H104
太平洋北西部
NORTHWEST PACIFIC OCEAN

2009
潮汐表
TIDE TABLES

中国人民解放军海军司令部航海保证部
THE NAVIGATION GUARANTEE DEPARTMENT OF THE CHINESE NAVY HEADQUARTERS
2008 年

H104

2009
潮 汐 表
TIDE TABLES

太平洋北西部
NORTHWEST PACIFIC OCEAN

中国人民解放军海军司令部航海保证部
THE NAVIGATION GUARANTEE DEPARTMENT OF
THE CHINESE NAVY HEADQUARTERS
2008 年

图书在版编目（CIP）数据

潮汐表：2009. 太平洋北西部 / 中国人民解放军海军司令部航海保证部编制 . — 天津 ：中国航海图书出版社，2008.3
ISBN 978-7-80224-696-6

Ⅰ.潮... Ⅱ.中... Ⅲ.北太平洋—潮汐表—2009 Ⅳ.U675.82

中国版本图书馆 CIP 数据核字(2008)第 026704 号

H104

潮 汐 表

太平洋北西部

2009

☆

中国人民解放军海军司令部航海保证部编制
中国航海图书出版社出版发行
天津市塘沽区上海道 1716 号　邮政编码：300450
电话：(022)25858611　传真：(022)25858600
中国人民解放军第 4210 工厂印刷

☆

开本 880×1230　1/16　印张 13½
2008 年 6 月第 1 版　2008 年 6 月第 1 次印刷
印数：1—3 500 册
ISBN 978-7-80224-696-6
JS(2008)02-033
定价：28.00 元

使 用 说 明

中国人民解放军海军司令部航海保证部编制的《潮汐表》共分四册，包括黄、渤海海区（H101），东海海区（H102），南海海区（H103），太平洋北西部（H104）。

概述

潮汐表中刊载每日潮汐发生时间和高度的港口称为主港，通常为重要港口或能代表某类潮汐特征。如果两个港口的潮汐特征类似，其间有近似不变的潮差比和潮时差，并能利用其中一个主港的每日高、低潮预报，通过两港之间的差比关系推算另一港口的潮汐，则根据这种关系推算潮汐的港口称为附港。

在本表中，列出了主港每日高、低潮的潮高极值和时间，并对部分主港更详细地列出了每日正点潮高。表中日期下面的 ● ☽ ○ ☾ 符号分别表示月亮的朔、上弦、望、下弦四种月相；S、N、E 字母分别表示月亮的赤纬最南、最北、最小三个极值。

潮高基准面是潮汐表预报潮高起算面，海图深度基准面是海图水深的起算面。我部出版的《潮汐表》与海图，其潮高基准面和海图深度基准面是一致的，因此某一时刻的实际水深等于大比例尺海图上标注的水深与该时刻的潮高值之和。

如果发现潮高基准面与所使用的海图深度基准面不一致，实际计算水深时须加以订正：某地某时实际水深 = 当地大比例尺海图上标注的水深 + 该时预报潮高 +（当地海图深度基准面 - 潮高基准面）。

平均海面是一定时期内海水面的平均位置，用潮高基准面至平均海面的高度来表示。一般经过长时期的潮汐观测计算得来。

各港站所列时间均以各自所在地区的标准时为准。其中中国沿海各港站潮高预报及月赤纬极值、月相、月中天发生时间均采用北京标准时，即东 8 时区时。

正常情况下，《潮汐表》预报潮时误差在 20 ~ 30 分钟以内，潮高误差在 20 ~ 30 厘米以内。在预报值中不包括由于气象及其它随机因素而引起的误差，特殊情况下，如处在江、河口的预报点或有台风、寒潮、洪水等因素影响时误差较大，使用时请注意。

潮汐要素

海水由于受到月亮和太阳的引力作用而产生周期性的升降（涨落）运动的现象叫做潮汐。在潮汐升降的每一周期中，当海面涨至最高时为高潮，当海面降至最低时为低潮。从低潮到高潮的过程中，海面逐渐升涨为涨潮；从高潮到低潮的过程中，海面逐渐下落为落潮。相邻的高潮与低潮的水位高度差为潮差。从低潮时至高潮时所经历的时间为涨潮时间；从高潮时至低潮时所经历的时间为落潮时间。

在朔或望（农历初一或十五）后的 2 - 3 天达到半个月中的潮差最大为大潮；在上弦或下弦（农历初七、初八或廿二、廿三）后的 2 - 3 天达到半个月中的潮差最小为小潮。

潮汐类型

潮汐的性质可以分为四种类型：

1、半日潮：在一个太阴日内（约 24 小时 50 分钟），发生两次高潮和低潮，且相邻的高潮（低潮）的潮高大致相等，涨落潮持续时间亦很接近。

2、全日潮：在半个月中，一天出现一次高潮和一次低潮的天数超过 7 天，而其余天数为混

合潮性质。

3、不正规半日混合潮:它基本具有半日潮的特征,在一个太阴日内,有两次高潮和低潮,但相邻的高潮(低潮)的潮高相差很大,涨潮和落潮持续时间也不相等。

4、不正规日潮混合潮:在半个月中,一天出现一次高潮和一次低潮的天数不超过7天,而多数天为一天两次高潮和两次低潮的不正规半日潮。

海图潮信表

海图上刊载的潮信表为航海人员提供了部分主、附港的潮汐情况,对半日潮港列出了平均潮汐间隙和平均大(小)潮升等数据;对混合潮港和日潮港分别列出了回归潮期间的平均潮汐间隙和潮高及分点潮期间的平均潮汐间隙和潮高等数据。

高潮间隙就是某地月上(下)中天时刻至发生高潮时的时间间隔;低潮间隙就是某地月上(下)中天时刻至发生低潮时的时间间隔。平均大潮升即自深度基准面至平均大潮高潮面的高度,是大潮期间高潮的平均潮高;平均小潮升即自深度基准面至平均小潮高潮面的高度,是小潮期间高潮的平均潮高。

日潮不等就是两相邻高潮的潮高或两相邻低潮的潮高常有不相等的现象;回归潮就是当月球赤纬位于最北或最南附近时(月赤纬最大时),所产生的日潮不等为最大时的潮汐;分点潮则为当月球位于赤道附近时(月赤纬最小时),日潮不等很小,两相邻高潮或低潮的潮高约相等时的潮汐。

潮信表使用

根据潮信表提供的数据可以粗略地推算出该海区的潮时和潮高,但有一定的误差,有时甚至与实测水位相差较大,使用时请注意。现把推算方法介绍如下:

1、半日潮型潮信表

(1)求潮时

高潮时 = 月上(下)中天时 + 平均高潮间隙

低潮时 = 月上(下)中天时 + 平均低潮间隙

(2)求潮高

高潮高 = 大潮升 - (大潮升 - 小潮升)/7 × 日数　　(日数指与大潮时相隔天数)

低潮高 = 2 × 平均海面 - 高潮高

2、混合潮型和日潮型潮信表

(1)求潮时

①当所求日期在月赤纬0°或接近0°时

高潮时 = 月上(下)中天时 + 平均高潮间隙

低潮时 = 月上(下)中天时 + 平均低潮间隙

②当所求日期在月赤纬最大或接近最大时

高(低)高潮潮时 = 月上(下)中天时 + 平均高(低)高潮间隙

高(低)低潮潮时 = 月上(下)中天时 + 平均高(低)低潮间隙

(2)求潮高

①当所求日期在月赤纬最大或最小时,则推算潮高为潮信表所列潮高;

②当所求日期在月赤纬最小(最大)与最大(最小)之间时,则分别用下列各式计算:

A、若所求日期在月赤纬最小与最大之间

高(低)高潮潮高 = 月赤纬 0°的平均高潮潮高 - T · △h

高(低)低潮潮高 = 月赤纬 0°的平均低潮潮高 - T · △h

B、若所求日期在月赤纬最大与最小之间

高(低)高潮潮高 = 月赤纬最大时的平均高(低)高潮潮高 + T · △h

高(低)低潮潮高 = 月赤纬最大时的平均高(低)低潮潮高 + T · △h

其中:T 为月赤纬最小(或最大)至所求日期的时间间隔天数;

△h = 潮位日差 = (月赤纬 0°的平均潮高 - 月赤纬最大时的平均潮高)/D,D 为月赤纬最小(最大)与最大(最小)的时间间隔天数。

Operation Manual

The Chinese Tide Tables are compiled by the Navigation Guarantee Department of the Chinese Navy Headquarters in four volumes including:

Bohai Sea and Yellow Sea: (Pub No. H101)

East China Sea: (Pub No. H102)

South China Sea: (Pub No. H103)

Northwest Pacific Ocean: (Pub No. H104)

Summarization

Ports published the time and the height of daily tide in Tide Tables are called Standard Ports, which usually to be important ports or represent some kinds of tidal characters. If the tidal characters between the two ports is similar or there exists almost the same ratio of tidal ranges and time difference of tide, moreover, according to daily high low water predictions of one of the standard ports and difference relation between the two ports, the tide of the other port can be calculated, so those ports are called Secondary Ports, tide of which can be calculated through the above connections.

