DECKER FIRE
AUGUST 8,1959
SOUTHERN CALIFORNIA
FIVE FATALITIES

The Decker Fire started on the Ortega Highway, three miles west of Lake Elsinore Village, southeast of Los Angeles, California. It was the result of an automobile accident which killed one person and critically burned another. It started at about 1800 hours on August 8, 1959.

Background Information

The Gough Fire had burned 120 acres northwest of the Decker Fire area three weeks earlier. Most of the personnel involved in the tragedy had been on the Gough Fire and had witnessed an abrupt wind direction change at about the same time of day as when it occurred on the Decker Fire. Both USFS and California Division of Forestry units responded to the Decker Fire. The USFS units from El Cariso Station (three miles up the Ortega Highway) arrived first and began initial attack on the uphill side of the fire. CDF units arrived shortly after, beginning their attack on the lower portion of the fire.

This fire occurred in 1959, well before fire-resistant clothing and fire shelters were mandatory. None of the firefighters involved in this accident were equipped with either fire-resistant clothing or fire shelters.

Topography

The fire area was bounded on three sides by relatively steep ridges. The "bowl" in which the fire burned was one of several along the Elsinore Front. The Elsinore Front is a series of low, but steep ridges and drainages facing Lake Elsinore, and capped by the main divide ridge (between the Pacific Ocean and the Hemet Valley) which is 3,000 feet high. The Elsinore Front faces east to northeast. The slope in the fire area is about fifty percent. The Ortega Highway ran across the top of the fire area with a grade of 8% from the Stinson Ranch to the Gough Burn.

Vegetation and Fuels

Fuels throughout the fire area were flashy, consisting primarily of chamise with ceanothus, rabbit brush, and some buckwheat and sumac. The ratio od dead to green was extremely high; unburned islands contained as much as 75% dead material.

Weather and Fire Behavior

Unusual weather and subsequent violent fire behavior were the direct causes of the accident. "Normal" weather for the fire area at that time included a sudden diurnal wind shift. In the summer of 1959, "Lake" Elsinore was a completely dry, barren mud flat about five miles long by two miles wide. On a clear day (as was the day of the fire) this flat acts as a giant heat engine, heating the air above the dry lake bed. This heated air rises vertically and is replaced by cooler air flowing from the west, over the main divide ridge. This downslope wind starts early in the afternoon and stops shortly after sundown, as the lake bed cools off.

The tragedy occurred shortly after sundown, at the time of the breakdown in downslope winds. Pushed by these downslope winds, the fire had traveled downhill, from the point of origin, about 1/2 mile, and was burning in a relatively flat area about 1/4 mile square. When the downslope winds stopped at about 2000, the sudden release of heat in the flat set up a large scale eddy which moved upslope to the southwest and developed into one or more extremely intense firewhirls. As the whirl moved up the drainage below the scene of the tragedy, it triggered the hot run up the spur ridge from Point A and immediately afterwards another run up the spur drainage from Point B. As these runs hit the road, they swung down the slope, following the area of flashy fuels above the sycamore and pine in the main drainage (from Point C towards Point D), and they swung north at Point E along the area of flash fuels to join the other two runs and cross the highway just north of the main drainage. The pattern of this whirl can be clearly traced on the ground. Chamise stems two inches in diameter were twisted off about two feet above the ground. The remaining stems were sandblasted completely smooth. There were no rocks left smaller than a softball where the main whirl crossed the ridge. Winds in this area undoubtedly reached 75 to 125 mph.

Strategy and Tactics

After an initial hose-lay to try to pick up the downward spread of the fire failed, all efforts were concentrated on keeping the fire below the road. The first CDF engine took over the lower, southeast flank of the fire, burning around the Stinson Ranch. Other CDF resources became involved with the lower side of the fire. This portion of the fire had run down canyon and then turned back in several places and burned uphill. It had jumped the road 1/2 mile below the Stinson Ranch.

