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# COOPERATIVE PLANNING OF THE CIVIL AIR REGULATIONS

HOWARD C. KNOTTS\*

## I. INTRODUCTION

Pericles' proud boast of his beloved Athens was:

We differ from other states in regarding the man who holds aloof from public life not as "quiet" but as useless; we decide or debate, carefully and in person, all matters of policy, holding, not that words and deeds go ill together, but that acts are foredoomed to failure when undertaken undiscussed.<sup>1</sup>

It is no new thing in the United States for the governed to take an active hand in the governing, but the technique has only been sporadically extended to and therefore is, in a large measure, undeveloped in the field of administrative regulation. If experts and those affected can appear before and advise legislative committees in the creation and formation of public ordinances, obviously the same practice can be extended to administrative agencies in connection with the adoption and promulgation of their rules and regulations. Indeed, given appropriate opportunity, the better trained and the more experienced of those to be regulated should be able to bring to the regulating agency a better understanding of their mutual problems with resulting efficient governmental administration and a minimum of interference with business and private affairs. At any rate the minimum accomplishment will be the avoidance of the mistake so often made by those who seek the aid of government with too little regard for its or their responsibilities in connection with such aid, for: "By pooling our difficulties, we may at least avoid the failures which come from conceiving the problems of government to be simpler than they are."<sup>2</sup> The framers of the plan for the Civil Air Regulations may well have used the boast of Pericles and the thought of Mr. Justice Frankfurter for their pattern. In any event it was the choice of wisdom; perhaps more obvious to this writer than any other person because he joined the enterprise after the plan had been laid and approved and the preliminary work done.<sup>3</sup>

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\* Editor-in-Chief, JOURNAL OF AIR LAW AND COMMERCE.

1. Quoted in Zimmern, *The Greek Commonwealth* (1915), p. 202.

2. Felix Frankfurter, *The Public and Its Government* (1931), p. 2.

3. Colonel John H. Wigmore and Fred D. Fagg, Jr. were originally employed by Secretary of Commerce Daniel C. Roper and Assistant Secretary of

It is also interesting that the two consulting experts chosen to devise the plan were lawyers. True it is they were rich in air law experience and one of them an old, though inactive, pilot. Nevertheless, the full extension of the Athenian technique to the aeronautics field must have come in major degree from the legal background. "It is significant that the first case in which the Supreme Court of the United States had to pass on a question of constitutionality involved a power by Congress to devolve administrative duties upon the federal judges."<sup>4</sup> The rule making power of the Supreme Court has been uniformly exercised by conference with the Attorney General and his Washington staff, by conference of and recommendations from the circuit and district judges and district attorneys, by recommendations from a lawyers' committee of varied experience and wide geographical distribution, and by the conference and recommendation method amongst the bar associations. The foregoing is not only historical, but as modern as the architecture of the 1938 federal rules of court. This method has been exercised so long and so frequently, not only by the federal courts but also by the state and other inferior courts, that the administrative side of such a tribunal would be seriously discredited if any other were used. Only the litigants have not been called in personally, but certainly they—past, present, future and possible—have had their day in court through counsel, often without fee and more often of better caliber than would be employed otherwise. Furthermore the proceedings of our courts have a large public attendance and scrutiny by persons in all walks of life and by many who have little, if any, litigation. This is exclusive of jurors and witnesses, all laymen except in rare instances. In short, the citizen has had and does have a higher participation in the juridical process than in any other governmental activity.

Hence the logic of the choice of the two planners of the Civil Air Regulations. Of course this takes full account of the high quality of the aeronautical experts of the old Bureau of Air Commerce, now Civil Aeronautics Authority, similar technicians in the aviation industry, and the way-above-the-average intelligence of those who participate in flying generally. It recognizes the excellence of the approach of the former heads and staffs of the Aeronautics Branch<sup>5</sup> and of the Bureau of Air Commerce, and that the

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Commerce J. Monroe Johnson to plan and write the Civil Air Regulations. When Mr. Fagg became Director of Air Commerce on March 1, 1937, Mr. Knotts was employed in his stead.

