

Paris, 9 March 2015  
PR034 - 2015

## CNES and CESBIO set for major first with Biomass climate mission

The member states of the European Space Agency (ESA) recently gave the go-ahead for Biomass, the agency's seventh Earth Explorer mission scheduled to launch in 2020. CNES and the CESBIO<sup>1</sup> biosphere research centre have joined forces for this climate-observing mission to acquire first-of-a-kind measurements of forests from Space in order to better understand the role they play in climate change processes.

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The Biomass mission will be the first to obtain P-band radar measurements of Earth's surface and to provide a 3D view of the structure of the world's forests. Its aim is to acquire repeat data on forest biomass and map it on a global scale, thus helping to achieve sustainable management of forests and gain new insights into how our planet's climate works.

To better quantify Earth's stored carbon, especially carbon gas emissions due to deforestation, the amount of biomass and forest height will be measured at a resolution of 200 metres, and forest disturbances such as clear-cutting at a resolution of 50 metres.

In addition to studying forests, Biomass data are expected to be used for monitoring the ionosphere, glaciers and ice sheets, and for mapping subsurface geology in deserts and surface topography below dense vegetation.

Commenting on the decision, CNES President Jean-Yves Le Gall said: "I commend this decision by ESA's member states, which will support CNES's focus this year on climate. I am especially proud of this major first that clearly recognizes the expertise and the significant contribution of CNES and CESBIO, who are continuously innovating and revolutionizing how we observe the biosphere from space to better understand Earth's climate."

<sup>1</sup> Centre d'Études Spatiales de la BIOSphère (UMR5126 joint research centre)

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