

**Development of Experimental Technique on the Micro-pressure Wave Phenomenon
Using a Train Model of Actual Shape**

Takashi FUKUDA Sanetoshi SAITO Tokuzo MIYACHI Masanobu IIDA

Model experiments using reduced-scale models are useful for investigating the micro-pressure wave phenomenon. The model experiments using axisymmetric train models have been conducted frequently, and effectively for clarification of the micro-pressure wave phenomenon and the development of the countermeasures thereto. However, train models similar to actual shape need to be used to estimate more accurately the compression waveform generated by a train entering a tunnel. For this purpose, an experimental technique for launching a train model of actual shape at the maximum speed of 250 km/h has been developed. The experimental results indicate that the model experiments using the train model of actual shape can improve the accuracy of the estimation of the compression wave, whether the train nose is equipped with parts having sharp edges like a snowplow or not.