

NATIONAL GEOGRAPHIC

World

AUGUST 1977

Emergency Teams

Deserts

Underwater Band

Pinhole Camera



Emergency teams race against death



7:41



RESCUE WORKERS rush the patient to the helicopter. Its motor is running, and the pilot waits inside. It will take off at once.

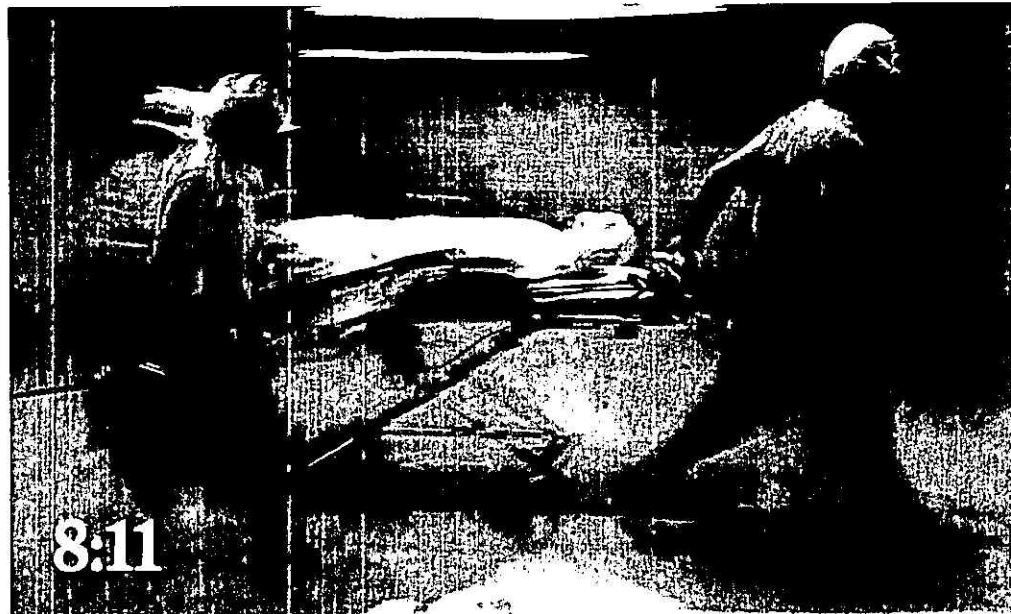
Baltimore. There people badly hurt in accidents can get the help they need to stay alive.

In the first few minutes, rescue workers use a network of emergency radios and telephones to help them rush the victim to the hospital. The ambulance driver makes the first call, to his headquarters. An operator there quickly relays the message to a helicopter hangar near Washington. State Trooper Robert Shappert answers the red emergency phone. He writes down the accident location—near Washington, D. C. Then he and Trooper Ronnie Glime run to their helicopter.

The helicopter speeds to the accident scene at 120 miles an hour. It lands right on the highway. Trooper Shappert dashes to the patient while his partner keeps the engine running. Together, Shappert and the ambulance crew put the patient onto a stretcher, give emergency aid, and rush him to the copter. It takes off at once.

Trooper Glime radios ahead to let doctors at the shock-trauma center know what to expect—and when.

"Helicopter 4 to SYSCOM. 10-76. ETA. 15 minutes. [In radio code, 10-76 means "copter on its way." ETA means (Continued on page 8)

