



This Design Exercise Reveals Some Keys to Future Styling

NO SINGLE model made by General Motors has had as many "ideas" lavished on its chassis as has Chevrolet's sporting Corvette. The reason is quite simple: It's GM's most interesting and exciting car, even in its production-line form. Thus, GM stylists, many of whom drive Corvettes as their personal transportation, like to use it as the basis for expressing their ideas of what

a true sporting or touring car of the near future should be.

And the contingency of these ideas becoming production-line realities is positively amazing. For every made-in-St. Louis series of Corvettes, there has been a made-in-Warren (Mich., site of the GM Styling Center) workable, runnable prototype. Chevrolet's Styling Studio (part of the GM Styling Com-

plex) keeps turning out fresh models every 4-5 years, just to keep those ideas incubating.

The current example of this system is the Mako Shark II, a high-tailed, long-snouted bi-colored thunderer of an automobile. It has swoops, peaks, vents and flaps in such profusion that *Car Life's* reporters, upon seeing the non-working mockup of the Mako II at the

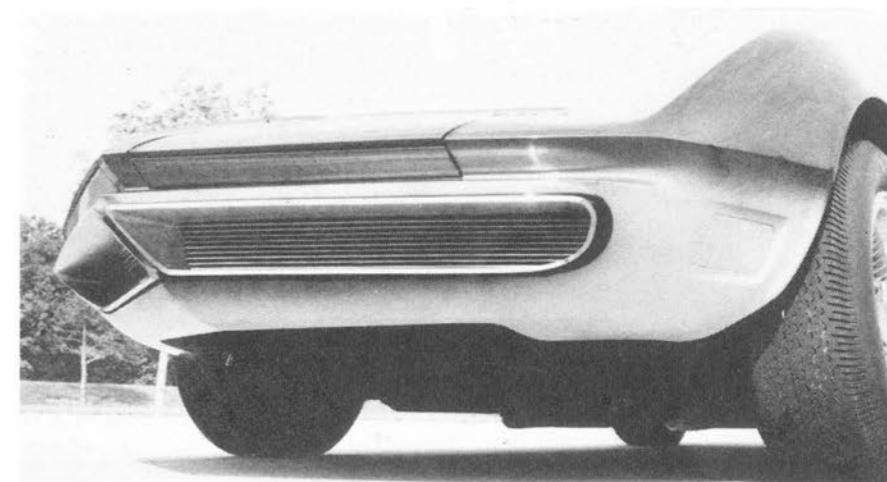
New York Automobile Show last spring dubbed it an "illustration of the surface entertainment idiom" (July '65 issue). Although slightly cleaned up from that first model, this Mako II (Mark II, shown here), still displays that profligacy. The overall shape and proportion is interesting and exciting—it's just that there are too many extraneous convolutions, such as the eight separate grilles spread forward of the windshield.

The car is nonetheless noteworthy, however, as it contains a variety of potentially available gadgets. In that regard, the Mako Shark II must be regarded as a rolling showcase for future options. Too, GM Styling Vice President William Mitchell likes to point at the safety aspects, but says, "most of these features require further refinement and evaluation before being adopted on production models."

Many of the more applicable and fascinating items repose in the Mako's interior. Most of the control switches are the rocker or "touch" type and controls for the major driving operations are located at or near the steering wheel. Seats are rigidly mounted to the frame, individual driver adjustment being accomplished by moving pedals and steering wheel fore or aft. Instruments have digital read-outs and the X-form seat/shoulder belts have inertia reels for both safety and comfort. The center console is finally put to a better use than a mere bundling board.

SPROUTING OFF the steering column like branches on a tree trunk are two arms for the driving/lighting controls. The right arm has the transmission (GM's Turbo Hydra-Matic 3-speed automatic) control—a knurled knob and a flip-switch for finger-tip operation; the left arm houses the horn, headlamp, dimmer and turn-signal switches. The driver hardly ever has to take his hands off the steering wheel—which we consider an important safety function.

