

OPERATION

GREEN

LIGHTS

TEST EVACUATION OF DOWNTOWN PORTLAND

September 27, 28 or 29

DISASTER RELIEF and CIVIL DEFENSE

PORTLAND, OREGON



FRED L. PETERSON, MAYOR

JACK LOWE, DIRECTOR

"EVERYBODY READY?"



(THE OREGONIAN EDITORIAL PAGE, TUESDAY MORNING, SEPTEMBER 27, 1955)



CITY OF PORTLAND
OREGON

7 December 1955

In Portland we believe the most feasible means of protecting our people in event of threat of attack is to move as many as possible out of the threatened area. Planning to implement this policy has been continuous for the past two years or more.

However, the first real test of our capability to move our people was "Operation Green Light", a limited evacuation test confined to approximately 1,000 blocks in the most congested area of the city.

It is my hope the attached report of this operation will be of value to those preparing evacuation plans in other metropolitan areas of the country.


MAYOR

FRED L. PETERSON
MAYOR

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JACK LOWE
DIRECTOR



TRINITY 1208

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DISASTER RELIEF AND CIVIL DEFENSE

2200 NORTHEAST 24TH AVENUE
PORTLAND 12, OREGON

7 December 1955

Mayor Fred L. Peterson
City Hall
Portland, Oregon

Dear Mayor Peterson:

Submitted herewith for your consideration and approval is a copy of the report on our limited evacuation test, "Operation Green Light". I feel this test added immeasurably to the civil defense evacuation capability of the City of Portland, and that it should be considered a success in all major respects.

I feel the test without question accomplished its principal objectives, which were:

- a. to determine whether we have a capability of evacuating our congested commercial area,
- b. to determine the effectiveness of our traffic-movement pattern and the use of mechanical means as the principal agent for traffic direction.
- c. to provide a basis of experience in evacuation procedures for responsible civil defense officials and for our citizens in the congested area.

I also feel the highest praise and recognition should be given to:

- a. the individual citizens of Portland who participated in the test for the wonderful support they gave and the marvelous manner in which they participated, particularly those thousands who walked out of the area under the most adverse weather conditions,
- b. the commercial and industrial interests of the city without whose cooperation and support the test would not have been possible,

- c. the local school authorities, public, parochial, and private, who cooperated to the fullest extent,
- d. all segments of the news and information media of Portland whose cooperation and assistance assured that the general public was made fully aware of the test and adequately informed of the details,
- e. the City of Vancouver, Washington, the seven counties immediately adjacent to Portland, and the State of Oregon, and in particular their Civil Defense staffs, for their cooperation and team work in both the planning and operations phases, and
- f. all our own City Departments, Bureaus, and Offices which have demonstrated their capability of working together smoothly and efficiently as an integrated, coordinated team, which is the fundamental requirement for successful Civil Defense Operations.

Respectfully submitted,


Jack Lowe

JL:pl

DISASTER RELIEF AND CIVIL DEFENSE
2200 N. E. 24th Avenue
Portland 12, Oregon

Evacuation Test
Memorandum No. 9

7 December 1955

Report on Operation Green Light

I. Objectives of Report

The objectives of this Report are as follows:

1. To present an over-all evaluation of the evacuation test held in the City of Portland on 27 September 1955,
2. To provide a ready reference and guide for this organization in planning for similar tests in the future, and
3. To furnish material which may be of value to Civil Defense planners of other areas in their own evacuation studies.

II. The Decision

During Operation Alert 1955, Mayor Peterson was informed that the lives of over 70,000 citizens of Portland had hypothetically been saved by our assumed capability to evacuate the city on three-hours' warning. The Mayor immediately raised the question of what was Portland's actual capability for evacuation. When informed this could only be determined by an actual test, and further that the major items in evacuation planning were completed, the Mayor directed that an evacuation of sufficient magnitude and scope to provide significant results be held with minimum delay.

Shortly thereafter a meeting was called, presided over by the Mayor, at which were present representatives of all Bureaus and Offices of the City Government which could contribute to or were involved in any phase



A2000-021.78

Two minutes after siren sounds, on-street vehicles are moving out in good order and building occupants are filling the sidewalk as they go to their cars or start walking from the area. (Oregonian Photo)

of evacuation planning and operations. At this meeting tentative dates and scope were discussed, and it was further determined that administratively and technically the City Government was prepared to conduct an evacuation test.

The Mayor next convened a meeting to which representatives of all segments of the life of the city were invited, such as commerce, business, industry, labor, the professions, the schools, the churches, the State and Federal Agencies. At this meeting the Director explained why a test was necessary, the probable magnitude of the test, and pointed out such a test would undoubtedly inconvenience, to more or less degree, many thousands of people, but that a test was imperative if Civil Defense were to know whether the traffic-movement plan was feasible and whether evacuation of Portland was a practical objective in Civil Defense operations. The reaction of this civic group was almost instantaneous and to the effect that not only was such a test necessary but was long overdue and should have been held months ago. It was pointed out that many problems would be raised by the test. The Mayor then stated that the test would be developed to minimize disruption of normal business activities, and that the Civil Defense Staff would work directly with each group if necessary to find answers to their particular problems. He requested all who were present to please return in two weeks after discussing the test and the problems it would place upon them with other representatives associated in their same lines of business or civic activities.

When this civic group met again two weeks later, with few exceptions, all reported the problems involved in their participation could be resolved within their own fields of endeavor.



A2000-021.79

"COME ON GIRLS LET'S GO"

Office workers evacuating. (General Petroleum Photo)

The following basic decisions were then announced:

1. An evacuation test of the congested downtown business area would be held at an unannounced time on the afternoon of 27, 28, or 29 of September.
2. The objective of the test would be to determine the capability of the government and the citizens of Portland to conduct an evacuation of the metropolitan business district. Maximum use would be made of mechanical traffic control devices.
3. The designated test area would include approximately 1,000 city blocks encompassing an area which under peak conditions could contain up to 200,000 people and 90,000 vehicles. This area in relation to the city as a whole is shown at Tab A.
4. All persons within the test area at the time of the test, including residents, workers, shoppers, and travelers, would be expected to terminate their normal activities and participate in the evacuation movement except for those who were hospitalized, physically infirm, performing essential public service, assigned custodial or security duty, engaged in industrial processes which could not be interrupted or performing necessary emergency services.
5. The test evacuation would be called "Operation Green Light".

III. Public Information and Education

It was recognized a principal element for a successful test was an effective public information and education program, a program which would saturate all information and news media both prior to and during an actual evacuation. Primary objectives were to inform participants what would be expected of them during the test, to encourage them to minimize inconvenience to themselves, to facilitate the test operation by intelligent advance planning and to create a desire on the part of the public to partici-

pate as a public service in assisting to determine the city's evacuation capability.

1. The Mayor's Letter

Perhaps the most effective single phase of the public information campaign was the distribution to each business house in the test area of a letter from Mayor Peterson urging each employer to plan the participation in the test of his establishment and to aid employees in their individual planning. This letter was accompanied by a small reproduction of the map showing the traffic movement pattern from the area and a brief information bulletin on the test. These are shown at Tab B. Approximately 10,000 were distributed free as a public service by a local advertising distribution agency. The effect of this was to create an instant and continuing demand for more detailed information and to create intense public interest in all succeeding news releases bearing on the test. At no time following this distribution was it necessary to seek other means of stimulating public interest in the test. Also largely as a direct result of this distribution and the ensuing public interest, radio, TV, and newspapers took a renewed interest in the test and were wide open for information or material.

2. Radio and Television

Both pre-test promotion and coverage of the test by radio and television stations were on a competitive basis. No meetings of station representatives were called, and no specific requests were made to the stations individually or as a group at any point in the operation.

The alternative plan adopted was to keep each station advised, through personal contacts, of the publicity needs of the moment, and to follow through with them individually on their proposed activities. The us-



↑ E plus
1 minute

General Petroleum
Parking Lot

↓ E plus
5 minutes



ual procedure was thus reversed, and an estimated 90 per cent of the radio and television activity was in response to specific requests from the stations to the Civil Defense Bureau. While no actual comparison is possible, it is the consensus that more radio and television co-operation was thus obtained than would have resulted from an attempt to commit all stations in advance to specified activity.

Initial approach was through a personal letter to the manager of each station outlining plans for the test, noting the public demand for detailed information, pointing out possible effects of the test on station operation and offering all possible aid in meeting problems resulting therefrom.

This was followed up by personal calls and distribution of a kit containing copy for promotional and informational spot announcements, a list of suggested interview topics, and memoranda and information materials for the use of news personnel and management. This material was offered for such use as the individual stations might have occasion to make of it.

Use of the spots began two weeks before the test, and reached a peak of near saturation on most stations during the final week. All stations were provided with a packet of special radio news stories, a page or less in length, for use each day on newscasts during the final week.

The weekend before the test, especially transcribed messages to the people of Portland from Governor Patterson and Administrator Val Peterson were circulated to radio stations. These recorded statements

were used the first day in newscasts and subsequently as transcribed spots.

At the time of the test, 11 of the 13 Portland radio and TV stations broadcast an especially prepared announcement for use at the sounding of the test signal. Two radio stations originated remote broadcasts from CD headquarters during the test. Two others had newsmen stationed in CD headquarters to provide periodic reports for listeners by telephone. One station had arranged for remote broadcast from a helicopter during the test, but this was washed out because of bad weather. KPTV (NBC) TV fed a four-minute segment, live, to Camel News Caravan. KLOR-TV and KOIN-TV interviewed Civil Defense personnel on broadcasts following the test.

Civil Defense personnel appeared as guests on five radio programs, and seven TV programs prior to the test. The principal reason more radio and TV time was not utilized prior to the test was because of lack of personnel in this office to write, produce, and distribute material.

3. Newspapers

The necessity of conveying detailed information and a fairly complex plan of operation to a large segment of the public made the newspapers the most important media for the information phase of the campaign.

The first stories, headlined on the front pages, appeared immediately following the decision in July to hold the test. At this time, one paper editorially opposed and one editorially approved the test. It is significant the one which originally opposed plans for the operation editorially called for all-out public cooperation just prior to the test. Both papers gave editorial commendation following the



A2000-021.82

Morrison Bridge, 3:15 P.M. (Bucktel Photo)

test.

The daily use of questions and answers on the test, prepared by CD personnel, was begun by both papers two weeks in advance. On the Sunday preceding the test, both papers carried detailed stories and pictures covering over-all arrangements for the test and stressing the importance of individual planning. Both papers gave all-out coverage to the test itself, assigning all available staff writers and photographers to the story.

4. Other Media

Newspapers outside of Portland were serviced with stories in advance of the test. These stories emphasized the possible effects on nearby communities and warned visitors that incoming traffic would be stopped outside the test area.

Business and trade publications and house organs were serviced with stories slanted toward their specialized readership.

Handbills warning travelers of traffic restrictions during the test were distributed through railroads, airlines, chambers of commerce, motels, and were given to motorists by traffic officials outside the test area.

Posters calling attention to the forthcoming test and urging participation were displayed in downtown stores and public buildings during the week preceding the test. These posters were designed and distributed by Oregon State Civil Defense public information personnel with assistance from the regional office of FCDA.

The Portland Retail Trade Bureau was of major assistance in distrib-



A2000-021.83

Looking South on Front Avenue, 3:25 P.M. (Bucktel Photo)

uting information to members.

All members of the CD staff appeared many times before civic groups outlining the objectives of the test.

5. Conclusions

All evidence indicates the public information campaign for Operation Green Light succeeded in making the public aware of the test. The reports of observers fail to show any evidence that the public was not adequately informed of details. Thus the information phase of the campaign must go on the record as adequate.

The effort to induce potential individual participants to plan in advance their own part in the evacuation test was successful to a degree, as shown by the increase above the normal in the number of passengers per vehicle. This must be attributed, at least in part, to an intensive effort to have participants without cars arrange for a ride with a friend, neighbor or fellow worker.

Efforts to inspire a desire to participate on the part of the public were less successful. More could and should have been done toward this end. Evidence of this failure was the extent to which those who knew, or suspected, the time of the test left the downtown area ahead of the signal. The adverse weather may have influenced this result. It might be said at this point that the attempt to maintain the element of surprise of the test was not too successful. In our efforts to minimize disruption to essential activities and to assure the support of outside agencies would be available, approximately 25 individuals were given the exact time and date 48 hours prior to the test. It was quite evident the confidential nature of this advance



A2000-021.84

Seventeen minutes after sirens sound. The last vehicles from the congested heart of the City move South on Broadway. (Oregonian Photo)

information was violated in a few cases, to the extent the word got around rather quickly on test day. In addition, the movement of essential emergency vehicles into the area also tipped off many persons the test was soon to commence. We feel that a maximum effort should be made to maintain as much surprise as possible, and in any future tests we feel we will be able to accomplish this to a much greater degree than we did in Operation Green Light. We found for instance that many agencies who felt they had to have advance information were affected to such a small degree by the test that in future tests they will be able to operate with no advance warning whatsoever.

Our most effective appeal for co-operation was that the test would perform an important community service. That this appeal was effectively made is evidenced by the extent to which actual participants conformed to Civil Defense regulations, requests, and suggestions.

What might have been done, and was not done, was to solicit and obtain the active support of a preponderance of community and organizational leadership, and to form a citizen's committee to mobilize public support. Time and personnel were lacking to carry out this function during the season when most clubs and organizations had suspended activities for the summer. In event of another such test, this mobilization of civic organizations and leadership in its support should be undertaken prior to the public announcement of the test. Such citizen support should be so organized that its campaign can be carried out concurrently with, but separately and independently from the information campaign, which is the responsibility of the Civil Defense Agency.

Proofs of a kit prepared by FCDA for assistance to cities planning evacuation tests were received during the campaign too late to be utilized for this operation. The kit is well prepared and should be utilized early in the planning stage of any future test.

IV. Traffic Movement and Control

Basically this exercise was a test of our traffic-movement pattern and traffic-control planning.

1. Traffic Movement Pattern

It was realized early in evacuation planning that the first bottleneck facing us in the event of a daytime alert was the movement from the congested downtown commercial area. We knew we must be able to make the best use possible of whatever warning time we were to receive; and that this required a plan which would initiate movement with minimum delay and empty the congested area with minimum cross traffic, thus enabling the maximum number of people to move the greatest distance in the shortest time. This rather formidable problem was presented to our Traffic Engineer as the first requirement in the development of an over-all basic evacuation plan.

He then started doing the things Traffic Engineers do and shortly came up with a plan, which after some changes and revisions resulted in the traffic-movement pattern for the congested area as shown on the map at Tab B (3). This traffic pattern provides for a continuous movement outward from the congested area without cross traffic. The existing one-way grid already in use in downtown Portland greatly simplified the development of this movement pattern. The Traffic Engineer also felt it was most desirable that maximum use should be made of traffic signals to direct evacuation movement, feeling it was a need-



A2000-021.85

“THE MAIN DRAG”

Looking South on Sixth Avenue, 3:30 P.M., 27 September 1955. (Oregon Journal Photo)

less waste of existing mechanical aids if they were not used, and that less confusion to motorists would result if during an evacuation movement they could continue driving in as normal a manner as possible. Also, use of traffic signals in evacuation would minimize man-power requirements. Our Traffic Engineer's recommendations in these respects were accepted and a modification was made of the traffic-light system affecting 181 intersections in the congested downtown area. Now, upon the closing of two switches, traffic lights at these 181 intersections can be instantly converted into a fixed pattern of steady red and green. To leave the congested area a motorist simply goes straight through at a green light and turns with the flow of traffic at a red light. This will quickly lead him from the downtown area without cross traffic at any intersection.

In Operation Green Light we feel the signals contributed materially to the smoothness of the Operation. A few Police Traffic Officers were stationed at critical intersections and bridgeheads downtown where major turning movements or blending of heavy traffic lanes occurred, but the majority were used on the edges of the test area to stop or divert incoming traffic. At most of the downtown intersections no Traffic Officers were used and reliance for control was placed entirely upon the traffic signals. We feel they have shown themselves adequate to do the job. In fact, all new signal installations in the city from now on will be initially wired for instant conversion to the evacuation pattern. We also hope to extend the modification to all remaining existing signals throughout the entire city to fit them into the evacuation pattern also; our ultimate objective being a capability to instantly convert all traffic signals in the city into the ev-

acuation movement pattern.