The tidal height extrema and times of daily high low water of standard ports are listed in this table and the daily height of tide at the expected time is shown more particularly at some standard ports. The symbols ● ☽ ○ ☾ S N E below the dates in these tables indicate respectively New Moon, First Quarter, Full Moon, Last Quarter, Declination Maximum South, Declination Maximum North and Declination Minimum.

All predicted heights are given above Tide Height Datum and chart depths are given above Chart Depth Datum. Tide Height Datum is the same as Chart Depth Datum between Tide Tables published by our department and charts, so the actual depth is the sum of depth on large – scale chart and tidal height.

When Tidal Datum is not the same as Chart Depth Datum, the actual depth should be calculated as follows: the actual depth = depth on large – scale chart + predicted height + (Chart Depth Datum – Tidal Datum).

MSL (mean sea level) is the average level of the sea surface in a certain period of time. MSL is to be shown by the height from Tide Height Datum to MSL and generally calculated from tidal observations over a long period.

All times of predictions are given in the official standard time kept at the place. Those times of predictions of height of tide at ports and places of China coast, moon declination extremum, lunar phases and moon culmination are given in Beijing Standard Time, i. e. time zone: –0800.

Normally in Tide Tables, errors in predicted tidal times is within 20 ~ 30 minutes and errors in predicted heights is within 20 ~ 30 cm. The effects of meteorological conditions and other random factors on tidal heights are not included in all predicted heights. Errors might be large in special circumstances such as at predicted station of estuary or under the effects of typhoon, cold wave and floodwater and so on factors. Caution should be taken in use.

Tidal Factors

Tide is the regular and continuous fluctuating change in the level of the sea affected by gravitation of moon and sun. In the tidal cycle, the maximum height reached in a rising tide is to be called High Tide and the minimum height reached in a falling tide is to be called Low Tide. In the course of low tide to high tide, when the sea level is rising to a higher level, it is called Flood Tide. In the course of high tide to low tide, when the sea level is falling to a lower level, it is called Ebb Tide.

Tidal Range is the difference in height between a high tide and the succeeding or preceding low tide. The Duration of Flood is the length of time from low tide to high tide; the Duration of Ebb is the length of time from high tide to low tide.

Spring Tides: semi – diurnal tides of the largest range occuring 2 – 3 days after the moon is new or full; Neap Tides: tides of the smallest range occuring 2 – 3 days after the moon is at its first or last quarter.

Tidal Pattern

There are four tidal patterns as follows:

1. Semi – diurnal Tide: there are two high tides and two low tides in a lunar day (about 24hrs and 50mins). The height of tide between a high tide (low tide) and the succeeding or preceding high tide (low tide) is approximately the same; the duration of flood and ebb is also approximate.

2. Diurnal Tide: In half a month, the number of days is more than 7 days in which there appears one high tide and one low tide, other days are compound tide.

3. Irregular Semi – diurnal Compound Tide: Basically its characters is as much as semi – diurnal tide. There are two high tides and two low tides in a lunar day. The height of tide between a high tide (low tide) and the succeeding or preceding high tide (low tide) is different; the duration of flood and ebb is not equal, too.

4. Irregular Diurnal Tide: In half a month, the number of days is less than 7days in which there appears one high tide and one low tide, other majority of days are irregular semi – diurnal tide in which there appear two high tides and two low tides.

Table of Tidal Signal on Chart

Table of tidal signal on chart provides many data for navigators: tide situations of parts of standard ports and secondary ports, mean – tidal intervals and mean tidal rise, etc for semi – diurnal tide ports, mean – tidal intervals and heights during tropical tide and equinoctial tide respectively for compound tide ports and diurnal tide ports, etc.

High Tide Interval is the time interval from lunar upper (lower) culmination to high tide; Low Tide Interval is the time interval from lunar upper (lower) culmination to low tide; Mean Spring Rise is the height between depth datum and mean high water springs level and the mean height of high tide during spring tide; Mean Neap Rise is the height between depth datum and mean high water neaps level and the mean height of high tide during neap tide.

Diurnal Inequality of Tide is the phenomenon that the height of tide between a high tide (low tide) and the succeeding or preceding high tide (low tide) is constant inequality. Tropical Tide is the tide when diurnal inequality of tide is maximal caused while the maximal moon declination coming. Equinoctial Tide is the tide when the moon declination is minimal, diurnal inequality of tide is much little, the height of tide between a high tide (low tide) and the succeeding or preceding high tide (low tide) is approximately the same.

Tide Tables

According to the data shown in tide tables, time of tide and height of tide for certain sea area can be approximately calculated, however there exists some errors and sometimes differs greatly from the actual surveyed water levels. Care should be taken when using it. Calculating methods are listed as follows:

1. Tabular statement of semidiurnal tide

(1) to find the time of tide

time of high water = upper (lower) culmination time + mean high water lunitidal interval

time of low water = upper (lower) culmination time + mean low water lunitidal interval

(2) to find the height of tide

height of high water = spring rise − (spring rise − neap rise)/7 × days (days refer to the interval days with the time of spring tide)

height of low water = 2 × MSL − height of high water

2. Tabular statement of mixed tide and diurnal tide

(1) to find the time of tide

① to find the date at 0°or approaching to 0°of the moon declination

time of high water = upper (lower) culmination time + MHW lunitidal interval

time of low water = upper (lower) culmination time + MLW lunitidal interval

② to find the date at the maximum or approaching to maximum of the moon declination

time of HHW(LHW) = upper (lower) culmination time + MHHW (MLHW) lunitidal interval

time of HLW(LLW) = upper (lower) culmination time + MHLW (MLLW) lunitidal interval

(2) to find the height of tide

① to find the date at the maximum or minimum of the moon declination, the calculating height of tide is listed in this table;

② to find the date between the minimum (maximum) and maximum (minimum) of the moon declination, the calculating methods are listed follows:

A. to find the date between the minimum and maximum of the moon declination

height of HHW(LHW) = mean height of high tide at 0°of moon declination − T · △h

height of HLW(LLW) = mean height of low tide at 0°of moon declination − T · △h

B. to find the date between the maximum and minimum of the moon declination

height of HHW(LHW) = mean height of HHW (LHW) of moon declination at maximum + T · △h

height of HLW(LLW) = mean height of HLW (LLW) of moon declination at maximum + T · △h

Thereinto: T represents the interval days from moon declination at minimum (or maximum) to the time as requested;

△h = tidal level range per day = (mean height of the tide at 0° − mean height of the tide at maximum of moon declination)/D, D represents the interval days from minimum (maximum) to maximum of moon declination.

目　　录
CONTENTS

仁　　川

INCH'ŎN

2009 年　　纬度:37°28′N　　经度:126°37′E　　潮汐表

1 月 Jan.

	潮时 Time	潮高 cm		潮时 Time	潮高 cm
1	01 51	139	17	03 03	87
	07 55	707		09 21	749
	13 55	74		15 16	125
	20 08	795		21 21	754
2	02 22	130	18 ☾	03 38	125
	08 28	711		10 00	712
	14 30	87		15 58	199
	20 39	786		21 54	696
3 E	02 55	126	19	04 17	173
	09 03	710		10 46	670
	15 09	116		16 47	276
	21 14	764		22 37	634
4 ☽	03 33	133	20	05 08	226
	09 45	701		11 56	633
	15 54	162		18 02	339
	21 55	726		23 47	580
5	04 19	154	21	06 27	265
	10 42	683		13 33	629
	16 51	219		19 50	350
	22 51	677			
6	05 20	180	22 S	01 37	566
	12 00	672		08 03	258
	18 11	264		14 58	668
				21 15	307
7	00 13	639	23	03 02	600
	06 41	189		09 14	213
	13 32	696		15 57	720
	19 45	264		22 10	250
8	01 46	640	24	04 00	649
	08 05	158		10 05	161
	14 51	755		16 41	766
	21 06	217		22 51	200
9 N	03 03	679	25	04 45	691
	09 15	99		10 46	116
	15 53	820		17 17	798
	22 08	158		23 28	164
10	04 04	725	26 ●	05 25	720
	10 13	39		11 23	84
	16 45	872		17 50	817
	23 00	106			
11 ○	04 58	762	27	00 00	139
	11 03	-8		06 00	738
	17 34	903		11 58	62
	23 46	70		18 20	827
12	05 48	786	28	00 30	120
	11 51	-34		06 34	751
	18 20	913		12 30	49
				18 49	832
13	00 30	49	29	00 59	103
	06 36	798		07 06	763
	12 35	-39		13 03	42
	19 03	906		19 16	836
14	01 12	41	30 E	01 27	85
	07 22	800		07 36	778
	13 18	-24		13 36	42
	19 43	883		19 45	836
15 E	01 51	45	31	01 56	69
	08 04	792		08 07	791
	13 59	10		14 10	56
	20 18	849		20 14	828
16	02 28	60			
	08 44	776			
	14 38	60			
	20 50	805			

2 月 Feb.