The USFS resources on the fire numbered twenty-eight firefighters. A short stretch of the highway (200 feet) was successfully fired just prior to the arrival of the ranger (assigned as division supervisor) and the hotshot crew (Points F to G). The hotshot crew atttempted a flank handline on the edge of the fire (Points G toward E). This was abandoned, as the fire was spreading across the slope underneath them.

The ranger discussed strategy with the district fire management officer by radio (the DFMO was below the fire, coordinating activities with CDF). They decided that the ranger should fire the road (Points G to H), about .4 mile, to tie in to the Gough Burn.

Sequence of Events

The ranger assigned the assistant ranger and assistant superintendent of the hotshot crew, with two crewmembers, to start firing at the cut where the fire had burned up to the road (Point I). The remainder of the crew were to split up between the ranger and the hotshot superintendent. The plan was to move the crew and two small engines up the road about 200 yards (to Point J). There, they would split the forces, with the ranger continuing the firing up the road toward the Gough Burn, while the superintendent would fire the road back toward the two assistants. The ranger and other personnel involved in the firing operation, felt secure on the highway, considering it an adequate safety zone (this section of the Ortega Highway averaged 24 feet wide with occasional turnouts of 35 feet).

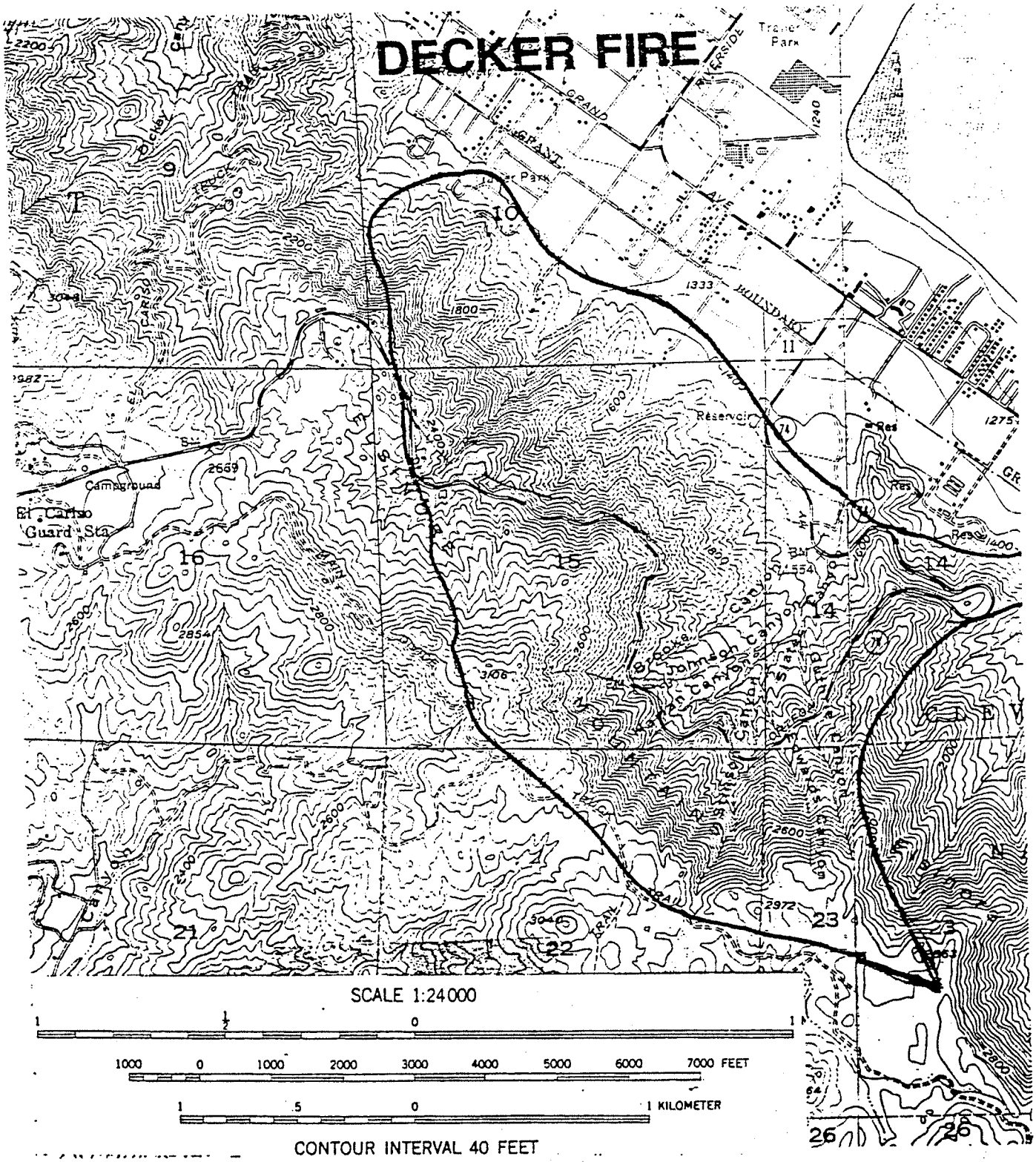
The ranger had been on the Gough Fire and had witnessed an abrupt wind shift just after sundown. He directed the firing operation with a sense of urgency, apparently intent on getting it finished before the winds shifted to upslope. In his haste, he nglected to formally assign a lookout for the division, nor discuss or identify alternate safety zones and escape routes.

