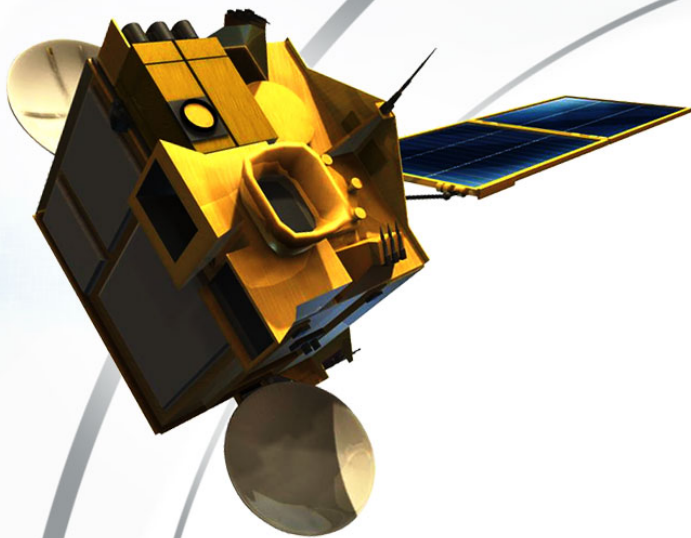
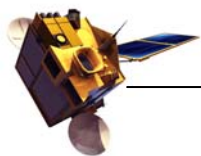


GOCI :
GEOSTATIONARY OCEAN COLOR IMAGER
ANNOUNCEMENT of Opportunity



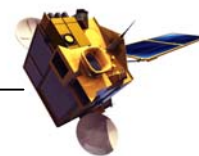


1. INTRODUCTION

The Korea Ocean Research and Development Institute (KORDI) releases an announcement of opportunity (AO) to carry out scientific research for the utilization of GOCI data. GOCI is the world's first Ocean Color Imager in Geostationary Orbit, which GOCI is expected to be one and only during mission life time. This AO aims at the promotion of data use for oceanographic applications, algorithm development, and Cal/Val activity.

In order to detect, monitor, and predict short term and regional oceanic phenomena such as red tides, yellow dust, fishing ground information, and etc, high spatial and temporal resolutions are required to ocean color remote sensing satellites. Unlike other ocean color satellites, GOCI has a unique capability to observe the ocean and coastal waters with high spatial resolution (500m) and very high temporal resolution (refresh rate : 1 hour), thanks to the state-of-the-art optical design and satellite location in geostationary orbit.

The GOCI is designed to be operated in a 2D staring-frame capture mode on board its Communication Ocean and Meteorological Satellite (COMS) and tentatively scheduled for launch in Mid of 2009. To provide an important new capability for imagining the coastal zone where the phenomena varying on shorter space and time scales demand a simultaneous increase in spatial and temporal resolution, the GOCI mission concept includes eight visible-to-near-infrared bands, a 500m×500m pixel resolution, and a coverage region of 2500km×2500km centered at 36°N and 130°E. GOCI will provide multiple views of many locations within the fixed region during a single day (i.e. 8 images during the daytime). The life time of the GOCI mission is about 7 years. The data from GOCI will therefore address various research areas in coastal, oceanographic and atmospheric sciences.



2. DATA DESCRIPTION AND AVAILABILITY

GOCI data, routinely received at the KORDI, will be processed to L1B and made available to the Principal Investigators (PIs) of the proposed research. GOCI L1B data can be processed to GOCI L2 data with GDPS (GOCI Data Processing System). The A0 ensures that the selected PIs will be provided with L1B datasets and GDPS S/W for GOCI L2 processing at no cost after evaluation.

3. SPECIFIC RESEARCH AREAS FOR PROPOSAL SUBMISSION

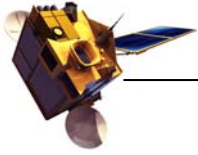
Proposals could be submitted by individuals or a group of scientists belonging to recognized institutions, universities, and government/ non-government organizations in the following research areas of interest.

