THE MARSHALL ISLANDS

Created by Real-world Pilots for FSX Simmers

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A. GEO-POLITICAL BACKGROUND AND HISTORY

The Marshall Islands, east of the Carolines, are divided into two chains: the western, or Ralik, group, including the atolls Jaluit, Kwajalein, Wotho, Bikini, and Eniwetok; and the eastern, or Ratak, group, including the atolls Mili, Majuro, Maloelap, Wotje, and Likiep. The islands are of coral reef types and rise only a few feet above sea level. The Marshall Islands comprise an area slightly larger than Washington, DC.

Total land size (all atolls and islands) is 70 sq mi (181 sq km). 2010 estimated population size is 65,859.

The Marshallese, who are Micronesians were the first inhabitants of the archipelago. The islands were explored by the Spanish in the 16th century and were named for a British captain in 1788. Germany unsuccessfully attempted to colonize the islands in 1885. Japan claimed them in 1914, but after several battles during World War II, the U.S. seized them from the Japanese. In 1947, the UN made the island group, along with the Mariana and Caroline archipelagos, a U.S. trust territory.

Read more: Marshall Islands: History, Geography, Government, and Culture — Infoplease.com http://www.infoplease.com/ipa/A0107767.html#ixzz1KUnmz6E6

After almost four decades under US administration as the easternmost part of the UN Trust Territory of the Pacific Islands, the Marshall Islands attained independence in 1986 under a Compact of Free Association. Compensation claims continue as a result of US nuclear testing on some of the atolls between 1947 and 1962. The Marshall Islands have been home to the US Army Post Kwajalein (USAKA) since 1964. A number of islands are off-limits to tourism (and even to locals) due to US military presence or the residue of nuclear testing.

Air Transport

Air Marshall Islands (CW) provides regular scheduled internal (in-country) flights to 10 of the atolls in the Marshall Islands and has planes available for charter. However, the company is fraught with financial and technical problems, so one or both of the two planes in the fleet are often downed for days, weeks, or months at a time sometimes leaving visitors stranded for a week or more.
Air Marshall Islands (CW) also provides international flights on code-share basis with Continental Micronesia (CS) between Honolulu and the Marshall Islands, and directly and/or code-share with Air Fiji between Fiji via Kiribati and Tuvalu. Major international career, Continental Micronesia (CS), stops in Majuro and Kwajalein on its once daily island-hopper service between Guam and Honolulu.

B. MARSHALL ISLANDS in FSX

There are nearly 2 dozen airports in real-world (RW) Marshall Islands built over the course of WWII and Cold War occupations, however only 10 are presently active. Although most people will not see the Marshall Islands in real life, at least we can bring part of these exotic islands to you via FSX in the form 8 airports. The airports - which represents the flare and ruggedness of the RW Marshall Islands - includes:

- Marshall Islands International (AKA Amata Kabua International) - PKMJ
- Rongelap - PKRP
- Utirik - 03N
- Mejit - Q30
- Kaben - PKBN
- Maloelap - 3N1
- Ine - N20
- Tinak - N18

Due to the vast size of land and maritime area constituting Marshall Islands, we were restricted to creating 8 airports only. In fact, in 3 or 4 coverage areas, we had to slice off parts of atolls to just airport locale simply to avoid creating unnecessary huge file size that can overwhelm systems with small hard drives. So if you go looking for land where it's supposed to be as in RW and don't see it, or see only parts of an area near the airport, then here's your reason.

Marshall Islands International is among the most fascinating airports in the world with its distinct near 8,000ft runway straddling a mere 500ft-wide lime-coral/sand divide between north and south coasts Majuro Atolls. Flight time from New York to Majuro is 14 hours, from Tokyo is 11, from Sydney is 6, from Guam is 8, and from Honolulu 5 hours. Wherever departure airport you are flying from ferrying passengers, freight, or repositioning aircraft, you are bound to arrive with a warm welcoming trademark thunderstorms and incessant crosswinds typical of that part of the Micronesian region. The runway width is so thin in aviation standards that it makes the approach more difficult and challenging for the heavy iron types.

Other small airports, such as Ine and Tinak also has their challenges since they are situated on thin slivers of coral byways in the middle of the vast Pacific ocean. Although they are scary enough from the approach perspective, taking off isn't easy either with constant crosswinds and sporadic microburst or wind divergence.