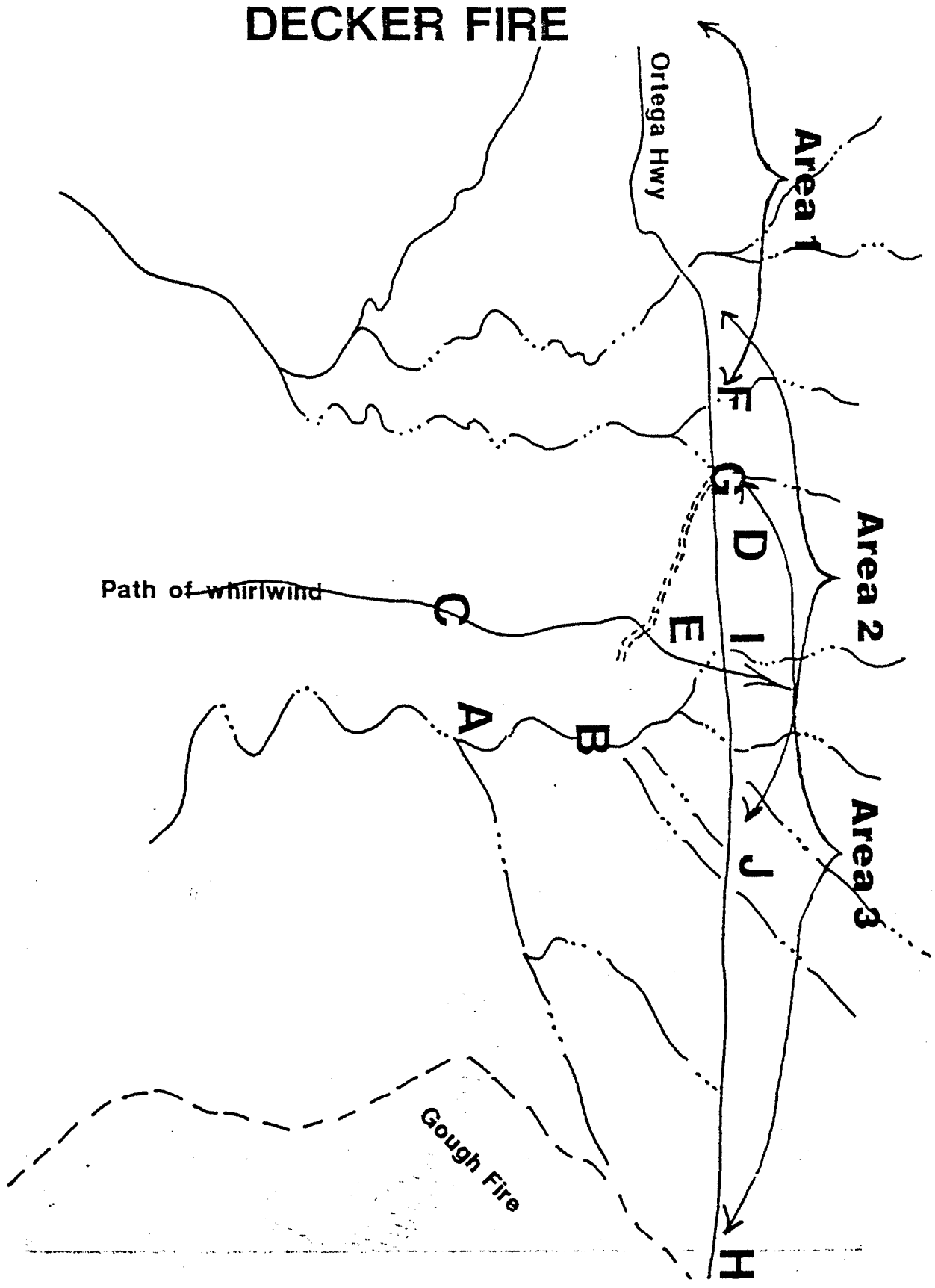
The ranger moved out at a rapid pace and started firing at the planned location, proceeding up the highway. The crewmembers had to run to keep up. The superintendent had trouble lighting his fusee, so he had not made much progress starting fire in the opposite direction. By this time the assistant ranger and assistant superintendent had fired about fifty feet. Up until this time the firing operation had been progressing successfully, being pushed by the downslope winds. Then the down canyon slackened and died. For perhaps half a minute the fire appeared to be "burning in a vacuum".