4. Report of Roscoe Pound Committee on Administrative Law, 1938 Advance Program of American Bar Association, p. 155.

5. Under the Air Commerce Act of 1926 and prior to 1934 the federal governmental agency was known as Department of Commerce, Aeronautics

old air regulations 'grew up like Topsy' simply because the seven league boots of aviation achievement made it so and because no regulatory scheme, unless punitive, should attempt to spring up full grown.

## II. METHOD OF PREPARING REGULATIONS

**Preliminary Drafts.** "A grant of power or authority bears with it a privilege to act but only within a given frame of reference. Analysis of the \* \* \* power will expose what limitations are implicit in the grant of such powers as well as what rights are derivable from them."<sup>6</sup> In order to be sure of a mutual recognition of the limitations the consulting experts first met with the Washington technical staff of the Bureau of Air Commerce and large numbers of the field personnel, including each of the supervising inspectors. One of the objections to the old regulations was that they violated the limits of the Air Commerce Act and were too often a mere determination of what should be done for or to aviation without due respect to the "frame of reference." Therefore days were spent by the technical staff and the legal experts in a joint combing of the basic legislation, having in mind at all times the regulations of the past and those proposed for the future. The aviation technicians gave the consulting experts their best judgment as to good flying practices, and the latter in turn gave form to the expressions of the former and kept them within the bounds of the legislative power delegated by Congress. Thus the preliminary drafts—and there were many of them for each chapter—were drawn and refined.

**Distribution, Criticism and Revisions.** The next step was the distribution of these drafts to all of the Bureau of Air Commerce personnel, Washington and field, who had anything to do with the carrying out of the regulations. Criticism and comments were asked and much that was helpful was obtained. Again the drafts were revised and this time sent to persons outside Bureau personnel for criticism and comment. This distribution included the National Aeronautic Association, Aero Chamber of Commerce, Aircraft Manufacturers Association, Air Transport Association, Air Line Pilots Association, TWA Pilots Association, Private Fliers Association, National Association of State Aviation Officials, Sportsman Pilots Association, each of the approved flying and mechanic schools, and many other groups and individuals. The endeavor was to reach a cross section of every phase of aeronautics. Many, many

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Branch, and it was headed successively by Assistant Secretaries of Commerce for Aeronautics William P. MacCracken, Jr., and Clarence M. Young.

6. *James M. Landis, The Administrative Process (1938) p. 48.*

individual requests for various drafts were filled. Indeed, it was no uncommon thing for from 200 to 400 copies of each draft to be sent out. Typical was a distribution (with covering letter of explanation) on June 11, 1937, to more than one hundred individual aircraft manufacturers of drafts of Chapters 00—Aircraft Registration Certificate, 01—Aircraft Certificates, 02—Aircraft Identification Mark, and 04—Airplane Airworthiness.

**Conferences and Final Revisions.** Following the foregoing procedure conferences were held with various representatives and experts from the outside groups. In fact, a special effort was made to have such a conference with each of these groups. Details of these meetings will be given a little later, but here it must be said to the credit of those who participated that government has seldom if ever had such unselfish and painstaking cooperation. Each one of these meetings raised one or more problems with corresponding constructive suggestions which the draftsmen had overlooked or had not developed. Following these meetings the drafts were again revised and in turn submitted to the outside experts. When a second set of conferences was desired by these outside experts such conferences were held. Then, with the additional resulting suggestions in mind, the drafts were finally revised.

**Approval and Issuance.** The procedure was then to present them to the Director of Air Commerce for his approval and forwarding to the Solicitor of the Department of Commerce. When the Solicitor had scrutinized the same and effect had been given to his criticism the regulations were approved by him and in turn forwarded to the Assistant Secretary of Commerce for Aeronautics. The Assistant Secretary then approved the regulations and forwarded them to the Secretary of Commerce, who on or about October 1, 1937, issued the same to be effective November 1, 1937.