- ✓ Bio-optical algorithm development
- ✓ Retrieval techniques of optical properties
- ✓ Ocean color applications to detection of the fishing ground and ocean circulation features.
- ✓ Ocean primary productivity
- ✓ Calibration and validation
- ✓ Detection of algal blooms and river plumes
- ✓ Characterization of aerosols over the ocean
- ✓ Atmospheric correction algorithm development
- ✓ Yellow Dust, Forest Fire, Inland flood, Vegetation Index, Heavy Snowfall, etc.

Those who have interest and ideas for data application of Ocean Color Sensor in Geostationary Satellite Platform could also submit proposals.

4. EVALUATION OF PROPOSALS

The proposals received in response to this A0 will be evaluated on the basis their scientific and technical merits, innovative methods and approaches, and potential applications. All proposal subscribers will be given an opportunity to acquire GOCI data for their scientific applications, and can participate in GOCI PI Workshop which will be held in Hyatt Hotel, Jeju Island, Korea from 29 to 30, Oct. 2008 on their own expense. The following is description of PI.



GOCI PI(Principal Investigator)

PI

- ✓ Automatically determined with Proposal Subscription.
- ✓ Research Proposal Presentation is not obligated but available in the PI Workshop.
- ✓ PI can participate in GOCI PI Workshop with their own expense.
- ✓ Presentation in GOCI PI Workshop is not obligatory, but possible.
- ✓ to be provided with GOCI L1B data & GDPS S/W

5. SUBMITTING PROPOSALS

The potential PI should submit the proposal by only e-mail directly to :

Joo-Hyung Ryu Ph.D.

Ocean Satellite Observation Technology Research Department
Korea Ocean Research and Development Institute
E-mail: jhryu@kordi.re.kr
Tel: +82-31-400-7601
Fax: +82-31-400-7606

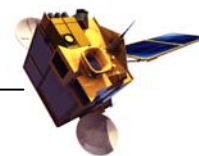
6. PROPOSAL FORMAT

GOCI A0 Proposal should be submitted with respect to the attached Proposal format (GOCI A0 Proposal Format.doc).

*Note that proposals should be limited to around 3 pages in length on standard A4 size paper, typed double-spaced and in the prescribed format.

7. SCHEDULE

- ✓ Deadline for Proposal Submissions : September 30, 2008
- ✓ Notification of Evaluation Results : August 15, 2008
- ✓ 1st GOCI PI Workshop in Jeju Island : October 29~30, 2008
 - Location : Hyatt Regency Hotel, Jeju, Korea(Republic Of)



8. Information

A. Venue

Jeju has a mild oceanic climate throughout the year with the smallest annual temperature range in the country. The temperature for the hottest summer months averages no more than 34.7°C and no less than -1.5°C or winter.

The island is 73km wide and 41km long with a total area of 1,848 Jeju the largest island in South Korea, came into existence 700 to 1,200 thousand years ago when lava spewed from a sub-sea volcano and surfaced above the waters. Then 100 to 300 thousand years ago, another volcanic eruption formed Mt. Halla. The final volcanic eruption that took place approximately 25 thousand years ago created the crater lake, Baekrok-dam, at the summit of the mountain.

Mt. Halla rises in the center of Jeju to 1950m above sea level. The rest of the island slopes down from its summit and is covered with dark gray volcanic rocks and volcanic ash soil. Relatively isolated from the rest of the world, the island's nature has been well preserved in its prehistoric state. That is why traveling to Jeju is to travel back in time.

Jeju's natural environment has been preserved as best as possible. The fantastically shaped rocks decorating the seashores, the hundreds of Oreums (secondary volcanos) and the rarest species of flora around the Baekrok-dam lake are all treasures waiting to be discovered by visitors. One cannot see Jeju unless one looks. It is like seeing only trees before entering a forest. (<http://english.tour2jeju.net/>)

B. GOCI PI Workshop Location

i. Hotel Name : Hyatt Regency Jeju

ii. Address :

