

WAR TRAFFIC CONTROL

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U. S. OFFICE OF CIVILIAN DEFENSE

Washington, D. C.

WAR TRAFFIC CONTROL

FOREWORD

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Regulations and enforcement procedures covering actual "disaster areas" in the event of air raids or other real enemy action within cities or in the rural areas of the United States, contained herein, are based on the best and most reliable knowledge available at this time. If, in the light of subsequent experience, improvements in fundamental policy, methods, or techniques, are forthcoming, they will immediately be forwarded to recipients of this booklet, for inclusion.

Methods for the control of day-to-day traffic in wartime, on the other hand, are based on long and varied experience over the entire area of the United States. Causes, effects, and methods of dealing with this more nearly normal phase of traffic control are well known and founded on practical enforcement experiences and profound studies extending over a long period of years.

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Prepared by the

U. S. OFFICE OF CIVILIAN DEFENSE

With the advice and assistance of other Government and private agencies

INTRODUCTION

Since the declaration of war on December 8, 1941, the street and highway traffic control situation in this country—already bad—has become critical.

Added to the serious congestion problem aggravated by defense preparations and a record-breaking total of 40,000 deaths for 1941 are the new and intensely important problems of traffic control during blackouts, air raids, disasters, and evacuations. These issues must be met now.

Before America entered the war, the International Association of Chiefs of Police, nine other national governmental associations and the Office of the Provost Marshal General of the War Department had developed an Emergency Traffic Law Enforcement Program—designed to aid enforcement authorities in the control of traffic under normal, though highly intensified, conditions. This program is still thoroughly sound, but it is not enough. It must be supplemented with a program to handle traffic under the extreme emergency conditions of war.

The International Association of Chiefs of Police, working with the Federal Bureau of Investigation, Office of Provost Marshall General of the War Department, U. S. Conference of Mayors, Public Roads Administration, Institute of Traffic Engineers, Automotive Safety Foundation, and Society of Automotive Engineers, has developed this War Traffic Control Program for the Office of Civilian Defense. The basic police plan is for use during air raids, blackouts, and evacuations.

In the disaster phase of the traffic problem, enforcement officials must assume positive leadership. Never before have they needed machinery to control traffic during air raids, blackouts, and evacuations. They do today.

In the other responsibility—general traffic control—the Nation is better prepared. Basically, this is not a new problem. Rather, it is an aggravation of an old one. Well understood causative factors create the problem, but their manifestation has been increased by the emergency. The problem will, therefore, respond to treatment by proved control methods, if they are applied with the increased vigor and quality now demanded.

As America wages total war, the duties of the Nation's traffic law enforcement officials are clear.

Police and other enforcement officials must assume leadership in the War Traffic Control Program. Their authority during disaster situations will be superseded by the military, however, if martial law is declared.

WAR TRAFFIC CONTROL PLAN

A. General

1. *War Traffic Control* is that exercised when an emergency situation due to the war creates traffic problems and demands of an unusual character or severity, different from those normally encountered.

2. In general, emergency traffic control will be provided by use of the same personnel and facilities employed in normal traffic control. However, certain modifications of organization, equipment, and procedure must be made, and auxiliary personnel will often be required.

3. Modifications of normal practice must be made with full regard for the following aggravating factors:

- a. An air raid.
- b. Blackout conditions.
- c. Sudden unanticipated and often serious interference with or interruption of planned traffic circulation.
- d. Frequent and sudden changes in demands for road use.
- e. The need for special restrictions on road use and manner of operation.
- f. Special problems attendant upon the accommodation of military traffic.
- g. Restricted communication facilities.

4. Plans for the effective control of emergency traffic should be developed in as much detail as possible in advance and must be capable of execution without delay. They should embrace detailed treatment of all

pertinent elements of traffic circulation and control.

5. All emergency traffic control plans should be characterized insofar as possible by simplicity and flexibility, and must embody necessary coordination with the plans of other agencies which affect or are affected by them.

B. Organization, Administration

1. Traffic control is the restraint and direction exercised over traffic and may be accomplished by design, by traffic control devices, or by manual direction. Control by manual direction is vested in the police; traffic control devices are responsibility of traffic engineers, where there are such, otherwise the police; design is the responsibility of engineers. Municipal police are responsible for control within their jurisdictions and State police for control throughout the State outside of incorporated municipalities. Where an area covering all or part of two or more municipalities, or both urban and rural territory, must be controlled as a unit, the State should assume responsibility for necessary coordination and direction. If such an area embraces part of the territory of two or more States, the State police of the States concerned must maintain necessary liaison through such means as are most appropriate to the situation. The work of county police will be coordinated, insofar as necessary, by State police. General procedure in all such cases should be embodied in advance plans to the greatest possible extent.

2. Liaison with other civil-defense agencies is nominally maintained through the chief of police, in accordance with the general organization plan established for civilian protection. However, to expedite coordination of action, direct liaison is necessary with other agencies whose functioning affects or is dependent upon the nature of traffic control. Liaison will be maintained with military authorities in accordance with War Department Training Circular No. 11 (1941).

3. In the event an area within the United States becomes a theater of active military operation, civil police traffic control activities will be coordinated and directed by military authorities administering martial law in the theater. Civil police aid in traffic control under such conditions will include:

- a. Furnishing information on traffic conditions and characteristics which will assist military authorities in preparing traffic plans.
- b. Recommending traffic-control measures to appropriate military authorities.
- c. Assisting, as directed by military authorities, in the execution of traffic-control plans. This will range from performance of specific assignments to assumption of responsibility for general control throughout an area, depending on the situation.

