

They traveled 100,000 miles and didn't go any place, but proved that the Comet is a rugged car that can really take it



Comet Enduro

ON OCTOBER 30, 1963, a team of specially equipped and prepared 1964 Comets completed one of the most grueling challenges to staying power ever undertaken by any car manufacturer. Beginning on September 21 and running continuously for 40 days and nights, the Comets traveled 100,000 miles around the steeply banked Daytona International Speedway at an average speed of more than 105 mph. The lead car averaged more than 108 mph for the distance.

Hour after hour, night and day, through humid heat and tropical storms brewed by hurricanes Flora and Ginny, the four Comets chalked up more than 2500 miles each day. The run was interrupted only every two hours for pit stops, primarily for fuel, tires, driver change, and routine maintenance, with average pit stops running 35 seconds. To maintain the 105-plus-mph average posted by the cars for 100,000 miles, the Comets had to circle the 2½-mile track at more than 112 mph.

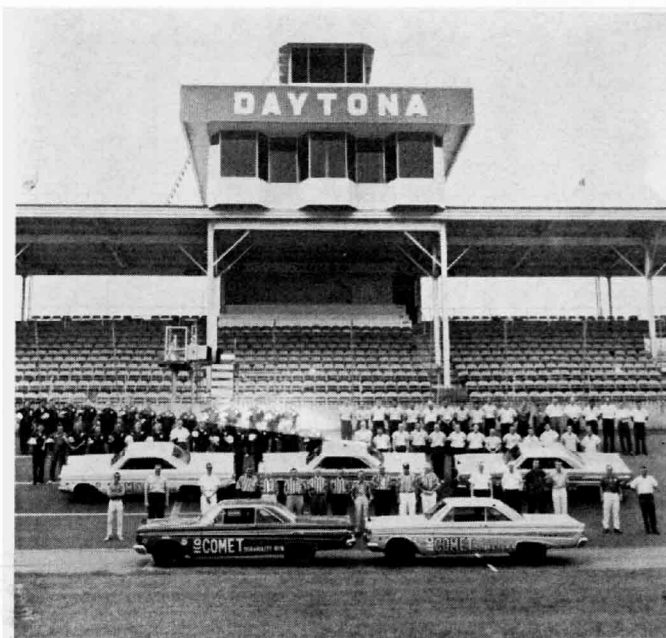
The cars cracked more than 100 worldwide records for speed and distance, plus scores of American records. In addition, many new long-distance speed marks never before posted were put in the international record books by these Comets. One of the specially equipped Comets completed a 10,000-mile run at an average speed of 124.421 mph to shatter the international Class C record, the national Class C record, and the American unlimited record for closed cars for the distance. Comets set records in every class in which they were eligible to compete — world's unlimited, international Class C, national unlimited, national Class C, American unlimited closed car division, and American Class C closed car division.

The entire test was run under the strict sanction of the National Association for Stock Car Auto Racing, the Automobile Competition Committee of the United States, and the Federation Internationale de L'Automobile. Records are subject to final confirmation by these officials.