As for the traffic pattern itself, it was evident during the test that traffic did not choose to move exactly as we anticipated. This resulted in overloading of a few streets and one Willamette River bridge in particular. It also resulted in some streets not carrying their full share of the traffic, and in one bridge practically being not used after the first few minutes of the test. The remedy is not too difficult, and can be accomplished by changing the traffic pattern so less choice will be given the individual motorist in selecting routes from the area. A better distribution of traffic will thus result. This means our final approved traffic-movement pattern for the downtown area will be different in some respects from that shown. Notwithstanding, in this operation the test area was reported clear of vehicular and pedestrian traffic at 3:44 P.M., an elapsed time of 34 minutes after the sirens were sounded. Instructions were then given to lift all roadblocks and this was done simultaneously with sounding of the test "all-clear" fifteen minutes later at 3:59 P.M.

In furtherance of the signal modification plan, it should be noted that upon conversion all pedestrian signals are turned off. In addition, the amber lights on all signals flash on and off continuously; this continuously flashing amber light being in itself a supplemental warning device that an evacuation movement is in progress. In Greenlight, this flashing amber light appeared to confuse a few motorists, who were observed slowing down or stopping, then moving through a red light rather than turning with the flow of traffic. We must decide whether or not this flashing amber should be retained. Our feeling



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Looking North on Second Avenue, 3:30 P.M. (Bucktel Photo)

as of now is that we should retain the flashing amber with the green lights as a supplementary evacuation signal, but not use it with the red lights because of the confusion it may cause some motorists.

Also, very early in our evacuation planning it was evident the entire evacuation movement eastward across the Willamette River bridges could be stopped if a single vessel should happen to be entering or leaving the Port when the evacuation movement began. Consequently we requested, through channels, from the Corps of Engineers, U.S. Army, authority to hold all bridges within the city closed against all river traffic during civil defense emergencies. This request resulted approximately one year later in an amendment to the General Bridge Regulations of the United States which now authorizes any Civil Defense agency to hold bridges over any navigable water in the United States closed during civil defense emergencies. This amendment was subsequently announced in FCDA Advisory Bulletin 189, dated 5 July 1955. Further, our local U. S. Army District Engineer interprets this regulation to apply during evacuation tests.

2. Traffic Control

As already mentioned, except for a few critical intersections and bridgeheads, special traffic control measures were not established within the test area. The traffic signals set the movement pattern and, with few exceptions, an informed and interested public conformed to prior instructions to follow the pattern, to drive carefully, and to take special precautions for pedestrians who would be moving along with and across through evacuation routes without benefit of pedestrian signals. Most available city Traffic Officers reported to the principal intersections on the outer limits of the test area to stop

and hold or divert incoming traffic. At all other intersections on the outer limits of the test area, employees of the Public Works Department placed barricades to halt incoming traffic, and directed traffic as required. The accompanying picture shows these barricades. Also, at non-signalized intersections within the test area where turning movements were required, Public Works employees placed barricades indicating direction of turning. This was done to expedite the test, and it is recognized they introduce some artificiality inasmuch as Public Works employees would not normally be available to perform this function. We have since decided this is a proper function for the Auxiliary Police Service. This group will now be given the additional mission of arranging for permanent storage of barricades in immediate vicinity of intersections where required, and further arranging with persons normally in the area to place the barricade in proper position when the evacuation signal sounds.

At the same time, co-incident with sounding of the Operation Green Light Signal, the Police authorities of Vancouver, Washington, the sheriffs of seven adjoining counties, and the State Police all established road blocks to stop or divert all vehicular traffic moving towards Portland in accordance with the existing State Traffic Control Plan.

This most important phase of the operation worked extremely well. Incoming traffic was halted very quickly and the effect was noted within the city, and particularly within the test area, almost instantly. It is quite evident a major factor contributing to an efficient evacuation movement is the capability to quickly stop or divert incoming traffic. In Operation Green Light this was done, and we express our



A2000-021.87

Barracades like this were placed at 112 intersections by employees of the Department of Public Works to stop or divert incoming traffic at the perimeter of the Test Area. (Oregonian Photo)

sincere appreciation to the Police authorities of all the political subdivisions in the target area and to the State Police for their most wholehearted co-operation and assistance.

Traffic control operations were directed principally through regular Police Radio channels to mobile units in the field. This was augmented by two helicopters provided by the 41st Division Army Aviation of the Oregon National Guard carrying Police Traffic Officers as observers. These helicopters each operated on two radio nets, one connecting the pilot to the Civil Defense Control Center for co-ordination of all aircraft in the operation for air safety purposes, and one net linking the Police observers directly to Traffic Control Headquarters in the Police Station. Portland Police authorities agree that light aircraft or helicopters, with adequate communications, are extremely useful as an aid in traffic control and direction. Incidentally, the two helicopters used for traffic control were the only aircraft of 13 scheduled for use in the operation which could be airborne due to the inclement weather. They operated at 400 feet altitude.

Within the city beyond the test area and outside the city limits for 15 or 20 miles, all vehicles inbound which were slowed down or stopped were given a warning notice such as shown at Tab C. Farther out to a distance up to 60 miles all vehicles coming toward Portland were stopped and given a notice such as shown at Tab D. No incidents or significant evidence of non-co-operation were reported from any area. Following are some extracts from reports of outside Police agencies:

Oregon State Police

"The pamphlets were retained by the motorists as none were found strewn



A2000-021.88

State and County Police joined in establishing road blocks outside the City Limits. All incoming traffic was stopped or re-routed. (Oregonian Photo)

about. Traffic stopped in outlying areas comprehended most readily. Public reaction in general was favorable."

Washington County

"The officers handed leaflets to motorists and urged them to avoid the center of the city during the test period. Motorists were uniformly friendly and disposed to co-operate. Only one man growled about monkey business. The Sheriff is well pleased with the test and reports that his officers expressed themselves favorably regarding it. He feels that the leaflets were very much worth while."

Vancouver, Washington

"No congestion was created in this city by the exercise as officers encountered a most co-operative public."

Clackamas County

"Checking with officers in charge found that they appreciated the fine co-operation they were receiving from the driving public. There was some amazement, not just from the co-operation given by the public, but by the safe and sane way they were driving their vehicles. Had a meeting last night of the Police Officers and Reserve Deputies that participated. It was their collective and individual opinion that the entire operation was a success, and in asking them if they would, under the same conditions, do it again, they were 100 per cent for co-operation at any time."

Gladstone, Oregon

"All motorists who were northbound on Highway 99 E were stopped and advised of the evacuation and the best route to their destination. The vehicle operators were very co-operative and took routes advised by Police Officers without objection. There was very little congest-

ion and no auto accidents although it was raining very hard and the pavement was very slippery."

From a Private Citizen

"With the siren, at 3:10 P.M., evacuation started promptly and efficiently. Seemed to me as everyone knew what was expected and co-operation was excellent. Very few people required an explanation of what was going on. A friendly rivalry existed for getting out. I had no difficulty in walking from 6th and Alder to my car which was parked at 4th and Taylor.

"I drove directly down 6th Street toward the south and Barbur Boulevard. The traffic was orderly and the junction into the main stream was very efficiently handled by three patrolmen from the Police Department. I believe that the juncture was made with greater ease than I encountered after the Oregon State-Stanford football game when the highway was loaded with Corvallis traffic. Passed junction on U.S. 99 W where incoming traffic was halted. Everything impressed me with its orderliness and perfect control. Traffic peeled off both sides of 99 W once the outskirts were reached. I peeled off at Taylor's Ferry Road and proceeded home.

"My wife is a teacher at the Failing School. That evening, she reported that the release of the children by the school was extremely well handled and the traffic control by Police in permitting the children to get home was superb. She drove from the Failing School, joined the exodus from the target area, and arrived home faster than she has ever been able to do with the routine evening traffic. Her comments like mine were that she could not say enough for the Police traffic control.



A2000-021.89

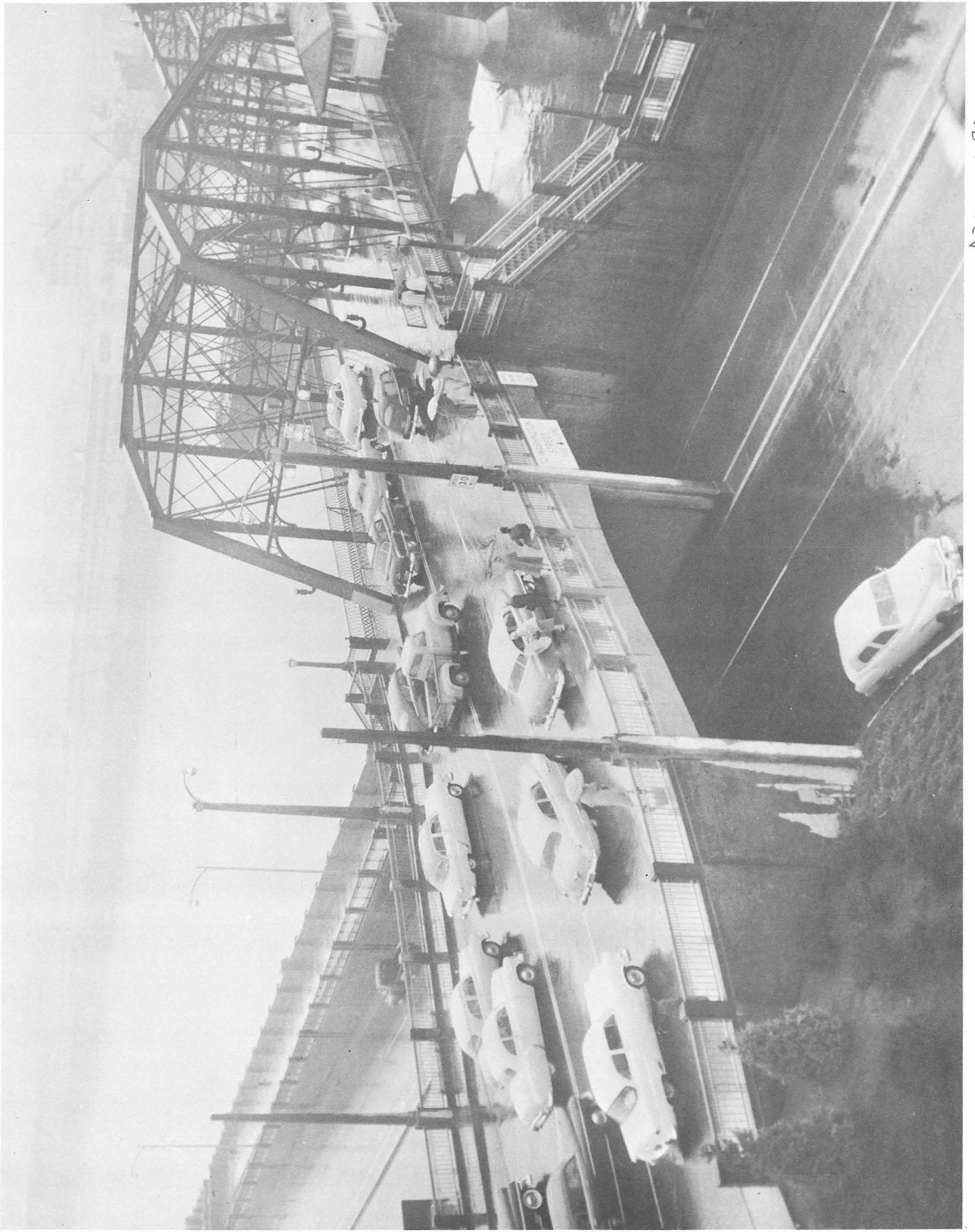
Looking West on Taylor Street from Front Avenue. 3:30 P.M. (Oregon Journal Photo)

"It might be of some value to note that I have observed London in 1942 when the Germans controlled the skies and were bombing the city regularly. The routine of air raids was well established and no fuss or feathers were evident. The practice evacuation in Portland had in my opinion more orderly procedure and fewer snags with Police and Wardens than I observed in London under attack. Personally, I am amazed at the excellent result and the fact that the individualists were so few when teamwork is needed in Portland."

3. Pedestrians

We feel the basic transportation unit in an evacuation from Portland is the privately owned auto, and our traffic movement plan is designed to direct and control such vehicular movement. Pedestrians were instructed to walk from the target area following the traffic flow along the Green Light routes. While autoists were asked to pick up pedestrians, and pedestrians asked to accept rides, it was emphasized that the decision to do either rested entirely with the individuals concerned. During the test many pedestrians were picked up, but not too many. We feel, however, that in an actual evacuation many more would offer rides and many more would accept them. Our continuing public education program must stress this objective.

For those in the area with cars parked downtown, instructions were for them to walk to their cars and drive them from the area. To do this, many had to walk contrary to flow of vehicles and also to cross lines of traffic on Green Light streets. Instructions in this case were for pedestrians wanting to cross main lines of traffic to wait for a break in traffic or until traffic stopped for them. Instructions to motorists were to be particularly alert for and considerate of pedestrians.



A2000-021.90

“GOING MY WAY ?” (Oregon Journal Photo)

Photos at some of our major intersections during the test show blending of vehicular traffic and crossing by pedestrians in a smooth, almost continuous flow.

Rather early in our Green Light planning, the question was raised whether our Bureau of Police had authority to stop or direct traffic or require traffic to follow certain routes during a Civil Defense test when no actual emergency existed. So there would be no question, the City Council amended the traffic code to provide such authority. The State Attorney General then ruled other Police authorities throughout the State also had authority to control traffic in a similar fashion during Civil Defense tests. Also it was felt the test would be expedited if all on-street parking could be prohibited in the test area from the time the sirens first blew until the test terminated. The Council further amended the traffic code to cover this. These traffic code amendments appear at Tab E. One significant point reported by several observers was that following the sounding of the sirens, most vehicle drivers appeared to drive with more caution and consideration for others than normally.

We also stressed the importance of preplanning auto pools so those who normally used mass transportation could evacuate with a friend or co-worker who normally left with an empty car. We asked management to take the initiative in such planning and this was successful to the extent that the average number of passengers per vehicle during the test was doubled for the test over normal occupancy.

However, there were still over 11,000 people who walked out of the test area, and this during one of the heaviest rainstorms of the year.



A2000-021.91

“MUTUAL AID”

Over 11,000 persons walked as far as 1-1/2 miles in pouring rain to evacuate the Test Area. (Oregonian Photo)

These people deserve the highest praise for their magnificent co-operation.

V. Public Safety Provisions

Inasmuch as Operation Green Light was only a test, there still remained the obligation of the city government to maintain all provisions for public safety and welfare in the area during the test. The principal arrangements for this included the following:

1. Police Protection

Special mobile units were stationed in the area in off-street parking locations to supplement regular district cars. Motorcycle patrolmen moved through the area continually during the test. All detectives and plain-clothes personnel were in the area wearing Civil Defense Armbands of different services and carrying pocket-call radios so they could be reached without delay. No incidents of any kind occurred during the test.

2. Fire Protection

Just minutes prior to the evacuation signal, specially designated fire equipment moved onto off-street parking locations so located in the test area that in event of an alarm some equipment could reach any point within the test area by moving along with the flow of evacuation traffic. All Portland fire apparatus is radio equipped. Both off-duty shifts of fire fighters were in the area as volunteers to act as observers and to cover every fire alarm box to prevent false alarms and to be available in event an actual fire developed. There were no fire alarms during the test. Our Fire Chief stated he could have reached any point within the area at any time during the test without difficulty. The public was warned to be particularly cautious not to leave a fire-hazardous condition when evacuating from buildings.



A2000-021.92

Portland Police in the guise of Wardens saturated the Test Area as an added public safety precaution. Police Headquarters maintained contact by means of pocket page-call radios furnished by local concerns. (Oregonian Photo)

3. Medical Protection

14 First Aid Stations were established in the test area. They were set up when the sirens sounded and were manned by American Red Cross volunteer First Aid Instructors who worked in the immediate vicinity. Ten ambulances were placed in the area on off-street parking. These were all radio equipped. There were no accidents and no first-aid treatment was required. One utility worker in the area suffered a heart attack during the test and was removed to a hospital by ambulance without difficulty.

4. Utility Services

Emergency repair crews and trucks of gas, electric, telephone, and water companies were likewise located in off-street positions within the area just prior to the test to be available in event of any incident requiring their services. All of this equipment, except for that of the Telephone Company, is radio equipped. There were no incidents.