### III. BAC EDITORIAL COMMITTEE

**The Members.** Mention has been made heretofore of the use of the Bureau of Air Commerce technicians in producing and revising the various drafts of the regulations. Unlimited use of such personnel was authorized by the Secretary of Commerce and the Director of Air Commerce and full advantage was taken of such authorization. However, the utmost in logical development was desired and therefore there was created an editorial committee which functioned throughout the drafting and evolution of the regulations, both the November 1, 1937, and the May 31, 1938 editions. In addition to the consulting experts it was composed of Major R. W.

Schroeder,<sup>7</sup> Assistant Director of Air Commerce and former Chief of Air Line Inspection Service, Bureau of Air Commerce; Bryan M. Jacobs, who succeeded Major Schroeder in both of his capacities and who is now Director of the Bureau of Safety Regulation, Civil Aeronautics Authority; L. V. Kerber,<sup>8</sup> for many years Chief, Aircraft Airworthiness Section, Bureau of Air Commerce and Civil Aeronautics Authority; Richard S. Boutelle and A. S. Koch, respectively, Chief and Assistant Chief of the General Inspection Section, Bureau of Air Commerce and now, respectively, Assistant Director, Bureau of Safety Regulation, and Chief, General Inspection Section, Civil Aeronautics Authority; Earl F. Ward, Chief, Airways Operation Division, Bureau of Air Commerce and Civil Aeronautics Authority; Robert R. Reining, Chief, Aircraft Registration Section, Bureau of Air Commerce, and now Chief, Records Division, Civil Aeronautics Authority; George W. Vest, Chief, Regulation and Enforcement Division, Bureau of Air Commerce and Civil Aeronautics Authority; and Dr. E. S. Adams, Chief, Medical Section, Bureau of Air Commerce and Civil Aeronautics Authority.

Just before this work was begun Mr. Jacobs had been for many years an active manufacturing and airline inspector in the field. Mr. Boutelle had been the State Coordinator of the Bureau of Air Commerce. Mr. Vest had been the supervising inspector at Chicago and Mr. Koch had been in charge of the general inspection office at St. Louis. Dr. Adams gave us the aero medical knowledge of a practical flyer, a former Army medico, a private practitioner and the chief medical officer and one of the organizers of the present Chinese air force. Although these men functioned continuously, their work was supplemented and greatly aided from time to time by other Bureau personnel, namely, Jack Gray and F. R. Shanley of the Aircraft Airworthiness Section; Richard C. Gazley, John Easton and James C. Edgerton of the Safety and Planning Division (now Technical Development Division); Reeder Nichols, Chief, Radio Section; Fred L. Smith, G. A. Gilbert and Eugene Sibley of the Airways Operation Division, and Leonard Jurden and J. S. Marriott, then chief supervising inspector and now regional supervisors at Kansas City and Los Angeles, respectively. Unfortunately all participating in large measure are not mentioned for the obvious reason of space limitation. Even so our respects must be paid to Floyd Brinkley, now Chief, Information Division, Civil Aeronautics Authority, for his indispensable editorial work and to

7. Major Schroeder resigned from the Bureau of Air Commerce in May, 1937, to become Vice President in charge of Operations of United Air Lines. He is now Vice President in charge of Safety.

8. Mr. Kerber resigned from the Civil Aeronautics Authority in December of 1938 and is now with Lockheed Aircraft Corporation.

Samuel E. Gates, now Chief, International Division, Civil Aeronautics Authority, for his indefatigable liaison with the Solicitor and the Federal Register in connection with the May 31, 1938, revision.

**The Viewpoint.** These men gave to the consulting experts their own best advice not only from their own experience but from that obtained from the outside experts and the conferences with the industry. Their background gave assurance of real consideration of every phase of aviation. They gave much that was valuable in the way of draftsmanship, and if the Civil Air Regulations are in any wise subject to technical objection or from time to time seem not as clear as might be, the fault is entirely with the consulting experts who did the final drafting. Whatever the result, this writer is very confident that great strides were made in producing rules of flying conduct that *promote* as well as *regulate*. This high goal was even applied to the sanctions necessarily inserted for securing conformity to law. The view was these were needed for the minority only, and that the rules proper could and should have such virtue that they would be morally obligatory upon the vast majority of those engaging in aeronautics. The test was that of the late Justice Cardozo: "It is true, I think, today in every department of law that the social value of a rule has become a test of growing power and importance,"<sup>9</sup> and the members of the editorial committee and the other advisors really helped to bring the application of this test to its fruition. Furthermore, no one then or now pretends that the job was perfect. Indeed, it was clearly recognized that the rules were made to be changed, and that such had to be the case to keep pace with the needs of the fastest growing transportation in America.