To facilitate coordination of civil police and military traffic control activities, a qualified police commanding officer, and such staff as may be necessary, should be assigned to the military headquarters of the area as a liaison officer. This officer should represent the State police, through whom local police activities can be coordinated. If two or more States are concerned, each should have such a liaison officer, and all such officers should work closely together. Good communications facilities should be provided between such officers, stationed at military headquarters, and their own department's headquarters.

4. The functions of all traffic-control agencies should be coordinated to insure effective traffic control. The method of securing this coordination depends on the local situation. Methods now in effective operation should be continued. Traffic engineering agencies, for example, are customarily charged with traffic sign and signal responsibilities.

5. A traffic control officer will be appointed in each department by the Chief of Police. He shall have the following duties:

- a. Prepare traffic circulation and control plans for all current and anticipated emergency situations except where such responsibilities are vested in some other agency.
- b. Maintain liaison with military, civil protection, and other traffic-control authorities through appropriate, designated channels.
- c. Supervise the execution of traffic-control plans, except where such responsibilities are vested in some other agency.
- d. Command designated traffic-control personnel.
- e. Supervise the training and equipping of personnel for traffic duty.

6. A traffic control unit will be created in the police department, under command of the traffic-control officer. Its regular police personnel strength will be sufficient for proper performance of necessary duties of types to which regular police should be assigned. Auxiliary personnel will be provided to the extent necessary to assure proper performance of all traffic-control functions. In municipal police departments, the traffic control unit will include regular officers assigned to both headquarters duty and to critically important field duties. In State police departments the unit will include headquarters personnel and district traffic control officers. The latter will exercise functional supervision of regular officers and of auxiliaries when detailed to traffic duty in their districts. Districts should conform to

those already established under the organizational and administrative plan of the department, unless such plan is not fully adapted to anticipated emergency requirements. Each district should constitute an area of such size and character as would require and permit its being controlled as a *unit*. When the area of a city warrants, district traffic control officers will also be appointed, and groups of traffic-control personnel will be assigned under their command. They will also exercise functional supervision over other police personnel, regular and auxiliary, who may be detailed temporarily to traffic duty. Designation of districts will be done in the manner prescribed for States.

7. Traffic-control headquarters should be established at police headquarters, with close liaison maintained with the civilian defense control center so that traffic control may be closely coordinated with all other essential activities. The duties of the traffic-control headquarters will include:

- a. Maintaining current information on the traffic situation.
- b. Assigning personnel and instituting other control measures in accordance with indicated demands.
- c. Planning and putting into effect revised circulation and control systems when demanded by changed conditions.

8. Assistant traffic control officers should be designated to direct headquarters operations on a regular rotating schedule when conditions require continuous emergency operations for extended periods. Subordinate personnel should also operate on a rotating schedule at such times. Tours of duty should normally range from 8 to 12 hours, depending on the situation and the availability of personnel.

9. A mobile personnel reserve should be maintained at headquarters for special duty when occasion demands. This group, to be of such size as local conditions suggest as necessary, will be employed on special duties at headquarters, such as maintaining equip-

ment, assisting regular headquarters personnel, instructing auxiliaries, etc., when not assigned in the field.

C. Personnel

1. Traffic control personnel will include regular police officers and auxiliary personnel. Regular officers should include chiefly those most experienced in traffic control work. Auxiliaries should be carefully selected with specific regard for their qualifications for traffic duty. Important qualifications include: good physical condition, physical stamina, respect-commanding appearance, mental alertness, quickness of reaction, sound judgment, courage, emotional stability, self-confidence, good character, and reputation, reliability, ability to handle people and good memory.

2. Regular police should be assigned to such extent as they are available, to those duties demanding most experience and judgment, and auxiliaries to duties requiring lesser special knowledge and involving less responsibility. Economy in the use of regular police may be effected by assigning one or more auxiliaries with a regular officer when assignments require the coordinated work of two or more men.

3. Where not delegated to other governmental agencies, special duties such as maintaining maps, handling communications, installing traffic signs and maintaining records, may be performed by auxiliary personnel with lesser qualifications than those required for performance of actual traffic control duty. Boys, older men, or women are often available and suitable for various duties of this general character. This personnel may also be used to relieve police personnel of such necessary but time-consuming duties as school-crossing protection.

D. Equipment

1. *Transportation*.—As much mobility as possible should be provided in the traffic control field force, both for the maintenance of patrols and for the rapid shifting of personnel. Motorcycles and automobiles nor-

mally used in traffic control work provide the nucleus of such equipment. These should be supplemented by other vehicles insofar as possible and necessary. Trucks and buses may be effectively used to transport men to an area requiring special attention. When distances to be traveled are not great, bicycles may be effectively used on patrols by men on point duty who may have to be shifted from time to time, and by messengers. In cities where rivers or other bodies of water divide areas, boats should be available at fixed locations, or carried on trucks or trailers, to facilitate necessary movement of traffic control personnel in the event bridges are destroyed.

All traffic control vehicles should, in addition to being equipped with lighting devices, be distinctively identified both by day and night. A special pattern formed by grouping of blackout lights may be used for night identification; distinctive painting of parts of vehicles in a light hue provides good day identification and also aids in night visibility. Vehicles temporarily used for emergency work, and not so designated by usual marking, should be identified by the letter E painted on sides, front and rear of vehicles. (See recommended ordinance P 26 .)

Light, slow-flying aircraft are often invaluable for control operations over an extended area, and are also useful for communications purposes, quick movement of personnel, and other services. Arrangements for procurement of private planes and pilots can be made through the local civilian defense agency. They may be assigned permanently to the traffic control unit or made available from a general pool when necessary, depending on how continuously needed.

