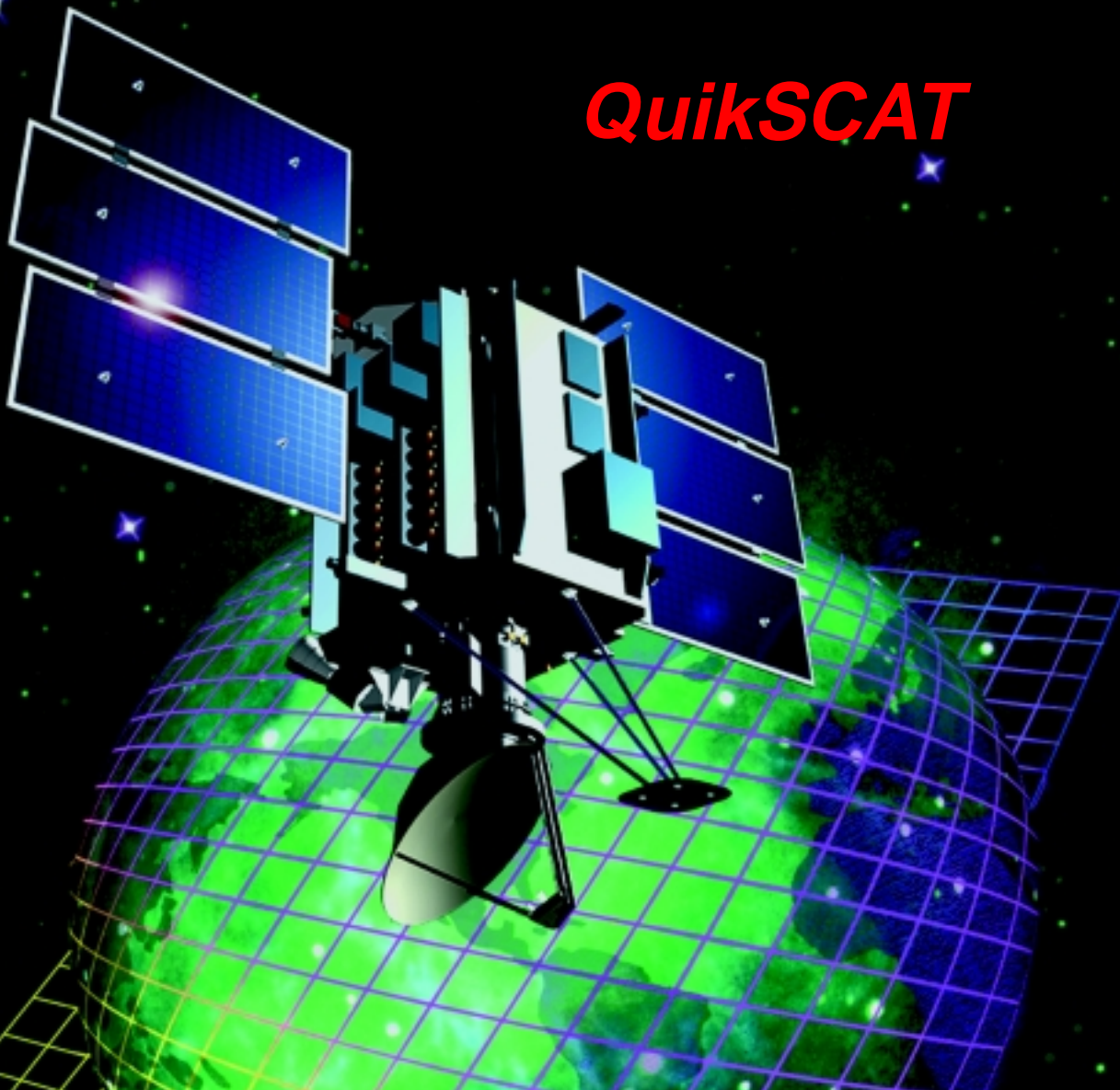


# **QuikSCAT**



**P**erforming flawlessly following its June 19, 1999, launch and early on-orbit commissioning, QuikSCAT is the first commercial satellite to be delivered from our Ball Commercial Platform (BCP) 2000 bus product line. The selection of the BCP 2000 marked a first for NASA — the procurement of a bus under commercial terms and conditions. Time was of the essence: from contract start to spacecraft completion took only 11 months, including the integration of the SeaWinds Scatterometer built by the Jet Propulsion Laboratory. Ball Aerospace will provide on-orbit operations for the mission for two years.



