

Ways

● Commonwealth of Kentucky ●
EDUCATIONAL BULLETIN

**CIVIL DEFENSE PROGRAM
FOR
KENTUCKY SCHOOLS**



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WENDELL P. BUTLER
Superintendent of Public Instruction

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FOREWORD

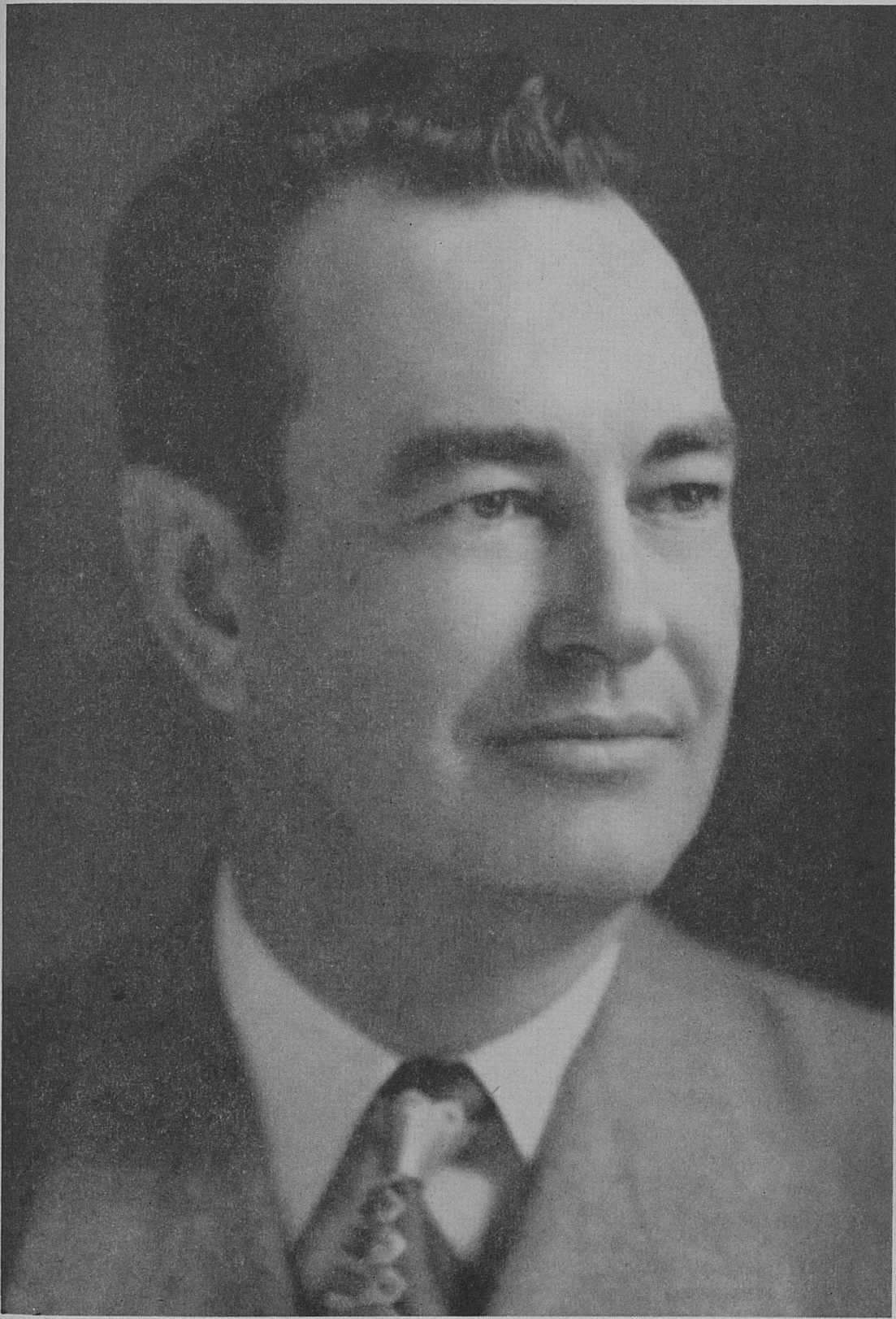
This bulletin on Civil Defense has been prepared jointly by the State Department of Education and the State Office of Civil Defense. The purpose of this bulletin is to help local schools and communities throughout the State of Kentucky to plan their own program for Civil Defense in accordance with the best information available at this time. It should be emphasized that what is contained in this manual is not considered "final" or "inclusive" but rather a guide to be modified as circumstances require.

Our country is in a state of national emergency. We are no longer free from the danger of a devastating attack. The seriousness of the world situation makes it imperative that school people make whatever plans seem necessary in their community to save lives and prevent unnecessary suffering in the case of a disaster.

The schools of Kentucky and the nation must accept the challenge and plan now for an emergency that may arise tomorrow or in the distant future. In planning programs we as educators should keep in mind the positive value of Civil Defense instruction. We should be sure that what is going on in the schools is contributing to good citizenship for the atomic age in which we live. School administrators should be sure that the school program becomes an integral part of the local Civil Defense plan.

WENDELL P. BUTLER

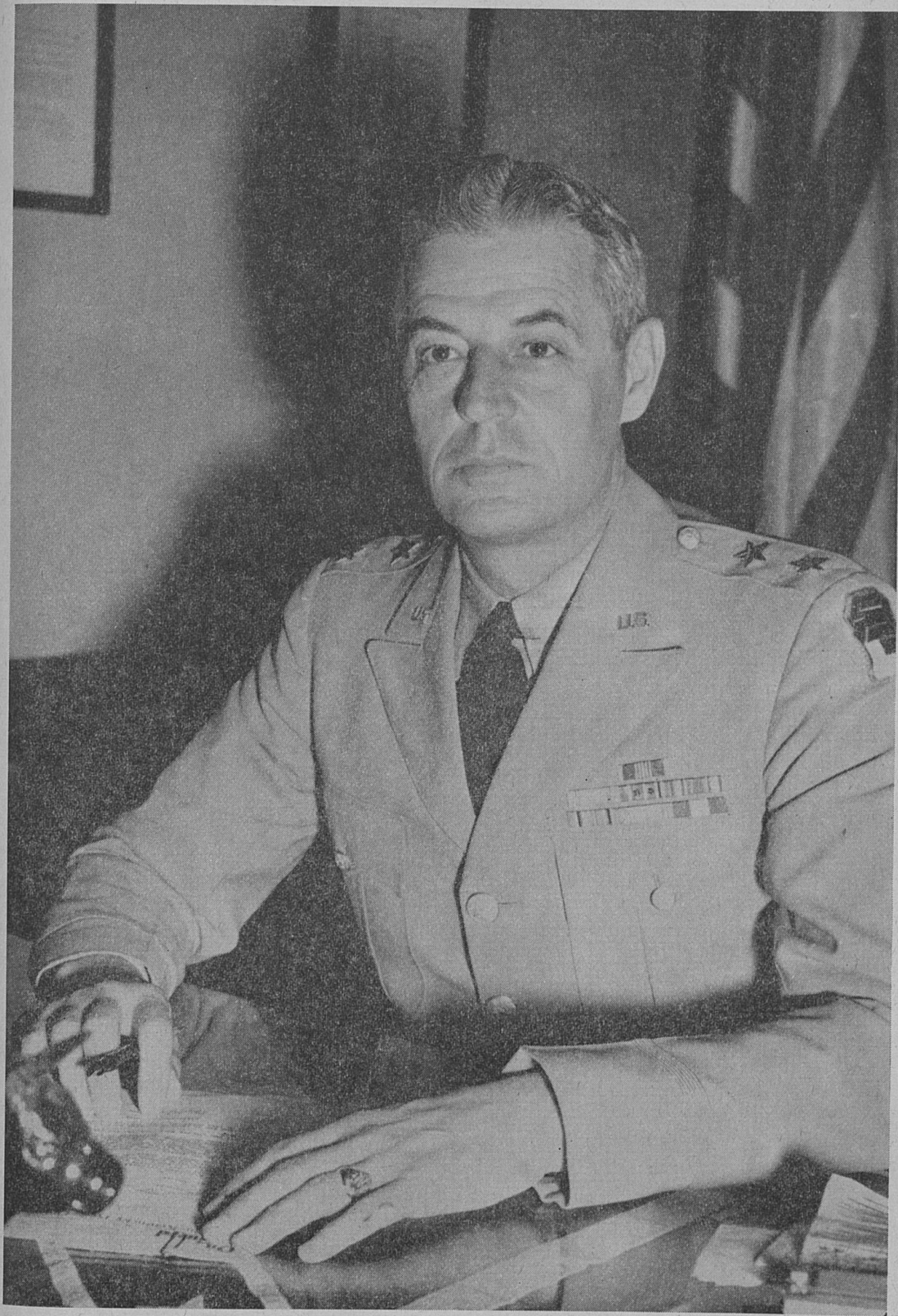
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PREFACE

