

IMAGE PROCESSING LEVELS OF CBERS AND AMAZONIA SATELLITES

Image processing levels of CBERS and Amazonia satellite cameras, with the exception of the recently developed pass processing, remain the same.

Level 0 (L0): Raw image, without any corrections.

Level 1 (L1): Radiometrically corrected image.

Level 2 (L2): Radiometrically corrected image with system geometric correction, which uses ephemeris and attitude data transmitted by the satellite.

Level 2B (L2B): Image resulting from pass processing. Control points in other scenes in the same pass are used to refine the satellite viewing parameters. Images at level 2B (L2B) are generated with those refined data. In this way, it is possible to obtain products with better geometric quality than level 2 (L2) in scenes with large cloud cover or with poor distribution of control points, which makes the generation of level 4 (L4) unfeasible.

Level 3 (L3): Radiometrically corrected image with system geometric correction refined by control points; no digital terrain elevation model is applied at level (L3).

Level 4 (L4): Orthorectified image, that is, radiometrically corrected image with system geometric correction refined by control points; digital terrain elevation model is applied at level 4 (L4).

Images processed at levels L2, L2B, L3 and L4 can be found in INPE's image catalog. The catalog will always feature the best quality product.

L4 images are ready to use, with no additional user procedures required. On the other hand, L3, L2B, and L2 images may require users to apply additional geometric transformations for better results.

The processing system generates L4 images of the WFI independently, for each of its optics, left and right, joining them later. Thus, it may happen, in special situations, that the system can only generate L4 for one of the two optics. This is the case, for example, of images in coastal regions. In that case, users can have access to the entire scene by downloading the L2 level product.