VI. Observation and Evaluation

No test should be conducted without provision for gathering sufficient data that a proper determination of the effectiveness of the test and of the plan can be prepared. For this test we planned to use,

1. Visual observers with written reports
2. Still photos and motion pictures
3. Mechanical traffic counters.

1. Visual Observers

Approximately 500 written reports were received from visual observers who were stationed on each bridge, at all bridge approaches, at over 100 key street intersections, on the roofs of or within 60 principal buildings, at 16 public parking facilities, at every public school,

and also from news media representatives and mass transportation inspectors and drivers. A typical report is shown at Tab F.

From this mass of material we compiled the statistical summary which appears at Tab G. The following elaborates on two of the items appearing under Section II of this statistical summary:

Item 8. A large number of the observers indicate pedestrian movements affected vehicular movements. This is true. However, we feel the interference was not significant. Vehicles did slow down or stop to allow pedestrians to pass, in accordance with instructions. However, this did not affect total movement of vehicles to an appreciable extent while it did materially assist the movement of pedestrians.

Item 12. The reports of extreme delay of vehicles entering through evacuation streets from feeder streets occurred at only a few critical points. A minor modification of our traffic movement pattern should minimize this "extreme" delay, which at the most was actually only a few minutes.

It might be asked whether such a large number of observers is necessary. We feel it is, particularly for a first test, to assure nothing of significance can occur without being seen by an official observer. These observers, incidentally, were in addition to the regular fire and police personnel also in the test area for security reasons. These latter numbered in excess of 500.

It might also be asked whom we used for observers. We felt it desirable to have persons who were trained in observing and evaluating. Accordingly, we turned to several agencies for help in this respect. Our



A2000-021.93

Looking South on Fourth Avenue, 3:35 P.M. (Bucktel Photo)

observers included selected engineers from the Bonneville Power Administration, agents of the Oregon State Liquor Control Commission, investigators of the Multnomah County Welfare Commission, selected officer personnel of the Oregon National Guard, and personnel from the offices of the City Engineer and City Traffic Engineer. They did an excellent job.

2. Photo Coverage

Our principal effort was directed toward securing a motion picture record of the test which could be used to assist in evaluation, to provide a historical record, and possibly to provide material for a short documentary film which could be made available to other Civil Defense Agencies for their information and guidance. We used 15 cameramen at assigned positions who exposed 1900 feet of film, about half of what we hoped to get. Because of the exceptionally heavy rainfall during the test and other difficulties, about half the film taken is poor technically. About half of the remainder does not show much of significance. The Civil Defense office furnished the film; the cameramen with their cameras were volunteers. They were all experienced camera operators employed by government agencies, large commercial concerns, or photo equipment houses. We only had one still photographer taking photos. In addition, however, both local papers had all their photographers covering the test and have made their photos available to us. A sample photographer's assignment and record forms are shown at Tab H. We also had planned a program of comprehensive photo coverage from the air. This was washed out by the weather. It would have included three movie cameras in two light planes and one helicopter operating in zones to cover the entire city area, plus one map-making

plane which would have photographed the entire test area at 15-minute intervals and would have provided photos from which counts of vehicles on streets could have been made.

3. Mechanical Counters

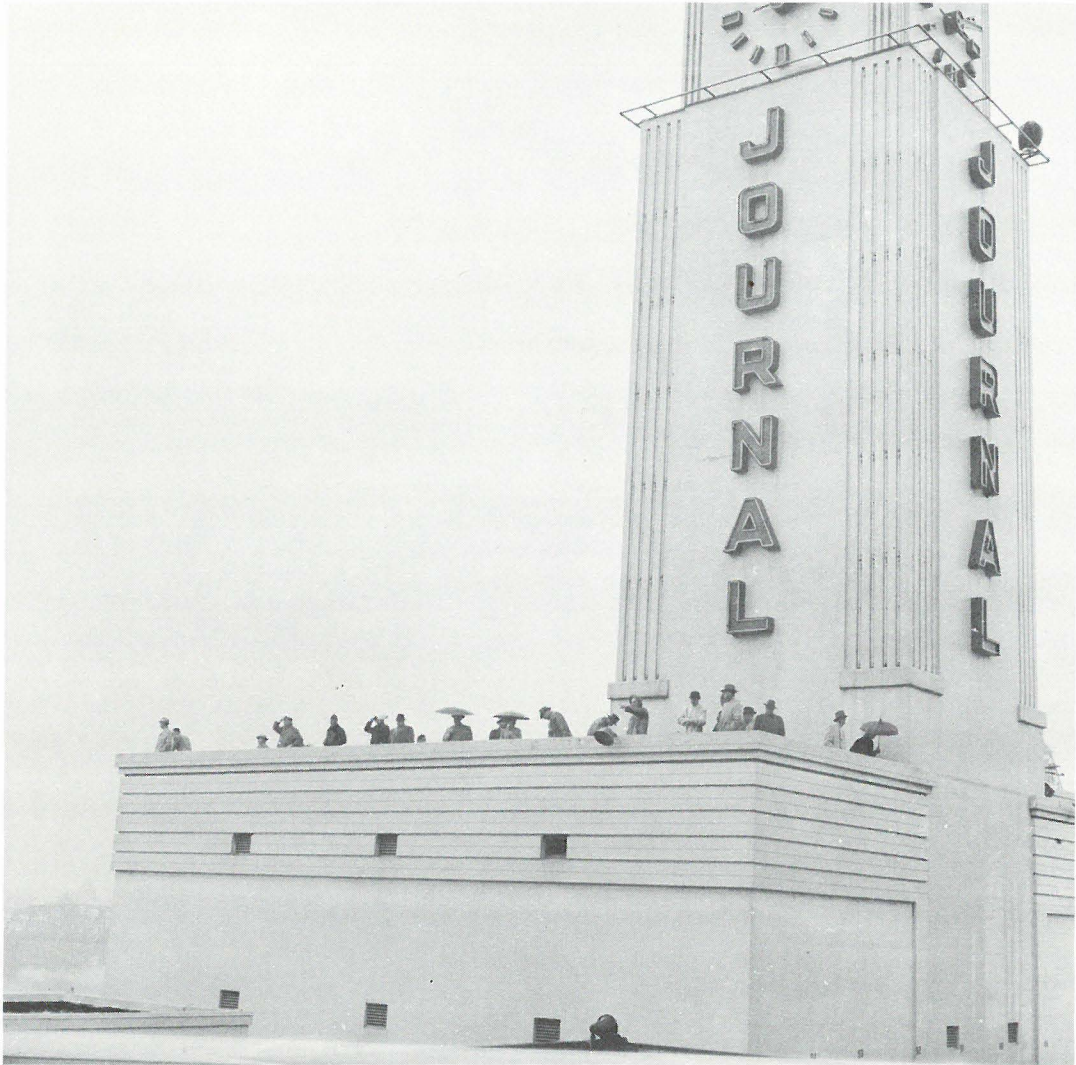
A total of 30 mechanical traffic counters were placed at points of expected heaviest traffic on the periphery of the test area. More would have been desirable, but these were the maximum number available within the city and from the Oregon State Highway Department. There was no doubt these devices provided the most reliable counts of vehicular movement. They should be used to the maximum extent possible in any test.

4. Air Coverage

Our planned air observation program, in addition to the four photo planes already mentioned, included five other light aircraft. One plane would have been used by the Traffic Engineer who would have tape recorded his observations for future analysis and study from a technical standpoint. Another plane would have carried an official Civil Defense observer who, from a non-technical viewpoint, would have broadcast the situation as he viewed it. This broadcast would have been received at the Control Center for the benefit of press and observers. It would also have been tape recorded. The other three planes would have been placed at the disposal of FCDA and other visiting observers who desired to view the operation from the air.

5. Guest Observers

More than 150 out-of-town observers registered for Operation Green Light. These included Mayors and Civil Defense Officials from all eight western states, Canada and Hawaii, as well as representatives of



A2000-021.94

"OFFICIAL OBSERVERS" (Bucktel Photo)

the National Academy of Sciences. On the evening preceding the test, all observers were briefed and given all details on the development of the operation and plans for its execution. On test day the observers were divided into groups and taken to vantage points in the test area. Most were on building roofs where they had an excellent view of the streets in the test area and a good opportunity to get soaking wet. Most of this group appeared impressed with the test. Typical extracts from reports or letters of some of these outside observers follow:

"A test evacuation from congested areas is possible and practical and can be handled without confusion or panic providing public co-operation is secured and acceptance to participate is agreed to."

"The mechanical control of traffic is necessary to conserve manpower and to use manpower at the proper points where blockages will inevitably occur."

"The key to success of the evacuation was the traffic control system."

"One of the many outstanding features of the exercise was the excellent co-operation between pedestrians and motorists at intersections."

"There was no confusion of any kind and everyone seemed to take the operation quite seriously."

"The leadership furnished by Mayor Peterson and your Board of Commissioners was refreshing."

"All were unanimous in stating that the test exceeded all expectations in smoothness and completeness of movement."

"The evident sincerity, earnestness, and efficiency of Bureau Heads was outstanding and impressive. They demonstrated they are organized to operate as a unit during disaster."

"Evacuation as a policy was well confirmed by the test and critics of the feasibility of dispersal will find it most difficult to develop valid criticism to developing similar plans for other metropolitan districts."

"I believe your exercise has accomplished more for Civil Defense in general and for those of us in evacuation planning in particular, than any other single event in Civil Defense history."

Needless to say, we are pleased with the fine things said of our test by our guest observers. We hope the time and effort taken to come to Portland was worth their while.

VII. Control and Co-ordination

Control of development of planning was exercised by the publication of numbered Evacuation Test Memoranda, as follows:

- No. 1 Announcement of Proposed Test.
- No. 2 General Information, including Purpose, Scope, Time and Date, Special Test Signals, and Enumeration of Basic Policy.
- No. 3 Instructions of Traffic Control and Traffic Movement Pattern.
- No. 4 Instructions for Transportation Media.
- No. 5 Instructions for Observation and Evaluation Procedures.
 - Supplement 1. Fixed street locations
 - Supplement 2. Fixed building locations (exterior)
 - Supplement 3. Mobile vehicles
 - Supplement 4. Fixed building locations (interior)

- Supplement 5. Parking facilities
- Supplement 6. Aerial observation
- Supplement 7. Mass transportation
- Supplement 8. News media
- Supplement 9. Emergency vehicles
- Supplement 10. School officials
- Supplement 11. Fixed locations on bridges

No. 6. Instructions for Special Public Safety Measures including Fire Protection, Public Utilities, Police Protection, and Emergency Medical Service.

No. 7. Instruction for Those with Operations Responsibilities not Covered in previous Memoranda, such as Instructions for

- a. Operation of sirens
- b. Sirens maintenance and service
- c. Photographers
- d. Communications
- e. Aircraft pilots
- f. Traffic signal control
- g. Operation of Civil Defense Control Center

No. 8. Announcement of Test Time and Date (confidential).

No. 9. Final Report.

The above memoranda were published only after at least one but generally several meetings of representatives of all agencies or establishments concerned. After agreement was reached in these meetings, the appropriate memorandum was published as the official instructions from Civil Defense Headquarters. In addition to those enumerated above, each City Bureau concerned and most other agencies and establishments directly involved, also



A2000-021.95

Briefing by Operations Officer. (Oregon Journal Photo)

published their own test instructions. Round copies of the basic memoranda were given to all official observers. Any other agency interested may obtain a copy on a 30-day-loan basis by writing this office.

For this test we endeavored to develop the operations plans in sufficient detail that once the sirens sounded the plan would take over and be as automatic as possible in its execution. This was accomplished to a satisfactory degree due to the magnificent co-operation of all agencies concerned

During the test itself, co-ordination and control was centered at the Civil Defense Office which is our interim Communications and Control Center while our new underground building is being constructed. Direct control of traffic, however, was from the office of the Police Captain in charge of traffic. In addition to the normal traffic control procedures using cars and motorcycles (all Portland Police equipment is radio equipped), two helicopters were provided for traffic control purposes during the test by the Oregon National Guard. Each helicopter operated on two radio frequencies, one for the police observer to the traffic control center, and one for the pilot to Portland International Airport Tower and the Civil Defense Control Center. These two helicopters were the only aircraft used during the test.

The total aircraft planned for use numbered 11 for Civil Defense plus two provided by press and radio. Operations control of all these aircraft was to be from the Civil Defense Control Center. The development of the air operations plan was extremely instructive, and while all but two planes remained grounded, we learned a great deal from the planning alone. We had the finest co-operation and assistance from the Civil Aeronautics Administration, the Oregon State Board of Aeronautics, the Oregon National Guard,

the U.S. Navy, the Bonneville Power Administration, the Oregon Department of Forestry, and from many private-plane owners. The local supervising agent of the Civil Aeronautics Administration declared the area above Portland to an altitude of 5,000 feet a restricted air space during the three days scheduled for the test. This, in effect, prohibited any aircraft but ours to be over the area during the test. The State Board of Aeronautics detailed their Director to this office where he functioned as Air Operations Officer, both during the planning and execution of the test. Complete flight plans for use of varying numbers of aircraft were prepared for use with ceilings of 4,000 feet, 3,000 feet, 2,500 feet, and 2,000 feet. The flight plan for 4,000 feet ceiling is at Tab J. Actual ceiling at test time ranged from 400 feet to 600 feet. Detailed flight instructions were also prepared for each pilot, approved by, and filed with the CAA Supervising Agent. One of these is shown at Tab K. Each plane was assigned a definite altitude and area. The pilot could not vary from this altitude or area except on instructions from the Civil Defense Control Center or to execute emergency procedures on his own judgment or as directed by CAA from the Portland International Airport Control Tower. Within the assigned area and altitude the pilot would follow instructions of the photographer or observer passenger.

At Civil Defense headquarters all radio frequencies (both ground and air units) were monitored and, as the evacuation progressed, the situation was posted on the main operations map. All this information was available to press and radio representatives who made direct reports to their own offices or made direct broadcasts on the spot. No unexpected or significant emergency incidents occurred during the test.



Air Operations Control Center. (Oregonian Photo)

A2000-021.96

VIII. Governmental Agency Participation

Participation by other governmental agencies in the area left nothing to be desired in any respect.

1. Federal Government

All agencies participated; for example, Federal Courts adjourned and the U. S. Courthouse evacuated when the sirens blew. Everyone evacuated except prisoners who were returned to custody. Most courts had scheduled their calendars for all three days to minimize possibility of a jury being in deliberation on a major case. This did not occur; but if it had, the jury would not have been evacuated. The Department of Interior Building evacuated and the Bonneville Power Administration actually relocated and re-established operations approximately 50 miles from Portland. The Post Office had made special provisions to get outgoing mail on the train during test days. A typical Federal Agency test memo is at Tab L. Incidentally, all major Federal Agencies in this area are actively developing Civil Defense plans.

2. State Government

The Oregon Civil Defense Agency was an active participant both in planning and operations, and assisted in many ways as already mentioned. For instance, the State Public Information Officer worked full time with our FIO in the final days prior to the test. Outstanding were the activities of the State Police in traffic control and establishing road blocks. The State Office Building evacuated in record time. Some State Agencies relocated. Circuit Courts adjourned.

3. County Governments

Multnomah County Courthouse evacuated and all County Courts adjourned. In addition, Multnomah County actively participated with regular and

reserve personnel of the Sheriff's Office. The police authorities of six additional adjoining counties participated in traffic control. The Welfare Organization in Yamhill County provided refreshments and simulated the registration and housing of a group from Portland who evacuated to Newburg as a unit from a large Portland apartment house.

Evacuation planning in this area is being developed by a Co-ordinating Council consisting of the Civil Defense Directors of the nine principal political subdivisions within the target area. All of these organizations accepted most willingly assigned responsibilities for this test and made material and significant contributions to the success of the operation.

