Discussion

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It is my understanding that the function of the OCD is planning for coordinated action to protect the population in periods of emergency using governmental structures adapted to the emergency. Civil defense aims at the preservation of life and the restoration of the postattack economy.

It is also my understanding that the statistical programs of OCD aim at developing coordinated plans to achieve postattack solutions, to develop plans that will increase chances of population and industrial survival.

It is encouraging to note the variety and depth of the statistical studies presented. The mass handling of data is heavily involved. There are also administrative, legal, production, military and scientific data to be collected, understood and used. There are human factors involved in cooperation with State and local governments and with industry. There is need for managerial efficiency and for coordination.

I am not certain whether some of the following remarks are within the scope of the papers or the session. But I am taking advantage of a discussant's prerogatives and shall probably offer more questions than answers. Since we do not have all the answers, I trust that questions may be useful in provoking light by discussions, rather than heat by provocation.

There is insufficient time to discuss the technicalities of the papers presented in any detail. Moreover, I am more interested in matters of program and statistical coordination. I do have a few comments, or questions.

Romm Paper

It has been said that the fallout shelter program is the best single way to save the maximum number of lives and the program described has located a great many public fallout shelter spaces. But discussion of some added factors would be helpful to our understanding. How many more spaces are needed. Are there any scientific possibilities for shelter against blast and fire. Do public shelters complete the program. What about home shelters and the use of space in schools and hospitals. Statistics available in these areas would round out the discussion.

The review of damage assessment and vulnerability analysis again illustrates the difficulties and the wide range of military, geographic, weather, and scientific information needed for the various models... JUMBO, ERD, DUSTY, FLAME, RISK, etc. I would appreciate some evaluation of these models, to understand how they are put together and what the gaps and problems may be. What part does the maintenance and improvement of these data play in the overall OCD statistical sphere. How are decisions made based on the output of these models.

Coker Paper

The second paper illustrates the use of computer systems to develop concepts of inter-relationships between various elements in the economy, and provides some idea as to the method for solving postattack resources management problems.

The Survival model is intended to provide supply-requirements data by geographic areas on the kinds of items that would be desperately needed. For my better understanding, I would ask how up-to-date do the inputs have to be, what are the statistical processes that would account for constant shifts in population, stocks, facilities and the shelf life of goods. How are these complex factors kept in view so that the model remains alive and alert.

The outline of PARM has been well presented. It is used to simulate the effects on the economy of either real or hypothetical actions. This is a massive task. Recognizing the difficulties that faced PARM, and the high order of capability that went into its development, it is still pertinent to ask: What kinds of statistical problems have been encountered in the development of PARM. What kinds of techniques have been used. Are there any problems remaining. What are the nature and extent of any gaps. Have there been any test runs of PARM. What were the results.

Myers Paper

The third study shows how one agency outside of OCD is carrying out its civil defense responsibilities. It has been well stated that the problem centers on the geographic distribution of the available food in relation to people. The Department of Agriculture has been most active in assessing available food resources, and in providing indications of the amounts and locations of food that might be expected postattack.

I note that the data produced by these surveys have resulted in some overall conclusions, and that we have some basis for food stockpiling as well as a basis for special food plans in areas where food reserves may be low.

Many facts have been presented, but what is the status of the program. Is it complete. Some added words would be helpful regarding any further specific programs to further assure adequate supplies and the kinds of statistics needed to implement these solutions. How-up-to date are the data. A survival model has been discussed in a previous paper. To what extent has the food situation been brought together with the other items in a survival plan. Is food a resource under the PARM system.

Other Programs

I would like to mention a phase of civil defense statistics and research not discussed here, public opinions surveys aimed at investigating public attitudes towards civil defense activities. OCD has been active in this area. I can understand that OCD finds it necessary to engage in educational activities, and to assess public opinion on many aspects of its work. It is possible to scatter one's resources in the name of research. I wonder if it would be advantageous for OCD to consult more widely, within its own organization as well as both in and out of Government to establish a technically sound public opinion research program geared to the specific objectives of civil defense statistics.

There are other important statistical series not discussed at this session that merit more than passing mention. For instance, the construction equipment area, the warning system, the executive reserve, utilities, water systems, power systems, telephones, communications, the whole area of industrial defense and the like. Some or all of these factors may be included in the models discussed, I'm not certain. However, these areas also appear to play a part in the civil defense statistics program.

Aside

Now as a sort of aside, let me put what I'm trying to say regarding OCD programs in another way. Civil defense exists to preserve life and industry. Then the OCD programs and the statistical subject matter that ties to civil defense objectives should be understood easily by the citizen who is to be saved. At the risk of opprobrium by philosophers, I don't think civil defense and its statistical formulations should be as obscure as philosophical explanations.

I had read about Sartre so I wanted to know what existentialism was. I selected a book supposed to define existentialism. I read about phenomenology, ontology, solipsistic, etc., each an important component, but I never did find out what existentialism was about. If the complex details of the material presented here, the forest and the trees, were readily understood in relation to everyday life, I wouldn't be raising so many questions about phenomenology, ontology and existentialism. End of aside.

Summary

It is evident that no single model or set of statistics is sufficient unto itself to provide for all of OCD statistical needs. A key word is coordination. The papers presented, excellent as they are, give us a picture of many sets of important large scale discrete areas. How are these data put together to fashion an overall program. What are the statistical goals and how far along is OCD in meeting these goals. What added data are needed to complete evaluation, program and progress. How are these statistics used in furtherance of the OCD mission.

The surveys and models did not spring full bloom into existence; nor will the data derived from many separate series automatically bloom together into a coordinated whole. I have raised many questions, and would like to raise a final question. What is the mechanism by which all these data are coordinated, analyzed, interpreted and funneled up to a decision-making process. To what extent are the data, the statistics, the models, ready to operate as a system if there should be an emergency tomorrow.