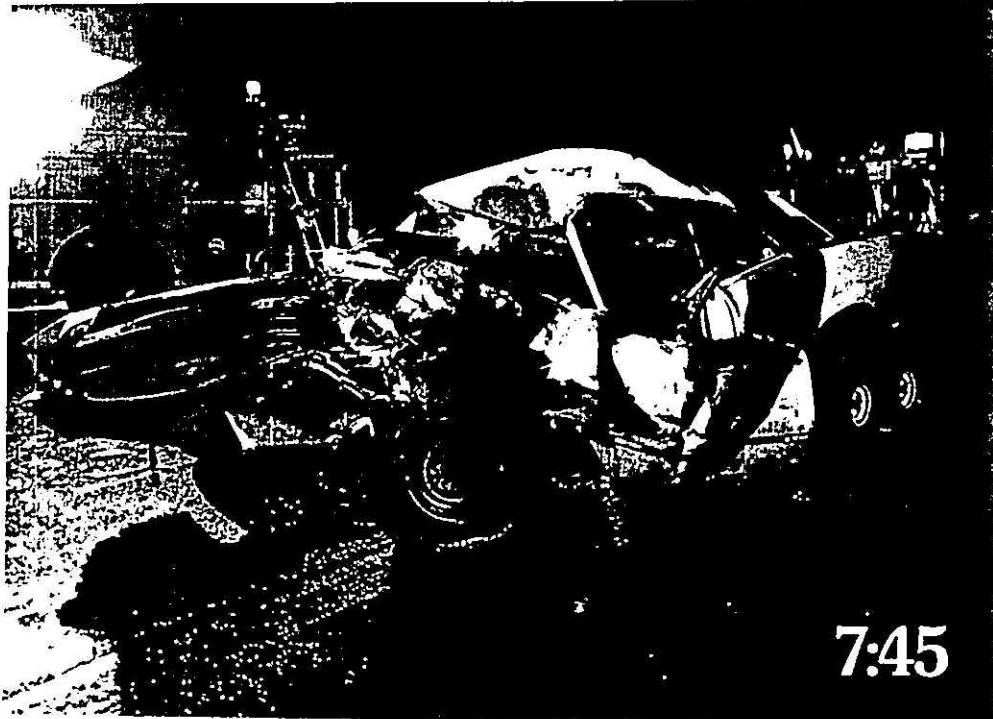


RACING ALONG A RED LINE, ambulance attendants and a doctor wheel the patient through the hospital (above). The red line is always kept clear for emergency patients.

DOCTORS PREPARE a patient for X rays, while nurses bandage an injured leg (right, foreground). In the background, another medical team treats a second patient. At the shock-trauma center, doctors work in teams of four or five. One team is always on duty.

TIREDDNESS SHOWS on the face of nurse Rosemary Pascale. It's the sixth hour of her eight-hour shift.

QUICK ACTION saves a life. Standing over a man just pulled from a wrecked car near Washington, D. C., a state trooper and rescue workers check him for injuries. Emergency teams will help this man get medical aid. The times on the pictures show how fast the teams work after a typical accident. Minutes can make the difference between life and death.



7:45

TWENTY-FIVE MINUTES after the collision of a bus and a car, a tow truck pulls the car off the highway. Clearing the road quickly may prevent another accident.

INJURED MAN lies on a stretcher (left). Rescue workers have already bandaged his head and put his neck in a brace. A state trooper stands nearby. He's asking police to clear a path so the man can be rushed to the waiting helicopter.

It is 7:20 on a rainy night. The highway is wet, slippery, and dangerous. Suddenly, tires skid on the slick surface. Brakes screech, glass shatters, and metal crunches as a car and a bus collide.

Within six minutes, an ambulance arrives. Two rescue workers check the driver of the wrecked car. His head is cut and bleeding. He's lost a lot of blood. He's unconscious, so they decide not to move him. "Looks like one for shock-trauma," says one of the rescue workers.

His partner runs to the ambulance and picks up a radio microphone: "This is 319 to headquarters. Request a helicopter to take patient to the shock-trauma center."

The real name of the shock-trauma center is the Maryland Institute for Emergency Medicine. It's a special medical center located in downtown