IX. Community Participation

Community acceptance, support of, and participation in this test was most gratifying. The following examples are indicative:

1. Schools

The bulletin sent home by the Public Schools appears at Tab M. Our present policy concerning school children upon evacuation is that they should be sent home to evacuate with their parents or neighbors. One problem presented by this decision was whether children would be able to get safely across principal evacuation routes. In order to determine this, we asked that all public schools in the city, both in and out of the test area, participate in the test. This they did, with special safety precautions as outlined in the bulletin. There were no incidents of any kind involving school children. Outbound automobile traffic stopped to allow children to cross at safety lanes, as normally done. Following the test the Superintendent of Schools wrote, "From the standpoint of the schools, the recent test operation, Operation Green Light,



A2000-021.97

Looking North on Fifth Avenue, 3:40 P.M. (Bucktel Photo)

was a success....I am of the opinion that the plan of sending the children home to join families or friends or neighbors is the most practical approach to the problem....When time is available and we can send them home, we think this would be better than a program of evacuating the children from the schools to a point outside the city. It is the opinion of the staff that such an attempt would result in a very confusing situation, and we cannot visualize transportation being provided to our 90 some school buildings in an orderly manner."

Private and parochial schools participated in a similar fashion.

2. Other Institutions

An inspiring example of participation is that of the Portland Rehabilitation Center, engaged in special types of therapy for polio patients, multiple amputees, and many others practically helpless by themselves. This organization, upon the test signal, prepared all patients for transportation and moved them to outside doorways. This involved drying and dressing some patients receiving hydrotherapy. If it had not been raining heavily during the test, these patients would have been transported from the area.

General hospitals located within the test area were not asked to participate.

3. Stores

All types of stores, including the major department stores, closed for the remainder of the day when the signal blew. The bulletin of the Western Meat Packing Association, typical for this group, is at Tab N.

4. Theaters

Instructions relative to theaters within the test area are at Tab P.

To the best of our knowledge, all theaters in the test area followed this procedure.

5. Office Buildings

The bulletin at Tab Q, issued by one property management group, is indicative of co-operation received from building owners and managers.

6. Transportation Services

The bulletin at Tab R was given to all tourists and travelers entering or leaving Portland for several days prior to the test. It was distributed by hotel clerks, and railroad and airline ticket offices, and at the Chamber of Commerce Tourist Information Center. It was posted at all motels. All railroads agreed to stop all train movement within the test area for one hour beginning with the test signal. However, the test went so quickly no significant disruption of train schedules occurred.

7. Garages and Parking Lots

Prior to the test we were concerned whether we would have time to empty parking lots and garages. During the test we received excellent co-operation from owners and operators of both, most of whom submitted written reports following the test. Our conclusion is that very few, if any, cars need to be left. The problem appears to be, not getting the car to the owner but, getting the owner to move the car away quickly once she or he is in it. Many operators have reported to us since the test they have developed new techniques for quick delivery of cars. It appears at least 90 per cent of the vehicles in parking garages, even if garages are full, could be gotten out in 30 minutes or less.

We cannot complete this part of the report without acknowledging the very great assistance rendered by the Portland Chamber of Commerce and



A2000-021.98

Oregon's Governor, Paul Patterson, opening critique for out-of-city observers following test. Portland's Mayor, Fred L. Peterson, (center) and Civil Defense Director, Jack Lowe, (left) also on platform. Quoting the Governor, "I was so proud I pretty near busted my buttons." (Oregonian Photo)

the Portland Retail Trade Bureau in informing their members and gaining their assistance and co-operation for the test.

X. Summary

1. Operation Green Light, a test evacuation of the downtown congested area of Portland, Oregon, was held at 3:10 P.M. on Tuesday, 27 September 1955.
2. The test area included 1,000 city blocks.
3. At the conclusion of the test at 3:59 P.M., 29,423 vehicles and 101,074 persons had evacuated the test area. This includes 11,380 persons who walked from the area.
4. In the test area, upon the sounding of the evacuation test signal, all traffic lights were instantly converted to a fixed pattern of green or red. By turning with traffic on red, and going straight through on green, motorists were automatically placed on the best route out of the congested area. Cost of this traffic signal conversion was approximately \$30,000.
5. There was very little confusion on the part of those participating. All concerned appeared to know what to do when the test signal sounded.
6. There were no unfortunate incidents or accidents of any kind during the test.
7. Actual out-of-pocket cost for the test itself was approximately \$2,000, plus the cost of this report.
8. Operation Green Light is believed to be the first mass evacuation test to be held in this country in which over 100,000 persons participated, not including approximately 22,000 school children in Grades five through eight who went home when the test signal sounded.
9. From 10:20 A.M. to 4:20 P.M., 27 September, which included the period

of the test, precipitation was 0.61 inches.

XI. Conclusions

1. The basic traffic movement pattern for evacuation from the congested downtown area is sound. A few minor modifications will make it even better.
2. Mechanical traffic signals are adequate for control of evacuation traffic except at a few known critical points where supplementary manual control is needed.
3. Use of mechanical signals for traffic control not only instantly establishes the traffic movement pattern but also minimizes requirements for trained traffic control personnel.
4. The citizens of Portland are interested in Civil Defense and will cooperate in realistic tests when the need for such is established.
5. Evacuation is practical and feasible for the City of Portland, despite the fact the road-net beyond the city limits leaves much to be desired.

XII. Recommendations

1. That traffic signal conversion for evacuation movement control be extended to the city boundaries.
2. That the next evacuation test for Portland be co-ordinated with the State Civil Defense Agency and appropriate County Civil Defense Organizations to include a comprehensive test of the evacuation road-net beyond the city limits and of facilities and arrangements to feed, shelter, and resettle evacuees from the Portland area.

Planning and Operations Staff for "Operation Green Light"

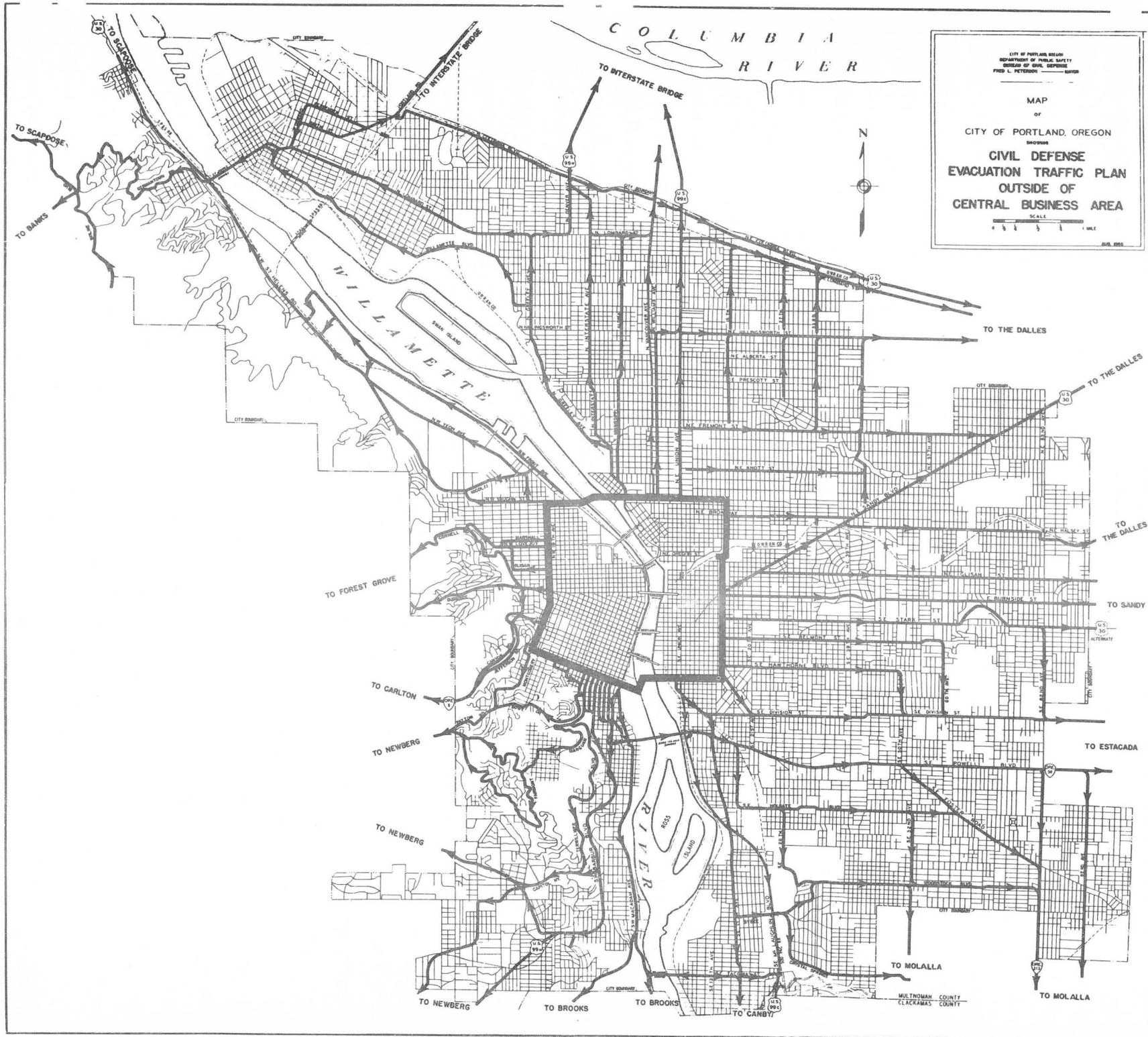
Fred L. Peterson, Mayor
Jack Lowe, Director, Bureau of Disaster Relief & Civil Defense
James A. Scott, Assistant Director, Bureau of Disaster Relief & Civil Defense
Ed Clark, Operations Officer, Bureau of Disaster Relief & Civil Defense
Earl Snyder, Air Operations Officer, Operation Green Light
(Director, Oregon State Board of Aeronautics)
John Gebelin, Air Operations Safety Officer, Operation Green Light
(Supervising Agent, Civil Aeronautics Administration)
Robert C. Burns, Training Officer, Bureau of Disaster Relief & Civil Defense
Robert L. Thomas, Public Information Officer, Bureau of Disaster Relief & C.D.
Logan C. Berry, Coordinator for State Civil Defense, Operation Green Light
(Logistics and Evacuation Officer, Oregon Civil Defense)
Tom Brubeck, Assistant Public Information Officer, Operation Green Light
(Public Information Officer, Oregon Civil Defense Agency)
Robert Hallberg, Assistant Public Information Officer, Operation Green Light
(Public Information Officer, Region VII, FCDA)
Temple Ehmsen, Chief, Communications and Warning, D.R. & C.D.
(Chief, Bureau of Communications and Electronics)
L. G. Apperson, Deputy Director, Engineering Services, D.R. & C.D.
(City Engineer)
John Colquhoun, Engineering Service Coordinator, D.R. & C.D.
(Inspector, Office of City Engineer)
Carl Lundell, Chief, Utilities Section, Engineering Dept., D.R. & C.D.
(Utilities Engineer, Dept. of)
Fred Fowler, Chief, Transportation Section, Engineering Dept., D.R. & C.D.
(City Traffic Engineer)
William Weller, Asst. Chief, Transportation Section, Engineering Dept.,
(Assistant City Traffic Engineer)
Bill Bailey, Photographic Officer, Operation Green Light
(Official Photographer, Office of City Engineer)
James Purcell, Jr., Deputy Director, Police Service, D.R. & C.D.
(Chief, Bureau of Police)
Eugene Ferguson, Deputy Chief, Bureau of Police
John Richardson, Captain, Traffic Division, Bureau of Police
Oliver K. Robinson, Police Service Coordinator, D.R. & C.D.
(Captain, Bureau of Police)
Robert L. Steele, Auxiliary Police Liaison, D.R. & C.D.
(Lieutenant, Bureau of Police)
Edward Grenfell, Deputy Director, Fire Service, D.R. & C.D.
(Chief, Bureau of Fire)
James Riopelle, Fire Service Coordinator, D.R. & C.D.
(Captain, Bureau of Fire)
Thomas L. Meador, M.D., Deputy Director, Medical Service, D.R. & C.D.
Herbert Watts, Medical Service Coordinator, D.R. & C.D.
A. D. Hicks, Director of Safety Services, Portland-Multnomah County Chapter,
American Red Cross
Gus Lange, Deputy Director, Welfare Services, D.R. & C.D.
(Administrator, Multnomah County Public Welfare Commission)
Donald Turnbull, Welfare Service Co-ordinator, D.R. & C.D.
(Consultant on Staff Training, MCPW Commission)
Harry Buckley, Deputy Director, Warden Service, D.R. & C.D.
(Superintendent, Bureau of Parks)
Vernon Toedtmeier, Warden Service Co-ordinator, D.R. & C.D.
(Recreation Supervisor, Bureau of Parks)

TAKE A BOW



ART BIMROSE

(THE OREGONIAN EDITORIAL PAGE, THURSDAY MORNING, SEPTEMBER 29, 1955)



TAB - A



CITY OF PORTLAND
OREGON

August 25, 1955

Dear Friend:

May I express my gratification at the support you, as a Portland business man, are giving to "Operation Green Light" during its planning stages.

Needless to say, it will be essential that each individual citizen of Portland also support the test through his participation.

Herewith you will find detailed information for the guidance of participants in the test evacuation, along with a map showing the traffic pattern. May I suggest that you familiarize yourself with "Operation Green Light" as it will concern your establishment, your patrons and employees. Perhaps, you can post or circulate this information so it will be available to them. I am sure they will appreciate any help you can give them in working out in advance any problems of participation.

Thank you for your cooperation and help.

Yours sincerely,


MAYOR

FLP:a
Encs.



DISASTER RELIEF AND CIVIL DEFENSE
2200 N. E. 24th Avenue
Portland, Oregon

TAB B (2)

Information Bulletin No. 70

19 August 1955

Operation Green Light

By direction of Mayor Fred L. Peterson, the City of Portland has scheduled a test evacuation of the downtown business district for the last week in September.

Purpose of the test is to determine the capability of official agencies and citizens to empty the congested business district (the most probable aiming point of an enemy air attack), and to determine the minimum advance warning necessary to permit evacuation.

The exact time and date of the test evacuation will not be announced in advance.

The test will be initiated by the EVACUATION signal (three minutes of steady tone on the public warning sirens) preceded and followed by the TEST signal (30 seconds of wailing tone followed by 30 seconds of steady tone).

As an additional visual notification to people in the test area, traffic signals will go to a fixed red and green conforming to the test-evacuation traffic pattern, and amber lights will flash continuously in both directions.

The attached map shows the designated test area, and the direction of traffic on each street and avenue.

Vehicles will follow the green lights out of the area, and turn into the traffic flow at red lights.

Everyone in the area when the test is triggered is expected to participate, including residents, workers, shoppers and travellers. All business establishments, offices, and public buildings are to close their doors for the duration of the test, and public assemblies to adjourn. Only the physically infirm; persons performing essential public service; industrial processes which cannot be interrupted; assigned custodial or security duty or necessary emergency services are exempt from participation. Persons in these exempt categories are asked to remain inside and off the street during the test.

Ticket-holding passengers on trains, air lines or line-haul busses scheduled for departure during or immediately following the test need not evacuate, but should remain off the streets.

Persons with cars parked in the test area, whether in parking lots, garages or on the street, should walk first to their cars and drive them out of the test area. Cars will not be permitted to remain parked on the streets of the area during the test.

Each participant can greatly facilitate his own part in the test by using the map to plan in advance the easiest route from the probable location of his car to the most accessible point of exit by following the green light. Cars should be driven at least one mile past the boundary of the test area to prevent blocking of exit routes.

Drivers should operate their cars with extreme caution and observe all normal safe-driving practices. They should be alert for and considerate of pedestrian evacuees. Vehicles should avoid all unnecessary delay, while proceeding only at the maximum speed compatible with safety.

Pedestrians should also exercise normal caution, and if necessary to cross streets should await opportunities to do so safely. The continuous outward traffic flow should present such opportunities.

All public and parochial schools in session when the evacuation occurs will participate. School children will be evacuated to their homes, under procedures prepared by school authorities who will advise parents of details.

OPERATION GREEN LIGHT will be the most significant test to date of a metropolitan evacuation plan. Its success will be a major contribution toward making Portland the best prepared large city in the nation to respond to a warning of impending attack. It can fulfill its purpose only with the fullest cooperation and participation of everyone.

Distribution: All
RLT/10,000

DRIVERS' GUIDE

OPERATION GREEN LIGHT

Week of Sept. 25th, 1955



TAB B (3)



- Follow the green lights to nearest exit point.
- Turn with direction of traffic at red lights.
- Drive at least a mile beyond boundary of test area.
- Drive carefully, observing normal traffic rules.
- Dashed lines show in-bound lanes reserved for emergency vehicles.

