

Mist-Matched Pair

Marshes' Army Surplus Tent May Help Drivers in a Fog

By BONNIE JONES

The fog, according to Carl Sandburg, comes in on little cat feet, but the Marshes' fog lives in an army surplus tent in their back yard.

What good is a tent full of fog? Well, Charles Marsh, associate professor of electrical engineering, and his wife Elizabeth, have been doing research for about eight years on the fog that blinds drivers and causes many highway smash-ups.

Eastern turnpike authorities asked them to find out what kind of car lights and street lights would best pierce the fog.

Using family teamwork they set up a testing tent in the back yard. Tow heads John, 13, Roger 12, and Ben 8 and pony-tailed Ann 10, shinned up the poles to paint the top, while Mom and Dad built a floor-length one third size mock-up of a highway, of masonite and covered it with asphalt. The road is complete with diagonal lines, overhead lights and speed limit signs.

The only vehicle on the fog-bound road is a simulated rear of a truck that moves back and forth on Ann's roller skates.

An observer can put himself in the driver's seat by looking into the tent through a glass window similar to a car windshield in front of which are lights like those on a car bumper.

To find out how much various types of lighting affect vision, Mrs. Marsh photographs the wispy fog. "I used to have trouble getting pictures printed before I started developing them myself," she grinned. "They'd tell me that they'd tried and tried but just couldn't get the shadowy mist out of the pictures."

To make artificial fog, the Marshes hook up an air compressor, the kind that inflates tires, to a garden hose. The air jets blow across a stream of water and split it into fog particles that fill the tent in three minutes. More water can be added to create a denser fog.

The Marshes' fog exactly duplicates natural fogs and what's more, inside the tent a light beam and photo cell can turn the machine on or off to keep the fog constant.

"The lights on cars and highways today, although efficient in clear weather, produce nearly the worst possible light in foggy weather," Marsh said. It's like this he gestured, "ordinary street lamps light up the fog," which in turn scatters the light "so that the driver faces a brilliant white cloud."

Standard headlights, mounted slightly below eyelevel, "force the driver to look down the light beam into a blinding hot spot of light." Thus with ordinary lighting much of the light smacks the driver in the face and blinds him so he can't see the road and can discern other cars only faintly.

The Marshes have devised a system they feel best improves vision in fog.

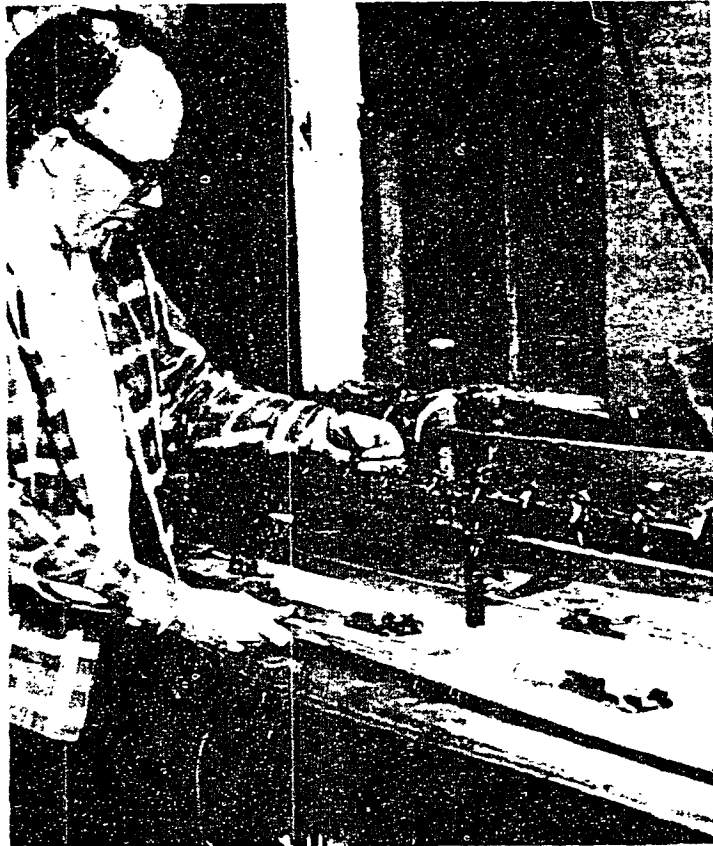
It consists of 300 watt lamp spotlights hanging overhead at 15-foot intervals. These send a narrow beam downward on the road at right angles to the flow of traffic. "This system lights up the road and not the driver," Marsh says.

State troopers usually do a double-take when they first see the Marsh car. Resembling a goggle-eyed monster it usually sports from six to eight headlights and four foglights which makes it very handy for chasing up and down foggy hills.

"Ordinary headlights should be turned off when you use fog lights," Marsh advised. "We found the most successful fog headlights should be mounted low beneath the bumper if possible." Although these can get knocked off," he said, proper styling could make them retractable.

