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PROCEEDINGS OF
COLORADO CONFERENCE ON CIVIL DEFENSE
AND DISASTER CONTROL
August 27 and 28, 1953

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GOVERNOR'S CONFERENCE

ON

CIVIL DEFENSE AND DISASTER CONTROL

August 27, 28, 1953

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GOVERNOR'S ADVISORY CONFERENCE ON CIVIL DEFENSE
AND DISASTER CONTROL

Planning

Planning for a conference on civil defense in Colorado began soon after a preliminary inquiry from the Federal Civil Defense Agency was received by D. Mack Easton of the University of Colorado. Originally it was suggested that the conference might be held at the university, but investigation showed that the summer schedule of conferences was too crowded.

On April 9 by telephone Mr. Easton recommended that the conference be held at the State Capitol and that it be called by the Governor. The University would plan and conduct the conference for the Governor with the cooperation of the State Civil Defense Agency. These recommendations were accepted.

On April 27 the first meeting of a committee to plan the conference was held in the office of General Larsen, State Director of Civil Defense.

On April 30 a small working committee of three members (Easton, Jensen, and Peterson) met in Mr. Easton's office in Boulder. It was decided that:

(1) the first problem was to determine the specific needs in Colorado which could be met by such a conference.

(2) The best way to make such determination was through questionnaires to be sent to legislators, officials of local government, and civic leaders.

On May 14 this small group met again. Reports of State Civil Defense field representatives for a period of some two years were reviewed to determine what some of the problems might be. The programs and procedures used successfully in similar conferences in other states were reviewed. Instead of a

typical questionnaire, which might put answers into a "straight-jacket," it was decided that an "open" inquiry should be mailed asking only two questions: (see copies of letters attached).

- (1) What has already been done in civil defense in your community?
- (2) What civil defense problems still need to be solved?

Arrangements were made to have letters duplicated on stationary of the Governor's office, with mailings to be sent out by the University to the following mailing list:

Members of the General Assembly
Chairmen, Boards of County Commissioners
Mayors of Cities above 2,000 population
County and City Civil Defense directors

These letters were mailed on May 28. Replies were returned promptly and were tabulated. The letters of reply, which were addressed to the Governor, have been returned to his office for filing. The tabulation of replies, however, is attached.

On June 12, another meeting of the full planning committee was held in Denver, with Mr. W. A. Ross of the Federal Agency in attendance.

On June 19, the contract between the University and the Federal Civil Defense Agency was executed. (See letter attached).

On July 9 the working committee met again in Boulder to develop a conference program on the basis of the tabulations. The program was adopted in tentative form and the dates for the conference were set as August 27-28.

Work then began in selecting speakers and in corresponding with them. Since attendance was necessarily to be limited a mailing list of invitations was carefully prepared so as to provide the best possible cross-section representation for the working groups of the conference. Invitations were mailed August 5, with requests for acknowledgment and pre-registration.

Upon receipts of favorable answers, the registrants were placed in one of three committees and pre-registration of each delegate was made.

A short article of history, orientation, and instructions was prepared for the chairmen of the sections. This gave them a thorough briefing on their responsibilities, helped to smooth the running of the conference.

The staff of the Bureau of State and Community Service of the University of Colorado was the registration staff at the conference. Recorders and vice chairmen were appointed before the conference and notified as to their duties.



State of Colorado

EXECUTIVE CHAMBERS

DENVER

DAN THORNTON
GOVERNOR

June 5, 1953

Will you please give a few minutes of your time assisting with a serious state problem which our Civil Defense Director and I are attempting to solve.

The problem is this: We have on the statute books a law intending to promote advance planning and organization for handling all kinds of disasters--fires, floods, tornadoes, explosions, sabotage, enemy action, etc. Considerable progress has been made in many parts of the State in taking advantage of this law. On the other hand, the progress has been spotty and no part of the State is anywhere near completely prepared.

Will you please write me telling what you believe to be the most important problems which must be solved in order to develop an adequate organization for dealing with peace-time and war-time disasters in your community. Your full and frank observations and suggestions are urged. The information will be used to help with our civil defense planning.

To be of most use, your reply should reach us as early as possible, using the self-addressed envelope enclosed herewith for your convenience.

Sincerely,

Dan Thornton

Enclosure



State of Colorado

EXECUTIVE CHAMBERS

DENVER

DAN THORNTON
GOVERNOR

June 5, 1953

I am writing you for help in planning certain phases of our civil defense work.

Will you please write me concerning two questions:

1. What are the most important problems you have solved so far in developing your civil defense program for dealing with natural and war-time disasters?
2. What are the most important problems which need to be solved in the immediate future?

You are engaged in responsibilities that are much more important than is ordinarily realized. Our State Civil Defense Director and I are in hopes that your reply to this request will make it possible for us to be of more help to you. To be of most use, however, your reply needs to be sent as early as possible, using the self-addressed envelope enclosed herewith for your convenience.

Sincerely,

Dan Thornton

Enclosure



State of Colorado

EXECUTIVE CHAMBERS

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June 5, 1953

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Will you please write me concerning two questions:

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You are engaged in responsibilities that are much more important than is ordinarily realized. Our State Civil Defense Director and I are in hopes that your reply to this request will make it possible for us to be of more help to you. To be of most use, however, your reply needs to be sent as early as possible, using the self-addressed envelope enclosed herewith for your convenience.

Sincerely,

Dan Thornton

Enclosure



State of Colorado

EXECUTIVE CHAMBERS

DENVER

DAN THORNTON
GOVERNOR

August 7, 1953

Dear Fellow Citizen:

I am calling a Governor's Conference on Disaster Control to meet in Denver on August 27 and 28. To this conference I am inviting a selected group of civic leaders and civil defense officials to consider Colorado's needs, the progress which we have already made with civil defense, and what our future program should be.

You have been selected by the planning committee to represent the organization listed below. The conference committee with which you are invited to work is also checked below. If you are unable to attend, I hope that you will provide a substitute to represent you.

The conference will be held in the House Chambers at the State Capitol Building. Participants will be expected to pay their own expenses to the conference except for a group dinner and luncheon, the cost of which will be borne by the committee on arrangements.

I have arranged for the Extension Division of the University of Colorado to assist me in planning and conducting this conference in cooperation with the Colorado Civil Defense Agency and the Federal Civil Defense Administration. Since the number of delegates is limited, the planning committee must know of your intention to attend the conference. I am asking, therefore, that you mail your acceptance in the enclosed envelope on or before August 18.

I hope very much that you will attend or send a representative.

Sincerely,

Dan Thornton, Governor

Representing:

Conference Committee

- A. The Education of the Public
- B. Training Civil Defense Administrators
- C. Training Civil Defense Workers

ALL GROUPS

Letters sent: 459

Replies: 127 (28%)

Problems Solved

1. Establishment of a basic C. D. Organization
2. Housing, communications, and food surveys
3. First Aid courses given

Problems to be solved:

1. Develop citizen interest
2. Improve communications
3. Improve training of C.D. directors and workers

Comments:

See each group summary sheets

GROUP II COUNTY CIVIL DEFENSE DIRECTORS

Questionnaires sent: ? (63 to County Commissioners, (see Group V)
10 to mutual aid area)

Replies: 22

Problems Solved

1. Establishment of basic Civil Defense organization. (11)
2. Established system of intra-county communication. (3)
3. Conducted first aid courses. (3)
4. Conducted refugee housing survey. (2)
5. Conducted transportation survey. (2)
6. Stockpiled a small quantity of medical supplies. (1)
7. Established a fire control plan. (1)
8. Surveyed mass feeding potential. (1)

Problems to be Solved:

1. Develop citizen interest. (14)
2. Organize transportation systems. (4)
3. Establish training courses for C.D. personnel. (2)
4. Conduct survey housing and feeding potential. (2)
5. First Aid training for C.D. workers. (1)
6. Develop better communication system. (1)
7. Obtain part-time paid C.D. director. (1)
8. Designate restricted emergency roads in Denver area. (1)
9. Secure interest of municipal officials in C.D. (1)

Comments:

1. State assistance has been very good; however, some complaint that (1) instructions should be brief and concise, and (2) Director should occasionally be briefed in group meetings.

Group II (Continued)

2. Some people resent General Larsen and other retired military people on staff of state C.D. agency.
3. There should be a state-wide education program on Civil Defense.
4. Civil Defense is not really necessary.
5. All C. D. workers should be required to sign loyalty oath.

Analyst's Observation

There appears to be a wide variation in the type of organization established. The variation appears to follow the Director's occupation or hobby: that is Red Cross people stress first aid. Police stress traffic control and auxiliary police. Ranchers stress feeding and housing. Need for coordination obvious.

GROUP III LEGISLATORS

Letters sent: 101

Replies: 30

Problems Solved:

1. Essential C.D. organization established. (3)
2. Survey of medical facilities. (1)
3. Developed communication system.

Note: In general, these replies would indicate that most Legislators have no idea of what has been accomplished in their communities.

To be Solved:

1. Develop citizen interest. (11)
2. Place responsibility for C.D. (3)
3. Improve instructions to C.D. workers; have state C.D. do something other than send out reams of mimeographed material (3)
4. Develop communication system. (3)
5. Set up a walking blood bank. (1)
6. Identification of owners of property whose buildings are used for air raid shelters. (1)
7. Establish system of evacuation of refugees. (1)
8. Secure funds. (1)

Comments:

1. No need for C.D. Red Cross would be on the job and national guard could be called out. (3)
2. C.D. efforts should be limited to work in case of military attack, not natural disaster work. (3)
3. C.D. should be sponsored through local service groups. (3)
4. C.D. is a local problem, not a state responsibility. (2)
5. C.D. should be handled by the armed forces.

Group III (con't)

6. C.D. has failed because of its use of military personnel. (1)
7. Local C.D. directors should be paid. (1)
8. Local C.D. directors should not be paid. (1)
9. C.D. should include natural disasters. (1)

Analyst's Observation: There would appear to be some personal dislike for General Larsen among the Legislators. Perhaps this is part of the trouble.

GROUP IV CITY OFFICIALS

Letters sent: 48

Replies: 21

Problems Solved:

1. Basic C.D. organization completed. (7)
2. Housing and transport surveys made. (4)
3. First Air courses given. (3)
4. Walking blood bank organized. (1)

To be Solved:

1. Develop citizen interest. (6)
2. Develop new method of finance. (3)
3. Develop C.D. leaders. (3)
4. Secure C.D. workers. (2)
5. Secure instructional and promotional films. (1)
6. Secure additional fire equipment. (1)
7. Bring problem of C.D. to attention of state and local officials. (1)

Comments:

1. Believe that a severe blow dealt C.D. by 39th General Assembly. (5)
2. Local service clubs should be used for C.D. (2).
3. Should be more C.D. practice drills. (1)
4. Should have one paid C.D. worker in each county. (1)
5. Population centers should receive the C.D. aid funds. (1)
6. More help should be given by the federal government. (1)
7. More use should be made of Armed Forces personnel as C.D. instructors. (1)

GROUP V COUNTY OFFICIALS

Letters sent: 63

Replies: 12

Problems Solved:

1. Basic Civil Defense organization completed. (5)
2. First aid courses given. (1)

To be Solved:

1. Develop citizen interest and support. (5)
2. Improve communications. (2)
3. Improve medical facilities. (2)
4. Establish system of fire control. (1)
5. Establish system of traffic control. (1)
6. Secure additional C.D. workers. (1)

Comments:

1. "We are quite well situated for C.D. as the Red Cross has had a disaster organization for years."

Analyst's Observation:

Dependence on the Red Cross is quite general in this group.

GROUP VI NEWSPIERS

Letters sent: 41

Replies: 10

Problems Solved:

1. Installed a warning signal. (1)

Problems to be Solved:

1. Secure public support. (5)
2. Develop communications. (1)

Comments:

1. C.D. should be built around, or integrated with:
 - (a) police and fire organizations
 - (b) National Guard
2. C.D. must be dramatized.
3. First decision should be: "What disasters do we want C.D. prepared to meet?"
4. Main need is handling refugees from Denver.
5. Statewide coordination of C.D. should be handled by the State Firemen's Association.
6. Adults could be educated in C.D. by training school children.

GROUP VII RADIO & TV

Letters sent: 33

Replies: 10

Problems Solved:

1. Basic C.D. organization established. (2)

Problems to be Solved:

1. Secure Public Support. (3)
2. Information centers for Conslrad use should be organized. (3)
3. C.D. directors should receive more training. (1)
4. Federal and state C.D. radio systems should be integrated. (1)
5. Should be closer coordination between different C.D. units. (1)

Comments:

1. Asked for additional C.D. releases which could be used without rewrite. (2)
2. Most approved of idea of Conslrad, but advised development of information centers. (2)
3. More Conslrad tests should be made. (1)
4. Should establish a C.D. speakers' bureau. (1)
5. Each community needs a dynamic leader. (1)
6. Present C.D. organizations are all "paper." (1)

**Governor's Advisory
Conference
on
Disaster Control**

**State Capitol Building
Denver, Colorado
August 27-28, 1953**

**This Conference was planned by
The Extension Division, University of Colorado
in co-operation with
The Colorado Civil Defense Agency
and
The Federal Civil Defense Administration.**

GOVERNOR'S ADVISORY CONFERENCE

ON DISASTER CONTROL

Thursday, August 27

9:00 A.M. Registration House Chamber

9:30 Welcome GOVERNOR DAN THORNTON

It Has Happened Here -
A Report of Natural Disasters in Colorado

Chairman: ROBERT L. STEARNS
President, Boettcher Foundation

10:00 Aims of the Conference D. MACK EASTON
Dean of Extension, University of Colorado

✓ 1. Urban Fires ED COLGLAZIER
Fire Chief, Pueblo

✓ 2. Rural and Forest Fires ROY WILLIAMS
U.S. Forest Service

✓ 3. Storms and Floods HERBERT S. RIESBOL
Assistant Chief, Hydrology Branch
U.S. Bureau of Reclamation

4. Health Hazards: Animal and Human .. Dr. ROY CLEERE
Director, Colorado Department of Public Health

5. Traffic Hazards HAROLD E. STOREY
Director, Colorado Highway Safety Council

6. Drought and Insect Pests JAMES E. MORRISON
Director, Agricultural Extension Service
Colorado A & M College

11:30 It Could Happen Here - Military Disasters

HAROLD L. AITKEN
Executive Assistant Administrator
Federal Civil Defense Administration

12:15 Recess for Lunch

2:00 P.M. When a disaster hits -- Whose responsibility is it?

Chairman: WILLIAM A. GRELLÉ
Director, Bureau of State and Community Service
University of Colorado

1. The Military in Emergencies

a. The Armed Forces

b. The National and State Guards
COLONEL HOWARD GAMBLE
Assistant Adjutant General
State of Colorado

2. The American Red Cross in Emergencies
MARVIN L. HERSEY
American Red Cross

3. Civil Government in Emergencies
LEO C. RIETHMAYER
Professor of Political Science
University of Colorado

4. Present Status of Civil Defense in Colorado

a. Civil Defense Organization in Colorado
GENERAL HENRY L. LARSEN
Director, Colorado Civil Defense Agency

b. The Public Looks at Civil Defense
GLENN JENSEN
University of Colorado; Deputy
State Civil Defense Director for Schools

6:00 Dinner Shirley-Savoy Hotel

Chairman: D. MACK EASTON

"How the International Situation May Affect Us"
DAYTON MCKEAN
Dean, Graduate School
University of Colorado

(continued)

Organization of Conference Committees:

- Work of the Committees
- Organization Meetings

How to Educate the Public for Disaster Control (A)

Chairman: KENNETH OBERHOLZER
Superintendent of Denver Public Schools; Member,
National Advisory Committee on Civil Defense

How to Train Civil Defense Administrators (B)

Chairman: MARTIN SCHMIDT
Professor, School of Business
University of Colorado

How to Train Civil Defense Workers (C)

Chairman: ~~H. GRANT WEST~~ *Cook Don Bennett*
Commissioner, State Department of Education

Friday, August 28

- 9:00 A.M. Conference Committee Meetings
- A. How to Educate the Public for Disaster Control
..... House Chamber
 - B. How to Train Civil Defense Administrators
..... 28 Capitol Building
 - C. How to Train Civil Defense Workers
..... 704 Capitol Annex
- 12:00 Luncheon Leyden-Chiles-Wickersham Post 1
American Legion, 1370 Broadway
- 2:30 P.M. General Session House Chamber
- Chairman: D. MACK EASTON
- Reports of Conference Committees
 - Discussion
 - Adoption of Reports
- 4:00 Adjournment

INSTRUCTIONS FOR COMMITTEE CHAIRMEN

Committee A - How to Educate the Public for Disaster Control

Committee B - How to Train Civil Defense Administrators

Committee C - How to Train Civil Defense Workers

I. Background of Conference

The Governor's Conference on Civil Defense is one of a series of such conferences being held in approximately twelve states. Each is planned and conducted locally, and the Colorado conference appears to be somewhat different from the others. Our conference plan is based on a questionnaire sent out by Governor Thornton in June to over 400 civic leaders throughout the state. The three conference committees have been established to discuss the three most important problems as indicated by the questionnaire returns. There are other problems, of course--such as self protection in the home, schools, and business--but this conference will be limited to the three topics listed.

II. Conference Plan.

A. Orientation

Thursday, August 27, will be devoted primarily to orientation.

Morning - a discussion of disasters possible in Colorado, with emphasis upon natural disaster. Too often, civil defense is thought of as being necessary only in event of atom bomb attacks.

Afternoon - a discussion of whose responsibility it is when a disaster happens. It is a mistake to think that the military or the Red Cross are all that is needed to handle disasters; they are important, but they have their limitations. It is also a mistake to think of civil defense as a separate arm of the government; rather it is some "extra muscle" to be built into our normal agencies of civil government.

Dinner - the present international situation probably points toward

even greater needs for strong disaster control provisions.

B. Conference Committees

The work of the conference will be done in committees.

Thursday - Immediately following the dinner, the work of the committees will be explained and the general meeting will split up into three groups for the organization of the committees (see page 3).

Friday -
9:00 a. m. The committees will meet in their respective rooms to hold their discussions and arrive at their recommendations.

Lunch - During the lunch hours, the committee will write up their reports.

2:30 p. m. - The conference will meet to hear, discuss and act upon the committee reports.

III. Work of Conference Committees

A. Organization Meeting

The purposes of the organization meeting are:

1. To help members of the conference committee get acquainted with one another. The number of invitations has been limited; so your committee will be small. Each member, however, has been specially selected for his interest and experience and represents an important organization or agency. (See list attached).

2. To introduce to committee members the problems to be discussed the next morning and to get their comments and suggestions. This part of the meeting will give the members something to think about overnight so that they can get off to a running start Friday morning.

3. To adopt whatever formal organization the committee may wish.

You are its chairman and you will be furnished a reporter. The reporter will not be a stenographer, but will attempt to take notes on the major issues discussed. You will probably want to appoint a drafting committee of two or members who will follow the discussion carefully and will work with you in drafting the report of the recommendations for the committee.

B. Discussion (Friday, 9 to 12 a. m.)

The enclosed outline of suggested discussion is meant only to help the chairman organize his agenda. You should feel free to rearrange and amend it to suit your convenience. Committee members will also have suggestions. If you do not need the full three hours, you may recess your committee, but chances are that you will need to push your discussion along so as to finish by lunch. If you should need more time, it might be possible for you to meet for a while following the luncheon.

C. Report Drafting (Friday, lunch hour).

The persons drafting the report for your committee should join together during lunch. They may wish to leave before the luncheon program begins in order to complete their report. Stenographic and typing assistance will be available at the registration desk.

D. Presentation of Reports (Friday, 2:30 p. m.)

It is preferable that you, as chairman, should read and explain the report of your committee, although you may have someone else make the presentation for you. It is expected that the chairman for the afternoon meeting will ask for discussion of the reports and ask for their adoption by the whole conference. It is hoped that Governor Thornton will meet with the conference to accept the reports, but he has been unable to confirm this part of the program.