WARNING

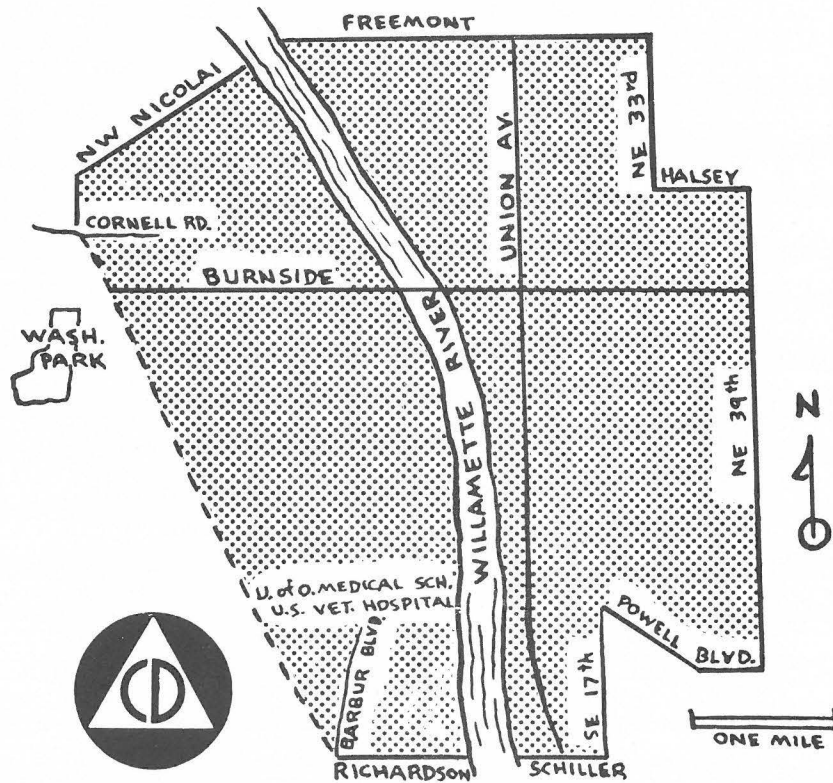
Civil Defense Evacuation Test

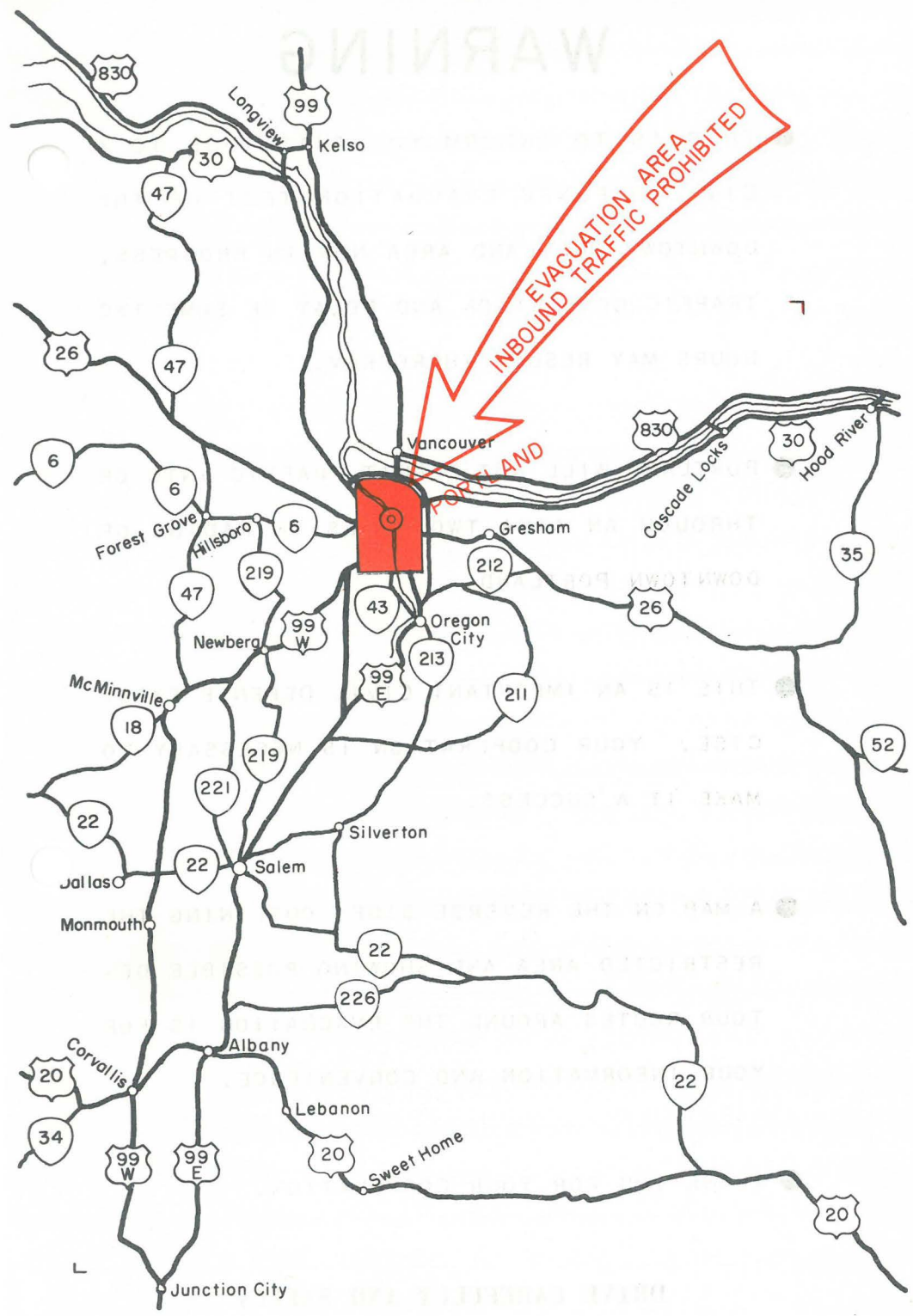
A civil-defense evacuation test is now taking place in Portland. The exercise, called "Operation Green Light," will continue for about another hour. This is a large-scale test involving nearly half of the city population.

Traffic is being stopped a short distance ahead and will not be permitted to enter the area indicated on map below, which centers on the Portland business district.

This exercise is extremely important, since evacuation is the primary defense against a possible nuclear attack. Your assistance in avoiding the area during the test will be appreciated.

—State and Local
Civil Defense Agencies





WARNING

- THIS IS TO INFORM YOU THAT, DUE TO A CIVIL DEFENSE EVACUATION TEST OF THE DOWNTOWN PORTLAND AREA NOW IN PROGRESS, TRAFFIC CONGESTION AND DELAY OF SOME TWO HOURS MAY RESULT THEREFROM.
- PORTLAND WILL NOT PERMIT TRAFFIC INTO OR THROUGH AN AREA TWO MILES IN RADIUS OF DOWNTOWN PORTLAND.
- THIS IS AN IMPORTANT CIVIL DEFENSE EXERCISE. YOUR COOPERATION IS NECESSARY TO MAKE IT A SUCCESS.
- A MAP ON THE REVERSE SIDE, OUTLINING THE RESTRICTED AREA AND SHOWING POSSIBLE DETOUR ROUTES AROUND THE EVACUATION IS FOR YOUR INFORMATION AND CONVENIENCE.
- THANK YOU FOR YOUR COOPERATION.

DRIVE CAREFULLY AND SAFELY

DISASTER RELIEF AND CIVIL DEFENSE
2200 N. E. 24th Avenue
Portland, Oregon

INFORMATION BULLETIN NO. 71

19 October 1955

AMENDMENTS TO TRAFFIC CODE

The following are the additions made to the City of Portland Traffic Code to meet Civil Defense requirements:

Section 19-506. TRAFFIC CONTROL DURING CIVIL DEFENSE TEST OR EMERGENCY.

(Section 19-506 added by Ordinance No. 102592 passed and effective August 18, 1955.)

"During a civil defense test or in a civil defense emergency it shall be unlawful for the driver of any vehicle, or for the motorman of any streetcar, or driver or operator of any motor bus or trolley bus, or any pedestrian, to disobey any order relating to the control of traffic given by a regular, auxiliary, or a reserve police officer, or a state police officer, sheriff, deputy sheriff, or authorized military or civilian personnel of the state or Federal Government, or any officer or civil defense worker of any county of the State of Oregon or the State of Washington participating or assisting in a civil defense test or emergency involving the City of Portland, or any worker of the Bureau of Disaster Relief and Civil Defense of the City of Portland."

Section 19-1514. PROHIBITION OF PARKING DURING CIVIL DEFENSE TESTS IN AREAS OF EVACUATION.

(Section 19-1514 added by Ordinance No. 102639 passed and effective August 25, 1955.)

"It shall be unlawful for any person, firm, corporation or association to park, cause to be parked, or allow to remain parked, a vehicle or vehicles during a Civil Defense Test or an emergency involving Civil Defense in those areas of evacuation where parking has been prohibited by the Bureau of Traffic Engineering."

Penalty for violation of the Traffic Code can amount to \$500.00 fine or six (6) months imprisonment or both.

JL:pl - 1500 Copies
Distribution: ALL

DISASTER RELIEF AND CIVIL DEFENSE
2200 N. E. 24th Avenue
Portland, Oregon

September 27, 1955

Evacuation Test

Memorandum No. 5
Supplement No. 1

OBSERVATION AND EVALUATION PROCEDURES
QUESTIONNAIRE FOR OBSERVERS AT FIXED STREET LOCATIONS

"OPERATION GREEN LIGHT"

NAME OF OBSERVER Norman Locke
EMPLOYER O L C C
BUSINESS ADDRESS 9201 S. E. McLoughlin Blvd.
OCCUPATION Inspector
BUSINESS PHONE OL 4 6511 HOME PHONE BE 4 9033
POINT OF OBSERVATION S. E. UNION & MORRISON ST.

QUESTIONS

BEFORE THE TEST:

1. In your opinion was there any appreciable decrease from the normal in the number of vehicles and individuals in the Test Area prior to the test?

Yes _____ No X

AT START OF TEST:

2. Was there any appreciable time delay between the sounding of the sirens and the traffic signal light conversion?

Yes _____ No X

3. What happened when the traffic signal lights were converted from normal to the evacuation pattern?

a. Did motorists and pedestrians stall in their movement? Yes _____ No X

b. Did persons appear to be confused? Yes _____ No X

c. If traffic stalled, how long before it began to move? 1 minutes.

Memorandum No. 5
 Supplement No. 1

4. What was the general reaction of the public when the Evacuation Test Signal was sounded?

 Confused Jovial Apathetic X Serious Disinterested

MULTIPLE ANSWER QUESTIONS:

5. What was the estimated average speed of vehicles?

 25 MPH at start of test Very SLOW MPH at E / 10 Min.
 22 MPH at E / 20 Min. 25 MPH at E / 30 Min.
 No Traffic MPH at E / 40 Min. No Traffic MPH at E / 50 Min.
 " " MPH at E / 60 Min.

6. Was there serious traffic congestion at your observation point?

Slow Movement					
E / 10	<u> X </u> Yes	<u> </u> No	E / 20	<u> </u> Yes	<u> X </u> No
E / 30	<u> </u> Yes	<u> X </u> No	E / 40	<u> </u> Yes	<u> X </u> No
E / 50	<u> </u> Yes	<u> X </u> No	E / 60	<u> </u> Yes	<u> X </u> No

7. What was the estimated number of vehicles per minute?

E / 10	<u> 30 </u>	E / 20	<u> 68 </u>	E / 30	<u> 35 </u>
E / 40	<u> 1 </u>	E / 50	<u> --- </u>	E / 60	<u> --- </u>

DURING THE TEST:

8. When did traffic noticeably increase? 3¹⁵ PM time.

9. Approximately when did the evacuation traffic reach its peak volume?

 3:25 P M time.

10. Were all available lanes fully utilized at time of peak volume?

 X Yes No.

11. Did the loading of pedestrians in any way impede vehicular movement?

 X No effect Moderate effect Serious effect

12. Would manual traffic control at non-signalized intersections facilitate the traffic movement? X Yes No.

Memorandum No. 5
Supplement No. 1

13. What effect did pedestrian movements have on vehicular movement?
 _____ stopped vehicles _____ slowed down vehicles X no appreciable effect.
14. Were there any accidents? _____ Yes X No
 If YES, were they _____ minor, _____ major, _____ time.
15. What effect did accidents, if any, have on traffic movement?
 _____ No effect _____ Moderate effect _____ Serious effect
16. Was traffic movement impeded for any of the following reasons?
 _____ out of gas _____ auto stalled X blocked beyond observation point
 _____ other (explain) _____ One minute stalls -- a few times between

3:13 -- 3:35

 Please give time of stalled movement. 1 Minute . _____ time.
17. Was there any pedestrian crossing between intersections (jay walking)?
X none _____ limited _____ extreme
18. Was there any delay encountered by vehicles entering the through evacuation streets from the side feeder streets?
 _____ no delay X slight delay _____ serious delay _____ unable to enter.
19. Did trucks or buses seriously impede the evacuation movement?
 _____ yes X no.
20. Did vehicles use all lanes on normal two-way streets?
X yes _____ no.
21. What was the average number of passengers (including the driver) in private vehicles? _____ 1 _____ 2 X 3 _____ 4 _____ 5.

FOLLOWING THE TEST:

22. Number of individuals and vehicles on the streets, other than authorized personnel at the end of the test? 0 individuals per block.
0 vehicles per block.

Memorandum No. 5
Supplement No. 1

23. Number of persons seen making their exit from buildings within ten minutes following the end of the test? LESS Than 7 number.
24. Any additional comment which would assist in the evaluation of the test and/or the over-all Evacuation Planning.

Eastward traffic used the Emergency lane for the time 3:10 -- 3:27

No control until 3:27. Then opened Emergency lane.

3:30 -- Heavy Pedestrian traffic from downtown -- going East.

3:40 -- No cars - Heavy Pedestrian traffic

3:40 - 3:45 -- NO CARS --Pedestrians only.

SUGGEST -- too many people walking -- too many empty cars, driver only.

DISASTER RELIEF AND CIVIL DEFENSE
2200 N. E. 24th Avenue
Portland, Oregon

20 October 1955

STATISTICAL REPORT ON OPERATION GREEN LIGHT

I. PUBLIC PARTICIPATION:

1.	Origination of participating vehicles	
A.	Eastside of river	9,514
B.	Westside of river	19,909
2.	Number of vehicles evacuated from Test Area	
A.	Total leaving Eastside perimeter	15,395
	(1) North and Northeast perimeter	7,529
	(2) Southeast perimeter	7,866
B.	Total leaving Westside perimeter	14,028
	(1) Southwest perimeter	9,591
	(2) Northwest perimeter	4,437
C.	Total number of cars leaving boundaries of Test Area . .	<u>29,423</u>
3.	Average number of people riding in vehicles	3
4.	Total number of people leaving Test Area in vehicles	88,269
5.	Total number of people walking out of Test Area	11,380
A.	People walking out of North and N. E. Sector	2,081
B.	People walking out of Southeast Sector	1,522
C.	People walking out of Southwest Sector	6,668
D.	People walking out of Northwest Sector	1,172
6.	Number of people evacuating in buses (19 buses in area)	1,425
7.	Total number of people evacuating the Test Area	<u>101,074</u>

II. GENERAL QUESTIONS ASKED OF OBSERVERS:

The following questions were reported principally by observers at fixed street locations. The numbers after each question show the total number of observers reporting.