Several large firewhirls developed, creating exceedingly fast and hot fire runs towards the highway. As soon as the fire changed direction a general warning was shouted, first perhaps by the hotshot superintendent. It was only a matter of seconds after the warning until the fire reached the highway. Tremendous blasts of heat passed over the highway. In several places along the roadway, cut banks reflected heat back, turning the "safety zone" into a very hostile environment.

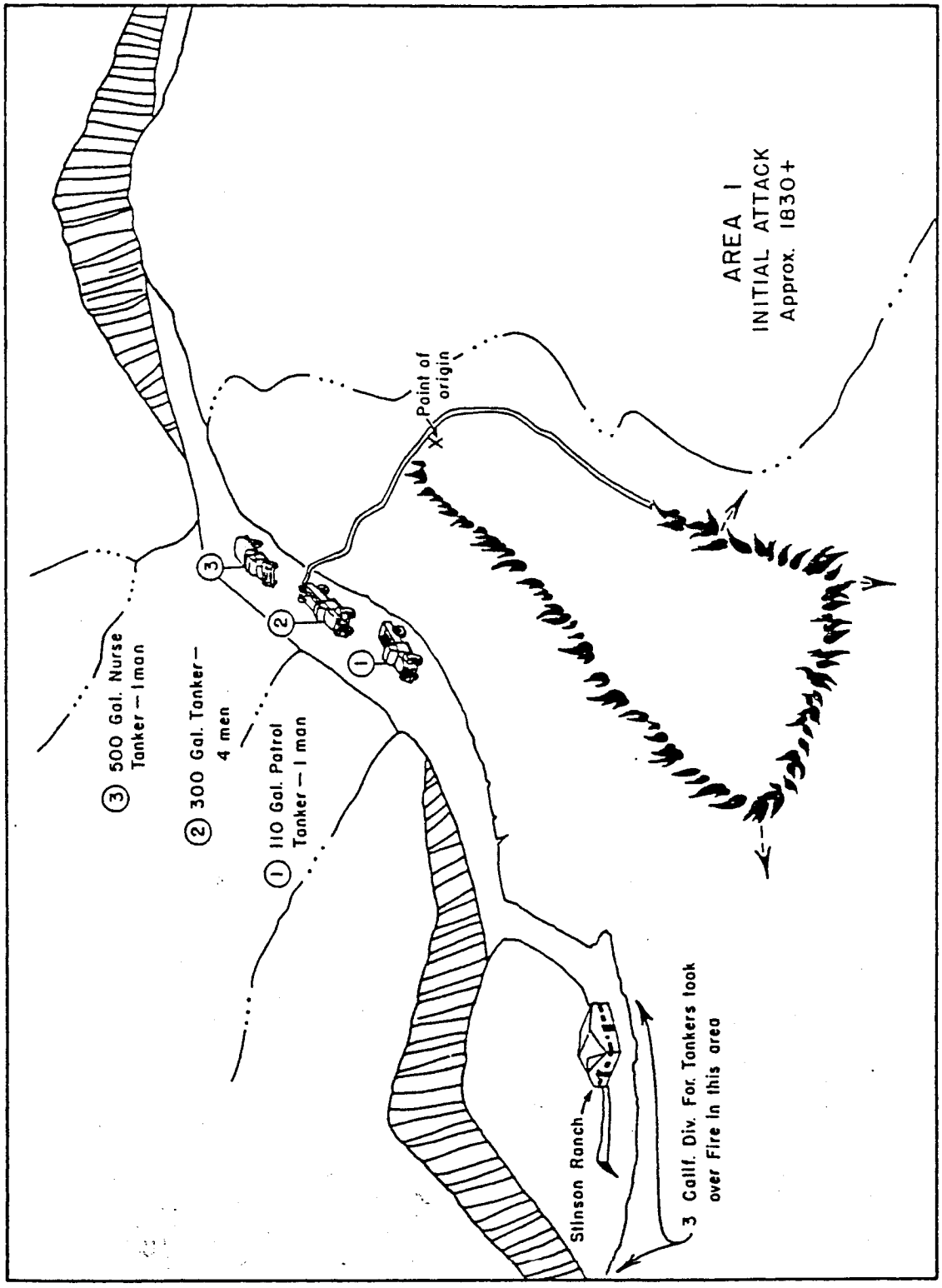
All of the personnel on the highway ran back in the direction they had come. The hotshot crew cook (who was waiting at the truck) moved it back down the highway to where the fire had already burned below the highway. The assistant ranger and crewmembers there had a short distance to travel to safety and experienced no difficulty. The crew in the middle experienced difficulty running through the smoke, heat, sparks and winds over 70 mph as they were caught in the center of the large whirlwind. Some of these suffered from

smoke inhalation and were shaken up; but none had any serious injuries. All of the personnel on the upper part of the firing operation were critically burned. Five of the seven, including the ranger and the supervisor of the small engine, died as a result of their burns. Two engine crewmembers (who were in the cab of the engine) were not injured in any way. As far as could be determined, the only evasive action taken by those who were burned, was to run down the highway and try to get inside the vehicles. In every case they were too late to avoid third degree burns on the face, hands, and on the upper part of their body where their shirts had burned.