7:47



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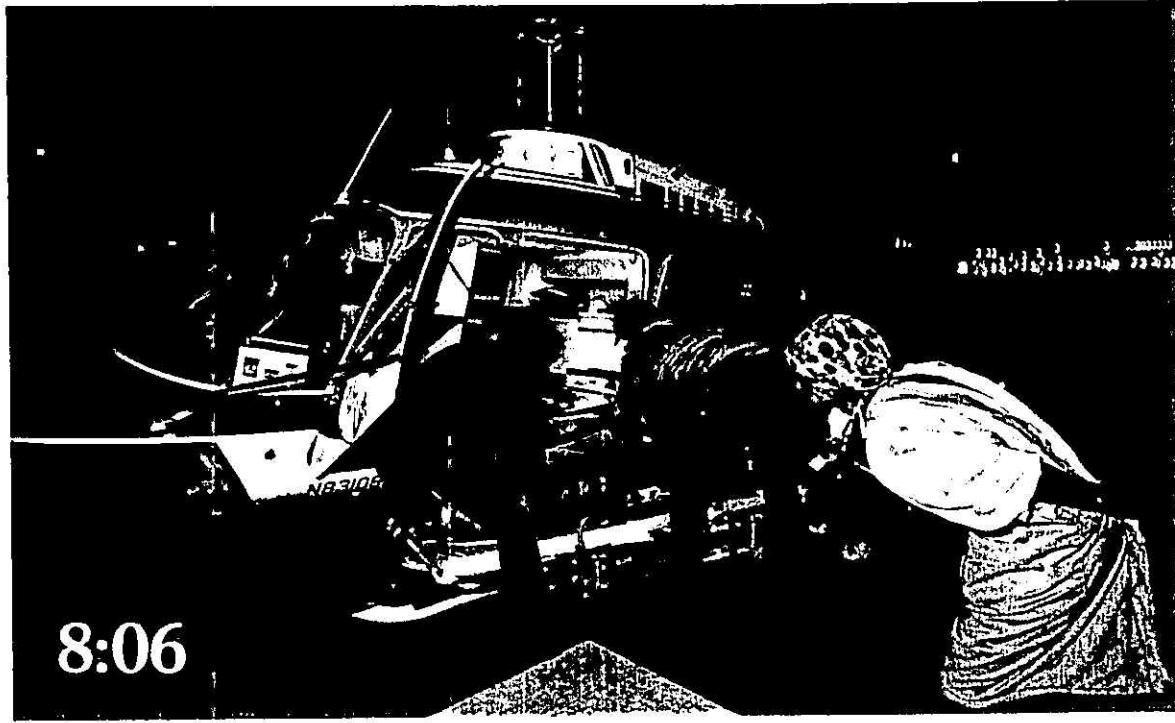
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7:51