Conclusion

The success of the conference depends upon the work which will be done in the committees. The conference recommendations will go to the Governor as advice toward improving the program of disaster control in Colorado and will be forwarded by him to the state and local officials concerned. Therefore, your committee has a responsible assignment. You will bring to it the best thinking and experience available; so we are confident that the results will be good. Please call upon the conference staff for any service which

LIST OF REGISTRANTS, GOVERNOR'S CIVIL DEFENSE CONFERENCE

1. Aitken, Harold L., Ex. Asst. Adm., FCDA
2. Allen, Howard B., American Society of Safety Engineers, Denver
3. Allen, Thomas, Coal Mine Inspector, State of Colorado, Denver
4. Banks, Ed., Adult Education Council of Colorado, Denver
5. Berger, Ray M., Sheriffs and Peace Officers Assn., Fort Collins
6. Baum, Martin D., State Dept. of Public Health, Denver
7. Baxter, Prof. Robert, Chemistry, Mines, Colorado
8. Bennett, Gordon, State Librarian, Denver
9. Bickal, M.O., F CD A., Denver
10. Bowman, Charles, CD Training Officer, Denver
11. Branson, Mrs. R. E., League of Women Voters, Denver
12. Brinker, Dexter, Rocky Mt.n Rescue Group, Boulder
13. Brown, A. A., School Administrators, Littleton
14. Brown, Alan, C. U. Extension, Boulder, Deputy CD
15. Brown, Mrs. Georgina, State CD Agency, Denver
16. Brown, Ross, Asstto Governor, Denver
17. Carr, Eleanor, General Assembly, Denver (Repr.)
18. Cheever, Senator Vernon, Colorado Springs, Colo.
19. Cleere, Dr. Roy, State Dept. Health, Denver
20. Colglazier, Chief Ed., Fireman's Assn., Pueblo
21. Comstock, E. C., Director, Vocational Educ., Denver
22. Coulson, Robert R., CD, Longmont
23. Cushing, Col. Colorado Education Association, Denver
24. DeVivier, Jack, State CD for Engineering, Denver
25. Dinner, Melvin, Acting CD Director, Greeley, Colo.
26. Doidge, Col. John Deputy Director State CD, Denver
27. Dotson, Glenn, Freedoms Foundation Winner, Denver
28. Elliff, Senator Edgar E., Sterling, Colo. , General Assembly
29. Eyre, Capt. Matt G., State Highway Patrol, Alamosa
30. Fischer, Capt. Hugo, CD Director, Colorado Springs
31. Gamble, Col. T. O., National Guard, Denver
32. Gill, Senator Frank L., Hillrose - General Assembly
33. Greiner, Mrs. E. M., Federation Women's Clubs - CD Chairman, Denver
34. Harte, Everett, CD Director, Holyoke, Colo.
35. Hersey, Marion L., American Red Cross
36. Hopkins, Mayor Price, Municipal official, Greeley, Colo.
37. Humphrey, Neil D., Acting Ex. Dir., Colorado Municipal League
38. Jensen, Glenn, State CD for Schools, Boulder
39. Johannis, Norma, Denver Health & Medical Center, Denver
40. Joiner, Joan, Colorado Municipalities, Editor, Boulder
41. Johnson, Bert, City Manager, Municipal Official, Boulder
42. Juchem, Marguerite, State Dept. Education, Denver
43. Kurtz, Mrs. Chas. C., Catholic Parents, Denver
44. Leach, C. H., F C D A, Denver
45. Lee, Everett J., State Forester, Denver
46. Liggett, Dr. William A., State Medical Society, Denver
47. Lutz, Judge Harold D., CD, Jefferson County, Golden, Colo.
48. McDonald, Mrs. Ruth, Women's Advisory Committee for CD, Denver
49. McKean, Dayton D., Graduate School, University of Colo, Boulder
50. Mills, Hubert H., Colorado University, Boulder

51. Miles, Philip B., CD Director, Walsenburg
52. Minear, Craig, Colorado Education Association, Denver
53. Molholm, Martin C., Senator, Lakewood, Colo., General Assembly
54. Moore, Mrs. Edna, Women's CD Advisory, Rocky Ford
55. Morrison, J. E., Director, Extension Service, Colo. A. & M., Fort Collins
56. Morrow, Mrs. Violet, American Legion Auxiliary, Sterling
57. Nelson, Mrs. V. E., State Chairman CD, Colorado PTA Congress, Wheatridge
58. Oberholtzer, Kenneth, Supt. Denver Public Schools, Denver
59. O'Donnell, Joseph L., Police Dept., Colorado Springs
60. Opp, Theo. A., Comdr., VFW., Denver
61. Peterson, W.J.B., F C D A, Denver
62. Plank, Dr., E.H., Denver University, Denver
63. Quade, Gen. Omar, Denver CD, Denver
64. Reece, John, County Commissioners, Pueblo
65. Rice, Mrs. Ruth, CD Director, Idaho Springs
66. Riesbol, Herbert S., Asst. Chief, Hydrology Branch, Denver
67. Riethmayer, Prof. Leo C., University of Colorado, Boulder
68. Rhoades, Harley, Burlington, Colo., County Commissioners
69. Roberts, Dr., D. G., State Health Dept., Denver
70. Ross, W. A., F C D A, Denver
71. Schmidt, Martin, Prof., Colorado University, Boulder
72. Shaffer, Russell, KBOL, Boulder
73. Sommers, William A., Bureau of State and Community Service, C.U., Boulder
74. Stearns, Dr. Robert L., Boettcher Foundation, Denver
75. Stepp, Ellsworth, Colorado University, Boulder
76. Storey, Harold, State Highway Safety Council, Denver
77. Tanberg, Miss Sylvia, Denver Public Library, Denver
78. Thies, H. F., F C D A, Denver
79. Tilley, A. C., Regional CD Director, Denver
80. Unfug, Otto, Mayor of Sterling, Municipal Official
81. Vliet, Otto, Mayor of Longmont, " "
82. Wade, Oakley, Repr. , Las Animas, Colo., General Assembly
83. Warner, W. W., County Director CD, Delta, Colo.
84. Webb, Lt. Col, Richard B., CD Director, Canon City
85. Weller, Orville, Presidents Roundtable, Denver
86. Young, William CD Director, Englewood
87. Williams, Roy, United States Forest Service, Denver
88. Larsen, General Henry L., State CD, Denver

HOW TO EDUCATE THE PUBLIC FOR DISASTER CONTROL

Chairman: Kenneth Oberholtzer, Superintendent of Denver Public Schools;
Member, National Advisory Committee on Civil Defense

We take as our basic premise the assumption that disaster control and civil defense are conceived as a primary responsibility of the people, men and women, boys and girls, and that nothing less than a people fully informed and well practiced can fulfill this responsibility.

Before recommending to you how to inform the public about disaster control, we must have a clear understanding of why information is necessary, what is important to relate, and what are authoritative sources of information. Over and over in our deliberation, the need of authoritative information was expressed. In our opinion, to provide authoritative information to the public, the following requirements must be met:

- (1) There must be information, factual information. This is the most important single element of a successful information program.
- (2) The information must be in a form that the public can understand.
- (3) The information must be issued by responsible officials in charge of disaster control and civil defense.

The present uncertainty as to these points is a major obstacle to the development of a good public information program.

We believe that there are four general types of appeal to the public which may be made effectively:

- (1) An appeal based on the likelihood of disaster and of the effects of an enemy attack. We were much impressed by the Thursday morning presentation "It Can Happen Here." Too many people think that there is no danger to their community or area, or that there will be no effect on their community from a disaster in another area.

(2) An appeal involving the idea of disaster control and civil defense as a real insurance against unnecessary suffering and damage.

(3) An appeal based on the idea that effective disaster control and civil defense may reduce the likelihood of attack or of disaster.

(4) An appeal identifying disaster control and civil defense as an important element of good citizenship. There is a new dimension in citizenship today which we should all recognize--a dimension which we call "protective citizenship."

What to say about disaster control and civil defense is of the greatest importance. Many of us are confused by conflicting reports and ideas that have been widely disseminated.

We believe that every community and county as well as the state should have an adequate organization for disaster control and civil defense. A principal function of such organization would be to disseminate accurate, authoritative information. Apparently, the State of Colorado, insofar as counties and communities are concerned, is not adequately organized at the present time. Before effective information programs can be developed at the local level, such organization must exist. Furthermore, we understand that the primary responsibility for leadership in disaster control and civil defense rests upon the duly elected officials of counties and municipalities in Colorado. The success of the information programs rests essentially at the local level. The state is principally a coordinating, advising center.

We suggest that the following information is illustrative of what we have in mind under the subject of what is important to say to the general public.

People should be informed:

1. About the presence or absence of disaster control and civil defense organizations in their local communities and counties.
2. About the local plan of operation in the event of disaster or enemy attack.
3. About the names and addresses of responsible local officials.
4. About what state organizations exist, what they can and cannot do in assisting counties and communities.
5. About the role of the armed forces and other national agencies, and what they can and cannot do. Too many people now apparently believe that organizations such as the armed forces and the American Red Cross will have full responsibility in the event of disaster or attack.

Two major types of information are presently needed:

- (1) General information which may be disseminated to people throughout the state of Colorado.
- (2) Specific information which may be given to organizations, and institutions or groups, such as schools, colleges, service clubs, women's study clubs, etc.

As to means of disseminating information, we suggest the use of all available mass media and the development of materials appropriate to each kind of media: such as press, radio, TV, movies, etc. The subject of disaster control and civil defense should be on the agenda of meetings and conferences of all types. Special emphasis should be given to ways of informing the people through local disaster control and civil defense organizations. The experience resulting from many programs shows that the personal approach and the personal appeal by well-informed and trained individuals are of the greatest importance.

As a concluding statement, we should like to emphasize the desirability
of

(1) the Governor's appointing an advisory citizen committee on public information which could be of assistance to him and his civil defense authority in the future development of public information programs.

(2) The Governor proclaiming a day or a week in recognition of the importance of disaster control and civil defense.

(3) The publication of a brief summary of this conference to be made available to local civil defense authorities. We recommend particularly the very fine summary made by Mr. Mack Easton at the dinner meeting on Thursday.

HOW TO TRAIN CIVIL DEFENSE ADMINISTRATORS
Martin Schmidt
Professor, School of Business
University of Colorado

Persistent international tension and mounting threats to our security bring new problems of citizen welfare and safety to our communities. Because of this, emphasis should be on strengthening existing local governmental and private organization and facilities; that is, training in disaster control and civil defense should begin with local governmental officials and their staffs. Inasmuch as local governmental activity is already directed at essential civilian welfare and protection and in effect constitutes the nucleus of a civil defense program, efforts should be made to supplement these regular governmental and utility services to meet new problems during an emergency period.

In order to support this concept that our training program should be amplified and expanded, we recommend:

1. That the Governor call the county commissioners, city managers, and mayors for a one-day Orientation Conference to be held in Denver to cover in general the civil defense laws, the responsibilities and authorities of the local officials in civil defense activities, inter-community relations, and dangers to which we are exposed.
2. That the state civil defense director develop a program of local instruction to be conducted in the ten mutual aid areas for administrators of the local civil defense agencies.
3. That the field consultation serve be re-established.
4. That practice exercises for administrative and operational training of all echelons be continued.

5. That maximum exploitation of actual situations be used for training and for public information.

6. That, in the development of the content of the training program, maximum use be made of the advice and assistance of existing agencies of the federal, state and local governments.

In carrying out the foregoing recommendations, we recommend further such strengthening of our laws as may be necessary to fix the responsibility and authority for civil defense upon the chief executive of municipalities and the chairman of the board of county commissioners of the counties.

HOW TO TRAIN CIVIL DEFENSE WORKERS
Chairman: Gordon Bennett, State Librarian
State of Colorado

We believe the training of volunteer workers is essential for an adequate civil defense and disaster control program. Therefore, we recommend:

(1) That full-time instructors be added to the staff of the State Board for Vocational Education to be used in the organization and training of civil defense and disaster control instructors.

(2) That the State Department of Education be given sufficient funds to organize and direct a civil defense and disaster control training program within all schools and at all grade levels.

(3) That a resolution be introduced in the legislature which will urge that civil defense and disaster control information and training be included as a part of the curriculum of all grade schools and all high schools in the state.

(4) That federal and state governments appropriate more funds for the adequate training of civil defense and disaster control workers. Furthermore, we suggest:

(1) That local training programs include, as far as is possible, the following steps:

- (a) Creating interest in the training program
- (b) Teaching the necessary techniques
- (c) applying what the workers learned
- (d) Checking periodically what is being done in the practical application.

(2) That, as far as possible, civil defense and disaster control training programs be tied in with similar existing emergency facilities so that civil defense programs will not result in duplication but in integration.

(3) That the matter of compensation and remuneration of volunteer workers be decided at the local level.

(4) That, in order to keep an active interest in civil defense training, devices such as occasional meetings, social activities and the like parallel the actual training program.

(5) That, in dealing with volunteer workers, initial emphasis be directed toward stimulating interest so that workers will then be ready to use available training courses.

(6) That training programs be tailored to fit the free time of the volunteer and that these programs then be integrated into an instructional pattern.

(7) That instructions be simple; unnecessary complexity be eliminated. Also, that the instruction be basically uniform throughout, as far as this is possible.

(8) That more than one person be trained for the same job in order to achieve defense in depth.

AIMS OF THE CONFERENCE
D. Mack Easton, Dean of Extension
University of Colorado

Disaster control, in some ways, is one of the most difficult problems faced by the states in the United States at the present time. It is a problem which has been met and largely solved in only a few portions of the country. In the flood-ridden cities of the Ohio Valley, for example, you will frequently find a standing plan for the organization of all the communities' resources to deal with the problems raised when the Ohio goes out of its banks and the cities are to a greater or lesser extent flooded. Some states have expanded such plans to cover any kind of natural or wartime disaster, but this idea is a bit novel to us. We have not for the most part tried to exercise forethought with regard to the problems of flash floods, tornadoes, or enemy action. As certainly with regard to enemy action, we have very recently been invulnerable, but we are no longer.

This conference has been called by the Governor to perform an advisory function with regard to how he meets three of the problems that must be met if we are to effectively exercise forethought on the problem of peacetime and wartime disaster. Those three problems were selected after conferring with several hundred community leaders and local officials throughout the state and a very significant group of state officials, including the members of the state legislature. As you know from your program, and from the correspondence, those three problems are how to make the public understand what this is all about, and what must be done to take effective action; how to assist the local official in carrying out his responsibilities, particularly as civil defense director of the municipality or the county, and how to get the training job done which must be done if we are to have adequate supplementary forces for meeting real emergency conditions.

WELCOME ADDRESS
Governor Dan Thornton
State of Colorado

Ladies and gentlemen, let me first thank you for responding to the call to this Advisory Conference on Disaster Control. I am definitely convinced that the way of handling this problem is to call the various leaders of the state together so that we can sit down and discuss this problem and arrive at several solutions.

I am sure that each of you is aware that Civil Defense in itself is not concerned with military disaster alone. I would comment but briefly on that, for we have heard a lot in the last few days of the A bomb, H bomb, and now the C bomb. We know that any military engagement in the future will involve the civilian population more, in a certain sense, than it will involve the military.

The first attack would be on the large centers of population in an attempt to destroy the productivity of our industrial machine as well as the processing plants that gather food and feed our people. We are aware that entire cities can be laid waste in a few short moments. We are also aware that we do not know when the attack might come. We are also aware that the military leaders of these United States are vitally concerned with this problem to the extent of setting up a national civil defense program. All of these things we know. We also know that there is a certain apathy on the part of the people of this country although they are vitally concerned with this problem.

However, what I called you together for is another problem in addition to the military problem--that of civil disaster. We have recently witnessed

disasters such as the Waco, Texas tornado and the Texas City explosion where hundreds of families were destroyed, where heartaches were just the same as if the damage had been done by military bombs. We have witnessed the earthquake at Bakersfield, California. We have witnessed the floods in Kansas and Missouri, and most recently, another drought situation has struck in the southeast part of our state. In other words, even without military disaster, there is reason, in my opinion, to have a strong civil defense organization that can function properly, efficiently and quickly at the time of a civil disaster.

We, here in Colorado, will not be doing our duty unless we prepare such an efficient organization. Such preparation will take leaders and those people who will devote time and effort to that sort of an organization. The prime reason that you are here this morning is to study and evaluate the situation and to bring recommendations and suggestions not only to the Governor of the State but also to our director and also to the Legislature. You are represented here by some legislative leaders and the leaders of the Federal Civil Defense Administration. I'm sure these persons will be as gratified to get your suggestions and recommendations as I will be.

We seek from this conference recommendations and judgments that will enable us to perfect an efficient type of an organization at little cost. Money does not make an efficient organization. You do not buy by appropriating funds for an efficient civil defense organization. You have an efficient one only if you get the cooperation of all the people. Some people in the past few years in the state and across the nation seem to think that all you have to do to get an efficient organization is to appropriate funds by legislative action. That is of course important to a certain degree, but the important thing is to have people who will devote their time and effort. With that

sort of help and cooperation, I think we can effect an organisation that will meet any type of civil disaster.

URBAN FIRES

Ed Colglazier, Fire Chief, Pueblo

Whatever our opinion may be in regard to Civil Defense, it is our responsibility and duty as American citizens to be prepared for any eventuality. I am sure that each of us realizes what will happen if one of our large cities should ever be bombed. Without a doubt there will be a considerable loss of life and property. How well we will survive will depend upon how well we are prepared.

One of the major things we will have to contend with is fire. We must have a sufficient, well-trained, well-equipped fire department plus all the auxiliary fire fighters we can get. In addition, every man, woman and child should have instruction and training in fire fighting, because it is the private citizen who will bear the burden of combating minor fires. The fire department will have more than they can handle in fighting the large fires.

Most cities are prepared to combat fires in peacetime but do not have sufficient men and equipment to control the numerous fires which would result from a bombing attack. For this reason, a mutual aid agreement should be made between neighboring cities, not only for the use of equipment, but also for manpower.

It is very easy to set up a Civil Defense program on paper, but without organization and training, you have nothing but confusion and chaos when an emergency arises.

All auxiliary firemen should have a minimum of eighty hours training on the following subjects: organization, chemistry of fire, first aid,

Chief Colglazier

hydraulics, hose lays, handling of ladders, rescue work, building inspection, salvage work, inflammable liquids, airplane fires, chemical warfare, gas masks, traffic control, evacuation, public relations, and many others. These are just a few of the subjects that should be covered to make a good fire department. You will agree that it is impossible to organize and train fire department personnel over night. It requires many, many hours of drilling and instruction. Good firemen are in a professional class. The average citizen has very little conception of what it takes to make a good fire department.

During the year, 1953, the fire loss in the United States will probably reach the billion dollar mark, and at least 10,000 people will lose their lives by fire. Much of this property damage could have been averted, and many of these people could have been saved, if they had been properly educated on what to do in case of fire.

In order to have an effective Civil Defense organization, you must have the support of your city officials, schools, civic organizations, clubs, and last but not least, the man on the street. It is extremely hard to get the average person interested in Civil Defense because he thinks "it won't happen to me." It could happen to you, so be prepared.

RURAL AND FOREST FIRES

Roy L. Williams
Chief, Fire Control
U.S. Forest Service
Denver, Colorado

I am glad to review the fire story in Colorado and to point out what can happen in the future if we, as citizens, fail to do our part in fire prevention.

The people of Colorado are proud of the magnificent scenery of the mountains and justly so. We have some of the most spectacular mountain country found anywhere in the nation.

I wonder, however, if you have taken the time to examine the Colorado landscape closely? Have you ever looked at the denuded areas around Vail Pass? Have you noticed the barren slopes as you drive up Clear Creek Canyon? Do you know why a large tree planting program has been in progress on the Pike National Forest for the past 40 years? Do you ever wonder when you look at the large patches of beautiful aspen, in the autumn, why it is there and not solid stands of pine or spruce.

