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CIVIL AIR REGULATIONS REVISED

Important Changes in Parts 20, 24, 51, 52, and New Part 53, Become Effective May 1

To bring the Civil Air Regulations into conformity with provisions of the Civil Aeronautics Act of 1938 and to simplify and clarify them wherever feasible at this time, the Civil Aeronautics Authority has adopted a group of amendments revising parts 20, 24, and 52, adding new parts 51 and 53, and deleting parts 23 and 25. The amendments are effective May 1, 1940.

Each part is being printed separately, and copies will be available early in April. Those affected by any of the regulations may obtain copies of the applicable Parts by addressing a request to the Correspondence Unit, Civil Aeronautics Authority, Washington, D. C. Others who desire copies may obtain them at a nominal cost from the Superintendent of Documents, United States Government Printing Office, Washington, D. C.

A brief description of the major changes and additions follows.

Pilot Certificates: Part 20 and Section 60.50

The duration periods of pilot certificates and the methods of renewal and reinstatement of such certificates have been changed. Under the existing regulations, a temporary pilot certificate good for 60 days is issued in the field. The inspector's report of the examination of the pilot is forwarded to the Washington office and, if no objection is found to the issuance of a certificate in the particular case, a "permanent" certificate is issued for 1 year in the case of a student or private pilot and for 6 months in the case of a commercial pilot. Thereafter each year, or in the case of a commercial pilot, each 6 months, the pilot presents his certificate for renewal with a record of his flying time and physical examination and the inspector takes up the old certificate and issues a new one.

In order to eliminate delay in the issuance of permanent certificates and also the cost of issuing renewal certificates, new duration clauses have been prescribed in all of the amendments affecting the issuance of certificates.

Under the revision a permanent pilot certificate will be issued in the field. The inspector's report of the examination of the pilot will be forwarded to the Washington office and, if within 60 days the holder is not notified of any objection, the certificates will be of indefinite duration. Thereafter, each year, in the case of student or private pilots, and each 6 months, in the case of commercial pilots, (these periods are referred to in the regulations as the "endorsement period") the pilot will present his certificate for endorsement along with a record of his flying time and physical examination to an inspector. The inspector, upon approval, will endorse the certificate, thus continuing it in effect for an additional endorsement period. The requirements for securing an endorsement are substantially the same as the requirements for renewal prescribed in the present regulations.

If the pilot fails to secure an endorsement at the end of the endorsement period, or after a reexamination by an inspector at any time, his certificate automatically expires. There is no provision in the revised part for reinstatement of a certificate or for rerating after a lapse. However, practically the same thing is provided for in section 20.35 of the revised regulations, which is entitled "Special issuance of certificates."

Under the existing regulations any aircraft flight area limitation imposed upon the special ratings held by a pilot appeared on the face of the pilot certificate and were a part of it. Under the revision each certificate, except a student certificate, will be accompanied

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CIVIL AERONAUTICS AUTHORITY:

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Civil Air Regulations Revised

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by an airman rating record (sec. 20.60) which will contain these limitations and ratings. This will facilitate the issuance and alteration of ratings without the necessity of issuing new certificates in each instance.

The solo pilot classification has been eliminated by the revised regulations. No solo pilot certificates will be issued after May 1, 1940 (the effective date of the amendment), nor will any such certificate be endorsed to continue in effect beyond 1 year of such effective date. Upon the expiration of the solo pilot certificates, their holders, if not qualified for a private certificate, will drop back to the student category.

In line with the amendment eliminating the solo pilot classification, certain changes have been made in the flight area limitations now prescribed for student pilots. Under the existing regulations student pilots are permitted to fly solo within 25 miles of their point of take-off, and a solo pilot may fly solo without limitations as to flight area. Under the revision a student pilot will be permitted to fly only in the vicinity of his instructor's operating base for his first 8 hours, but then, after approval by his instructor, will be permitted to fly solo within 50 miles of his instructor's base. This change will permit a student to obtain the solo cross-country experience necessary to make application for a private pilot certificate.

The limited-commercial pilot classification has been eliminated also. No limited-commercial pilot certificates will be issued after May 1, 1940 (the effective date of the amendment), nor will any such certificates be endorsed to continue in effect beyond 2 years of such effective date. Upon the final expiration of limited-commercial pilot certificates, their holders, if not qualified for a commercial certificate, will drop back into the private pilot category.

The 2-year interval from the effective date of the revision to the final elimination of limited-commercial pilot certificates was provided so as not to cause any undue hardship to any individuals dependent on such a certificate for income or livelihood who might have difficulty in meeting all requirements for the regular commercial certificate in a period of 1 year or less.

Mechanic Certificates: Part 24

The present part 24 provides for the certification and regulation of aircraft and aircraft engine mechanics, and present part 25 provides for the certification and regulation of parachute riggers. The revision combines the regulations with respect to mechanics and parachute riggers into one part, part 24. This revised part provides for the issuance of one certificate, a mechanic certificate having three ratings, (*a*) aircraft mechanic rating, (*b*) aircraft engine mechanic rating, and (*c*) parachute rigger rating. These ratings will be set forth on an airman rating record which is provided for by the revision.

Under the present regulations mechanic ratings held by a certificated mechanic constitute a part of the mechanic certificate. Under the revision an airman rating record will contain these ratings and a mechanic certificate will not be valid unless accompanied by an airman rating record. This will facilitate the issuance and alteration of ratings without the necessity of issuing new certificates in each instance.

Those sections which have been changed materially are described in the following paragraphs, identified by the section numbers of the existing regulations. The only material change in section 24.104, aeronautical knowledge, is that whereas this section now requires an applicant for an aircraft mechanic certificate to be familiar with the provisions of parts 00, 01, 02, 04, 14, 15, 18, and 24, the revision provides that he need only be *generally* familiar with the provisions of parts 04 and 15, and *thoroughly* familiar with the provisions of section 60.32, the provisions of part 01, dealing with aircraft airworthiness, and the provisions of parts 18 and 24.

The only material change in section 24.114, aeronautical knowledge, is that whereas this section now requires an applicant for an aircraft engine mechanic certificate to be familiar with the provisions of parts 00, 01, 02, 04, 13, 14, 15, 18, and 24, the revision provides that he need only be *generally* familiar with the provisions of parts 04, 13, and 14, and *thoroughly* familiar with the provisions of part 01 dealing with aircraft airworthiness and the provisions of parts 18 and 24. Knowledge of part 00, part 02, identification marks, and part 15, aircraft equipment airworthiness, is not required.

Section 25.14 requires an applicant for a parachute rigger rating to have packed 20 or more parachutes under the supervision of a certificated parachute rigger. No aeronautical knowledge or skill requirements are prescribed. The revision prescribes the following new requirements:

"*24.220 Aeronautical knowledge.*—Applicant shall have theoretical and practical knowledge of parachutes, shall know how to properly pack, inspect, maintain, and repair the same and shall be familiar with the provisions of part 24 and the applicable provisions of part 15.

"*24.222 Aeronautical skill.*—Applicant shall satisfactorily demonstrate, by means of written, oral, and practical tests, his ability with respect to the subject matters prescribed in § 24.220."

Section 24.203 provides that in the discretion of the Authority an identification card may be issued with any mechanic certificate. This identification card formerly contained a picture of the holder as well as his physical description. Since identification cards have not been used since September 29, 1939, the revision strikes this provision. A description of the holder will be contained on the face of the certificate.

The display provisions in the current regulations (secs. 24.23 and 25.23) require a mechanic to keep his certificate in his personal possession while on duty. The revision provides that the certificate only be kept readily available.

The duration of mechanic and parachute rigger certificates and the methods of renewal of such certificates have been changed. Under the existing regulations, a temporary mechanic or parachute rigger certificate is issued in the field and expires 60 days after issuance. The inspector's report of the examination of the mechanic or parachute rigger is forwarded to the Washington office and, if no objection is found to the issuance of a certificate in the particular case, a "permanent" certificate is issued for 2 years. Thereafter, each 2 years the mechanic or parachute rigger presents his certificate for renewal with a record of his service under his certificate and the inspector takes up the old certificate and issues a new one.