1.	In your opinion was there any appreciable decrease from the normal in the number of vehicles and individuals in the Test Area prior to the Test?	Yes 223	No 216	
2.	Was there any appreciable time delay between the sounding of the sirens and the traffic signal light conversion?	Yes 9	No 289	
3.	What happened when the traffic lights were converted from normal to evacuation pattern?			
	A. Did motorists and pedestrians stall in their movement?	Yes 44	No 346	
	B. Did persons appear to be confused?	Yes 39	No 371	
4.	What was the general reaction of the public when the Evacuation Test Signal was sounded?	Confused - 31	Jovial - 155	Apathetic - 40
		Disinterested	51	Serious - 225
5.	Were all available lanes fully utilized at time of peak volume?	Yes 237	No 124	
6.	Did the loading of pedestrians in any way impede vehicular movement?	No Effect 354	Slowed Down Vehicles 51	Stopped Vehicles 4
7.	Would manual traffic control at non-signalized intersections facilitate the traffic movement?	Yes 145	No 188	
8.	Did pedestrian movements have any effect on vehicular movements?	Yes 153	No 266	
9.	Were there any minor or major accidents?	Yes 4	No 326	(All minor reported by observers)

II. GENERAL QUESTIONS. . Continued

10. What effect did accidents, if any, have on traffic movement?	No Effect 125	Moderate 10	Serious 1
11. Was there any pedestrian crossing between intersections (jay walking)?	None 248	Limited 162	Extreme 4
12. Was there any delay encountered by vehicles entering the through evacuation streets from feeder streets?	None 156	Limited 210	Extreme 37
13. Did trucks or buses seriously impede the evacuation movement?	Yes 2	No 341	

III. SCHOOL REPORTS:

The answers to the following questions were submitted by the school principals of most all of the public and Catholic schools in Portland.

1. Were the Public Warning Sirens audible at the beginning of the Test?	Yes 86	No 21	
NOTE: 106 observers in or near the Test Area reported hearing the sirens and only 2 reported not being able to hear them.			
2. Was an alerting call received from the school administration office?	Yes 108	No 4	
3. Was an internal warning or call plan used to announce the evacuation warning in the building?	Yes 96	No 11	
4. What was the general reaction of students and school employees upon receipt of the evacuation signal?		Confused - Jovial - Apathetic 1 8 3 Serious - Disinterested 91 3	
5. Was the building evacuation orderly?	Yes 101	No	
6. Did the school Civil Defense Protection Organization function properly?	Yes 97	No 1	
7. Have all the parents been informed by the school regarding the school protection plan and its operational procedures?	Yes 100	No 6	
8. In your opinion what is the attitude of the parents concerning this test?	Concerned - Mildly Interested - Disinterested 58 42 3		

III. SCHOOL REPORTS . . .Continued

9.	Does each student have an alternate destination if parents are not at home? If no, what percentage have no plan?	Yes	No	0%	10%	20%	40%	60%	80%	100%		
		69	27	1	1	23	4	3	2	4		
10.	Were there any difficulties encountered by the students in crossing major through streets?		Yes		No							
			7		93							
11.	What percentage of the students live within easy walking distance?	0%	10%	20%	40%	60%	80%	100%				
		2	7	7	5	14	40	25				
12.	Were the public warning sirens audible at the end of the test?		Yes		No							
			90		12							
13.	What is the maximum distance students must walk to reach home? The answer is in city blocks.	6	7	8	9	10	11	12	13	14	15	or more
		6	5	0	0	8	5	6	0	10	74	
14.	What is the average distance students must walk to reach home? The answer is in city blocks.	6	7	8	9	10	11	12	13	14	15	or more
		0	20	20	2	14	5	3	1	1	9	
15.	What was the maximum time for students to walk directly home? The answer is in minutes.	5	10	15	20	25	30	35	40	45	50	or more
		1	0	23	19	15	10	5	1	3	9	
16.	What was the average time for students to walk directly home? The answer is in minutes.	5	10	15	20	25	30	35	40	45	50	or more
		16	51	19	2	2	3	0	2	0	0	

IV. MOBILE OBSERVERS:

1.	Was traffic moving orderly?	Yes	No
		90	1

V. OBSERVERS IN BUILDINGS:

1.	Was an internal warning signal sounded?	Yes	No
		7	29
2.	Was the evacuation of the building orderly?	Yes	No
		35	0
3.	Would a Facility Civil Defense Organization expedite the evacuation?	Yes	No
		25	28
4.	Were building elevators used?	Yes	No
		29	7

VI. BRIDGE OBSERVERS:

1. Was there any traffic congestion on the bridge or its approach?	Yes	No
	2	3

VII. TRACTION COMPANY OBSERVERS (bus drivers):

1. Did incoming passengers remain on bus in order to be evacuated from area?	Yes	No
	23	13

VIII. PARKING FACILITY OPERATOR REPORTS:

Name of facility reporting	Normal Capacity	No. vehicles at beginning	Time to meet initial demand	No. of vehicles remaining	Total cars issued
Flogg, 515 Salmon, Ramp	540	206	20 Min.	76	130
Imperial, 210 4th, Lift	360	387	25 Min.	122	265
Hotel, 623 Pine, Ramp	550				
Hotel, 830 Alder, Pigeon	75				
Pacific, 230 2nd, Lot	127	93	15 Min.		
K&M, 6th & Oak, Lot	105	68	5 Min.	12	56
K&M, 2nd & Morrison, Lot	143	69	15 Min.	18	51
K&M, Park & Yamhill, Lot	60	24	10 Min.	7	17
System, 6th & Morrison, Lot	380	78	3 Min.	7	71
Floggs, 11th & Salmon, Lot	90	54	15 Min.	16	38
Civic, Morrison & Water, Lot	93	93		10	83
Terminal Sales Bldg., Ramp	44	32	7 Min.	20	12
Ore. Garage, Brdwy & Taylor	288	132	43 Min.	68	68
Parker, 811 Stark, Pigeon	90	56	15 Min.	42	14

DISASTER RELIEF AND CIVIL DEFENSE
2200 N. E. 24th Avenue
Portland, Oregon

Evacuation Test
Memorandum No. 7
Operations Instruction No. 3
Enclosure No. P-9

15 September 1955

"OPERATION GREEN LIGHT"

Instruction for Photographer No. 9

P-9 This is a photographic mission at the Meier and Frank Parking Lot. The locations best suited to cover the Evacuation Test is on the 2nd level of the Meier and Frank Parking Lot on the corner of S.W. 6th and Morrison Street. The photographer should arrive at his position thirty minutes before E hour (Evacuation Hour).

Activities at or near this location to be covered in addition to the evacuation movement are: (1) NBC-KPTV Television Camera set up (2) Fire fighting equipment for emergencies that might occur during the time of the Evacuation Test. (3) Special guests or visitors of Civil Defense Agencies observing the test. In addition, coverage should be made of a Civil Defense First Aid Station located in the lobby of the Maegly-Tichner Building, 610 S. W. Broadway; this may be done a short time prior to the test.

Consideration of the following Evacuation Test activities from the above location should be given highest priority.

- (1) Evacuation movement from buildings and schools, if in session in the Test Area.
- (2) Operation of street signal lights before and after the signal light conversion.
- (3) Initial movement of vehicular traffic in Test Area as Evacuation Signal sounds.

- (4) Pedestrian movement in the signalized area.
- (5) Peak traffic movement in the Test Area.
- (6) Vacated streets when area is evacuated.
- (7) Parking facility operations.
- (8) Loading of pedestrians into private vehicles and public transportation.
- (9) Traffic density on all streets in Test Area.
- (10) Driving habits of citizens concerning: speed, crossing from one lane to another, entering into through (green light) streets from stop signals or signs.
- (11) Pedestrian movements across evacuation lanes.
- (12) Pedestrian reactions as they leave building or walk on the streets.
- (13) Views of traffic in motion to show numbers of passengers in vehicles leaving the Test Area.
- (14) Numbers of pedestrians, without transportation, walking out of Test Area.
- (15) Helicopters in action over Test Area.
- (16) Any points of interest not covered above such as: traffic violations, accidents, movement of emergency vehicles, stalled autos, etc.

Requests for any changes or information concerning this assignment before the test, call Bob Burns at Civil Defense Headquarters, AT 7-1208.

Personnel Assigned for Mission, P-9:

Cameraman	name	address	phone
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DISASTER RELIEF AND CIVIL DEFENSE
2200 N. E. 24th Avenue
Portland 12, Oregon

Evacuation Test
Memorandum No. 7
Operations Instruction No. 5

19 September 1955

"OPERATION GREEN LIGHT"

Listed below is an Altitude Chart for Flight Plan "A" with a 4000 foot cloud ceiling or better...

Altitude in feet	C.D. Operations Number	Aircraft Reg. or Serial No.	Area Assigned	Mission Assigned
3400	1	N3453C	Pdx Metropolitan	Photographic mapping camera
3000				
2800	3	4517B	Pdx Metropolitan	Govt. Official Observers
2600	2	3509 C	Pdx Metropolitan	C. D. Officials-Observers
2400	4	1609 C	Pdx Metropolitan	Mayor & Guests-Observers
2200	6	5-15076	Pdx Metropolitan	FCDA Observer
2000	8	51-4547	Pdx Metropolitan	Pdx C. D. Observer
1800	7	51-12198	Pdx Metropolitan	Traffic Engr. Observer
1600	13	NC2445A	Pdx Metropolitan	Press Observer & Photog.
1400		West Hills, (Canyon Road and Barbur Blvd. Only)		
1200				
1000	5	5-17307	Pdx Metropolitan Except West Hills as shown at 1400'	Photographic
800	12	128551	Pdx Metropolitan	Press & Radio (KPOJ)
600	10	51-16381	Pdx Metropolitan North of Burnside	Police Traffic Observer
600	11	54-2916	Pdx Metropolitan South of Burnside	Police Traffic Observer
400	9	917B	Pdx Metropolitan	Photographic

RCB:w/60 Copies

DISASTER RELIEF AND CIVIL DEFENSE
2200 N. E. 24th Avenue
Portland 12, Oregon

Tab K

Evacuation Test
Memorandum No. 7
Operations Instruction No. 6
Enclosure No. 11

19 September 1955

"OPERATION GREEN LIGHT"

Instructions to Pilot of Aircraft No. 11

1. MISSION: Fly police traffic observer
AIRPORT USED Lloyed tract, N E 15th Ave & Multnomah Street
ALTITUDE 600' (Above Terrain) AREA Pdx metropolitan area South of Burnside Street only, except to refuel.
TIME OF TAKE-OFF E- 15 Min EST TIME IN AIR 2 Hrs. & 30 Min. (with 30 min for refueling)
NAME OF PERSON FROM WHOM INSTRUCTIONS IN FLIGHT WILL BE RECEIVED:
Police Observer for mission details, change in altitude and area only from Civil Defense Hdqtrs. RADIO PROCEDURES Use 126.3 mc for communications with Civil Defense Hdqtr.
EMERGENCY PROCEDURES Plan for emergency in river, vacant areas, areas such as car parking lots, or outside congested area.
2. PILOT: NAME Capt. E. J. Baller ADDRESS 1410 S W Upland Drive, Portland
CERTIFICATE NUMBER & RATINGS National Guard Pilot
3. CREW:
- | NAME | ADDRESS | CAPACITY |
|------------------------|------------------------------|------------------------|
| <u>Sgt. Jay Sadler</u> | <u>Portland Police Dept.</u> | <u>Police Observer</u> |
4. AIRCRAFT NAME Hiller MODEL H-23-B REG No 54-2916
OWNER O N G ADDRESS Pdx A F B
RADIO CALL 2916 FREQUENCIES 126.3 30.0
5. SIGNED Carl Snyder, Air Operations Officer
OFFICIAL: SIGNED Jack Lowe, Director, Portland Civil Defense

RCB:w/60 Copies



UNITED STATES
DEPARTMENT OF THE INTERIOR
BONNEVILLE POWER ADMINISTRATION
PORTLAND 8, OREGON

September 20, 1955

MEMORANDUM

TO: All BPA Personnel - Interior Building

FROM: Administrator

SUBJECT: "Operation Green Light"

Your attention is called to the following Information Bulletin No. 70 released by Civil Defense pertaining to "OPERATION GREEN LIGHT," which is the official name for the trial evacuation of the center of Portland some time during the last week in September.

Inasmuch as the Interior Building is located within the area to be vacated all employees other than those with specific assignments will evacuate the building when this test is made.

A large map showing evacuation routes will be on display in the lobby of the Interior Building to assist you in your individual family evacuation plans. Each of you is urged to study this map and Information Bulletin No. 70 carefully and plan your entry onto the proper evacuation route from your customary parking place.

You are urged to keep this information for future reference, as it undoubtedly will set the basic pattern for subsequent evacuations.

William A. Pearl
Administrator

NOTE:

(See Tabs B (2) and B (3) for Information Bulletin referred to in above.)

Portland Public Schools
631 N. E. Clackamas Street
Portland, Oregon

To All Parents:

In order that the Civil Defense Authorities may gain as much helpful information as possible, the schools are participating in the Test Evacuation to be held in the afternoon on one of the following days, September 27, 28, or 29. Since this test is being conducted to gain information basic to our survival in case of a real emergency, we feel that it is our obligation to the children to cooperate in this test.

The following plan will describe the part the schools will take in this test evacuation.

1. All schools will close at the sound of the sirens announcing the test.
2. All pupils in all schools in the kindergarten through the fourth grade will be dismissed approximately 20 minutes early on the 27th, 28th, and 29th of September to reach their homes or places designated by the parents before the test starts.
3. All pupils in grades 5-8 and high school will remain in session until regular dismissal or the sirens sound the beginning of the test.
4. If the test takes place while the schools are in session the pupils still in school will be dismissed and make their way to their homes or to a spot designated by the parents.
5. Parents who live in the evacuation area should make definite plans to provide for transportation of their children from the test area. Under no circumstances should parents go to the school. Parents should wait at the home until the child arrives home and then evacuate the area.
6. Parents who will not be home should make definite arrangements for their children to get out of the test area. If this involves transportation, the child should be instructed where to go and the person providing the transportation should be instructed to wait for the child and not to go to the school.
7. Safety patrols under the supervision of a teacher will assist children in crossing at the designated crossing.
8. Each family should develop a plan which should be the plan to be followed in a case of a real emergency. Only with planning can the family hope to improve its opportunity for survival. This test provides the best opportunity to date to evaluate your plan.

This is a community enterprise and if all agencies cooperate there should be no danger to anyone. Your principal will keep you informed on matters affecting your own school.

WAO:dj

WESTERN STATES MEAT PACKERS ASSOCIATION, INC.

604 MISSION STREET
SAN FRANCISCO 5, CALIFORNIA

PLEASE POST ON
BULLETIN BOARDS

September 9, 1955

OPERATION GREEN LIGHT

By direction of Mayor Fred L. Peterson, the City of Portland has scheduled a test evacuation of the downtown business district for the last week in September.

Purpose of the test is to determine the capability of official agencies and citizens to empty the congested business district (the most probable aiming point of any enemy air attack), and to determine the minimum advance warning necessary to permit evacuation.

The exact time and date of the test evacuation will not be announced in advance.

The test will be initiated by the EVACUATION signal (three minutes of steady tone on the public warning sirens) preceded and followed by the TEST signal (30 seconds of wailing tone followed by 30 seconds of steady tone).

As an additional visual notification to people in the test area, traffic signals will go to a fixed red and green conforming to the test-evacuation traffic pattern, and amber lights will flash continuously in both directions.

THINGS YOU MUST DO

All wholesalers and meat plants within a radius of one mile from the point of S.W. Broadway and Morrison must do the following: All cars and trucks must be removed from streets and placed on parking lots if help is needed in the plant to complete processing and manufacturing. If cars are not removed from street, they will be impounded.

All help not needed for manufacturing and processing is to be sent out of building and evacuated from area. If help does not have own car, please arrange for your employees who live in same area to take others out of evacuated area as common carrier schedules will be very indefinite.

If employees do not have transportation, inform them to walk with flow of traffic out of evacuated area.

All river traffic will cease during evacuation; all bridges will remain closed so traffic can move eastbound out of area. No westbound traffic will be allowed to move into area during evacuation.

(continued)

- 2 -

For plants that are manufacturing and processing, all employees who are needed to complete operation shall be kept in building until the all clear signal is given, then they shall be allowed on the street. All doors of building are to be closed and to remain closed during evacuation period which can be from 1 hour to 2 hours after warning siren.

Notify your help that they should notify their families that they will be late in arriving home on the day of evacuation.

All cars of employees who are remaining in plant are to be placed and remain on parking lots. Please notify parking lot attendant that their cars will remain on the lot during evacuation.

All State, County and Highway Police within a radius of 20 miles of Portland will stop incoming traffic and notify them that the evacuation is in progress and if they proceed further, they will be stopped and held up.

Airplanes and helicopters will be flying at a low altitude over the evacuated area. Please notify your help that they are not to stop to observe this operation until they have moved at least a mile out of the evacuated area.