Looking forward, at the road, the driver has to drop his line of sight only a few inches to see the digital read-out on the speedometer, clock and fuel



LIGHTS OUT, and the covers hide the lamps from view. Small set of louvers just in front of wheel conceal the cornering lamp.

gauge set high on the padded dash. However, to read the other digital gauges, he has to look down at the forward end of the console, a potentially dangerous situation. Marching rearward along the console are heater/air-conditioning controls, a radio with non-snagging knurled knobs, a grouping of nine switches to operate the various electrical gadgets elsewhere in the car, the ignition switch and a hood release lever.

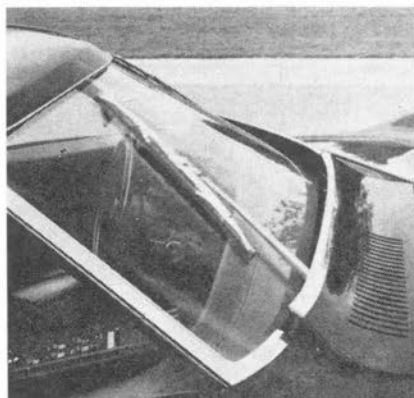
The console also features a bank of indicator lights which can warn of po-

tentially hazardous conditions such as when one of the car's numerous lights is burned out. Tiny fiberglass strands connect these lights to the console switches.

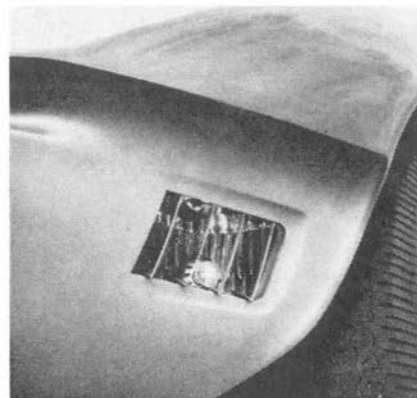
Under development for this car, too, is a prism type of rearview mirror.

Down below the steering wheel, which telescopes for adjustment, are the two floor treadles—one for throttle, one for brake. Also adjustable for driver distance, these pedals require very little linear movement for zero-to-full operation—interesting when one considers that the powerplant is a 427-cu. in./425-

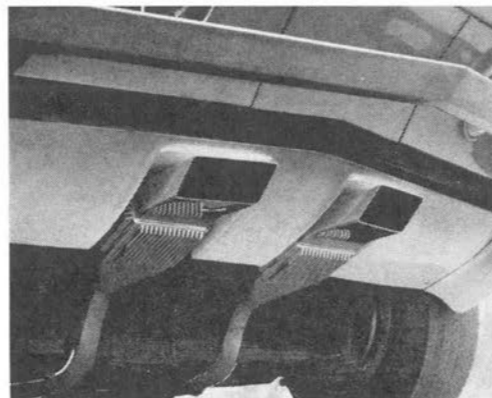
COWL flaps pop open to let windshield wipers work when switch is pressed.



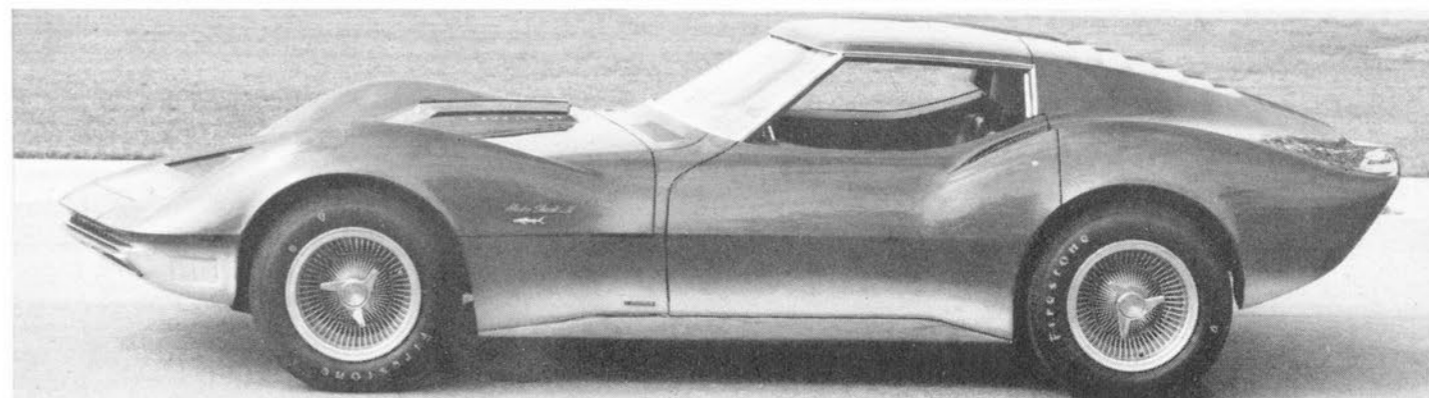
LOUVERS in grilles over cornering lamps open when turn flashers are operated.