More practical, he said is a clear-lensed powerful spotlight at about bumper height equipped with polarized light filter that filters out a part of the light and a polarized windshield filter that rejects all light from fog particles.

Another highway light the mist-matched pair have developed is a 8-foot panel of 200 watt fluorescent lights mounted low on the shoulder of the road or on the middle strip of a divided highway. The driver



IN HIS BASEMENT Marsh demonstrates a model of the fog lighting system he developed. It is now being installed on a stretch of the New Jersey turnpike.



PHOTOGRAPHER FOR the Foggy Duo, Mrs. Elizabeth Marsh poses in front of a moveable truck that travels the road in the fog tent.

looks across the beam, not along it and can even see speed limit signs clearly.

As a result of the Marshes' experiments one half mile of fog lighting installation is now being completed on the New Jersey turnpike opposite the lower end of the Newark airport. It includes 300 of the right angle spotlights and 60 of the fluorescent fixtures strung along a stretch of road where 40 per cent of the accidents which occur are due to fog.

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Glenn Terms 'Mono' 'Students' Plague'

Mononucleosis, a virus disease commonly known as "mono," could well be termed "the college students' plague."

The disease is extremely common among those between the ages of 18 and 24, said Dr. Herbert R. Glenn, director of the University Health Center. In fact, it's the most common disease of that age group, he said.

Mono was first noted by doctors about 1925 in infants and small children. Since then it has shown a tendency to be more prevalent in late adolescence and early adulthood.

Glenn said physicians do not know how the disease is transmitted. But he said the most likely means is by direct contact—by kissing and from eating utensils, for example.

"I don't subscribe to the theory that mononucleosis is brought on by overwork and not enough sleep," Glenn said. He said this common misconception probably arose because victims of the disease may "feel awful" for weeks before they actually get a fever.

Glenn also said the number of cases among University students varies greatly from month to month and from year to year. "Last year we had very few cases; this year we've had a great many. I don't have any explanation for that at all."

Mono is a virus disease affecting the lymphatic system (the tonsils, adenoids, and glands.) Early symptoms are tonsillitis and a swelling of the glands throughout the body.

Then comes a period of fever, which generally lasts five to seven days, but occasionally as long as three weeks, Glenn said.

Diagnosis of mononucleosis is confirmed by laboratory blood tests, and evidence that the virus is still present often can be found for several weeks after apparent recovery.

Glenn said there is no specific treatment for the disease. "Anti-biotics should not be given," he said. "They don't help." After the victim recovers from the fever stage he should get lots of rest and should eat a large amount of starchy foods for four to six weeks, Glenn said.

He summed up mono's progress as "slow in coming, an acute period, and then slow in leaving." But, he said, most cases don't recur after recovery is complete. "When you've had it once, you've had it," he said.

Service Tests Will Be Given

The Selective Service college qualification test will be held May 1 and applications are now available for registrants at the Dean of Men's office, 109 Old Main.

Any selective service registrant who is a full-time college student and who has not previously taken the test may apply. The 3-hour examination will provide evidence for the use of local draft boards in considering deferment of a registrant from military service as a student.

Applications for the test must be filed by April 11.

Those who miss the May 1 test will have no opportunity this school year to make it up, according to the dean of men's office.

LA Dean Will Host TV Show

Dr. Ben Euwema, dean of the College of the Liberal Arts, will host the University sponsored television program "Penn State: Men and Ideas" next week to be presented from 9:50 to 10 a.m. Monday, Wednesday and Friday over station WFBG-TV, Altoona.

On Monday he will introduce Dr. Samuel P. Bayard, associate professor of English composition. Bayard will discuss his collection of American folk songs.

Dr. Frederick R. Matson, assistant dean for research and professor of archaeology, will speak Wednesday on archaeology. He will exhibit several specimens.

Dr. Kent Forster, professor of European history, will discuss his 18-month stay in Finland and his visit to Russia on Friday's program. Forster has just returned from Finland where he was a Fulbright lecturer.

The University, with five other central Pennsylvania educational institutions, will offer for the second summer a series of programs to cover the fields of English, mathematics, and science which will also be presented on the Altoona station.

Superintendents of high schools in central Pennsylvania have been asked to encourage the formation of summer listening groups among their students for this series.

The program will consist of lectures, demonstrations and discussions presented by outstanding faculty members of the cooperating institutions, Indiana State Teachers College, Lock Haven State Teachers College, Juniata College, St. Francis College and Mt. Aloysius College.

WDFM Third Program To Offer Bartok Music

WDFM will offer two special features in its Third Program Sunday night.

G. William Henninger, professor of music, will discuss the music of Bartok, using recorded illustrations at 7 p.m.

Noel Coward's "Conversation Piece," a recorded play starring Noel Coward and Lily Pons, will be played at 10 p.m.

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