#### IV. RECORD OF CONFERENCES

**February, 1937.** The accidents of the winter of 1936-37 were such that a safety conference was held in Washington, D. C., February 4-6, 1937, attended by every branch of aeronautics. On Sunday, February 7th, Colonel J. Monroe Johnson, Assistant Secretary of Commerce, called into conference the representatives of the airlines and promised early drafts of and a conference on the chapters of the Civil Air Regulations chiefly affecting scheduled air transport. They were CAR 40—Scheduled Airline Certification and 61—Scheduled Airline Rules.

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<sup>9</sup>. *Benjamin N. Cardozo, The Nature of the Judicial Process* (9th ed. 1937) p. 78.

This conference was held in Chicago February 23-25, 1937, with 27 members of the executive and operating personnel<sup>10</sup> of 11 airlines<sup>11</sup> of the United States headed by their chairman, Ralph S. Damon, Vice President in Charge of Operations, American Airlines; Colonel Edgar S. Gorrell and Fowler W. Barker, respectively President and Secretary of the Air Transport Association; David L. Behncke, President, Air Line Pilots Association, and Berniece Bergender of the same organization; Otis Bryan, President, TWA Pilots Association, and W. P. Scruggs of the same organization; and Reed Chambers representing the aviation insurance underwriters. At the special executive session held for active pilots 12 active airline pilots and 1 member of the Air Line Mechanics Association were present in addition to those pilots already mentioned. The executive session of the pilots was to assure expression free from any real or fancied airline domination. For like reason their names and companies are not footnoted.

The good results of this meeting were too numerous to mention. Probably the greatest was the assurance of the future co-operation of both pilots and airlines in perfecting not only CAR 40 and 61, but CAR 21—Airline Pilots, 26—Airport Control Tower Operators, and 27—Airline Dispatchers. The airlines were most favorable to CAR 26 and the pilots to CAR 21 and 27. The truth is the recommendation of the airline pilots at this meeting brought about the divorcement of their activities from CAR 20—Pilots and the creation of CAR 21. Other features of the meeting were the insistence of the pilots for a more rigid examination for airline pilots and for higher minimums at both scheduled and alternate airports, and the reiterated contention of the airlines that the regulations should be more specific and the expression "as deemed necessary by the Secretary" less used.

**April, 1937.** During this month a meeting was had with representatives of glider and soaring pilots which set the stage for an entirely new set of glider pilots specifications which appeared in the May 31, 1938, revision of the Civil Air Regulations. It brought them into line with the higher international standards.<sup>12</sup> Also plans were laid for glider and soaring plane manuals. The conferees

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10. Paul E. Richter, L. C. Fritz, Milton Van Slyck, Ralph S. Damon, Hugh L. Smith, G. K. Griffin, H. E. Pielemeir, S. L. Shannon, George E. Gardner, Captain E. V. Rickenbacker, Leo C. Allen, Paul M. Norman, Frank E. Caldwell, C. V. O'Callaghan, C. Bedell Monro, L. P. Arnold, J. H. Neale, B. E. Braun, F. Whittemore, K. R. Ferguson, Vernon L. Dorrell, Edward Campbell, Allan A. Barrie, John Rhodes, D. B. Collyer, H. L. Kirby, W. W. Braznell.

11. T.W.A., American Airlines, Eastern Air Lines, United Air Lines, Pennsylvania-Central Airlines, Chicago and Southern Air Lines, Northwest Airlines, Hanford Airlines, Grand Canyon Airlines, Western Air Express, Atlantic and Gulf Coast.

12. CAR 20.15 through 20.177.

were the very practical Richard duPont and Lewin B. Barringer, respectively President and General Manager of the Soaring Society of America, and William R. Enyart, Secretary of the National Aeronautic Association. Mr. duPont and Mr. Barringer are each American record holders.