Trailers or trucks fitted out as mobile field headquarters units are valuable in State police work or in large cities. These may be dispatched to the scene of critical situations to provide coordinated direction on the spot. They may also be used to replace fixed control headquarters destroyed by enemy bombing. They should be fitted out with

communications facilities, maps, office equipment and other equipment provided at fixed location headquarters.

2. *Traffic Control Devices.*—Extinguishing of illuminated traffic control devices or installation of special blackout traffic aids should be carried out in accordance with standard specifications prescribed by the Office of Civilian Defense. Provision should be made to hood, or otherwise render inoperative, all traffic control devices when manual regulation is substituted.

Special distinctive markers should be installed along routes designated for special purposes, such as movement of military columns, civilian evacuation, "dud" bomb removal, travel of workers to and from essential industrial plants, emergency-vehicle routes, etc.

Provision should be made for printing or stenciling temporary cardboard signs for the regulation, guidance and information of traffic, and special sign crews should be designated to prepare, install, maintain, and remove these signs. Such signs should conform, insofar as possible, to present standard designs for permanent signs.*

A number of vehicles should be equipped with mobile public address equipment to facilitate giving directions to traffic, issuing instructions to traffic personnel in a critical area, and directing emergency crews. This equipment should be installed chiefly in patrol vehicles, with one or a few such units maintained in reserve at control headquarters for special emergency use. Such equipment should also be installed in airplanes used for traffic control.

Traffic control personnel should be provided with special baton-flashlights for night traffic control. (A standard flashlight with lucite or hollow plastic tube extension.) The intensity of light emitted must not exceed that permitted by blackout restrictions when such are in effect. A special switch control is necessary to provide different light inten-

* See Uniform Code on Signs, Signals, and Markings—National Conference on Street and Highway Safety.

sity for normal night use and for blackouts.

Traffic control personnel should also be provided white belts with radium buttons affixed to the front and rear, white gloves, and white caps.

Auxiliary personnel need not be fully uniformed, but should be provided with the white belt, gloves, and cap and with a suitable brassard.

3. *Miscellaneous:*

a. All traffic control personnel should also be provided with the following equipment:

- (1) Copies of special traffic regulations, routing plans, etc., in effect.
- (2) A road map of the city or area, with important locations indicated.
- (3) Notebook and pencil.
- (4) Luminous-dial compass.
- (5) Luminous-dial wristwatch.
- (6) Traffic whistle.

b. Bulldozers should be available for use along evacuation routes.

E. *Communications*

1. Provision of adequate communications facilities is essential to effective control of traffic in emergency situations. Radio should be used insofar as possible. Regular police facilities, if inadequate, may be supplemented by amateur equipment and oper-

ators, available through the civilian defense agency. The probable unavailability of radio facilities to the full extent that communications are necessary in an emergency makes the provision of auxiliary means imperative. Chief among these are messengers and telephone. The latter provides more rapid communications, but is not fully flexible nor always available. Messengers, while slower, are more continuously reliable. To facilitate communications in a critical situation when radio or telephone contact cannot be established from headquarters and messenger service would be too slow, some means of signaling to all, or a certain group of traffic control personnel to communicate with headquarters for instructions, must be devised. This may be accomplished by prearranged light or sound signals. To facilitate communication of messages over a large area when all personnel cannot be simultaneously and directly contacted, a decentralized system can be used. Thus, a message can be transmitted by messengers from headquarters to various field control points, or sub-headquarters, and in turn transmitted to personnel in various sub-areas by communication facilities within each. (Messengers, public address cars, patrols, etc.) Messages may also be circulated by use of public-address equipment in planes or by having messages dropped from planes.

BLACKOUTS AND AIR RAIDS

F. Operations

1. Traffic control operations will naturally vary with the nature of the emergency situation. The principal situations to be planned for include: Blackouts and air raids, other disasters, military traffic and civilian evacuation movements on highways. The following sections present essential elements of traffic planning and execution to which attention must be directed in each of these situations.

1. Traffic control during blackouts and air raids involves the following police responsibilities:

- a. Enforcement of vehicle lighting blackout restrictions.
- b. Enforcement of restrictions on travel.
- c. Enforcement of traffic circulations restrictions with respect to priority of road use, allocated routes, etc.
- d. Escorting military columns and other essential traffic when necessary.
- e. Regulating traffic at intersections and other bottleneck points.
- f. Providing guidance and information to traffic.
- g. Enforcing speed limits and other traffic regulations.
- h. Handling traffic accidents.
- i. Making necessary emergency reroutings of traffic.
- j. Installing and maintaining traffic control devices and blackout traffic aids, except where such responsibilities are normally vested in some other agency.
- k. Controlling civilian evacuation. (Supervising the execution of directed evacuation or preventing unauthorized and undesirable evacuation.)

2. The blackout and air-raid traffic control plan must cover:

a. *Personnel assignments.*—Traffic control personnel in the field should be assigned to both point duty and patrols. Personnel should be assigned to point duty for purposes of traffic regulations at all critical intersections and other conflict or bottleneck points where automatic control devices are inadequate or are not provided. Patrols should be established along all critically important routes and should be so laid out that they form a network connecting key points where men are assigned to fixed post duty. Locations where disruption of traffic flow is most probable (bridges, etc.) should receive special attention. Two or more men may be necessary for effective regulation at some points and, insofar as possible, all patrols should consist of two men so that one may be dropped off to assist in handling traffic at a critical point when necessary. Patrol units and the headquarters reserve personnel may be used for necessary escort duty.

b. *Routing system.*—Routes must be selected and marked for various types of traffic in accordance with the existing road-net facilities and the types of demands for their use. Routing plans must assure primarily that:

- (1) Military traffic is moved without delay;
- (2) Traffic essential to civilian defense in the emergency is accommodated;

(3) Essential civilian traffic (such as employes of key industrial plants en route to work) is not unduly interrupted. Routing restrictions should be kept as simple as possible, yet should achieve all possible elimination of conflict between different types of traffic. Alternative routings should be planned in advance for important traffic in case road blocks or traffic jams occur.

c. *Operation of Special Traffic Control Devices.*—Steps must be taken to make control devices conform to blackout restrictions. Patrols should check their areas to determine whether this is properly done and to report any deficiencies due to oversight or damage during a raid. Maintenance crews must be available to keep devices operating properly.

d. *Special traffic regulations.**—Regulations conforming to standards set forth herein should be adopted and enforced by appropriate measures.

e. *Travel restrictions.**—Traffic must be classified by types in order of importance, and regulations prepared governing authorized travel.