The importance of a Civil Defense Program in the schools to meet the needs of an Atomic Age have not been fully realized by many of the teachers of the state. Mr. Wendell P. Butler, Superintendent of Public Instruction, recognizing this need called together a group of school leaders, teachers, and representatives of other professions on October 27 and 28, 1952, to discuss this important problem.

This meeting was held in the office of the Superintendent of Public Instruction. After two days of serious consideration of the problem, the committee adopted certain recommendations. The conclusions and recommendations are a part of this Bulletin. These materials should prove helpful to the teachers of the state in planning desirable Civil Defense Programs for the schools.

E. B. WHALIN, Director
Health and Physical Education

ACKNOWLEDGMENTS

The Committee on Instructional Materials wishes to thank all persons who contributed to the preparation of these materials whether the contributions were made directly or indirectly. Several individuals made valuable suggestions which were much appreciated by the Committee.

The Committee is extremely grateful to the Utah State Department of Public Education for the permission to use materials contained in the Utah Bulletin, **Design for Defense—The Role of Utah's Schools**. Recognition is given to the publishers of the titles listed as reference materials. From these titles the Committee obtained some worthwhile suggestions.

The bibliography was prepared by a committee appointed by the American Association for Health, Physical Education and Recreation and released by the Federal Civil Defense Administration as Part III of **Education For Civil Defense In Health Instruction And Physical Education**.

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**CIVIL DEFENSE MESSAGES TO SCHOOL ADMINISTRATORS,
TEACHERS, PUPILS, AND PARENTS BY THE
GOVERNOR AND KENTUCKY CIVIL DEFENSE OFFICIALS**

Message by the Governor of Kentucky:

What is the most priceless resource we have in Kentucky? **OUR YOUTH** of course. The protection and education of this group, the men and women of tomorrow, is a responsibility we dare not shirk.

World tension has created a grave but unavoidable problem. This problem is to teach our youth and citizens how to protect themselves, their neighbors, their cities, their state and nation, should war strike at home.

Our educators, I am sure, see the need and are ready and willing to equip our children of school age with proper Civil Defense instruction in the schools of Kentucky for such emergencies.

There is no better antidote for fear than education. Children can be very realistic. A well-instructed and informed youth of Kentucky is our best preventive against emotional upsets. Teachers of Kentucky, let me urge you to leave no stone unturned to properly teach Civil Defense to our youth.

LAWRENCE W. WETHERBY,
Governor of Kentucky

Message by the Director of Civil Defense:

America is no longer free from the danger of a devastating attack. The atomic age has changed our way of life and the change makes it necessary for new planning, teaching, living, and cooperating.

I would urge the schools of Kentucky to accept the challenge and plan for any atomic emergency that may arise tomorrow or in the distant future. In program planning, education should at all times keep in mind the values of Civil Defense instruction.

Students, teachers, and administrators should not only be aware of the physical danger of an atomic attack upon our schools and school facilities, but also the possibilities of destroying the faith we hold in the worth of our American School System and ideals.

It is my hope and aim that Civil Defense will be taught in every classroom in Kentucky.

J. S. LINDSAY, Director
Civil Defense of Kentucky

Message by the Deputy Director of Civil Defense:

I am deeply aware of the "grass roots" effort that is being made by the citizens of Kentucky to develop the Civil Defense strength of Kentucky on the local level. For disaster relief in the event of an atomic attack upon our nation, a practical plan for self help is necessary. I am fully aware of the untiring efforts of the Ground Observer Corps and the most vital need of its organization to assist radar.

Civil Defense is a long range program. In the event of World War III, our survival may depend upon how well the youth and citizens of this nation have been taught and instructed in Civil Defense. Civil Defense is the business of all Americans regardless of race, religion, politics, or color.

No doubt your only reward will be the knowledge within your own heart that you have fully given yourself on behalf of the youth of Kentucky and the cause of American justice, freedom, and democracy. What is a better reward! It was the faith of our fathers.

The schools of Kentucky I hope will plan a full Civil Defense program on a long term basis for the defense of our nation.

GILBERT L. WHITE, Deputy Director
Civil Defense of Kentucky

CIVIL DEFENSE INSTRUCTION

An effective program of civil defense for the schools calls for a "specially trained and well qualified" school personnel—teaching and non-teaching. An adequate knowledge and understanding of the program, a desire for active participation, and an abiding faith in the enterprise on the part of the school staff are essential factors in a successful program.

The Wisconsin bulletin on civil defense, **School in Civil Defense**, contains a number of statements on teacher training. Among the statements are these:

"There is a need for an over-all civil defense plan in every school. To make it worthwhile, there should be a period of orientation for faculty members and teacher trainees, as it relates to the national, state, and local levels, particularly as it relates to their own school.

"Conferences of teachers should be held to determine how best they can put into action the basic concepts and principles discussed in this plan. They should set up a civil defense organization to implement their civil defense program."

For good instruction the civil defense program must be well organized. The objectives should be precise and definite. The subject matter and activities should be properly selected. Effective teaching methods need to be devised.

Pupil instruction in school civil defense needs to be adapted to the different grade levels with adequate provision made for individual differences. The program should be sufficiently flexible to meet the different community needs. Civil defense may be taught as a separate subject or units, or it may be correlated with other subjects. Selecting the subject matter and devising the teaching methods rightfully belong to the local school personnel.

SUGGESTED REFERENCES

1. Georgia State Department of Education. **Civil Defense Manual for Georgia.** Department of Education, Atlanta, Georgia.
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3. Minnesota Department of Education. **School Civil Defense.** Department of Education, St. Paul 1, Minnesota, 1952.
4. Virginia Department of Education. **A Guide for Organizing the School for Civil Defense.** State Department of Education, Richmond, Virginia, September, 1951.
5. Oregon State Department of Education. **Civil Defense Manual Oregon Schools.** State Department of Education, Salem, Oregon, March, 1952.
6. Wilson, Richard C., Editor. **Schools in Civil Defense.** State Civil Defense Education Advisory Council, Wisconsin, 1951.
7. Federal Civil Defense Administration. **United States Civil Defense: Civil Defense in Schools, TM-16-1.** United States Government Printing Office, Washington 25, D. C., April, 1952.
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CHAPTER I

OBJECTIVES and POINT OF VIEW

NOW, IT'S NOT TOO LATE!