The other April meeting was that very important one—with the Private Fliers Association represented by Dr. Irving Langmuir, Past President, A. R. Stevenson, Jr., President, Grove Webster, Executive Vice-President, and Dr. John Miller, member of the Board of Governors, all hard-headed enthusiastic private fliers, owners of aircraft and users of their planes both for pleasure and in connection with their businesses,—and only one such business had a direct connection with aviation. They brought to this Washington conference not only a critical examination of CAR 20—Pilots, but a platform of concrete suggestions which they afterwards submitted in writing under date of April 26, 1937. To them the CAR is indebted for a more rigid and a minimum student pilot training program, the consequent reduction of 50 to 35 solo flying hours for a private pilot certificate, and the further classification of pilots as to airplane type, weight and engine. Their strong plea for a separate classification of the private and the commercial pilot on an economic basis was highly persuasive, but could not be granted because the Air Commerce Act limited such regulations to safety only,—and safety alone provided no such division.

It is no wonder so much was accomplished. Grove Webster was everybody's selection for, and is, the Chief of the Private Flying Development Division of the Civil Aeronautics Authority. Dr. Irving Langmuir, the chief author of the plan presented, is a Nobel prize winner and has such varied accomplishments as the debunking of the botfly from its legendary speed of 818 to its actual speed of 25 miles per hour<sup>13</sup> and the basic research for the new invisible glass.<sup>14</sup> Mr. Stevenson is one of the stand-bys of General Electric and Mr. Miller is one of Connecticut's leading specialists. These men very graciously agreed to comment on the proposed final drafts. Presumably they did and had no criticism for Mr. Stevenson under date of June 14, 1937, acknowledged receipt of such drafts of CAR 20 and nothing was heard until after the whole CAR was issued on November 1, 1937, and a general revision was in progress.

**May, 1937.** Under the auspices of the National Association of State Aviation Officials and at the call of its then President Gill Robb Wilson a meeting was held at St. Louis on May 28, 1937, to

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13. *Time*, March 21, 1938, p. 44, 46.

14. *Time*, January 9, 1939, p. 33.

consider the new regulations dealing with aircraft, airlines, flying schools, air traffic rules and pilots.<sup>15</sup> There was official representation from 15 states and, because the International Aerobatics and St. Louis Air Races were then in progress, many individual pilots and other persons from the aircraft industry attended or had others express their views. Oliver L. Parks, L. M. Churbuck and Casey Jones, heads of three of our largest and best air schools, held a separate meeting to specially consider CAR 50—Flying Schools. Again the suggestions were many and good, but outstanding were one to provide for an instructor rating for a properly qualified private pilot to instruct not for hire and another to make Service aero-physical examinations available for all pilots except students. This latter provision for the benefit of members of the Air Corps Reserve and the National Guard Air Service in their civilian flying was not new, but the demand for it at St. Louis was the genesis of an arrangement whereby the Army and Navy has furnished full and complete certified copies of such medical examinations to Air Commerce and its successor Civil Aeronautics Authority, and thereby each has been able to do its full duty. Incidentally, the conferences between the Services and Air Commerce, which produced this result, laid the foundation for future and highly beneficial exchanges not only with respect to regulations but such other important matters as the training of Air Commerce inspectors on 4-motored aircraft.

July, 1937. On July 9th and 10th the airline operators committee<sup>16</sup> met in Washington with the editorial committee of the Bureau. CAR 21, 26, 27, 40 and 61, as well as the airline portion of CAR 04, were discussed for final form. These mutual efforts developed a system of airline regulation which must have played an important part in the marked increase in safety of air transport during 1938, the first full year of operation under the CAR. Following the meeting the chairman of the operators committee sent this word to the Bureau editorial committee: "It was the opinion of the members of the Operators Committee that you should have a vote of thanks for the hard work and intelligent understanding of the problems which you have applied in the codification of the new draft of the regulations." About the same time came the announcement of a permanent arrangement for the operators committee to submit each six months, and oftener if need be, recommendations

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15. 8 JOURNAL OF AIR LAW 481.