039-1 Saekdal-song, Seogwipo-si, Jeju-do, South Korea 697130

Tel: +82 64 733 1234 Fax: +82 64 732 2039

Email: jeju.regency@hyatt.com

Homepage: <http://jeju.regency.hyatt.com>

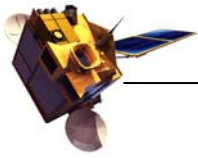
C. Transportation

i. Jeju International Airport to Hotel(Hyatt Regency Jeju)

1. By Limousine Bus (Recommended)

A. Get on the Limousine Bus(No. 600) at Gate 1 in Jeju International Airport

B. Because the Hotel(Hyatt Regency Jeju) is Hotel(Hyatt Regency Jeju) is located in Jungmun sightseeing complex(aka. Jungmun Resort), Please get off the bus at Jungmun Resort for Hyatt Hotel. It takes about 50~60 min. Charge is 3,900Won(KRW).



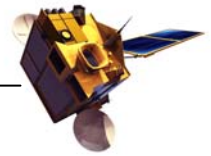
2. By Taxi

- A. It takes about 40 min to Hyatt Hotel by Taxi.
- B. The charge is about 30,000Won(KRW).



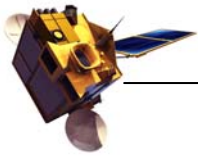
	No	Charge (Won)	Route	interval	The Time required
Limousine Bus	600	₩3,900	Airport->Crown Plaza H-> Jungmun sightseeing complex (botanical garden, Hana H, Hyatt Hotel , Shilla H, Lotte H)-> Seogwipo New Gyeongnam H -> SeogwiDock-> ParadiseH-> Seogwipo KAL H	15~18 (minute)	50~60 (minute)

	Charge(won)	The Time required
Taxi	about ₩30,000	40 (minute)



Maps & Directions





D. VISA Information (http://www.hikorea.go.kr/pt/InfoDetailR_en.pt)

i. Countries under Visa Waiver Agreements

1. Nationals of visa waiver countries can enter Korea without a visa as long as the purpose of their visit is tourism or temporary visit. If they want to engage in profitable activities such as employment, they must apply for a Korean visa suitable for their purpose.
2. Countries under Visa Waiver Agreements with Korea
 - **France, Italy, Belgium, Singapore, Russia, Germany, etc**
 *Refer to Annex V for the full list and further information of visa waiver agreements with Korea.

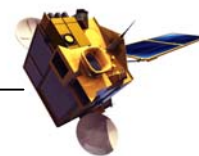
ii. Designated Visa-Free Entry

1. Considering international convention, mutuality doctrine, national profit and other such factors, certain countries are granted visa-free entry permissions. (49 countries as of November, 2005)
2. Nationals of the following countries are allowed up to 30 days of visa-free sojourn for tourism or visitation
 Exceptions: Canada is allowed up to 6 months, and Australia, Hong Kong, Slovenia, and Japan are allowed up to 90 days.
3. Countries that are granted visa-free entry for diplomatic, government official, and general passport holders (47 countries)

Continent	Countries
Asia	Macau, Brunei, Saudi Arabia, Arab Emirates, Yemen, Oman, Japan (90 days) , Qatar, Taiwan , Hong Kong (90 days), Kuwait
North America	United States, Canada (6 months)
South America	Guyana, Guatemala, Venezuela, Argentina, Ecuador, Honduras, Uruguay, Paraguay
Europe	Monaco, Vatican, Bosnia-Herzegovina, Cyprus, San Marino, Serbia-Montenegro, Slovenia (90 days), Andorra, Croatia
Oceania	Guam, Nauru, New Caledonia, Micronesia, Samoa, Solomon Islands, Kiribati, Fiji, Australia (90 days) , Marshall Islands, Palau
Africa	South Africa , Seychelles, Mauritius, Swaziland, Egypt

Countries that are granted visa-free entry for diplomatic and government official passport holders (2 Countries)