B-70 intake scoops are really outlet extensions for the dual exhaust pipes.

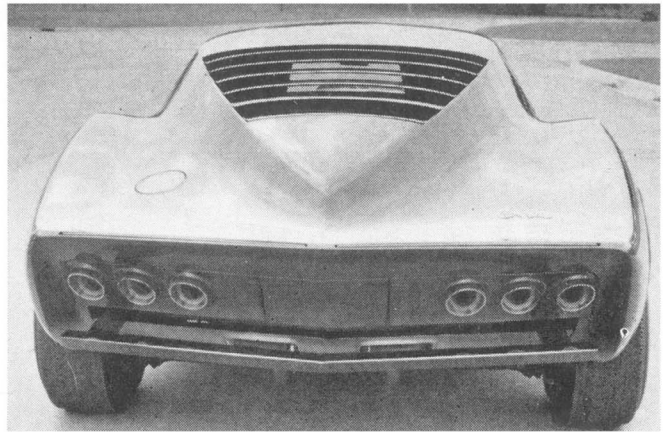


SHAPE OF things to come: Based on the standard Corvette chassis, the Shark exhibits more front, but less rear overhang than the normal bodywork. Innovations in its systems and operations make it a precursor of GM cars.





OPENING ALL the hatches in the Mako Shark II results in 50% disassembly. Shirley Garnet shows technique for sudden exit.



REAR-ON view shows Venetian-blind rear window, pop-open gas filler, retracted stabilizer flaps. Bumper bar also retracts into body.



bhp full-house Corvette engine and the brakes are the 4-wheel disc system with a vacuum power booster: Full blat to full splat with only 1 in. of cumulative pedal movement!

Getting out of the Mako II requires nothing more than knowing which button to push. Selecting the correct one activates an electric motor which tilts up, rearward, the center roof panel, thus allowing the driver or passenger exceptional headroom for moving in or out through the normal type front-hinged doors. His view, and ventilation, to the rear is controlled by power-operated horizontal blinds.

Headlights, in the current mode, are concealed. Retracting panels (another electric motor) reveal them to be six powerful, but in most states illegal, quartz-iodine lamps: A dazzling feature, to say the least. Front turn signals are

also hidden, under the front corners and behind small louvers which slip open to uncover the bulb. Rear lights are less inspired—six indented cylindrical lights which flash sequentially to indicate the turn direction.

Perhaps more startling—at least to the driver behind—are the two “stability” flaps which extend from the hiked-up rear lip of the bodywork. Controlled by the driver, these can be extended 4 in. upward to “increase the down-force or loading by the car’s airstream,” according to the Chevrolet press releases. Their effectiveness must be open to debate; however, the “stabilizers” make good conversation pieces.

Another item certain to elicit discussion along the show circuit where the Mako is being exhibited is the pair of cowl flaps which cock open enough to allow the windshield wipers to emerge and do their bidden duty. Again, operation is by electric motor.