16. Chairman, Ralph S. Damon, American Airlines; Larry Fritz, TWA; Sid Shannon and George Gardner, Eastern Air Lines; Major R. W. Schroeder, United Air Lines; V. A. Dorrell, Hanford Airlines; Jack Neal, Pennsylvania-Central Airlines; and Fowler W. Barker, Air Transport Association. Present also were radio experts and technicians Cunningham and Martin of United Air Lines and R. O. Smith of Pennsylvania-Central Airlines.

to the Bureau for necessary changes in regulations dictated by experience and the advancement of the art of flying.

**August, 1937.** David L. Behncke, President of the Air Line Pilots Association, under date of June 15, 1937, submitted the views of his organization. These were based upon the answers to a questionnaire sent all of his regional councils. This document was used in preparing the drafts for the July 9th and 10th meeting outlined above. It was a most comprehensive piece of work and Air Commerce will ever be in debt to the Air Line Pilots for it. On August 7th Mr. Behncke and Mr. Hamilton of his organization met in Washington with the Bureau editorial committee for final conference. There CAR 21, 26, 27, 40 and 61 were reserved for discussion, but Mr. Behncke and Mr. Hamilton largely confined their remarks to a few well-directed suggestions for CAR 21 and offered no changes for the other chapters.

On August 17th a meeting was held in Washington with the Engineering Conference of the Aeronautical Chamber of Commerce of America as a final follow-up of the letter and drafts of CAR 00, 01, 02 and 04 sent out to all manufacturers on June 11th. The chief value of this meeting was the permanent arrangement for an annual meeting between the manufacturers and the Bureau of Air Commerce to consider regulations revisions, not of course precluding emergency changes in the interim. Such an annual meeting was held in Washington during April, 1938.

**July, August and September, 1937.** On July 7, 1937, the Airways Operation Advisory Committee first met and organized. It met many times during July, August and September and in the heat of an unusually severe Washington summer brought forth CAR 60—Air Traffic Rules. In addition to the Bureau editorial committee, headed in this enterprise by Earl F. Ward, Chief, Airways Operation Division, the whole committee had as members James E. Webb, National Aeronautic Association; Charles A. Masson, National Association of State Aviation Officials; Paul Goldsborough, President, Aeronautical Radio, Inc.; Commander R. E. Davison, Bureau of Aeronautics, Navy Department; David L. Behncke, President, Air Line Pilots Association; Lieut. G. H. Bowerman, Aviation Division, U. S. Coast Guard; Major Wm. B. Souza, Office of Chief of Air Corps, U. S. Navy; S. S. Kenworthy, American Municipal Association; Fowler W. Barker, Secretary, Air Transport Association; Grove Webster, Private Fliers Association; Dr. C. C. Clark, U. S. Weather Bureau; Jerome Lederer, Aero Insurance Underwriters; and C. H. Warrington, Sportsman Pilot Association. During the

course of the meetings some 28 other individuals<sup>17</sup> actively participated in behalf of their widely varied aviation interests.

The fruits were a reduction of the width of the civil airways from 50 to 20 miles, a sound dividing line between contact and instrument flying, a genuine recognition of the private pilot's use of the civil airways, and the beginning of a system whereby the high collision hazard and slaughter of the highway can be avoided in the air. In addition the Airways Operation Advisory Committee was made permanent and subject to call. It functioned in connection with the May 31, 1938, revision of the CAR, and it has met as late as December 5, 1938.

#### V. REVISION OF MAY 31, 1938

By March and April of 1938 sufficient experience had been had to show the necessity of certain revisions. Also the functioning of a permanent system of aviation information interchange, described earlier, was under way. Meetings had been held with the manufacturers committee, the operators committee of the airlines, the schools, the private fliers and others. An airport conference, national in scope, had been organized and held at the Bureau of Air Commerce; and it had created a permanent airport committee which has done much valuable work under A. B. McMullen, Chief, Airport Section, Bureau of Air Commerce and Civil Aeronautics Authority. In addition it was necessary to have a complete revised draft of the Civil Air Regulations to meet the deadline of June 1st of the Code of Federal Regulations. Therefore the complete revision of May 31, 1938, was undertaken and promulgated.

