Status update: GPM completes spacecraft alignments

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Engineers perform precision tests on the completed GPM spacecraft prior to launch - scheduled for Feb. 27. Credit: NASA/JAXA

After a holiday break, final tests for the GPM Core Observatory resumed on Dec. 30, 2013, with alignment measurements. The spacecraft's instruments and components, such as star trackers and thrusters, are attached to the main body in specific configurations. Spacecraft alignment measurement is analogous to alignment for the

wheels of a car. The Core Observatory measurements ensure that no parts have shifted during its transportation from the United States to Japan, so they will work as expected.

For the test, small cubes are placed at each part that needs checking and an instrument called a theodolite, similar to a surveyor's instrument, makes exact measurements. Measurements are taken in both the horizontal and vertical orientations of the spacecraft, in order to "see" each cube, and were completed as expected with no problems.

In addition, the GPM team has made up the time lost due to weather delays during the satellite shipment in November. They are currently on schedule for the remainder of testing, which continues with a check of the propulsion system. The GPM Core Observatory is scheduled for launch from JAXA's Tanegashima Space Center between 1:07 p.m. and 3:07 p.m. EST on Thursday, Feb. 27 (3:07 a.m. to 5:07 a.m. Japan Standard Time on Friday, Feb. 28).

Provided by NASA