Under the revision a permanent certificate will be issued in the field. The inspector's report of the examination of the mechanic will be forwarded to the Washington office and, if within 60 days the holder is not notified of any objection, the certificate will be of indefinite duration. Thereafter, each 2 years the mechanic will present his certificate for endorsement with a record of his service under his certificate and the inspector, upon approval, will endorse the certificate, thus continuing it in effect for an additional endorsement period. The requirements for securing an endorsement are substantially the same as the requirements for renewal prescribed in the present regulations.

If the mechanic fails to secure an endorsement at the end of the endorsement period, or after a reexamination by an inspector at any time, his certificate automatically expires.

The last four sections of the current part 25 contain a list of the facilities which a parachute rigger must have in order to repair and pack parachutes and prescribes the kinds of repairs he may make. The revision consolidates these four sections into the last two sections of part 24.

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Trans-Atlantic Weather Station Now in Operation

To Conduct Communications for Protection of Aircraft in Transoceanic Services

Radio station WSY, the Civil Aeronautics Authority's first high-power transoceanic communication station, is now in operation 24 hours a day providing additional safeguards for the operation of air services across the North Atlantic.

The high-frequency transmitters are located at Sayville, Long Island, and the receiving equipment at Barnegat, N. J. All of the equipment, however, is operated by remote control from the airways operation office on New York Municipal Airport (La Guardia Field) at North Beach by means of a land-wire hook-up.

A comprehensive plan has been formulated whereby the Coast Guard, in cooperation with the Authority and other Federal agencies, in any emergency is prepared without an instant's delay to direct rescue operations or effect precautionary measures. Messages received from aircraft in distress or requiring assistance will be relayed to the Coast Guard, along with the aircraft's position and any other related information.

By means of a "ship movement board," which provides a running record of the position and course of all vessels plying the Atlantic shipping lanes, the Coast Guard can determine which ships are nearest the distressed plane and transmit appropriate instructions through its marine radio system. This is an essential safeguard, for even though an aircraft were equipped to communicate directly with nearby vessels, its radio operator in an emergency might lack the time or information required to broadcast on the particular frequencies which could be picked up by various surface craft in the vicinity.

Routine operation of the station will fall into the following five categories:

A. Meteorological (express high speed).

B. Meteorological (local).

C. Aircraft to ground and ground to aircraft.

D. Point to point (foreign) and radio direction finding.

E. Domestic communications.

Test operation was started early this year and on February 16 regular operation was begun. Since that time, with the cooperation of the Weather Bureau, meteorological services have been supplied. It is anticipated the remaining services will also be in full operation sometime in April. The weather service will consist of transmission and reception of meteorological data for the preparation of maps and forecasts four times daily, in addition to the information required by pilots of aircraft preparatory to arriving or departing from the area. Communications are to be conducted with aircraft in flight, and will include position and operational messages in addition to such meteorological data as is necessary.

Later, point-to-point service will be conducted with foreign stations located at terminals and landing points on the trans-Atlantic routes. A limited amount of point-to-point service will be conducted with stations in the North American continent which are not connected to the continental teletype system. In general, telegraphic transmission will be used for all communications.

The equipment of WSY comprises the largest single radio installation of the Authority. The construction was accomplished by the Airways Engineering Division of the Bureau of Federal Airways. Operation and maintenance of the station will be conducted by the first regional office in accordance with procedures worked out by the Airways Engineering and Airways Operation Divisions.

At the Sayville plant there are now four 4-kilowatt transmitters and two 400-watt transmitters, and next year two 20-kilowatt transmitters will be added. Approximately 20 directive antennas and several small buildings housing the transmitters and other equipment occupy a 100-acre tract. Diamond-shaped antennas are variously pointed toward Newfoundland, several points in Europe, the Azores, and Bermuda, forming a fanlike pattern of beams. A pair of vertical radiator antennas forming a directive pattern eastward is used for contacting aircraft in flight in the more immediate vicinity of the station. Various combinations of transmitters and antennas can be utilized for simultaneous transmissions of separate messages in different directions.

At Barnegat, which is regarded by radio experts as one of the best points for European reception south of Maine, the receiving antennas form a veritable maze of wires spread over a 600-acre area. Ten highly sensitive diversity receivers are installed. Located as they are on the Jersey shore, they are relatively free of interference from the numerous powerful transmitters on Long Island. With this type of receiver the pick-up of several antenna-receiver combinations is combined. This largely eliminates the undesirable phenomenon of fading, because experience has shown that although signals may fade on one antenna-receiver combination, rarely will signal strength drop sufficiently on all the units to seriously hamper telegraphic code reception.

The first of the Authority's automatic direction-finding stations is also nearing completion. Its operation will provide an important complement to the usefulness of the transoceanic control station. Unlike conventional direction-finders employed heretofore, which required movement of a rotating element until the bearing of a radio signal was determined by maximum or minimum signal strength, this new type of direction finder automatically indicates by means of a flashing light on a 360° graduated dial in the control room at the airport the bearing of the aircraft or other radio station from which the signal is being received. The antenna-receiver combination for this purpose is located near Floyd Bennett Field, about 12 miles from La Guardia Field.

Directional indications obtained with this equipment will be transmitted over WSY at appropriate intervals to any aircraft seeking bearings. Such service will be available to aircraft on domestic flights in the northeastern part of the United States as well as to transoceanic traffic.

Construction of two more transoceanic communication stations, one in the San Francisco area and another in Hawaii, to provide services similar to those of WSY for the assistance of aircraft operating in the Pacific, is scheduled to begin as soon as funds are available.

Canadian Government Issues Regulations Regarding Flying of Civil Aircraft in Canada During War

For the information and guidance of American pilots who may have reason to fly in Canada while the war is in progress, the full text of the regulations to control the flight of civil aircraft issued by the Department of Transport of the Dominion of Canada is carried herewith.

Attention is called to the notice which appeared on page 2 of the CIVIL AERONAUTICS JOURNAL, volume 1, No. 1, dated January 1, 1940, describing the Authority's pamphlet, "Procedure for obtaining permission to fly American registered aircraft in foreign countries." In this memorandum the Authority explains the special procedure established for entering Canada during the war period.

Interested persons may obtain copies of the Canadian regulations or the procedure outline by addressing the Correspondence Unit, Civil Aeronautics Authority, Washington, D. C. Actual applications for authorization to make foreign flights, however, should be addressed to the International Division of the Authority.

Regulations to control the flying of civil aircraft in Canada during war

1. These regulations may be cited as "The Defence Air Regulations, 1939."
2. No foreign civil aircraft shall be flown over Canada or Canadian waters, as defined by the Customs Act, unless—

   (*a*) Such aircraft is operated on an international scheduled air transport service licensed by the Minister of Transport under part VII of the Air Regulations, 1938, or

   (*b*) Permission for the entry of such aircraft into Canada has been given by the district inspector of civil aviation of the Department of

(Continued on page 72)

PRIVATE FLYING

THE CIVILIAN PILOT TRAINING PROGRAM

College Trainees Amass 80,000 Hours—One-third of Students Now Soloing—7,000 Noncollege Trainees Enrolled in Ground Courses—Majority of Last Year's Graduates Continue Flying

As of February 8 the 9,267 college students in the Civilian Pilot Training Program had amassed a total of 80,000 flying hours without serious accident, according to an Authority progress report on the project dated February 18.

At the time of the report more than one-third of the students had already reached the solo stage and had logged a total of approximately 12,000 solo hours.

One student, in the Washington, D. C., area, had completed the entire controlled private pilot course and passed the required flight test.

In the noncollege phase of the program, which got under way after the first of the year, a total enrollment of over 7,000 was reported in the 75 ground-school courses being conducted in each of the 48 States and in Alaska. At the end of these ground school courses students from each community will be selected, on the basis of a competitive examination, for flight training. Despite the fact that only 760 students can be given flight training, the records show that over 5,000 of those enrolled intend to compete for the flight scholarships.

