Optimization of sea surface temperature measurement method using UAV in Submarine Groundwater Discharge investigation

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In recent years, the number of sensors that can be mounted on UAV (Unmanned Aerial Vehicle) has increased significantly, and the range of observations has expanded, and observations using UAV have been made in various fields. In 2015, we investigated sea surface temperature using a UAV with thermography. As a result, we were able to observe Submarine Groundwater Discharge (SGD) that spring in a narrow range of about several meters. At present, UAV equipped with thermography, which are significantly more functional than those days, are now on the market. Therefore, in this study, in order to verify the extent to which such a UAV can contribute to SGD research, we measured the water surface temperature under various conditions and measured the actual sea surface temperature using a UAV (DJI Matrice 200 v2) equipped with thermography (Zenmuse XT2). In this presentation, we will introduce a method of measuring UAV sea surface temperature in SGD observation based on these results.

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