3. Traffic in control operations should be directed from the traffic control headquarters at police headquarters under supervision of the traffic control officer or a designated assistant. Traffic control headquarters should maintain large wall maps showing the traffic circulation plan in effect, the current assignments of traffic control personnel, location of existing road blocks, and other pertinent information. These maps should be maintained as up-to-date as possible on the basis of available information, which will come chiefly from personnel on point and patrol duty.

Map pins and colored yarn may be used to indicate essential data relating to important locations, routing plans, road blocks, personnel assignments,† etc. On the basis of the knowledge of the situation thus secured, the traffic control headquarters should seek to maintain at all times the fullest possible control demanded by existing conditions, taking necessary steps to effect emergency rerouting, shifting personnel or sending reserve personnel to critical areas, etc. Measures can more readily be adapted to changing circumstances if traffic control headquarters maintains close liaison with other civilian defense agencies at the control center, and with military headquarters in the area, thus learning quickly of incidents affecting traffic. Arrangements should also be made to promptly receive advice of completion of road repairs so that restrictions on movement may be removed and noted on the circulation map.

4. Plans must provide for rapid initiation of blackout and air-raid traffic control as soon as the first warning is given. On duty personnel should be regularly assigned, insofar as generally consistent with regular traffic control demands, in or near areas where critical demands for control will exist, so that control may be initiated most rapidly therein. A rapid mobilization plan must be employed to get off-duty personnel, regular and auxiliary, to their assigned posts as quickly as possible.

All personnel must be thoroughly familiarized in advance with their assignments and duties, with regulations to be enforced, and with basic routing and authorized travel provisions in effect, so that initiation of emergency control may be accomplished by a simple, quick direction.

5. The following points should be borne in mind by personnel in performance of their various functions:

a. *Traffic flow regulation:*

(1) The position of an officer in an

* See recommended regulations.
† If maps are to be reproduced photographically for use by other offices use symbols in black and white.

intersection should be regulated by considerations of such factors as safety, visibility, noninterference with flow, ability to control, and availability for inquiries. The center of the intersection is normally preferable when full manual control is in effect; with traffic control devices in operation, at intersections of unusual design, or where turning movements predominate, another position may be preferable.

- (2) Standard arm signals (see War Department Field Manual 29-5, *Military Police*) should be used. Signals should be given clearly and smartly.
- (3) A whistle blast should be used as a warning signal before giving manual signals. A series of short blasts should be used to attract a particular driver's or pedestrian's attention.
- (4) Personnel should display a calm, assured manner, avoiding evidence of irritation, uncertainty, or excitement.
- (5) Flow regulation should be kept to the minimum necessary to assure efficient and safe movement.
- (6) Traffic must not be allowed to enter an intersection unless there is adequate clearance space beyond it.
- (7) Vehicles must not be allowed to stop at points where they constitute a hazard or block flow.
- (8) Personnel must be alert to needs for special action to accommodate the passage of military or emergency traffic quickly and safely.

(9) Men at intersections where traffic signals are in operation should supplement rather than replace such signals as long as the latter are adequate. Important duties include enforcement of signal indications, accommodations of turning movements and pedestrian traffic, and giving directions. If manual control must be substituted for extended periods, signals should be hooded.

- (10) When two or more men are stationed at an intersection, one should be designated to do the primary job of regulation, the other being given specific duties, such as pedestrian control or regulation of a heavy turning movement, as assistants to him.
- (11) Emphasis should be placed on accommodating movement; petty enforcement is undesirable.

6. *Information Service.*—Providing information and guidance to drivers is a highly important function of traffic police in any emergency situation. Personnel should equip themselves to perform this task well by familiarizing themselves with routes and locations of important installations in the area and should develop the ability to give directions quickly and clearly. At the same time they must be on guard to avoid revealing vital information to unauthorized persons. *They should be suspicious of any overly inquisitive person or one asking information which would not normally be requested by the average person. Identification should be demanded in suspicious cases.*

7. *Enforcement.*—Except under air raids when all but emergency traffic will be stopped, emphasis must generally be placed on facilitating the movement of traffic

through measures designed to prevent violations responsible for congestion or accidents, rather than through efforts to detect and apprehend violators. Stringent action should be taken in the case of serious violations such as excessive speed, drunken driving, violation of blackout lighting restrictions, or unauthorized travel. Minor violations, however, should be handled principally by warnings. Maintenance of effective enforcement during normal periods is of utmost importance; however during periods of bombings and blackouts, maintenance of traffic flow is of primary importance but even under these conditions dangerous acts must be vigorously curbed.

8. *Traffic Accidents.*—The detailed investigative attention given to traffic accidents under normal conditions is not practicable under extreme emergency conditions. The attention given to accidents will necessarily vary with the circumstances. During an air raid, traffic accidents must be regarded and handled essentially as war casualties. Under blackout conditions when no raid is in progress, more investigative attention can be directed to accidents, but even under such conditions the demand for attention to other traffic control responsibilities make it advisable that detailed investigation be made only of serious cases. In minor accidents traffic police should seek primarily to maintain order and to restore normal traffic conditions.