Continent	Countries
Asia	Indonesia, Lebanon



- iii. Special Entry arrangements for the Jeju island
 - 1. Eligible foreigners
 - Nationals of all countries not allowed visa-free entry into Korea (save for the exceptions listed below) that enters via Jeju airport for tourism or transit.
 - 2. Special entry arrangements for Jeju island are denied to nationals of the following 11 countries.
 - Iran, Iraq, Sudan, Libya, Cuba, Syria, Macedonia, Palestine, Afghanistan, Nigeria and Ghana.
 - 3. Duration of stay: Up to 30 days
 - 4. Permitted area / range: Jeju island
 - 5. Conditions of entry:
 - Those that arrive directly into Jeju island by flights or ships.
- iv. Hotel Information
 - 1. Hotels List nearby GOCI PI Workshop Location

Jeju Shilla Hotel (★★★★★)



3039-3, Saekdal-dong, Seogwipo-si, Jeju-do

Phone No.: 064-738-4466

Homepage: <http://www.shilla.net>

HYATT REGENCY CHEJU (★★★★★)

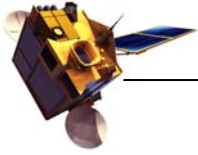


3039-1, Saekdal-dong, Seogwipo-si, Jeju-do

Phone No.: 064-733-1234

Homepage: <http://www.hyattcheju.com>

Email Address: sjhan@hyattcheju.com



Hotel Lotte Jeju (★★★★★)



2812-4, Saekdal-dong, Seogwipo-si,
Jeju-do,

Phone No.: 064-731-1000

Homepage: <http://www.hotellotte.co.kr>

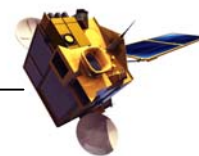
The Suites Hotel (★★★★★)



2812-10, Saekdal-dong, Seogwipo-si,
Jeju-do,

Phone No.: 064-738-3800

Homepage: <http://www.suites.co.kr>



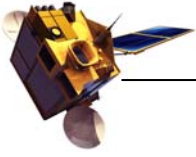
Annexure I : General Specifications of GOCI

Description	Specification
Detector	CMOS (2D, 1415 x 1432 pixels)
Image capture (sequence)	2D Staring frame capture
	Dark calibration(DC) -> High gain -> Low gain ->DC
Radiometric Calibration	2 Solar diffusers
Resolution (GSD)	500m x 500m
Total FOV	16 slots, 5,300 x 5,300 Pixels
Coverage	2,500km x 2,500km
Satellite Location	
Longitude	128.2°E
Altitude	35,786km
Pupil Diameter of Pointing Mirror	140mm
SNR	> 1,000
MTF	> 0.3
Number of Spectral Bands	8 Bands (6-Visible and 2-NIR)
Spectral Coverage	400 ~ 900nm (for 8 bands)
Digitization	≥ 12 bits

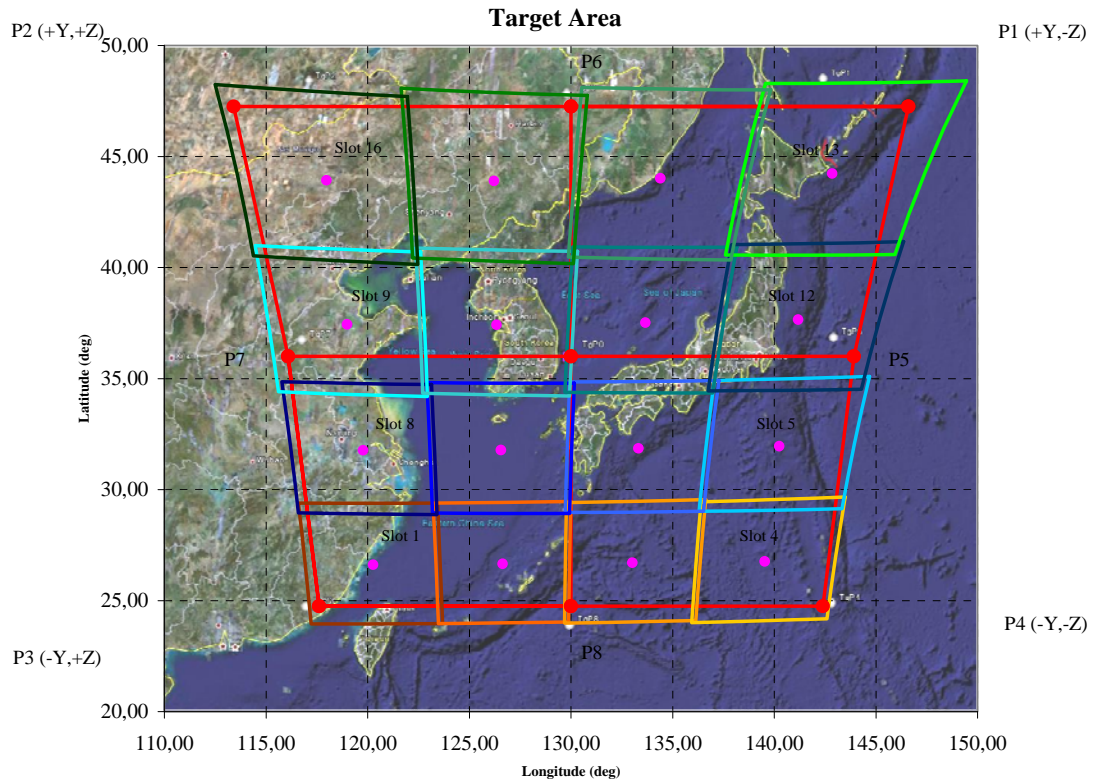
Annexure II : GOCI Spectral Performances

