# **NASA TECH BRIEF**

# Marshall Space Flight Center



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## **Small Portable Speed Calculator**

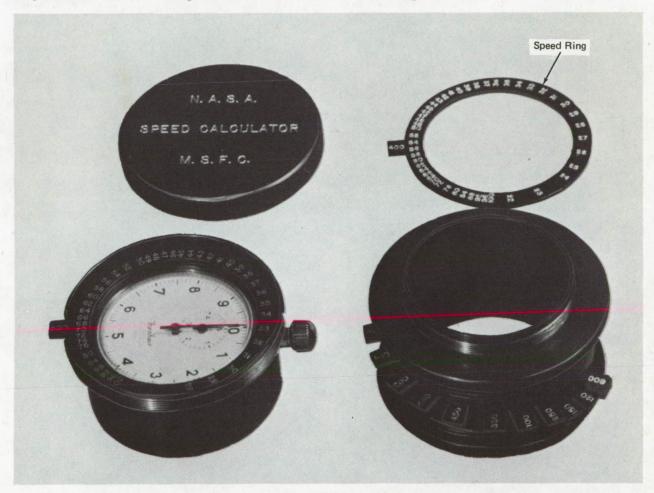
### The problem:

Elaborate bulky systems are usually required to measure the speed of passing objects accurately and quickly. Radar, electronic timers, and other fast accurate speed-measuring systems are often too expensive and too large for simple measurement of the speed of moving objects. Simple alternatives such as stopwatches and tables or

slide rules are too slow or inaccurate for law-enforcement, military, and field-test uses.

#### The solution:

A new small portable speed calculator is essentially a stopwatch adapted and calibrated for fast accurate measurement of speeds.



Portable Speed Calculator

(continued overleaf)

### How it's done:

The speed calculator (shown in the illustration) determines the average speed of a vehicle by measuring the time the vehicle takes to pass between two markers a known distance apart. An operator sets the stopwatch to zero and selects the speed ring that matches the distance between the markers. After timing the passing vehicle, the average speed is read opposite the watch hand.

Several different models of the speed calculator are available. There is an illuminated model for night use, a model with 1/100 second calibrations for distances up to 300 feet, and a 1/10 second model for from 300 to 600 feet. The calculator has a storage case with space for ten speed rings. The speed rings can be calibrated to read in miles per hour, kilometers per hour, or other appropriate units.

The calculator is a single assembled unit. It is rugged, self-contained, and is relatively inexpensive to manufacture. The potential market includes automobile-speed enforcement, railroads, and field-test facilities.

#### Note:

Requests for further information may be directed to:

Technology Utilization Officer

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#### Patent status:

Inquiries concerning rights for the commercial use of this invention should be addressed to:

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