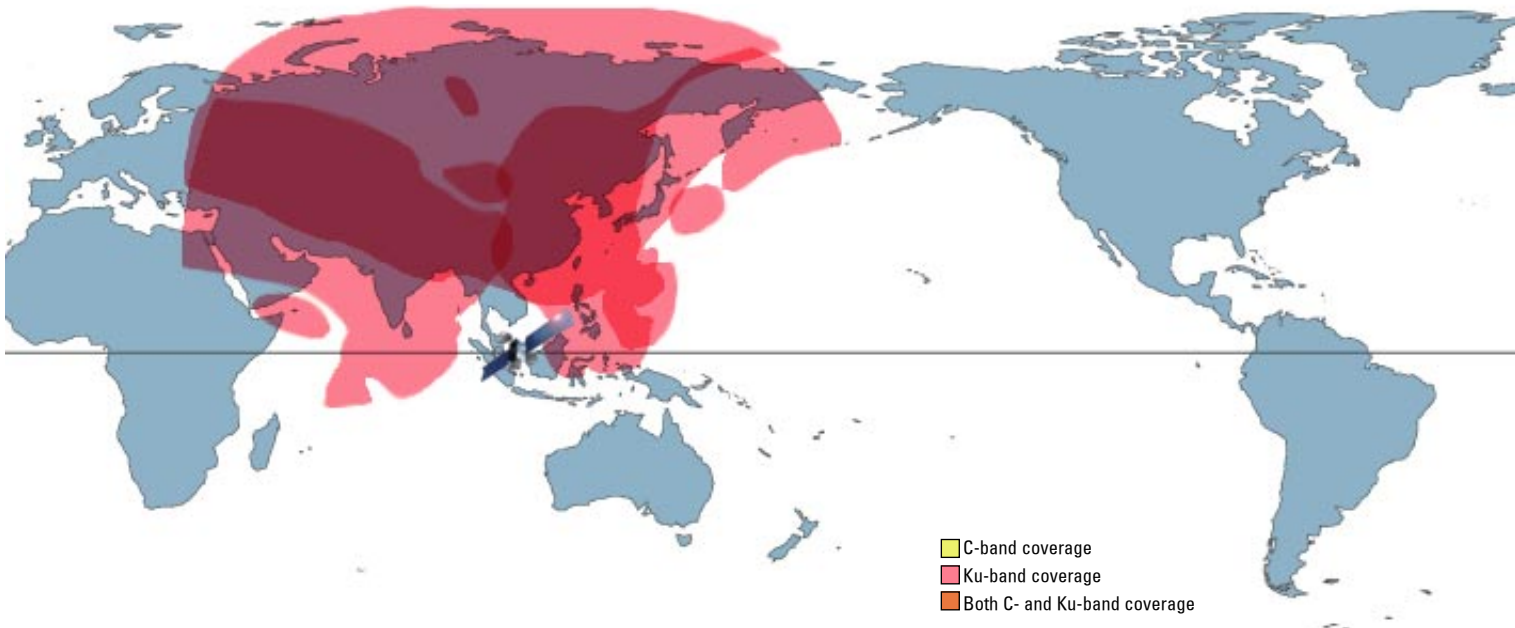


WORLD SAT-1 Asia-Pacific Satellite



WORLD SAT-1 (WS-1) is an advanced Lockheed Martin satellite of the A 2100A class, a high-power, all Ku-Band FSS satellite with coverage of China, North-East Asia, Philippines and South Asia. The A2100 satellite series combines highest reliability with the most advanced satellite bus technology and communications payload performance features.

From its position at 108.2 degrees East, AAP-1 offers to telecom operators, broadcasters, Internet service providers and other private or government agencies the ability to provide a variety of satellite-based services.