9. *Traffic Disruption.*—In the event the existing plan of traffic circulation is disrupted by a road block, personnel at the scene should institute immediate action to reroute approaching traffic by the most expeditious route and should communicate with traffic control headquarters as rapidly as possible so that necessary replanning of circulation and control may be done on as broad and well coordinated a basis as is possible and necessary. In serious cases, a competent officer should be dispatched to the location to take charge. Insofar as possible, alternative routings should be predetermined for the most likely situations anticipated, and per-

sonnel in the field should be instructed in the action to be taken. Whether or not such plans are prepared in advance, personnel in the field should seek to map out in advance the immediate action they would take in the event of traffic disruption, so that corrective steps might be instituted with minimum delay.

10. *Aircraft Use.*—Airplanes may be used effectively as an aid in emergency traffic control in many situations. They are useful chiefly when coordination of control is necessary over a large area during a critical situation. On the other hand, certain limitations upon their use make it advisable that they be regarded as a helpful aid to control operations and not as an integral, indispensable element in the control plan. Chief limitations are: lack of air superiority, poor visibility due to blackouts or weather, and weather conditions which bar aircraft operation. The major traffic control services which aircraft can render are:

- a. Reporting road blocks and congestion.
- b. Recommending measures for improving the efficiency of traffic flow.

They are also useful for transmitting messages, transporting personnel to scenes of difficulty, and transporting equipment.

Well-trained traffic officers should be detailed to aerial traffic observation and control duty in order that maximum value may be derived from the use of such equipment. Such officers should receive special training and experience in aerial observation so that they may be proficient in emergencies, in identifying ground locations and perceiving ways to improve traffic circulation.

They should be in radio contact with traffic headquarters at all times when possible and authorized so that they may transmit information and recommendations on conditions observed and may be directed to scenes of trouble to coordinate ground control operations or make observations as a basis for recommendations.

MILITARY TRAFFIC

1. Planning and executing of military motor marches is primarily the responsibility of military authorities. Considerable assistance in expediting military movements can, however, be given by civil police. Moreover, it is essential that they keep in close touch with such operations in view of their effect upon general traffic conditions and control.

2. General procedures for liaison between civil and military authorities in the control of military traffic are set forth in *War Department Training Circular No. 11 (1941)*.^{*} This provides for the establishment of liaison through State highway traffic advisory committees comprised of the State police, motor vehicle, and highway department heads. Liaison with local authorities is provided through the State committees.

3. Principal aids which civil police can extend in the accommodation of military movements include:

- a. Recommendations as to routes on which the least interference with other traffic will be encountered and as to times when movements

can be made with the least interference from or to other traffic;

- b. Escorting columns † and, if necessary, providing communications facilities;

- c. Rerouting other traffic to facilitate emergency movements of military units. Routes for the accommodation of military movements through an area should be selected and marked in advance for the most likely types of movement anticipated. In critical situations these routes should be kept as free as possible of nonessential traffic.

4. Civil police should familiarize themselves with military doctrines, operating procedures, terminology, etc., relative to motor marches and traffic control, so that coordination of effort may be furthered. (See War Department Field Manuals: 29-5, *Military Police*, and 25-10, *Motor Transport*.)

^{*}See Page 31 where War Department Training Circular No. 11 is reprinted.

[†]Recommended that this be held to a minimum, providing only such men as may be needed to supplement the military police for purposes of guiding columns and providing civil authority where necessary.

EVACUATION

1. Civilian evacuation operations involving use of highways present special problems not encountered under any other circumstance. Difficulties encountered depend largely on whether the operation is a planned, controlled activity or a spontaneous, panicky mass movement. Good planning can do much to prevent the latter and sound techniques will help greatly to keep any situation from getting out of hand.

2. Planning must be closely coordinated with military traffic control, in view of the possibility of military operations in an area being evacuated and further since evacuation will, in the theater of operations, be under military orders and control. Insofar as possible, distinct routes should be provided for military and for civilian evacuation traffic.

3. Advance planning and marking of evacuation routes, development of control measures, and public education on the subject will do much to improve control. The very knowledge that evacuation routes and control plans have been set up helps to allay the fears of many persons and to reduce unnecessary and uncontrolled evacuation.

4. In general, evacuation routes should be those which the public would be most likely to follow if given free choice; this reduces the degree of control necessary. Naturally, however, this cannot be fully accomplished in every case, and should not be attempted to such extent as would seriously hamper essential traffic circulation, especially military movements.

5. Because evacuation operations may involve aspects of crowd control as well as traffic control, plans should contemplate provision of an abnormally high number of police to control movements.

6. Essential features of the traffic control plan include:

- a. Assignment of adequate personnel to all critical intersections and bottleneck points.
- b. Assignment of patrols along evacuation routes for such duties as keeping traffic moving as orderly as possible in proper lanes, breaking up jams, and clearing roads for the passage of military or emergency traffic.
- c. Use of aircraft observation and control when weather and visibility conditions permit. Such aircraft should be in contact with ground personnel by radio (if possible), and by public address equipment.
- d. Bulldozers should be available to clear routes if critical road or traffic blocks develop.
- e. Personnel should be impressed with the need for firmness in handling civilian evacuation traffic. At the same time, they should avoid undue harshness. They must command respect and obedience, but also have a responsibility to avoid unnecessarily irritating persons. They must especially seek to minimize fear and panic by displaying a calm and assured manner themselves.

DISASTERS

1. Various types of disasters—not arising directly from military operations, but indirectly due to the war—such as explosions and fires, and destruction of bridges and other vital structures, often involve serious traffic problems. Advance plans for control under such situations should be made so that emergency control may be instituted quickly.

