Geo-Kompsat-2A (GK2A) AMI Rapid Scan (ARS) Service Description

Version 1.0



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1. Introduction

The Advanced Meteorological Imager (AMI) on board Geo-Kompsat-2A (GK2A) is capable of frequent and flexible observation, providing full disk images of the Earth every 10 minutes and regional images at shorter intervals (see Figure 1). Full disk and other regional observations have spatial resolutions of 0.5 to 2 km and spectral coverage incorporating 16 channels.



Figure 1: GK2A AMI observation sequence within a 10-minute time frame

For regional monitoring, Target Area (LA; Local Area in Figure 1) observation provides imagery covering a 1,000 km x 1,000 km area every 2 minutes with location change flexibility in order to support KMA's national and international services. Local Area observation normally observes the Korean Peninsula, but will also focus on request-based Target Area observation. The GK2A AMI Rapid-Scan (ARS) service allows National Meteorological and Hydrological Services (NMHSs) to request particular Target Area observations by leveraging the location flexibility on an international scale.

2. Service Request Guidelines

2.1 Service Overview

The GK2A ARS service allows NMHSs in the GK2A coverage area (herein referred to as "Users" or individually "User") to request specific areas and times for Target Area observation.

2.2 Basic Principles

- I. The service is provided on a best-effort basis in consideration of operational limitations.
- II. Users' requests may be overridden or interrupted depending on circumstances within Korea or KMA.
- III. Users' requests relating to emergency operations for tropical cyclones and volcanic eruptions are prioritized over other users' requests.
- IV. Observations shall not initially exceed 24 hours for tracking observations. The maximum period for fixed observations is seven days, but may be extended in response to additional requests.

2.3 Request Management

All users including in the RA II and RA V should submit a request directly to KMA via the GK2A ARS service webpage. In the event of conflicting requests from different users, KMA shall assign priority in line with the Basic Principle III above. If this is impractical, KMA shall assign priority at its discretion. The related procedures are detailed in Section 2.5.

2.4 Registration

Before using the service, users must submit a completed registration form (see the Annex) specifying the e-mail address from which requests will be sent in order to enable validation by KMA.

2.5 Request Procedure

Users should request the service via the GK2A ARS service webpage (<u>http://datasvc.nmsc.kma.go.kr/datasvc/html/special/specialReqMain.do</u>) using the registered account name with information on the observation center and the desired start/end times to trigger subsequent procedures. The procedure is as follows (see Figure 2):



Figure 2: Request procedure for users of RA II and RA V

2.6 Service Availability

The GK2A ARS service is available 24 hours / 7 days and provided ASAP. The request procedure is normally completed within around one day during working hours and up to around three days otherwise.

3 Data Access

Target Area observation data are provided via GK2A real-time FTP Service (RFS). Related imagery is also available on the GK2A real-time image website.

4 Feedback

Once the requested observation is complete, users are asked to provide KMA with feedback on how the observation data are used.

GK2A AMI Rapid Scan (ARS) Service Registration Form

Users must register in advance to use the GK2AARS service. To register, please fill out the form and send it back to KMA (kmasod@korea.kr) with "GK2AARS Registration" in the subject line.

User Basic Information

Name of Person Responsible

(Please type)

(Signature)