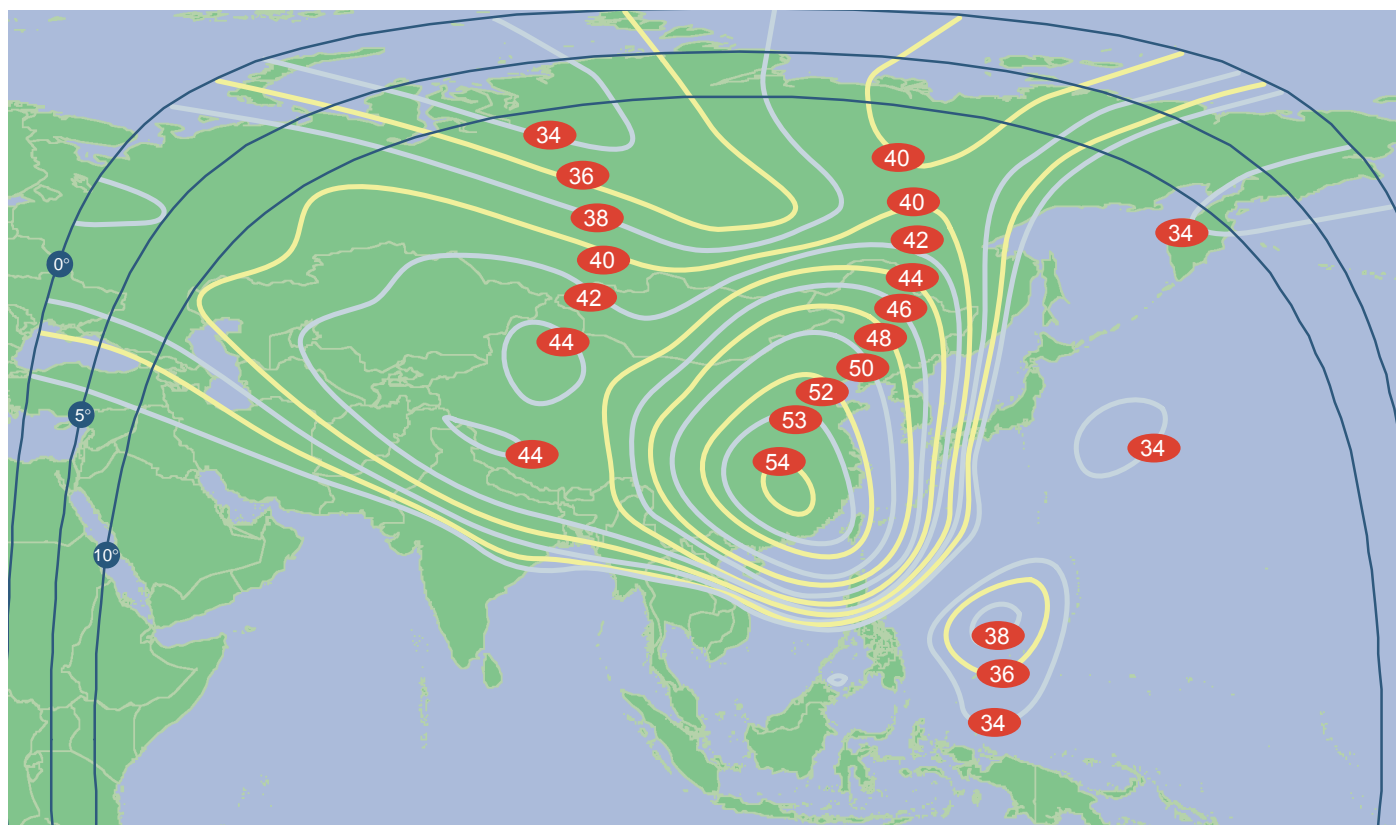
Satellite transponder information

Spacecraft design	Lockheed Martin A2100AX
Launch Date/Vehicle	October, 2000 / Proton DM
Orbital location	108.2° E.L
Polarization	Linear
Ku-band payload	28 x 36 MHz
Amp type	TWTA, 120-watt
Ku-band frequencies	14.00 - 14.50 GHz uplink 12.25 - 12.75 GHz downlink
Coverage	N.E. Asia, The Philippines, China, South Asia
Receiver redundancy	6 for 4
Transponder redundancy	11 for 8

