

**Some Considerations Related to the New Realization
of SAD-69 in Brazil**

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ABSTRACT

IBGE - the institution responsible for the Brazilian **Geodetic System** (SGB) has been working for more than 10 years in order to readjust the observables **belonging** to this system. This work was finished at the end of 1996, but the results have **not been made** available to the public yet. The two main reasons are: 1) the realization of the **SIRGAS project** is almost finished; 2) there is still a need for complementary analysis of the results. **In this presentation**, a few aspects related to the new realization of the SAD-69 in Brazil will be **shown, taking into account** its accuracy and the aspects related to the conversion between the **new and the old realizations**. For the last case, it was carried out by using either the seven or **three parameters model**. Taking into account the applications related to Geodesy and Cartography, **the results may not be satisfactory**. The average results showed an agreement of the order of **2.21 meters** for seven, and the **3.69 meters** for three parameters respectively. Further investigations **should be carried out**. The analysis of the accuracy was based on 34 GPS stations, which are **coincident with** the conventional network, and their coordinates were considered as true values. A **total of 34 adjustments** was carried out, in such way that the GPS derived observables of one station **were neglected**. The estimated coordinates were compared with the true ones. The results, **although very limited**, shown an improvement of the new realization. For a more conclusive analysis, **further GPS stations** would be required. The analysis of the several tests will be shown in **this presentation**.