The answer is fire.

Prior to the advent of the white man, Indians occupied the greater part of the state. They are charged with many fires although history does not support these charges. He used fire as a weapon at times in his war with the paleface but in general he was careful, he worshipped fire, and he recognized its destructive power and used it sparingly.

Then came the trappers, the mountain men. They too were afraid of fire and its ruinous effect on wildlife habitat and the wildlife itself upon which their livelihoods depended. These men were careful with fire.

Roy Williams

Next there came the prospectors, the miners, the pioneers of Colorado. They dug, chopped and burned the mountains in a careless destructive never-ending search for wealth and riches.

They developed the mines and built the towns and the railroads, which was accomplished only by the use of timber which was abundant everywhere. The use of timber was necessary - it was a natural resource without which the rapid development of the state would not have been possible.

The timber provided materials for the mines, charcoal for the early day smelters, construction material for camps and towns, and materials for railroad construction. It is not the cutting or use of this timber that concerns us today; we are concerned with the condition in which the pioneers left the land.

The large areas of slash left after cutting caught fire and left completely denuded areas, such as we see around Vail Pass. The large patches of aspen found along old railroad grades are where fires were started by cinders and allowed to burn uncontrolled, areas where replanting has been necessary.

We must, however, give credit to the early day lawmakers of Colorado - they saw the destruction caused by fire, the damage to forest reproduction and to the watersheds. The Colorado legislature passed the first forestry and fire prevention legislation in the Rocky Mountain region, acting second only to the State of California in the entire nation. Laws governing railroad fires were passed in 1874 and in 1879, and laws covering the leaving of unextinguished campfires have been on the books since 1885.

Roy Williams

While these laws recognized the importance and the need for protection of the forests and watersheds from fire, they were never vigorously enforced. This condition prevailed throughout the United States and finally Congress passed the Forest Reserve Act in 1891. This act provided for setting aside public lands suitable for the growing of timber and the protection of watersheds. The law simply provided for locking the resources up in a reserve; there were no provisions for use or funds for protection.

In 1897 a second act, the Administrative Act, was passed under which limited use and funds for protection were provided through a centralized organization in Washington.

Actual administration, use and protection were made possible by the transfer of the forest reserves to the Department of Agriculture in 1905 which resulted in a decentralized organization and down-to-earth management and protection which have continued since that time.

Colorado averages about 200 fires per year on the National Forest and about 150 on private and state owned lands and other federal lands, or approximately 350 per year. Approximately 200 are caused by human carelessness.

Fires such as the George Creek fire on the Roosevelt in 1952 burned 1200 acres of second growth timber valued at \$150,000 and suppression costs of \$50,000. This fire was started by careless woodsmen.

A 1000 acre fire on the Rio Grande last October started by a careless hunter cost the taxpayers \$25,000 to extinguish.

These fires happen and will continue until such time as people become fire conscious. Manpower, equipment and time are limited when it comes to

Roy Williams

fire suppression. The best protection is prevention.

All civilian defense programs must consider fire as the highest priority job and the first step is fire prevention which must be stressed at all times.

The Forest Service and all land management agencies of the Federal government are working together with state foresters and private concerns in a nation-wide prevention campaign symbolized by "Smokey", the Fire Fightin' Bear.

The Forest Service and the state forester in Colorado have a large well-equipped fire suppression organization based upon leadership, equipment, and the cooperative efforts of local people throughout the state. This combined organization has been effective, and the burned areas in the state are being held to a minimum.

This organization is geared to function in any disaster, such as flood, searching for lost persons, and snow rescue work.

We are interested in disaster control and are organized, equipped and ready to do our part at any time.

STORMS AND FLOODS IN COLORADO

Herbert S. Riesbol, Assistant Chief
Hydrology Branch, Bureau of Reclamation

It is a privilege to appear before this group of fellow Colorado citizens to discuss the age-old problem of storms and floods. With her lands laying as they do, astride the ridge pole of the nation, exposed to air masses and storms from all directions, Colorado has suffered her share of disaster from storm and flood. Colorado's high mountain barriers effectively intercept and wring the last drop of moisture from the inflowing air masses. The efficient pattern of stream channels heading in these high mountains provides an effective means for the rapid concentration of excess storm water. Here again Colorado occupies a unique position in that she lies at the head of five great river basins, the Colorado to the west, the Platte to the north, the Republican to the east, the Arkansas to the southeast, and the Rio Grande to the south.

In discussing storms and floods from a disaster viewpoint, we are concerned primarily with (a) the localities of probable occurrence, (b) the relative magnitude and frequency, (c) the probable time or season of occurrence, and (d) proper measures for the control of disasters resulting from the occurrence of storms and floods.

My discussion of storms is in their relationship as father to the flood. The occurrence of wind storms and tornadoes is infrequent in Colorado and is not important from the disaster control viewpoint. The sources of moisture for heavy precipitation in this state are about as follows:

1. Pacific air masses enter the state from the west and northwest during the winter months. As these air masses are lifted by the

Herbert Riesbol

west-facing mountain slopes, precipitation occurs resulting in the heavy blanket of snow that accumulates on the high plateaus and mountain ranges during the winter. This is the primary source of water for the spring floods. Rainfall from this source is usually light and not important from a flood viewpoint.

2. During the fall months of September and October, moisture-laden warm air occasionally enters the state from the southwest, originating in the Pacific Ocean around California and the Gulf of California. Usually this moisture enters the state as a result of a hurricane moving in a northeasterly direction from the lower California coast. This moisture-laden air expends itself against the west facing slopes of the San Juan and Sangre de Cristo mountains and results in fairly heavy precipitation at the higher elevations.
3. The major source of precipitation for the east-facing slopes of the mountain ranges and for the plains country in the eastern part of the state is from the Gulf of Mexico. Warm, moist air masses can enter the state from that source during any month of the year but are most frequent and have the highest potential during the spring months of April, May, and June. In order for these moist air masses from the Gulf of Mexico to produce major storms in eastern Colorado, it is necessary that they encounter a frontal action by meeting cold or cool, continental air masses from the north. Great storms such as those of June 2 to 7, 1921, over the Arkansas River Basin, and May 30-31, 1935, over the Republican River Basin, are examples of this type of action. These Gulf of Mexico air masses also supply the moisture for the cold bursts that occur occasionally with great intensity in a belt extending about 50 miles eastward from the Continental Divide, and below an elevation of about 7,500 feet, from the northern to the southern border of the state. Cloudbursts are rain storms of short duration and extremely high intensity, covering a relatively small area, usually less than 20 square miles.

The above discussion gives a general introduction to the causes and types of floods in Colorado. Now for some specific examples.

The greatest flood of record on the Colorado River in Colorado occurred in June and July 1884 from the melting of a heavy snow cover, due to a rapid rise in temperature in the late spring months following a cold and severe winter during which an unusual amount of snow accumulated on the high plateaus and mountain ranges. The peak discharge at Fruita, Colorado, occurred on about July 4, and is estimated at about 125,000 second feet with a stage of

18.5 feet. There was extensive damage to bridges spanning the Colorado River and its tributaries, and to the headgates of irrigation ditches. There is no record of loss of life. Since this type of flood is predictable and forecastable, it is entirely possible to alert and warn the residents of the river valley in ample time for them to protect their lives. Thus, outside of the damage done to real property, there is no great problem of disaster control.

The greatest flood of record in the southwestern part of the state occurred as the result of a heavy rain storm during October 4 and 5, 1911. This rain storm was the eventual result of a tropical hurricane that entered the continent via the Gulf of California, finally expending itself against the San Juan and Sangre de Cristo mountains. A few lives were lost in Pagosa Springs and there was a large amount of property damage. This included extensive damages to farmland and crops, to roads and bridges, to railroads and milling property, and residences and personal belongings. Following the first warning of the flood at Pagosa Springs at 5:30 a.m. October 5, 1911, the river rose rapidly and reached its peak stage of 17.8 feet, 13 feet above normal, by noon of that same day. Incidentally, historical accounts give us good reason to believe that a much greater flood due to snow melt occurred in the San Juan River in the spring of 1859. However, there are no records or data available regarding this earlier flood. We know that rain floods, such as that of 1911 in the San Juan area, are most apt to occur in the fall months. However, with present knowledge, it is impossible to predict such floods more than a few hours in advance.

The most severe flood disaster ever suffered by the state of Colorado occurred in the Arkansas Valley during June 1921. The general storm of June

2-7, 1921, was the only storm of record that caused severe floods and unusually high waters in nearly all parts of Colorado. Warm, moist air from the southern states and the Gulf of Mexico met a cold front from the north, and as it was forced upward and cooled, its moisture was released as precipitation. The effect of the cold front was, of course, increased by the foothills, especially in the vicinity of Pikes Peak. The main part of the storm area was centered at Pueblo of 103,000 second feet on June 4. It is estimated that about 100 lives were lost and that there was more than \$19,000,000 in property damage. All communication with the outside world was cut off, as all telegraph and telephone wires were down. Highways were so badly damaged that it took several days for motor trucks carrying relief supplies to reach the stricken area. So great was the damage to railroad property, not only in Pueblo but in the surrounding territory, that relief trains could not enter Pueblo for several days. Here again is a flood situation which could occur during several months of the year and which could be forecasted only a few hours in advance. As a result it would be virtually impossible to give the local residents adequate alerting and warning.

The most severe and intense rain storm of record in eastern Colorado and western Nebraska occurred during the night of May 30-31, 1935. One center of this storm extended roughly from Colorado Springs to Kiowa and produced an unofficial point measurement of 20 inches of rainfall in less than 12 hours. This rain fell over the divide between the Platte and Arkansas Rivers and was dissipated into the two streams. However, amazingly high discharges were created in Bijou Creek and Kiowa Creek, both tributaries

of the Platte River immediately east of Denver. The main center of the storm laid roughly between Flagler, Colorado, and Benkelman, Nebraska. Here again unofficial measurements of 20 to 24 inches in 12 hours were observed. The average precipitation over the second center was something less than 10 inches. The crest discharge of the South Fork of the Republican River at Newton, Colorado, was estimated to be about 103,000 second feet, or about the same as that of the Arkansas River at Pueblo in the flood of 1921. The loss of life was greatest in the upper parts of the valley in Colorado and Nebraska where the flood occurred at night. A total of 110 lives were lost. The loss of livestock was estimated at over 20,000. More than 275,000 acres of farmland were damaged, most of which contained growing crops or hay. Several hundred miles of highways and railroads were destroyed or damaged, also over 500 highway and railway bridges. About 1,500 homes and 1,500 buildings other than homes were flooded in the area east of the Colorado line.

The floods of June 1921 in the Arkansas River and May 1935 in the Republican River are storm and flood events that impose maximum demands and requirements upon disaster relief and control agencies.

Violent and intense floods that occur in the mountain streams on the east-facing slopes of the Rocky Mountains, as a result of cloud bursts, frequently result in the loss of life and in extensive property damage, particularly to roads, bridges, and mountain cabins. For example, the flood of July 7, 1933, in Bear Creek Canyon caused the loss of five lives and the destruction of the highway between Mount Morrison and Idledale. Following this flood, the highway was rebuilt at a higher elevation. However, the depth of water during the 1933 flood failed to attain the all-time record

for Bear Creek established in July 24, 1896. Also there are records of intense cloud burst floods in Clear Creek, Mt. Vernon Creek, Golden Gate Canyon, St. Vrain Creek, and numerous other mountain streams.

In reviewing this record of historical floods in Colorado, the question immediately arises as to what can be expected in the future. Hydraulic engineers view the record of past flood experiences as a good indication of the frequency with which floods may be expected in the future. Also, we know that as records pile up from year to year, the historical floods of the past are exceeded by new floods. We firmly believe that any of the floods that have occurred in the past in Colorado can be exceeded in the future. We believe that there is a maximum possible limit to any flood event, but our calculations indicate that this upper limit has not been attained by any of the experienced floods in Colorado. For instance, had either the storm of June 1921 or of May 1935, by chance centered more directly over one of the river basins involved, the flood magnitude resulting would have been much greater than that of actual record.

It is difficult to apply the word "control" to storms and flood disasters. As Mark Twain once observed about the weather, we talk about it a great deal and actually do very little about it. Certainly the storage dams, irrigation works, and other structures built by municipalities, irrigation districts, the state of Colorado, the Bureau of Reclamation, the Corps of Engineers, and other agencies in the state of Colorado, have accomplished a great deal in terms of controlling and preventing floods. However, that is not the type of control with which this conference is primarily concerned. All of us who live in communities located in areas that are subject to flooding could do a great deal in terms of disaster control if we would work diligently

to secure zoning laws that would prevent the location of homes and high value property in the immediate flood plain. A more immediate step that can be taken by a disaster control organization is to provide the ways and means for flood forecasting and for the alerting and warning of the people who live within the hazardous area. We can predict that great floods will occur at some time in the future in any of the valley areas such as I have discussed today. However, we can only forecast a specific flood when the storm moves in and heavy precipitation begins. In the case of rain floods this forecast can only be a few hours in advance. For snow floods, of course, the forecast can be far in advance, since we can observe the accumulation of heavy snow packs during the winter and the beginning of the rapid rise of temperature that will melt those snow packs and cause the flood. After a forecast has been made, it is then necessary to sound the alert and to warn that the flood may attain a certain magnitude within a specified time. This procedure of forecasting, alerting, and warning gives the people every opportunity to remove themselves and their most cherished values from the flood area before the event strikes. After the flood disaster has occurred--and a friend of mine defines a disaster as a sudden and extraordinary calamity that the affected individual and his nextdoor neighbor can't take care of--it becomes necessary to reestablish communications, in order that the extent and magnitude of the disaster can be determined. I have previously commented upon the disruption of communications during the Arkansas River flood at Pueblo in 1921. Next, it is necessary to reestablish transportation facilities so that people and supplies can be moved to points within and without the disaster area. In the event of a major flood disaster covering a large area, it also becomes necessary,

unfortunately, at about this time to provide police facilities to prevent looting and vandalism. Medical and public health facilities must be rushed into the area to take care of individuals injured during the disaster and to prevent the spread of contagious diseases. Temporary housing must be provided for those families and individuals whose homes have been destroyed or inundated by the flood waters. It is almost always true that the public water supply and all private supplies are polluted and contaminated by the flood waters. Public health agencies and municipalities must act at once to insure safe water supply for everyone concerned. Local food supplies must be inspected, those that are rendered unfit for human consumption by the flood waters must be destroyed and a safe supply provided. These are the major immediate steps of flood relief. Following relief, comes the job of rehabilitation. While rehabilitation is beyond the scope of disaster control, it like disaster control, involves the element of cooperation. Charles Steinmetz, the great electrical wizard, in the early part of this century said, "Cooperation is not a sentiment, it is an economic necessity." Certainly those of us who are faced with the problem of disaster control realize the significance of that statement.

HEALTH HAZARDS: ANIMAL AND HUMAN
Dr. Roy Cleere, Executive Director
Department of Public Health
Denver

The State Department of Public Health in conjunction with the Colorado State Medical Society has formulated certain basic plans for civil defense which are flexible enough to be transformed into an organization capable of dealing with civil disasters.

It is not unusual for the Health Department to deal with epidemics, or health conditions which result from disaster. In 1947 the State Medical Society formulated an Emergency Disaster Committee which was designed at that time to cope with a poliomyelitis epidemic. In 1952 this committee was enlarged in scope to embrace all medical emergencies and the name was changed accordingly to "Emergency Medical Services." It is this committee which is cooperating with the State Health Department in civil defense planning. Several prominent physicians have been appointed to serve in concurrent positions with staff members of the Health Department, with the objective of integrating the health-medical program into one organizational group.

Inter-governmental and inter-professional cooperation is the operational pattern of the Health Department when dealing with epidemics. In 1949 the City of Denver and the counties of Adams, Arapahoe and Jefferson were involved with a rabies epidemic in domestic animals. The local Health Departments of these jurisdictions with the cooperation of the State Health Department, U.S. Public Health Service, and practicing veterinarians succeeded in stopping the epidemic swiftly and reasonably permanently. In four evenings

of clinics held concurrently throughout the area, 14,492 dogs were immunized, in addition to those similarly protected in the private veterinary hospitals. A total of more than 20,000 animals were vaccinated against the disease with the result that no further cases were reported.

During the early months of 1953, 131 cases of virus hepatitis were reported from the six northeast counties. In a similar manner the Northeast Colorado Health Department, with the state, U.S. Public Health Service, and practicing physicians cooperating, made studies of the disease to determine cause, modes of transmission and necessary control measures.

Following a flood in Holly in 1949, the State Health Department mobilized its cooperative forces, rapidly established typhoid immunization clinics, and undertook mass scale chlorination of drinking water supplies. Coupled with educational programs, the incidence of typhoid and gastro-intestinal diseases were maintained at a minimum.

In the same manner that the Health-Medical services function in the routine investigation and control of disease outbreaks in the conduct of its officially designated duties, the organization can use the same procedures in civil disasters resulting from floods, tornadoes, fires, explosions and wrecks.

In situations similar to those experienced in Flagler and Boulder Canyon, medical resources can be mustered through the State Medical Society and food and hospitalization through the sanitation and hospital facilities services of the State Health Department. We would be in a position to advise relative to the anticipated sanitation and disease problems resulting from the housing of large numbers of people under reasonably undesirable conditions.

In terms of biological warfare, the same epidemiological reporting and investigational teamwork routinely used by the Health Department in investigating epidemics will be brought into operation. The scope of the situation may require the extended use of professional personnel from other agencies, and private practitioners in all the medical and biological sciences.

The State Health Department has a most capable team of experts trained in the field of radiation. These persons have already conducted in-service classes for groups interested in the civil defense aspects of radiation, with emphasis on monitoring services. These activities are well integrated with the staff and facilities of the Medical School of the University of Colorado.

Recommended techniques for the detection of chemical warfare agents and the acceptable methods of decontamination can be offered by the State Health Department. Such services, however, would be on a strictly advisory basis because of existing facilities and personnel shortage. We would be capable and willing to integrate this service with those of other state and federal agencies.

Cooperative plans are in process with the Medical Society and hospital administrators to allocate hospitals and emergency medical facilities in designated areas for disaster use.

It is appreciated that much has been accomplished in the way of civil defense planning, but in most instances such plans have not been implemented by the activation of operational medical services at the local level.

In our civil defense planning, certain facts become increasingly evident. The State Health Department and Medical Society can function only in advisory

and coordinating capacities, as we are staff organizations. In order for our services to be effective, it is imperative that the local civil defense health-medical services be properly organized and staffed, as they constitute the functional operating units in any disaster. We believe that we should conduct our direct business with the health-medical service of the ten mutual aid areas and rely upon them to channel authority to the local units in their jurisdiction, using state personnel only as advisors and coordinators.

From the standpoint of sound administrative procedure, it is believed that our relationships for civil defense should in reality be no different from those currently existing between the State Health Department and the organized local health departments. It is axiomatic that the best public health is attained in areas having local health departments, rather than relying on direct service from the state. The same principles are true in our relationships for civil defense.

TRAFFIC HAZARDS

Hal Storey, Executive Director
Colorado Highway Safety Council

In event of a natural disaster or emergency in Colorado, people affected will think first, of their personal safety. The time of day when the disaster occurs will play a great role in the way our citizens will react and will determine to a certain extent their activities in trying to save their lives. For instance, if the flood, fire, famine or plague should strike just after the majority of persons should be in bed, people will probably be dazed when they awake. They may stumble into some clothing and take to their cars, wheelbarrows, or other means of mobile transportation and head for the hills. Some may scramble to safety or supposed safety in opposing directions, and confusion and mayhem will result.

Should the disaster strike during the working day--people will start trying to call home over the already over-burdened telephone which more probably will be entirely out of commission except for a few emergency civilian defense calls. When they cannot reach their loved ones--they may try to hop a bus, and when they find that the buses are not running because their facilities have been hit and hit badly by the disaster, they may borrow the car of a friend--or just borrow a car, period, and head for home at speeds which would curl your hair. In all probability, they will also join several thousand other drivers in violating all sorts of traffic regulations--established primarily for their safety.

