ANALYSE OF INTEGRATION OF IFSAR IMAGE AND LANDSAT FOR THE CARTOGRAPHY OF GEOLOGY MAP OF TAKALAR-SAPAYA PROVINCE SOUTH SULAWESI

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Abstract

Geology mapping in Indonesia done with the conventional method with the average scale namely 1:250,000, though requirement of geology map will be high enough with the bigger scale that is 1:50,000. To finish the mapping conventionally required time about 50-100 year. With the progress of information technology and technological usage of remote sensing to mapping the geological elements in all Indonesia region represent one of the alternative.

IFSAR image for the mapping of geology represent one of the technological application of remote sensing. Data of IFSAR image high resolution analysed obtainable so that information of concerning geology element in the area with the scale 1:50,000. Data Ifsar in the form of DSM (Digital Surface Model) and ORRI (Ortho Rectified of Radar Image) supported with the high spectral resolution image of Landsat ETM+7 and other data sekunder processed by using software ER Mapper 7.0 for the data processing of image and Mapinfo 8.5 to process the classification and its cartography. Result from this research is geology map with the scale 1:50,000, and also information of elements of geology of area Takalar-Sapaya.

From knowable interpretation result if the litologi area in the form of set of limestone, set of konglomerat, set of tuf, diorite, dropsy, set of breksi, set of lava, coastal sediment,
andesit, and sediment alluvial. While for the structure of geology seen in the form of lineaments

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