	潮时 Time	潮高 cm		潮时 Time	潮高 cm
1	02 27	63	17 ☾	03 27	162
	08 39	795		09 52	718
	14 45	88		15 57	283
	20 45	804		21 47	662
2	03 01	76	18	04 06	227
	09 16	782		10 42	661
	15 26	143		16 52	360
	21 23	760		22 42	595
3 ☽	03 42	111	19 S	05 10	295
	10 03	748		12 15	617
	16 15	217		19 06	400
	22 11	697			
4	04 34	165	20	00 39	552
	11 12	704		07 19	318
	17 28	294		14 21	635
	23 27	631		20 56	351
5 N	05 56	214	21	02 40	585
	12 57	688		08 52	268
	19 23	320		15 35	695
				21 52	278
6	01 22	611	22	03 45	649
	07 43	208		09 45	199
	14 37	734		16 20	756
	21 00	264		22 30	212
7	02 57	656	23	04 30	709
	09 06	143		10 27	138
	15 47	806		16 54	802
	22 04	183		23 03	159
8	04 02	724	24	05 07	755
	10 06	67		11 01	91
	16 41	869		17 24	832
	22 52	110		23 32	121
9 ○	04 55	785	25 ●	05 40	789
	10 55	8		11 35	60
	17 26	908		17 52	850
	23 34	58			
10	05 42	826	26 E	00 00	91
	11 39	-25		06 11	814
	18 06	921		12 07	42
				18 20	858
11	00 14	28	27	00 29	67
	06 25	849		06 41	835
	12 20	-30		12 41	34
	18 44	911		18 49	861
12 E	00 49	16	28	00 58	47
	07 04	856		07 12	855
	13 00	-11		13 14	38
	19 17	887		19 18	859
13	01 24	21			
	07 42	850			
	13 36	25			
	19 48	853			
14	01 56	39			
	08 15	833			
	14 11	76			
	20 16	815			
15	02 26	68			
	08 46	806			
	14 45	136			
	20 43	772			
16	02 56	108			
	09 17	768			
	15 18	206			
	21 12	722			

3 月 Mar.

	潮时 Time	潮高 cm		潮时 Time	潮高 cm
1	01 29	34	17	02 20	120
	07 44	867		08 43	804
	13 48	56		14 46	225
	19 49	847		20 41	730
2	02 00	34	18 S	02 51	170
	08 16	866		09 15	756
	14 25	94		15 21	290
	20 23	819		21 16	678
3	02 36	57	19 ☾	03 28	233
	08 54	842		09 57	698
	15 04	156		16 07	359
	21 00	770		22 07	616
4	03 16	105	20	04 22	303
	09 40	794		11 08	641
	15 52	238		18 09	411
	21 47	701		23 50	565
5	04 08	175	21	06 26	345
	10 45	731		13 18	629
	17 04	323		20 17	371
	23 02	628			
6	05 30	243	22	02 04	587
	12 34	693		08 13	305
	19 15	347		14 51	679
				21 16	297
7	01 14	606	23	03 15	655
	07 30	244		09 12	235
	14 26	730		15 41	741
	20 52	278		21 56	223
8	02 53	666	24	04 01	727
	08 54	175		09 55	168
	15 36	802		16 16	794
	21 49	186		22 27	161
9	03 56	750	25 E	04 37	787
	09 53	97		10 32	115
	16 26	863		16 47	831
	22 33	107		22 57	112
10	04 45	822	26	05 10	834
	10 40	39		11 07	78
	17 06	898		17 17	852
	23 12	53		23 26	75
11	05 27	870	27 ●	05 42	870
	11 21	11		11 42	58
	17 43	906		17 48	862
	23 47	24		23 57	48
12	06 05	895	28	06 14	896
	12 00	11		12 16	52
	18 16	892		18 20	863
13	00 21	18	29	00 29	31
	06 41	899		06 47	912
	12 36	33		12 53	60
	18 47	866		18 54	856
14	00 53	28	30	01 02	24
	07 15	889		07 22	917
	13 12	70		13 30	83
	19 16	836		19 30	838
15	01 23	50	31	01 39	34
	07 45	869		08 00	905
	13 45	116		14 09	124
	19 44	805		20 06	807
16	01 52	81			
	08 14	841			
	14 15	168			
	20 12	771			

4 月 Apr.

	潮时 Time	潮高 cm		潮时 Time	潮高 cm
1 N	02 17	65	17 ☾	03 06	233
	08 40	871		09 32	730
	14 52	184		15 47	339
	20 48	758		21 51	632
2 ☽	03 01	118	18	03 59	289
	09 28	817		10 30	682
	15 44	258		17 14	377
	21 42	694		23 15	593
3	03 57	190	19	05 30	332
	10 34	752		12 00	654
	17 02	326		19 09	362
	23 05	632			
4	05 23	254	20	01 09	601
	12 16	711		07 15	320
	18 59	332		13 38	671
				20 18	304
5	01 07	626	21	02 29	658
	07 11	258		08 24	268
	14 00	731		14 42	717
	20 25	268		21 05	235
6	02 38	690	22 E	03 20	732
	08 32	204		09 15	207
	15 11	784		15 28	766
	21 22	185		21 42	169
7 E	03 39	773	23	04 00	801
	09 31	141		09 58	153
	16 00	831		16 05	805
	22 05	114		22 16	114
8	04 25	845	24	04 36	859
	10 17	93		10 37	113
	16 38	857		16 41	831
	22 43	67		22 50	72
9 ○	05 04	891	25 ●	05 11	901
	10 59	72		11 15	91
	17 13	860		17 16	842
	23 17	45		23 26	44
10	05 41	912	26	05 47	927
	11 37	75		11 55	86
	17 45	847		17 55	841
	23 50	45			
11	06 15	911	27	00 03	30
	12 13	97		06 26	937
	18 16	825		12 35	95
				18 34	830
12	00 22	59	28 N	00 43	29
	06 46	896		07 06	933
	12 47	129		13 17	117
	18 46	800		19 16	811
13	00 53	83	29	01 24	43
	07 16	874		07 49	914
	13 21	166		14 01	151
	19 16	776		20 00	782
14 S	01 23	111	30	02 08	74
	07 46	847		08 35	880
	13 53	205		14 49	196
	19 48	751		20 50	742
15	01 54	143			
	08 17	815			
	14 26	246			
	20 21	720			
16	02 28	183			
	08 50	776			
	15 00	291			
	21 00	680			

时　区:东 9 时区
Time Zone: −0900

潮高基准面:在平均海面下 468 厘米。
Tidal datum:468cm below mean sea level.

仁　　川

INCH'ŎN

2009 年　　纬度:37°28′N　　经度:126°37′E　　潮汐表

5 月 May

	潮时 Time	潮高 cm		潮时 Time	潮高 cm
1	02 57	122	17 ☾	03 43	249
	09 27	831		10 01	728
	15 45	245		16 31	308
	21 48	696		22 43	631
2 ☽	03 56	183	18	04 45	286
	10 30	776		11 00	697
	16 59	283		17 45	311
	23 09	657			
3	05 13	239	19 E	00 03	628
	11 48	733		06 05	304
	18 25	286		12 15	683
				19 00	286
4	00 45	656	20	01 25	663
	06 41	259		07 24	287
	13 16	722		13 31	695
	19 43	249		20 01	237
5 E	02 10	704	21	02 30	725
	07 59	238		08 29	245
	14 29	742		14 32	728
	20 43	192		20 52	178
6	03 12	773	22	03 19	795
	09 01	198		09 22	197
	15 22	769		15 22	763
	21 30	138		21 36	122
7	04 00	835	23	04 02	857
	09 52	164		10 09	156
	16 05	788		16 07	790
	22 10	100		22 19	77
8	04 39	876	24 ●	04 45	902
	10 36	145		10 54	130
	16 42	794		16 51	805
	22 46	83		23 01	47
9 ○	05 15	893	25	05 27	927
	11 15	145		11 39	119
	17 15	787		17 35	807
	23 21	84		23 45	30
10	05 49	890	26 N	06 12	935
	11 52	159		12 25	120
	17 49	773		18 22	800
	23 55	97			
11	06 23	875	27	00 30	28
	12 29	180		06 58	930
	18 23	757		13 11	129
				19 12	787
12 S	00 29	115	28	01 16	37
	06 56	854		07 45	914
	13 04	204		13 59	144
	18 59	740		20 02	770
13	01 03	135	29	02 04	61
	07 28	833		08 34	887
	13 39	226		14 47	164
	19 34	723		20 56	748
14	01 38	156	30	02 54	100
	08 01	811		09 22	848
	14 15	247		15 40	188
	20 12	705		21 51	721
15	02 15	180	31 ☽	03 48	153
	08 36	788		10 13	798
	14 52	268		16 36	213
	20 52	682		22 54	695
16	02 54	211			
	09 15	760			
	15 35	289			
	21 41	655			

6 月 Jun.

