

## THE 1953 ECONOMY RUN

THIS YEAR, Caltech students were again given the opportunity to act as official observers on what is now generally termed the second greatest annual automobile classic. The 1953 Mobilgas Economy Run was a contest sponsored by the General Petroleum Corporation and supervised by the American Automobile Association, in which arbitrarily selected stock models of 1953 cars were driven under nearly identical conditions for a distance of 1206 miles. Winners of the contest were judged on the basis of greatest ton-miles per gallon on the trip.

The 26 cars in eight competitive classes also had to maintain an average speed of 44.7 mph for the entire run. This average is ten percent higher than in previous years. Since 126.5 miles of the trip was through cities and towns where there were posted speed limits of 20 to 25 mph, the cars had to be driven at maximum speed limits between towns.

Sun Valley, Idaho, was again chosen as the destination of the run. The route this year, however, was the toughest yet. Competing cars drove through Fresno, Merced, Stockton, Sutter Creek, Placerville, Carson City, Reno, Winnemucca, Jordan Valley, Oregon, Boise, and Twin Falls. Altitudes ranged from 19 feet to 7,383 feet above sea level.

Dr. Peter Kyropoulos, again designated as Chief Observer by the AAA, started selecting student observers five weeks before the actual run. A number of students were deputized to act as observers during the break-in runs. The cars were allowed a maximum of 2,000 miles for break-in before a deadline date. Final selection of the observers was determined by participation in the break-in runs, and correct interpretation of the required duties as evidenced by a true-false test and a short essay.

In order to provide more efficient and reliable observing, two students were assigned to each car this year. All classes and options, including graduate students, were represented among the observers. In addition to the 52 riding observers, there were two others who assisted Dr. Kyropoulos in providing very efficient handling of observers' luggage, transportation, hotel rooms and meals. The students assigned to a particular car had to get weighed in at the official impound area and completely familiarize themselves with their car.

The cars were driven in a convoy with Caltech observers and a motorcycle escort to the G. P. garage in Los Angeles for final impound and fueling the day before the run. On Sunday, April 19, at 9:30 p.m. the 54 observers, dressed in bright yellow windbreakers and red visor caps, boarded two special busses bound for L.A. in a light rain. The observers obtained the keys, observing kits, and box lunches for their cars; and then

remained with the assigned car as it was manually pushed into starting position. The first car was started at midnight; others followed at two-minute intervals.

The first scheduled stop was at a refueling station in Merced. The observers had to record how long, and at what time and mileage the car stopped, the even number of gallons of fuel taken, and the fuel price and temperature—while simultaneously taking on doughnuts and coffee, watching the local high school talent displayed, and trying to heed certain metabolic processes. After all this, it was a pleasure to get moving again. Between stops only one observer was necessary to see that the driver obeyed all posted speed limits and traffic laws. The relief driver helped the driver keep track of the allowable running time. Whenever possible, the observers were also required to watch other competing cars.

The second stop was for a 30-minute brunch near Sutter Creek. The cars continued to climb through the beautiful mountain country along the American River, and then descended to Lake Tahoe. The second refueling stop was at Carson City. Arriving at Reno in the middle of the afternoon, the weary Tech students turned in their reports, and had a few hours' sleep before dinner.

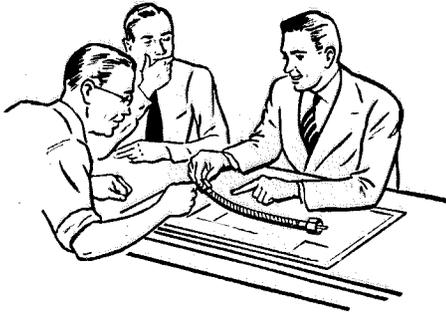
After a hasty recovery from the previous 15 hours, the wandering scientists and engineers took full advantage of Reno's noted culture and General Petroleum's generous hospitality. Following a good night's rest, all cheerfully awoke at 3:15 the next morning, ate breakfast, and were back at the impound at 5 a.m. The frost-covered cars were started at two-minute intervals.

The observers soon thawed out, riding with all windows closed (to reduce air drag) under a hot desert sun. The next stop was at Winnemucca, for brunch and refueling. It was here that one car accidentally got off the elaborately specified course, and went ten miles before realizing the error. This mischance caused the drivers to run out of gas a few miles from Boise; and to be disqualified. Allowable running time for the 431.5 miles from Reno to Boise was 9 hours and 15 minutes.

Assembled school children and state police had waved at the cars all along the route, but Boise really turned out for the Economy Run. The cars finished the second day's run in front of Boise J. C., and were greeted by the mayor, coffee and doughnuts, and a very impressive (or impressed) crowd. Some anonymous AAA official, speaking over a p. a. system, assured the crowd that "these boys won't cause much disturbance in Boise tonight; they're all too tired." Tired or not, the drivers, observers, and other officials weren't given much of a chance to disturb the town—since it is the only place

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## STUDENT LIFE . . . CONTINUED

north of Pasadena that seems to roll up its sidewalks when the sun goes down.

The Techmen were up at five the next morning, ready to leave on the last, and most important leg of the run. The last day's route was along the Snake River past Thousand Springs, Twin Falls, and across the Big Wood River. Slow farm tractors moving down the main thoroughfare of towns along the route made life interesting for the economy-minded and time-conscious drivers. Three or four cars encountered one of the most dreaded of all hazards—a large herd of sheep crossing the road. Two cars carefully plowed through, but a third had to come to a stop to avoid running up the expense account with mutton. Observers had soon learned that one of the major factors of gasoline economy is a steady throttle. Hence, stops and starts were not at all desirable.

A large crowd greeted the cars at their sunny destination early Wednesday afternoon. Exclusive of their last fuel stop, five hours and zero minutes was allowed for the 226.3 mile run from Boise to Sun Valley. It was both interesting and dramatic that six cars finished with less than a minute to spare! One car had vaporlock a half mile from the finish line—but managed to throw snow on the fuel pump, and roar across the finish with an uncomfortable 1.6 seconds to spare! A few hours after their arrival the carefully guarded cars were towed to a special refueling stand, where the fuel tanks were accurately topped off to determine total gas consumption.

The Ford-Six was awarded the sweepstakes trophy at the colorful awards presentation on Thursday morning. The two observers who, in the opinion of AAA officials, had done the best job were awarded watches.

During their 32-hour stay at Sun Valley the observers and hundreds of others enjoyed the gracious hospitality of General Petroleum and the Union Pacific Railroad. There was ample time for swimming, bike-riding, bowling, billiards, and riding the scenic ski lift—aside from eating, resting, and attending a big cocktail party Thursday evening. The seasoned observers boarded busses at 11 p.m. Thursday for the train at Shoshone.

The monotony of the 30-hour train ride back to southern California, via all possible desolate wastelands, was lessened by card games in the two special C.I.T. Pullmans, and by 15-minute stops in Salt Lake City and Las Vegas. The yellow-jacketed observers, feeling conscious of all that they had missed back at Tech, arrived in east L.A. at 6:30 Saturday morning.

It seemed hard to believe that the observers would also be paid \$50 for the five days. Aside from monetary gain, the Mobilgas Economy Run offers the Tech student an opportunity to learn how to drive economically, and to live briefly in a manner to which he may not be accustomed.

—Jim Wyman '53