

## Time-variation of advective heat flux from the central black-smoker complex at the TAG hydrothermal mound, Mid-Atlantic Ridge

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During Aug. 1994 to Feb. 1995, three vertical thermistor array "Giant Kelps" were deployed and monitored vertical temperature distributions within the hydrothermal plume focusing from the central black-smoker complex (CBC) at the TAG hydrothermal mound, MAR, 26N. We estimate the lower limit of heat flux from CBC using a simple plume model. Estimated heat fluxes are 80-110 MW, which are lower than the estimate by Rona et al. (1993). During Giant Kelp's observation period, sub-bottom drillings of ODP Leg 158 were carried out. The heat flux decreased from 110 MW to 80 MW just after the drilling started, suggesting that the hydrothermal fluid flow pattern in the mound was affected by the drilling.