	潮时 Time	潮高 cm		潮时 Time	潮高 cm
1	04 49	211	17	05 07	265
	11 10	745		11 10	704
	17 40	231		17 41	236
2	00 09	683	18	00 18	679
	06 00	258		06 21	288
	12 19	702		12 21	682
	18 48	230		18 52	224
3	01 28	701	19	01 35	715
	07 17	275		07 41	278
	13 33	685		13 39	687
	19 54	209		20 01	188
4	02 37	745	20	02 41	773
	08 28	262		08 50	242
	14 38	693		14 46	713
	20 50	177		21 02	138
5	03 30	793	21	03 36	834
	09 27	236		09 49	197
	15 30	710		15 43	745
	21 38	147		21 56	87
6	04 15	830	22 N	04 26	882
	10 15	213		10 41	158
	16 14	725		16 34	769
	22 20	127		22 46	47
7	04 54	849	23 ●	05 15	914
	10 58	200		11 30	130
	16 53	731		17 26	783
	22 59	119		23 35	20
8	05 30	852	24	06 04	928
	11 38	198		12 18	112
	17 31	730		18 18	789
	23 37	121			
9	06 06	844	25	00 23	8
	12 17	203		06 53	929
	18 10	724		13 05	102
				19 10	790
10	00 14	127	26	01 10	10
	06 42	832		07 39	918
	12 54	209		13 50	98
	18 49	716		20 00	787
11	00 50	134	27	01 57	30
	07 16	821		08 23	895
	13 30	213		14 34	104
	19 29	710		20 48	778
12	01 27	141	28 E	02 42	67
	07 50	812		09 04	857
	14 04	214		15 17	120
	20 06	705		21 35	758
13	02 03	151	29 ☽	03 29	123
	08 22	803		09 44	805
	14 38	214		16 01	148
	20 43	699		22 25	731
14	02 41	167	30	04 17	191
	08 55	789		10 26	745
	15 13	216		16 49	183
	21 22	691		23 22	701
15	03 21	192			
	09 31	768			
	15 52	222			
	22 07	680			
16 ☾	04 08	228			
	10 15	738			
	16 40	231			
	23 04	671			

7 月 Jul.

	潮时 Time	潮高 cm		潮时 Time	潮高 cm
1	05 15	260	17	05 27	282
	11 17	684		11 25	671
	17 46	217		17 53	207
2	00 34	685	18	00 45	704
	06 29	311		06 58	307
	12 27	637		12 54	647
	18 56	235		19 19	202
3	01 54	698	19 N	02 11	742
	07 52	322		08 29	280
	13 47	624		14 21	666
	20 09	225		20 39	156
4	03 01	733	20	03 20	803
	09 04	297		09 38	221
	14 58	642		15 30	709
	21 10	197		21 44	93
5 S	03 53	772	21	04 17	862
	10 01	259		10 34	159
	15 53	671		16 29	754
	22 00	164		22 37	36
6	04 38	802	22 ●	05 08	905
	10 47	226		11 23	108
	16 39	696		17 22	788
	22 45	137		23 27	-4
7 ○	05 17	820	23	05 55	927
	11 29	202		12 08	72
	17 22	712		18 13	810
	23 24	119			
8	05 54	826	24	00 14	-22
	12 06	187		06 41	931
	18 02	719		12 50	50
				19 00	822
9 E	00 01	110	25 E	00 58	-18
	06 29	826		07 22	917
	12 41	177		13 30	42
	18 41	723		19 46	824
10	00 37	105	26	01 40	7
	07 01	824		08 00	888
	13 13	169		14 09	49
	19 17	725		20 28	815
11	01 12	104	27	02 20	51
	07 31	821		08 35	846
	13 44	158		14 45	70
	19 50	730		21 08	793
12	01 45	108	28	03 00	112
	08 00	818		09 08	795
	14 12	147		15 21	106
	20 23	735		21 47	758
13 E	02 19	118	29 ☽	03 42	186
	08 28	811		09 42	735
	14 43	140		15 59	154
	20 55	738		22 31	715
14	02 54	140	30	04 29	265
	08 59	794		10 19	671
	15 15	141		16 45	210
	21 31	734		23 32	672
15 ☾	03 34	178	31	05 33	336
	09 34	764		11 17	609
	15 54	156		17 52	260
	22 16	720			
16	04 22	229			
	10 20	719			
	16 44	183			
	23 19	703			

8 月 Aug.

	潮时 Time	潮高 cm		潮时 Time	潮高 cm
1 S	01 00	651	17	01 52	715
	07 15	367		08 21	296
	12 57	575		14 13	635
	19 30	272		20 29	168
2	02 30	674	18	03 11	782
	08 49	335		09 32	215
	14 34	595		15 29	700
	20 49	236		21 35	90
3	03 35	721	19	04 10	851
	09 50	277		10 24	132
	15 40	642		16 26	767
	21 46	184		22 28	21
4	04 23	768	20 ●	04 57	900
	10 34	221		11 08	66
	16 30	688		17 15	819
	22 30	135		23 14	-23
5	05 01	803	21	05 39	923
	11 12	178		11 48	23
	17 10	722		18 00	850
	23 09	100		23 57	-37
6 ○	05 35	824	22 E	06 18	919
	11 45	148		12 27	3
	17 47	743		18 43	863
	23 44	80			
7	06 06	832	23	00 38	-24
	12 16	128		06 56	897
	18 22	755		13 02	3
				19 22	860
8	00 17	70	24	01 17	11
	06 35	833		07 30	861
	12 45	113		13 38	19
	18 54	764		20 00	843
9 E	00 49	68	25	01 54	62
	07 02	831		08 00	818
	13 13	99		14 10	49
	19 25	773		20 33	814
10	01 21	71	26	02 30	124
	07 30	827		08 30	771
	13 41	86		14 42	91
	19 54	783		21 08	775
11	01 54	83	27 ☽	03 06	194
	07 58	819		09 00	718
	14 10	78		15 14	144
	20 25	789		21 44	725
12	02 28	108	28	03 45	270
	08 28	802		09 34	660
	14 42	83		15 53	207
	20 59	784		22 30	669
13	03 05	150	29 S	04 39	345
	09 01	768		10 25	596
	15 18	107		16 52	273
	21 39	760		23 56	623
14 ☾	03 48	212	30	06 37	388
	09 44	717		12 10	549
	16 04	151		18 52	303
	22 37	721			
15	04 48	283	31	01 54	631
	10 45	654		08 30	347
	17 12	202		14 14	571
				20 28	261
16 N	00 06	692			
	06 28	330			
	12 25	611			
	18 53	219			

时　区:东 9 时区
Time Zone: −0900

潮高基准面:在平均海面下 468 厘米。
Tidal datum:468cm below mean sea level.