Results of a survey of the post-graduate aviation activities of the college students trained last year in the Authority's experimental pilot-training program were also included in the report. This survey revealed that some 224 of the 313 young men who received their private pilot certificates early last summer had continued with their flying and as of February 8, 1940, these pilots had, since receiving their certificates, averaged more than 24 hours' flying time each for a total logged time of more than 3,000 hours. In making the survey the Authority mailed questionnaires to the 313 pilots and received answers from 256.

Last year's experimental program, in which 330 students at 13 colleges participated, was the forerunner and actual testing phase of the current Nation-wide program in which more than 9,000 students at 435 schools are participating.

Replying to questions on their future plans, 102 of the 256 answering the questionnaire expressed a determination to purchase airplanes; 100 indicated a desire to go on with military training; 81 were determined to enter commercial aviation; and 55 wished to continue pleasure flying.

A total of 69 of the graduates had applied for military service either in the Army Air Corps or in naval aviation. Of these, 30 had been accepted and the applications of the others were still pending.

Additional information on the results of the survey is shown in the table at the bottom of this page which lists the data obtained by individual schools.

Commenting on the report, Robert H. Hinckley, Chairman of the Civil Aeronautics Authority, said:

"This is an extremely gratifying report. It is gratifying because of the serious way in which these young people have approached their task.

"If these young men and women continue with this serious approach to the problem of learning how to fly, we will have, by the end of the school year, what we sought for . . . namely, almost 10,000 pilots who not only know how to fly but how to fly safely.

"The determination expressed by the graduates of last year's preliminary course to purchase airplanes and to continue flying, whether in military or civil work and whether for their own pleasure or for business, indicates the need for the advanced training which we hope to give as many of this year's graduates as appropriations will permit. We are already developing our plans for advanced training of some of last year's graduates in some 19 schools."

New Definition of Acrobatics Adopted

The Authority has broadened its definition of acrobatic flight as given in the Civil Air Regulations. By an amendment (No. 41) of the regulations adopted on February 13 to become effective on March 1, 1940, the two sections (60.152 and 98.104) defining acrobatics are changed to read as follows:

"Acrobatics (acrobatic flight).—Acrobatics are unnecessary flight evolutions voluntarily performed with an aircraft requiring or resulting in an abrupt change in its attitude, an abnormal atti-

Data returned by vocational pilot trainees in the experimental phase of the program conducted by the Civil Aeronautics Authority during the fiscal year 1939

Name of institution	Pilots certified	Questionnaires returned	Continuation of flying since certification		Future plans			Military applicants						Plan to buy planes
			Hours and minutes flown	Number who have flown	Pleasure flying	Commercial aviation	Military	Air Corps			Naval aviation			
								Applied	Accepted	Pending	Applied	Accepted	Pending	
University of Alabama	30	29	384 00	23	7	10	10	4	3	1	4	1	3	17
Georgia School of Technology	28	23	354 35	22	8	7	7	3	----	3	3	2	1	11
University of Kansas	20	19	270 30	17	8	6	1	1	----	1	1	1	----	11
Massachusetts Institute of Technology	18	17	101 10	14	8	6	2	1	1	----	----	----	----	5
University of Michigan	19	15	176 30	13	1	11	3	2	1	1	3	1	2	11
University of Minnesota	20	18	197 10	16	6	4	7	6	4	2	2	1	1	4
New York University	26	23	139 10	20	6	8	8	3	2	1	----	----	----	10
North Carolina State College	20	12	282 30	11	----	3	8	1	----	1	1	1	----	5
Northern Texas Agricultural College	29	21	235 18	18	----	4	15	7	3	4	1	----	1	7
Pomona Junior College	14	12	138 40	10	----	4	7	4	1	3	2	----	2	2
Purdue University	50	40	602 40	35	9	12	14	7	2	5	7	4	3	13
San Jose State College	15	13	132 49	11	1	4	8	1	1	----	----	----	----	1
University of Washington	24	14	74 19	14	1	2	10	----	----	----	5	1	4	5
Total	313	256	[1]3,089 21	224	55	81	100	40	18	22	29	12	17	102

[1] Average flight time per student since the completion of the experimental phase of the Civilian Pilot Training Program: 24.238 hours.

tude, or operations in excess of the aircraft's design level flight speed (placard value). A normal bank not in excess of 70° will not be considered as an abrupt change in the aircraft's attitude or as an abnormal attitude."

The former definition of acrobatics in the regulations stated they were "evolutions voluntarily performed with an aircraft other than those required for normal flight."

Certificated Schools and Repair Stations

Schools Issued Certificates of Competency

Buffalo Aeronautical Corporation, Buffalo Airport, Buffalo, N. Y., approved January 2, 1940, as a primary flying School (solo, private).

Lynchburg Air Transport & Sales Corporation, Preston Glenn Airport, Lynchburg, Va., approved January 17, 1940, as a primary flying school (solo, private).

Lewis Holy Name School of Aeronautics, Route No. 66, Lockport, Ill., approved January 12, 1940, as an advanced flying school (commercial, limited commercial, private, and solo).

Cal-Aero Corporation, 1224 Air Way, Glendale, Calif., approved January 12, 1940, as an advanced flying school (commercial, limited commercial, private, and solo).

Change in List of Schools Issued Certificates of Competency

Change address of Spartan School of Aeronautics, branch of Spartan Aircraft Co., to 6900 East Apache Road, Tulsa, Okla.

Repair Stations Issued Certificates of Competency

Aviation Sales and Service, Albert Whitted Airport, St. Petersburg, Fla., approved January 2, 1940, for repair of welded steel-tube structure; steel fittings; and assembly.

Caldwell Wright Airport, Inc., Caldwell, N. J., approved January 27, 1940, for repair of welded steel-tube structure; steel fittings, aluminum alloy structure, aluminum alloy fittings, assembly, and engines.

Midwest Aviation Corporation, Norton Field, Columbus, Ohio, approved January 26, 1940, for repair of welded steel-tube structure, excluding fittings; wood structure, excluding box and laminated spars, wood-covered fuselages, wings, and control surfaces; fabric covering; assembly; and engines.

Plane Owners Service, Inc., Roosevelt Field, Mineola, Long Island, N. Y., approved January 26, 1940, for repair of welded steel-tube structure, excluding fittings; wood structure, excluding box and laminated spars, wood-covered fuselages, wings, and control surfaces; fabric covering; and assembly.

Precision Aeromotive Corporation, Municipal Airport, Houston, Tex., approved January 15, 1940, for repair of steel fittings; and engines.

Reading Aero Service; Reading Municipal Airport, Reading, Pa., approved January 17, 1940, for repair of welded steel-tube structure; wood structure, excluding box and laminated spars, wood-covered fuselages, wings and control surfaces; fabric covering; steel fittings; aluminum alloy structure, excluding fittings; and assembly.

Ronan & Kunzl, Brooks Field, Marshall, Mich., approved February 7, 1940, for repair of welded steel-tube structure; wood structure; wood-covered fuselages, wings, and control surfaces; and box and laminated spars; steel fittings; assembly; and engines.

Tennessee Aero Corporation, municipal airport, Nashville, Tenn., approved January 29, 1940, for repair of welded steel-tube structure, excluding fittings; wood structure, excluding box and laminated spars, wood-covered fuselages, wings, and control surfaces; fabric covering; and assembly.

Changes in List of Repair Stations Issued Certificates of Competency

Delete Cram Flying Service, Olympia, Wash.

Delete Pan American Airways, Inc., Isla Grande Airport, San Juan, Puerto Rico.

Civil Air Regulations Revised

(Continued from page 66)

Ground-Instructor Ratings: Part 51

The duration period of a ground-instructor certificate and the methods of renewal and reinstatement of such certificate have been changed. Under the existing regulations a temporary ground-instructor certificate is issued in the field and expires 60 days after issuance. The inspector's report of the examination of a ground instructor is forwarded to the Washington office and, if no objection is found to the issuance of a certificate in the particular case, a "permanent" certificate is issued which is of 12 months' duration. Thereafter, each 12 months the ground instructor presents his certificate for renewal, and upon approval the inspector takes up the old certificate and issues a new one.