The United States, your state, and your own community and home are all vulnerable to a devastating attack with atomic weapons and chemical and biological warfare. We know that those who would destroy us have both the weapons and the air power to do so right now. This threat to our country is a continuous one and will probably remain as long as there is international tension.

Kentucky, with many defense plants in addition to an atomic energy plant, and with defense industries in adjoining states, lies in the quadrangle of possible attack. Thus, the present emergency should motivate all school personnel—administrators, supervisors, teachers, custodians, and others—to adapt school services and programs to needs and conditions in this new age. This is another opportunity for the school to serve its community. In many cases the school will become the center of civil defense activities. The plan for organizing the school for civil defense will of necessity vary from one locality to another. Consideration should be given to the following aspects of any school civil defense program:

1. School people have a special responsibility to protect the children under their care.
2. Civil defense concepts will and should have some impact on the school curriculum.
3. The school civil defense programs must involve the parents of the children as well as other community groups and agencies.
4. The schools, with cooperation from the State Civil Defense Director, must submit a program and act as an important medium in disseminating public information, especially in time of emergency.
5. School facilities and personnel represent one of the community's most important resources for use in time of emergency.
6. All school officials should talk and plan civil defense. No area, no matter how remotely located, is entirely free from danger because of the different ways (atomic-chemical-biological) in which disaster may come.

KENTUCKY IS A PEACEFUL STATE NOW BUT WILL IT ALWAYS BE?

In your school, your teachers and students are busy with classroom learning and campus activities. War seems unreal and far away. Yet experts say that it may come. Kentucky cities and towns may be bombed. "Enemy planes can get through our best defenses," reports the Air Force. "The best we can expect is the destruction of 30% of an attacking bomber force. Seven out of ten bombers could get through and drop their loads on our cities," it says.

The best thing that we in our schools can do is to prepare wisely and quietly for such an emergency. We must get ourselves and our students ready so all will know exactly what to do if a bomb falls.

Even though you now live outside of a critical atomic target area, **REMEMBER**. . . the entire state may be involved with attack by biological and chemical warfare.

PREPARATION PREVENTS PANIC

"Many experts believe," says the Federal Civil Defense Bulletin, **Civil Defense in Outline**, "that in event of enemy attack, casualties can be reduced more than one-half if the American people have been schooled in the techniques of civil defense and are prepared to act intelligently in time of crisis."

The schools have a great responsibility in doing this.

"But won't talk of atom bombs and possible war give our children nervous jitters and create fears and tensions?" somebody asks.

THE ANSWER IS SIMPLE

Fire drills, now routine in every good school plan, do not cause the students to worry or to think constantly of the danger of fire. On the contrary, it gives them the assurance of knowing that they know exactly what to do for the utmost safety and protection of their lives if fire should come. The atom bomb is just another danger which must be faced in the sort of world in which we live. If we face the issue calmly and intelligently, so will they. Fear is a communicable disease, but calmness and quiet handling of a potential danger is communicable, too.

WE KNOW

You are busy. You have a full schedule. Every school administrator and teacher does. Scores of immediate problems press. How can time be found for defense training?

Time **must** be found. Because if a bomb falls, all of those other activities, vital though they seem now, would give way before the tremendous importance of survival.

That makes Civil Defense a top priority item in our planning. This bulletin contains suggestions through which you may make your own plans for training your youngsters to save their lives.

CIVIL DEFENSE IN THE SCHOOL

The purpose of a school defense program, the obligation of a school administrator or teacher, and the services of the school are treated briefly in outline form. The school, as a major social institution, must share its part in The Civil Defense Program.

The Purpose Of A School Defense Program Is

1. To provide protection and care for the school population in case of an attack.
2. To provide a center for emergency housing, feeding and first aid for the community and for evacuees.
3. To include and give proper emphasis to those instructional materials and techniques in the curriculum that will equip the students with practical skills and knowledge of defense which will enable them to assist others as well as to protect themselves.
4. To teach students to serve the community and the nation in useful civil defense roles.

As A School Administrator or Teacher You Owe Your Community:

1. Protection of children at school.
2. Help in strengthening civil defense preparations outside of school.
3. Quick adjustment to an emergency situation.

In meeting an atomic emergency, the adjustment will not be the same in larger communities as in smaller rural communities. In target areas, civil defense preparation requires an extensive but well-knit organization with varied training programs. School officials must realize that what they organize and are responsible for is only a segment of the total community activity. In addition, they may be asked to assume other responsibilities in the local defense program.

Schools May Be Served By:

1. Creating a community awareness of what civil defense is, the need for it and its purposes.
2. Assisting in educational programs for civil defense workers by providing teaching personnel and facilities for holding meetings and classes.
3. Developing health and recreation programs in cooperation with existing community plans for civil defense emergencies.
4. Helping to instruct the community on what to do in case of attack.
5. Standing ready to set up first aid stations, hospitals and welfare centers at the school.

CHAPTER II

ORGANIZATION OF SCHOOL CURRICULUM

SCHOOL PERSONNEL

Organizing the School.

In organizing the school for civil defense, all school personnel must accept responsibilities which are understood and agreed upon as part of the total plan. The plans and assignments will vary from district to district, but whatever the plan, it should be tested by a series of "drills" to determine its adequacy and to see that each individual carries out his assignment.

The School District Superintendent.

As executive officer of the district school board, the superintendent is responsible for initiating, encouraging and supporting the development of a civil defense program for all schools under his jurisdiction. He, no doubt, will want to avail himself of the advice and assistance of school personnel, parent groups, and other interested groups and individuals who have a contribution to make to the civil defense efforts of the school. In some school systems the superintendent may wish to appoint a member of his staff as a special defense coordinator for his school system.

The superintendent or a person designated by him must coordinate and subordinate the school's program with the overall plans for community defense as formulated by the local civil defense authorities. However, every plan should embody at least the following provisions:

1. Every school should put into effect a plan for civil defense.
2. The responsibility for school protection should be centered in the principal. He should assume the responsibility of organizing his school to meet any emergency. In situations where authority is delegated to other persons or person within the school, care should be taken to be sure a chain of command and authority is established and that alternates are named to act in case of absence. The following responsibilities belong to the school principal:
 - a. Carry out the superintendent's directives.

- b. Keep the superintendent fully informed on defense plans of his school.
 - c. Organize and develop an adequate defense for his school in relation to:
 - (1) Signals
 - (2) Drills
 - (3) Shelters
 - (4) Non-school supplies
 - (5) Emergency supplies
 - (6) First aid and emergency care
 - (7) Emergency use of school buildings
 - (8) Fire protection
 - (9) Pupil identification
 - d. Give leadership in adapting the school curriculum to meet the demands of an air-atomic age.
 - e. Cooperate with Civil Defense Authorities in:
 - (1) Planning the school program
 - (2) Disseminating public information
 - f. Cooperate with community groups interested in civil defense.
 - g. Keep parents and patrons informed on the developments of the school civil defense program.
3. A school defense director accountable to the principal may be appointed for each school.
4. Teachers as leaders of children and youth have a great responsibility in civil defense, for it is they who most directly affect children's behavior and attitude. Teachers have the responsibility to help pupils face the possibility of atomic bombing and yet convince them that life is good and worth living in spite of the possibility of wide-spread disaster. Pupils may be psychologically conditioned over a period of time. There is no quick course of instruction once an emergency has occurred. Teachers should:
 - a. Keep informed about civil defense plans of the school.
 - b. Know the effects of atomic attack.
 - c. Understand survival techniques.
 - d. Provide practice for pupils in techniques of survival and guidance in event of emergency.
 - e. Know the whereabouts of children at all times.
 - f. Maintain good housekeeping practices in order to reduce safety and fire hazards.
 - g. Develop morale of pupils and lessen tension and fear.
5. Maximum use should be made of all personnel in the building.