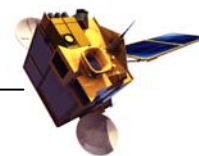
Band	Centre wavelengths	Band width	Nominal Radiance	Maximum Radiance	Saturation Radiance in High gain	Saturation Radiance in Low gain	Type
B1	412 nm	20 nm	100	150.0	152.0	601.6	Visible
B2	443 nm	20 nm	92.5	145.8	148.0	679.1	Visible
B3	490 nm	20 nm	72.2	115.5	116.0	682.1	Visible
B4	555 nm	20 nm	55.3	85.2	87.0	649.7	Visible
B5	660 nm	20 nm	32.0	58.3	61.0	589.0	Visible
B6	680 nm	10 nm	27.1	46.2	47.0	549.3	Visible
B7	745 nm	20 nm	17.7	33.0	33.0	429.8	NIR
B8	865 nm	40 nm	12.0	23.4	24.0	343.8	NIR

Spectral radiance values are in $Wm^{-2}\mu m^{-1}sr^{-1}$



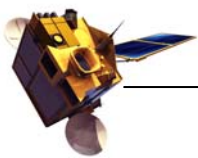
Annexure III : GOCI Coverage Area





Annexure IV : GOCI Data Products

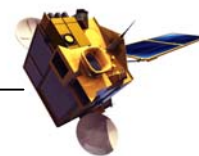
No.	GOCI Data Product	Descriptions	Data Size (1 image)	Distribution	Data type
1	GOCI RAW	Raw Data from Satellite	769MB	N	DN
2	GOCI L0	Converted product for correction process	634MB	N	DN
3	GOCI L1A	Radiometrically Corrected Product	994MB	N	Radiance
4	GOCI LIB	Geometrically & Radiometrically Corrected Product	~994MB	Y	Radiance
5	GOCI LIB Region	Geometrically Corrected Product for specified region	994M~	N	Radiance
6	GOCI L2	Physical Parameters Chlorophyll, TSS, CDOM, Red-Tide, etc.	~3500MB	N	Physical Unit
7	GOCI L2 Region	Physical Parameters for specified region	~3500MB	N	Physical Unit



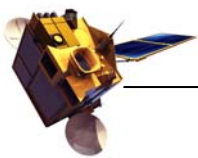
Annexure V : Visa Waiver Countries with Korea

The following countries are permitted to enter without visa, in accordance to the Visa free Entry for Korean Nationals. (http://www.hikorea.go.kr/pt/en/info/popup/icis/VisaWaiver_pop.htm)