仁　　川

INCH'ŎN

2009 年　　纬度:37°28′N　　经度:126°37′E　　潮汐表

	9 月			Sept.			10 月			Oct.			11 月			Nov.			12 月			Dec.	
	潮时 Time	潮高 cm		潮时 Time	潮高 cm		潮时 Time	潮高 cm		潮时 Time	潮高 cm		潮时 Time	潮高 cm		潮时 Time	潮高 cm		潮时 Time	潮高 cm		潮时 Time	潮高 cm
1	03 12	684	17	03 53	835	1	03 20	712	17	04 11	827	1	03 47	752	17 ●	04 58	756	1	03 48	728	17	05 20	706
	09 30	274		10 05	98		09 36	193		10 18	26		09 59	87		11 04	28		10 00	65		11 26	68
	15 25	633		16 15	793		15 44	697		16 40	861		16 20	803		17 34	860		16 28	833		17 57	821
	21 25	194		22 12	23		21 37	146		22 35	29		22 19	93		23 36	105		22 36	112			
2	03 59	744	18 E	04 38	879	2 E	03 57	763	18 ●	04 48	836	2	04 21	777	18	05 33	742	2 ○	04 30	750	18	00 05	148
	10 12	203		10 45	31		10 09	131		10 55	-4		10 32	48		11 40	38		10 42	26		06 00	705
	16 12	696		17 00	851		16 20	757		17 18	888		16 53	842		18 08	844		17 07	865		12 03	69
	22 08	132		22 56	-15		22 15	95		23 15	28		22 57	72					23 18	93		18 31	810
3	04 35	790	19 ●	05 15	894	3	04 29	797	19	05 22	824	3 ○	04 55	788	19 S	00 14	127	3 N	05 14	761	19	00 41	152
	10 46	147		11 23	-7		10 39	85		11 30	-8		11 05	21		06 08	724		11 25	0		06 37	701
	16 50	745		17 40	883		16 53	801		17 54	888		17 27	866		12 15	57		17 49	882		12 41	74
	22 45	87		23 37	-20		22 49	63		23 53	50		23 34	66		18 43	820					19 05	799
4	05 06	819	20	05 51	883	4 ○	04 59	815	20	05 56	798	4	05 31	788	20	00 50	153	4	00 02	86	20	01 17	156
	11 15	108		11 59	-18		11 07	53		12 02	8		11 41	5		06 43	704		05 57	761		07 15	695
	17 24	777		18 18	890		17 24	830		18 29	870		18 02	877		12 50	79		12 09	-14		13 15	83
	23 18	59					23 23	48								19 16	795		18 33	885		19 37	789
5 ○E	05 34	832	21	00 15	1	5	05 27	819	21	00 30	86	5 N	00 13	72	21	01 26	177	5	00 46	86	21	01 50	158
	11 44	82		06 25	855		11 36	33		06 29	767		06 08	779		07 19	686		06 45	755		07 51	690
	17 55	797		12 32	-8		17 54	849		12 35	35		12 19	0		13 26	102		12 53	-16		13 51	95
	23 51	48		18 55	878		23 57	47		19 00	841		18 42	876		19 49	771		19 19	878		20 08	778
6	06 02	834	22	00 52	41	6	05 58	815	22 S	01 05	128	6	00 53	89	22	02 02	197	6	01 32	92	22	02 22	160
	12 11	65		06 57	818		12 07	20		07 00	736		06 48	764		07 57	667		07 33	744		08 27	683
	18 25	810		13 05	18		18 25	859		13 08	68		13 00	5		14 02	127		13 40	-3		14 27	114
				19 29	852					19 33	808		19 23	863		20 24	748		20 06	860		20 39	763
7	00 23	47	23	01 28	92	7	00 31	56	23	01 39	171	7	01 36	114	23	02 39	217	7	02 19	105	23 E	02 55	165
	06 30	830		07 28	778		06 30	805		07 31	707		07 31	741		08 37	646		08 24	728		09 02	672
	12 39	51		13 36	52		12 40	14		13 41	103		13 44	25		14 42	157		14 28	26		15 03	143
	18 55	822		20 00	819		18 59	862		20 05	772		20 08	839		21 01	722		20 53	830		21 11	741
8	00 55	54	24	02 02	148	8	01 08	76	24	02 14	213	8	02 21	147	24	03 20	236	8	03 07	124	24	03 29	176
	06 58	823		07 57	739		07 03	789		08 06	675		08 19	709		09 23	620		09 17	704		09 42	656
	13 08	41		14 06	95		13 15	19		14 15	143		14 30	61		15 28	195		15 18	74		15 45	184
	19 24	830		20 31	778		19 34	854		20 39	734		20 58	801		21 44	690		21 41	785		21 48	707
9	01 29	70	25 S	02 36	207	9 N	01 45	108	25	02 51	255	9 ☾	03 14	186	25 ☽	04 10	256	9 ☾E	04 00	150	25 ☽	04 10	194
	07 28	811		08 28	697		07 40	764		08 45	638		09 15	669		10 20	594		10 16	675		10 31	637
	13 40	39		14 39	145		13 53	38		14 55	190		15 25	112		16 25	237		16 15	136		16 36	232
	19 56	831		21 04	730		20 15	830		21 20	691		21 56	754		22 38	657		22 34	729		22 36	666
10	02 03	100	26 ☽	03 12	269	10	02 27	155	26 ☽	03 38	297	10	04 18	223	26 E	05 16	267	10	04 59	177	26	05 02	215
	08 00	790		09 02	647		08 20	726		09 36	594		10 27	629		11 36	581		11 26	652		11 39	626
	14 13	52		15 16	204		14 36	77		15 47	243		16 34	168		17 39	266		17 22	197		17 45	273
	20 31	817		21 48	675		21 01	789		22 17	648		23 08	708		23 47	632		23 38	675		23 43	630
11	02 41	147	27	04 00	333	11 ☾	03 15	215	27	04 58	329	11	05 40	238	27	06 30	257	11	06 06	193	27	06 14	225
	08 35	753		09 53	590		09 10	673		10 58	556		12 00	615		13 02	602		12 48	652		13 03	641
	14 51	86		16 11	269		15 28	135		17 10	284		17 59	203		18 59	265		18 40	236		19 09	283
	21 14	781		22 59	623		22 01	734		23 42	619												
12 ☾N	03 25	213	28	05 53	376	12	04 22	276	28	06 45	318	12 E	00 32	685	28	01 05	633	12	00 56	643	28	01 06	619
	09 18	697		11 31	542		10 21	614		12 47	559		07 02	214		07 39	221		07 19	186		07 32	205
	15 39	141		18 06	309		16 43	197		18 52	281		13 31	649		14 12	655		14 09	688		14 20	691
	22 12	728					23 30	690					19 23	197		20 08	233		19 59	236		20 28	254
13	04 26	289	29	00 57	610	13	06 08	298	29	01 15	629	13	01 52	695	29	02 13	659	13	02 12	643	29	02 24	643
	10 23	629		07 52	340		12 17	590		07 57	267		08 11	161		08 33	169		08 27	157		08 41	156
	16 49	205		13 42	560		18 27	217		14 10	611		14 43	717		15 04	722		15 12	740		15 19	755
	23 44	684		19 50	275					20 05	238		20 32	163		21 04	188		21 06	209		21 30	204
14	06 18	332	30	02 27	653	14	01 14	695	30 E	02 22	669	14	02 54	723	30	03 04	695	14	03 13	663	30 N	03 24	684
	12 18	588		08 55	268		07 46	247		08 46	202		09 04	103		09 18	114		09 21	122		09 37	96
	18 42	226		14 56	626		13 59	640		15 04	681		15 36	786		15 47	784		16 00	785		16 10	816
				20 52	210		19 56	175		20 58	182		21 28	124		21 52	144		22 00	179		22 23	153
15	01 38	702				15	02 32	742	31	03 10	714	15	03 41	748				15	04 00	685	31	04 15	723
	08 12	281					08 49	163		09 26	139		09 48	58					10 06	92		10 28	40
	14 11	629					15 07	724		15 45	749		16 19	836					16 42	814		16 56	862
	20 17	170					21 00	111		21 41	131		22 15	99					22 45	158		23 11	111
16	02 59	768				16 E	03 28	793				16	04 22	759				16 ●S	04 42	700			
	09 17	187					09 38	84					10 28	33					10 47	74			
	15 22	712					15 58	804					16 58	860					17 20	824			
	21 22	89					21 51	57					22 57	93					23 26	148			

时　区:东 9 时区
Time Zone: −0900

潮高基准面:在平均海面下 468 厘米。
Tidal datum:468cm below mean sea level.

群　　山

KUNSAN

2009 年　　纬度:35°59′N　　经度:126°43′E　　潮汐表

1 月 Jan.

