

PKBA, South Cove, 35 10°N 120 00°E

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Temperature (oF) Mean Max	64	68	74	83	91	95	91	84	78	70	60	50
Temperature (oF) Mean Min	28	32	38	47	56	63	71	73	65	54	42	33
Temperature (oF) Extreme Max	65	64	73	78	92	92	95	97	90	81	75	69
Temperature (oF) Extreme Min	7	11	17	29	42	49	57	55	48	33	25	18
Precipitation (in) Mean	0.8	2.9	3.3	6.9	5.1	6.1	8.5	6.8	7.1	2.9	2.7	1
Max Precipitation 24 Hours	2.9	4.4	2.9	7	5.7	7.2	9.9	8.2	8	7	5.5	2.7
Mean Snow (in)	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0.1	0.1
Surface Wind Direction	MM	MM	MM	MM	MM	MM	SW	MM	MM	MM	MM	MM
Surface Wind Speed (kts) Mean	9	8	8	7	7	6	6	7	7	8	8	8
Surface Wind Speed (kts) Max	52	51	47	58	54	56	52	61	68	65	65	56
Relative Hum. 0100 LST	66	68	73	78	82	84	90	88	87	82	79	73
Relative Hum. 1300 LST	54	56	60	63	67	74	79	74	70	68	58	55
Dewpoint	20	24	33	44	52	61	70	71	62	50	41	28

YALOW, South Korea, 34 27'N 127 26'W

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Temperature (oF) Mean Max	35	41	51	65	75	82	87	88	79	69	54	41
Temperature (oF) Mean Min	17	23	31	41	52	62	71	71	60	46	34	24
Temperature (oF) Extreme Max	63	62	77	86	95	99	100	101	94	86	82	63
Temperature (oF) Extreme Min	-14	-4	11	25	31	45	57	54	37	23	15	0
Precipitation (in) Mean	1.3	1.2	1.8	3.5	3.3	5.6	12.6	8.4	5.2	1.5	1.6	1.5
Max Precipitation 24 Hours	2	1.8	2.1	4.1	3.8	6.9	8.9	9.5	3.5	1.9	1.3	2.1
Mean Snow (in)	6	3	2	0.1	0	0	0	0	0	0	1	0.1
Surface Wind Direction	N	N	N	SW	SW	E	E	E	N	N	N	N
Surface Wind Speed (kts) Mean	2	3	3	4	3	3	3	3	2	2	2	2
Surface Wind Speed (kts) Max	27	27	27	33	33	33	21	48	27	40	27	27
Relative Hum. 0400 LST	81	82	84	85	86	88	91	91	92	91	89	85
Relative Hum. 1300 LST	69	68	64	62	57	62	74	68	65	59	62	66
Dewpoint	20	25	34	45	54	62	72	72	62	49	37	26

5000, South Korea, 37 24'N 127 07'E

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Temperature (°F) Mean	24	29	41	53	63	72	78	78	69	57	43	31
Temperature (°F) Extreme Max	56	30	72	83	90	97	99	100	92	84	74	63
Temperature (°F) Extreme Min	-14	-13	12	22	37	48	55	54	38	27	10	-6
Precipitation (in) Mean	1.2	1.3	2.3	4.4	3.3	5	12	10	6	1.7	1.7	1.2
Precipitation (in) Extreme Max	4.5	5	5.5	18	9.5	15	25	35	15	8	6	4.5
Precipitation (in) Extreme Min	0.1	0.1	0.2	0.2	0.3	0.3	1.2	1.2	0.8	0.6	0.3	0.3
Max Precipitation 24 Hours	1.6	2.6	2.6	5.6	6	7	11	13	13	5.4	2.9	2.8
Mean Snow (in)	7	4	2	0.1	0	0	0	0	0	0.1	2	4
Surface Wind Direction	MMW	W	W	W	W	S	S	S	S	W	MMW	MM
Surface Wind Speed (kts) Mean	3	3	3	3	3	2	2	2	2	2	3	3
Relative Hum. 0700 LST	75	75	80	82	83	86	90	89	90	90	84	79
Relative Hum. 1300 LST	57	54	52	51	52	60	68	66	60	55	57	59
Dewpoint	14	18	28	40	51	61	70	70	60	47	34	21

PROGRAM, North Korea, 31 41'N 125 49'E

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Temperature (°F) Mean Max	27	34	45	61	72	80	84	85	77	65	48	33
Temperature (°F) Mean Min	8	14	26	39	50	60	69	69	57	43	34	15
Temperature (°F) Extreme Max	50	55	66	83	90	97	99	100	94	83	73	57
Temperature (°F) Extreme Min	-27	-10	-2	23	35	44	54	54	36	23	-4	-14
Precipitation (in) Mean	0.6	0.4	1.2	2.1	2.5	3.3	9.9	9.2	6.6	1.8	1.6	0.8
Max Precipitation 24 Hours	1.2	2	2	1.9	3.7	4.1	9.5	8.3	7	4	1.9	1.8
Mean Snow (in)	3	3	1	0.1	0	0	0	0	0	0.1	1	2
Surface Wind Direction	RM	RM	RM	RM	RM	M	E	E	E	RM	RM	RM
Surface Wind Speed (ft/s) Mean	4	4	6	5	5	4	4	3	3	3	4	4
Surface Wind Speed (ft/s) Max	32	31	36	35	32	30	31	32	36	28	31	31
Relative Hum. 0600 LST	81	82	81	82	81	80	92	92	91	88	84	83
Relative Hum. 1400 LST	57	52	48	44	47	50	66	65	55	50	55	58
Dewpoint	13	17	26	37	44	50	68	69	57	45	32	19