2. The locations where such difficulties are most likely to occur should be spotted and each studied to determine what problems would arise and how they should be met. Control plans should involve the following:

- a. Temporary rerouting of traffic from the area or road affected.
- b. Clearing of access routes for emergency vehicles and guiding them to critical locations.
- c. Assignment of traffic personnel for control in the affected area.
- d. Plan for mobilization of control personnel at the scene.
- e. Provision of rapid communications between traffic control headquarters and the scene of the trouble.

3. The following specific points should be observed in planning and executing traffic control under such circumstances:

- a. Rerouting of traffic should be initiated a sufficient distance in all directions from the affected location to provide maximum freedom of emergency services operating in the area from interference by traffic and curious crowds.
- b. Traffic personnel must be stationed as soon as possible at detour points to cut off approaching traffic. Other personnel should be sent into the area to clear traffic out and expedite the move-

ment of all emergency vehicles.

- c. A traffic control officer should be designated to direct control in the area. He should operate, if possible, from a mobile field headquarters trailer unit.
- d. Predetermined access routes should be assigned to emergency vehicles required at the scene and necessary control should be established quickly on these routes by patrol units and by fixed post personnel at critical intersections.
- e. Probable duration of the situation should be estimated as soon as possible as a guide to the determination of further planning necessary to maintain control over an extended period and to meet problems which may arise later, as from an anticipated heavy traffic movement normally passing through the affected area during a certain time.
- f. Radio broadcasts and other means should be employed to advise the public of traffic restrictions in effect, including keeping away from the area.

4. Basic control plans prepared in advance should be filed in a readily accessible place. The plan for each anticipated situation should show on maps the proposed reroutings, emergency access routes, and locations where control personnel are to be posted. Personnel to be assigned should be shown on currently maintained lists. A number of additional officers should be provided in each instance to fill posts left open by incomplete mobilization, to relieve other officers, and to perform necessary duties which may not have been anticipated in the preparation of the plan.

RECOMMENDED REGULATIONS GOVERNING THE MOVEMENT AND CONTROL OF MOTOR VEHICLES AND OTHER VEHICULAR TRAFFIC DURING AIR RAIDS AND/OR BLACKOUTS

(Traffic Control regulations for enactment under Section 1 of the Model Blackout and Air Raid Protection Regulation, published by the U. S. Conference of Mayors)

NOTE.—Sections of the Regulations dealing with traffic movement during blackouts and air raids are predicated on the ruling of the Office of Civilian Defense that (1) during air raids only emergency vehicles and those displaying OCD or authorized military insignia shall be permitted to move and (2) during blackouts, when there is no air raid, all traffic may move if equipped with approved blackout lighting equipment subject only to special rules provided herein.

Subsection A.—Air Raids:

1. From the time the official "Red-Action-Warning" air-raid signal is given, continuously until the official "White-Raiders-Passed" all clear signal is given thereafter, only the following types of traffic shall be permitted to move:

- a. Vehicles of the Armed forces of the United States of America.
- b. Ambulances, municipal, county, State and Federal police agency and fire vehicles, and vehicles being then officially used by the several branches of the Civilian Defense Organization.
- c. Vehicles actually in emergency service for the repair or control of public utility equipment, whether privately or publicly owned.
- d. Vehicles of the State Home Guards under actual control of officers or enlisted men of the State Home Guards and actually in emergency service.
- e. Such other vehicles as may be permitted to move on special order of the Civilian Defense Coordinator, subject to such restrictions as the military authorities may impose.

2. Vehicles described in sections a and b of the preceding paragraph shall be deemed

emergency vehicles and as such shall have general right-of-way over all other traffic; provided, ambulances, municipal, county, State and Federal police agency and fire vehicles shall have right-of-way over other emergency vehicles, except as may be determined by the military authorities.

All vehicles in emergency use not already visibly marked as such shall be lettered on the front, sides, and back with the letter "E" painted in white, of a height of not less than one foot. The paint shall conform to the Office of Civilian Defense specifications for luminous or fluorescent paints. It shall be a violation of this Act for any person to operate a motor vehicle with such emergency markings unless authorized in accordance with the provisions of Section 1 hereof.

3. Operators of all other vehicular traffic shall:

- a. Immediately draw to the side of the road or street and stop in such a manner and in such a place so as not to obstruct the reasonable use of the road or street, or any intersecting road or street, fire hydrant, or police or fire station driveway or other emergency driveway.

(1) During the period of such air raid alarm, parking regulations pertaining to lights, time limits, loading zones, distances from intersections and parking in prohibited zones shall be suspended except insofar as their violation may constitute a violation of this ordinance.

- b. Extinguish all lights.

- c. Lock the ignition of such vehicle, but shall not, in any case, lock

the doors of such vehicle if left unattended.

- d. Set the hand brake of such vehicle.
- e. In the case of horse-drawn vehicles, immediately halter the horse or horses thereof firmly and securely to a fixed object if one is available and if none is available to the vehicle itself after unhitching said horses.

4. Nothing in this ordinance contained shall operate to limit the authority of any police officer, air raid warden, or other duly authorized officer to prescribe the place and manner of the parking or storage of such vehicle or vehicles, in which event operators of vehicles shall immediately comply with the lawful directions of such officer or officers.

Subsection B.—Blackouts:

1. During a nighttime "alert" resulting in a blackout, when no "Red-Action-Warning" air-raid signal has been given, no person, firm or corporation shall operate any vehicle which is not equipped with headlighting devices so as to prevent said lights or the reflection thereof from being visible at such altitude as may be prescribed by the United States Army.