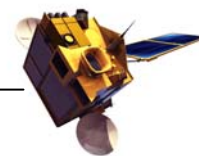
Country	Applicable Passports	Maximum period of stay	Seaman's book
ALGERIA	Diplomatic, Official passport	90 days	×
ANTIGUA–BARBUDA	Ordinary, Diplomatic, Official passport	3 Months	○
AUSTRIA	Ordinary, Diplomatic, Official passport	Ordinary: 3 Months, Diplomatic • Official passport: 180 days, Staff stationed in Korea : During a period of incumbency	×
ARGENTINA	Diplomatic, Official passport	90 days	×
BAHAMAS	Ordinary, Diplomatic, Official passport	3 Months	○
BANGLADESH	Diplomatic, Official passport	3 Months	×
BARBADOS	Ordinary, Diplomatic, Official passport	3 Months	○
BELARUS	Diplomatic, Official passport	90 days	×
BELGIUM	Ordinary, Diplomatic, Official passport	3 Months	×
BELIZE	Diplomatic, Official passport	90 days	×
BENIN	Diplomatic, Official passport	3 Months	×
BRAZIL	Ordinary, Diplomatic, Official passport	Ordinary: 90 days, Diplomatic • Official passport: 3 Months, Staff stationed in Korea : During a period of incumbency	×
BULGARIA	Ordinary, Diplomatic, Official passport	3 Months, Staff stationed in Korea : During a period of incumbency	×
CAMBODIA	Diplomatic, Official passport	60 days	×
CHILE	Ordinary, Diplomatic, Official passport	90 days	×
COLOMBIA	Ordinary, Diplomatic, Official passport	3 Months	×
COSTARICA	Ordinary, Diplomatic, Official passport	3 Months	○



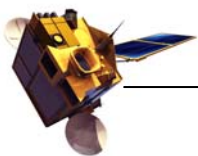
CROATIA	Diplomatic, Official passport	90 days	×
CYPRUS	Diplomatic, Official passport	90 days	×
CZECH	Ordinary, Diplomatic, Official passport	3Months, Staff stationed in Korea : During a period of incumbency	×
DENMARK	Ordinary, Diplomatic, Official passport	3 Months	×
COMMONWEALTH OF DOMINICA	Ordinary, Diplomatic, Official passport	3 Months	○
DOMINICA REP	Ordinary, Diplomatic, Official passport	3 Months	×
ECUADOR	Diplomatic, Official passport	Official passport:3 Months, Diplomatic:Unlimited	×
EGYPT	Diplomatic, Official passport	90days, Staff stationed in Korea : During a period of incumbency	×
EL SALVADOR	Ordinary, Diplomatic, Official passport	3Months, Staff stationed in Korea : During a period of incumbency	○
ESTONIA	Ordinary, Diplomatic, Official passport	90 days	×
FRANCE	Ordinary, Diplomatic, Official passport	3 Months	×
FINLAND	Ordinary, Diplomatic, Official passport	3 Months	×
GERMANY	Ordinary, Diplomatic, Official passport	Ordinary:3 Months, Diplomatic • Official passport:Unlimited, Staff stationed in Korea : During a period of incumbency	×
GREECE	Ordinary, Diplomatic, Official passport	Ordinary:3 Months, Diplomatic • Official passport:Unlimited	×
GRENADA	Ordinary, Diplomatic, Official passport	3 Months	○
GUATEMALA	Ordinary, Diplomatic, Official passport	90days, Staff stationed in Korea : During a period of incumbency	×
HAITI	Ordinary, Diplomatic, Official passport	3 Months	○
HUNGARY	Ordinary, Diplomatic, Official passport	3 Months	×
ICELAND	Ordinary, Diplomatic, Official passport	3 Months	×