WUSKSL, North Korea, 35 11'N 127 26'E

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Temperature (°F) Mean Max	34	37	46	60	70	74	80	81	75	66	51	39
Temperature (°F) Mean Min	18	21	30	41	51	59	68	68	59	47	35	24
Temperature (°F) Extreme Max	54	58	76	88	100	101	103	100	94	87	76	64
Temperature (°F) Extreme Min	-7	-3	4	23	33	43	53	51	39	29	8	-4
Precipitation (in) Mean	1	1.2	1.9	2.6	3.2	4.4	11.3	12.9	6.9	2.8	2.5	1.2
Max Precipitation 24 Hours	2.9	2.9	3.8	4.7	5.0	4.8	6.9	14.2	9.6	8.8	3.4	3.3
Mean Snow (in)	5	10	7	1	0.1	0	0	0	0	0.1	1	6
Surface Wind Direction	N	N	N	NSW	NSW	NE	ENE	SE	SE	SE	NSW	N
Surface Wind Speed (Kts) Mean	6	6	6	6	5	5	5	5	5	5	6	6
Surface Wind Speed (Kts) Max	20	29	29	35	33	36	51	42	43	36	40	27
Relative Hum. 0000 LST	58	67	65	69	75	84	88	90	85	76	66	58
Relative Hum. 1400 LST	45	49	50	52	56	66	74	74	65	55	50	47
Depth	13	16	24	36	47	58	67	68	58	45	30	17

YAMDOCK, North Korea, 39 14'N 127 18'E

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Temperature (°F) Mean Max	25	31	43	54	63	76	79	80	71	61	44	31
Temperature (°F) Mean Min	3	10	23	35	46	57	65	64	52	37	25	12
Temperature (°F) Extreme Max	50	56	67	83	91	94	95	93	84	79	68	52
Temperature (°F) Extreme Min	-22	-16	-3	18	30	41	45	46	31	13	1	-18
Precipitation (in) Mean	0.6	0.6	1	2.1	3.2	4.3	10.4	9.1	4.3	2.1	1.3	0.8
Surface Wind Direction	N	N	N	NE	N	SE	SE	SE	SE	N	N	N
Surface Wind Speed (kts) Mean	6	6	7	7	7	5	5	5	5	6	6	6
Relative Hum. 0600 LST	86	89	86	84	85	89	92	92	93	91	87	87
Relative Hum. 1500 LST	62	57	52	43	43	55	69	66	58	49	62	62
Dewpoint	8	12	24	31	43	57	63	63	53	40	37	37

STANAM, North Korea, 41.24°N 128.12°E

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Temperature (°F) Mean Max	17	22	35	55	68	76	82	82	71	57	35	17
Temperature (°F) Mean Min	-18	-10	9	28	39	49	57	57	43	28	11	-4
Temperature (°F) Extreme Max	38	48	66	81	91	95	100	100	85	81	69	45
Temperature (°F) Extreme Min	-44	-42	-27	1	21	31	32	32	19	3	-25	-40
Precipitation (in) Mean	0.4	0.3	0.4	1	2.4	3.6	5.2	5.2	2.3	1.1	0.6	0.5
Max Precipitation 24 Hours	1	0.9	0.8	1.1	1.7	1.7	2.6	2.6	4.9	1.4	0.8	1.2
Surface Wind Direction	W	WS	W	W	NE	NE	NE	NE	NE	W	NE	NE
Surface Wind Speed (Kts) Mean	2	3	4	4	5	2	2	2	3	2	2	2
Surface Wind Speed (Kts) Max	23	27	23	29	31	16	17	17	13	13	27	27
Relative Hum. 0600 LST	85	85	81	79	77	90	92	92	90	85	84	86
Relative Hum. 1400 LST	60	56	49	38	33	56	58	58	46	40	53	58
Dewpoint	-14	-3	11	21	28	43	55	54	38	24	13	-2

EFFECTS OF CLIMATE ON MILITARY OPERATIONS

Extremely cold outbreaks during winter could have a serious impact on ground and air operations. During colder temperatures, hypothermia, frostbite, and cold-related injuries will slow the tempo of ground operations. Cold weather also impacts the turnaround time of aircraft, as maintenance, refueling, and ammunition loading are affected. Trafficability is favorably impacted by the state of the ground. The ground freezes around 10 November in the extreme north, around 20 December along the DMZ, and not until 30 January in the extreme south. Thawing begins around 30 January in Pusan, mid-February along the DMZ, and not until 20 March in the far north. Ice also impacts naval operations from December until March.

