Fogless ski goggles

Keeping ski goggles from fogging is just one of dozens of uses for the anti-fog coating developed at the Johnson Space Center to keep spacecraft windows clear before launch.

NASA has issued more than 60 non-exclusive licenses for the compound, mostly to small companies. Applications include deep-sea diving masks, fire-protection helmets, eyeglasses, and vehicle windows.

The basic composition of the coating includes a liquid detergent, deionized water, and an oxygen-compatible, fire-resistant oil. Two thin coatings are applied to the glass or plastic surface and buffed lightly.

Portable home welder

A small do-it-yourself welding torch that weighs only 7 lbs, gives a 5,000 F flame, and costs only about $40 resulted from information provided by a NASA applications center.

The torch was developed by Pyronetics Inc., a Cordon International Co. in Santa Fe Springs, Calif., using information provided by the NASA Industrial Applications Center at the University of Southern California.

The NASA center provided the company with information on chlorate candles, which are unique in that they generate oxygen while burning. A retrospective search undercovered information on composition, hazards, applications, manufacturers, and shipping regulations.

Showride!

A new entertainment product—a cross between an amusement-park ride and a widescreen movie —has been developed with the help of the NASA Industrial Applications Center at the University of Southern California. "Showride" synchronizes sight, sound, and feelings of movement.

Future General, the research arm of Paramount Pictures, sought the NASA center's help in providing literature searches of holographic display systems, motion cues, piloted flight simulation, and other sophisticated technologies.

The result is billed in Hollywood fashion as "a total sensory experience." Participants sit in small, 12-person cabins that can reflect any design scheme such as a spaceship, submarine, or room. The front of each cabin is completely filled by a giant movie screen. A four-track audio system envelopes you in sound.

The cabin is mounted on a steel frame. Movement is generated by hydraulic jacks that turn, shake, glide, or bounce the unit and its passengers in synchronization with the motion picture.

The first commercial installation is planned for late this year.

Hand-held searchlight

The brightest hand-held light yet produced is a result of xenon-arc lights developed as solar simulators at the Johnson Space Center.

The intense battery-powered searchlight is rated at a million candlepower—some 50 times brighter than the high-beam headlights of an automobile. It weighs only 7 lbs. Lifetime of the xenon lamp is at least 200 hours at maximum intensity.

Streamlite Inc., King of Prussia, Pa., reengineered the NASA light for commercial use. Its intense beam is especially useful in penetrating fog and smoke since it returns less back-scattered light. It operates either on a standard 12-volt rechargeable portable battery pack carried separately with a shoulder strap, or from the cigaret-lighter receptacle of an automobile. Retail cost is under $400.

The company last year introduced a smaller unit in the shape of a flashlight. It produces 20,000 candlepower, or about nine times the intensity of a two-cell flashlight, and costs $60.

Portable xenon-arc searchlight is rated at a million candlepower, yet weighs only 7 lbs. Another model not shown is in the form of a large flashlight. Both are spinoffs from solar simulators developed at NASA's Johnson Space Center.