Its major changes for pilots concerned simplification of the requirements as to log books, dual controls and demonstration of aircraft, and the classification and utilization of military experience and skill for obtaining civil pilot, instrument and instructor ratings. As to airline pilots the chief changes were a recognition of the special requirements for pilots of water aircraft and the modification of test flight maneuvers with large ships. The airline chapters of CAR 40 and 61 were chiefly revised by adding new regulations with respect to deicers, alternate airports, fuel dumping and con-

17. General Oscar Westover, Chief of the Air Corps, War Dept.; Pres. Charles F. Horner, N.A.A.; Lt. Comdr. A. O. Rule, Navy Dept.; Maj. Wallace G. Smith, Air Corps, War Dept.; Maj. Wm. B. Souza, Air Corps, War Dept.; Maj. Clyde V. Flinter, Air Corps, War Dept.; Maj. Fred C. Nelson, Air Corps, War Dept.; C. B. Olsen, U. S. Coast Guard; Mr. Edward G. Hamilton, A.L.P.A.; Fred L. Smith, N.A.A.; Cyril C. Thompson, United Air Lines; B. E. Cole, Airlines Charter Service; O. J. Whitney, O. J. Whitney, Inc.; F. E. Caldwell, United Air Lines; W. J. Addams, United Air Lines; Hugh L. Smith, American Airlines; George Mace, American Airlines; Roy D. Mitchell, American Airlines; Earl D. Mallery, American Municipal Association, George M. McCabe, American Airlines; John A. Collings, T.W.A.; H. H. Gallup, T.W.A.; L. G. Fritz, T.W.A.; Louis Inwood, Interstate Commerce Commission (now Air Safety Board, C.A.A.); H. O. Young, Canadian Colonial Airways, Ltd.; Walter C. Clayton, Aeronautical Chamber of Commerce; Claude F. King, Cleveland Airport; D. M. Little, U. S. Weather Bureau.

tinued flight with certain instruments out of repair. These chapters were in some respects made more specific here and there at the request of the airlines and the editorial committee of the Bureau then commented, as it had before, that such detailed rules would rise to plague the persons who requested them. Of course those to be regulated are always in the dilemma of having to find the proper place between broad general powers in the regulating agency and specific, detailed regulations which cannot possibly fit all instances.

The air traffic rules were revised by the addition of the geographical designation of all the airways, the traffic areas, the control zones, the radio fixes and the restricted areas, so that for the first time a pilot was able to find within one document all he needs to know with reference to a given flight. Even so CAR 60 now only contains 50 pages and since the new CAR 20—Pilots contains but 22 pages, no pilot need be burdened by more than these two documents with a total reading matter of 72 pages. The bulk of the regulations is gone. For the May 31st revision the first copies contained all of the CAR Parts bound together, but this was because of the requirements of the Code of Federal Regulations. Now the several Parts have been separated and there is no more need for carrying the whole CAR than there would be to encumber your cockpit on each flight with all the aeronautical charts of the United States. On the other hand, it is most unfortunate that, due to first-things-first, ACM 20 (now CAAM 20) was not completed by Air Commerce and has not been to date. It was one of the Manuals planned at the beginning of the CAR and its purpose is to interpret CAR 20 and put it in narrative form, with a special division for the private flier.

On August 20, 1938, the Civil Aeronautics Authority adopted and promulgated the May 31, 1938, CAR with certain amendments as to substance and nomenclature made necessary by the Civil Aeronautics Act of 1938. Since then a new CAR 24—Mechanics has been put out to meet moving conditions, and it was evolved in the manner of its prototype. Numerous minor amendments to CAR 04—Airplane Airworthiness, have been made in like manner. CAR 20.55 has been amended to reduce Class 1 aircraft from 1500 to 1300 pounds to give proper status to the new 50-horse power light aircraft. Times and situations will bring many other changes, but if there is through it all the same cooperative planning the original CAR had, aviation will be well served.