Rain is the biggest problem for military operations in Korea. Heavy rains during the Southwest Monsoon saturate the ground and make conditions ideal for flash flooding. Trafficability is impaired by the wet ground and the effects of suddenly changing shallow, slow moving streams into rapid, deep rivers. In addition, mountain passes and rough mountain terrain become even more difficult to traverse due to the rains.

Winter snows have an impact on aircraft takeoff/recovery at coastal bases and in mountainous terrain where snows are normally more significant. With limited highway LOCs available, heavier snowfalls can cause a significant impact on supply/resupply operations. The worst flying weather of the year occurs during the summer rainy season. About half the season, ceilings and visibilities are less than 3,000 ft and 3 mi, respectively.

In determining the effect of surface winds, direction is the most significant criteria. During the Northwest Monsoon (November-March), the effects of nuclear, biological, and chemical (NBC) warfare to the south are heightened. Although temperatures modify the effect of NBC agents at this time, dispersion patterns would be favorable for North Korean use. The Southwest Monsoon (June-September) has temperatures and humidity favorable to North Korean NBC use, but dispersion patterns are less favorable. The Southwest Monsoon pattern also has periods of strong wind speeds which may adversely affect air operations, air defense, and communications, which are antenna-dependent.

The best period for air and ground observation is the generally clear winter period, December through March. Flying weather in the winter is the best of any time of the year, although pilots must take note of frequent severe turbulence and icing. Both hazards can be associated with the passage of a trough. The fall period, October through November, permits good air and ground observation; however, air operations are frequently marginal during morning hours due to periods of ground fog in river valleys and low-lying areas. During the spring, April through June, air and ground observation are often limited as a result of increasing cloud cover and precipitation. Additionally, the spring period brings with it an increase in early morning fog that burns off by late morning. Also during the spring, dust resulting from Yellow Wind can reduce visibility at times to less than 1 mile, affecting both ground and air observation. Periods of rain during the summer, when the peninsula receives the majority of its annual precipitation in the form of monsoons, greatly reduce air and ground observation capability.

VEGETATION

During World War II and the Korean War, the Korean Peninsula was nearly deforested. As a result, only scrub tree growth and relatively young forests exist. Areas not classified as cultivated or built-up are generally categorized as forests. Areas that contain trees over 6.1 m (20 ft) occupy only one-third of South Korea and are usually dense with tightly spaced trees that are generally less than 10 m (33 ft) tall. In these forests, maneuvering vehicles is difficult because trees are so closely spaced. The valley floors are consistently terraced and planted with rice crops, assuming that adequate supplies of water are available for these terraced fields. Low, dry crops are planted where adequate supplies of water are not available, usually on the edges of valleys. The terrain and climate conditions of Korea are favorable for growth of coniferous forest including pine, fir, larch, and spruce trees. In the past, most of the forest land on the peninsula has been denuded, and the only remaining mature natural forests are on the higher mountains, particularly in the north. Most of the peninsula's woodlands are 20- to 30-year-old scrub deciduous forests. The central regions have a mixed cover of hardwoods and conifers, but near urban areas the forests have virtually disappeared. In

the southern portion, scattered stands of bamboo and pine are found among the generally deciduous growth.

EFFECTS OF VEGETATION ON MILITARY OPERATIONS

Because large stands of trees and forests are virtually nonexistent, except for remote mountainous areas in the northern half of the peninsula, vegetation will have little impact on observation and fields of fire.

The concealment afforded by vegetation is generally good year round, but is restricted mainly to evergreen trees in mountainous areas. As operations move north into the more mountainous terrain, concealment increases. Concealment for ground troops is fair in areas of cultivation, mainly in rice paddies and orchards, but these are seasonal except in dykes and ditches. Concealment, especially aerial, is limited in the young forests throughout Korea.

SURFACE MATERIALS

The predominant surface material throughout the peninsula is sand composed of rocks and silt. The soil cover is usually thin outside the valleys, on hills, and on mountains. In the valleys, natural soils are normally thick sands, and silty sands with considerable cobble-size rock in the upper reaches of the valleys. In the wide valleys of the western portion of the peninsula, minimal rock is present in the natural soil. Cultivated soils, especially in terraced rice paddies, are artificially developed through regular plowing, irrigating, and fertilizing over long periods. Settling of silts from annual irrigation and also from occasional flooding of rivers has changed the soil composition from its original character. In most areas, rice paddy soil is a uniform silty-loam, which is totally unlike the natural soils in the vicinity. During spring planting, these soils are usually supersaturated to allow an easy transition for the transplanting of rice seedlings. The introduction of this moisture in the spring and constant flooding throughout most of the summer months make these fields impossible for off-road movement of even the lightest motor vehicles. During early fall, these rice paddies are

drained to allow for the rice harvest and for the turning of the soil for nutrient retention. The turning of the soil allows the ground to dry and become hard enough for some trafficability.