WORLD SAT-I

Asia-Pacific Satellite

China Beam Typical EIRP Performance



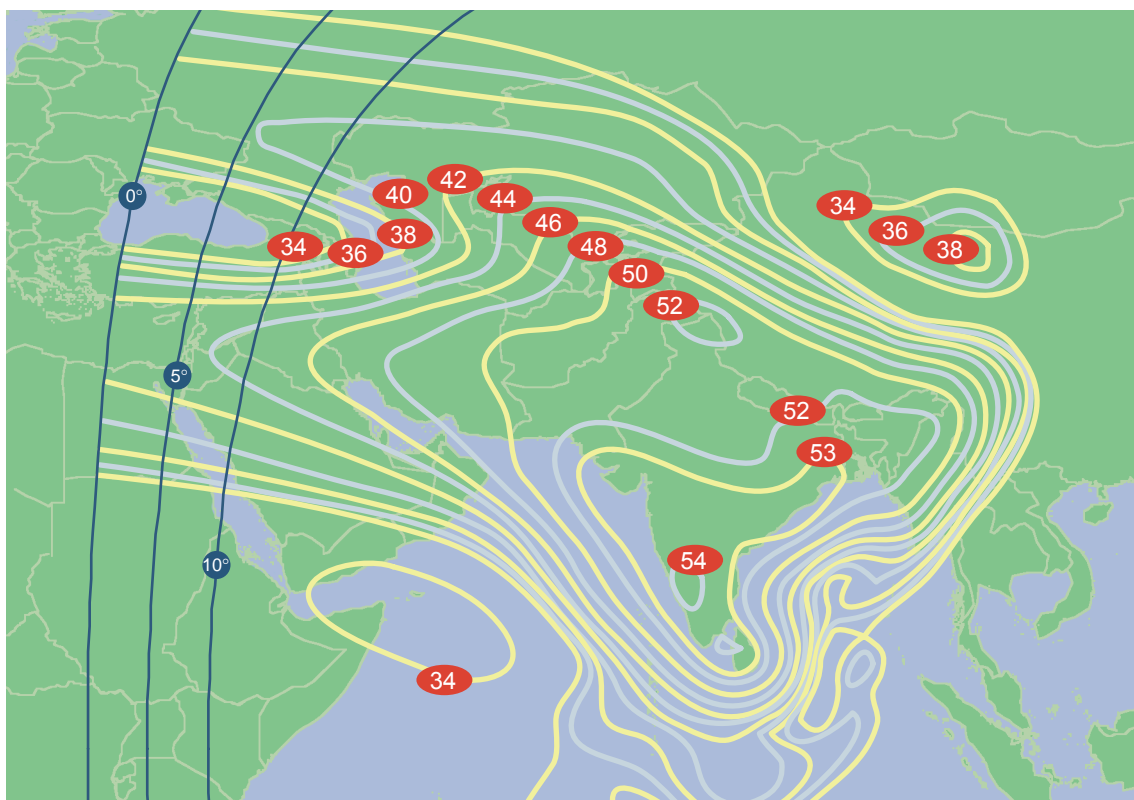
MAJOR CITIES	NOM-G/T dB/K	NOM-EIRP dBW	ELEVATION ANGLE
Beijing, China	2.9	52.2	43.0°
Fuzhou, China	5.5	54.0	57.0°
Guangzhou, China	4.4	53.2	62.0°
Hong Kong	4.0	52.9	63.0°
Nanjing, China	5.4	53.6	51.0°
Shanghai, China	4.1	52.9	51.0°
Taipei, Taiwan	4.3	53.4	57.0°
Xian, China	3.6	52.9	50.0°

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Branch and representative offices in Bogotá, Hong Kong,
Johannesburg, London, Rio de Janeiro, and Singapore
www.worldsat.net