	潮时 Time	潮高 cm		潮时 Time	潮高 cm
1	01 01	90	17	02 04	60
	06 09	510		07 45	539
	12 58	59		14 20	85
	18 41	584		20 07	539
2	01 34	93	18 ☾	02 45	88
	06 53	510		08 42	511
	13 33	76		15 06	141
	19 23	566		20 55	494
3 E	02 09	98	19	03 30	120
	07 44	505		09 45	486
	14 14	99		16 02	195
	20 11	540		21 53	453
4 ☽	02 47	105	20	04 24	150
	08 43	499		10 55	471
	15 00	129		17 21	236
	21 07	511		22 58	424
5	03 32	115	21	05 40	170
	09 53	498		12 02	470
	16 00	161		19 01	245
	22 13	487			
6	04 29	123	22 S	00 02	411
	11 05	509		07 07	169
	17 24	185		13 03	483
	23 20	473		20 17	223
7	05 45	122	23	01 02	414
	12 12	533		08 14	147
	19 01	182		13 56	505
				21 10	191
8	00 24	474	24	01 54	429
	07 09	102		09 04	119
	13 13	566		14 41	533
	20 16	153		21 51	158
9 N	01 22	487	25	02 40	453
	08 17	67		09 46	91
	14 09	601		15 20	561
	21 14	116		22 27	128
10	02 16	507	26 ●	03 21	481
	09 14	27		10 24	67
	15 00	633		15 56	587
	22 02	80		23 00	102
11 ○	03 06	531	27	03 59	511
	10 02	-9		10 59	48
	15 48	656		16 30	609
	22 46	50		23 31	82
12	03 54	553	28	04 36	538
	10 48	-33		11 31	36
	16 34	667		17 04	623
	23 28	31			
13	04 40	570	29	00 02	68
	11 31	-41		05 13	561
	17 17	665		12 04	32
				17 39	627
14	00 07	22	30 E	00 33	60
	05 25	578		05 51	576
	12 14	-32		12 38	38
	18 00	648		18 15	620
15 E	00 46	25	31	01 03	58
	06 10	575		06 31	581
	12 56	-6		13 13	55
	18 41	620		18 53	600
16	01 26	38			
	06 57	561			
	13 37	35			
	19 23	582			

2 月 Feb.

	潮时 Time	潮高 cm		潮时 Time	潮高 cm
1	01 35	63	17 ☾	02 44	128
	07 15	575		08 53	499
	13 50	84		15 18	219
	19 34	569		20 47	447
2	02 11	76	18	03 25	169
	08 08	559		10 05	467
	14 33	122		16 28	267
	20 24	530		21 59	407
3 ☽	02 51	94	19 S	04 30	205
	09 13	539		11 25	455
	15 27	167		18 27	282
	21 26	490		23 25	390
4	03 43	117	20	06 28	216
	10 30	527		12 34	466
	16 46	205		19 57	254
	22 43	462			
5 N	05 00	135	21	00 38	399
	11 46	535		07 50	191
	18 36	212		13 31	493
	23 59	458		20 49	212
6	06 43	128	22	01 36	427
	12 56	560		08 44	154
	20 00	180		14 17	527
				21 28	169
7	01 06	476	23	02 22	466
	08 02	91		09 26	115
	13 56	593		14 56	563
	21 00	133		22 01	130
8	02 04	509	24	03 02	509
	09 01	44		10 02	80
	14 48	626		15 31	596
	21 46	87		22 32	95
9 ○	02 57	547	25 ●	03 40	552
	09 51	3		10 37	51
	15 36	652		16 05	623
	22 29	49		23 02	68
10	03 44	582	26 E	04 15	591
	10 36	-25		11 10	32
	16 18	665		16 39	641
	23 08	23		23 32	48
11	04 28	608	27	04 51	622
	11 17	-34		11 44	24
	16 59	665		17 13	646
	23 45	10			
12 E	05 10	622	28	00 02	36
	11 58	-24		05 29	640
	17 35	651		12 17	31
				17 47	638
13	00 21	11			
	05 50	620			
	12 36	5			
	18 12	624			
14	00 57	26			
	06 30	605			
	13 15	49			
	18 46	587			
15	01 31	52			
	07 12	576			
	13 53	103			
	19 22	543			
16	02 07	87			
	07 58	539			
	14 32	162			
	20 00	495			

3 月 Mar.

	潮时 Time	潮高 cm		潮时 Time	潮高 cm
1	00 32	33	17	01 32	96
	06 08	644		07 18	559
	12 52	51		14 05	181
	18 24	616		19 15	492
2	01 04	41	18 S	02 04	139
	06 50	631		08 05	514
	13 30	85		14 46	232
	19 03	580		19 54	446
3	01 40	59	19 ☾	02 39	182
	07 40	604		09 11	475
	14 14	129		15 47	274
	19 50	535		20 59	403
4 ☽	02 21	87	20	03 28	222
	08 41	569		10 42	455
	15 08	178		17 39	291
	20 50	488		22 51	384
5 N	03 15	121	21	05 34	244
	10 01	541		12 00	464
	16 28	219		19 20	264
	22 15	455			
6	04 35	150	22	00 14	402
	11 26	537		07 15	222
	18 15	224		12 58	490
	23 42	455		20 15	219
7	06 25	148	23	01 13	441
	12 39	557		08 15	180
	19 41	187		13 45	526
				20 53	173
8	00 54	484	24	01 59	490
	07 47	109		08 58	136
	13 40	587		14 24	563
	20 39	136		21 28	129
9	01 53	528	25 E	02 38	543
	08 47	61		09 36	95
	14 31	618		15 00	597
	21 25	86		22 00	90
10	02 44	575	26	03 15	593
	09 36	20		10 12	62
	15 15	641		15 35	623
	22 05	45		22 30	58
11 ○E	03 30	615	27 ●	03 52	637
	10 19	-5		10 47	41
	15 56	652		16 10	640
	22 43	18		23 00	34
12	04 10	643	28	04 30	669
	11 00	-11		11 22	33
	16 32	651		16 45	644
	23 18	6		23 32	21
13	04 49	655	29	05 06	686
	11 38	2		11 58	40
	17 06	637		17 20	634
	23 54	9			
14	05 26	651	30	00 04	19
	12 15	32		05 46	685
	17 39	611		12 36	61
				17 58	610
15	00 28	27	31	00 39	29
	06 02	631		06 30	666
	12 52	75		13 16	95
	18 11	577		18 38	575
16	01 00	57			
	06 40	599			
	13 28	127			
	18 42	537			

4 月 Apr.

	潮时 Time	潮高 cm		潮时 Time	潮高 cm
1 N	01 18	52	17 ☾	02 11	185
	07 18	631		08 30	495
	14 02	138		15 22	258
	19 26	530		20 27	411
2 ☽	02 03	86	18	02 57	220
	08 20	588		09 53	472
	15 00	181		16 44	271
	20 29	486		22 16	397
3	03 00	125	19	04 30	244
	09 41	553		11 12	474
	16 15	213		18 16	256
	21 59	458		23 41	419
4	04 22	157	20	06 20	236
	11 05	542		12 15	494
	17 49	214		19 21	219
	23 28	467			
5	06 03	158	21	00 40	462
	12 17	554		07 32	201
	19 11	180		13 04	523
				20 08	174
6	00 38	503	22 E	01 27	514
	07 26	126		08 23	159
	13 16	577		13 46	554
	20 09	132		20 46	130
7 E	01 35	551	23	02 09	569
	08 27	85		09 06	118
	14 05	599		14 26	583
	20 56	85		21 22	89
8	02 25	597	24	02 49	620
	09 15	52		09 46	85
	14 48	615		15 04	606
	21 37	48		21 57	55
9 ○	03 08	633	25 ●	03 29	663
	10 00	32		10 25	63
	15 27	622		15 41	620
	22 15	24		22 31	29
10	03 48	657	26	04 07	693
	10 40	30		11 04	54
	16 02	618		16 18	623
	22 52	14		23 07	14
11	04 26	665	27	04 47	707
	11 18	43		11 44	58
	16 36	605		16 57	614
	23 27	20		23 44	12
12	05 01	658	28 N	05 30	702
	11 56	70		12 24	75
	17 08	584		17 37	594
13	00 00	39	29	00 23	23
	05 37	638		06 15	680
	12 32	106		13 08	102
	17 39	556		18 21	564
14 S	00 32	69	30	01 06	47
	06 12	608		07 05	644
	13 08	147		13 56	133
	18 10	522		19 12	528
15	01 05	106			
	06 49	572			
	13 46	189			
	18 44	485			
16	01 37	146			
	07 31	532			
	14 28	228			
	19 24	447			

时　区:东 9 时区
Time Zone: −0900

潮高基准面:在平均海面下 325 厘米。
Tidal datum:325cm below mean sea level.