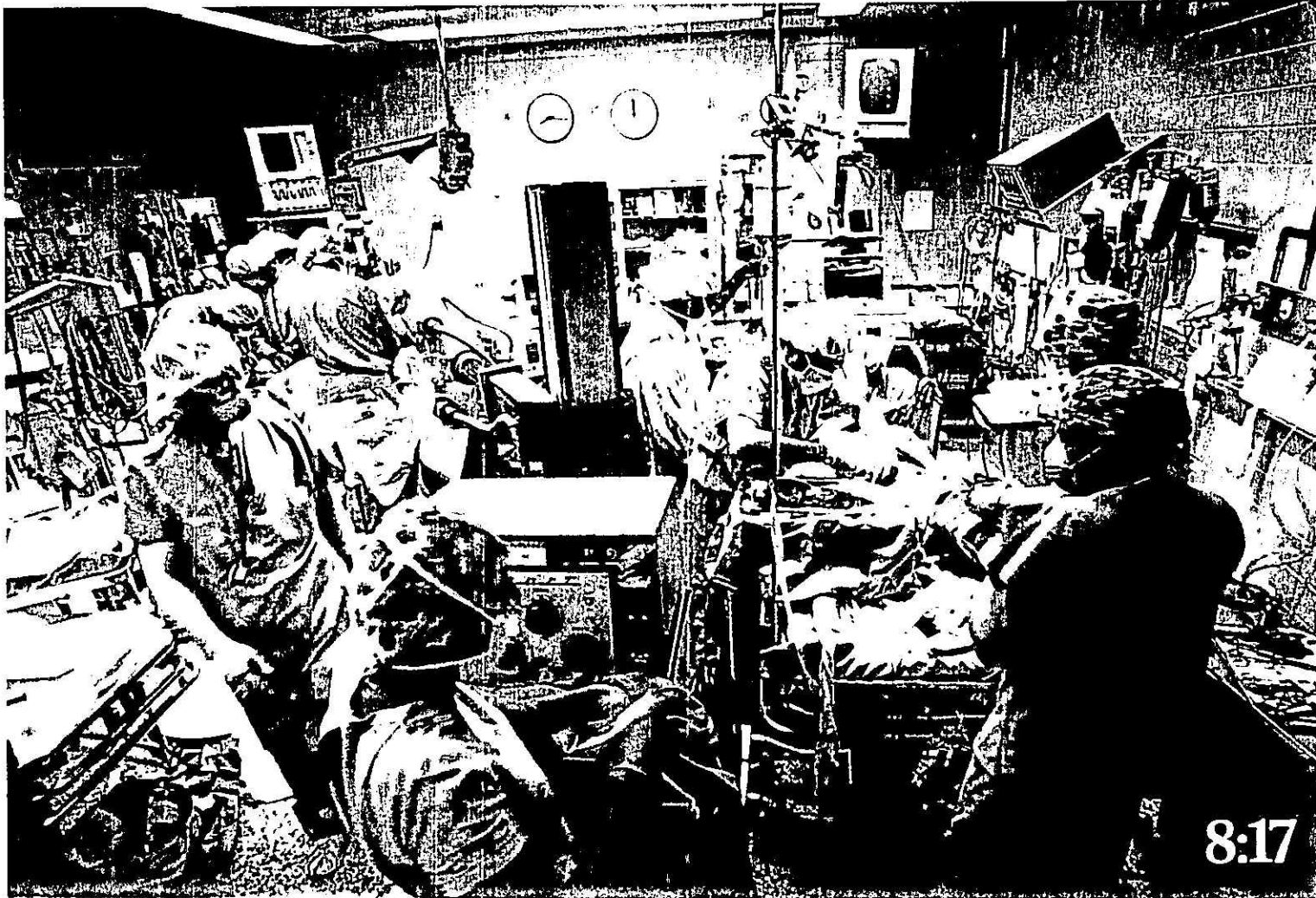


8:06

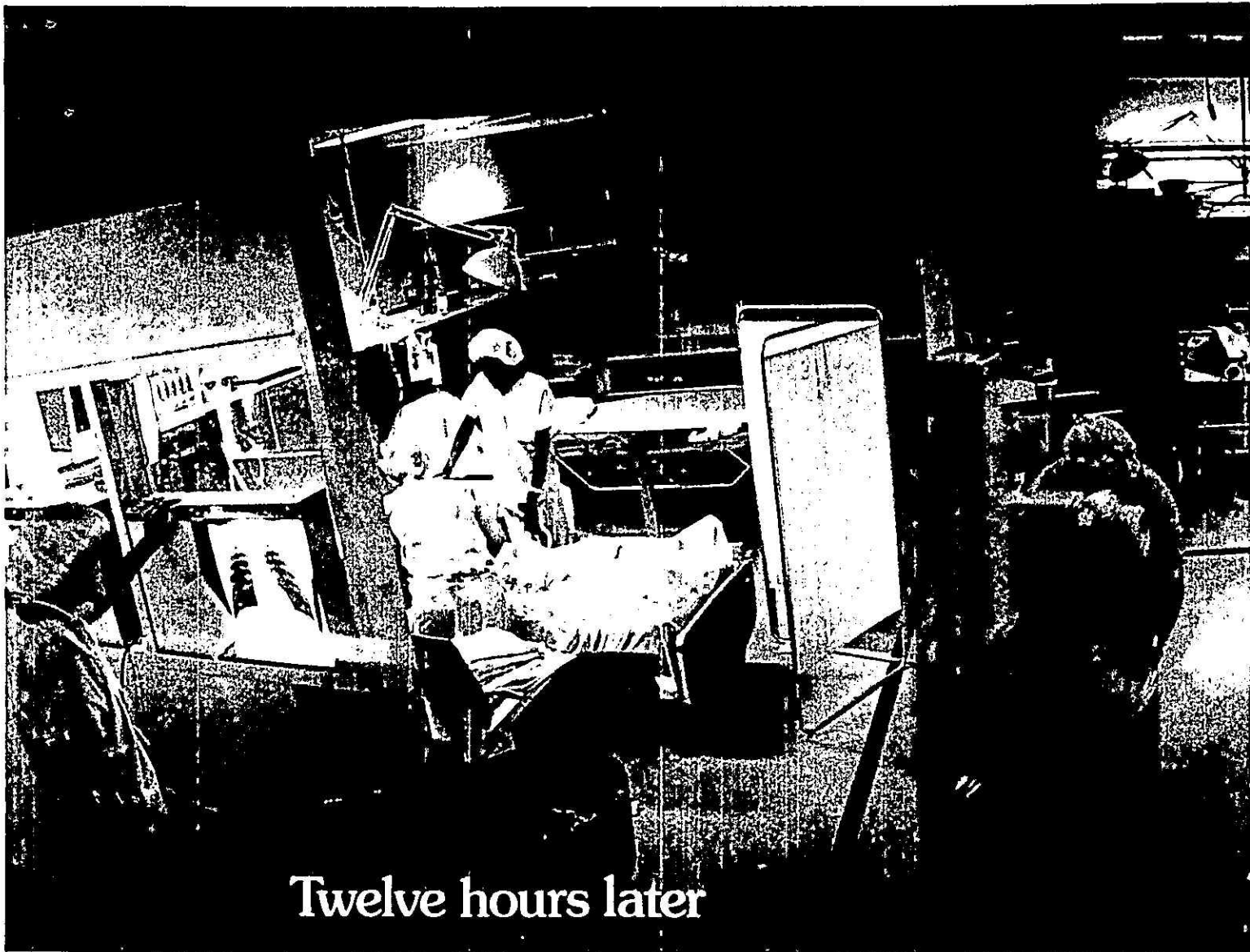
THIRTY-ONE MINUTES after the crash, a helicopter speeds the injured man to a special hospital, the Maryland Institute for Emergency Medicine. Many people call it the shock-trauma center. The pilot radios ahead to tell doctors about the patient.