Consequently, we have the citizen, overwrought with concern for his own well-being and that of his loved ones, at a loss to know what to do to save even his own life.

All he may be certain of is that he has a motor vehicle at his disposal, and he may get into it in a dazed condition with very little gas for fuel and drive "hell bent for election" until the gas runs out. When the car runs to a standstill, he may be in the center of one of the intersections of one of the busiest arteries of travel in the state. Here he may create, along with a few of his fellow drivers, a congestion which may wreck all the carefully studied plans of all the agencies cooperating to provide a civilian defense setup aimed at the protection of the lives of the citizens of our state.

America is a land on wheels, and when the emergency arises, will our people act with assured calm--or will they run screaming into the streets and grab a car and drive recklessly on their merry way to destruction? Unless we educate our citizens to the proper course of action, we may not be able to keep them alive long enough to help combat the particular disaster.

In 1935 when the Memorial Day flood struck Colorado Springs and the area on down to Pueblo along the Fountain River, many people were forced to flee their homes by automobile, and then watch parts of their property wash away on the crest of the torrential downpour. Sections of buildings were visible, riding the waves, with tables and cupboards still in place, only to be dashed against bridge abutments where a once usable home became a mayhem of splinters.

Some drivers found flood waters rising around their stalled vehicles, and were forced to climb on top of the car, where they witnessed the water climbing inch by inch, to finally sweep them to their untimely death. A later search found some of them dead by drowning, and lodged high in trees several miles down the course of the flood.

Other drivers tried to cross areas as the flood rose, only to have their cars swept away.

Probably, some of these people who drove recklessly into the flood waters were in a hurry to get somewhere a few minutes quicker than if they had detoured and missed the flood. For weeks on end, traffic was rerouted over devious and twisting courses, and accidents occurred more frequently than previously. Damage to farmlands along the river was great and costly-- and some land is just now being reclaimed by use of fertilizers and deep tilling which covers the sand which was washed over and deposited on once fertile fields.

In the fall of 1946, Colorado experienced one of the worst blizzards in history. Some unfortunate motorists were trapped in the storm and lost their lives from exposure when they went for help. Others spent the night in their cars, with the snows howling about them, and with no possible place to go, nor any help within reaching distance. A group of us working for the Colorado Municipal League at that time had held a planning institute meeting in Hot Sulphur Springs the day of the storm and had started over Berthoud Pass as it reached its heaviest fury. We finally reached Denver, to find great ruts in the streets where streetcars had plowed through the drifts and cars sitting crosswise on all main streets, and traffic practically tied up. Every hotel in Denver was filled to capacity, so we tried to drive on to Boulder. The roads north weren't too bad, but every east to west road was drifted full and there were flocks of cars bogged down in them like sheep in a mucky field. We finally stayed on high ground so to speak and returned to Denver and slept in the lobby of the Olin Hotel. We never should have left Hot Sulphur Springs. All along the way we found cars over

the side of the roads. People had started out in spite of the storm. Some tried to turn back and slid off the road. Others became blinded, and in their panic, did the wrong thing and wound up in a snowbank or the ditch. Others drove right out into the raging inferno, thinking that it would not last long, and they would be at that party, or dinner way ahead of time. A great many did not arrive at all and never enjoyed the opportunity to attend another party or gay affair.

The third natural disaster I would like to mention was the grass fire south of Colorado Springs in the early part of January of 1950. At that time we lived near Fountain, Colorado. We were awakened about 5:00 a.m. to hear men from Camp Carson calling to us from the highway that a fire had broken out in the vicinity of Cheyenne Mountain and the Broadmoor Hotel and was racing east and south. It was some few moments before we realized the significance of their warning, but we finally aroused ourselves and decided that we were in no immediate danger, at least. So we got into our car and warned and visited with some of our neighbors, drove around watching the fire and smoke spread over the foothills and were certain that it would not jump the river which separated our place from the source of the fire. However, we finally went home, had breakfast, and started watering down everything in sight, just in case. You should have seen us up on the dry shingle rooves trying to get water to soak into old shingles. It wasn't too long until cars started streaming up and down the highway to have a better look at the blaze. In fact, we could hardly get out of our yard, for cars parked, watching the fire. We learned that the fire had jumped the river in three places and had even crossed the highway from Colorado Springs to Pueblo, and was spreading East. It was a disastrous fire.

It would jump as far as two or three hundred feet over brush, buildings and grass and start another fire in a remote spot. So there were hundreds of fires starting up in every direction, and they surrounded buildings, livestock and motorists. So great was the desire of the motorists to see the holocaust that they braved fire, as they had flood and blizzard in the previous two cases to see something different and to have some excitement. Many accidents occurred. People ran into each other, off the road, over small livestock, and damaged much property including crops. Crowd hysteria ran high and homes which are still standing were reported burned, along with the people in them. Fathers away at work were denied admittance to certain areas, because the danger was so great. Since their families were in immediate danger, they were hysterical. Some slipped around the blockades and waded the rivers to reach their homes, only to find that someone had driven their loved ones to safety.

Such is the panic which accompanies a disaster of any kind. We have far too many deaths on our highways as it is. We have figured that for every Colorado life we have lost in Korea each year, we have lost at least ten persons in traffic accidents in Colorado during that year. If people would just stop to realize that when they enter any kind of motor vehicle, they are entering one of the most effective weapons of destruction there is, I am certain they would drive in a sober manner, and with utmost caution at their command.

What can we do to relieve the panic and curiosity which attends disaster?

We can:

1. Talk to our families and decide what we would do in case of an emergency. Drills can be held at home, at work and at school.

2. Remove anything around the home which is not necessary to everyday living, and which might prove to be a fire hazard.
3. Study first aid, and keep an emergency first aid kit handy.
4. Train civil defense workers in supervision and direction of traffic, and give them authority to order the proper channeling of traffic in emergencies when the State Patrol and other enforcement agencies are entirely too busy at the scene of the disaster.
5. Join one of the organized civil defense services to make group action possible when a disaster arises.
6. Convince ourselves that we will be safer if we act in an efficient and quiet manner when the emergency arises, and learn to curb panic.
7. Encourage driver-training in the schools of our communities in order that our youngsters may learn to drive properly and that they will learn to obey traffic rules and regulations. It may become such a habit with them that they will automatically obey the rules of the road when the disaster arises.
8. Promote the formation of local Adult Traffic Safety Councils in our communities to promote traffic safety in normal times and to combat mass motor hysteria when disaster strikes.
9. Above all we must as drivers set an example ourselves for the other adult and teenage drivers in our communities.

DON'T DRIVE YOURSELF OR ANYONE ELSE TO DEATH.

DROUGHT AND INSECT PESTS
J. E. Morrison
Director, Colorado Extension Service

Drought Disaster

There would be little gained in entering into a technical discussion of "What is drought?" There is a great deal of disagreement among those who have studied the question. If our definition were to be limited to lack of rainfall, we would have areas in Colorado that are continually experiencing drought. The amount of annual precipitation at Alamosa and Delta, for example, is little more than that on the Sahara Desert. Some years it is even less. For our purposes, we are defining a drought as a period of deficient rainfall which is seriously injurious to vegetation. Subnormal soil moisture, high temperatures, strong wind movement, and excessive evaporation make a moderate deficiency of rainfall more serious than a large deficiency under other circumstances.

A few of the more serious droughts which have been recorded are: In 1749, New England had a drought of such serious proportions that winter feed was not produced and cattle were slaughtered to save them from starving to death during the winter. There was another serious drought in New England in 1762. These are mentioned only because we seldom think of New England as having a shortage of rainfall.

The drought of 1860 was the most severe recorded up to that time. The states most seriously affected were Kansas, Missouri, Ohio, Minnesota, Wisconsin and Indiana. Another drought of very serious proportions struck in August and September of 1881 and affected the entire country east of the

Mississippi. New York City's water supply failed and a new source had to be developed. The unusually high temperatures caused a great many deaths from the heat.

A great deal of study of recorded weather information has been aimed at the question of determining whether drought occurs in periodic cycles. Douglas, et al. have explored this in the study of tree rings. Even our geologists have studied the question of drought through the ages.

The United States had droughts in 1886-7, 1893-5, 1899-1901, 1904, 1910, 1917, 1924-5, 1930-1, 1934-6, 1939, 1943, and the current drought in the southwest, which started in 1951. The average interval between these recurring disasters is 5.65 years. This is very close to one-half the sunspot period, but there is much irregularity.

From the standpoint of practicality, one billion acres of land in the United States are used for grazing during at least a part of the year. This is approximately 60 percent of our total land area. Much of this grazing land receives less than 20 inches of rain annually and a considerable part of it less than 10 inches on the average, but this area normally supports 70 million cattle and 50 million sheep.

The present drought in the Southern Great Plains is in its third year, Subsoil moisture has largely disappeared in much of the area. There is little or no grass for livestock. Recent rains, while spotted, will help to produce ground cover to prevent wind erosion if it is not excessively grazed. A substantial part of the livestock population of the Great Plains has moved to market or to some other section of the country where pasture is available. Crop failure, or near failure, in the last three years has largely depleted the farmers' cash reserve. Feed reserves produced in the area are largely gone.

The Federal Government has recognized the problem and has declared a substantial part of nine states to be in a disaster area. Through the United States Department of Agriculture, feed concentrates are being provided at a reduced price. Loan policies have been liberalized to help livestock men maintain foundation herds.

At the moment, the wheat growers' situation is precarious. Seed is needed to plant winter wheat if and when fall rains come. Cash is needed to buy gasoline and supplies, and in some cases food and clothing.

It is not my intention to paint the picture blacker than it is, but two serious droughts in a generation have taxed the resourcefulness and ingenuity of those who have stayed on. A high percentage of the population moves out with each recurring drought. The area might possibly again drop to the population level of the late 30's if adequate rain doesn't come soon.

Substantial progress has been made in learning to conserve moisture and prevent wind erosion. Research and education have helped. Agencies of government, local, state and federal, have all helped in meeting the problems of plains agriculture, including drought, but ultimately those in the area who produce crops and/or livestock for a living must develop a long-range program which will provide the reserves of cash, feed, moisture and soil fertility necessary for a stable economy.

Insect Pests

In drought periods, the damage done by leaf-feeding insects becomes more obvious. When crop yields are reduced by drought, insect populations seem to build up even though there is probably no more or no less than there would have been had yields been abundant.

The grasshopper cycle seems to be on the upswing. Entomologists, both state and federal, have been watching the build-up closely and have been helping to combat incipient outbreaks. An egg survey is made each fall and the areas of heavy egg laying are mapped. For example, the recent outbreak in part of the drought area was forecast early last winter.

On deeded land, it is generally considered the responsibility of the farm or ranch operator to combat insect pests. However, with the tremendous acreages involved in our livestock ranches the cost becomes burdensome, particularly so in a year when the returns from these ranches are low due to drought, and especially in 1953 when beef cattle prices were 40 or 50 percent below the high point of recent years.

Funds available to the Bureau of Entomology and Plant Quarantine to finance a cooperative control project never seem to be adequate. Further, the land management agencies responsible for public lands have seldom had funds for pest control commensurate with the magnitude of their problem.

The development of new and more potent insecticides since the close of World War II, together with improved application by airplanes, has made the control of insects on an extensive basis possible. By way of illustration, the Mormon Cricket, in northwestern Colorado, reaches epidemic proportions in areas almost completely inaccessible to ground equipment. This pest has been greatly reduced in recent years through the use of modern methods.

Other insect pests that have been particularly important in the drought areas in recent years are green bugs and wheat mites. They are of particular concern to grain growers. Here again, the airplane and some of the new insecticides are effective. Each year, new insects, or old insects developing new food habits, present new problems. For example, some very recent

investigations hint at the possibility that green bugs carry mites, the mites in turn carry the virus of wheat mosaic. Man's battle against insects grows apace.

Nothing has been said in this discussion about the role of parasites in the control of insect pests. When a new, more potent insecticide is developed, it is often equally potent in destroying the parasites that have helped through the years in holding insect pests in check.

Good farming practice has also required the entomologist to modify his attack or to develop new techniques in the control of insects. For example, the maintenance of a stubble mulch to control wind erosion provides an unusually favorable habitat for certain insect pests of wheat to overwinter.

Through the years, farmers and ranchers have had to deal with serious insect pest outbreaks. They have had the technical know-how of a corps of trained entomologists to help. County agents are asked more questions of a technical nature regarding insect pests and plant diseases than any other part of their job. When an outbreak occurs they are available to assist farm and ranch operators in organizing their forces and developing a control program. The Bureau of Entomology and Plant Quarantine is always available. In case a pest district is needed to enforce control regulations, the State Entomologist of the State Department of Agriculture is ready and willing to cooperate.

In conclusion, if we were as well equipped in technical know-how in the field of weather modification as we are in the control of insect pests, the problem of drought would be on its way to solution.

Harold Aitken
Executive Assistant Administrator
Federal Civil Defense Administration
Washington, D.C.

Civil Defense is not something that we can put on or take off at our convenience. It is a dimension of government which, so long as we live in a world of turmoil such as exists today, makes it absolutely imperative that everyone understand the significance of the situation. There is real danger under which we are living. After all, we are talking here about things which affect our existence as American citizens and our existence as a nation. The thing has such scope that in the event of enemy attack, you could not gamble on the possibility of nuisance or sporadic type of raid. It could be that the outcome of World War III could be determined in one act of aggression. It isn't a pleasant picture. How do we paint this picture to the people unless we tell them the truth? How do we tell them what they can do? We don't dare risk planning on the possibility that we will take up the job after the fact. It might well be too late. People in Colorado may say, "Why would we ever be attacked?" "Why would a nation attack Denver with an atomic bomb?" Why would it attack any city in the land with an atomic bomb? A lesson can be learned by referring to the Japanese experience. Remember that Japan had over four million trained men in uniform when the armistice came. The morale of the nation had been broken by an aerial attack which culminated in the burst of an atomic bomb. In other words, ladies and gentlemen, our nation might cease to exist as a free nation even though no bombs were ever dropped on the central states, or there were no physical invasion of our country, as such. If enough people become casualties and if our industrial ability

is destroyed, our ability to exist as "our" nation is destroyed. We must learn to save both.

What do people do in a disaster? The first reaction of people in the face of a violent physical disaster was described by Ernie Pyle as a stylized type of impression. Ernie Pyle witnessed the bombings in North Africa and based his remarks on his observations. He said one man might break completely, go berserk, twenty-five momentarily might lose their heads, but primarily because of training, the preponderance of the men stayed put - thoroughly scared, yes - but they were in possession of themselves and they knew what to do. They were trained to do the right thing. This is where Civil Defense comes into the picture. The first immediate reaction of people including you and me, is one of self-preservation. That's the first thing--self-preservation. You may say, "Oh, no, I think of my family first." No, your family may be second, for most of you. If you're downright frank, if something happened right now, you would first think about yourself. It's human nature. As a remark to exemplify this point, there is the story of an elderly, lame gentleman in Oklahoma who made this statement after an oil tank explosion. He said, "I ain't supposed to be able to run, but when that thing blew up, I sure passed a lot of people that was running." That would happen to a lot of us.

The coordination, harmony and stability of social organization is possible only where we have a mutually shared group that have common norms, definitions and expectations. Which means you people in Civil Defense have responsibility to train people to do a certain job, a certain job which they will assume and carry out immediately.

How do people react after an atomic bomb? How are we going to find out? The sole basis for such determination as of now is based on reports made by the U.S. Strategic Bombing Survey people following the atomic explosions in Japan. Up to then, the people had been fed the propaganda of sure victory. People in Hiroshima up to the morning of August 6, 1945, had circulated rumors through the city such as, "Well, there are Christians that live here. That's the reason they are not bombing the city. There is a beautiful mountain retreat near here. That's the reason they are not bombing our city. Or, we are not very large. That's the reason they are not bombing our city." But on the morning of August 6, 1945, at eight o'clock, the people in Hiroshima were going about their usual routine affairs, including the creation of fire breaks because of possible attack by incendiaries, children were going to school, when the people witnessed a sudden flash in the sky and as a result some 75 to 100,000 people were killed.

That bomb, relatively speaking, was a midget. So you may say if it was that severe, how and why can we do something in Civil Defense. This encompasses many problems. Recently, General Larsen met with us in Washington, he of course serves as the President of State Directors of Civil Defense, and we discussed at great length some problems which I think you should know exist. That is, how or what we should do with our people in the cities in the event we have warning some time before an impending attack. Now remember the Air Force is working frantically to increase warning time. Warning time is a necessity if Civil Defense is to be made manageable. If we have warning time, then what are we going to do with it? If a city's Civil Defense Director, in Denver for example, got notice that an attack

is imminent, say two or three hours, what should he do? Should he tell people to get to the cellar? Should he, as of now, start planning and training so that in contemplation of attack, people could disperse to the suburbs, or the mountains with a minimum of disturbance? You would require Civil Defense trained supplementary police and public cooperation to avoid the traffic signals described by Mr. Storey. Can we accomplish it by training and education? I think we can. If we don't, what is the alternative? People are going to die by the thousands. Remember how many people I said were casualties in Hiroshima, and I said that that bomb was a midget. We talk about shelters, but we know full well that if modern day weapons were exploded at certain elevations about our cities, nothing would be left in the area of major damage, the distance depending upon the size of the bomb. There isn't money for shelters to give real protection and adequate cover under the forces released by the explosion of modern bombs. The other way to provide safety for people is through distance. If we are to have distance, we need training. We need a thinning out. I wouldn't call it evacuation, but I would call it a thinning out because, as a matter of fact, if say the nominal size weapon were used on Denver, and if you had a couple of hours warning, you could walk far enough that you could increase many times your probability of survival. I think it's imperative that we save people. Yes, it would be unfortunate to lose buildings, to lose everything contained in the buildings, but if we saved the people, we could save our know-how, and we could some day rebuild the buildings.

What did the people in the Japanese cities do after the attack? What had been their preparations? They had started in Japan with something that

might call Civil Defense back in 1937, and with the control that they had on their citizens, they had quite good attendance at their meetings. But the big fallacy in the Japanese planning was that they never had any conception of the magnitude of disaster which could befall them - even in the incendiary raids, let alone, with atomic bomb attacks.

I am concerned that many of our citizens today live in the same atmosphere - that is, they have absolutely no conception as to the degree of hazards to which they would be exposed in case of a disaster. In the absence of knowledge concerning the kind of attack that should be expected, and training to do Civil Defense work under such circumstances, our citizens would likely be killed or the survivors might roam around aimlessly after an atomic attack, such as the surviving Japanese did in Hiroshima and Nagasaki.

Now, some of you might say, "Why are we concerned about Russia?" They thus far have not conducted an overt act to indicate they might attack our nation. Do you think we dare wait until such an overt act takes place? If a bomber delivers an atomic bomb, and the bomber is then destroyed and cannot return to Russia, it makes little difference today, because the atomic bomb has done the work. Attrition on the enemy's air force after the dropping of such bombs will not of itself win the next war. Russia's budget is so concealed that it is difficult to determine exactly what is being expended for military purposes, but it is estimated that nearly one-half of their national income is devoted to things incident to war. The items may be called science advancement and cultural development. Things which our examiners and our intelligence know mean implements of war. There is incontrovertible evidence that Russia recently exploded

a hydrogen device. We know from the Korean experience that they have excellent aircraft, and hence militarily they have the combination for modern warfare.

If arrangements can be made through proper channels to present factual, clear and concise evidence to our citizens on an individual basis, they will take up the job of trying to help save their own lives.

THE MILITARY IN EMERGENCIES

W. A. Ross

Special Assistant, Director of Training and Education
Federal Civil Defense Administration
Washington, D.C.

A genuine interest in your conference here today is the only reason for accepting this spot on your planned program. What I have to say is based on what I hope is a common sense approach to disaster, regardless of cause. Mine are largely opinions based on the present thinking with which I am familiar but within the framework of a changing national situation. You may differ with me and we will still be friends.