群　　山

KUNSAN

2009 年　　纬度:35°59′N　　经度:126°43′E　　潮汐表

	5 月				May				6 月				Jun.				7 月				Jul.				8 月				Aug.			
	潮时 Time	潮高 cm			潮时 Time	潮高 cm			潮时 Time	潮高 cm			潮时 Time	潮高 cm			潮时 Time	潮高 cm			潮时 Time	潮高 cm			潮时 Time	潮高 cm			潮时 Time	潮高 cm		
1	01 55	80	17	☾	02 40	198	1	E	03 43	139	17		04 05	206	1		04 15	177	17		04 33	214	1	S	06 25	258	17		00 26	543		
	08 06	602			09 04	504			10 01	550			10 27	506			10 17	509			10 42	485			11 39	423			07 30	205		
	14 50	164			15 51	229			16 30	158			16 50	180			16 45	149			16 55	154			18 35	183			12 37	463		
	20 18	494			21 33	429			22 36	510			23 13	503			23 06	518			23 40	534							19 31	119		
2	02 53	119	18		03 41	220	2		04 57	169	18		05 30	218	2		05 32	212	18		06 18	226	2		00 42	494	18		01 30	576		
☽	09 20	566			10 17	494			11 06	532			11 29	503			11 18	484			11 51	478			07 54	241			08 36	156		
	15 56	186			16 59	226			17 40	156			18 02	167			17 58	157			18 28	147			12 45	422			13 40	497		
	21 45	477			22 55	447			23 44	527															19 53	165			20 37	69		
3	04 07	151	19	E	05 07	229	3		06 17	180	19		00 15	537	3		00 10	524	19	N	00 45	562	3		01 40	512	19		02 24	612		
	10 38	548			11 23	500			12 02	523			06 59	208			06 59	222			07 48	203			08 53	207			09 25	104		
	17 13	189			18 10	207			18 48	140			12 27	509			12 16	471			12 54	488			13 41	435			14 33	540		
	23 07	489			23 59	484							19 13	141			19 12	149			19 49	116			20 49	136			21 30	20		
4	05 34	163	20		06 35	215	4		00 42	551	20		01 11	577	4		01 09	537	20		01 44	597	4		02 30	536	20	●	03 13	643		
	11 45	547			12 17	516			07 30	172			08 10	181			08 12	208			08 51	162			09 37	171			10 07	58		
	18 29	167			19 11	174			12 56	521			13 19	522			13 11	468			13 52	510			14 30	459			15 22	582		
									19 48	117			20 14	106			20 15	130			20 50	72			21 33	106			22 15	-17		
5	00 15	521	21		00 51	531	5		01 34	576	21		02 01	618	5	S	02 01	554	21		02 38	633	5		03 10	562	21		03 57	663		
E	06 56	149			07 44	184			08 30	156			09 05	147			09 07	185			09 42	119			10 15	138			10 46	23		
	12 44	555			13 06	536			13 43	522			14 09	539			14 00	473			14 45	539			15 12	487			16 07	616		
	19 32	132			20 01	135			20 39	93			21 05	67			21 05	108			21 42	29			22 13	80			22 57	-37		
6	01 12	561	22		01 39	581	6		02 21	597	22	N	02 50	654	6		02 46	572	22	●	03 27	664	6	○	03 45	586	22	E	04 36	670		
	08 00	123			08 36	149			09 21	141			09 54	114			09 53	162			10 26	80			10 47	111			11 24	2		
	13 32	566			13 51	557			14 26	523			14 57	556			14 45	484			15 33	569			15 49	517			16 48	637		
	20 23	94			20 45	95			21 25	74			21 53	33			21 50	89			22 28	-5			22 47	61			23 38	-37		
7	02 00	598	23		02 24	628	7		03 05	612	23	●	03 37	681	7	○	03 29	589	23		04 13	683	7		04 19	607	23		05 15	661		
	08 53	99			09 24	117			10 06	130			10 39	88			10 33	142			11 07	51			11 19	90			12 00	-5		
	14 16	573			14 34	575			15 06	524			15 43	572			15 27	496			16 19	594			16 25	545			17 30	642		
	21 08	63			21 28	59			22 06	64			22 38	7			22 30	76			23 12	-25			23 20	49						
8	02 45	627	24	●	03 07	667	8	○S	03 45	621	24		04 23	697	8		04 05	603	24		04 56	689	8		04 50	621	24		00 16	-16		
	09 39	85			10 08	92			10 46	126			11 22	71			11 09	127			11 46	33			11 48	75			05 51	638		
	14 56	576			15 15	588			15 44	524			16 29	583			16 05	510			17 04	611			17 00	568			12 36	3		
	21 48	43			22 09	30			22 45	62			23 22	-7			23 06	69			23 54	-27			23 52	45			18 10	631		
9	03 26	645	25		03 50	694	9		04 22	623	25		05 09	698	9		04 41	613	25	E	05 38	680	9	E	05 23	627	25		00 55	22		
○	10 21	81			10 50	77			11 25	126			12 04	62			11 44	116			12 25	27			12 17	66			06 26	603		
	15 32	573			15 58	594			16 19	522			17 15	587			16 42	522			17 48	615			17 34	585			13 11	26		
	22 27	36			22 49	12			23 22	68							23 41	68											18 51	603		
10	04 04	650	26	N	04 33	707	10		04 58	620	26		00 06	-6	10		05 15	618	26		00 35	-10	10		00 23	50	26		01 34	74		
	11 01	89			11 32	72			12 02	131			05 54	685			12 16	110			06 18	657			05 55	623			07 02	558		
	16 07	564			16 40	592			16 56	517			12 45	63			17 18	532			13 03	33			12 46	64			13 47	59		
	23 03	40			23 30	6			23 57	80			18 01	583							18 33	607			18 11	592			19 35	564		
11	04 40	645	27		05 18	703	11		05 33	612	27		00 49	10	11		00 14	72	27		01 16	24	11		00 56	64	27	☽	02 15	132		
	11 39	105			12 15	78			12 38	140			06 41	660			05 49	617			07 00	622			06 30	607			07 40	508		
	16 40	550			17 24	581			17 32	511			13 28	72			12 48	109			13 42	51			13 15	68			14 24	100		
	23 39	56											18 52	572			17 55	539			19 20	586			18 52	588			20 30	519		
12	05 15	631	28		00 14	13	12		00 30	97	28	E	01 34	41	12		00 45	82	28		01 59	72	12		01 30	89	28		03 00	192		
S	12 16	128			06 05	684			06 10	599			07 29	625			06 24	609			07 42	579			07 08	580			08 25	456		
	17 13	531			13 00	91			13 13	150			14 11	88			13 19	111			14 21	78			13 46	78			15 07	145		
					18 11	564			18 12	502			19 47	554			18 35	541			20 13	556			19 39	572			21 37	478		
13	00 13	80	29		01 00	33	13		01 05	116	29	☽	02 22	82	13	E	01 19	98	29	☽	02 43	128	13		02 09	123	29	S	04 02	245		
	05 50	609			06 55	653			06 48	583			08 20	585			07 01	593			08 28	530			07 52	542			09 30	410		
	12 54	153			13 45	109			13 48	160			14 56	108			13 50	116			15 03	111			14 22	95			16 06	187		
	17 47	509			19 03	541			18 55	492			20 49	536			19 20	537			21 13	524			20 35	549			22 00	441		
14	00 46	109	30		01 47	63	14		01 40	138	30		03 14	130	14		01 54	121	30		03 34	187	14	☾	02 55	165	30		05 48	271		
	06 28	584			07 51	616			07 31	562			09 16	544			07 43	569			09 22	483			08 46	499			11 03	384		
	13 31	179			14 34	130			14 25	169			15 46	130			14 24	124			15 53	146			15 07	118			17 54	208		
	18 25	485			20 07	519			19 46	482			21 58	522			20 11	528			22 25	498			21 49	528						
15	01 20	139	31	☽	02 41	101	15	E	02 19	161					15	☾	02 34	149	31		04 45	236	15		04 59	221	31		00 15	458		
	07 08	555			08 54	579			08 21	540							08 32	538			10 28	444			10 00	462			07 34	250		
	14 11	202			15 29	147			15 05	177							15 01	134			17 02	175			16 11	142			12 23	389		
	19 09	459			21 22	506			20 51	476							21 15	519			23 36	488			23 11	524			19 30	190		
16	01 56	170					16	☾	03 05	185					16		03 23	182					16	N	05 48	229						
	07 59	526							09 21	519							09 31	507							11 23	449						
	14 56	220							15 51	181							15 49	146							17 55	149						
	20 09	437							22 03	482							22 28	519														

时　区:东 9 时区
Time Zone: −0900

潮高基准面:在平均海面下 325 厘米。
Tidal datum:325cm below mean sea level.

群　　山

KUNSAN

2009 年　　纬度:35°59′N　　经度:126°43′E　　潮汐表

9 月 Sept.