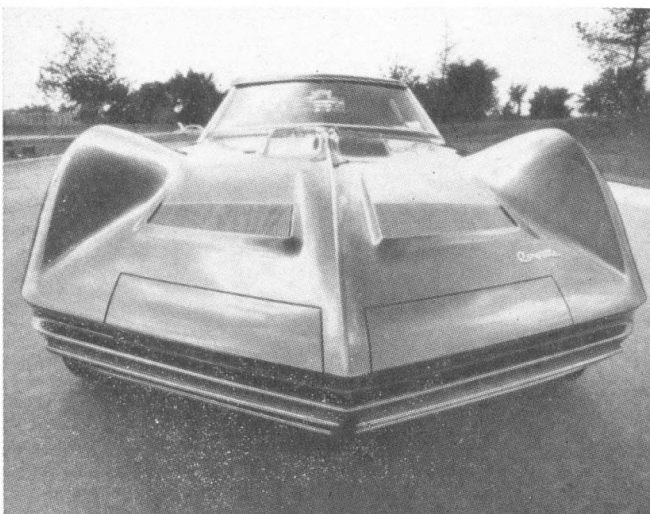
The hood portion of the Mako really isn’t just that—actually, it is the entire front end. Service is accomplished by tipping forward this whole section (a clever idea that could be used on any car). But for the mere oil-and-water

check at the local service station, two round hatches pop open just beside the huge, grille-covered carburetor air intake hump. Covers for these access holes are held magnetically in place.

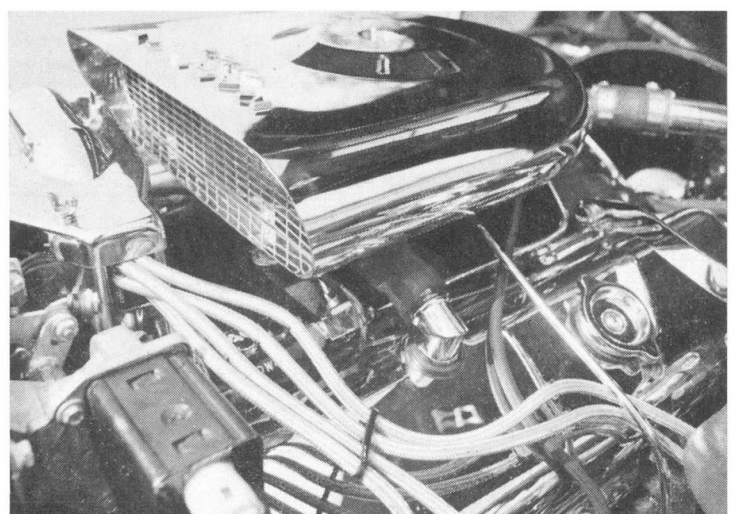
The base for all this is the standard 427 Corvette. Its wheelbase of 98 in. has not been changed, nor are its power braking system and suspension. From the frame up, however, it’s all new fiberglass Mako Shark. The body is 46.5 in. high and 184.5 in. long—2.8 in. lower and 9.3 in. longer, most of it in front overhang, than the normal Corvette. The Turbo Hydra-Matic transmission, of course, is not available in the Corvette production (see News & Views). Wheels are 15-7.50 cast aluminum alloy mounting 8.80-15 front and 9.15-15 rear tires.

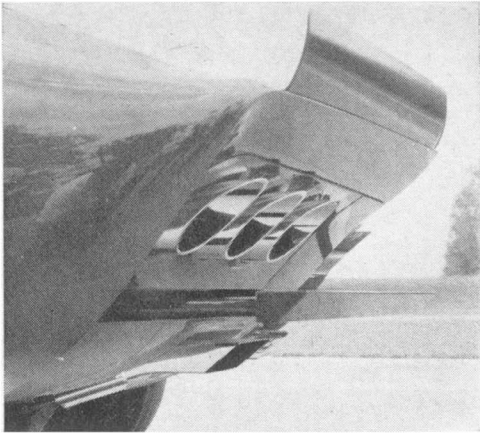
THE MAKO Shark is currently on exhibit at international auto shows, but probably will be back in the U.S. for the Chicago Auto Show in February and the New York Auto Show in April. Its fire-frost dark blue upper and light gray lower coloration is attention-getting and the car no doubt will stir plenty of discussion, which is just what GM wants. Chevrolet General Manager

PROFUSION OF grilles streak forward from cowl. Central hood hump houses engine carburetor air intake.



POWER FOR the Mako is Chevrolet’s muscular 427/425 V-8, backed by the Turbo Hydra-Matic 3-speed transmission.