Traditional thinking in America still looks upon the armed forces pretty largely as total defense against invasion and enemy attack. This thinking persists because we have thought that way so long and because so many Americans have not shifted that thinking into the concepts and procedures of modern warfare, involving:

1. New weapons--atomic, biological, chemical.
2. Undeclared war but calling for the same action by armed forces as if it were declared involving men, materials, training transportation, communications.
3. Ability of the enemy to cut lines of military supply by destroying sources of production.
4. Prime targets no longer being military forces but civilians and factories and institutions behind the fighting forces.

Let's be practical and ask ourselves some questions in terms of the armed forces in emergencies (Army, Navy, Air Force):

1. What is the primary and basic responsibility of the armed forces any time?
2. How are the armed forces set up to operate and how must they operate? In peace? In war?
3. What will they be in a position to do for the home front when disaster strikes?
4. What should civilians reasonably expect from the military when disaster strikes?

In the Colorado civil defense plan, Section 1 of Annex 9 on Military Cooperation indicates emergency military support of operations for civil defense and related matters involving enemy-created disaster where civil defense organizations are unprepared or otherwise incapable of operating without this support. Further, plans for such support are based on the concept that assistance will be provided with minimum practicable diversion from the army's mission.

The Department of the Army policy clearly states that civil defense plans, measures and operations are primarily the responsibility of civil governments at all levels.

Wherever the military has special knowledge or competence the thought seems to be that civil defense help will be given as far as possible.

We are constantly reminded throughout the Colorado plan that vital military defense considerations take precedence over civil defense requirements. The words -- advisory -- cooperation -- coordination -- assistance -- emergency assistance -- emergency military support of civil defense -- are key words.

In Section II of the Military Cooperation portion of the Colorado civil defense plan, reference is made to natural disaster, but the same principles obtain.

It does appear, however, that assistance from the military might be a bit easier to obtain and administer than when enemy-created disaster strikes.

In planning for total defense, the military and civil defense have been looked upon, and are looked upon as co-partners. That is as it should be. Total defense for America cannot mean either the armed forces alone, or civil

defense alone. Nor can total defense planning take place in completely separated units.

The armed forces are cast in a particular role. Before and when an enemy makes menacing moves it is the responsibility of the armed forces to be ready and to move toward him for purposes of interception and combat. Fast movement, quick shifting and large operations over a wide area characterize the armed forces movement of a nation. Thousands of personnel and a variety of equipment and facilities are involved.

In the moving of armed forces and the vacating of facilities it must be remembered that there is every reason to believe that further moves made by the armed forces in terms of the disaster as it comes call for further use by them of their existing facilities, and for this and other reasons such will likely not be available for civilian use.

Far too many people in my opinion, consciously or unconsciously, have a feeling of false security because of their conception of what the armed forces can and will do for civilians when disaster hits. We have been given to understand, however, that actually "when the chips are down" the civilian population of necessity, must be pretty much on their own-- and that is the fundamental reason for a strong civil defense.

It seems the part of wisdom and common sense for the home front to be prepared to operate in either small or large disasters without immediate and direct assistance from the armed forces. Then whatever assistance of which we are now unaware or sure of at this time will come as an additional life to a harassed populace.

The armed forces have a heroic job to perform in connection with interception, antircraft, radar and the rest of what it takes to keep more

than the predictable 70% of attacking enemy planes from penetrating our defenses. The power and potential in these splendid units -- army, navy, air force -- surely will be needed at points other than the home front.

There must be no breakdown in state and local governments because of a misunderstanding as to whose responsibility it is when disaster strikes. Until such time as the home front is adequately prepared -- primarily on its own -- the full security of the nation is in jeopardy; in fact, we invite enemy attack. There is no grace period allowed in which to meet disaster, and civil defense is a responsibility of civil government at various levels.

Civil defense on the home front is building a new dimension in citizenship. This is being accomplished in the minds and hearts of the American people through:

1. More sound and understandable information about civil defense.
2. Greater skill readiness on the part of more people.
3. Greater moral and spiritual readiness on the part of the entire populace.

Only a fraction of citizen participation necessary to make civil defense work as it should has been obtained thus far. The primary objective of the federal civil defense administration is to assist states and local communities to build the kind of planned organizations which best fit needs and conditions at those levels. This workshop is a part of such assistance. By this and other means plans are evolving whereby civil defense can make reasonably certain that:

1. People are properly warned of impending disaster.
2. People are protected from impending disaster.
3. Rescue is effected.
4. Suffering alleviated.

5. Lives are saved.
6. Fires are extinguished.
7. Order is restored and kept.
8. Families are reunited.
9. Utilities reestablished.
10. Plants put back in operation.

But in accomplishing all this we on the home front must rely essentially on ourselves, rather than upon the armed forces, to my way of thinking. People will do in emergencies and disasters only what they have been trained to do. Civil defense is a part of total defense, standing shoulder to shoulder with the armed forces, but in a different role -- as a part of a pattern of protective citizenship. It is also a part of a plan for peace. Civil defense cannot prevent attack or stay natural disaster but it can soften the blow.

Remember, the German and Japanese fronts in World War II were weakened because sizeable parts of their armed forces had to be pulled out to carry on what amounted to civil defense work in the interior of each of these countries -- to combat collapse from within. The English, however, built and depended upon their civil defense; their normal government functions were bolstered by trained volunteers, and they used their armed forces only as an adjunct where available.

My people, along with many others, helped to carve out this commonwealth of Colorado. They faced doubt and uncertainty on every hand. Their big trouble was distance and communication. People lived too far apart than and were unable to maintain close contacts. Today, we face troubles that are also attributable to distance and communications. Nations and people

are too close together due to improved transportation and communications.

It's a global situation. However, the pioneer spirit characterizes the times, and the self-reliance of Colorado pioneers is evident in the citizens of the state today as they face the "must" of civil defense.

THE NATIONAL AND STATE GUARDS
Colonel Howard Gamble
National Guard

The Guard has two main functions. The first is combat readiness. Guardsmen are combat trained soldiers. Within five hours, they are ready to go into action with machine guns, mortars, and in the case of the Air Guard, with jet fighters. They can become a real shooting unit in case of a national emergency, ready for action in Littleton, or Helsinki, Finland. The second function is providing Colorado with military forces to restore order in the event of a state disaster, such as the Pueblo flood in 1921.

Picture now in your mind's eye, if you will, a wall of water suddenly devastating Pueblo--houses flooded, business firms ruined, telephone and telegraph lines ripped down, power for the radio stations suddenly cut off, all electric lights useless! Food is washed away, and people are panic-stricken. Water comes out of your taps in a trickle and then stops. Disease breaks out, but the drug stores are under water. Governor Thornton then calls out the National Guard. In this case he declares martial law. What does the Guard do?

Guardsmen, rushed to the disaster area, set up barriers and prevent looting of stores and homes. Where the usual civil control of Pueblo has been disrupted or disorganized, the Guard steps in to restore order. Where a life can be saved, the Guardsman acts as you or I would act - but his job is to restore peace and order.

Contrary to widespread belief, the National Guard is not a service unit -- for example it doesn't have portable kitchens for bread lines, nor is the Guardsman trained to set up a temporary hospital for the injured.

These functions, as well as the rebuilding and cleanup of the town, belong the various civilian groups and agencies such as the Red Cross, or municipal authorities after the danger or disaster is past.

The Guard does not have the equipment nor the training nor is it permitted by law to perform functions of civil defense. Unlike certain parts of the regular army and reserves, the National Guard does not have engineers to rebuild bridges, a large medical staff to operate hospitals, or a quartermaster outfit to supply food to the civilian population.

The Guardsman is trained in street-fighting and battle tactics. He can use a howitzer or a jet plane skillfully. He can restore order in disaster areas and repel foreign invaders. He prevents looting and lawlessness.

Now you may ask, wait a minute - is the Guard just for Colorado - or is it part of the national armed forces? The answer is - BOTH. Governor Thornton is the commander-in-chief of both the Colorado Army National Guard and of the Air National Guard. He can call out the Guard whenever he deems proper to combat a local emergency or a statewide disaster.

If the United States comes under enemy attack, or a National Emergency is declared by President Eisenhower, the Colorado Guard Units would doubtless be called into federal service. They may be kept in Colorado for the state's military protection, or they may be sent to any point in the globe. Being essentially an offensive force, they would likely be utilized wherever offensive combat units are needed. The Air Guard in time of emergency would become part of the Tactical Air Command -- again an offensive force which is designed to strike back at the enemy in his home bases. At the present time the Air Guard of Colorado is not tied in with the Air Defense Command which protects the borders of our country with radar screens and fighter-interceptors.

Suppose, however, that an enemy bomber tonight sneaks through all the radar screens to the north of us, and is detected only as it flies over Longmont. It might be heading for Lowry and the Little White House. An alert is sounded and the air guard jets attempt to intercept and shoot it down. These planes are under Governor Thornton's command. Should enemy paratroopers be dropped, the guard ground troops would be dispatched by the Governor to fight the invaders.

In such an event, doubtless both the air and ground guards would soon come under the direction of the regular military, but this example shows how the Guard remains strictly a Colorado outfit, until a national emergency is created.

Having explained something of the workings of the Guard, I'd like to point up the importance of the National Guard in our defense structure. Incidentally, you'll notice on your programs the national and state guards are listed. Today there is no State Guard. This form of organization did exist at various times, the latest being during World War II. It was in essence a "home guard" made up of women and of men not in military service -- usually over age. They formed supplementary protection for our homes and cities against invaders. Today there is no such organization.

The National Guard in Colorado as of today has the ground strength of 1700 men, and an air strength of 800 men. This is currently being build up as rapidly as possible to a full strength goal of 4500 on the ground and 1500 in the air. Following President Eisenhower's economy program, the Air Force Wings were cut back from 143 to 120. To fill that gap in our defense, the President has increased the budget of the Air Guard

from \$127,000,000 in 1951 to \$148,000,000 in the current budget, to bring into being 27 Air National Guard Wings. The most modern aircraft and equipment is replacing obsolescent material.

This move both saves money and gives us a larger air power, bringing up the available wings to 147 in number.

Summing up the National Guard's function in disaster control and civil defense, I should say that the Colorado National Guard is ready to meet any emergency or disaster in the aspects of reestablishing law and order, when there is a breakdown of civil government, helping to fight destruction from flood, fire, explosion or whatever, furnishing aircraft as was done during the haylift, and performing all this under the leadership of the Governor, whether or not he declares martial law in disaster areas.

In time of war, the Colorado National Guard forms a "ready" fighting group, which can be used for local defense or fighting over the world, according to the decision of our national military leaders. In a national emergency, the National Guard becomes part of the federal armed forces. It has no civil defense connection. It is "offense" rather than "defense", and like any other military unit - apart from civilian activity.

As this conference is directly concerned with disaster control and civil defense, I hope that the guard functions which I have just described here bring more fully to view the reason for the being of the National Guard. It's as old as our country itself, stemming from the Minute Men who left their plows to fire a flintlock from behind stone walls. Today our Guardsmen are in industry or in school, or behind a plow. They give two hours a week, one Sunday a month, and a two-weeks camp session once a year in order to have their training perfected to protect Colorado and the nation

whether in local disaster or in world conflict. The Guardsman is a civilian until he's called to duty. To preserve this vital defense link, the government has made these men draft-free.

I've tried to clarify the position of the Guard in connection with the interests of this conference. The National Guard is virtually the only American counterpart for the various types of ready-reserve organizations worked out by the European military powers as each in turn came up against the brutal facts of total war. The United States, like others before it, has been compelled to recognize that modern war demands a total mobilization of national resources. This total mobilization is far beyond anything which can normally be sustained in peacetime. We now recognize that the only practicable answer is a relatively small regular establishment backed by some means of rapid expansion from the civil population at the moment of emergency. This National Guard is a device to accomplish this.

THE AMERICAN RED CROSS IN DISASTER EMERGENCIES
Marvin L. Hersey
State Relations Representative
American Red Cross

The authority under which the American National Red Cross assumes responsibility for the relief of people suffering from disasters is stated in its congressional charter:

To continue and carry on a system of national and international relief in time of peace and apply the same in mitigating the sufferings caused by pestilence, famine, fire, floods, and other great national calamities, and to devise and carry on measures for preventing the same.

Neither the chapter nor the national organization has the right to surrender this responsibility. The American Red Cross must organize and extend relief immediately upon the occurrence of a disaster. Every chapter, as a unit of the Red Cross, must be prepared to assume this responsibility in accordance with the basic policies and practices under which the Red Cross operates.

A disaster is a situation, usually catastrophic in nature, in which numbers of persons are plunged into helplessness and suffering and, as a result, may need food, clothing, shelter, medical care, and other basic necessities of life.

The American Red Cross is a quasi-governmental agency. Its president is appointed by the President of the United States; it disburses its funds under the security of a War Department audit; and it is designated by its congressional charter as the agency for the fulfillment of certain international treaty obligations which the United States government has assumed.

To discharge its responsibility the American Red Cross has established and maintains a nation-wide system of disaster relief for the coordination, direction, and application of the sympathies and resources of the nation.

Each Red Cross chapter is responsible for organizing a disaster preparedness and relief committee that will formulate preparedness plans and put them into operation when disasters occur within its territory.

When disaster strikes, the local chapter is the medium through which the Red Cross meets emergency needs and rehabilitates the disaster sufferers. In disasters of proportions so great that assistance beyond that available in the chapter jurisdiction is required, the national organization supplements chapter resources with personnel, supplies, and funds.

The national organization assists chapters in developing their preparedness and relief plans, sends members of its field and disaster staffs to work with the chapters, conducts disaster relief conferences to strengthen chapter preparedness, and furnishes maps and guidance material developed by government agencies and by the national organization. It constantly seeks to improve preparedness plans and relief methods.

Relief operations may be administered either by the national organization or by the local chapter. In certain disasters, particularly when the service and financial resources of the chapter and the community are adequate to meet the needs, all the responsibility may be centered in the chapter. Under this plan, personnel of the national organization may be assigned to the chapter in an advisory capacity. The chapter conducts the relief work in accordance with established policies and procedures. In a major disaster, relief for which is beyond the resources of the community, the national organization usually assumes financial and administrative control, with the services and counsel of the chapter. Under both plans the chapter carries important responsibilities from the occurrence of the disaster to the closing of the relief work.

With the advent of World War II it was deemed advisable to suspend this plan of financing disaster relief in order to conform to wartime fund raising practices and not burden the American people with a multiplicity of fund campaigns each year. The annual fund campaign in March of each year for all Red Cross activities is the only Red Cross appeal and this plan of financing disaster relief will be continued except in the case of major disasters requiring a nationwide appeal, when the extent of and plans for the campaign will be determined by national headquarters and the chapters notified.

In all disaster situations, however, because of the natural desire of many people to offer assistance to the victims, the chairman of the affected chapter should promptly announce through the press and radio that voluntary contributions for the disaster sufferers will be gladly accepted and should be sent to the chapter office.

The national organization will make grants to chapters for disaster relief in amounts representing the difference between funds available to the chapters from their own treasuries and from special contributions and the total amount needed for the relief of the disaster sufferers.

Through a system of cooperative agreements with government and private agencies, the American Red Cross is able to mobilize the resources of the community, the state, and, if necessary, of the nation itself in time of disaster. All these agreements indicate the extent to which the cooperating agencies will make their personnel, facilities, and equipment available to the American Red Cross and the method by which this will be done. The chapter should arrange with local public and private agencies for similar understandings.

American Red Cross responsibility in disaster relief is to assist families and individuals in meeting disaster-caused needs they cannot meet by themselves.

Government responsibility in time of disaster, in general, is the same as that in normal times--the protection of life, public health, welfare and property, and the maintenance and repair of public property. Disasters increase the need for government officials' meeting their legal responsibilities promptly and adequately under emergency conditions.

In order to effect total community preparedness and to avoid confusion and possible misunderstandings when disaster strikes, the chairman of the disaster and preparedness relief committee should arrange for conferences with local public authorities. The purposes of these conferences are to discuss the plan of organization of the Red Cross disaster committee, its functions and plan of operation, and to arrange for working understandings to govern activities of both groups in time of disaster.

Relief is given to disaster sufferers only, and deals only with problems created or aggravated by the disaster.

Relief is based upon need and not loss. Families are expected to use their actual and potential resources in meeting their needs.

Assistance is extended without political, religious, or racial discrimination. Delinquency, immorality, and other deviations from accepted standards of living are not grounds for withholding relief.

The Red Cross does not make loans to disaster sufferers; its relief is given freely and without obligation of repayment.

Rehabilitation assistance is determined through casework processes if given upon the basis of the needs of each individual family. Mass relief is extended during the emergency period but is terminated at the earliest possible moment.

Individual awards and case records are kept confidential.

Medical relief supplements the work of government and voluntary health agencies and of the medical and dental professions.

Insofar as possible all relief expenditures made by the Red Cross are kept in the normal channels of trade in the affected area.

When distress is caused by economic maladjustments which include the usual hazards of industry and agriculture, responsibility for relief rests upon the entire community. Where there is suffering and want from any cause and the fundamental needs are not being met, chapters may participate in community action in extending relief.

The Red Cross does not directly assist commercial or industrial concerns; nor does it directly aid educational, charitable, or religious organizations, since these are supported from public funds or themselves seek contributions for their work. In giving assistance to disaster-affected families, the Red Cross lightens the burden of organizations with which families are affiliated.

The Red Cross never confiscates supplies or commandeers services.

The Red Cross does not assume responsibilities for governmental functions, federal, state or local. Government responsibilities in time of disaster, are in general the same as in normal times—the protection of life, health, welfare, and property, and the maintenance and repair of public property. Disasters do not change the legal responsibilities of government but rather increase the need for meeting them promptly and adequately.

Financial and administrative responsibility are inseparable; therefore, the Red Cross assumes the administration of disaster relief operations only when funds raised for relief are placed under its control.

This, then, is the role of the American Red Cross in preparation for and carrying out disaster relief.

CIVIL GOVERNMENT IN EMERGENCIES
Leo C. Riethmayer, Chairman
Graduate Curriculum in Public Administration
University of Colorado

Under the existing governmental pattern, the role of the various levels of government in the United States in cases of emergency is in general determined by the nature of the service required to cope with the emergency. It is important, therefore, that consideration be given to the types of services that would probably be required if our cities and towns were bombed, or if some equally devastating disaster should strike. While no one knows just which services would be required as a result of a major disaster, it is very likely that some if not all of the following would be essential:

1. Law enforcement services, including all the auxiliary services rendered by a full-fledged police department.
2. Fire fighting and fire prevention services.
3. Health services
4. Engineering services
5. Welfare services (shelter, food, clothing, etc.)
6. Transportation services
7. Communications services
8. Various others, depending on the nature of the disaster.

To what extent are the various levels of government, i.e., the United States government, the states and the local governments responsible, and to what extent are they prepared to provide the services which will have to be rendered in case of disaster?

The United States government, through the Federal Civil Defense Administration, is assuming functions of the following types:

1. Development of overall plans and programs for civil defense.
2. Dissemination of information to the public.
3. Conducting research and training programs.
4. Stockpiling medical and other supplies to be issued to the states in time of disaster.
5. Disbursing federal aid to the states.
6. Providing for communications and the dissemination of warnings of enemy attacks, etc. to the civilian population.
7. Assisting states in negotiating mutual aid compacts.

In case of a major disaster in any part of the country it is likely that not only the Federal Civil Defense Administration, but also other United States government agencies would render aid in various ways. Possibly financial aid would be made available by the United States government in those cases where persons were in dire need of food and shelter. It is worth noting, however, that the bulk of the services which are likely to be needed in the disaster area, those services mentioned above, are not supplied directly by the United States government.