Under the revision, a permanent certificate will be issued in the field. The inspector's examination report will be forwarded to the Washington office and, if within 60 days the holder is not notified of any objection, the certificate already issued will be of indefinite duration. Thereafter, each 2 years the instructor will present his certificate for endorsement instead of renewal, and upon the inspector's endorsing the certificate it will be continued in effect for an additional endorsement period. The requirements for securing an endorsement are substantially the same as the requirements for renewal prescribed in the present regulations.

If a ground instructor fails to secure an endorsement at the end of an endorsement period, or after a reexamination by an inspector at any time, his certificate automatically expires. There is no provision in the revised part for reinstatement of a certificate. However, practically the same thing is provided for in section 51.24 of the revised regulations, which is entitled "Special issuance."

There is no provision in the present regulations for rating ground instructors with respect to the subjects they are found competent to teach. This is now provided for by means of a ground instructor rating record, which will accompany the certificate and specify such subject or subjects.

Repair Station Rating: Part 52

The requirements necessary to obtain a repair station certificate remain the same. The only change is that a repair station must have its own adequate system of inspection. This provision requires a repair station to establish a method of inspection whereby all major repair work will be inspected by a person other than the one making the repair and a record of such inspection maintained.

Requirements as to personnel, facilities, equipment, and material necessary for each rating have been removed from the regulations and placed in a separate manual which is obtainable from the Correspondence Unit.

The duration of the certificate has been changed. The certifictae will be issued by the inspector in the field upon completion of his inspection and approval of the repair station. The inspector's report of the examination of the repair station will be forwarded to the Washington office and if, within 60 days, the holder is not notified af any objection, the certificate will be of indefinite duration.

This revision provides that a repair station rating record must accompany each certificate. This rating record will set forth the type of work for which each repair station is approved. The ratings will not appear, as formerly, upon the face of the certificate, but will be prescribed in the rating record. The Authority has prescribed and will furnish a form upon which application may be made to amend the rating record.

Mechanic School Rating: Part 53

The amendment adding part 53 is entirely new, and provides for the rating and certification of civilian schools giving instruction in aircraft and aircraft engine mechanics. The new regulation prescribes minimum acceptable curricula, qualifications of instructors, facilities and equipment, and standards of instruction. In addition, a related manual is being prepared laying down standards of approval to cover the courses to be included in the curriculum of, and the facilities, equipment, and material necessary for such schools. This manual will be obtainable from the Correspondence Unit.

MANUFACTURING AND PRODUCTION

CIVIL AIRCRAFT PRODUCTION IN 1939

Number of airplanes built doubles 1938 total

A total of 3,715 aircraft were manufactured in the United States for domestic civil use during 1939 according to figures compiled by the Civil Aeronautics Authority. This represents an increase of 104 percent above the corresponding production in 1938, when 1,823 such aircraft were produced.

The small so-called "light plane" accounted for by far the greatest part of the increase. This is clearly indicated in the accompanying tables A, B, and C, in which the aircraft production figures are broken down according to types, weight, and engine horsepower.

TABLE A.—**Domestic civil aircraft production by types**

	1939	1938
Landplanes:		
1-2 place:		
Single engine	3,114	1,484
Multiengine	4	3
3-5 place:		
Single engine	456	257
Multiengine	9	1
6-20 place:		
Multiengine	21	25
22 place and over:		
Multiengine	55	17
Seaplanes:		
Single engine	43	25
Multiengine	8	1
Amphibians:		
Single engine	0	3
Multiengine	5	7
Total single engine	3,613	1,770
Total multiengine	102	53
Grand total	3,715	1,823

Table A shows civil aircraft production by types, with the three classifications landplanes, seaplanes, and amphibians further broken down according to seating capacity of the craft and whether single or multiengine. It will be noted that the small 1–2-place single-engine landplanes built during the year numbered 3,121, an increase of 1,637 over the 1,484 manufactured in 1938. The next largest increase was in the 3–5-place single-engine group, with 456 in 1939 as against 257 in 1938. Increases were also registered in all other type classifications except multiengine 6–20-place landplanes and both single and multiengine amphibians.

Table B shows the production by weight and engine classifications. The greatest numerical increase is in the lightest weight group, class I (not more than 1,300 pounds), again indicating that the major part of the increased production over 1938 was in the light-plane category. In the two heaviest groups, class IVM (10,000–25,000 pounds multiengine) and class V (more than 25,000 pounds), there were 60 and 12 ships built in 1939 as against 30 and 2 respectively in the previous year. These ships are produced almost exclusively for air line use.

TABLE B.—**Domestic civil aircraft production by weight and engine classification**

	1939	1938	Percent of increase or decrease
Class I (not more than 1,300 pounds)	3,029	1,363	+122
Class IIS (1,300–4,000 pounds single engine)	526	348	+51
Class IIM (1,300–4,000 pounds multiengine)	3	2	+50
Class IIIS (4,000–10,000 pounds single engine)	56	57	−2
Class IIIM (4,000–10,000 pounds multiengine)	26	19	+37
Class IVS (10,000–25,000 pounds single engine)	2	2	0
Class IVM (10,000–25,000 pounds multiengine)	61	30	+103
Class V (gross weight in excess of 25,000 pounds)	12	2	+500
Total	3,715	1,823	+104

Table C, which lists the aircraft according to engine horsepower, showed similar increases in the light-plane range. During the year a total of 3,037 ships with engines of 70 horsepower or less was produced as compared with 1,373 in 1938. Particularly noteworthy is the fact that of these low-powered craft built in 1939, some 1,323 had engines in the 51–70-horsepower category as against a mere 23 in the previous year.

Additional details on the 3,715 aircraft built during the past year, as well as comparisons with the 1938 totals, are shown in tables A, B, and C.

TABLE C.—**Domestic civil aircraft production by engine horsepower**

	1939	1938
50 H. P. and under:		
Single engine	1,684	1,348
Multiengine	2	2
51-70 H. P.:		
Single engine	1,349	23
Multiengine	0	0
71-100 H. P.:		
Single engine	311	61
Multiengine	0	0
101-165 H. P.:		
Single engine	119	149
Multiengine	1	0
166-225 H. P.:		
Single engine	8	16
Multiengine	1	0
226-300 H. P.:		
Single engine	82	116
Multiengine	4	6
301-600 H. P.:		
Single engine	54	40
Multiengine	22	14
601-1,800 H. P.:		
Single engine	6	17
Multiengine	72	31
Total single engine	3,613	1,770
Total multiengine	102	53
Grand total	3,715	1,823

Certifications

New Type Certificates

[*Certificate numbers and dates of assignment in parentheses*]

AIRCRAFT

Waco, ARE, 5-place closed land biplane. Jacobs L-6 engine (714, February 1, 1940).

APPLIANCES

Jacobsen, skis, model EAS-100, birch and fir pedestal with ash runner. Approved static load per ski 600 pounds (129, January 3, 1940).

Triumph explosives, landing flares, model T8, class I (130, January 9, 1940).

PROPELLERS

Aero Engineering, A3-1B hub, steel, controllable pitch, 700 horsepower, 1,950 r. p. m. (732, January 3, 1940).

Stone, Supreme 424A, wood, 5-foot 10-inch diameter, 3-foot 0-inch pitch, 75 horsepower, 2,650 r. p. m. (733, January 18, 1940).

Sensenich, 70D, wood, 5-foot 10-inch diameter, 3-foot 8-inch to 3-foot 2-inch pitch, 75 horsepower, 2,650 r. p. m. (734, February 2, 1940).

Aircraft Radio Equipment Approved for Scheduled Air Carrier Use

During the month of January the following units of aircraft radio equipment were approved by the Authority for scheduled air carrier use and issued type certificates.

