0.90	15	0534 0.44 1956 1.05	23	0703 0.51 2324 0.85	31	0520 0.33 2036 1.14
SA		SU		MO		TU	
8	0932 0.50 2258 0.82	16	0553 0.42 2022 1.06	24	0716 0.53 2116 0.82		
SU		MO		TU			

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National Tidal Centre

Height datum is Chart Datum

Moon Symbols

● New Moon

◐ First Quarter

○ Full Moon

◑ Last Quarter