What about the state governments? In Colorado, under the state's Civil Defense Act, the state government has extensive powers which may be exercised in certain emergencies. These powers, which are lodged in the governor and the State Civil Defense Agency, include the power to assume direct operational control over civil defense functions within the state, to condemn property needed for the protection of the public, to procure supplies and equipment, to employ necessary personnel, to institute training programs, to enter into mutual aid arrangements with other states, and to

coordinate mutual aid plans between political subdivisions of the state. The state government also can aid the local governments in developing and coordinating local disaster plans.

While the State of Colorado, like other states, has state agencies in the fields of health, welfare, law enforcement, and others which provide services of the type which would probably be needed in emergency situations, it is quite clear that the state government is not to assume the major responsibility of directly providing the services needed when disaster strikes.

What about the municipalities and the counties? These are the units of government that will need to furnish the actual services directly to the unfortunate people of a community which may be struck by a disaster. At this point I should also like to emphasize that the regular city and county operating departments will have to be prepared to assume the major responsibilities for fighting fires, providing engineering services, welfare services, medical and health services, law enforcement services, etc.

No local official can say that he and his regular staff do not have to worry about civil defense or disaster control because a local director of civil defense has been appointed and volunteers have been recruited. Suppose that a bomb, a flood, or a tornado should leave a town or a city in flames, its water and sewer systems wrecked, many of its streets blocked, and a large fraction of its people homeless and exposed to severe weather. The regular administrative agencies of the town or city would have to form the backbone of the forces that would attempt to control and extinguish fires, rescue victims, render first aid, restore the water supply and water lines, restore the sewer system, provide food, shelter, and clothing for victims, prevent

looting, etc. Volunteers who make up auxiliary police forces, auxiliary fire fighters, auxiliary engineering services, auxiliary health services, etc. are necessary, and the value of their services is certainly not to be minimized. It should not be supposed however, that the problems created by a major disaster could be left in the hands of groups of volunteer civil defense workers directed by a local director of civil defense.

The director of civil defense should be an administrative officer who could logically direct the activities of the regular law enforcement officers, the fire department, the health department, the public works or engineering department, the welfare department, and the other regular operating and staff departments. Certainly other officers subordinate to the director of civil defense, who direct the activities of municipal, county, or school employees should be ranking officials in the regular departments of their respective units of government.

It is apparent then that the officials of every unit of local government must recognize their responsibility for action if disaster comes. Various things must be done by the officials as they assume their responsibilities. For one thing, they must prepare a comprehensive and workable disaster plan. This means that they must take inventory of their resources and plan specifically how those resources will be utilized in various types of emergencies. Each department must know specifically what its functions would be, and how it would perform them, in case of certain types of emergencies. The role of volunteers should also be predetermined and geared into the programs of the regular operating departments. It is also necessary, of course, to bring into the plan the proper role of those private concerns which render essential services, e.g. the utility companies supplying electricity, gas, telephone^{service}, and public transportation.

A disaster plan can be translated into action only if the participants in the plan, both regular employees and auxiliary workers, have been properly trained. This means that local officials must assume still another responsibility. If the facilities for training are not available locally, they can be brought to the community by the State Civil Defense Agency, the State Board for Vocational Education and the State Department of Health, and by other agencies. But training will help the people who need it only if they are least exposed to it. Local officials in top-level administrative and policy-making positions will determine whether or not the personnel which will really have to do the work that counts in an emergency will be trained to do that work effectively.

Various other responsibilities of local officials could be mentioned. Local officials should develop proper mutual aid arrangements. With such arrangements the unit of government which suffers a blow will immediately have the planned assistance of several other units. The value of such planned assistance at the right time cannot be estimated. It may mean survival of a whole community.

Finally, local officials have a responsibility for keeping themselves alert and informed, and for exchanging ideas on disaster control. We profit from the ideas and experiences of those in other communities.

These comments can be summarized by saying that all levels of government have responsibilities when disaster hits. Local governments, because of the nature of the services usually required, will actually have to render many of those services directly to the people who will need them. Furthermore, the regular agencies of the governments, not merely volunteer auxiliaries, will have to be prepared for major activities. Finally, readiness for disaster control should be considered a vital, everyday responsibility of all governmental officials and employees.

PREPARATION IN LOS ANGELES
Harold Kennedy, County Counselor's Office
City and County of Los Angeles

I have come to Denver as a representative of the National Association of County and Prosecuting Attorneys. Because the county attorneys of the United States are mindful of their legal responsibility in the event of major disaster, or disaster created by war, we have given some consideration to the subject matter of civil defense.

The day after Pearl Harbor, as a member of the Legal Department of the County of Los Angeles, I was sent over by direction of the Board of Supervisors to serve as executive director of the Los Angeles County Civil Defense Organization. I stayed there eighteen months. During that emergency, we recruited, we trained, we assigned fifty thousand air raid wardens, auxiliary police and all the various categories of civilian defense known to World War II. At that time we were concerned about incendiary bombs, and we learned what to do in the event of an incendiary bomb. We now have been working with what to do in the event of an atomic strike.

Dr. Gallup's poll of public opinion, taken a week before Malenkov's H bomb announcement, showed by a sampling of the cross section of America that less than 4% of the people felt that they had a responsibility or at that time were engaging actively in Civil Defense. Now I know that at the local level, the level of the county and of the city, sheriffs and mayors and chiefs of police and the heads of the fire departments, are having difficulty getting enough enthusiasm to build a plan. The speaker who preceded me made reference to the state disaster act. I'm sure the California statutes parallel your own setup here in Colorado. I agree with

the speaker from the University that from the standpoint of legal responsibility, there is no concept whatsoever, there's no rationalization that would escape constituted authority from having responsibility to have, first, a plan and that contemplates not only a plan on paper but a workable plan; secondly, a plan that in a practical way could be activated or motivated in the event of an emergency. In World War II after we had the flight over Los Angeles on February 28, 1941, everybody--trucking concerns, warehouse owners, public utility representatives, at the top level, offered every conceivable cooperation in materiel, in personnel, in skills, in the techniques that go to make up their business. Everything that was needed was there.

Now as a substitute, in light of the existing apathy of the people in Los Angeles County, for two years the key people, the sheriff of the County of Los Angeles, the Chief of Police of the County and a representative of the Chiefs of Police Association, a representative of the Mayor's office of the City of Los Angeles, a representative of the Board of Supervisors of the county, key people from the telephone company and the gas company, from the department of water and power of the city, have been meeting on the first Wednesday of every month. What for? To develop a working plan for civil defense of the City and County of Los Angeles. I agree with Dr. Riethmayer that this is the responsibility under the constitution of the constituted authority, irrespective of the acceptance by a lay person of the directorship of a civilian defense organization. By hindsight, the people will test that responsibility as to whether or not government per se was ready,

I want to make reference in closing to a study that we have been working on during the past year. I have thirty lawyers on my staff and I selected the man who was the most skilled in the area of police power. I didn't want to be in the uncomfortable situation of getting word from the Control Center that we are on the alert and trying to refresh my memory as to how far the framework of government police power would permit you to go in a given emergency, as I rushed to take my place in the control room. So during the last year we have prepared a fifty page brochure covering the powers of counties and their officers in civil defense emergency. We have tried to gather together in this compilation every case in the United States that seemed to throw some authority in the proposition, and we have 135 citations from all of the courts. By way of example, I'm just going to read very quickly two or three of the sub-heads. "A county can stockpile essential commodities in anticipation of a possible enemy attack or local disaster." "A county's highest duty is to provide for the health and safety of its inhabitants. It therefore follows that a county cannot be held powerless to anticipate and provide for an emergency in advance." "Counties can prepare for emergencies by practice drills." "Counties can expend money to train civil defense and disaster workers.

In California, under Article II of section 11 of the constitutional provision that gives police power, a city is in exactly the same situation. I would believe that in the State of Colorado there is a parallel power given to local government, to wit cities, that parallels the power given to a county so far as police power is concerned. A county can buy and sell necessities in order to prevent endangering the health and safety of the people during an emergency, when the public is unable to obtain them through

private means. A county can furnish immediate necessities to persons in dire need in the event of an enemy attack or major disaster irrespective of whether or not the recipients are residents of the county. All authorities agree that this power of supplying necessities is co-extensive with self-protection, so that any reasonable exercise of it in an emergency when done for a public purpose will be upheld by our courts.

By way of summary, as far as the legal aspects are concerned, I would say that at least so far as the law of California is concerned and this is probably generally true, government is given the power to protect itself and to take those steps that are necessary.

Possibly you might like to know whether or not we had had any major disasters in California where there had been need to put into action the civil defense organization. The City of Bakersfield in Kern County received national publicity in the Kern County earthquake a very short time ago because the civil defense organization had a plan, a workable plan. The plan had been built around key people in responsible positions of government, and when there was need for an activation of civil defense to take care of the earthquake emergency, that went into action. A number of years ago in Los Angeles County we had what is called the St. Francis Dam disaster. A small dam broke and a wall of water came down into the area there on the borderline of Ventura and Los Angeles county. A number of people was drowned, and we found that because of the lack of a plan,

The only way a county or a city official can measure up to his responsibility when he has taken an oath of office to protect the lives and property of his people is to do advanced planning for if and when the terrible day comes that the world Communist movement and the Communist

party of the United States in cooperation with the Soviet Union and the
Kremlin decide to make a strike.

CIVIL DEFENSE ORGANIZATION IN COLORADO
General Henry L. Larsen
Director, Colorado Civil Defense Agency

I was very happy to have Mr. Kennedy come in to speak to us to indicate how efficient some organizations and some communities are but it puts me in a tough position as an amateur to follow so able a professional speaker as this attorney from Los Angeles and I think we should say from Colorado, in view of his origin. I personally feel that this group here today is here and in a position to help me personally more than anyone else in the state and of course by helping me, they are assisting the Governor to carry out his most serious responsibilities. I think we have pointed up or we are pointing up a great many problems that we have; particularly today and tomorrow I trust that we will come up with positive and concrete recommendations to assist us in solving these problems. I would take too much time I believe to talk to you about the status of our own state organization if I spoke without notes because there are so many things that can be said and I'll try to keep to notes in order to keep within a reasonable time limit.

This conference is a good cross section of our citizenry. It is the people and the local political subdivisions who are represented. We have with us eminent authorities in many fields and I feel sure this two-day conference will produce a practical idea which will result in marked improvement in our program. This is no time to pull punches and I invite constructive criticism whether it is personal or the program itself. I'm not here to exaggerate the accomplishments nor the shortcomings of the Colorado Civil Defense Agency. Surely I do not think anyone can honestly say that our program up to date is all that we would wish to have it and

with equal emphasis I wish to say that many noteworthy accomplishments have been made in various communities in the state. Every day I get two or three or more encouraging letters indicating accomplishment of work that is going on that revives one's enthusiasm and my own interest and determination to put this program over. If there are deficiencies in certain phases of our program, I think we should face the problem squarely, and jointly try to solve them, because this is not the program of any one agency or administrator, but the peoples' program. If we have shortcomings in any particular field, I do not think we should condemn everyone else but ourselves. If there are combinations of circumstances contributing to the situation, we should analyze them carefully and constructively. I have returned from a two-day conference in Lawrence, Kansas, a conference similar to this one but organized according to their own ideas in which they brought in representatives from different communities all over the state. Each one was an outstanding example of one particular phase or another, whether it was fire fighting, whether it was recruiting, or what not, and each one of those speakers gave an illustration of a fine degree of efficiency in an organization. The concept of that meeting was for each one to show how good that community is and therefore to inspire other communities to go back and do likewise. Now I think that's a fine program. We, on the other hand, I think are trying to analyze the problems confronting us and come up with solutions to those problems. There is not a program facing our nation today as comprehensive and complex as that of Civil Defense. It is a program which involves the physical, mental, moral, psychological, economic, political and social being of every man, woman, and child in America.

There are wide differences of opinion as to the proper approach to our problems. Some say we can arouse the public only by frightening them about the threat of modern bombs and other diabolical weapons of war; others insist that we must not frighten the people but we can sell them the program only through its need to meet any and all natural disasters. It is my guess that the people themselves fall into both categories, so maybe it is as well to try to sell them the program through both approaches. And off the record, we find the two concepts in our two leading newspapers here in Denver, and maybe it's well that they both continue promoting their own ideas if they only will refrain from knocking the other.

Our mental problem as I mentioned as one of the problems confronting us, is one of information, basically, given to the people factually and without exaggeration one way or the other. It is also one of training the people to meet their individual responsibilities to themselves, their families, neighbors, community, their state and nation; not only to preserve their lives and property, our liberties and way of life, but to insure the survival of our nation. I say this not in any defeatist attitude, but in the earnest hope that our people will do what they can and should do to preserve all these things we hold dear, and in speaking of frightening the people, I wish I could be more frank in telling you some of the things I learned in Washington just within the last few days and as Mr. Aitken indicated this morning, the bombs over Hiroshima and Nagasaki are midgets. They are just trifling things now, compared with what we are facing this minute. If our people knew the whole truth, I believe they would be better prepared to meet the situation. I'm not afraid of telling the people if I would be authorized

to, but I have twenty years hanging on me if I speak out and that's the truth. I urge everyone to be alert, to wake up to the dangers that we are facing today.

We have a moral problem in Civil Defense to insure that the people do not become demoralized by taking a fatalistic helpless attitude in facing the dangers of modern civilization. The American people want peace and we should strive for peace in every honorable way. That's probably our most important mission. We will not attain peace through helplessness and hopelessness. Our people must be inspired with the things they can and must do for peace and victory instead of being impressed with the magnitude and complexity of the problem of survival to the point of discouragement or despair. The psychological problem in Civil Defense involves among other fields that of panic which may be even more damaging than the original cause of the disaster. We have not scratched the surface of this very important problem, but we hope we may solve it progressively through factual public information, proper selection of leaders, adequate organization and thorough planning and training.

We encounter the economic problems of civil defense on every hand. To provide a complete and effective Civil Defense program at once would be beyond the economic capacity of our people. We should analyze the requirements carefully, determine our financial ability, select those features of the program which are most essential, fix an order of priority and degree, and do what we can within our means. I do not think we should abandon our state civil defense program as Senator Bezeff argued with me on the radio panel a few days ago, because our

state cannot afford the millions it could cost to carry on the program properly. I say we should do the best we can within our means. The mass public shelter program, as originally conceived by FCDA two or three years ago seemed to me utterly impractical and economically impossible. One state senator stated that he thought the civil defense program nationally was impossible because those enlisted in the program should be paid, and our country could not afford it. It is absurd to think of paying everyone in civil defense. This program must be as it is almost entirely volunteer, but there must be a minimum nucleus of paid staff to give continuous full-time leadership and I'm not talking for a job myself. I'll step out this moment if anyone in authority even gives the least suggestion.

While some states appropriate eighty to a hundred million dollars to their state civil defense program, others appropriate very little. Unfortunately, the program does cost money, some money, which cannot be avoided. I think it is criminal to lead the people to think they can get something for nothing, that they can have an effective civil defense program in our state for an annual appropriation of \$40,000.00. Our legislature for example has not appropriated any funds for a reserve of medical supplies. It is estimated that for one baby bomb, a midget, on an average city, would require two hundred box cars of emergency medical supplies for the first few hours of treatment. General Hubner, the Civil Defense Director of New York, told me a few days ago that he had already purchased eighteen hundred box cars of emergency medical supplies at a cost of fourteen million dollars. He's not through. The supplies can be purchased through federal matching grants in aid, but our legislature has not appropriated any funds for this purpose.

Maybe they think they can't afford it. That is their responsibility, but I don't want the people to think we've got the supplies we need when we actually do not have the supplies.

The next problem I cited is political. The Governor of the State is by law responsible for the Civil Defense program in Colorado. He may and has delegated certain authority and responsibilities to the state civil defense director. Our state civil defense law states that the political subdivisions of the state are authorized and directed to establish a civil defense agency in their community. I believe our state law should be amended to fix the responsibility for civil defense on the chairman of the county boards of commissioners and upon the mayors of our cities. We have just heard from California that they feel out there that they have a responsibility particularly in an emergency, and I think we should have such responsibility fixed on mayors or county commissioners, but we want the authority and the responsibility fixed now. With that responsibility fixed, as it is with the Governor, then the County Commissioners or mayors will not feel they have carried out their duties, as some of them do now, by simply appointing some figurehead as a civil defense director. This change in our state civil defense law was recommended as one of several amendments in the last session of our legislature. It passed the Senate without any difficulty, but it died in a House committee whose chairman refused to permit a hearing despite my pleading at least to be heard. I want to mention at this time that the state civil defense director alone cannot carry the battle in the Legislature under these circumstances, and if the people themselves want a civil defense program, they must let their elected officials know and they must do something about it.

Finally, the social problems in Civil Defense. Basically, our civil defense program is one which starts with the individual--his help and treatment, his physical and spiritual well being, individual and mass evacuation, his discipline and all phases of social service. This field involves the functioning of all public, private and social agencies devoted to the welfare of the individual. Federal Law 920 places the primary responsibility for civil defense upon the states and the political subdivisions thereof. The state can provide leadership, guidance, coordination and some assistance to local communities, but the greater responsibility and obviously the most difficult falls upon the local community and the individual. In some states, such as New York, there is a great deal of power placed in the hands of governing authorities in requiring compliance with civil defense directives. Our governor did not demand such powers in our law and while this does more nearly preserve our democratic way of life, there are certain weaknesses which are willingly accepted in the system. By virtue of this, we must accept greater and greater responsibilities for civil defense successively down the echelons of government to the individual.

How is the state meeting its responsibilities in Civil Defense as I see them, in these matters of leadership, guidance, coordination and assistance? The state maintains a small civil defense agency with a minimum paid staff. This staff is organized along functional lines normal to their responsibilities. Maximum encouragement is given to existing agencies of state government to participate in the Civil defense program, but with limited success. A requirement that all agencies and departments of state and local government would participate in the civil defense program was among the suggested amendments which died in house

committee in our last session. Similarly the requirement that all employees of state and local governments enroll in Civil Defense suffered the same fate. The Colorado Civil Defense Agency has a primary and alternate control center situated outside the city limits and beyond the area of anticipated maximum damage, which will serve as a command post for the governor and the civil defense director during emergencies. We selected that when we were still operating under normal baby bombs and I'm not sure now that we are out far enough. It's only fifteen miles.

In the three or four state-wide civil defense exercises held, we have had as many as two hundred and twenty-five volunteers report to our control center upon a given alert to assist the state civil defense agency deputies in conducting their functions in the simulated situation as they would in a real disaster. The deputies and assistant staff members covering such activities as fire services, law enforcement services, medical services, supply and logistics, transportation, aviation, engineering, food services, welfare and other services were all fully manned; and those people are labeled, and on a given alert they will go to our control center as trained volunteers. The normal operation of command post functions are transacted by this organization of our emergency staff by means of a state-wide communications network comprising every means at our disposal, telephone, telegraph, highway, patrol radio, ham operators and messengers as well as TWX; and parenthetically, I wish to say that we have a public warning system insofar as communications are concerned, not sirens in communities that I can't speak for, but on the state responsibility we have a state key point that is manned night and day the year around to receive the warning. Last year our Air Force

and two budget officers told me in Washington that the Air Force in the last fiscal year spent four hundred and fifty million dollars to get the warning to these key points in the various states. It's a lot of money.

These key points are manned twenty-four hours a day and we are prepared to send the warnings to the ten mutual aid areas around the state which are manned twenty-four hours a day by the highway patrol. From there, it goes to the counties, to the cities etc., and if the cities and counties do not have public warning devices to alert the public, that is the individual in his home or at work or wherever he may be, we are wasting an awful lot of money in getting a warning that comes to a dead end.

Within its responsibility for guidance, the state civil defense agency has prepared a basic state plan, with annexes and appendices supplied by training and other bulletins which describe policies, doctrine, and procedures in general terms. I show you here a copy of our state plan and a file of our bulletins that are distributed to all communities. While these are intended primarily for use by state civil defense agency staff divisions, they have been given general distribution throughout the state for the information of local civil defense agencies and for their adaptation to local plans in accordance with their requirements and capacity. Because so many local authorities did not have a full comprehension of staff organization, because they did not have the necessary means or capacity to prepare them, to prepare their own plans, or the necessary imagination to adapt the state plan to local needs by simplification and various combinations of staff functions, the state staff did prepare a greatly simplified model civil defense organization reduced to essentials, and more immediate adaptable to local use.