The defense corps should not be a small and specialized group of people, but instead should consist of all employees reorganized in a particular way for a particular task. Some employees should be assigned in terms of their particular abilities and experiences. Some school persons will have special talents for rendering first aid; others may be well fitted to direct fire fighting activities. Some teachers must be assigned to handle parents and other people who may come to the school after a warning or after an attack. Probably every building plan will provide that a great majority of the teachers will remain with their pupils. When a teacher is given special responsibilities that take him away from his pupils, arrangements must be made for proper care of such a group.

6. The local civil defense director should know what supplies are in the school for use during or after an attack. Such supplies should be inventoried, their location known, and an employee assigned in charge of them. First aid supplies, equipment for fighting fires, and light wrecking equipment are examples. The location and use of every fire extinguisher should be known by every employee.

For additional details concerning the organization of all personnel the superintendent, principal, or defense coordinator should consult Chapter III of "Civil Defense In Schools" TM-16-1 of the Federal Civil Defense Administration. This manual may be secured through you civil defense director.

SOME ESSENTIALS FOR A DEFENSE PROGRAM

Emergency Measures.

Certain aspects of the school civil defense program are of an emergency nature. Since survival may depend upon the extent and efficiency of the emergency measures, it would be well for school administrators to give priority to this part of the program. It is recognized that the development of the emergency program will place extra demands upon the school. This may necessitate the curtailment or elimination of less important activities for a period of time. For example, "drives" of various kinds and certain "extra school" activities which make heavy demand on the time of school personnel may be cut down some in order to make time available for the civil defense program. It should be understood also that there may be times when there will be conflict between the long-range program (curricular adaptations) and the emergency program, but both types of planning are necessary.

Signals and Drills.

Air attacks may occur with or without warning. Precautions should be taken for either case. In all probability the school will be warned in advance of an impending attack through such method as the local organization shall determine. Upon receiving the warning from the local civil defense headquarters, the local school authority should notify each school affected, and each school in turn should immediately put into operation its own pre-arranged signals and drills.

Signals: By direction of the Commanding General, Air Defense Command, the Civil Air Raid Warning signals have been defined as follows:

Yellow Alert: Attack likely; Intelligence has been received indicating that hostile aircraft are over or enroute toward the North American continent. (Public announcement of the Yellow Alert will not be made.) However, it may be possible for a selected school authority to have this information if arrangements are made in advance with the local civil defense director.

Red Alert: Attack imminent; hostile aircraft have been identified and are within the air defense sector or within adjacent sectors with a high probability of entering the subject air defense sector. (Public announcement of a Red Alert will be made.)

White Alert: All clear; this notification to be given when danger of either Yellow or Red Alert type air raid warning is over. (Public announcement of White Alert will be made only when danger of a Red type Alert is over and a Red Alert has previously been sounded.)

The following basic system public air raid warning signals has been adopted, effective at once, by the Federal Civil Defense Administration:

Red Alert: Signal will be of three minutes duration. It will consist of fluctuating or warbling signals of varying pitch by sirens, or a series of short blasts by horns or whistles.

All Clear: Signal will be a series of three steady one-minute blasts by sirens, horns or whistles, interrupted by silent periods of two minutes each.

The school signal should conform as nearly as possible to community signals. It is immaterial as to whether whistles, horns, bells or sirens are used in the school as long as the method or

methods used are adequate, sure and understood by all school personnel.

Drills for Attack When Warning is Given—Air raid drills are to prepare and condition the responses of children to an air attack just as fire drills for an actual fire. In fact, in many ways the air raid drill may simulate a fire drill. The plan, however, will be to move the children to the designated shelter areas rather than to the outside of the building. The following may be used as a guide in organizing the air raid drills:

1. Drills should be based on local conditions, size of the building, plan of the building, number of children. The location of the shelter areas will suggest the organization of the drill.
2. Drills should be initiated as soon as possible, continued often until the routine is established, and then repeated at intervals throughout the school year.
3. Drills should be held at different times during the day.
4. All persons within each school should respond to the drills, and care should be taken to see that every person is accounted for.
5. A part of the drills should be to provide the mental and physical comfort of the pupils during the time they are retained in the shelter areas. This may include appropriate activities for pupils such as singing or mental games.
6. It is suggested that sketched layouts of the building be provided as needed. These plans should show the shelter areas and paths of entrance for each group. Written instructions should accompany these sketches.
7. Conduct air raid drills in a confident manner, and explain to children why such drills are important. Avoid any procedure that will frighten children. Permit children to help evaluate the success of the drill and to make suggestions for improvement.
8. Teachers should retain all pupils in the shelter areas until the all clear signal is given.

Drills for Attack Without Warning—School children should know what to do in case an atomic explosion occurs without any warning. Drills designed to teach children to duck and cover whenever they see a bright flash, should be carried on until the responses of the children are well established habits.

In conducting these drills the teacher should direct pupils to:

1. Get shielded at the instant of the flash. There is always something for shelter such as a desk, a chair, a table, a ditch, a tree, a wall, etc. Always duck away from windows.
2. Drop flat on the ground or floor if space permits. If space is

limited, assume whatever position that will give the most protection from being tossed about or being struck with flying or falling objects.

3. Bury your face in your arms. Hide the face in the crook of the elbow to protect face and eyes.

Remember — the adults furnish the example to the pupils in the activities. How they act is perhaps the most important factor in the success of the drills. The following quotation aptly describes the importance of the kind of adult leadership:

“Let us remember, however, in making our plans, that the aim of the air drill is to protect the children from the threat of physical danger from without and from anxiety within. . . . Children feel secure in an emergency if there is a clear, dependable plan with which their teacher is fully acquainted and comfortable, if they sense in the adults a calm, easy, matter-of-fact competence, and a kindly, warm understanding in which they can safely put their trust. The attitude of the adult is infectious. It matters more than words.”*

Shelters.

Responsibility for providing shelter against blast, heat, radiation for the occupants of school buildings presents a hard challenge to administrators of existing school buildings and the planners of new school construction. Those who carry this responsibility will, of course, turn to more detailed references than this brief bulletin as they seek to provide maximum shelter. **Chapter Four in “Civil Defense in Schools”** is an excellent reference. Careful study is called for. Here only a few generalizations will be set forth to point out the scope of the needed planning and give some cues to the details which must be dealt with.

The three kinds of danger — heat, blast, and radiation — may better be guarded against if specific hazards are seen.

1. Blast injuries may result from:
 - a. Direct exposure to the force of atomic blast.
 - b. Fragmentation of nearby objects.
 - c. Collapse of structures.
 - d. Fire caused by blast.
2. Heat injuries may result from:
 - a. Direct exposure to the heat rays of atomic explosion.
 - b. Fire caused by heat rays.

* Mental Hygiene Aspects of Preparedness. “Curriculum and Materials,” Vol. V. No. 2, November, 1950. Board of Education, New York City.

3. Radiation injuries may result from:

- a. Direct exposure to nuclear radiation.
- b. Contact with objects (such as food and water) contaminated by nuclear radiation.