THE HELICOPTER DOORS swing open, and attendants lift the patient out (above). They'll rush him into an ambulance for the five-minute ride to the shock-trauma center. The nurse at right and a doctor ride with the patient. When they reach the hospital,

the nurse runs ahead to tell the medical team about the patient's condition. The doctor stays with the patient. Today, helicopters land on the roof of a nearby building. Future plans include a bridge linking the roof directly to the center.



8:17



Twelve hours later

(Continued from page 6) "estimated time of arrival."] Patient has head injury. Possible neck injury. Broken leg."

SYSCOM stands for System Communications Center. An operator at the center takes the radio message from Glime and alerts the shock-trauma center.

When the yellow phone rings in the admitting room, nurse Betsy Kramer picks it up. She knows the ring means only one thing—a badly injured patient will be arriving soon.

The two nurses on duty quickly start unwrapping instruments for operating. At the same time, Dr. Carl Soderstrom alerts other members of the medical team. Dr. Soderstrom heads one of four teams that rotate on 24-hour shifts. Four or five doctors and medical students work together.

Every team member has special training in the care of accident victims.

"Everyone has a different job to do," Dr. Soderstrom said. "My job is to figure out what we must do to save the patient's life."

Nurse Kramer and a doctor dash to the helicopter landing pad on the roof of a parking garage nearby. An ambulance is already there—waiting. Within minutes, the helicopter lands. The doors open, and attendants rush the injured man into the ambulance.

When the ambulance arrives at the shock-trauma center, the nurse jumps out and runs ahead to the admitting area. There she tells the medical team what to expect: "He's in shock—pulse is weakening..." Before she can finish, attendants wheel the patient in. Doctors quickly surround him.

"Call a neurosurgeon to check that head injury," says Dr. Soderstrom. While one doctor tries to stop the bleeding, another doctor starts a blood transfusion. Assistants take X rays of the patient's spine and leg. Less than an hour after his accident, the patient is in surgery. When he wakes up ten hours later, his head is bandaged. His leg is in a cast. But he's going to get well. Just five days later, he goes home.

Eight out of ten patients brought to the shock-trauma center do go home. Without the speed and teamwork of the rescue workers, many of these patients would not be able to survive. Dr. R Adams Cowley, director of the center, is proud of his team. "We're knocking the socks off the death rate in this state," he says.



FROM A RAISED PLATFORM, nurses keep a constant watch on every patient in the 16-bed critical-care section. Compared to most hospitals, the shock-trauma center is small. It holds only 54 patients at one time. For its size, the center has an unusually large amount of life-saving equipment. It has three operating rooms, a 24-hour laboratory, and a staff of 100 people.

SMILING IN SPITE OF A CAST, Rusty Shaffer of Bladensburg, Maryland, goes home. Only people who are badly hurt come to the Maryland Institute for Emergency Medicine. Eight out of ten recover. The institute began in 1960 as a two-bed unit. The first hospital of its kind in the United States, it takes care of about 1,200 patients a year.