Last year we had two field deputies whose duty it was to travel around the state to sit down and assist local communities to meet their civil defense responsibilities wherever such assistance was requested. These field deputies contributed materially in building up our program on the local level. Our cut in appropriations to \$40,000.00 this year forced us to eliminate these two positions and we are not attempting to assist local agencies by mail with limited success, and our own budget for postage for this quarter, self-imposed within our appropriations, has already much more than been used up in the first five weeks of operation. We are not dealing with thousands of dollars or hundreds of dollars; we're dealing in postage stamps.

In coordination with our state-wide civil defense activities among the sixty-three counties, all the cities and towns, with adjacent states, and with federal government, the following measures in general have been adopted. We have established constant and effective liaison with the Federal Civil Defense Administration and all other federal agencies including the Defense Department, through the regional office situated here in Denver. We have established a workable procedure in call upon federal agency personnel and facilities within the state for available assistance in an emergency, and our own willingness to assist them if they need it and we are able. We have entered into mutual aid compacts with twenty-two of the states of the Union already and many others are in the process of completion. The state has encouraged mutual aid compacts among counties and cities, particularly those adjacent to each other. We have prepared and distributed sample forms for such compacts

among counties and between cities after getting competent legal advice from the Attorney General's office. For better coordination in the state, we have established ten mutual aid areas consisting of from three to eleven counties each through whose mutual aid coordinators, it has been hoped we could have even better coordination. This latter organization has not been very effective for various reasons which I can answer if you ask questions. In addition to the assistance previously mentioned, the state could render financial assistance on a participating basis with the local communities, but of course, no state funds have been appropriated for this purpose. The federal government does appropriate funds for matching grants-in-aid to the states and territories. This year it will be something over ten million dollars. Our state legislature has not appropriated funds to match federal civil defense grants-in-aid but such federal funds are available to the political subdivisions of the state for specific purposes. These requests for matching funds by political subdivisions are processed by the state civil defense agency which agency also assists the local communities in preparing the involved paper work in these transactions, and it is very involved. The federal civil defense has assured us that they are attempting to simplify this involved red tape.

In general, I would say that our state civil defense agency has sufficient plans and state staff organization with adequate assigned volunteer personnel for the control center to do a satisfactory job. We do lack many of the supplies which are considered essential to meet the responsibilities of the state, notably reserve medical supplies. The remaining and major part of completing our state-wide civil defense program rests upon the political subdivisions of the state. These local

civil defense agencies vary in completeness, efficiency and anticipated effectiveness from good to very poor.

It is my belief that the public information and education program is most effectively carried on through local agencies, carrying subjects adapted to local situations. I believe with the exploitation of these media, the public have been or can be made aware of their responsibilities, and can, through public demand, insist that those public officials who are not already behind civil defense, promote and support the civil defense program. Last year, the federal civil defense agency entered into a contract with some twelve eastern universities, composed of the best talent available, to make a study of our civil defense program, national defense, etc. That is called project East River, and after one year of study, they came up with a very comprehensive program and a list of recommendations, pages and pages. I show you now only part of it, and there are other parts of it which are highly classified. There are parts of this which might be very valuable to the committees that will work tomorrow, and if you want to, I would like to make them available for at least such use as you might make in your committees. In general, I would say that if you are interested, there are three major recommendations of the project East River. First, is that we must build up our defenses, that we cannot accept the fact as it is given to us today by the best authority available, that at least 70% of the planes will be able to get through, attacking planes on the United States, even after we have reached our maximum defensive capacity whenever that will be in the future. They say we must not accept such a weakness in our defense. Personally, I am for a strong Air Force and I don't want to take anything away from our

Air Force. I would like to see more of our funds going to the Air Force placed into defensive measures which is our radar, ground observer and our fighter force. Personally, I would like to see a great deal more put into research and development to devise scientific means for stopping these planes from coming through our defenses in a more effective way than we have at present, and by that I do not mean to take away in any sense from our counter-attacking power, our strategic Air Force, that is going to strike back tomorrow. I want that, and in addition something that will give us a more effective defense. I would like to see more and more positive public warning time available to us. There isn't anyone in the United States today who can guarantee us any warning time; no specific time atleast. That must be improved. The second phase of project East River is the recommendation that we disperse our industrial and population centers. That is a long range program. Someone has even indicated that it might cost, if we want to try to do it today, three hundred billion dollars. That's impossible. I think that is only part of it. I think the best we can do is attempt to disperse gradually through every means possible, encouragement of industry and such influence as the government itself can exercise, that is, in our defense contracts, with slum clearance, etc. in many ways the federal government can and I believe they are attempting to do now. Third and most important and particularly until we have these other means or recommendations accomplished, project East River recommends a strong, effective civil defense program.

Now, I want to mention in passing just as I have hinted at before, these angles of our recommendations in strengthening and augmenting our civil defense law. We have a good civil defense law in Colorado, but we

want to make it just a little bit better and stronger. First thing, in general, it is recommended that the existing state and local governmental agencies be required to perform the same functions as they do normally, and augment them as required in the civil defense program. It seems reasonable. They should be required to do that and that should be set forth clearly in the law. The chairman of the county commissioners and the mayors must be made responsible for civil defense as the governor is responsible for civil defense. Then we will have something more than was illustrated in a city very close to us when a moving picture called "Invasion, U.S.A." was shown. We tried to exploit that as a means of alerting the people to the possible dangers confronting us. I wanted the civil defense agency in this city to use that as a means of publicity, public information, etc. But they didn't want to take it on unless they went to the mayor which they did do, and the mayor of their city said, "Quiet it down, we don't want to arouse the people." That's what we are up against, and we had better do something about it. And I can't say it more forcefully. We have ten mutual aid areas in the state and they are operated by volunteer coordinators who are busy trying to earn a living. They are not sufficiently effective now. In an emergency, we can't take care of 63 counties and run them from our state control center, and those people are essential to a proper functioning in an emergency. I asked the legislature in these recommendations to set them up as an authorized means in our civil defense organization, and further to allow the state to pay them one hundred dollars a month to be matched by one hundred dollars a month combined by all the counties they represent and maybe it will amount to ten dollars a county, fifteen dollars a county,

something like that, to make up their share, nothing; and then fifty dollars for clerical help, postage, stationery, travel, etc. I don't think that's unreasonable, and we haven't got it. Maybe the state can't afford it. Some months ago we asked the owners or managers of privately owned buildings downtown to permit signs to be placed indicating shelters so that the public could go down into such cellars of those buildings which would be approved as adequate shelter for the kind of bombs we were talking about. Those people met with the civil defense authorities in Denver, and they said they would not grant that authority unless the state would give them immunity from lawsuit for injury or death, if people in training or actual emergency were using those buildings which they would permit for public shelter. Now it seems to me that's a reasonable request and I thought it was reasonable that we should put in such an amendment to our state law, but it was stopped in committee. All employees of the state and political subdivisions should be enrolled in civil defense. If they are going to perform a function in civil defense which they should do, they should be enrolled in civil defense the same as we require all others and they should take the loyalty oath which says that they will support and protect the Constitution of the United States and the Constitution of our own state. And if they don't want to do that, I think we ought to find out who they are. Furthermore, we like everyone to enroll in Civil Defense who is going to participate, fill in what they want to do and what they are best trained to do, etc. what they will serve on, so that in training or an emergency, by enrollment they will be covered by our compensational law.

Colorado, I am proud to say, was one of the first states if not the first state, to pass a compensation law. In our law we set up \$50,000.00 dollars to be administered by the Industrial Commission that performs those functions normally, and it was fine, but we didn't get the \$50,000.00 set up in appropriations; we have the law and now it will just mean that if somebody is injured, they will have to be processed through claims, etc. But we want everyone covered by this compensation law so that in training or actual emergency, they will be covered. We'll have lots of volunteers in case of an emergency, but if they are not organized in advance, we are going to have chaos and confusion and a lot of those people are going to be injured. We want them to be enrolled, and trained and organized in teams, so that they will be covered. Then we want the governor to have additional powers, for controls, rationing, freezing, price fixing and allocation of food, fuel, feed and clothing. I think this was the principal reason in objecting to our proposed amendments. We think that in an emergency there may be a shortage of food and it may have to be controlled, or rationed; stopping someone from selling flour for example that's involved in radio activity.

My time has expired. Thank you very much.

WHAT THE PUBLIC KNOWS ABOUT CIVIL DEFENSE

Glenn S. Jensen
Extension Division
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My title may be a little misleading in that it's not all the public that looks at civil defense. I'm sure from the remarks that General Larson and others have made and from your own experiences that you probably have an idea of what you think and in turn what some of the citizens in your community may think and do about civil defense.

In my trips about the state with others visiting with Civil Defense officials to work on training programs, we felt that sort of an apathy existed on the part of the public. We thought at some times that we didn't get the response we should have drawn. With such an excellent program, everyone should have been one hundred per cent in favor of it and supported it. The Governor's Planning Committee felt the same way too. But they said, "We don't think that you people who are and have been working in Civil Defense or who have been involved in training programs know the answer. We feel that the only way you'll find out is by contacting the people of the state."

That was difficult to do in short order, but they proposed that we send a letter to key people throughout the state of Colorado asking their opinion. In an effort to discover this public sentiment, the 450 questionnaires were sent to these groups: all the county commissioners in the state, all the legislators, city officials mayors and city managers, forty-one newspapers, and all the radio and TV stations. In addition to this group, questionnaires also were sent to civil defense officials. These are local officials, county civil defense directors and mutual aid directors.

The question was asked of the county commissioners and legislators, "What do you believe to be the most important problem which must be solved in order to develop an adequate organization for dealing with peacetime and wartime disasters in your community?" Approximately thirty per cent replied to the question, and I think the replies were very interesting. I should also say that of the city and county civil defense officials, two questions were asked. These two were: "What are the most important problems you have already solved in your civil defense program?" and secondly, "What are the most important problems which you think need be solved?" So they answered really two questions.

First of all, fifty per cent of the city civil defense directors said that somehow or other, we had to arouse citizen interest and educate the public as to the need for civil defense. Fourteen per cent said we must develop an adequate communication system and ten per cent said we must develop civil defense leaders. They themselves said, "We don't feel as though we are properly trained. We think we need some help. We think this is one area where we are going to have to have some help." Sixty-four per cent of the county civil defense directors said the same thing as the city directors did. They said we need to arouse citizen interest. Ten per cent said we must train civil defense workers. We have workers now, we selected them, but we don't know what to do with them. We haven't trained them. We need some help. Eighteen per cent said we must reorganize or organize a transportation system.

From the legislators, thirty-seven per cent again replied to the question as the city officials did--we need to arouse citizen interest to the point of participation. They felt that was the greatest need. Ten per cent said we must somehow help the civil defense leaders in the community, and ten per cent

said we must develop an adequate communication system.

The city officials then replied--forty per cent-- again that we must arouse citizen interest to the point of participation. Fourteen per cent said we must work and help our local civil defense leaders, and fourteen per cent said we must develop a new method of finance for civil defense in the local communities.

In the newspapers' reply, fifty per cent again said the thing they thought most important was to develop and arouse citizen interest and at least educate the public. The radio and TV stations--thirty-three per cent-- said the same; citizen interest must be aroused. Ten per cent advised developing the local civil defense leaders and thirty-three per cent said information centers for Conehrad should be organized throughout the state. Naturally, their interest was in that direction and you'd expect them to at least make mention of that.

If any conclusion might be drawn from this questionnaire, it would be that the great majority of replies were in sympathy with the problems of those responsible for civil defense in Colorado. Possibly, we could take the things they mentioned in order--a difficult thing to do because a great many things were mentioned. The one mentioned most frequently, however, is the one I have repeated: the need for the education of the public and public participation. The second mentioned most often dealt with developing and training local civil defense directors. The third was training the civil defense workers, training the services, the auxiliary police, the auxiliary firemen, and so on.

For these reasons, the conference has been built around these three problems. It wasn't a haphazard guess that these are the three things that the people of Colorado should be most interested in. You've been invited here

because the Planning Committee felt you actually were the ones logically to represent the best thinking of the state. I sincerely hope that you accept the challenge and that at the conclusion of this session, we will actually have definite and concrete recommendations for the Governor and the Director of Civil Defense in Colorado.

HOW THE INTERNATIONAL SITUATION MAY AFFECT US

Dayton D. McKean
Dean, Graduate School
University of Colorado

I appear before you as no expert on foreign policy. My chief interest has always been in American government and constitutional law. A couple of years ago I accepted a sort of side job as political science editor for the Houghton Mifflin Company, publishers--and you may have guessed already, the first book under my editorship was a 1274-page tome on international relations. A very good book, too, if I may now put in a little plug, and have it over with. I learned a lot from working on the manuscript.

As I worked on it I often thought of the late Henry Jones Ford of Princeton, who was something of an expert on American politics, not on international affairs. On one occasion Ford was on a PhD committee with Philip Marshall Brown, an international law man. Brown pressed and pressed the candidate on the nature of international law, until after some hours, Ford became weary. He arose, put on his hat, and said, "I don't believe there is any such thing as international law, and I am going to the ball game."

Now, perhaps 35 years after that incident, we too may well wonder if there is such a thing as international law. If ever law appeared to be only the will of the stronger, it appears so today in international relations. We continue in an era of international anarchy in which, in spite of the UN, wars and rumors of wars fill the air waves and cover the front pages. Over us hangs the threat, not only of the A-bomb, but now of the H-bomb, and after that of the C, or cobalt bomb, which the scientists say could make human life impossible on the whole earth. We may be living in the twilight of western civilization; indeed, we may be living in the last millinium of

human existence, and just as we wonder what killed off the dinosaurs, so ten million years from now some other creatures may wonder what killed off the featherless bipeds that once, in the billions, inhabited the earth.

It is a common observation that the one thing we can learn from history is that we can learn nothing from history. With 20-20 hindsight we can see—or at least we ought to be able to see—that World War II could have been prevented. But we refused to enter the League of Nations or to have anything to do with it. Secretary Hughes would not even send an official observer to its meetings—and without American support its collapse was inevitable. Woodrow Wilson, in his last public address before his death, foresaw what was coming, but he did not live to see it. Then, later, the Hawley-Smoot tariff, which a thousand leading economists vainly urged President Hoover to veto, set off the world-wide depression that hastened World War II. We may, of course, hope that we have learned something since 1919 — until the bombs begin to drop we can always hope — but recent events make me wonder if, once more, we can learn nothing from history.

In a long article in the New York Times of August 2, the noted military expert, Hanson W. Baldwin, began by writing, "The struggle for the world entered a completely new phase last week as the guns were silenced in Korea...The policy of 'disengagement' from Korea, which has been the policy of the Eisenhower administration for several months, achieved its first definitive success with the armistice." The struggle for the world did, indeed enter a new phase, and possibly we might look at history and say, "This is where we came in. This is 1920 all over again except for the super bombs." A policy of disengagement sounds much like another phrase of that era, peace at any price. Whether it is a definitive success may well

be doubted; at least it wasn't a success before. And did you notice that there was no jubilation at the news of the Korean armistice? No bands played, as they did at the time of the Armistice at the end of World War I; there were no happy crowds in the streets, as there were on V-E day or V-J day. Perhaps the silence of the peoples of the world revealed a subconscious feeling that this was no great definitive success of free-world foreign policy, but a defeat short only of surrender. We have given world Communism a breathing spell, one that, to judge from the reports coming out of Russia, the Kremlin sorely needed. Since we have decided not to attempt victory, we had better get busy with civilian defense while Communism gathers its strength for a new attack upon us, probably somewhere else than in Korea.

It is a commonplace that the foreign policies of the countries of the world are polarized around two great powers: the Soviet Union and the United States of America. It is a situation comparable to that which existed from 1800 to 1815 when a similar polarization took place between England and Napoleon. Then every country had to take one side or the other. If you think that the Truman Doctrine, the Marshall Plan, Point Four, and all the rest were unique, recall how the British subsidized and formed alliances with any country, big or little, that would fight Napoleon. The British had some curious bedfellows in the days of William Pitt - some worse than curious - and so have we today. We will bolster up a fascist like Franco or an anti-Kremlin Communist like Tito. Unfortunately, however, the oceans will not protect us as the English Channel, ruled by Nelson's fleet, protected England. We must protect ourselves here at home as best we can, realizing that the Korean armistice, like the Peace of Amiens, is just an interlude. There probably has to be a Waterloo sometime.

As the nations of the mid-twentieth century polarize around Russia or around the United States, so they follow either the Soviet policy of expansion of Communism or the American policy of containment of Communism. The Soviet policy twists and turns but does not change; it can't change and remain Communism. Stalin followed Lenin, and Malenkov followed Stalin, and someone else will follow Malenkov, but the policies of Communism are consistent and persistent. Napoleon made peace or made war, whatever he felt was opportune, or whatever he had to do at the moment, but his objective, to conquer Europe, never really changed. Nor can we expect Communism to change, at least not soon. Only complete military defeat, a great revolution in Russia, or a long, slow drift away from Communism in the Soviet Union will change the policy. As it stands today the policy of the Kremlin seems to be that Communism and freedom cannot exist in the same world.

In this respect Communists differ from some aggressors of the past, who sought primarily to conquer. Communism is a sort of worldly, militant religion. It is somewhat like the Mohammedanism of six hundred years ago. The Communists have their Koran, the words of Marx, Engels, and Lenin. These men were their major prophets, and perhaps Stalin and the other old Bolsheviks were minor prophets. It has also its body of doctrine which, like that of a religion is essentially not open to the dissection of reason but instead must be accepted largely on faith. This body of revealed word is interpreted by a priesthood, the Communist party, headed by a council, the Politburo. And just as it was either Allah or the sword, so it is either Communism or the concentration camp. Be converted or perish.

Our policy, on the other hand, is one formulated by George Kennan in a famous article in Foreign Affairs, and called containment. He was much

abused for it, especially in 1952, and he has been forced out of the State Department. In the phrase of the Republican platform, this policy showed a lack of "a will to victory." But what are the alternatives? A drive on Moscow, a preventive war? Clearly, when we would not even drive for the Yalu River, we are not in the mood for anything of the sort. Then yield the rest of the world to Communism? Former President Hoover hinted at that in a famous speech, and what we called for a while the Great Debate took place over it. The debate rather died down that was decided, and although the affirmative side has its advocates today, still probably few thoughtful Americans can imagine for a moment how a successful capitalism could be maintained on an American island in an ocean of Communism. We need too many foreign products to maintain our industry; we need too many foreign markets for our products - not to mention our military vulnerability if all the world were armed against us. There are some other minor possibilities, such as assisting or fomenting revolts among the satellites, but few people put much hope in them or regard them as practicable. Secretary Dulles may be an exception: he has talked sometimes as if he thought such schemes had possibilities. The trouble with these tricks is that the nation that starts them has no control of them after they get going; remember how the Kaiser's government in World War I sent Lenin and his Communists into Tsarist Russia to start a revolution against Nicholas II. We Germans got the fire started all right; but it has not been put out to this day. Maybe the same policy should apply to diplomacy as to barroom brawls: don't start something you can't finish.

We still have some isolationist sentiment in this country. The public opinion surveys show it. The elections of such senators as Jenner and Malone show it. Strange as it may sound, I can sympathize with the motives of the isolationists: I have no hankering to own any real estate in any other country; I have no desire to see my country dominate the world. At the same time, I feel that for our own safety we cannot return to the isolationism of the Harding-Coolidge-Hoover period. If we do, all is lost. Leadership has been forced upon us. It is a role that we don't like. It costs us money that we hate to spend. It interferes with our domestic policies. Probably the British of the early Nineteenth Century were no happier in their role of leadership against Napoleon. They hated to pay the necessary taxes. They hated to have their sons die in Leghorn, in Egypt, in Spain, on the oceans of the world. But they did what they had to do, for the alternative was worse, just as it is worse for us today.

