



Ball's Global Imaging System 2000 (BGIS 2000) is a high-resolution remote sensing system that provides simultaneous one-meter class panchromatic and four-meter class multispectral imagery over a broad area. The BGIS 2000 is composed of two major Ball-produced systems: the Ball High Resolution Camera 60 (BHRC 60), an advanced pushbroom sensor; and the Ball Commercial Platform 2000 (BCP 2000), a highly capable spacecraft bus.



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BGIS 2000 Mission Suitability

Item	BGIS 2000 Performance
Spatial Resolution	Panchromatic: ~0.5 to 1.25 m ground sample distance (GSD) or 1.37 mrad Multispectral: ~2 to 5 m GSD or 5.47 mrad for 4 VNIR bands (Landsat-like)
Ground Swath Width	2.12 degrees cross track (14 to 34 km depending on altitude)
Geolocation	<15 m (3-sigma) after ground processing
Data Acquisition Modes	Pushbroom imaging system is capable of obtaining: Square images Elongated strip images Mosaic patterns Stereo pairs within single pass
Operations	Simultaneous imaging and data transmission capability
Onboard Storage Capacity	Scalable up to 200 Gbits (equivalent to over 90 square images)
Data Compression	Average 2 bits per pixel from 11 bit initial quantization
Calibration	<10 % absolute
Pointing Accuracy	<0.5 milliradians absolute per axis (200 to 450 m)
Agility (along and cross track)	Time to re-point and stabilize the spacecraft for imaging: Maneuver of 10 degrees in 20 seconds Maneuver of 50 degrees in 45 seconds
Communications	
Image Data	320 Mbps X-band
Housekeeping	S- or X-band from 4 to 256 Kbps 2 Kbps S-band uplink
Design Life	>5 years achieved with redundant architecture
Orbit Options	400 to 900 km 0 degrees to sun synchronous
Launch Vehicles	COSMOS SL-8, Taurus, Athena, Titan II, Long March
Spacecraft Mass	931 kg (wet)
Propulsion	Anhydrous Hydrazine (N ₂ H ₄) blowdown

Note: Numerical ranges reflect orbit altitude options (400 km to 900 km)

For your most demanding remote sensing needs, the BGIS 2000 provides the highest resolution and performance currently available on the market.

Image quality is paramount when extracting the information you need. That is why we have created a system that combines a high throughput camera for low-lighting conditions with an extremely stable, yet agile platform. The wide field of view instantly captures a broad area – an important feature when attempting to acquire information on objects whose location might be uncertain.

Once an image has been acquired, its information content needs to be combined with other data. Accurate BGIS 2000 geolocation of objects without ground control points expedites this process using a combination of GPS and star tracker data.

Data continuity is important. For links to the past, the BGIS 2000 provides the same multispectral band passes as the first four bands of Landsat. For the future, the built-in redundancy provides a long-life system for years to come.

Not all land area is of equal interest or value. So why settle for occasional images when you can quickly retarget the BGIS 2000 to acquire the territory you really want. Extend the already wide field of view by building a mosaic of any shape to map even greater expanses – and all within the same orbital pass.

The agility of the BGIS 2000 also provides a “same pass” stereo imaging capability to simplify your ground processing by eliminating the need to compensate for intrinsic lighting and atmospheric changes between pictures obtained from different orbits.

Time can be of the essence. So why not maximize your capability to promptly select and retrieve information on regions undergoing rapid change. With the BGIS 2000 spacecraft, your images can be sent to the ground with only a few seconds delay if you wish, or they can be stored for transmission at a later time.

The BGIS 2000 system does not stop with the spacecraft. We can provide an on-orbit delivery package that includes the launch vehicle complete with launch and commissioning activities. On the ground, we can modify existing facilities or supply a stand-alone mission control center, remote ground stations and image processing – all with the appropriate training to effectively operate both space and ground components as an integrated system.