It is obvious that adequate protection of building occupants and their essential food supplies and utility services call for the technical advice of competent architects. The published materials of the Federal Civil Defense Administration pertaining to shelter should be studied. The following ten "general instructions"* are presented here to serve only as a general guide, not as a substitute for the needed technical information referred to above:

1. The areas selected should be as far away as possible from the outside. Courts, light shafts, and the like should be taken into account as well as outside walls.
2. The areas selected should be in a part of the building that is structurally compact, with a close spacing of columns and short-span floor beams.
3. The area should be out of direct line with doors, windows, and hallways having exposure to the outside.
4. The walls and doors immediately surrounding the areas should be free of glass.
5. There should be at least one interior stairway (that is, one not adjoining an outer wall) within each selected area or near it.
6. The areas selected should contain no furnaces, or boilers and no large steam, water or gas pipes.
7. The ceiling should not be of the hung or suspended type.
8. The ceiling should not have heavy lighting fixtures or plaster ornaments.
9. The floor directly above the area selected should not have any unusually heavy concentrated loads, such as safes, banks or filing cabinets, heavy presses, or other machinery.
10. The areas should be as free as possible of furniture, stored merchandise, and equipment of any kind.

Non-School Shelter.

Air raids may occur when children are coming from or going to school. Provision should be made—when conditions warrant it—for shelters in homes, which children may enter if necessary on their way to or from school. The school acting in cooperation with P.-T.A. or other parent groups, may follow these steps in the selection and operation of non-school shelters:

* Shelter From Atomic Attack in Existing Buildings, Federal Civil Defense Administration, Washington, D. C., June, 1951, p. 36.

1. Make a survey of the area served by your school and prepare a map showing the normal routes of travel used by your students.
2. Make a selection of the available sites or buildings in your area suitable for air raid shelters for school children. Make every possible effort to be sure that the places selected have the proper environment for children.
3. Get permission from the resident or property owner to have his building used as an air raid shelter for children. No written agreement is necessary; the resident's oral consent will be sufficient.
4. Have some adult assume responsibility for the care and maintenance of the selected shelter.
5. Have a responsible adult check to see that school air raid shelter signs are properly displayed.
6. Let every child in your school know what the school shelter sign means.
7. If possible, store the following in the shelter:
 - a. First aid kit
 - b. Red Cross first aid manual
 - c. A covered container for toileting if you haven't toilet facilities in your shelter area
 - d. A covered or capped container of water
 - e. A closed box of paper cups
 - f. A radio (if you have a spare small one)
 - g. Home protection tools—flashlight and extra batteries, crowbar, blankets, axe
8. Cover all glass area in the shelter as a protection from flying glass.

Emergency Supplies.

The kind and amount of emergency supplies for any school will depend upon the scope of its civil defense program. The supplies will range from those of a general nature for first aid and fire protection for schools in non-target areas to those of a highly selected kind for services such as first aid, fire protection, communication, demolition, feeding, utilities, sanitation, etc., in schools located in target areas. Whatever the needs of a particular school, it is important to have emergency supplies on hand, strategically located, with assigned responsibility for their use.

Utilities.

The utilities that normally serve a school such as gas, water, electricity, may be an asset or a hazard in time of an emergency.

Ruptured gas lines or electric wires may start fires and broken water pipes may flood shelter areas. On the other hand, having water available after the blast to fight fire is vital. It is important that the building administrator (the principal of the school) know the location where each utility enters the building and the method of operating the shut-off valves. Each school should also have a plot plan showing the location of the utilities and the shut-off valves, accompanied by instruction, and posted as needed. If an air raid alarm is given, utilities should be turned off at the place where they enter the building. Resuming these services after a blast should rest with judgment of a building engineer.

First Aid and Emergency Care.

The basic principles of first aid and emergency care of injured people are important for daily living. Possibility of widespread disaster makes this responsibility much greater than ever before. The care of casualties in civil defense has been entrusted to medical authorities, who have the overall responsibility for directing first aid. The American Red Cross has been designated by the National Security Resources Board as the agency to help train the necessary number of first aiders. Local school officials should work in cooperation with their local Red Cross chapters and civil defense medical groups in this program. The first aid program in the schools should aim at two important goals: First, to train as many of the teachers and pupils in first aid as possible, and second, to organize the first aiders and first aid supplies within each school so that first aid can be given to injured or affected personnel in the event of a bombing or other disaster. In order that an adequate first aid program can be developed in each school district the following may be considered:

1. Contact your local Red Cross chapter and local civil defense medical authorities and arrange for training classes for school personnel. In outlining the course with them be sure that the content given in "Civil Defense Supplement to the American Red Cross First Aid Textbook" is used, in addition to the regular text.
2. Train pupils in first aid. "The American Red Cross First Aid for Juniors" is appropriate for junior high school pupils. "The Standard First Aid Course" is appropriate for senior high school pupils.
3. Designate first aid stations in each school. Procure and place

at each station an adequate number of first aid cabinets. List the contents of the cabinets and rules for the use of these supplies; also provide other equipment such as stretchers, blankets, wash pan, glass jugs, etc.

4. Check with local civil defense medical authorities on the items of supplies to include. The following is a suggested list:

bandage scissors	salt
splinter forceps	1 inch roller bandage
band aids	1½ inch roller bandage
1 inch adhesive	sterile gauze
merthiolate	sterile cotton
boric acid	eye cup
wood applicators	tourniquets
ampules (ammonia)	Petrolatum vaseline
splints (yucca)	baking soda
slings (triangular bandage)	safety pins

5. Organize first aid teams among older youth who have been trained and certificated. Assign them responsibilities in manning first aid stations in case of emergency. They should be under supervision of adult leaders.

Emergency Use of School Buildings.

School building facilities and equipment are important resources and will no doubt be included in the disaster plans for any community. School authorities should work closely with civil defense authorities to see that confusion does not arise concerning the use of school buildings for civil defense purposes other than school. The welfare and safety of the school children should be the first consideration. The following suggestions are offered in adjusting the use of school facilities by civil defense authorities in event of widespread disaster:

1. Keep the community informed on the school civil defense program. This will help all people to understand the extent to which school facilities are required for protection of the community's children.
2. Come to an understanding with the local defense director, as to what use, if any, will be made of school buildings and facilities. Some uses for which school facilities may be considered are as follows:
 - a. Welfare center—feeding, registration, information
 - b. Emergency hospital
 - c. Emergency shelter—for evacuees, etc.

- d. First aid station
- e. Recreation center
- f. Decontamination center

Fire Protection.

Fire effects from atomic bombings present a most serious threat. It should be remembered that in case of any widespread emergency, schools would very likely be left on their own resources to combat whatever fires may develop within the schools. For this reason, it is imperative that "Procedures for School Fire Safety," be put into effect in all school buildings at once. Regularly scheduled fire drills must be held in all school buildings.

Pupil Identification.

Some schools may want to develop pupil identification programs in connection with civil defense. The type of identification should be decided upon after consultation with school and community groups interested in this problem.

CHAPTER III

CIVIL DEFENSE AND THE SCHOOL CURRICULUM CURRICULUM ADAPTATION AND PRINCIPLES

Curriculum Adaptations.

The instructional program of the public schools must be carefully inspected to see wherein it can be strengthened to contribute best to civil defense.

1. We must do better the things we are already doing, by improving the instruction and services which are now accepted as the means of producing a strong citizenry. Basic to national strength is the strengthening of such fundamentals as good character, health, economic understanding, vocational efficiency, and family solidarity.

2. The purpose of this chapter is to make some suggestions as to how certain areas of the curriculum may be modified to contribute directly to the emergency measures of the school and the community.

Guiding Principles.

1. To meet an emergency we will teach what the emergency demands; we will plan a program which is aimed at survival.

2. Not all suggestions will be practical for all schools. The curriculum should be adapted to the local civil defense needs and should emerge from the cooperative effort of the local school and the local civil defense organization.

3. Our major concern must be to strengthen the morale of our children, enabling them to face danger, if necessary, with a sense of assurance rather than panic.