	潮时 Time	潮高 cm		潮时 Time	潮高 cm
1	01 16	478	17	02 05	588
	08 32	208		09 00	82
	13 23	414		14 20	551
	20 28	154		21 13	18
2	02 04	508	18 E	02 51	615
	09 13	165		09 42	35
	14 11	451		15 06	597
	21 13	116		21 57	-16
3	02 43	539	19 ●	03 33	631
	09 46	125		10 20	0
	14 51	493		15 48	632
	21 49	82		22 39	-31
4	03 17	569	20	04 11	634
	10 18	91		10 58	-20
	15 28	534		16 29	650
	22 24	54		23 18	-26
5 ○E	03 50	595	21	04 46	623
	10 48	63		11 33	-24
	16 02	572		17 08	651
	22 57	35		23 58	-3
6	04 22	613	22	05 21	601
	11 16	42		12 09	-12
	16 35	604		17 45	635
	23 30	26			
7	04 54	621	23	00 35	35
	11 45	30		05 54	568
	17 11	625		12 44	15
				18 24	603
8	00 00	29	24	01 13	84
	05 27	617		06 27	527
	12 14	25		13 17	52
	17 46	632		19 03	561
9	00 34	44	25 S	01 52	137
	06 00	600		07 01	481
	12 45	29		13 53	97
	18 27	624		19 49	513
10	01 10	71	26 ☽	02 36	190
	06 38	570		07 40	433
	13 16	43		14 30	143
	19 13	601		20 51	467
11	01 50	109	27	03 32	234
	07 21	529		08 41	387
	13 54	67		15 22	187
	20 07	566		22 17	438
12 ☾N	02 39	154	28	05 06	257
	08 15	482		10 30	363
	14 42	98		17 02	216
	21 20	531		23 38	437
13	03 46	195	29	06 51	240
	09 31	442		11 57	375
	15 49	131		18 52	205
	22 47	516			
14	05 28	214	30	00 40	456
	11 05	431		07 54	200
	17 37	143		12 58	409
				19 57	169
15	00 07	528			
	07 05	187			
	12 24	456			
	19 14	114			
16	01 11	556			
	08 11	136			
	13 27	501			
	20 20	65			

10 月 Oct.

	潮时 Time	潮高 cm		潮时 Time	潮高 cm
1	01 28	485	17	02 23	575
	08 36	155		09 13	23
	13 45	454		14 45	601
	20 43	128		21 37	9
2	02 07	517	18 ●	03 04	585
	09 11	113		09 53	-7
	14 24	503		15 28	630
	21 22	90		22 20	-1
3	02 44	547	19	03 43	584
	09 44	76		10 31	-24
	15 00	551		16 07	643
	21 58	58		23 00	5
4	03 16	573	20	04 17	574
	10 15	44		11 08	-24
	15 36	594		16 45	639
	22 32	36		23 40	26
5	03 50	591	21	04 52	555
	10 44	20		11 45	-10
	16 12	628		17 23	622
	23 06	24			
6	04 25	599	22 S	00 17	57
	11 15	4		05 25	528
	16 47	649		12 19	17
	23 41	25		18 00	592
7	04 59	594	23	00 57	96
	11 45	-2		05 58	495
	17 26	654		12 55	53
				18 38	554
8	00 17	39	24	01 36	136
	05 35	578		06 33	458
	12 19	3		13 30	94
	18 07	642		19 20	513
9	00 57	65	25	02 19	175
	06 14	549		07 15	419
	12 56	19		14 08	136
	18 53	613		20 15	473
10	01 40	100	26 ☽	03 10	206
	07 00	510		08 13	384
	13 38	47		14 55	175
	19 49	573		21 30	444
11 ☾	02 32	137	27	04 18	223
	07 56	468		09 52	366
	14 30	82		16 09	204
	21 01	534		22 48	436
12	03 38	169	28	05 43	218
	09 16	435		11 19	380
	15 41	116		17 49	208
	22 26	514		23 51	447
13	05 04	180	29	06 57	190
	10 50	434		12 20	415
	17 16	130		19 09	184
	23 43	518			
14	06 30	158	30 E	00 42	468
	12 06	465		07 46	151
	18 48	110		13 09	461
				20 04	148
15	00 45	536	31	01 26	494
	07 37	114		08 27	111
	13 07	512		13 51	511
	19 57	72		20 49	111
16	01 38	558			
E	08 29	65			
	14 00	560			
	20 51	34			

11 月 Nov.

	潮时 Time	潮高 cm		潮时 Time	潮高 cm
1	02 06	520	17 ●	03 14	532
	09 04	73		10 08	-6
	14 30	560		15 47	618
	21 30	78		22 45	49
2	02 44	543	18	03 51	525
	09 40	39		10 47	-7
	15 10	604		16 26	616
	22 09	53		23 25	59
3 ○	03 20	559	19 S	04 28	513
	10 15	11		11 25	4
	15 49	637		17 04	603
	22 47	39			
4	03 58	567	20	00 04	77
	10 48	-8		05 02	496
	16 28	657		12 02	26
	23 27	36		17 41	582
5 N	04 36	565	21	00 43	100
	11 25	-17		05 39	476
	17 09	661		12 38	54
				18 19	556
6	00 06	43	22	01 21	124
	05 15	553		06 15	453
	12 03	-13		13 14	86
	17 53	648		18 58	527
7	00 48	61	23	02 00	147
	05 59	532		07 00	429
	12 45	2		13 51	120
	18 40	620		19 44	498
8	01 34	84	24	02 43	166
	06 46	503		07 52	408
	13 31	29		14 30	151
	19 37	583		20 41	472
9 ☾	02 25	109	25 ☽	03 30	179
	07 47	473		09 07	396
	14 26	62		15 22	178
	20 44	546		21 47	456
10	03 23	130	26 E	04 28	183
	09 05	452		10 28	404
	15 31	96		16 32	196
	21 59	521		22 53	452
11	04 30	139	27	05 35	175
	10 30	456		11 33	431
	16 49	118		18 00	196
	23 10	512		23 50	459
12 E	05 46	129	28	06 41	152
	11 42	482		12 29	471
	18 15	118		19 17	175
13	00 11	514	29	00 42	474
	06 55	102		07 37	120
	12 42	518		13 16	516
	19 29	99		20 15	144
14	01 04	522	30	01 28	492
	07 53	66		08 25	84
	13 35	556		14 02	562
	20 27	75		21 06	112
15	01 51	529			
	08 42	33			
	14 23	588			
	21 17	56			
16	02 34	533			
	09 27	8			
	15 07	609			
	22 02	47			

12 月 Dec.

	潮时 Time	潮高 cm		潮时 Time	潮高 cm
1	02 12	511	17	03 30	489
	09 07	48		10 30	21
	14 46	603		16 11	593
	21 50	83		23 13	86
2 ○	02 55	527	18	04 09	489
	09 49	16		11 10	23
	15 30	636		16 48	591
	22 32	61		23 51	87
3 N	03 37	540	19	04 47	487
	10 30	-9		11 46	34
	16 14	657		17 24	584
	23 15	48			
4	04 19	546	20	00 26	93
	11 13	-23		05 24	483
	16 58	663		12 22	51
	23 57	44		17 00	541
5	05 02	545	21	01 01	103
	11 55	-25		06 02	477
	17 42	655		12 57	73
				18 35	556
6	00 40	48	22	01 36	114
	05 49	537		06 43	469
	12 39	-15		13 30	97
	18 31	633		19 15	536
7	01 23	58	23 E	02 10	126
	06 39	523		07 30	459
	13 25	8		14 05	123
	19 23	602		19 57	514
8	02 09	73	24	02 45	136
	07 37	505		08 23	451
	14 15	41		14 45	150
	20 21	566		20 49	490
9 ☾E	02 59	90	25 ☽	03 25	145
	08 45	491		09 30	449
	15 12	80		15 32	177
	21 25	532		21 50	470
10	03 54	104	26	04 14	151
	09 59	487		10 40	459
	16 15	117		16 44	199
	22 29	506		22 55	458
11	04 58	111	27	05 17	150
	11 09	496		11 45	484
	17 34	141		18 21	204
	23 30	491		23 56	458
12	06 08	106	28	06 36	135
	12 12	516		12 45	519
	18 55	145		19 44	183
13	00 26	483	29	00 53	468
	07 15	89		07 46	105
	13 09	538		13 38	559
	20 04	133		20 45	149
14	01 18	482	30 N	01 45	486
	08 14	65		08 43	67
	14 00	560		14 30	598
	21 00	116		21 35	112
15	02 05	484	31	02 35	508
	09 04	44		09 33	28
	14 47	578		15 16	633
	21 49	100		22 21	79
16 ●S	02 49	487			
	09 48	28			
	15 31	589			
	22 31	90			

时　区:东 9 时区
Time Zone: −0900

潮高基准面:在平均海面下 325 厘米。
Tidal datum:325cm below mean sea level.