Certificate No.	Manufacturer	Unit	Date
236	RCA Manufacturing Co	AVA-53A crystal holder	Jan. 2
237	do	AVA-53A crystal unit	Do.
238	do	AVA-53B crystal holder	Do.
239	do	AVA-53B crystal unit	Do.
441	do	AVA-51B vibrator power unit	Jan. 25
442	do	AVA-51C vibrator power unit	Do.
282	Collins Radio Co	51 G1 and 51 G2 RF unit, aircraft communication receiver.	Jan. 2
283	do	51 G-3 IF-AF unit, aircraft communication receiver	Do.
242	Western Electric Co	29-A radio receiver	Jan. 29
411	American Airlines Inc.	R4075 electrical frequency selector box	Jan. 25

AIRWAYS AND AIRPORTS

Landing Facilities and Charts

Airports and Landing Fields on February 1, 1940

Municipal airports	639
Commercial airports	456
Civil Aeronautics Authority intermediate fields	269
Army airdromes	60
Navy, Marine Corps, and Coast Guard stations	21
State-operated fields	45
Marked auxiliary fields	671
Private fields	100
Fields for miscellaneous Government activities	26
Total	2,287
Airport and landing fields having any night lighting equipment:	
Municipal	296
Commercial	91
Intermediate	268
Army	34
Navy	12
State	8
Auxiliary	24
Private	7
Total	740

Seaplane Bases on February 1, 1940

Navy	13
Coast Guard	10
Army	2
Marine Corps	1
Other seaplane bases and anchorages	153
Total	179
Seaplane bases having any night lighting equipment:	
Navy	1
Coast Guard	1
Other bases and anchorages	7
Total	9

Aeronautical Charts

New editions of aeronautical charts were announced by the Coast and Geodetic Survey during December 1939, and January 1940, as follows. Pilots are warned that previous editions of the same charts are canceled and now obsolete.

REGIONAL AERONAUTICAL CHART

14-M.—December 1939. Size, 26 by 45 inches. Located in latitude 32°-38° north and longitude 75°-87° west, covering an area of about 295,000 square miles. Includes changes in air navigation facilities.

DIRECTION FINDING AERONAUTICAL CHARTS

21-DF.—December 1939. Size, 28 by 36 inches. Located in latitude 37°-49° north and longitude 102°-125° west, an area of about 987,000 square miles. Numerous changes in radio facilities.

22-DF.—December 1939. Size, 25 by 34 inches. Located in latitude 38°-49° north and longitude 85-°108° west, covering an area of some 225,600 square miles. Contains numerous changes in radio facilities.

25-DF.—January 1940. Size, 22 by 36 inches. Located in latitude 26°-40° north and longitude 88°-117° west, an area of some 850,000 square miles. Shows a number of changes in radio facilities.

SECTIONAL AERONAUTICAL CHARTS

Albany.—January 1940. Size, 22 by 28 inches. Located in latitude 41°-44° north and longitude 69°-72° west, covering an area of about 20,000 square miles. Contains an accumulation of changes since the last edition.

Huntington.—January 1940. Size, 20 by 43 inches. Located in latitude 38°-40° north and longitude 78°-84° west, an area of about 52,000 square miles. Includes the addition of four radio ranges, located at Huntington, Elkins, Front Royal, and Patterson Field.

Copies of these charts may be obtained from the United States Coast and Geodetic Survey, Washington, D. C., and from recognized dealers at major airports. (For complete list of charts see p. 46, CIVIL AERONAUTICS JOURNAL, vol. 1, No. 3, dated February 1, 1940.) Regional charts sell for 75 cents; direction-finding charts for 75 cents; and sectional charts for 40 cents. On orders grossing $10 or more, including assortments, a 33⅓ percent discount is allowed.

Dealers Appointed

The Coast and Geodetic Survey has appointed two more "recognized dealers" to stock its aeronautical charts for sale. These were as follows:

S. W. Magill, municipal airport, St. Petersburg, Fla.

H. L. Peterson, Williamson-Johnson Airport, Duluth, Minn.

The complete list of recognized dealers was carried in the February 1 issue of the JOURNAL.

Airport Projects Approved

In accordance with the provisions of section 303 of the Civil Aeronautics Act, the Administrator of the Authority has issued certificates of air navigation facility necessity authorizing the expenditure of Federal funds in the operation of the following projects:

Alpine, Tex.—$2,514 for N. Y. A. project for construction of an airplane hangar; and completion of the clearing, leveling, and removal and construction of wire fencing called for by the project appearing on certificate No. 273, dated December 7, 1939, which was to be terminated on approval of this project at municipal airport.

Augusta, Ga.—$175,323 for W. P. A. project for excavating; topsoiling; paving runways and taxiways; relocating and paving roadway within airport limits; installing lighting and drainage systems; lowering water mains; constructing catch basins, sand traps, manholes, fences, and administration building; demolishing, salvaging, moving, reconstructing, and enlarging existing hangar; sodding; planting and performing appurtenant and incidental work at Daniel Field.

Chicago, Ill.—$488,296 for W. P. A. project for complete installation of an airport lighting system at municipal airport.

Clarksburg, W. Va.—$56,772 for W. P. A. project for completion of excavation, grading, drainage, and paving of the NE.-SW. runway at Harrison County Airport.

Grand Rapids, Mich.—$20,588 for W. P. A. project for extending runways, constructing concrete slab and guard rail around administration building, painting hangars and community building, finishing floor in community building, landscaping, altering boundary and range light system, rebuilding T-type hangar, and performance of appurtenant work at Kent County Airport.

Lansing, Mich.—$117,792 for W. P. A. project for completing hangar, excavating, grading, sodding and seeding, constructing concrete aprons, sidewalks, and turn-arounds, clearing, grubbing, surfacing runways and performance of appurtenant work at Capital City Airport.

Manhattan, Kans.—$13,101 for W. P. A. project for construction of an airport hangar and performance of work incidental and appurtenant thereto, and operation of a stone quarry near the site to produce materials for use on this project at municipal airport.

Nashville, Tenn.—$63,482 for W. P. A. project for continuation of project appearing on certificate No. 271, dated December 7, 1939, which called for construction of hangars, aprons, taxi strips and other work, and in addition provides for clearing, grubbing, demolition of a two-story brick residence and three frame barns, concrete header, riprapping, and paving inverts with stone for drainage at municipal airport.

New York, N. Y.—$28,800 for W. P. A. project for construction of a hangar for itinerant landplanes and seaplanes, to be of steel, concrete, and brick at LaGuardia Field.

New York, N. Y.—$1,000,000 for W. P. A. project for completion of items of work included in previous projects, as follows: Construction of bulkheads, retaining walls, administrative buildings, hangars, runways, taxiways, paved areas, and maintenance buildings; extension and alteration of hangars Nos. 1, 3, and 5; installation of additional field lighting and electrical equipment, water supply and sewage disposal systems, storage tanks and pipe lines; erection of trestle from present airport across Rikers Island Channel to Rikers Island; filling; grading; dredging Bowery Bay; installation of radio traffic control and radio range station; and

(Continued on page 73)

Regulations Controlling Flight of Civil Aircraft in Canada During War

(Continued from page 67)

Transport into whose district it is proposed to fly such aircraft.

3. Applications for permission for entry of foreign aircraft into Canada shall be made to the following officers of the Department of Transport in respect of each of the customs airports noted hereunder:

Moncton or Shediac, New Brunswick; Montreal, Province of Quebec.—District inspector, Air Regulations, room 607, 400 Youville Square, Montreal, Province of Quebec.
Hamilton, Toronto, and Windsor, Ontario.—District inspector, Air Regulations, No. 1, Montgomery Avenue, Postal Station "K," Toronto, Ontario.
Winnipeg, Manitoba.—District inspector, Air Regulations, 717 Dominion Public Building, Winnipeg, Manitoba.
Lethbridge, Alberta.—District inspector, Air Regulations, 402 Blowey-Henry Building, Jasper Avenue, Edmonton, Alberta.
Vancouver, British Columbia.—District inspector, Air Regulations, 420 Federal Building, 325 Granville Street, Vancouver, British Columbia.

Permission shall be given under this regulation for daylight flying only.