2. Operators of vehicles moving under blackouts when no air-raid signal has been given shall observe the following rules and regulations:

- a. No person shall drive or operate any vehicle, emergency vehicles excepted, at a speed in excess of 20 miles per hour, nor in a manner so as to endanger the life, limb or property of any person.
- b. Operators shall obey and conform to all officially placed traffic signs, signals and markings, whether the same be of an emergency or temporary nature or not.
- c. Where special routes have been officially established operators shall conform to such route designations both as to direction and type of vehicle.

d. Where speeds of less than 20 miles per hour are designated by official signs or markers or by direction of a police officer or other authorized officer, operators shall not drive vehicles in excess of such lowered speeds.

e. No operator of a vehicle shall drive to the left of the center line of the roadway, one-way streets excepted, except in cases where the right-hand side of said roadway is impassable and then only in such a manner as not to endanger other traffic then and there lawfully upon said roadway.

f. No operator of a vehicle shall pass any other vehicle proceeding in the same direction and shall not drive within a distance of 50 feet from the vehicle immediately ahead proceeding in the same direction, except in cases where the pavement is of sufficient width to accommodate more than a single lane of travel in the same direction and where the operator of such following vehicle is in another lane than that which he is overtaking.

g. (In rural areas outside the limits of cities, villages, and incorporated towns, operators shall not drive at speeds of less than 15 miles per hour unless directed so to do by official signs or markings or by a police officer or other authorized officer.)* Any operator of a vehicle may elect to operate at a speed of less than 15 miles per hour, but when operating his vehicle at such reduced speed he shall, upon signal from the vehicle which may be immediately following, turn over to the extreme right-hand side of the roadway, stop, and allow the

* For inclusion when enacted as a statute.

vehicle following to pass on his left.

h. No operator of a vehicle shall turn said vehicle around on any roadway so as to proceed in the direction from whence he came.†

i. During blackouts no person afoot shall cross or attempt to cross any street at any place other than an established crosswalk except in compliance with the directions of an official sign or marking or under the direction of a police officer or other authorized officer.

j. At all established crosswalks where traffic is controlled by a police officer or other authorized officer or by official signs or signals, pedestrians shall obey the directions of such officer, sign or signal.

k. At all established crosswalks where traffic is not controlled by a police officer or other authorized officer, or by any official sign or signal, pedestrians shall come to a stop before entering upon the street or roadway.

l. In all cases where pedestrian overhead crossings or tunnels have been provided, pedestrians shall use said overhead crossings or

tunnels instead of crossing on the pavement.

m. No domestic animals shall be allowed to roam or graze upon the right-of-way of any public street or highway during blackouts and it shall be the responsibility of the person in whose control and custody said animals are, to remove such domestic animals and to so confine them that they may not return to the public highway for the period of the blackout.

n. Preceding sections *a*, *b*, *d*, and *f* shall apply also to the operators of vehicles moving upon fixed rails upon any public street or roadway.

3. Nothing in this ordinance contained shall be construed so as to regulate traffic upon the public streets and roadways at times other than during air raids and blackouts. Under all other conditions, laws and ordinances now in effect and which shall hereinafter be enacted shall remain in force and be effective. During the period of air raids and blackouts all matters with reference to the control and regulation of traffic which are not specifically legislated upon herein shall be governed by other prevailing laws and ordinances which are now and may hereafter be effective.

†To be revised so as to apply only to cities, towns and villages when enacted as a statute.

Training Circular No. 11

WAR DEPARTMENT
Washington, March 1, 1941

Cooperation with State highway officials in matters pertaining to training and military highway traffic.—Pending the inclusion in War Department publications of the instructions contained herein, the following is published for the guidance of all concerned:

1. *General*—a. In view of the fact that many occasions will arise for the movement of military columns over public highways, arrangements have been made which are expected to simplify the coordination of plans with civil traffic control authorities, and to make information available to the commander which will assist him in planning the movement.

b. The instructions contained herein will be followed in the planning of all motor movements within the specifications set forth (par. 3a (1)) except in extreme emergency cases in which insufficient time is available for communication with appropriate civil officials by the most expeditious means.

2. *State highway traffic committees*—a. Highway traffic committees have been appointed by the governors of the States listed in paragraph 10. Each State committee is generally composed of a highway department executive, the motor vehicle administrator, and the head of the traffic enforcement unit. The official so indicated in paragraph 10 is designated as the liaison member of the State committee. This official will be able to coordinate necessary preliminary arrangements, thus eliminating the necessity of contacting officials in each city and county.

b. The Highway Traffic Advisory Committee to the War Department is now in the process of organizing the State committees regionally within the corps areas. A regional liaison member will be appointed to cooperate with the corps area commander on inter-State movements when needed. All commanders may, at times, find the services of this corps area liaison member of material benefit in long movements.

c. The function of each State highway traffic committee is to provide the necessary coordination between the Army and civilian traffic officials to facilitate and expedite military motor movements with the least possible conflict between military and civilian traffic. These objectives will be adhered to in planning and executing all military motor movements.

3. *Movements over public highways*—a. (1) Prior to initiating a military motor movement over public highways, in which the number of vehicles and volume of civilian traffic are such as to require coordination with State, county, or city officials, the commander of the unit will advise as early as possible the liaison member of each State committee concerned of the proposed movement, and provide him with the form, "Planning Data for Use of State and Municipal Traffic Officials in Military Movements" (par. 8) in duplicate. (One duplicate set for each column.)

The permissible latitude in each of the items contained in the form consistent with the purpose of the march will be indicated in order to reduce the later interchange of communications to the minimum.

When and where practicable, this communication with the liaison member of the State committee will be established by personal conference by the commander or his representative. When time will not permit personal conference, liaison will be established by telephone, telegraph, or radio, in which event sufficient information will be furnished to permit the committee to plan intelligently.