WORLDSAT-I Asia-Pacific Satellite

South Asia Beam Typical EIRP Performance



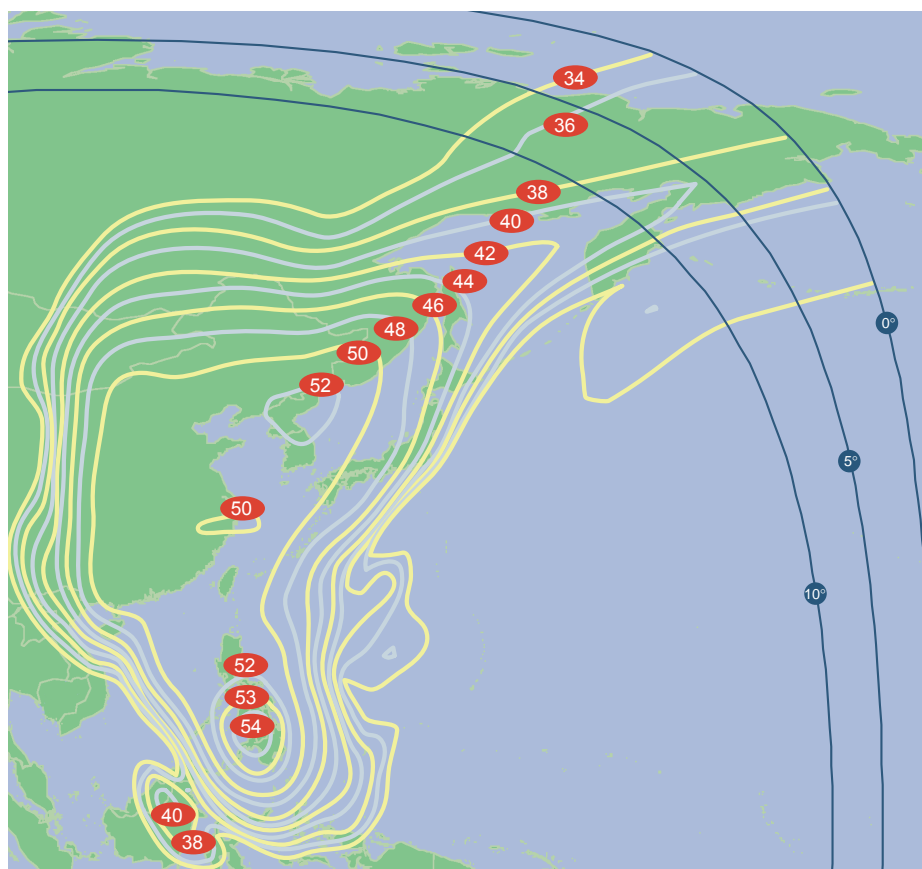
MAJOR CITIES	NOM-G/T dB/K	NOM-EIRP dBW	ELEVATION ANGLE
Bangalore, India	5.0	54.3	51.8°
Calcutta, India	4.2	53.6	55.5°
Colombo, Sri Lanka	5.1	54.3	56.3°
Delhi, India	3.1	52.0	42.5°
Dhaka, Bangladesh	2.9	52.9	55.9°
Dubai, U.A.E.	2.0	47.8	25.0°
Islamabad, Pakistan	2.9	51.9	36.0°
Karachi, Pakistan	3.9	53.0	36.3°
Mumbai (Bombay), India	5.0	54.1	44.4°
Samarkand, Uzbekistan	1.6	49.1	28.0°

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WORLD SAT-I Asia-Pacific Satellite

North-East Asia Beam Typical EIRP Performance



MAJOR CITIES	NOM-G/T dB/K	NOM-EIRP dBW	ELEVATION ANGLE
Beijing, China	1.4	51.3	43.0°
Fukuoka, Japan	1.0	50.3	44.0°
Guangzhou, China	1.2	50.5	62.0°
Hong Kong	1.1	50.9	63.0°
Manila, Philippines	5.5	51.8	67.2°
Pusan, South Korea	1.3	51.6	44.0°
Shanghai, China	3.5	50.4	51.0°
Seoul, South Korea	3.1	52.4	42.2°
Taipei, Taiwan	4.5	51.2	57.0°

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