- a. The maturity of the child should determine the material to be presented and the techniques to be used.
- b. The leadership and emotional stability of the teacher will greatly influence pupil reaction. The greatest use should be made of special abilities of all members of the school staff.
- c. Careful previewing by the teacher, preparation, presentation, follow-up, and evaluation of audio-visual aids will assure greater readiness and understanding on the part of the pupils.
- d. We cannot separate the content of the curriculum from the emotional development of the child.

4. Active pupil participation in planning and carrying out programs for civil defense is urged. Use can be made of such

student organizations as student council, clubs, Junior Red Cross, safety patrol, etc.

5. The community civil defense organization should recognize the strategic position occupied by the schools and make full use of the efficiency of the school organization. Likewise, the schools should know the resources of the community for civil defense and make use of them whenever practical.

6. We should use all available media for creating interest among parents and the public through booklets, films, radio, television, newspapers, school assemblies, bulletins to parents, posters, speakers, skits, etc.

7. There is no area in education that is wholly apart from civil defense; civil defense is just another facet of the program.

THE ELEMENTARY CURRICULUM

War Impact Upon Civilian Life.

War effort has a tremendous impact upon the civilian life of a people. When that war is prolonged and uncertain, the influences are more widespread and of deeper intensity. Some of the unavoidable effects of war upon the adult population which in turn influence the lives of children are:

1. Morale may be affected by the increased emotional tensions. Inter-group relations may reach a new high of hostility.
2. There are emotional strains caused by both parents working. They have no time for children's problems.
3. Migration to places of available jobs has an unsettling effect.
4. Anxieties increase, particularly in relation to atomic and germ warfare.
5. There is a tendency to take an attitude of defeatism—"What's the use—you can't live your own life."

Grade Level and Subject Matter.

In the following suggestions, no attempt has been made to identify the grade level or the subject matter area in which civilian defense activities may be carried out. These matters should be left to the local school personnel. It is believed, however, that there are two main approaches to the teaching of civil defense in the schools. They are:

1. Teach civil defense separately as a subject.
2. Correlate civil defense with other subjects.

Those who wish to teach civil defense as a unit, or separately, may follow the "Civil Defense Manual for Georgia Schools." This plan may be secured through the Kentucky State Department of Education. Those who wish to correlate civil defense with other subjects will find the following suggestions helpful:

1. Knowing what to do in case of atomic attack is important. Children grow in emotional stability and physical well-being when they know what they themselves can do to meet this difficult situation.

2. The child who knows the physical phenomena of atomic energy and also knows what research has discovered in the way to applying that energy to the needs of civilian life, generally will be relieved of some of the personal fears regarding atomic warfare. In presenting materials on atomic energy, however, a teacher should recognize her limitations. Remember that a question not answered at all is preferable to one answered incorrectly.

3. The child who has a true regard for other groups—national, racial, social—will have more ability to understand and appreciate world events.

- a. Social understandings that emphasize the contribution of peoples to our way of life. Knowledge of the interdependence of people.
- b. Geographical studies with emphasis upon man's inter-relationships with his natural environment rather than upon locating places and learning products and industries.
- c. Literature that provides the human understandings of self and others—motives, feelings, privileges, etc.

4. The child who has the opportunity to participate in planning his own and the group's activity has more purpose in the experience.

- a. Planning the days' activities
- b. Planning specific units of work.
- c. Planning how to take care of regular routine jobs.

5. The child who has some importance to the group life of the school can accept more easily seeming rejections from home. Teachers can provide individual responsibility such as:

- a. Caring for books, display tables, bulletin boards, laboratory specimens, etc.
- b. Serving on safety patrols.
- c. Being a member of student council and other school groups.
- d. Having responsibility for lost and found department.
- e. Reporting for school paper.
- f. Assisting younger children in cafeteria.

6. The child who has an opportunity to talk about his personal

problems with some understanding adult will be better able to replace any anxieties with appropriate behavior.

7. Experiencing success in his regular school activity tends to foster the child's emotional stability.

a. Language art skills and understandings—reading, writing, spelling, speaking, etc.

b. Mathematical skills and understandings.

c. Play skills, muscular coordination.

d. Group participation skills, play, discussion.

8. Children grow in security with increasing good health. Emphasis should be placed upon:

a. Health habits

b. Safety practices

c. Nutrition

d. Simple first aid

9. Special attention to creative, recreational, and aesthetic experiences will often relieve tensions and anxieties.

10. Children should be taught certain emergency measures.

a. Drill as compared to familiar fire drill.

b. Quiet games to play in air raid shelter.

c. Simple precautions, such as knowing to whom to go for help, proper care of food and water, etc.

SECONDARY EDUCATION

I. Social Studies

1. Stress the citizenship values resulting from service to and cooperation with other people as required by the civil defense program.

2. Emphasize sound intellectual, inter-group human relationships. These are essential to local and regional unity. Survival is our common denominator.

3. Cooperate with local authorities to make surveys and gather civil defense data.

a. Develop population concepts as background for civil defense.

b. Emphasize community geography by constructing maps and charts relating to the community.

4. Establish a knowledge of the natural and manufactured resources of our country including air lines, waterways, and transportation routes. Stress that these are part of the interdependency of the entire country and are the blood streams of our economy.

5. Encourage an appreciation of other cultures, making use of all available resource people.

6. Explain and analyze propaganda.

II. Science

The following aspects of science can be presented as related to civil defense:

1. Chemical warfare
2. Biological warfare
3. Radiation and blast
4. Heat, light and sound
5. Fire (friend and foe)
6. Communications: radio, television, telegraph, radar, telephone
7. Water contamination
8. Food preservation
9. Aviation
10. Meteorology

III. Mathematics

Present problems which will lead to the development of concepts of:

1. Distance and size
2. Speed and direction
3. Numerical and special relationship to civil defense
4. Concentric circles
5. Areas

IV. Language Arts

1. Prepare and present materials to be used for defense programs:

- a. Radio
- b. Assemblies
- c. School paper
- d. Club meetings

2. Teach children to evaluate all reading critically. This should apply in all areas of the curriculum.

3. Develop the school library as a resource center for all departments of the school as well as for civil defense material.

4. Develop reading skills which will enable children to assimilate the many materials presented in the civil defense program.

5. Develop recreational reading habits that will serve as enjoyment and relaxation from tensions.

6. In studying the foreign languages, stress the understanding of other peoples and their cultures.

V. Health and Safety

In time of emergency it is recommended that increased emphasis be placed upon the health and safety curriculum. The following aspects are suggested for emphasis:

1. Explain elements of fire safety; use of sand, blankets, fire extinguishers, elimination of fire hazards and waste material, checking of electrical equipments, exits, etc.
2. Give all pupils a thorough knowledge of first aid.
3. Help pupils to determine when food and water are safe.
 - a. Demonstrate the protection of food and water in proper containers.
4. Encourage all pupils to cooperate with professional health workers.
5. Provide a balanced physical education and recreation program for all pupils; physical fitness is one of the greatest boosters of morale.

VI. Music

1. Develop song sheets that could be used with several types of groups and for a variety of occasions.
2. Train leaders for group singing.
3. Make record collections.
 - a. Make lists of morale-building records.

VII. Arts and Crafts

1. Make posters, murals, and friezes appropriate to the civil defense program.
2. Draw cartoons pertinent to various phases of civil defense.
3. Compile scrap books of civil defense material.
4. Develop Junior Red Cross activities that fit in with the program.

VIII. Trade and Industrial Education

Trade and Industrial Education can contribute varied and, in some cases, critical training for civil defense. It can organize special intensive training in such fields as:

1. Emergency evacuation and rescue work.
 - a. An understanding of first aid is essential.
2. Law enforcement. This should include emergency traffic safety and control.