(2) Initially the liaison member of the State committee will be able to provide the commander with information pertaining to most of the following:

- (a) Most practicable route(s) to be used.
- (b) Alternate route(s).
- (c) Points where it may be advisable to divide column and use two or more routes to alleviate congestion or road wear.
- (d) Time when it is best to pass through areas of traffic congestion or traffic defiles.
- (e) Vehicle spacing and speeds most desirable for coordination with other traffic.
- (f) Location and nature of any unusual road conditions.
- (g) Emergency highway repair work which may be required.
- (h) Required additional information on vehicle weights for investigation of weak bridges.
- (i) Location of facilities for service and supplies.
- (j) State and city police escorts to assist the column.
- (k) Availability of State police communication system for emergency messages including possibility of tuning column radios into police net.
- (l) Location of hospitals available in case of emergency.
- (m) Procurement of dependable road maps.

b. (1) If not inconsistent with the purpose of the movement, the recommendations of the State committee should be adopted because they are based upon knowledge of the local conditions. When it is obviously inconsistent with the purpose of the movement to adopt certain of the recommendations, the liaison member should be advised of the reasons therefor and an effort should be made to reach a solution acceptable to the commander and the State committee.

(2) As soon as the coordination indicated in paragraph 3a (1) has been effected the liaison member will be advised of any modifications in the items listed in the form (par. 8).

The commander or his representative will then request the following information from the liaison member:

- (a) Selected routing in detail from origin to destination.
- (b) Source of procurement of required service and supplies.
- (c) Source of procurement of bivouac areas.
- (d) Route marking and directional signs.
- (e) Points where column will be met by police escort(s) and arrangement for notifying police official(s) when column will reach these points.
- (f) Arrangements for passing through cities.
- (g) Desirable average speeds in rural and urban areas including locations where column will be closed.
- (h) Method of gaining quick access to state police communication system, including radio net, if desired for emergency purposes.

(3) Oftentimes many or all of the steps enumerated above may be accomplished in the first conference or interchange of communications between the commanding officer and the liaison member. Successive interchange of communication should be reduced to the minimum consistent with the situation.

c. Movements should be planned sufficiently in advance to afford thorough cooperation between Army personnel and civilian traffic authorities. Much assistance may be secured from the State committees, depending upon the time made available and the information furnished them.

4. *Procurement of civilian driver records.*—It is highly important to make use of every available means of selecting suitable candidates for driver training. Accordingly, arrangements have been made with State traffic committees to secure driver records in order to facilitate immediate elimination of these men with poor driving records. This information may be secured by completing a copy of the form, "Request for Civilian Driver Record" (par. 9) for each individual under consideration and forwarding it to the Motor Vehicle Administration member of the highway traffic committee in the State in which the man has held a driver's license. (A self-addressed franked envelope will be inclosed.) The proper official in each State to whom such request should be sent is indicated in paragraph 10.

5. *Post and Station traffic planning.*—Commanders of posts, camps, and stations may procure technical advice from State committees on local traffic problems within their commands. Traffic problems on military reservations will increase along with the expansion in personnel and vehicles. Members of the State traffic committees have within their departments traffic engineers, traffic police, and other experienced personnel whose aid in solving traffic problems may be secured by a request made to the committee liaison member in the State where the reservation is located.

6. *Procurement of State highway maps.*—The following types of maps, generally available from State highway departments, may at times be found useful. Request for such maps should be made to the liaison member of the State committee:

- a. State road maps.
- b. Highway condition maps (indicating detours and construction and issued periodically).
- c. County planning survey maps (showing all roads, trails, and prominent land marks).
- d. State and county traffic flow maps (indicating daily traffic volumes).

7. *Responsibility of commander.*—Nothing contained herein is to be construed to relieve the commanding officer of any responsibility for the planning and execution of motor movements of his command.

8. Form for planning data.

PLANNING DATA
for use of
STATE AND MUNICIPAL TRAFFIC OFFICIALS
in
MILITARY MOVEMENTS

1. Origin and destination of movement
2. Will enter State at on U. S. State
Highway No.
3. Desire to leave State at on U. S. State
Highway No.
4. Date of arrival Approximate hour of arrival { A. M.
P. M.
5. Designation of column
6. Officer in command
7. Personnel strength Military police
on solos side cars $\frac{1}{2}$ -ton trucks

8. Number of vehicles Maximum gross weight of heaviest unit lb
 Maximum axle load of heaviest unit lb. with wheel spacing of feet
 and inches. Clearance of highest vehicle feet inches. Turning
 radius of critical loads ft.
9. Time length of entire column hours and minutes at m. p. h.
 Column consists of following serials:
 a. Open hours and minutes at m. p. h.
 b. Closed hours and minutes at m. p. h.
10. Actual length of column:
 a. Open miles with approximate ft. between vehicles.
 b. Closed miles with approximate ft. between vehicles.
 c. Halted miles with approximate ft. between vehicles.
11. Maximum average speed of column:
 a. Rural areas { Open m. p. h.
 { Closed m. p. h.
 b. Urban areas { Open m. p. h.
 { Closed m. p. h.
12. Desire to maintain approximate average speed of
 a. Rural areas m. p. h.
 b. Urban areas m. p. h.
13. Necessary halts:
 a. Halts
 (Frequency and duration)

 b. Noon halt(s) (Duration and other requirements)

 c. Night halt(s) (Water for men, cooking, animals, bathing, latrines, straw)
 (Area and facilities required)

14. Convoy does (does not) have explosives.
15. Other data (Include any reference to blackout marches)

16. The column commander would appreciate having of the latest State highway
 maps indicating detours and construction. (Number)

INSTRUCTIONS

Complete in triplicate. Original and one copy for State committee concerned.