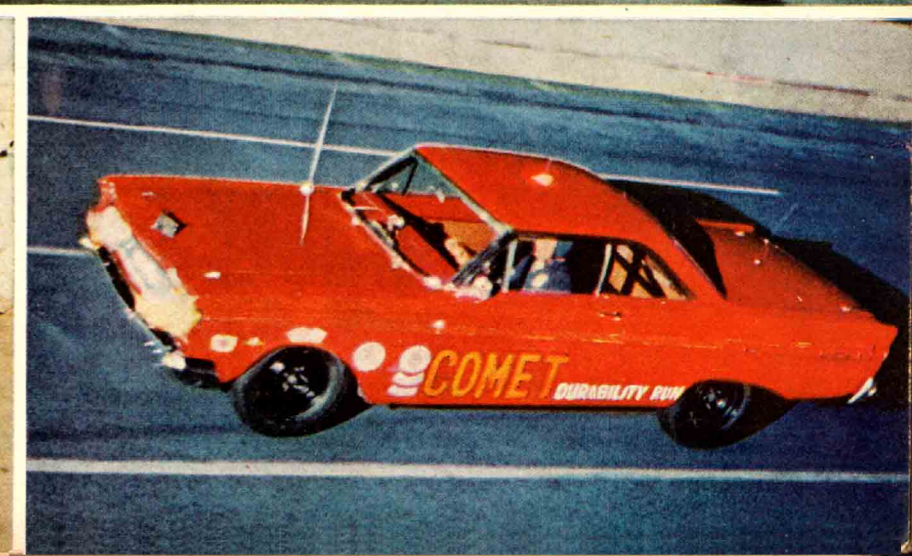
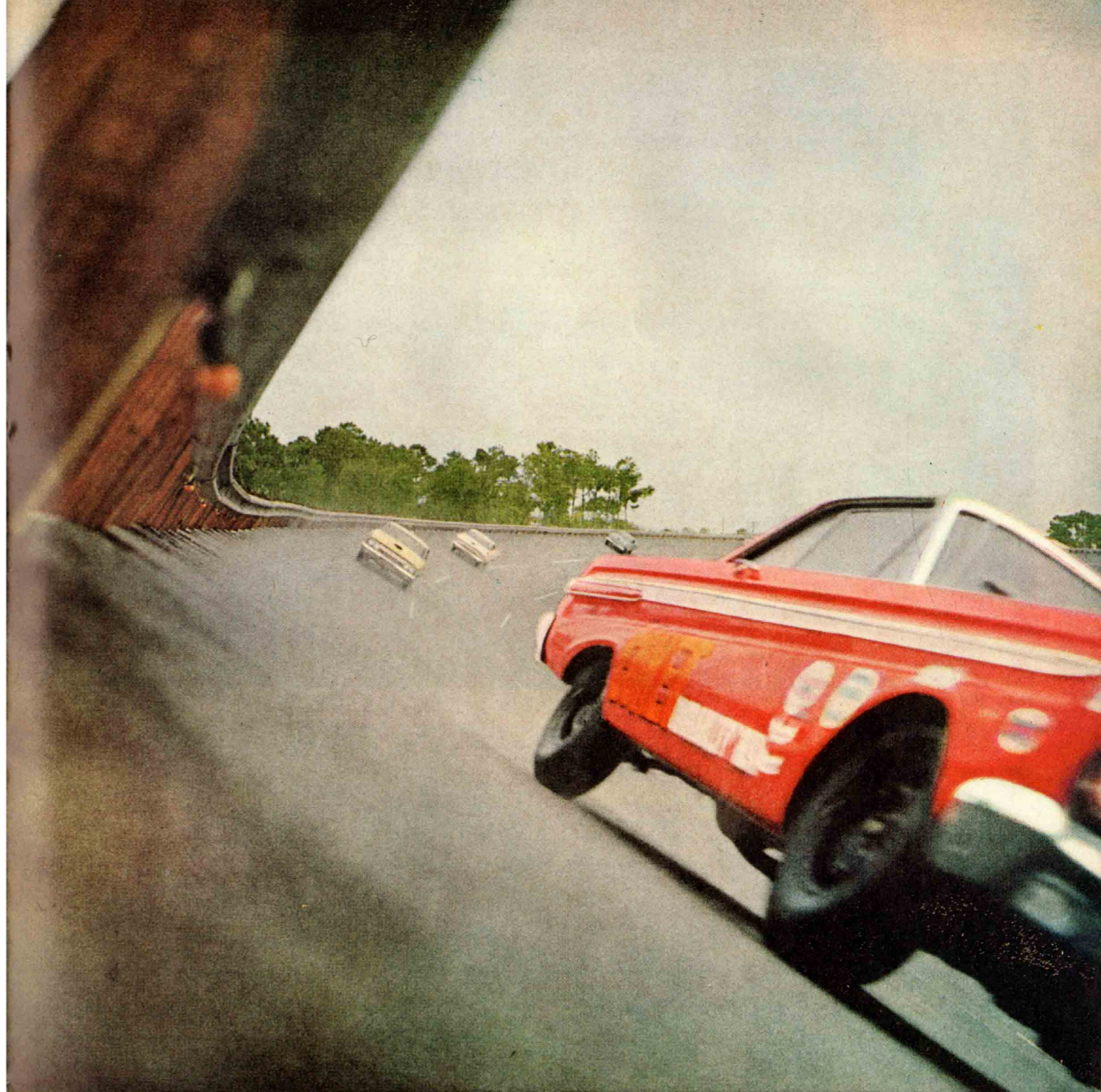
The Comets were powered by the new Comet Cyclone high-performance, 289-cubic-inch V-8, equipped with four-barrel carburetor, mechanical valve lifters, high-performance cams, and alternator. They were also equipped with optionally available heavy-duty driveshafts and axles, and with variable-rate Autolite shock absorbers. They had specially stiffened suspensions to cope with the steep banks of the Daytona track. NASCAR safety regulations call for heavy-duty wheels, roll bars, shielded fuel tanks, and tie-downs for doors, hood, and trunk lid.

In all, over 100 people were involved in the run, including drivers, mechanics, technicians, engineers, timers, plus NASCAR and FIA inspectors. All drivers were professional race drivers, each working a six-hour shift every 24-hour period. Most of the drivers recruited by Lincoln-Mercury Division for the durability run are well known on race tracks in either the Southeast or Midwest.