4. (*a*) No civil aircraft other than an aircraft licensed to operate on a scheduled air transport service as provided under part VII of the Air Regulations, 1938, shall be flown over any of the prohibited areas set forth in schedule A to these regulations without the permission of one of the following officers of the Department of National Defense:

(i) For the Province of Nova Scotia, and prohibited areas within New Brunswick, Prince Edward Island, and Quebec—the air Officer commanding, eastern air command, Royal Canadian Air Force, 17 South Street, Halifax, Nova Scotia.
(ii) For prohibited areas in the Province of Ontario—the air officer commanding, air training command, Royal Canadian Air Force, Prudential House, 55 York Street, Toronto, Ontario.
(iii) For prohibited areas within the Province of Manitoba, Saskatchewan, Alberta and British Columbia—the air officer commanding, western air command, Royal Canadian Air Force, 715 Hastings Street, West, Vancouver, British Columbia.

(*b*) The pilot or other person in charge of any aircraft having obtained permission under paragraph (*a*) of this regulation to fly over any of the said prohibited areas shall facilitate identification of such aircraft from the ground, and to that end the following procedure shall be followed:

(i) The aircraft shall be flown via the route specified by the officer granting permission and shall enter and leave the prohibited area within the time limits named in the permit to enter, and special recognition signals shall be made or displayed, if called for, during the flight.

(ii) The aircraft shall cross the perimeter of the prohibited area with the undercarriage in the "down" position at a height not greater than 2,000 feet above the surface of the ground or water over which the aircraft is being flown at the time.

(iii) The aircraft shall, if it is necessary to land within the prohibited area, proceed in a straight line to the landing area before circling to land.

(iv) The aircraft leaving a prohibited area shall fly clear of that area with the least possible delay after take-off.

5. No civil aircraft shall be flown at night without the permission of the Minister of Transport.

6. (1) No person shall, by means of any radio apparatus installed in any civil aircraft under a license granted by the Minister of Transport under the Radio Act, 1938, transmit or receive any message, except a message relating to the navigation of such aircraft or the safety of life: *Provided*, That the Minister may permit the transmission and reception by means of such radio apparatus of commercial messages under such conditions and restrictions as he may prescribe.

(2) No person shall transmit or receive by means of radio apparatus, installed in any civil aircraft, messages in code or in any language other than English or French.

7. No person shall give or display from any civil aircraft, in flight or on the ground, any signal not authorized by the Air Regulations, 1938.

8. No arms or munitions of war or explosives, other than explosives authorized by the Minister of Transport to be used for signal purposes, shall be carried in a civil aircraft without the permission of the Minister of Transport.

9. No aerial photographs shall be taken from any civil aircraft without the permission of the Minister of Transport, nor shall any photographic apparatus, plates or films be carried in any civil aircraft except as baggage or express, in which case such apparatus, plates, or films shall be locked in a compartment of the aircraft separate from the passengers.

10. In addition to the documents required under paragraph 9 of part VIII of the Air Regulations, 1938, every civil aircraft in flight in Canada, and every aircraft entering Canada on a scheduled air transport service shall have on board a written record showing—

(*a*) The nationality of each passenger and each member of the crew;

(*b*) The immediate and ultimate destination of each passenger;

(*c*) The nature, place of origin, and destination, and the name and address of the consignor and consignee of all cargo carried by such aircraft.

11. Every license or certificate issued under the Air Regulations, 1938, to a pilot or air engineer of other than British nationality, or the nationality of any power allied or associated with His Majesty in the prosecution of the war which commenced on September 10, 1939, shall be suspended upon the coming into force of these regulations unless in the opinion of the Minister of Transport, it is in the national interest that such license or certificate remain in force.

12. No civil aircraft registered in Canada as a private aircraft shall be flown within or beyond Canada without permission of the Minister of Transport.

13. No civil aircraft operating on an international scheduled air transport service, licensed under part VII of the Air Regulations, 1938, shall depart from the air route authorized under such license, except under stress of weather or in the interest of safety, and for the purpose of this regulation such air route shall be deemed to have a width of 20 miles with the centre line extending in a straight line between the customs airports between which such aircraft is in flight.

14. Every pilot or other person in charge of a civil aircraft registered in Canada or any other of His Majesty's Dominions or the United Kingdom, and operating on a scheduled air transport service licensed under part VII of the Air Regulations, 1938, and every member of the crew of such aircraft shall take and subscribe the oath of allegiance to His Majesty and the oath of secrecy contained in schedule B to these regulations, and refusal to take and subscribe either of such oaths shall be cause for cancelation by the Minister of Transport of the license or certificate authorizing such person to act as pilot or member of the crew of such aircraft.

15. No civil aircraft shall be flown within any of the prohibited areas set forth in schedule A to these regulations unless such aircraft is engaged in training pilots or other personnel for the Royal Canadian Air Force, in which case the aircraft shall—

(*a*) Confine its flying to such training only, and

(*b*) Be colored and marked in the manner prescribed by the Royal Canadian Air Force; and

(*c*) Confine its flying to daylight only and restrict its flights to areas as close as possible to the immediate vicinity of the aerodrome from which it takes off.

16. (*a*) These regulations shall extend and apply to aircraft owned by and operated in the service of His Majesty in the right of Canada or of any Province of Canada or of any other of His Majesty's Dominions or of the United Kingdom, and to every pilot and other person engaged in the operation of such aircraft.

(*b*) Every pilot or other person in charge of a civil aircraft mentioned in the next preceding subsection of this section shall take and subscribe the oath of allegiance to His Majesty and the oath of secrecy contained in schedule B to these regulations; and refusal to take and subscribe either of such oaths shall be cause for cancelation by the Minister of Transport of the license or certificate authorizing such person to act as pilot or member of the crew of such aircraft.

17. Every person who operates any civil aircraft otherwise than in accordance with these regulations and any order or direction duly made or given under any of these regulations, shall be deemed to contravene these regulations.

18. Every person who contravenes or fails to comply with any of these regulations, or any order or direction duly made or given under any of these regulations, shall be guilty of an offence and shall be liable on summary conviction to a fine not exceeding $500, or to imprisonment for a term not exceeding 12 months, or to both fine and imprisonment, but such person may, at the election of the Attorney General of Canada, be prosecuted upon indictment, and if convicted shall be liable to a fine not exceeding $5,000 or to imprisonment for a term not exceeding 5 years, or to both fine and imprisonment.
19. The Minister of Transport may arrange to warn, in any manner deemed advisable, civil aircraft flying over or across any of the prohibited areas set forth in schedule A to these regulations that such aircraft are liable to be fired upon by any of His Majesty's Forces, without warning.
20. These regulations shall come into force upon publication thereof in the Canada Gazette.

Schedule A

List of prohibited areas

NOVA SCOTIA:
1. *Nova Scotia.*—The area including the whole of the Province of Nova Scotia and the territorial waters adjacent thereto.

NEW BRUNSWICK:
2. *St. John.*—The area within a circle of a radius of 15 miles with center at King's Square, St. John, New Brunswick.

QUEBEC:
3. *Quebec and Valcartier.*—The area within a circle of a radius of 15 miles with center at Lorette-ville, Quebec.
4. *McMasterville.*—The area within a circle of a radius of 3 miles with center at the railway station.
5. *Brownsburg.*—The area within a circle of a radius of 3 miles with center at the railway station.

ONTARIO:
6. *Petawawa.*—The area within a circle of a radius of 8 miles with center at camp headquarters, Petawawa Camp.
7. *Lindsay.*—The area within a circle of a radius of 8 miles with center at Lindsay.
8. *Trenton.*—The area within a circle of a radius of 8 miles with center at the headquarters of the R. C. A. F. station, Trenton, Ontario.
9. *Camp Borden.*—The area within a circle of a radius of 8 miles with center at the headquarters of the R. C. A. F. station, Camp Borden, Ontario.
10. *Nobel.*—The area within a circle of a radius of 3 miles with center at the railway station.
11. *Niagara Peninsula.*—The area described as follows: Starting at the mouth of the Niagara River on the south shore of Lake Ontario; thence south along the west shore of the Niagara River to the railway bridge crossing the river at Fort Erie, thence west along the Canadian National Railway to an intersection with the Hamilton & Buffalo Railway; thence northerly along the line of the Hamilton & Buffalo Railway to the south shore of Lake Ontario approximately 2 miles east of Grimsby, thence easterly along the south shore of Lake Ontario to the point of commencement.