3. Fireman training.
 - a. To fight and control fires inside and outside of buildings.
 - b. To fight and control fires in forests.
 - c. Studies of the various local fire companies should be made and resources and services should be catalogued and made available to group organizers and leaders.
 - d. Each school should survey its own facilities with the standards of civil defense in mind.
4. Sewage sanitation and control.
5. Street and road maintenance.
6. Motor transportation.
7. Radio communication.
8. Building salvage, repair and construction.
 - a. Equipment maintenance and operation.
 - b. Electrical service maintenance.

IX. Home Economics

1. Food and Nutrition
 - a. Pupils will need to understand the effects on the food supply caused by disrupted transportation and communication, by the presence of radioactive dust, and disease germs. They will learn to prepare for the adequate feeding of families under these emergency conditions.
 - b. The food preservation unit should include canning and freezing a wide variety of foods to keep families well nourished and to build up food reserves for emergencies.
2. Housing for Family Health and Welfare
 - a. Emergency housing conditions may involve accommodating relatives or others in crowded quarters or preparing to evacuate to other housing.
 - b. Emphasis should be placed upon the importance of providing a maximum amount of safety, sanitation, privacy, and comfort for all concerned.
3. Home Management
 - a. At present 25% of all married women are both wage earners and homemakers. During emergencies this figure increases. Pupils in school must be given better preparation in such management problems as sharing the work of the home, budgeting, wise use of money, etc.
4. Child Development and Welfare — The disorganization of family patterns of living during emergency conditions constitutes a threat to normal child development.
 - a. As part of a civil defense program, greater emphasis should

be placed upon helping homemaking students to understand children better and to interpret and help fulfill their needs under varying conditions.

- b. Students should be given actual experience in working with young children in play schools, or lower elementary grades or child care centers where available. Baby sitting, care of younger brothers and sisters and helping with community recreational programs all aid in the training program.

5. Clothing the Family is important to safety and morale.

- a. Basic clothing skills necessary to making, remaking, and care of clothing is essential for maximum contribution to defense.
- b. The purchase of clothing in this period of rising costs should bring into focus the total family clothing needs and the sharing of each family member in planning for expenditure.

6. Home Care of the Sick

- a. Maximum self-sufficiency in the care of minor illnesses in the family, and giving aid and follow-up care where treatment has been prescribed by a physician must be stressed, since an acute shortage of medical and nursing services always exists during emergencies.
- b. Cooperation with the school nurse in carrying out the home nursing unit in the established curriculum will aid in the civil defense program.

X. Vocational Agriculture

In time of war the enemy will do everything possible to cripple food production. Vocational agriculture is, therefore, in a strategic position to make major educational contribution to civil defense. Some of the problems to be dealt with are as follows:

1. Protect animals against Biological Warfare.

- a. Food, fibre, biologicals and pharmaceuticals come from our farm animals. Diseases spread by an enemy might include those now commonly known and so-called foreign diseases, such as rinderpest, foot-and-mouth disease, fowl pest and other foreign-types of Newcastle disease.
- b. Emphasis should be given in classroom instruction and on-farm supervision to livestock sanitation, disease prevention and recognizing disease symptoms. Where unrecognizable symptoms appear a local veterinarian should be consulted.

2. Increased Food Production

- a. Maintain production practices and skills which will contribute to maximum unit production.
- b. Protect plants against biological warfare by instructing

students to recognize, prevent and control the common pests and diseases and to report to professional agricultural leaders any new ones which might have been induced by an enemy.

3. Care and Repair of Farm Machinery

- a. Metal becomes scarce and mechanics are unavailable during a war period. Every farmer must, therefore, be diligent in the care and use of his equipment.
- b. Farm machinery repair classes should be organized for both students and adults even if it necessitates hiring special teachers.

SCHOOL LUNCH

Most Kentucky schools have lunch facilities with trained personnel, providing a natural situation for emergency mass feeding. Plans should be made in each school for the temporary feeding of all persons who are in the school. If the school is designated as an assembly area, reception center, or en route evacuation feeding center, special plans—in cooperation with the local defense council—should be made.

1. Have a record of the normal and expanded feeding capacity of the school.

2. Study types of emergency feeding service which could be offered.

3. Make tangible plans for:

- a. Food supplies

- (1) Record of quantity on hand, place of storage, care before using.
- (2) Written record of the source of supply and replacement, together with authorization for procuring same.

- b. Labor supplies

- (1) Designate the person to be in charge and an assistant.
- (2) Prepare and keep up to date a list (names, addresses, and phone numbers) of volunteers who will assist. Older pupils may be included and act as messengers.
- (3) Conduct on-the-job training for voluntary recruits in use of equipment, following of recipes for pro-

posed menus, sanitation in food handling and dish washing.

c. Fuel supplies

- (1) List sources of fuel and reserve fuel supply; prepare instructions for handling same; give location of cut-off switches for gas and electricity.
- (2) Plan for use of alternate method for providing heat and for cooking with camp facilities.

4. Special emphasis should be given to the type of equipment in which foods may be stored for protection against radiation.

5. Job sheets based upon planned menus and available facilities should be prepared for use in an emergency. Sheets should cover such jobs as:

- a. Assembly of supplies
- b. Preparation of food
- c. Serving of food
- d. Cleanup of serving area
- e. Dishwashing and sanitizing
- f. Cleanup of preparation area
- g. Check of equipment.

6. Conduct demonstrations within the community on use of dried eggs, dry milk and other products which may be part of the basic emergency food supply.

CHAPTER IV

AIR POWER

The American people must realize it is impossible to amass or invent an absolute, impregnable defense against bombing attacks by a strong, determined enemy. . . . The grim contingencies must be faced squarely along with urgent necessity for supporting a civil-defense program that can save countless lives in the event, God forbid, of an atomic bombing.

—General Hoyt S. Vandenberg

SENATE BILL NO. 153

Section 16, Senate Bill 153, authorizes and directs each county and city of the Commonwealth to establish local organization for civil defense in accordance with the state civil defense plan and program. Each county judge and chief executive of each city is authorized to appoint a director who shall have direct responsibility for the organization, administration, and operation for local civil defense.

Senate Bill 153 provides for the establishment of a division of Civil Defense within the department of Military Affairs for the State of Kentucky.

Section 21 of the above Senate Bill further authorizes the establishment of such numbers of Mobile Support units as may be deemed necessary to reinforce local civil defense organizations in stricken areas.

Therefore, proper authority has determined to organize five such mobile support groups within the Commonwealth located at strategic points; namely, Louisville, Lexington, Paducah, Bowling Green, and Ashland.

A Commander for each group has been appointed and is charged with the organization, administration, and operation of the group.

To facilitate the operational control and effectiveness of the Mobile group, it has been organized into eleven sub-divisions known as services. Each of these services is organized to supplement the same kind of service in the local civil defense set-up if same

exists. However, in the event a similar service in the local defense set-up does not exist it is intended that the particular service in the mobile defense set-up will effectively resolve the problem which may exist in the particular disaster area.