INDIA	Diplomatic,Official passport	90 days	×
IRAN	Diplomatic,Official passport	3 Months	×
IRELAND	Ordinary,Diplomatic,Official passport	3 Months	×
ISRAEL	Ordinary,Diplomatic,Official passport	3Months, Staff stationed in Korea : During a period of incumbency	×
ITALY	Ordinary,Diplomatic,Official passport	90days	×
JAMAICA	Ordinary,Diplomatic,Official passport	3 Months	○
JAPAN	Ordinary,Diplomatic,Official passport	Ordinary:B-2, 90days, Diplomatic · Official passport:3 Months, Staff stationed in Korea : During a period of incumbency	×
LATVIA	Ordinary,Diplomatic,Official passport	90days, Staff stationed in Korea : During a period of incumbency	×
LESOTHO	Ordinary, Diplomatic,Official passport	60days	×
LIBERIA	Ordinary, Diplomatic,Official passport	3Months	○
LIECHTENSTEIN	Ordinary,Diplomatic,Official passport	3Months	×
LITHUANIA	Ordinary,Diplomatic,Official passport	90days, Staff stationed in Korea : During a period of incumbency	×
LUXEMBOURG	Ordinary,Diplomatic,Official passport	3 Months	×
MALAYSIA	Ordinary,Diplomatic,Official passport	3 Months	×
MALTA	Ordinary,Diplomatic,Official passport	3 Months	×
MEXICO	Ordinary,Diplomatic,Official passport	Ordinary:3 Months, Diplomatic · Official passport:90 days	×
MONGOLIA	Diplomatic,Official passport	30 days	×
MOROCCO	Ordinary,Diplomatic,Official passport	3Months, Staff stationed in Korea : During a period of incumbency	○
NETHERLAND	Ordinary,Diplomatic,Official passport	3 Months	×



NEW ZEALAND	Ordinary,Diplomatic,Official passport	3Months, Staff stationed in Korea : During a period of incumbency	×
NICARAGUA	Ordinary,Diplomatic,Official passport	3Months, Staff stationed in Korea : During a period of incumbency	○
NORWAY	Ordinary,Diplomatic,Official passport	3 Months	×
PAKISTAN	Diplomatic,Official passport	3 Months	×
PANAMA	Ordinary,Diplomatic,Official passport	90 days	×
PARAGUAY	Diplomatic,Official passport	3 Months	×
PERU	Ordinary,Diplomatic,Official passport	3 Months	○
PHILIPPINES	Diplomatic,Official passport	Unlimited	×
POLAND	Ordinary,Diplomatic,Official passport	3Months, Staff stationed in Korea : During a period of incumbency	×
PORTUGAL	Ordinary,Diplomatic,Official passport	60 days	○
RUMANIA(D. O. S.)	Ordinary,Diplomatic,Official passport	3Months, Staff stationed in Korea : During a period of incumbency	×
RUSSIA	Diplomatic, Official passport	90 days	×
SINGAPORE	Ordinary,Diplomatic,Official passport	3 Months	×
SLOVAK	Ordinary,Diplomatic,Official passport	3Months, Staff stationed in Korea : During a period of incumbency	×
SPAIN	Ordinary,Diplomatic,Official passport	3 Months	○
ST. KITIS NEVIS	Ordinary,Diplomatic,Official passport	3 Months	○
ST. LUCIA	Ordinary,Diplomatic,Official passport	3 Months	○
ST. VINCENT	Ordinary,Diplomatic,Official passport	3 Months	○
SURINAM	Ordinary,Diplomatic,Official passport	3 Months	×
SWEDEN	Ordinary,Diplomatic,Official passport	3 Months	×
SWITZERLAND	Ordinary,Diplomatic,Official	3 Months	×



	passport		
THAILAND	Ordinary,Diplomatic,Official passport	Ordinary:3 Months, Diplomatic • Official passport:Unlimited	○
TRINIDAD- TOBAGO	Ordinary,Diplomatic,Official passport	3 Months	○
TUNISIA	Ordinary,Diplomatic,Official passport	30 days, Staff stationed in Korea : During a period of incumbency	×
TURKEY	Ordinary,Diplomatic,Official passport	3 Months	×
UKRAINE	Diplomatic	90 days	×
UNITED KINGDOM	Ordinary,Diplomatic,Official passport	3 Months	×
URUGUAY	Diplomatic,Official passport	3Months, Staff stationed in Korea : During a period of incumbency	×
VENEZUELA	Ordinary,Diplomatic,Official passport	Ordinary:90 days, Diplomatic • Official passport:30 days, Staff stationed in Korea : During a period of incumbency	×
VIETNAM	Diplomatic,Official passport	3Months, Staff stationed in Korea : During a period of incumbency	×