

conditions of temperature and stability, but, as indicated by Byram, the wind speed profile was one that would favor fire control with light winds in the fire zone and strong winds at high levels.

Presently there is no satisfactory explanation at hand for the differences in the maximum temperature distribution pattern between Boise, Idaho City, and Shafer Butte. Since this temperature pattern did appear to vary with the rate of fire spread, a logical explanation might serve as a forecasting aid.

The principal objective in an analysis of this type is to develop means of improving forecast and warning techniques. Byram's wind speed profiles have considerable merit, as the evidence has shown, but a careful examination of the wind speed profiles for the 0800 MST wind observations indicates the presence of a "jet point" on each of five days. On Monday, Wednesday, and Friday the jet point moved down 1,000 ft. or more between 0800 MST and 1400 MST while on Thursday it moved up 3,000 ft. and on Tuesday it remained at the same elevation. From a forecaster's standpoint it would be difficult to separate the blow-up days from the quiet days on the basis of projected 0800 MST wind speed profiles, although this is a field in which further study seems warranted.

This study indicates that the forecasters on large fires should consider carefully the wind speed profiles and surface temperature distribution as well as temperature lapse rates, surface weather charts, and other observational material. If it were possible to dispatch a mobile rawinsonde observational unit to large fires the information gained would be very valuable to the forecaster in predicting fire behavior. The cost of constructing and oper-

ating a mobile rawinsonde unit would be considerable, but in view of the terrific property losses and suppression costs on large fires, such a unit would be justified. Pilot balloon observations would be impractical because of visibility restrictions, and only very rarely does a large fire occur close enough to an upper air observational station to make the data representative of conditions over the fire.

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## Mariners Weather Log

A new bi-monthly publication containing meteorological information for the maritime industry, including weather and shipping on the Great Lakes as well as oceanic areas, recently began issuance under the title *Mariners Weather Log*. The first issue was dated January 1957. Each issue usually contains two major articles and several smaller contributions of current maritime interest. Recent ocean weather is described and a table of selected ship gale observations is included. Annual subscription, \$1.00; additional for foreign mailing, 25¢; 20¢ per copy. Orders should be addressed to Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.