MANITOBA:
12. *Shilo.*—The area within a circle of a radius of 8 miles with center at Camp Shilo, Manitoba.
13. *East Selkirk.*—The area within a circle of 3 miles with center at the Canadian National railway station.

SASKATCHEWAN:
14. *Dundurn.*—The area within a circle of a radius of 8 miles with center at Dundurn, Saskatchewan.

ALBERTA:
15. *Kananaskia Forest Camp.*—The area within a circle of a radius of 8 miles with center at Seebe Station, Canadian Pacific Railway, Alberta.

BRITISH COLUMBIA:
16. *Kamloops.*—The area within a circle of a radius of 8 miles with center at Rayleigh Mount Station on Canadian National Railway 10 miles north of Kamloops, British Columbia.
17. *Vancouver.*—The area described as follows: From Point Grey following the north shore of the north arm of the Fraser River to New Westminister, thence along the north shore of the Fraser River to the mouth of the Pitt River, thence northerly along the west shore of the Pitt River and Pitt Lake to the most northerly end of Pitt Lake, thence westerly in line with the most northerly point of Cambier Island to the eastern shore of Howe Sound; thence southerly along the eastern shore of Howe Sound to Atkinson Point; and thence to the point of commencement.
18. *Esquimalt.*—The area described as follows: Bounded on the north by a line joining the mouth of Jordan River and the southeastern point of Salt Spring Island such line being extended both southwest and northeast so as to cut the international boundary line in the Straits of Juan de Fuca and in the Gulf of Georgia. Bounded on the west, south, and east by the international boundary line.
19. *James Island.*—The whole of the island.
20. *Ucleulet.*—The area within a circle of a radius of 8 miles with center at headquarters R. C. A. F. base, Ucluelet, Vancouver Island, British Columbia.
21. *York Island.*—The area within a circle of a radius of 8 miles with center at York Island in Johnstone Strait.
22. *Bella Bella.*—The area within a circle of a radius of 8 miles with center at the headquarters of the R. C. A. F. station, Bella Bella, British Columbia.
23. *Winter Harbour.*—The area within a circle of a radius of 8 miles with center at headquarters R. C. A. F. base, Winter Harbour, Vancouver Island, British Columbia.
24. *Prince Rupert.*—The area within a circle of a radius of 15 miles with center at Canadian National Railway dock, Prince Rupert, British Columbia.
25. *Alliford Bay.*—The area within a circle of a radius of 15 miles withcenter at headquarters of the R. C. A. F. base, Alliford Bay, Queen Charlotte Islands, British Columbia.

Schedule B

I (A. B.), solemnly and sincerely swear that I will not, without lawful authority in that behalf, disclose or make known to any person any information, matter or thing which comes to my knowledge by reason of my employment as pilot of any aircraft (or otherwise as the case may be) with respect to any of the prohibited areas set forth in schedule A to the Defence Air Regulations, 1939, or any prohibited place as defined by the Official Secrets Act, chapter 49 of the statutes of 1939, or any other information, matter or thing which might be directly or indirectly useful to a foreign power or which might be used for a purpose prejudicial to the public safety or the safety of the State.

Airport Projects Approved

(Continued from page 71)

performance of incidental and appurtenant work at LaGuardia Field.

North Platte, Nebr.—$71,500 for W. P. A. project for grading, stabilizing, and surfacing runways and turnarounds; producing materials for use on project; manufacturing and laying drain tile; constructing sand dike; installing field lighting system; and performing incidental and appurtenant work.

San Diego, Calif.—$118,649 for W. P. A. project for excavating; back-filling; grading; filling; surfacing, oiling, and paving runways and streets; constructing hangars, control station building, walks, walls, and steps; erecting fences; installing water and sewer connections; building seaplane facilities consisting of wharf, floats, and ramp; moving, installing, and constructing lighting and power facilities; making and placing storm drains; and performing incidental and appurtenant work. Project also includes operating quarries and borrow pits in or near the city to produce materials for use on this project at Lindbergh Field.

Seattle, Wash.—$27,326 for W. P. A. project for construction of 1.02 miles of sanitary sewer at Boeing Field.

CIVIL AERONAUTICS AUTHORITY

OFFICIAL ACTIONS

OPINIONS, ORDERS AND REGULATIONS

FOR THE PERIOD FEBRUARY 1–15, 1940

ABSTRACTS

ORDERS

Order No. 358: Student pilot certificate of Frank S. Bright revoked.

The Authority on February 2, revoked student pilot certificate No. 75240, held by Frank S. Bright, Highland Park, N. J., for piloting an aircraft on a civil airway with a passenger aboard.

Order No. 359: Private pilot certificate of Delmont B. Garrett revoked.

The Authority on February 2, revoked private pilot certificate No. 58325, held by Delmont B. Garrett, Swarthmore, Pa., for piloting an aircraft acrobatically on a civil airway at an altitude over a congested area insufficient to permit at all times an emergency landing outside of such area in the event of complete power failure.

Order No. 360: Offer accepted in compromise of civil penalties for violations.

The Authority on February 2, accepted offer in compromise of civil penalties incurred for violations of the Civil Aeronautics Act of 1938 and the Civil Air Regulations as follows:

Wm. J. Hosmer, Glendale, Calif.—For permitting an aircraft to be flown on a civil airway by a person other than one possessed of a pilot certificate valid for the operation involved, and other violations—$50.

Order No. 361: Violations referred to the Department of Justice for judicial action.

The Authority on February 2, referred the following case to the Department of Justice for judicial action for certain violations of the Civil Aeronautics Act of 1938 and the Civil Air Regulations:

Davis A. Murphy, Miami, Fla.—For piloting an aircraft, while possessed of a student pilot certificate, on a civil airway, carrying a person other than a certificated instructor actually giving instruction.

Order No. 362: Transcontinental & Western Air rate cases incorporated into single proceeding.

The Authority on February 2, adopted an order for determining rate of compensation for transportation of mail by Transcontinental & Western Air on route No. 44, and reopened hearing on determination of rates on routes No. 2, 36, 37, and 38 for inclusion of route No. 44. Thus the fixing of mail rates between the points upon all of the routes of Transcontinental & Western Air will be incorporated in a single proceeding.

Unnumbered Order: Date of effectuation set for revisions of Civil Air Regulations.

The Authority on February 2, adopted an order without serial number, prescribing May 1, 1940, as the effective date of parts 51 and 53, the revision of parts 20, 24, and 52, and section 60.50, and the deletion of parts 23 and 25 of the Civil Air Regulations. (See Regulations 58 to 62, inclusive, following this abstract of orders.)

Order No. 363: Walter E. Dicke, additional suspension of solo pilot certificate.

The Authority on February 3, suspended solo pilot certificate No. 60806, held by Donald E. Frahm, Monolith, Calif., for an additional 30 days from February 3, pending proceedings instituted to determine whether said certificate should be further suspended or permanently revoked. (Previous order No. 341.)

NOTICE

This section of the CIVIL AERONAUTICS JOURNAL is devoted in each issue to presenting a record of the official actions taken by the Civil Aeronautics Authority during the half-month period ending 2 weeks before the date of publication.

Digests of all orders and regulations are carried under the title "Abstracts." Any opinions accompanying Authority actions are carried in full.

None of the actions taken by the Authority in the February 1–15 period covered in this issue was accompanied by an opinion, hence all the actions listed are in abstract form. Persons having specific interest in any particular order or regulation may obtain a verbatim copy by writing to the Director of Statistics and Information, Civil Aeronautics Authority, Washington, D. C.

ABSTRACTS
Continued

Order No. 364: Norris Norsigian, additional suspension of student pilot certificate.