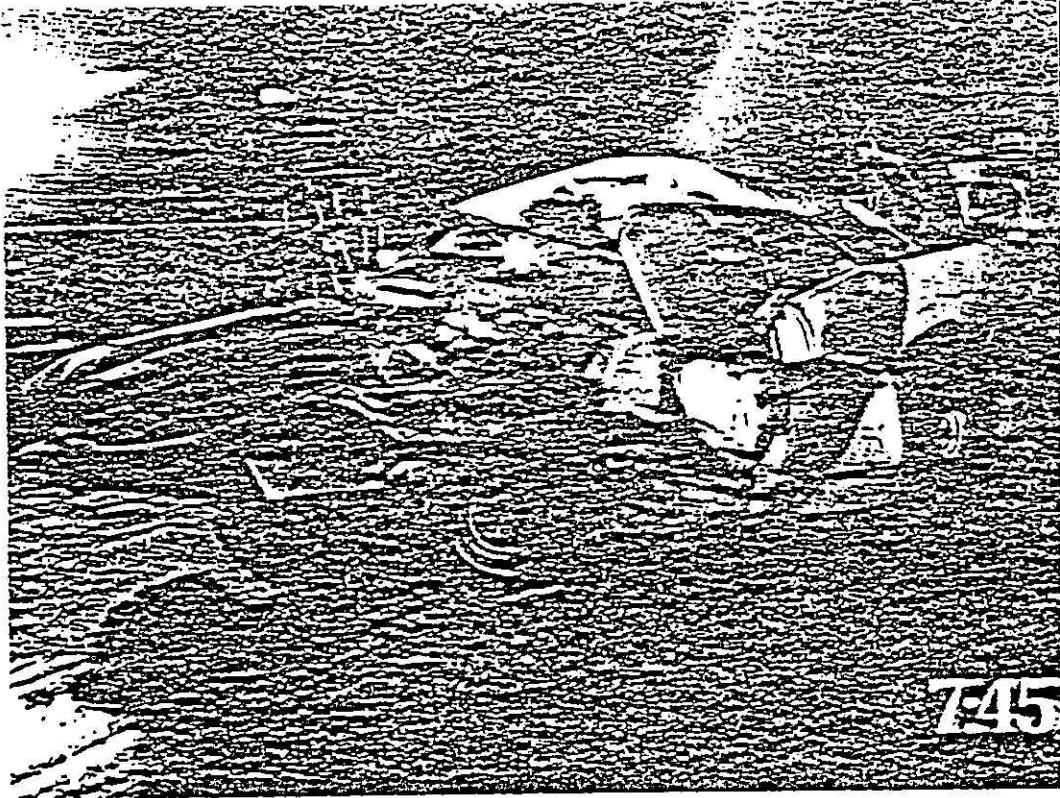


Five days later

Living with race against death



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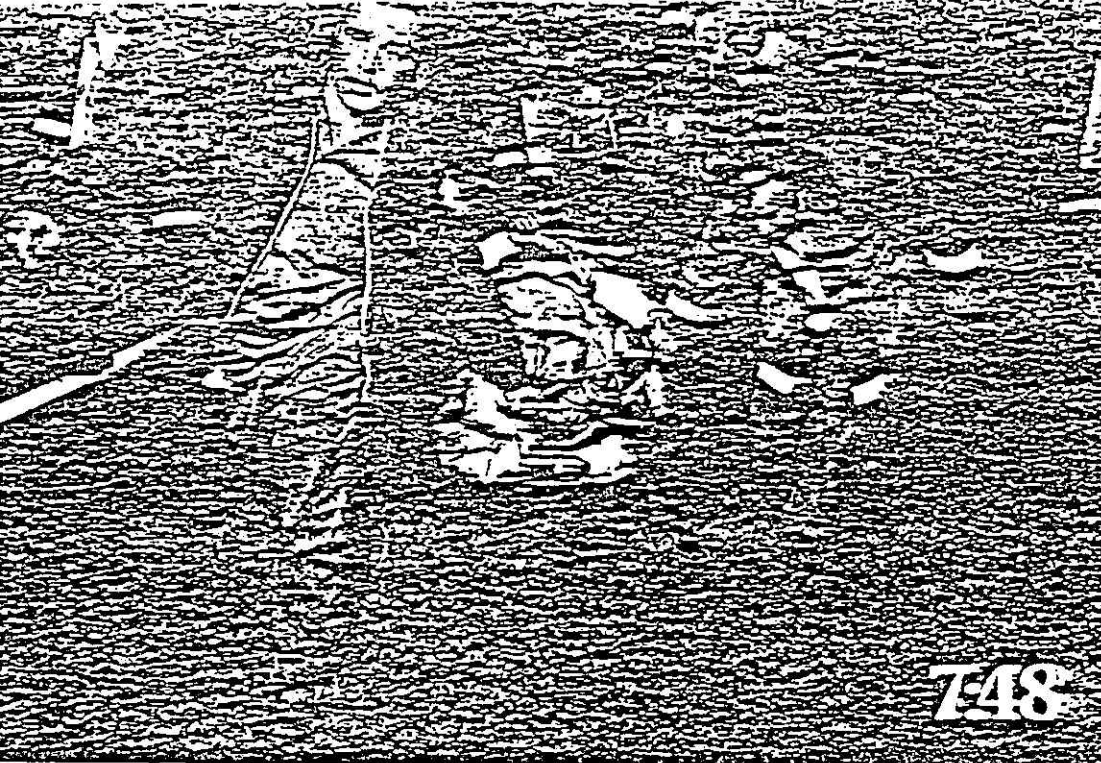
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