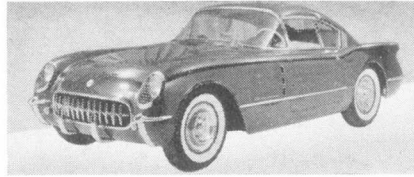
FLAPS UP! Chevrolet says these "increase down-force . . . by car's airstream."

E. M. Estes said about it: "The reaction of people to the design and engineering features on the car could well influence future decisions," and then added that there were no production plans.

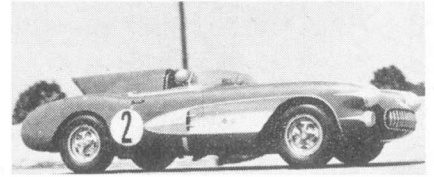
Will the Shark become the Corvette of the future? Probably not exactly in its pictured form (the shape for the '67 Corvette was said to have been very much similar in proposal, but later was rejected). More likely, the Mako Shark II will continue to serve as a styling idea model, updated from time to time, with various portions and contours and systems being plucked off it and manufactured on the production cars. (Boy, just wait until they put those stabilizer flaps onto the Impala!)

Because of the intrigue of the overall shape, it is very possible that future Corvettes and other future GM models will bear a strong resemblance. We have only to look back over previous GM/Chevrolet Styling "Corvettes" to see that the Corvette (originally a "dream" car) itself, the Corvair, the Corvette SS, the Sting Ray and the first Shark all influenced the shape and content of the production-line car.

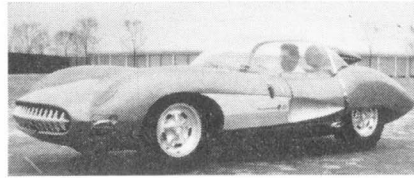
—Dennis Shattuck



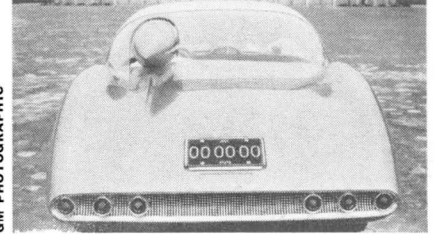
FIRST Corvette generated this "Corvair" idea car. Sloping rear fastback came 10 years later for the production-line model.



SEBRING "mule" also served as a rolling model for future, but mostly in a mechanical way. It raced at Sebring in 1956.



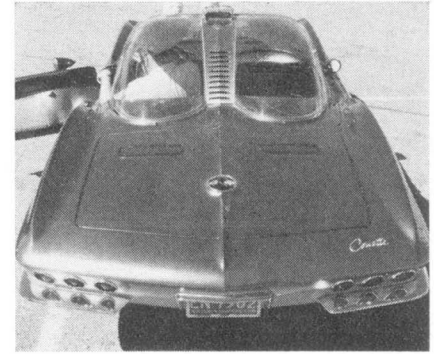
CORVETTE SS was really an advanced model, designed to race at Sebring. Light and very fast, it inspired future Corvettes.



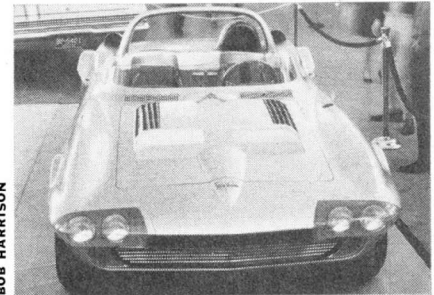
BUBBLE top was removed for racing, leaving only the streamlined headrest and a short windscreen projecting above the bodywork.



FIRST SHARK presaged Sting Ray models. Based on earlier Corvette chassis, it had front (below) and rear (right) shapes which were almost duplicated in 'Ray.



GRAND SPORT was late '63 racing effort which put lightweight body onto tubular frame. Result was a hairy, husky bear of a car. Later modification removed top.



TREADLE pedals require minimal movement for maximum motion.



FLIP-TOP lid operates electrically but can be removed to make Mako an open car.



DRIVER-oriented interior puts controls and instruments in most convenient place.