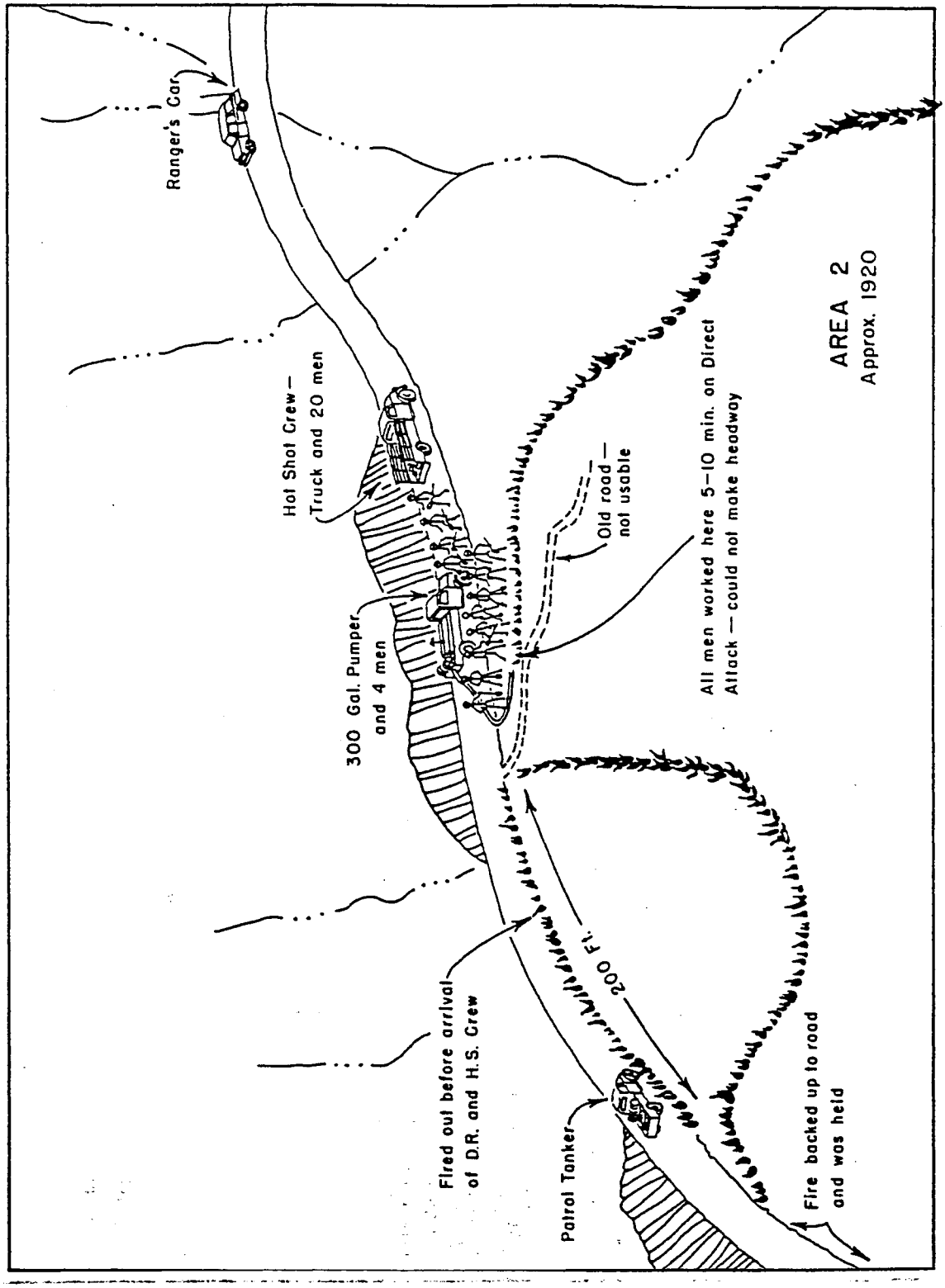

DECKER FIRE
SCALE 1:24000
1 0 1
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 .5 0 1 KILOMETER
CONTOUR INTERVAL 40 FEET


DECKER FIRE
Ortega Hwy
Area 1
Area 2
Area 3
Path of whirlwind
A
B
C
D
E
F
G
H
I
J
Gough Fire