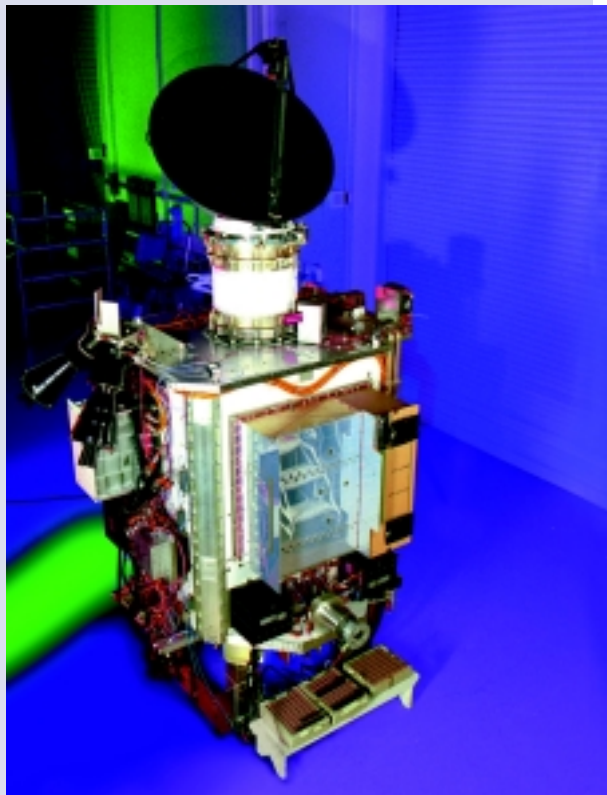
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## QuikSCAT Mission Suitability

Item	QuikSCAT Performance
Launch Vehicle	Launched June 19, 1999, on a Titan II
Design Life	>2 years with 3 years expendables
Orbit	803 km sun synchronous 98.6 degree inclination (6:00 a.m. crossing)
Onboard Storage Capacity	8 Gbits
ADCS Approach	3-axis stabilized, star tracker/IRU/ reaction wheels, C/A Code GPS
Pointing Accuracy	<0.1 degrees absolute per axis
Pointing Knowledge	<0.05 degrees per axis
Communications	
Payload Data	2 Mbps S-band
Housekeeping	S-band from 4, 16 and 256 Kbps 2 Kbps S-band uplink
Propulsion	Anhydrous Hydrazine (N <sub>2</sub> H <sub>4</sub> ) blowdown
Spacecraft Mass	870 kg (wet)
Spacecraft Power	650 W (orbital average)
Payload Mass	205 kg
Payload Power	250 W (orbital average)
Delivery Time	<12 months



The aerospace industry witnessed an historic first when NASA's Goddard Space Flight Center awarded the first-ever contract under its new Rapid Spacecraft Acquisition (RSA) procurement method to Ball Aerospace & Technologies Corp. Procured under commercial terms and conditions, the BCP 2000 was selected for QuikSCAT over seven other bus providers. The reasons – minimal modifications to the basic offering design to accommodate the payload, an extremely short delivery time to orbit and a competitive price.

The QuikSCAT mission centers on NASA's SeaWinds Scatterometer built by the Jet Propulsion Laboratory to measure wind speed and wind direction over the oceans. The payload uses a rotating dish antenna to actively probe the Earth's surface with two microwave beams. The antenna system probes 90 percent of the Earth's ice-free oceans every day to collect wind-speed and wind-direction data in a continuous, 1,800 kilometer-wide swath. In all, this adds up to about 400,000 individual measurements daily.

Measuring ocean winds is important because they are a driving force for oceanic motions, ranging from small-scale waves to large-scale systems of ocean currents. Winds directly affect the turbulent exchanges of heat, moisture and greenhouse gases between the atmosphere and the ocean. These air-sea exchanges determine regional weather patterns and shape global climate.

The selection of the BCP 2000 for the QuikSCAT mission demonstrates the fundamental design qualities of this Earth remote-sensing bus. Payloads like SeaWinds were used to verify that the BCP 2000 could accommodate most instruments currently envisioned. Because of our commitment to commercially producing a number of BCP 2000s, Ball could integrate the payload and deliver the satellite in time for a launch in less than one year after contract award.

Let Ball start your mission off on the proper track with a BCP 2000 — just as NASA did.