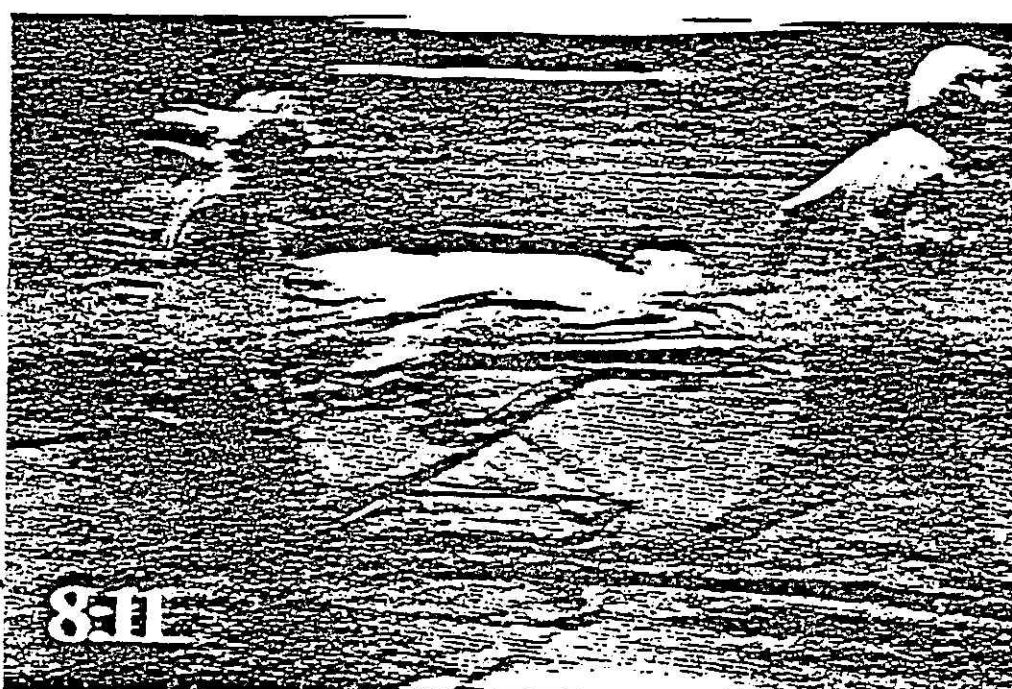
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8-11

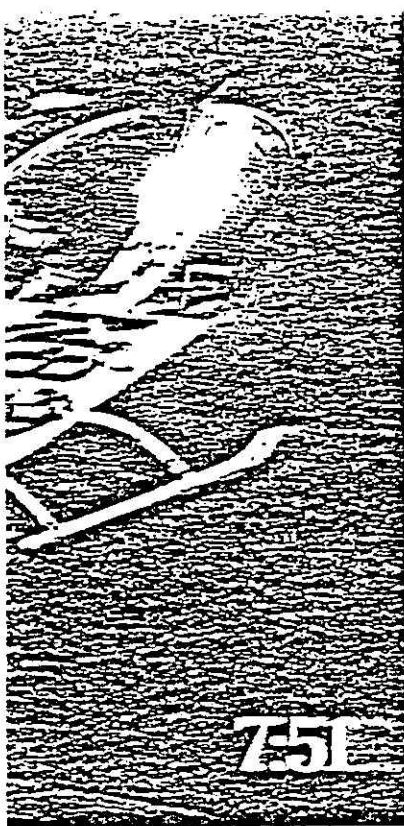


8-17

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