C. FACILITIES DIRECTORY
(NOT TO BE USED IN RW)

1. Marshall Islands International Airport

Code: PKMJ

Lat/Long: 07-03-53.9270N / 171-16-19.3100E

RWY 07-25 H7,897x150ft /2047x46m (Asphalt) Elv. 6.2ft

Twr Ops: Day attended FT/Night at advance noticed.
RWY 07 lights Left VASI - PAPI4 type
RWY 25 lights Left VASI – PAPI4 type

Navaid.	RWY 07: KMJ - ILS-DME 110.5	27nm range
	RWY 25: PKM - ILS-DME 111.5	27n range
	MAJ – VORDME. 116.7	195nm range
	MAJ – NDB. 316.0	75nm range

Communication. TWR. 123.6 GRD. 123.5 APPR. 127.5
ARTCC. Honolulu and Oakland FSS. Honolulu

Airport Remarks/NOTAM
- PPR for night landing by Airport Manager. Except Emergency, report within 48hrs.
- Constant crosswind daylight hrs
- Bird hazards on and near RWY
- Noise abatement after dusk

RW Navaids:
http://204.108.4.16/d-tpp/1104/06049R7.PDF
http://204.108.4.16/d-tpp/1104/06049R25.PDF
http://204.108.4.16/d-tpp/1104/06049N7.PDF
http://204.108.4.16/d-tpp/1104/06049N25.PDF
http://204.108.4.16/d-tpp/1104/PACALT.PDF
http://204.108.4.16/d-tpp/1104/PACTO.PDF

Courtesy: AirNav.com

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2. Rongelap Airport

Code: PKRP

Lat/Long: 11-9-47N/166-53-44E

RWY 10-28 H4,400x75ft /1341x23m (Asphalt) Elv. 3ft

Twr Ops: No twr.
RWY 10 edge lights/REIL Strobe
RWY 28 edge lights/REIL Strobe

Navaid. PKRP – VORDME. 108.2 100nm range

Communication. TWR. GRD. APPR.
ARTCC. Honolulu and Oakland FSS. Honolulu

Airport Remarks/NOTAM
- Constant crosswind daylight hrs
- Noise abatement after dusk
- Taxi, landing and take-off with caution during high tide instances.

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3. Utirik Airport

Code: 03N

Lat/Long: 11-13-37N/169-50-88E

RWY 07-25 H2,400x50ft /732x15m (gravel coral) Elv. 4ft

Twr Ops: No twr.
RWY 07 No lights
RWY 25 No lights

Navaid. UTR – VORDME. 109.2 120nm range

Communication. CTAF. 122.9 GRD. APPR.
ARTCC. Honolulu and Oakland FSS. Honolulu

Airport Remarks/NOTAM
- Constant crosswind daylight hrs
- No ops after dusk
- Taxi, landing and take-off with caution during high tide instances.

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4. Mejit Airport

Code: Q30

Lat/Long: 10-16-92N/170-51-87E

RWY 07-25 H3,000x50ft /914x15m (Asphalt) Elv. 5ft

Twr Ops: No twr.
RWY 07 edge lights/REIL Strobe
RWY 25 edge lights/REIL Strobe

Navaid.
Communication. CTAF. 122.9 GRD. APPR.
ARTCC. Honolulu and Oakland FSS. Honolulu

Airport Remarks/NOTAM
- Constant crosswind daylight hrs
- No ops after dusk

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5. Kaben Airport

Code: PKBN

Lat/Long: 8-53-99N/170-50-48E

RWY 07-25 H4,090x60ft /1246x18m (Asphalt) Elv. 4ft

Twr Ops: No twr.
RWY 07 No night lights
RWY 25 No night lights

Navaid.
Communication. CTAF. GRD. APPR.
ARTCC. Honolulu and Oakland FSS. Honolulu

Airport Remarks/NOTAM
- Constant crosswind daylight hrs
- No ops after dusk
- Taxi, landing and take-off with caution during high tide instances

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6. Maloelap Airport

Code: 3N1

Lat/Long: 8-42-23N/171-13-71E

RWY 04-22 H3,500x150ft /1067x46m (gravel coral) Elv. 4ft

Twr Ops: No twr. Attendance on call
RWY 04 edge lights/REIL Strobe
RWY 22 edge lights/REIL Strobe

Navaid.
Communication. CTAF. 122.9 GRD. APPR.
ARTCC. Honolulu and Oakland FSS. Honolulu

Airport Remarks/NOTAM
- Constant crosswind daylight hrs
- No ops after dusk

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7. Ine Airport

Code: N20

Lat/Long: 7-0-33N/171-39-51E

RWY 08-26 H2,450x50ft /747x15m (lime coral) Elv. 4ft

Twr Ops: No twr. Attendance on call
RWY 08 No night lighting
RWY 26 No night lighting

Navaid.
Communication. CTAF. 122.9 Majuro Multicomm. 123.5
ARTCC. Honolulu and Oakland FSS. Honolulu

Airport Remarks/NOTAM
- Constant crosswind daylight hrs
- No ops after dusk
- Taxi, landing and take-off with caution during high tide instances.