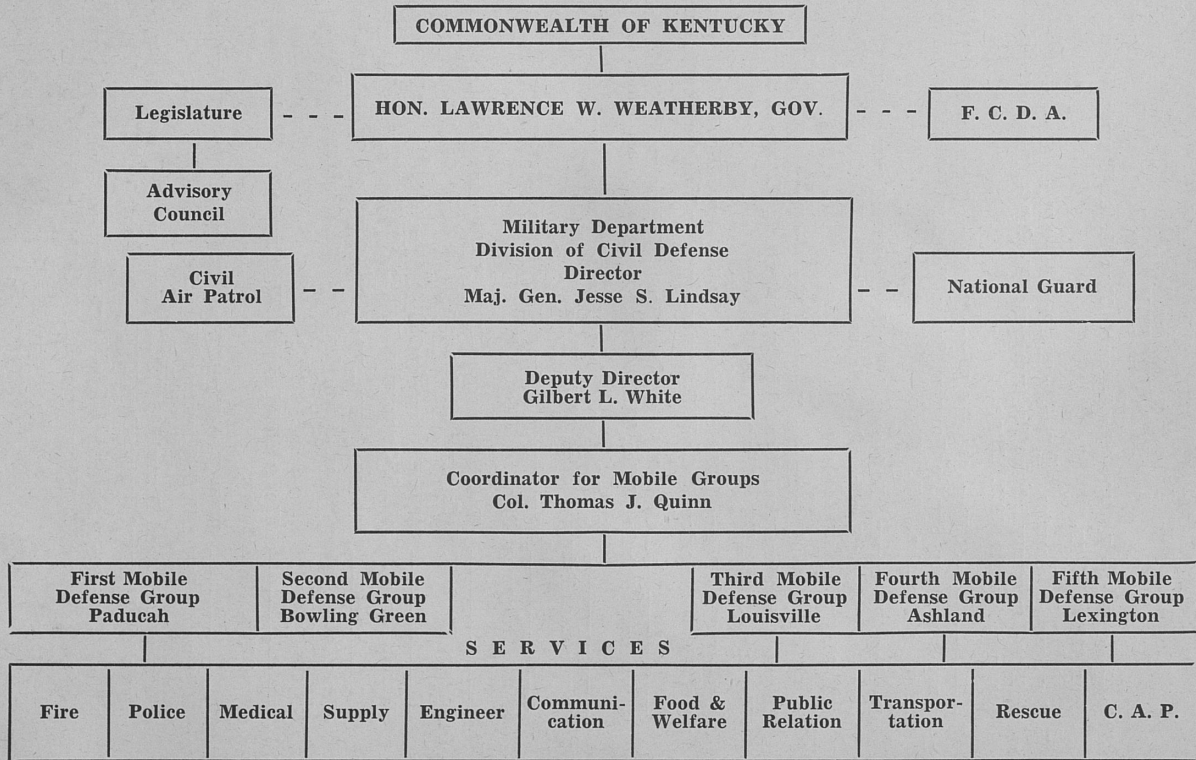
In order that these Mobile Groups will be as effective as possible, the entire State of Kentucky has been divided into five areas with all the counties in each area being assigned to a particular Mobile group. Thus, in the area of the Fifth Mobile Defense Group with headquarters in Lexington, the group embraces twenty-four (24) other counties; therefore, it follows that these 24 counties can be called upon to supply such equipment, personnel, or supplies as the county may be in a position to offer. As in the case of the fire-service of this particular group, it is possible to draw fire-equipment and personnel from many of the cities in this Fifth Mobile Group area so that with the equipment and personnel available in the City of Lexington we are now in possession of a very substantial fire fighting force that is available for service anywhere that disaster may strike and at the call of the Governor.

The above explanation of the potential of our fire-fighting service is similar to the potential of the other services which make up the Mobile Group and which are shown on the chart which accompanies this description of the manner by which the Mobile Groups are organized.

Senate Bill 153 also authorizes the Governor of Kentucky to enter into reciprocal aid agreements with neighboring states so that when two states enter into such reciprocal agreement it is agreed that one state will answer the call for assistance from the other state to send timely assistance to relieve suffering or chaos caused by enemy action or other distaster.

The State Civil Defense Director has established a State Headquarters for mobile support under the command of a deputy whose duties are to provide for pre-attack planning, distribution of forces, training, equipping and to assist Group Commanders with the organization of their particular group so that the Director of Civil Defense for Kentucky will have available to him for service anywhere in the State where disaster may occur an effective force to relieve suffering and to restore order.

STATE CIVIL DEFENSE ORGANIZATION



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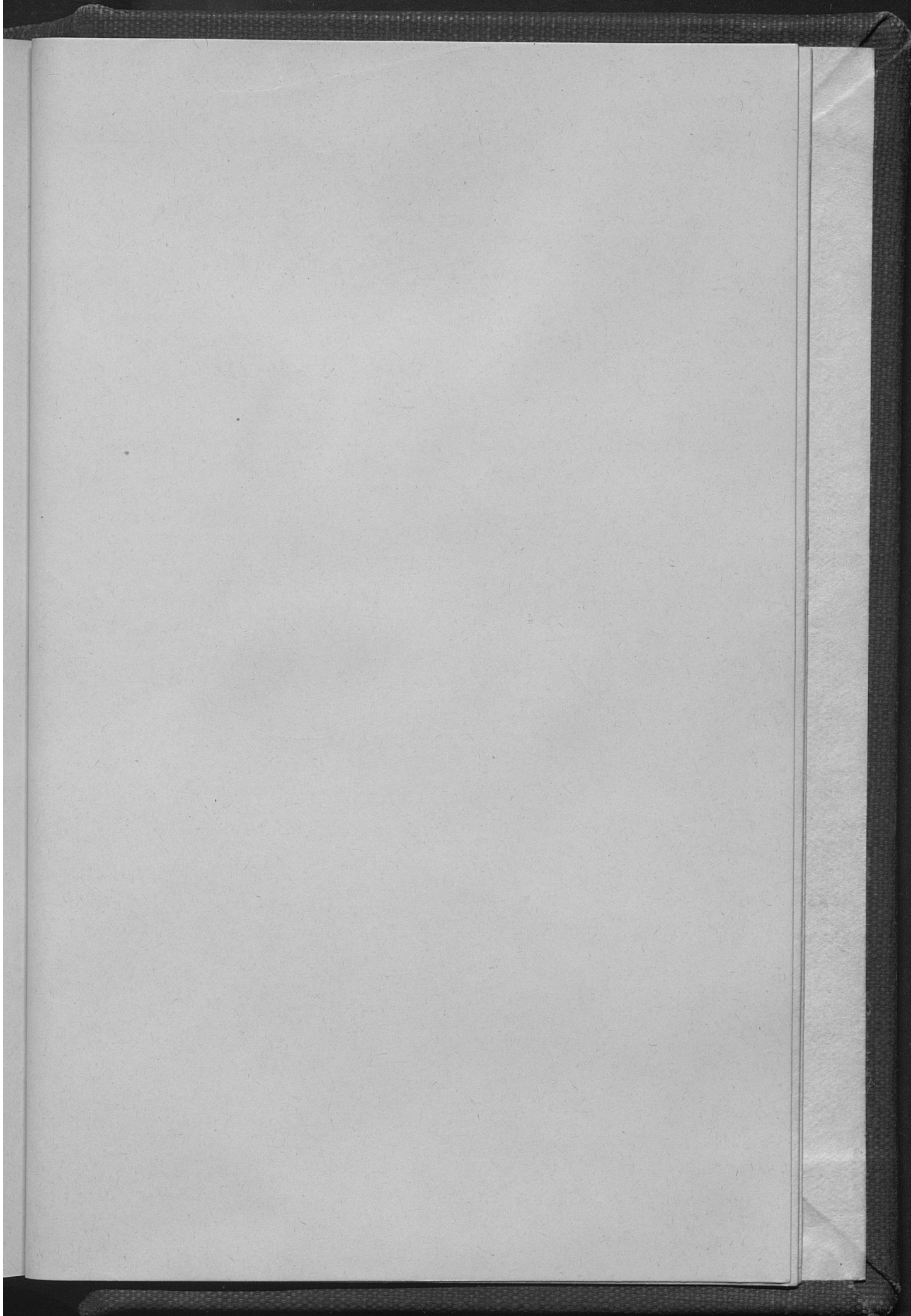
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