Please stress to your employees that they are to drive and walk in a sane and orderly manner so there will be no undue accidents.

Please post this bulletin where all your help may see it, and also bring this matter to the attention of your truck drivers so they can contemplate their deliveries.

This evacuation will be held either the 27th, 28th, or 29th of this month and probably in late afternoon.

All employees are to remain out of area and not return to work. Any night watchmen or maintenance men is allowed to enter area to perform their normal duties.

DISASTER RELIEF AND CIVIL DEFENSE
2200 N. E. 24th Avenue
Portland 12, Oregon

23 September 1955

To: DOWNTOWN PORTLAND THEATRE OPERATORS:

The following are the procedures agreed upon by your representatives and representatives of Portland Civil Defense with respect to procedures to be followed by downtown theatres during "Operation Green Light," the evacuation test to be held the afternoon of September 27, 28, or 29.

When the evacuation signal sounds, theatre operators in the affected downtown Portland area will close their doors and will not admit patrons until termination of the test.

When the test signal is sounded, operators will interrupt their program and the manager will inform the audience of the test as follows:

1. The signal for "Operation Green Light", an evacuation test of downtown Portland has sounded.
2. Patrons whose cars are parked on the street in the downtown test area should go to them immediately and drive their cars beyond the test boundaries. Parking is prohibited on all streets in the downtown area during the test.
3. Other patrons desiring to participate in the evacuation test may now leave the theatre by the nearest exit. If any patron has a car parked anywhere in the test area, he should drive it out. Please be careful in walking to your car and cross streets only in pedestrian crosswalks, when it is safe to do so.

Those who do not join the evacuation movement will remain in the theatre until the test is completed. I am unable to tell you when the test will end, but we will inform you as soon as the termination signal is sounded.

When driving out of the test area, follow the green lights and turn with traffic at all red lights or stop intersections. I wish to point out that public transportation may not be available for some time following the test.

4. In the event of a real evacuation called by Civil Defense upon threat of a probable enemy attack on Portland, all theatre

patrons would immediately join the evacuation movement. The signal for a real evacuation is a three-minute steady tone on the warning sirens. All theatre patrons would then reclaim their cars regardless of where they were parked, if at all possible, for private autos would be the key to an effective Portland evacuation. All cars would be loaded to capacity in order to furnish transportation for as many persons as possible. The plan in a real evacuation is for cars to proceed at least twenty miles beyond the Portland target area. Civil Defense urges all families in Portland to make their own family evacuation plans and to include a family meeting point at least twenty miles outside Portland where members of the family may rejoin each other.

5. The evacuation test now in progress has been developed to determine whether Civil Defense plans for the evacuation of our city are workable, how they may be improved, and finally how much time we need to evacuate the city in the event of attack.

Thursday, September 22, 1955

To: All Building Occupants

From: The Building Management

Subject: Plan for Evacuating the Building at the Beginning of the Disaster Relief and Civilian Defense Test - "Operation Green Light"

This test will be held on the afternoon of either Tuesday, Wednesday or Thursday, September 27, 28 or 29, 1955. The exact time of the test will not be announced in advance.

The test will begin with the sounding of the EVACUATION signal on the public warning sirens (three minutes of steady tone) Preceded and followed by the Test Signal, as heard every Monday noon.

Immediately upon the sounding of the EVACUATION signal, the plan outlined below will go into effect for the evacuation of the building:

1. All elevators will cease normal operation and return to the lobby to discharge any passengers riding in the elevator cars at the time the test begins.
2. All elevators will then be dispatched to the upper floors of the building. Each elevator car will be responsible for evacuating two full floors assigned in advance. As soon as the car has a capacity load, it will travel to the lobby for unloading and thereupon return to its assigned floors for another load.
3. All persons participating in the test are urged to respond as quickly as possible so there will be no unnecessary delay in elevator operation at full capacity.
4. As soon as the building has been evacuated, elevator service will be cut down to one car only for the duration of the test.
5. Do not use fire escapes.
6. AMERICAN BANK BUILDING - All persons on the third, second and mezzanine floors should walk down the inside stairway to the lobby and street and not wait for elevators.

CASCADE BUILDING - All persons on the fifth floor and below should proceed immediately to walk down the inside stairway to the lobby and street and not wait for elevators.

MEAD BUILDING - All persons on the third floor and below should proceed immediately to walk down the inside stairway to the lobby and street and not wait for elevators.

When leaving the building at the beginning of the test, all tenants are advised to lock safes, close and lock entrance doors. Although the building cannot be responsible for custodial care of tenants' property, the building will have floor wardens on duty during the test period.

If there are any special needs or problems pertaining to the test, please contact the Chief Warden in your building.

ATTENTION TOURISTS — TRAVELLERS

PLEASE.....

The City of Portland has scheduled a civil defense test-evacuation of the downtown business district, sometime on the afternoon of September 27th, 28th, or 29th.

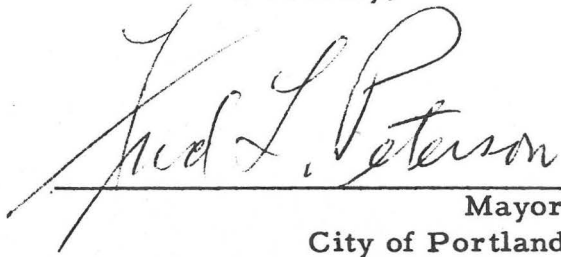
During the actual test period business houses in most of downtown Portland will be closed, special temporary traffic controls will be in effect, and the entire city will be affected to some degree.

It is possible that you, as a visitor, may also be affected to some extent. Special provisions have been made to minimize the inconvenience to travellers.

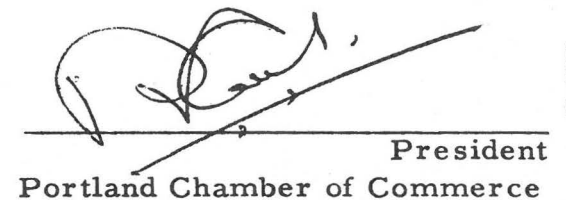
If you hold reservations for September 27th, 28th, or 29th on railroad, airline or bus line, we suggest you contact the carrier involved for information.

We hope you will not be seriously inconvenienced, and ask your cooperation and indulgence.

Sincerely,



Mayor
City of Portland



President
Portland Chamber of Commerce

TAB R

"OPERATION GREEN LIGHT"

~~Bob B.~~
J.L.

**NATIONAL ACADEMY OF SCIENCES
ADVISORY COMMITTEE ON CIVIL DEFENSE**

OPERATION GREEN LIGHT

THE EVACUATION OF PORTLAND, OREGON

SEPTEMBER 27, 1955

WILLARD BASCOM

Lay of the Land

Portland, Oregon, is a city with a population of about 375,000 in an urban area of 700,000. It is separated from the coast by about 80 miles of rugged hills and bounded on the north by the Columbia River. The Willamette River bisects the city in such a manner that the business district, and consequent high daytime population, is on its west side but about 80 percent of the citizenry live on the east side. Five bridges of four lanes connect the two parts of the city. Weather is generally mild but damp. (Rarely freezes but rains about 150 days per year.)

What the Test was Supposed to do

Portland has invested considerable money and effort in the preparation of civil defense plans to make itself ready for a real attack. These plans appeared to be well conceived and workable. For example, plans for day-to-day traffic flow have been made with one eye on the civil defense problem and a special emergency traffic light system for the express purpose of expediting evacuation has been installed. But having plans and setting up machinery is not enough- -they have to be tested.

It would have been easy to plan a modest test which would certainly have worked and would have satisfied casual observers and made the Bureau of Civil Defense look good. But these were not the objectives. As stated by Civil Defense Director, Jack Lowe, "The test has to put some load on the plan and force it to break down at its weakest point. It has to be big enough to be significant."

So the test was set up to involve everyone in a 1000 block area comprising all of the downtown area of Portland and large residential and industrial areas on both sides of the river. The inhabitants were "expected to participate- - -all vehicles are to be removed from the streets in the test area."

The element of surprize was added in that the test was scheduled for "after 2 p.m. on Tuesday, Wednesday or Thursday of the week of September 26." There was no public announcement previous to the sounding of the sirens.

An arbitrary perimeter was set up one mile outside the boundaries of the test area and cars were expected to pass check points at that distance before turning aside and/or waiting for the all clear.

The test also was intended to answer some practical questions that other local CD groups have had about staging test evacuations. Questions like: Will the public participate? How do you maintain municipal services (fire, police, utility, hospital) while a test is underway? Will traffic signal lights guide evacuation traffic as well as police and wardens? How do you persuade businessmen to close up shop early and send employees home? And many others.

The test appeared to fulfill its objectives.

Participation

1. Weather

The weather participated to a greater extent than had been planned and was less cooperative; it rained fairly hard the entire afternoon. Although this had obvious disadvantages for the participants, these are outweighed in retrospect by the fact that the public cooperated so well in spite of the rain. Rain is a fairly normal circumstance in Portland and a test conducted on a clear day would have left the question hanging of how evacuation would work in inclement weather. Now they know.

Any thought of postponement was discouraged by the weatherman who predicted equally bad weather on succeeding days.

2. News Media

Over a period of weeks the test became a matter of civic pride and press, radio, TV and newsreels gave whole-hearted support. They really wanted the people to know the whole story. Had civil defense news received only perfunctory coverage with official releases published in the back pages of the papers, such a successful test could not have been carried out. Instead there were daily stories about the preparations as well as question-and-answer columns, cartoons, poems, maps and photos. Civil defense people made numerous appearances on radio and TV to answer questions and explain what was wanted.

During the test the key positions swarmed with reporters taking notes and gathering statistics; there were on-the-spot broadcasts from the streets and from CD headquarters; the newsreel photographers were out in force.

Immediately afterwards the test news forced almost everything else from the front pages of the papers.

More(is)lure
 Portland Area — Periods of rain.
 Temperature range, 50-58.
 Oregon and Washington — Show-
 ers with clearing periods.

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TEST EVACUATES CITY IN RAIN



MINUTES AFTER sirens sounded, cars headed for next approach to Morrison bridge. Ten minutes before the picture was taken intersection was virtually clear of traffic. Fifteen minutes after picture was cleared with automatic and manual traffic.

Downtown Empty After 19 Minutes

Portland's core downtown area was evacuated at 3:30 p. m. Tuesday, 19½ minutes after sirens screamed the beginning of Operation Green Light. Thousands of persons jammed bridges as they fled the West Side business district on foot and in cars soon after the signal sounded at 3:10:15. The streets were evacuated and the bridges were cleared except for stragglers when Mayor Fred Peterson ordered the all clear signal at 3:44:40. It was sounded at 3:59:30. The core area was defined as from SW 4th to 10th avenues and from Stark to Taylor streets.

ONE DEATH occurred during the drill. A man tentatively identified as Aiden E. Erickson was pronounced dead on arrival at St. Vincent's hospital. Death was attributed to a heart attack. First reports indicated Erickson was a Portland Traction company employe assigned to civil defense observation at a post at NW 18th avenue and Gilliam street. Many persons not tied to regular working hours left the area early in the afternoon to avoid participation in the much-publicized drill. Others left the city earlier, too, to escape the down-pour which reached near-cloud-burst proportions shortly before 2:30.

A STEADY stream of traffic heading east across the Willamette river bridges was noted an hour before the sirens wailed. By 3 p. m.—10 minutes before the first whistle blast—traffic police were harassed by accidents, caused principally by driving rains and slippery streets. Many cars were driving with headlights blazing. The first outpouring from downtown buildings came about two minutes after the alarm sounded. Some evacuees walked nonchalantly, while others ran to cars or other evacuation stations.

Within minutes there was no traffic on SW 5th avenue near the county courthouse. Only six cars and one bus were in sight. Ten minutes later only three cars were on SW 5th avenue between Salmon and Ankeny streets. Within minutes outbound traffic from the downtown area hit the Morrison bridge, utilizing all but one lane. That single avenue was reserved for inbound emergency equipment. All bridges except Hawthorne and How Island were jammed with bumper-to-bumper traffic. There also were reports of congestion at the intersection of NE 42d avenue and Broadway.

MANY of the outbound cars were not filled with passengers, indicating there weren't too many car pools planned ahead of the drill. Many cars carried a single occupant, others had just two persons. Inbound traffic from Washington across the Interstate bridge was diverted along NE Marine street at Denver avenue. No one was permitted to enter the evacuation area. Within 15 minutes, the Morrison bridge was clogged but the Hawthorne was virtually clear. What traffic was on the latter was moving fairly fast.

CENTRAL POLICE precinct reported it had four accidental calls within the first 20 minutes. It was necessary to dispatch an ambulance on only one of these. The traffic jams that first appeared on the Morrison bridge moved steadily eastward as the evacuation progressed. Thirty-one minutes after the signal sounded police had reports of traffic snails in the vicinity of 9th avenue. One of the worst traffic jams 15 minutes after sirens sounded occurred on SW Salmon street, where three lanes of traffic were backed up several blocks west of Broadway. It was impossible to turn into the heavy traffic flowing south on Broadway.

Either because of the rain or the anticipated civil defense test, pedestrians stayed off downtown streets. Vast amounts of parking space were available on the streets as the city took on a deserted look.

POLICE CARS moved into position an hour before the scheduled wailing. Communications were limited to radio. City health, police, fire and other officials assembled at civil defense headquarters. Gov. Paul Peterson joined Mayor Fred Peterson atop the Equitable building to watch the evacuation. In the seven-story U. S. courthouse, office workers made their way to ground level by stairs when the evacuation signal sounded. The moment the sirens blew, operators took their elevators to the basement, abandoned them and evacuated. Other custodial workers then checked the building, room by room, asking all who were not supposed to be in the building to evacuate. They also checked for live cigarette butts and other potential fire hazards that might have been left behind.

Prison to the southeast of the streets, several hundred key civil defense officials from all parts of the U. S. gathered at the Central fire station for briefing. Gov. Paul Peterson spoke briefly. HE PRAISED the co-operation of all persons participating in the evacuation. He also called it an "interesting experience" and warned that next time "we may not have the time to prepare." The group then was divided into units and dispatched by bus to 11 key spots throughout the evacuation area. From these vantage points, they watched the entire evacuation process. Ironically, people on the downtown streets smiled as the masses wended their way to the vantage points. They obviously knew the "Green Light" was coming off this afternoon.

TOP state, civil defense and federal forces officials viewed the evacuation from atop the Equitable building. The group included Gov. Peterson, Mayor Fred I. Peterson, Maj. Gen. C. B. Stern, Vancouver, B. C., co-ordinator of civil defense for British Columbia; R. A. Pennington, Victoria, B. C., department provincial secretary; and Asst. Police Chief Dewey Brookins, Honolulu, Hawaii, in charge of civil defense for the territory of Hawaii. Also, W. C. Specht, Idaho state director of civil defense from Boise, Adm. Claude E. Backus, director Washington state civil defense; Col. W. B. Carlock, chief of Oregon military district; Walter D. H. Hurr, national headquarters, federal civil defense administration; Ralph Crook, military Willard Bascom, National Academy of Sciences, Washington, D. C.; Dr. Ralph Purvine, alternate medical director, state civil defense for Oregon; and Col. Arthur M. Sheets, Oregon state director of civil defense.

Mayor Fred I. Peterson said the evacuation was "better than he had expected." He noted some traffic congestion along SW Front avenue and he quickly notified police. Gov. Peterson called the drill "remarkable." He gave particular praise to drivers for getting their cars out of parking lots and off streets. SHERIFF Terry D. Schruink, co-ordinator of civil defense for Multnomah county, said the test evacuation indicated downtown Portland can be emptied of its citizens with an hour's warning. Schruink made his observation after he had witnessed the evacuation from the 8th floor of the county courthouse. He then went into the field to supervise operations at the numerous checkpoints manned by sheriff's deputies. Schruink did say, however, that there were not as many cars as he wished that participated in the test. That gave support to the reports of some observers that many persons had left the downtown area prior to the test. With the test one half-hour aid, Schruink said from the field that the drill had run smoothly.

