

Receivers Gather Data for Climate, Weather Prediction



Jet Propulsion Lab

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NASA Technology

- ◆ In addition to location, GPS satellites provide data for weather forecasts and climate change; but the signals they send are distorted by the atmosphere
- ◆ JPL designed the Black Jack receiver to take precise measurements of how GPS signals are distorted, which reveals information on atmospheric conditions

Partnership

- ◆ To produce the Black Jack receivers, JPL turned to BRE, which then entered a licensing agreement for the technology that extends to 2017
- ◆ As a result of the agreement, BRE created a new product, the Integrated GPS Occultation Receiver (IGOR), based on NASA's Black Jack device

Benefits

- ◆ IGOR's radio occultation science capability, which provides services for satellites like precise orbit determination, is unique in the industry
- ◆ IGOR is currently used by NASA, as well as German, Korean, and Brazilian organizations
- ◆ Other BRE products derived from NASA technology are in use by the Air Force