So we return to the policy of containment as the only one we can follow. But we know that it is not a very heroic policy. It is likely to embroil us in many nasty little wars, such as the Korean affair. Any one of these may break out into a big war at any moment. Our enemy knows this just as well as we do. Our policy must be just as obvious to him as his is to us. And certainly Soviet tactics, if not policy, must depend in part upon their estimate of our power of recuperation after an attack. How well are our factories protected? How well are the people who work in them protected? An effective civilian defense program in the United States might be the one matter that would tip the scales of their calculations against aggression.

But civilian defense costs money and Congress and our legislatures are in a budget and tax cutting mood. Of course we prefer freedom to slavery;

of course we prefer security to danger; of course we cherish the values of western civilization. But we want these things for nothing. We won't get them for nothing. Wishing won't get them. I remember reading back in the early forties the testimony of a battleship admiral - whose name I have now forgotten - before a Congressional committee when FDR had proposed the battleships of the Iowa class. Someone asked the admiral if he didn't think that battleships were obsolete and that we had better spend our money on aircraft. I have never forgotten the admiral's answer: "If the battleship becomes obsolete, we have lost our money; ^{it} if/is not, we have lost our country. So perhaps it is with civilian defense; if it turns out to be unnecessary, we have lost our money - or that part of it that may go for preparations that are not equally useful against peacetime disaster - but if we don't spend the money we may lose our country.

A balanced budget and a big treasury surplus are fine things to have. It is impossible, however, during a disaster to train personnel with some treasury surplus, no matter how big. No more can doctors or nurses be trained during an epidemic. It is then too late, and millions of dollars of surplus will not produce one more doctor. You might think that if this democracy were fearful of a clash with a mortal enemy that one of its first concerns would be to have available for emergency a body of trained personnel, doctors, nurses, engineers, architects, management specialists, and so on. The Russians look at the problem that way, at any rate; in twenty years they have increased the number of their institutions of higher learning from 150 to 900, and the number of students from 200,000 to 900,000. While we are turning out about 3400 PhDs in science every year, they are turning out about 5400 with equivalent training. They are producing about a third

more engineers than we are, and those engineers go five years to our four, so that they have the equivalent to our master's degrees. That their scientific training is producing results - results that we don't like - was pretty well shown, I thought, by our offer to pay \$100,000 for an undamaged MIG and to provide asylum for the pilot who would surrender it. Let's not be contemptuous of Russian science; it could be a fatal mistake. While they are increasing or improving their universities we are holding ours or even cutting them. Here in Colorado the legislature cut, of all things, the Medical Center by \$50,000.

You know what it says on American coins: "In God We Trust". So far He has not failed us, but sometimes I think He could justly ask us to do more for ourselves than we do.

When I began these remarks I referred to a book on international relations I had edited. The authors of that treatise concluded with a quotation from the great English historian, Arnold Toynbee. Without asking his or their permission I will conclude my talk with the same quotation:

"There is nothing to prevent our western civilization from following historical precedent, if it chooses, by committing...suicide. But we are not doomed to make history repeat itself; it is open to us through our own efforts to give history, in our case, some new and unprecedented turn. As human beings, we are endowed with freedom of choice, and we cannot shuffle off our responsibility upon the shoulders of God or nature. We must shoulder it ourselves. It is up to us.

RESOLVED, That we, the members of the Governor's Advisory Conference on Disaster Control, hereby express our appreciation to Governor Dan Thornton and to General Larsen for the provisions made to facilitate our work and for the opportunity to participate in the deliberations on problems faced by Colorado in preparing to control any disasters which the future may hold in store for us, and be it further

RESOLVED, That we hereby express our appreciation to the Federal Civil Defense Administration and its personnel for their fine cooperation and assistance in helping us meet our problems, and be it further

RESOLVED, That we urge the Governor of Colorado and the Federal Civil Defense Administration to take such steps as may be necessary to make possible future conferences, perhaps on an annual basis, at which we can take stock of our progress in civil defense and plan with our state civil defense authorities for the continued development of adequate disaster control provisions for our people.



THE STATE OF COLORADO
EXECUTIVE CHAMBER
DENVER

THE GOVERNOR

September 11, 1954

TO SPEAKERS AT THE CONFERENCE

Dear Mr. _____:

Please accept my sincere thanks for the important part you played in the recent Governor's Advisory Conference on Disaster Control. Your comments on (speech title) contributed significantly to the thinking of the group.

You will be interested in hearing that the University of Colorado Extension Division is asking the Federal Civil Defense Administration for permission to publish the proceedings. If this permission is granted, you will receive a copy.

I feel that the recommendations of this conference give real guidance toward preparedness in our state for any type disaster which the future may bring to us. As one of the thoughtful citizens who demonstrated leadership by sharing in these recommendations, you are entitled to the thanks of the State of Colorado.

Sincerely,

Dan Thornton

*** S U M M A . R Y

*** and

*** C O M M I T T E E

*** R E C O M M E N D A T I O N S

*** on

*** D I S A S T E R C O N T R O L

Report from Governor's Advisory Conference
on Disaster Control held in Denver August
27-28, 1953, under auspices of the Extension
Division, University of Colorado, in cooper-
ation with the Colorado Civil Defense Agency
and the Federal Civil Defense Administration

January, 1954

A digest of speeches and discussion held the first day of the Conference as preparation for committees

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S U M M A R Y

By D. MACK EASTON
Dean of Extension
University of Colorado

Before proceeding to the work of organizing our committees, I would like to look back, if I may, over the day's discussion.

Perhaps first, however, I should say that this Conference would not have been possible at all except that we have a Governor who realizes the seriousness of the situation facing the United States today and a man at the head of our state civil defense program who thoroughly grasps the danger and its implications for our communities. To Governor Thornton and to General Larsen, we are grateful for the opportunity presented by this conference.

A Report of Possible Disasters in Colorado

This morning we heard reports on the hazards to which Colorado and her people are liable--the kinds of disasters which we need to learn how to control.

We were told that, until the civil defense program got started, Denver was the only city in Colorado with a fire department large enough to control more than one large fire at a time. Yet almost any town of any size is liable to several fires at once, even in time of peace.

We learned that our farming areas are liable to grain fires which annually destroy hundreds of thousands of acres of grain.

We learned that Colorado has several hundred forest fires per year, frequently at a cost of hundreds of thousands of dollars even when there is no loss of life.

We heard reports of Colorado storms involving twenty to twenty-four inches of rain in twelve hours, destroying as many as three thousand buildings and twenty thousand head of livestock, and damaging hundreds of thousands of acres of farm land.

Our health department reported health problems--sometimes incidental to other disasters such as floods--involving thousands of persons or animals at a time.

We have learned that every disaster of any magnitude creates its own traffic hazards--and that traffic jams can prevent moving the men and equipment needed to fight a disaster--to control a fire or flood or to rescue people.

And we have learned that much of our state is liable to droughts which particularly when they coincide with serious insect pests and plant diseases are sufficiently severe to cause whole counties to be largely evacuated.

Yet Mr. Harold Aitken has made it clear that no natural disaster--or combination of natural disasters---approaches the magnitude of damage to property and people of the modern enemy attack on an unprepared and untrained civil population.

Such, then, are the range and measure of the disasters which might happen in Colorado. Who would be responsible for minimizing the damage, for caring for the people, for "getting things back to normal"?

When a Disaster Hits--Whose Responsibility Is It?

This afternoon we tried to pinpoint the responsibility involved. We learned that the armed forces will be as helpful as conditions permit, but that they cannot be depended on for any help at all in case of wartime disaster, because they will have other responsibilities.

We now know that the same is true of the National Guard--which, in case of attack, actually becomes part of our armed forces.

We learned from an official representative of the Red Cross that that organization is strictly a relief organization. It cannot fight fires, build levees along a river bank, or actually exercise any control over a physical disaster. It can--and will--assist in relieving the suffering of people after disasters have happened.

Both the federal and the state government have assumed important responsibilities, but they cannot furnish any significant manpower to control large scale disasters. The initial responsibility rests on our units of local government. The protection of life and property is their oldest function. This responsibility rests upon county commissioners, mayors and city managers, and their civil defense directors. They and the men and women under their direction--paid and volunteer--will have to control the damage.

The International Situation Affects Us

If the American public seems a little slow to comprehend and bestir itself, perhaps we should not be too surprised. The whole problem of civil defense exists in a world which we have never known before. Dean Dayton McKean has sketched some of its salient features: The countries of the world are polarized around two great powers. One power, the Soviet Union, is dedicated to a policy of Communist expansion. The other, the United States, is dedicated to a policy of containing communism--of preventing its expansion. The Dean has warned us that we are facing a prolonged period of tension, the likelihood of many "little wars" like the Korean affair, and the danger of a full-scale war whenever the enemy thinks it advantageous. And he has pointed out that our power to recuperate after an attack--the effectiveness of our civil defense--may well be the critical factor in swaying the enemy for or against full-scale war.

The Public Views Civil Defense Needs in Colorado

Under the conditions, we should not find the advice of community leaders over the state, as reported by Dr. Glenn Jensen, particularly surprising.

They considered the biggest problem before us to be: how to educate the public - the problem of Committee A. That committee is asked to recommend a plan by which the people of Colorado can learn the hazards that we face, the steps that must be taken, the price we will have to pay for the control of disasters--the organization, the volunteer time, the training, as well as the dollars. That committee is asked for a plan which will make maximum use of the press, the radio, the schools, the civic organizations and women's clubs in some kind of pattern which will reach every adult in the state. Such a plan is a vital part of our answer to the question of national survival.

The second most important problem was reported to be: how to train civil defense workers. The problem faced by Committee C is illustrated by the need to increase our trained police force to five times its normal size through training volunteer auxiliaries--and to train firemen, welfare workers, health and medical technologists and all other services needed in disaster control in adequate numbers for large-scale disasters. We hope this committee will bring in a plan which will make maximum use of every training resource the state possesses.

The third problem is: how to bring to the civil defense directors themselves the training they need--how to help them learn to organize and administer disaster control work.

If we bring to the Governor and to General Larsen practical plans on these three problems, we shall have contributed to the solution of what local leaders consider our most important civil defense problems.

Disaster Control Can Be Accomplished

That civil defense work can be effective has been well demonstrated at various times and places.

During the last war, La Junta was faced with a fire in its business district which would have escaped control and wiped out the center of the town, had not the regular firemen been able to call in their civil defense auxiliaries.

Or take the case of a small southern city about two or three years ago. A fine body of auxiliary firemen had worked on fires with the regular firemen until they had developed a high degree of competence. Then one night a teen-age arsonist went berserk in that community, setting one fire after another in buildings with highly inflammable contents. Every unit of the auxiliaries had to be called out. All responded promptly except one--which reported that it was late because it had stopped on the way to put out another fire until then unreported.

Or contrast the Kansas City flood of 1951 with the Missouri River flood in 1952.

Kansas City, Missouri, had no standing plan for damage control, no damage control organization, no trained auxiliaries. Property damage was about the same as would have been caused by a Nagasaki-type bomb.

Omaha, Nebraska, a year later, had made real progress with its disaster control organization. Its civil defense director brought in needed men and equipment from everywhere within a seventy-five mile radius, and coordinated their work from a single control center, largely by radio. Thirteen miles of levee were raised two feet. Sandbags were filled and placed at weak spots along the levee at the rate of better than 300,000 per day. Over 400 trained police auxiliaries completely whipped the problems of traffic control and looting. Omaha came through untouched.

Disaster control can be accomplished and is being accomplished elsewhere. There is no reason why we can't do as well in Colorado

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Reports of the three committees which were read to the Conference as a whole and were unanimously passed

C O M M I T T E E
R E C O M M E N D A T I O N S

A. Report of Committee on "How to Inform the Public on Disaster Control"

Chairman: Kenneth Oberholtzer, Superintendent of Denver Public Schools;
Member, National Advisory Committee on Civil Defense

We take as our basic premise the assumption that disaster control and civil defense are conceived as a primary responsibility of the people--men and women, boys and girls--and that nothing less than a people fully informed and well practiced can fulfill this responsibility.

Before recommending how to inform the public about disaster control, we must have a clear understanding of why information is necessary, what is important to relate, and what authoritative sources of information exist. Over and over in our deliberation, the need for authoritative information was expressed. In our opinion, to provide authoritative information to the public, the following requirements must be met:

1. There must be information, factual information. This is the most important single element of a successful information program.
2. The information must be in a form that the public can understand.
3. The information must be issued by responsible officials in charge of disaster control and civil defense.

The present uncertainty as to these points is a major obstacle to the development of a good public information program.

We believe that there are four general types of appeal to the public which may be made effectively:

1. An appeal based on the likelihood of disaster and of the effects of an enemy attack. We were much impressed by the Thursday morning presentation "It Can Happen Here." Too many people think that there is no danger to their community or area, or that there will be no effect on their community from a disaster in another area.
2. An appeal involving the idea of disaster control and civil defense as a real insurance against unnecessary suffering and damage.

3. An appeal based on the idea that effective disaster control and civil defense may reduce the likelihood of attack or of disaster.
4. An appeal identifying disaster control and civil defense as an important element of good citizenship. There is a new dimension in citizenship today which we should all recognize--a dimension which we call "protective citizenship."

What to say about disaster control and civil defense is of the greatest importance. Many of us are confused by conflicting reports and ideas that have been widely disseminated.

We believe that every community and county as well as the state should have an adequate organization for disaster control and civil defense. A principal function of such organization would be to disseminate accurate, authoritative information. Apparently, the State of Colorado, insofar as counties and communities are concerned, is not adequately organized at the present time. Before effective information programs can be developed at the local level, such organization must exist. Furthermore, we understand that the primary responsibility for leadership in disaster control and civil defense rests upon the duly elected officials of counties and municipalities in Colorado. The success of the information programs rests essentially at the local level. The state is principally a coordinating, advising center.

We suggest that the following information is illustrative of what we have in mind under the subject of what is important to say to the general public.

People should be informed:

1. About the presence or absence of disaster control and civil defense organizations in their local communities and counties.
2. About the local plan of operation in the event of disaster or enemy attack.
3. About the names and addresses of responsible local officials.
4. About what state organizations exist, what they can and cannot do in assisting counties and communities.
5. About the role of the armed forces and other national agencies, what they can and cannot do. Too many people now apparently believe that such organizations as the armed forces and the American Red Cross will have full responsibility in the event of disaster or attack.

Two major types of information are presently needed:

1. General information which may be disseminated to people throughout the state of Colorado.
2. Specific information which may be given to organizations, and institutions or groups, such as schools, colleges, service clubs, women's study clubs, etc.

As to means of disseminating information, we suggest the use of all available mass media and the development of materials appropriate to each kind of media: press, radio, TV, movies, etc. The subject of disaster control and civil defense should be on the agenda of meetings and conferences of all types. Special emphasis should be given to ways of informing the people through local disaster control and civil defense organizations. The experience resulting from many programs shows that the personal approach and the personal appeal by well-informed and trained individuals are of the greatest importance.

As a concluding statement, we should like to emphasize the desirability of:

1. The Governor appointing an advisory citizen committee on public information which could be of assistance to him and his civil defense authority in the future development of public information programs. Correspondingly, we would suggest the same procedures to mayors and to county commissioners. This should be a continuing, developing program.
2. The Governor proclaiming a day or a week in recognition of the importance of disaster control and civil defense.
3. The publication of a brief summary of this conference to be made available to local civil defense authorities.

B. Report of Committee on "How to Train Civil Defense Administrators"

Chairman: Martin Schmidt, Professor, School of Business,
University of Colorado

Persistent international tension and mounting threats to our security bring new problems of citizen welfare and safety to our communities. Because of these factors, emphasis should be on strengthening existing local governmental and private organization and facilities. Training in disaster control and civil defense should begin with local governmental officials and their staffs. Inasmuch as local governmental activity is already directed at essential civilian welfare and protection and in effect constitutes the nucleus of a civil defense program, efforts should be made to supplement these regular governmental and utility services to meet new problems during an emergency period.

In order to support the concept that our training program should be amplified and expanded, we recommend:

1. That the Governor call the county commissioners, city managers, and mayors for a one-day Orientation Conference to be held in Denver to cover in general the civil defense laws, the responsibilities and authorities of the local officials in civil defense activities, inter-community relations, and dangers to which we are exposed.
2. That the state civil defense director develop a program of local instruction to be conducted in the ten mutual aid areas for administrators of the local civil defense agencies.
3. That the field consultation service be re-established.

4. That practice exercises for administrative and operational training of all echelons be continued.
5. That maximum exploitation of actual situations be used for training and for public information.
6. That, in the development of the content of the training program, maximum use be made of the advice and assistance of existing agencies of the federal, state and local governments.

In carrying out the foregoing recommendations, we recommend further such strengthening of our laws as may be necessary to fix the responsibility and authority for civil defense upon the chief executive of municipalities and the chairman of the board of county commissioners of the counties.

C. Report of Committee on "How to Train Civil Defense Workers"

Chairman: Gordon Bennett, State Librarian
State of Colorado

We believe the training of volunteer workers is essential for an adequate civil defense and disaster control program. Therefore, we recommend:

1. That full-time instructors be added to the staff of the State Board for Vocational Education to be used in the organization and training of civil defense and disaster control instructors.
2. That the State Department of Education be given sufficient funds to organize and direct a civil defense and disaster control training program within all schools and at all grade levels.
3. That a resolution be introduced in the legislature which will urge that civil defense and disaster control information and training be included as a part of the curriculum of all grade schools and all high schools in the state.
4. That federal and state governments appropriate more funds for the adequate training of civil defense and disaster control workers.

Furthermore, we suggest:

1. That local training programs include, so far as is possible, the following steps:
 - (a) creating interest in the training program;
 - (b) teaching the necessary techniques;
 - (c) applying what the workers have learned;
 - (d) checking periodically on what is being done in the practical application.
2. That, so far as possible, civil defense and disaster control training programs be tied in with similar existing emergency facilities so that civil defense programs will not result in duplication but in integration.

3. That the matter of compensation and remuneration of volunteer workers be decided at the local level.
4. That, in order to keep an active interest in civil defense training, devices such as occasional meetings, social activities and the like parallel the actual training program.
5. That, in dealing with volunteer workers, initial emphasis be directed toward stimulating interest so that workers will then be ready to use available training courses.
6. That training programs be tailored to fit the free time of the volunteer and that these programs then be integrated into an instructional pattern.
7. That instructions be simple with unnecessary complexity eliminated, and that the instruction be as basically uniform throughout as possible.
8. That more than one person be trained for the same job in order to achieve defense in depth.

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BUREAU OF STATE & COMMUNITY SERVICE
Extension Division
University of Colorado, Boulder

8/20/53
RELEASE AT WILL

It can't happen here, or---people just aren't interested in civil defense.

This is the outstanding conclusion of a questionnaire circulated by the University of Colorado Extension Division at the request of Governor Dan Thornton. Almost 500 municipal and county civil defense directors, legislators, city officials, and representatives of newspapers, radio, and television were polled.

Analysis of questionnaire returns provides the basis for the program planned for the Governor's Advisory Conference on Civil Defense which will convene in the State Capitol Thursday and Friday.

The basic civil defense organizations--the top leadership, the surveys of housing and food supplies, the first aid training--are in fairly good shape, according to the Extension Division analysis. The major problem yet to be solved is development of citizen interest and public support.

The largest of the three committees into which the disaster control conference will be divided is assigned this question: How to educate the public for disaster control? About 40 persons will examine this problem under the chairmanship of Kenneth Oberholzer, superintendent of the Denver public schools and member of the National Advisory Committee on Civil Defense.

About 20 persons have been asked to serve on each of the other two committees which will deal with training civil defense administrators and training civil defense workers. Professor Martin Schmidt of the University of Colorado and Commissioner H. Grant Vest of the state department of education will chair these committees.