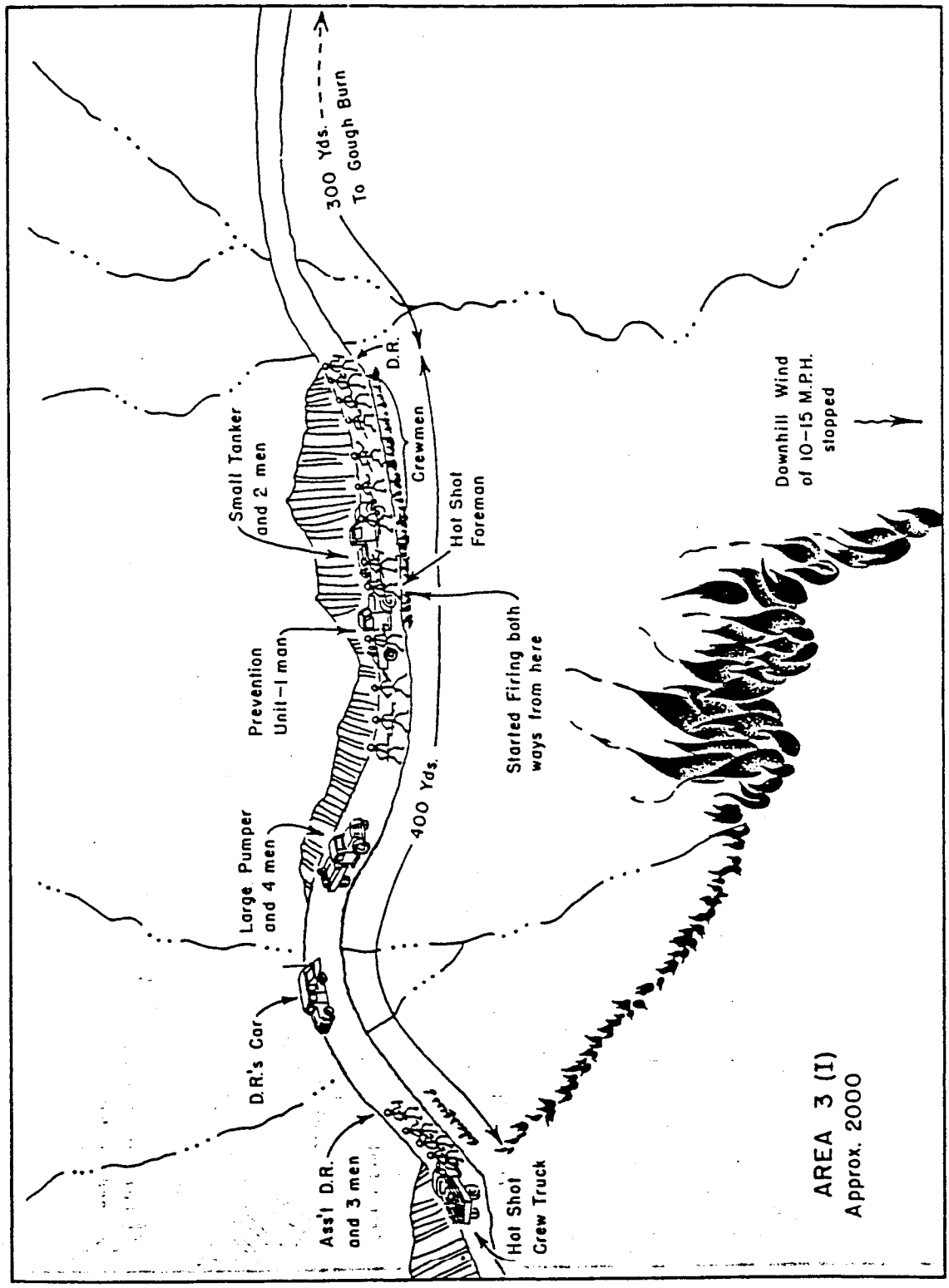
DECKER FIRE


AREA I
INITIAL ATTACK
Approx. 1830+
Point of origin
3 500 Gal. Nurse Tanker — 1 man
2 300 Gal. Tanker — 4 men
1 110 Gal. Patrol Tanker — 1 man
Silnson Ranch
3 Calif. Div. For. Tankers took over Fire in this area