Oregonian Sunrise Final

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TEST VIOLATOR RISKS ARREST

Chief Calls On Public To Comply

A warning that rules of Portland's forthcoming evacuation test must be followed, was sounded Monday night as the city prepared to participate in Operation Green Light—either Tuesday, Wednesday or Thursday afternoon. Police Chief Jim Purcell Jr. instructed his officers to arrest any motorist or pedestrian who violates the evacuation test rules. "The success of the evacuation depends greatly upon the diversion of traffic from the area to be evacuated," Purcell declared. Civil defense officials, voicing hope all is in readiness for the evacuation of the metropolitan business area, have indicated it will not come before 2 p. m. on one of the three days. The evacuation signal will be a full three minutes of steady tone by the city's seven giant public warning sirens sounding

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3. Police, Fire, Utilities

In the words of their Chief, Jim Purcell, the police bureau felt that it "had most to lose and least to gain" of any of the agencies involved in the test. Consequently they planned with extreme care to protect their reputation ("If anything goes wrong they'll blame it on us.") and had 800 to 1,000 officers on duty.

As the evacuation developed, many police moved out with the evacuees because "demand for police service is proportional to population." To protect the deserted city against criminals who might take advantage of the evacuation, special patrols were instituted and foot detectives were furnished with radio page receivers so they could be contacted quickly. For the possible circumstance of crime coincident with the heavy traffic flow, detectives were mounted on motorcycles (cycle detectives) so they could get around quickly. No crimes were reported however.

Police also performed the services usually associated with evacuation such as turning away incoming vehicles at the outskirts and directing traffic at critical points such as bridge approaches.

They were assisted in this by an ordinance especially passed for the occasion which made it unlawful to disobey any police officer or civil defense worker who was expediting the evacuation and gave the authority to arrest. No arrests were necessary; apparently the threat carried in headlines by the morning Oregonian "Test Violator Risks Arrest" was sufficient.

The fire department did not evacuate although in an actual evacuation they plan to move most of their equipment outside of the metropolitan area. It did take extra measures however, the most interesting of which was that off-duty firemen would report for work as unpaid volunteers to supplement fire protection thruout the test area. The absence of persons likely to report the outbreak of fires caused some worry and persons in offices and stores were warned to make a double check of fire hazards before leaving. Firemen were stationed at many alarm boxes as an extra precaution.

At the height of the traffic movement a man suffered a heart attack and was reached without difficulty by a Fire Department first aid vehicle. The Chief concluded that fire operations could have been conducted without serious obstruction if they had been required.

The utility companies were in the somewhat ambiguous position of doing exactly the opposite of what they would do in a real evacuation- - -in which they would leave town and let the service go. For the test thirty-five emergency utility vehicles were stationed in advance at strategic points thruout the evacuated area.

4. Economic

When Mayor Fred Peterson decided a test of the civil defense plan was necessary, he called a meeting of a hundred of the city's prominent men including business leaders. Director Lowe gave them a presentation which

contained his estimate of what was likely to be involved in time, effort and money. Plainly the exercise would be expensive.

The first two responses (quite spontaneous) came from the heads of the telephone company and of the city's largest department store. They were strongly in favor of testing the plan - - -to the point of being mildly critical because a test hadn't been proposed earlier. The pattern was set and opposition from the business community substantially disappeared. Each company made its own plans and carried them out; somehow they made satisfactory arrangements which solved the many problems which have appeared insuperable to those who have not tried.

Hotels passed out instruction sheets to guests and explained how they should act when the sirens sounded. (Park cars in garage, keep off streets.)

Taxis in the test area not previously engaged were to move out with the traffic, picking up pedestrians without charge and dropping them off immediately beyond the boundaries of the test area.

Professional men, doctors, and dentists cooperated by not making appointments or by sending waiting patients home.

Stores released all employees except some cashiers and watchmen; offices discharged their staffs; water traffic which required the opening of bridges was prohibited.

The test unquestionably interrupted business and certain income was irretrievably lost, but Portland seemed to take the view that it was worth the cost.

5. Political

Thirty-four minutes after the warning siren Mayor Peterson with a pleased look on his face called Civil Defense Headquarters and hoarsely instructed them to terminate the test at four o'clock. He looked pleased because he had staked considerable political prestige on the ability of his

city government to carry out an elaborate and expensive test and he had won. The fact that he was right should not detract from the political risk that he took, for a failure and a critical press could have made the test look like an expensive and useless boondoggle.

Governor Patterson "had some misgivings because the public might have refused to cooperate completely" but "when the people came out of the buildings and started to walk across the bridge in the pouring rain I was so proud I could have busted my buttons." "I hope the word of our success filters down, or up, to Washington."

As Admiral Barbey, Washington State Civil Defense Director, said, "While others talked about evacuation tests, these men went ahead and tried one."

6. Public

"All persons within the designated test area at the time of the test will be expected to participate in the evacuation unless hospitalized, infirm, or engaged in the conduct of essential public services."

At this writing there is still no tabulation of how many people did participate in the test but it undoubtedly exceeded 100,000. The exact date and time of the test was not announced to prevent artificial thinning of the downtown population before the test, however it was agreed that there were fewer people than normal on the streets. This may have been due to good guesswork by the public (the first of three possible days was the most logical) or it may have been the effect of a day of rain following a sunny spell.

At any rate, those people who were downtown cooperated fully. As Colonel Sheets, Oregon State Civil Defense Director, said, "We know now how people will react to a civil defense test. They want to understand and they will cooperate when they know what to do."

Except for one religious group which opposed the test because of its war-like implication the public seemed to be solidly behind the concept of a test.

Schools participated fully but did not evacuate as groups. Grades 1--4 were dismissed early; older children were sent home when the evacuation signal sounded so that they could evacuate with their families. Teachers took over the safety patrol job at cross walks because "Kiddies might incur hazardous relationships with vehicles" (understatement of the week).

One apartment house evacuated en masse to Newberg, Oregon, and went thru the motions of being fed and quartered by that "support" area.

The key employees of one large Federal Agency met their families at pre-determined points and then moved many miles to a new position where they were to set up shop again and carry out administrative functions remotely.

In a sense the actual movement of the people was an anticlimax; success was assured by the attitude of the prospective participants. The taxi driver who spoke of it (he was reminded by a news broadcast on the taxi's radio) did so without the usual self-conscious smirk which is characteristic of prospective evacuees. The hotel clerk carefully explained to an incoming guest how to store his car and why he should listen for the siren and get in out of the street. "Unless you'd like to participate" (hopefully spoken).

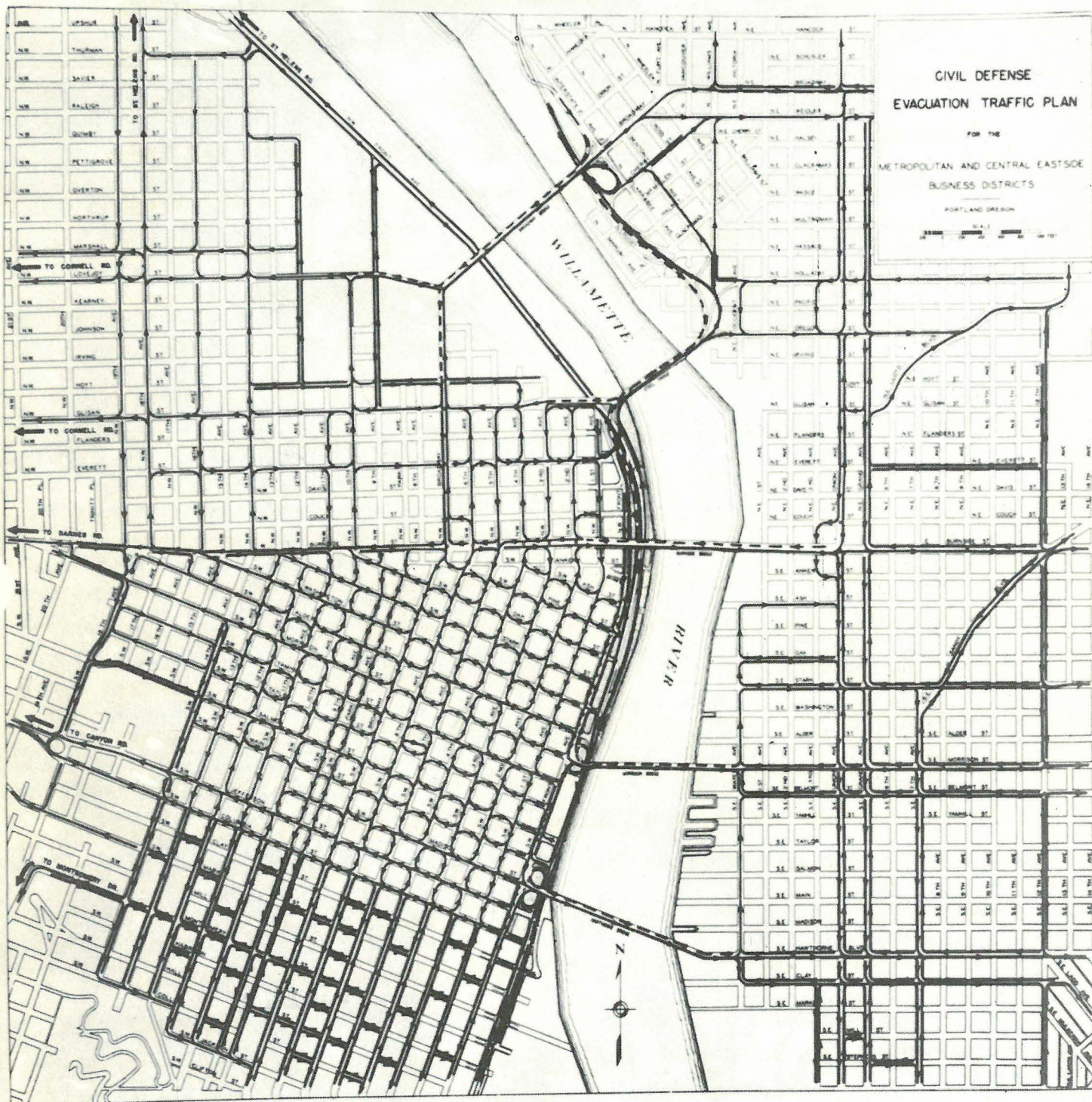
Civil Defense Headquarters seemed almost resentful of a man who died and had the nerve to want a funeral at a time that might coincide with their test.

When a city the size of Portland can act proud instead of foolish about a test of emergency capability, civil defense is coming of age.

DRIVERS' GUIDE

OPERATION GREEN LIGHT

Week of Sept. 25th, 1955



- Follow the green lights to nearest exit point.
- Turn with direction of traffic at red lights.
- Drive at least a mile beyond boundary of test area.
- Drive carefully, observing normal traffic rules.
- Dashed lines show in-bound lanes reserved for emergency vehicles.

The Traffic System

Nearly all streets in downtown Portland are one-way; turns with the traffic on red are allowed after a full stop. As a means of directing evacuation traffic without using scarce and sometimes unreliable manpower, the traffic signal system (there is a light on nearly every corner) was wired so that by closing a single switch all signals would go to a fixed "evacuation pattern."

This pattern has green lights on main exit routes, red lights to prevent crossing the routes (but cars can turn and go with the evacuation traffic), with amber lights flashing in all four directions. Pedestrian lights were turned off. (The amber flashing constitutes a visual addition to the siren warning system). The addition of this evacuation direction capability to the regular traffic signal system cost the city of Portland \$28,000 and it appears to have been worth it. Although FCDA rejected the application for the use of matching funds for this signal modification on the grounds that it was "impractical", it might well reconsider.

The adaption of a recognized control system for use in a crisis seems likely to have a better chance of being obeyed than some arrangement which people *do* not recognize.

Other advantages are: 1) System is in effect simultaneously with the sirens and thus requires no special movement of people to direct traffic. 2) Numerous unsightly and expensive signs indicating evacuation routes are not required in the city center. 3) The system can be tested, and altered if necessary, in the early hours of the morning without disturbance of the population.

Traffic on the five bridges was arranged to expedite the movement from the business district on the west side of the river to the residential area to the east. On each bridge a lane was kept open for west-bound emergency

traffic. As it turned out the load on the bridges was unequal. Steel Bridge carried less than half its capacity but Broadway Bridge, a few blocks away, was crowded and traffic moved slowly (5--10 mph) for the first thirty minutes. A bad wreck at the east end of the Burnside Bridge just immediately prior to the test stopped traffic, but somehow it was cleared away in a few minutes and traffic moved rapidly from then on at perhaps two thirds of capacity.

There was some worry that walkers on the bridge sidewalks would step off into the path of traffic but no accidents of that nature were reported. Two "rear ender" collisions of autos occurred on the Broadway Bridge.

Traffic did not move without presenting problems. During the first few minutes cars went thru red lights (slowly) in violation of the rules. Pedestrians, possibly motorists headed for their cars, crossed evacuation routes in large groups and stopped traffic temporarily but without substantially delaying its movement.

There was comparatively little "pickup" of pedestrians. Cars averaged three occupants so ample additional space was available but was not offered. Use of busses and taxis appeared to be at a minimum.

Planning

The test succeeded because it followed a carefully thought out operations plan which described the required activities in meticulous detail. The plan was believable and as such it was accepted by the Mayor and the press and transmitted to the people. Its preparation (kept quite separate from the actual emergency plan) required 90 days which Director Lowe says is "just about right". The planning and selling took that long but a longer period would have allowed interest to slacken.

Nine civil defense organizations (cities and counties in Oregon and Washington) worked together on the plan but the bulk of the work was done by municipal bureaus of the City of Portland- - -coordinated by the Civil Defense Office.

As the plans progressed, memoranda were developed and circulated on the subjects of purpose and scope, traffic control, transportation, observation and evaluation procedures, public safety measures, and operations instructions.

A closer look at one of the detailed sections gives an idea of the depth of the planning. For the "operation and maintenance of sirens" the following instructions were issued (greatly abbreviated here):

1. No announcement of the time of the test is to be made in advance.
2. Regular weekly test of sirens is cancelled to avoid confusion but sirens are to be inspected, serviced and refuelled on September twenty-sixth.
3. A special test signal (not the real signal) is to be used.
4. Sirens will be operated manually at central control panel to start test and automatically to finish test.
5. Siren operations for the test will be ordered by a CD staff member by telephone who will give his name and the code authentication.
6. In event of actual alert, alarm office is to follow SOP.
7. All sirens will be refuelled and inspected immediately following the evacuation test signal and maintenance personnel will be stationed at all sirens until completion of test.
8. Maintenance personnel are to arrive at siren stations an hour before the test (confidential information), examine engines without starting then make sure controls are set on remote and report state of readiness by telephone to the superintendent who will file a consolidated report to CD operations officer.
9. "At test time minus 5 minutes all personnel will be in attendance at the individual manual control boxes with the exception of the American Bank Building where the attendant will not remain on the penthouse roof, but will take up position on the roof proper adjacent to the access stairway. If a siren fails to start at test time on remote control and other units are still in operation, controls should be immediately switched to manual and the attendant should sound the remaining portion of the Evacuation Test Signal. (See Operations Instructions No. 1 attached, for Special

Signals.) If manual operations of the Bank Building Siren is required, the attendant will make sure that his ears are protected against sound injury.

In the event a siren cannot be started manually while other sirens are still in operation, no attempt will be made to sound the Evacuation Test Signal with the exception of the downtown unit on the American Bank Building. Every effort will be made at this latter location to sound the "starting" signal even though all other units have completed their operation. The operation of the Bank Building's siren is of extreme importance, as it is the only siren within the Test Area." *

Other parts of the plan such as those on traffic (maps and instructions to police) and observation (containing many long forms) are even more detailed and could usefully be studied by other cities faced with a similar problem.

It was suggested that an actual evacuation would be easier to run than a test because of the substantial problems of protecting the deserted city, of interesting the people in the test and on working with the news media. (The latter item represented nearly half of the effort.)

In the days and hours immediately before the test the phone at Civil Defense Headquarters rang incessantly-- --and this was regarded as a good sign. Although the plan had been told and retold in the newspapers, everybody had a question. "My wife is a week overdue with a baby, how will I get her to the hospital during the evacuation?" "How should I prepare for the test?" "What do people in motels do?", etc.

It soon turned out that each caller really knew the answer to his "question" and only wanted confirmation and a pat on the head. After talking about his problem for a while he would pause; if no comment was received from Civil Defense he would continue. Eventually when the caller had solved his own problem he would thank CD for the help and hang up.

Moral: With a plan to go on, the public can figure out a lot of details for itself if given the opportunity.

* Incidentally, all sirens operated perfectly in all respects.