For the drivers, the high-performance test differed in several important respects from competitive driving. For one thing, FIA regulations required the cars circling the track in the same lane to be no closer than 165 feet to one another, so there was no split-second, hair-raising jockeying for



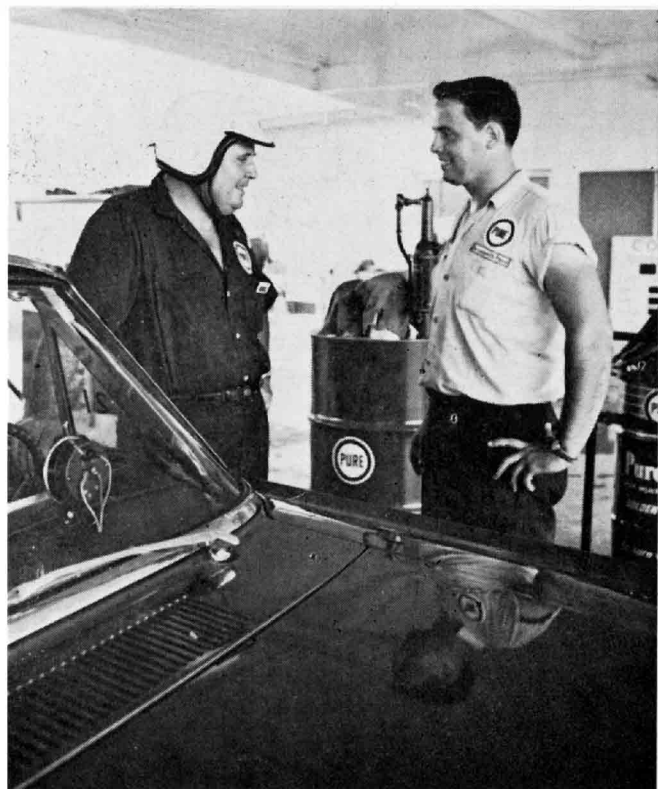
Hand-picked professional race-car drivers, topnotch mechanics and pit crew members, plus NASCAR officials formed nucleus of record-breaking Comet Endurance runs at Daytona tri-oval.





Every two hours, each car made a pit stop for additional fuel, water, and a change of drivers. Fast action by well trained and equipped pit crews kept stops down to 35-second average.

Chief Comet driver, Iggy Catona, MARC champion in 1955, '56, '57, and '62, chats with his son Jim, a member of Iggy's pit crew. Iggy spent most of his driving time in Comet lead car.



COMET ENDURO *continued*

position or drafting, and little reason for packing around turns. Also, although the pace may have been monotonous at its constant speed, the driver was far more comfortable than in a race. The 1964 Comet Calientes were fully trimmed, though equipped with roll bars and special bucket seats. Drivers could tune in on at least half a dozen daytime radio stations, and at night, dozens of stations from all over the Southeast. Ventilation was strictly according to conditions. Generally, the drivers ran with the side window cracked a couple of inches and the cowl vents open. At night, when it was chilly, the car heaters were used.

The two-way radio setup kept each car and driver in constant contact with the Comet control tower while the cars whizzed around the track. The two-way radio was used for maintaining speed, advice on weather and track conditions, and information on pit stops. Of course, the drivers also paid careful attention to the special instruments mounted in the car, including tachometer and fuel pressure and oil temperature gauges.

NASCAR supervised the Comets' assault on U.S. national records and maintained the safety standards under which the run was conducted. FIA is the top authority for international automobile speed records. FIA officiating is handled by ACCUS, the official agent for FIA in this country.

The durability run wasn't without its mishaps. Several times the Comets skidded on the rain-slicked pavement, spun out, and continued — with or without damage — around the race track. No one was injured during the run. On numerous occasions, though, the drivers utilized their two-way radios to warn colleagues that fatigue was causing them to run erratically.

The slowest car broke a valve spring in its engine at 76,446.6 miles, and due to the subsequent replacement, be-



Blasting through one of Daytona's high-banked tri-oval turns is one of endurance-equipped Comets. Cars used full NASCAR-approved roll bars, plus heavy-duty driveshafts and axles.

came ineligible for FIA-ACCUS-NASCAR records. However, after repairs, the car continued and also completed the 100,000-mile run.

The Comet durability run was staged by Lincoln-Mercury as part of a three-pronged life-of-the-car test program to demonstrate the engineering excellence and increased performance and durability available in the all-new luxury compact.

Months before this test began, engineers at Ford Motor Company's Dearborn and Romeo, Michigan, test tracks started subjecting 1964 Comet prototypes to other punishment comparable to those expected during the life of the car. The first was the general accelerated durability course at Romeo, which is devised to compress the effect of 100,000 miles of normal driving into 40,000 miles of brutal treatment. This course consists of rough roads, hills, gravel roads, superhighways, and salt baths. Comet's 1964 prototypes have already completed several of these cycles. An even tougher test of the '64 Comet body was made at Dearborn, all on pothole and cobblestone roads, where the prototypes were subjected to what engineers consider twice the normal use encountered in the expected life of body structures.

The durability run, with its sustained high-speed driving, subjected the Comet's engine, body, and suspension to the kind of punishment they couldn't get in normal driving or any other test Ford engineers could devise. Thus at the completion of the 100,000-mile durability run on October 30, less than a month after public introduction, the Comet had completed lifetime cycles in three important areas — body, suspension, engine and drive line.

As a result of the Dearborn and Romeo tests, Ford engineers have made more than 50 improvements over original design, and these improvements already are incorporated in the 1964 Comets.

The Comet durability run cars will be returned to Dearborn, Michigan, for complete teardown and evaluation. /MT

Special two-way radio sets in enduro cars helped drivers keep each other and the control center up to date on weather, car, and track conditions. Conversation helped keep drivers awake.