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8. Tinak Airport

Code: N18

Lat/Long: 7-6-10N/171-55-36E

RWY 05-23 H2,850x45ft /869x14m (lime coral) Elv. 4ft

Twr Ops: No twr. Attendance on call
RWY 05 No night lighting
RWY 23 No night lighting

Navaid.
Communication. CTAF. 122.9
ARTCC. Honolulu and Oakland FSS. Honolulu

Airport Remarks/NOTAM
- Constant crosswind daylight hrs
- Bird hazard within airfield vicinity
- No ops after dusk
- Taxi, landing and take-off with caution during high tide instances.

D. PRODUCT FEATURES

Product Features

- Accurate terminal buildings;
- Re-arranged airport terrain;
- Custom runway and ground/tarmac textured polygons;
- Custom vegetation and objects;
- 3D grass
- Upgraded terrain mesh reflecting actual contours of the islands and atolls;
- Complete hand textured coloration of land and waterclass;
- Night lighting and effects;
- 15/30/60cm/pixel photoreal texture;
- Animation;
- Ambient sounds (birds, wave crash);
- Framerate-friendly (including full autogen enhancements for framerate fluidity using SDK annotator). This means all sliders to the right with very minimal fps impact;
- runway and apron/tarmac markings;
- Wave crash effects notable at coral/reef outlines as in RW.
- Radio navigation enhanced for instrument approaches (ILS/DME, VOR and NDB)
- ....and more.

E. SYSTEM-SPECIFIC REQUIREMENTS

The Marshall Islands product was developed on a medium system for medium to high-end computers, and was tested on WinXP, Vista and Win7 32/64 bit platforms with medium to high-end graphic cards. Specific requirements include:

- Microsoft Flight Simulator X (SP1, SP2/Acceleration)
- Pentium IV 2.6 GHz (2GHz Duo2Core Intel and above or equivalent advised)
- 1 GB RAM and above recommened
- 256 Mb DirectX 9 graphics card (512 Mb or higher recommended)
- Word for Windows or Adobe Acrobat® Reader 6 minimal to read and print the manual.
- 500mb of hard disk space

F. RECOMMENDED FSX SETTINGS

Frame rates from scenery complexity and autogen settings were averaged at 30fps and above. This includes moving sliders 100% to the right. Lower settings yielded much higher frames, but our recommendation is *Dense* to *Extreme Dense* for exceptional rates. Since the scenery is 15/30cm/pixel photoreal, it is highly recommended that Mesh Resolution be set at 1 meter within FSX Display Settings (slider 100% to the right). Texture Resolution should also be set at 30cm and above (or slider 100% to the right).

Recommended AI Traffic settings:

There are AI boat traffic within vicinity of all /islands/atolls. To maintain a formidable and exceptional level of FPS, it is recommended that leisure boats be set at 30% or less.

AI Road traffic is only found at Majuro and Rongelap. Recommended setting is 10% or lower.

G. PRODUCT DISCLOSURE and DISCLAIMER

Similar to any Flight Simulator (FS) Addons, this product may have issues that are either default (Microsoft-related) or developer-related. Issues that are MS-related, whether documented or undocumented are many, but we can only speak for our product. Although there are no micro-stutters or huge lag in fps as tested, it is advisable to lower the Water Effects within FSX Display Settings to High 2x. and set Autogen down to respectable levels for fluidity. These are recommended for lower to medium-end systems, however the scenery is meant for sliders maxed at 100% peak for those computers who can afford the high level scenery design.

No technical issues were encountered during various beta tests, whether hardware or software-related. Instructions for installation of software are straightforward; however, venturing outside bounds of recommended installation and use is at sole discretion of End-User.

We will not bear responsibility for issues resulting from installation of the product, in part or full, into former Flight Simulator platforms which includes FS2004 because the product is not backward compatible. Furthermore, we will not be held responsible if files are altered within software for any reason associated with End-User taste or choice.

The product is Non-refundable for these and various other reasons.

H. ACKNOWLEDGEMENT

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