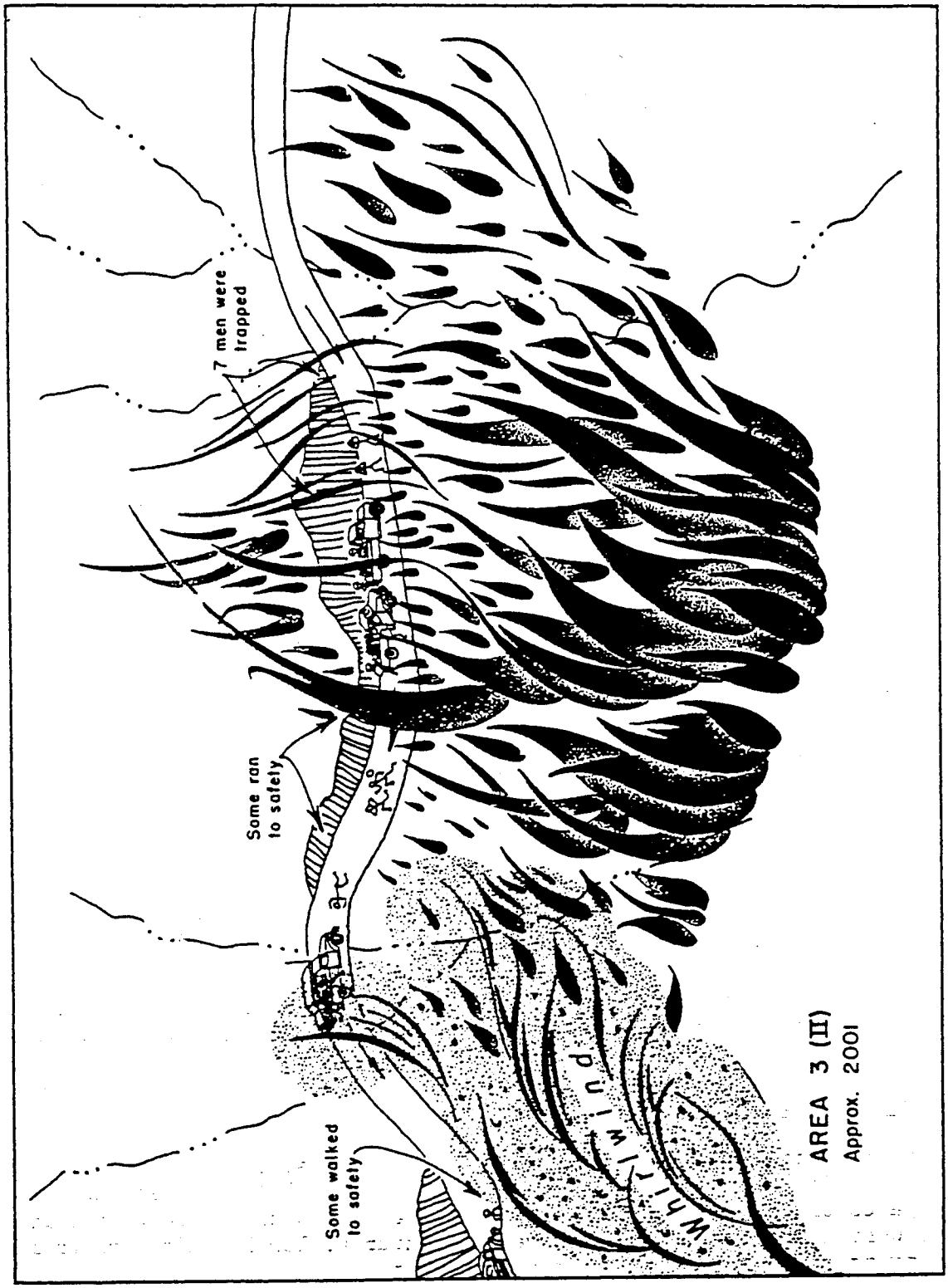
DECKER FIRE


Ranger's Car
Hot Shot Crew — Truck and 20 men
300 Gal. Pumper and 4 men
Old road — not usable
All men worked here 5–10 min. on Direct Attack — could not make headway
AREA 2
Approx. 1920
Fired out before arrival of D.R. and H.S. Crew
Patrol Tanker
200 Ft.
Fire backed up to road and was held

DECKER FIRE


300 Yds.
To Gough Burn
D.R.
Crewmen
Hot Shot Foreman
Small Tanker and 2 men
Prevention Unit–1 man
Started Firing both ways from here
400 Yds.
Large Pumper and 4 men
D.R.'s Car
Ass't D.R. and 3 men
Hot Shot Crew Truck
Downhill Wind of 10–15 M.P.H. stopped
AREA 3 (I)
Approx. 2000

DECKER FIRE


7 men were trapped
Some ran to safety
Some walked to safety
AREA 3 (II)
Approx. 2001