The Authority on February 6, suspended student pilot certificate No. 65559, held by Norris Norsigian, Tulare, Calif., for an additional 30 days from February 8, pending proceedings instituted to determine whether said certificate should be further suspended or permanently revoked. (Previous order No. 342.)

Order No. 365: Air carrier applications consolidated into one proceeding.

The Authority on February 6, consolidated into one proceeding, for the purpose of hearing, applications for certificates of public convenience and necessity of Continental Air Lines, Inc. (El Paso-San Antonio and Pueblo-El Paso); Braniff Airways, Inc. (San Antonio-El Paso and Denver-Laredo); Essair, Inc. (Amarillo-Houston); and A. J. Burke (San Antonio-Laredo).

Order No. 366: Air carrier applications consolidated into one proceeding.

The Authority on February 6, consolidated into one proceeding for the purpose of hearing applications for certificates of public convenience and necessity of Eastern Air Lines, Inc. (St. Louis-Washington) and Missouri Central Airlines, Inc. (St. Louis-Washington).

Order No. 367: Air carrier applications consolidated into one proceeding.

The Authority on February 6, consolidated application of American Airlines, Inc. for certificates of public convenience and necessity (Detroit-Toronto and Buffalo-Toronto) into one proceeding with applications of Northwest Airlines, Inc., Pennsylvania—Central Airlines Corp., and Canadian Colonial Airways, Inc., which were previously consolidated. (Previous order No. 340.)

Order No. 368: Air carrier applications consolidated into one proceeding.

The Authority on February 6, consolidated into one proceeding for the purpose of hearing applications for certificates of public convenience and necessity of Continental Air Lines, Inc. (Denver-Kansas City); United Air Lines Transport Corporation (Des Moines-Denver); Braniff Airways, Inc. (Denver-Kansas City); and Mid-Continent Airlines, Inc. (Kansas City-Denver).

Order No. 369: Canadian Colonial Airways, Inc., granted permission to intervene.

The Authority on February 6, granted Canadian Colonial Airways, Inc. permission to intervene in the applications of Trans-Canada Air Lines for foreign air-carrier permits.

Order No. 370: American Airlines, Inc., granted permission to intervene.

The Authority on February 6, granted American Airlines, Inc. permission to intervene in the applications of Trans-Canada Air Lines for foreign air-carrier permits.

Order No. 371: Braniff Airways, Inc., granted permission to withdraw application.

The Authority on February 6, granted Braniff Airways, Inc., permission to withdraw its application for a certificate of public convenience and necessity. (This application covered the route between Tulsa, Okla., and Denver, Colo.)

Order No. 372: R. S. Johnson, additional suspension of aircraft and engine mechanic certificate.

The Authority on February 7, suspended aircraft and engine mechanic certificate No. 3870, held by R. S. Johnson, Houston, Tex., for an additional 30 days from January 23, pending proceedings instituted to determine whether said certificate should be further suspended or permanently revoked. (Previous orders Nos. 317 and 338.)

Order No. 373: Offers accepted in compromise of civil penalties for violations.

The Authority on February 9, accepted certain offers in compromise of civil penalties incurred for violations of the Civil Aeronautics Act of 1938 and the Civil Air Regulations as follows:

William L. Clark, Auburn, Calif.—For piloting an aircraft on a civil airway outside an area within a 25-mile radius of his point of take-off as provided in his student pilot certificate, and other violations—$25; and

Dixon C. Logan, Pasadena, Calif.—For piloting an aircraft on a civil airway with no pilot certificate of competency in his personal possession and without wearing lenses for the correction of certain eyesight deficiency as required in his student pilot certificate, and other violations—$50.

Order No. 374: Violation referred to the Attorney General for judicial action.

The Authority on February 9, referred the following case to the Attorney General for judicial action for violation of the Civil Aeronautics Act of 1938 and the Civil Air Regulations:

Walter Kendall, Cheyenne, Wyo.—For piloting an aircraft on a civil airway without being possessed of a valid pilot certificate.

Order No. 375: Interlocking relationships approved.

The Authority on February 9, approved interlocking relationships of Wallace M. Alexander, A. M. Archibald, Erwin Balluder, Harold M. Bixby, C. M. Blaske, David K. E. Bruce, S. Sloan Colt, John Cobb Cooper, Jr., George Mixter, Robert G. Thach, John Hay Whitney, Cornelius Vanderbilt Whitney, and Pan American Airways, Inc., and subsidiaries.

Order No. 376: Designation of flight and ground school examiners.

The Authority, on February 9, gave authority to the Chief, Certificate and Inspection Division, to designate as flight examiners such persons as he shall consider properly qualified for the purpose, and designated all persons acting as ground school instructors in connection with the Civilian Pilot Training Program as ground school examiners.

Order No. 377: Josef Blanc directed to show cause.

The Authority, on February 13, directed Josef Blanc, Jacksonville, Fla., holder of parachute rigger certificate No. 212, to appear before an examiner of the Authority and show cause why this certificate should not be revoked or suspended for alleged carelessness, incompetence, and inattention to his duties as a parachute rigger in violation of the Civil Air Regulations.

Order No. 378: Transcontinental & Western Air, Inc., granted permission to intervene in convenience and necessity proceeding.

The Authority, on February 13, granted Transcontinental & Western Air, Inc., permission to intervene in the applications of Northwest Airlines, Inc., Pennsylvania-Central Airlines Corporation, Canadian Colonial Airways, Inc., and American Airlines, Inc., for certificates of public convenience and necessity.

Order No. 379: Trans-Canada Air Lines granted permission to intervene.

The Authority, on February 13, granted Trans-Canada Air Lines permission to intervene in the applications of Northwest Airlines, Inc., Pennsylvania-Central Airlines Corporation, Canadian Colonial Airways, Inc., and American Airlines, Inc., for certificates of public convenience and necessity.

ABSTRACTS
(Continued)

REGULATIONS

Regulation No. 57: Amendment prohibiting simultaneous departures of air carriers.

The Authority on February 2, adopted Amendment No. 34 of the Civil Air Regulations prohibiting simultaneous departures of air carriers in the same direction and over the same route.

(Serial numbers and amendment numbers have been assigned the following revisions, Nos. 58 to 62 inclusive, which have been previously adopted by the Authority to become effective May 1, 1940. For complete description of the major changes affected by these revisions of the Civil Air Regulations see page 65 of this JOURNAL.)

Regulation No. 58: New method for rating of ground school instructors.

The Authority on November 7, 1939, adopted amendment No. 35 of the Civil Air Regulations creating a new method for rating of ground school instructors (part 51—Ground Instructor Rating).

Regulation No. 59: New method for certification of repair stations.

The Authority on November 7, 1939, adopted amendment No. 36 of the Civil Air Regulations creating a new method for certification of repair stations (part 52—Repair Station Rating).

Regulation No. 60: Solo and limited-commercial pilot certificates eliminated.

The Authority on November 7, 1939, adopted amendment No. 37 of the Civil Air Regulations eliminating solo and limited-commercial pilot certificates and creating a new method for certification of pilots. A further amendment was made on February 2, 1940 (part 20—Pilot Certificates).

Regulation No. 61: Requirements regarding military competence for piloting aircraft under instrument conditions.

The Authority on November 7, 1939, adopted Amendment No. 38 of the Civil Air Regulations prescribing requirements regarding military competence for piloting aircraft under instrument conditions (Sec. 60.50 of part 60—Air Traffic Rules).

Regulation No. 62: New method for certification of mechanics prescribed.

The Authority on December 22, 1939, adopted Amendment No. 39 of the Civil Air Regulations creating a new method for certification of mechanics (part 53—Mechanic School Rating).

Regulation No. 63: Education requirements for student solo and private pilots amended.

The Authority on January 23, adopted Amendment No. 40 of the Civil Air Regulations, effective as of that date, amending education requirements for student solo and private pilots.

Regulation No. 64: Adopted amendment No. 41 of the Civil Air Regulations revising the term "acrobatics."

The Authority on February 13, adopted Amendment No. 41 of the Civil Air Regulations revising the term "acrobatics" to read "acrobatics are unnecessary flight evolutions voluntarily performed with an aircraft requiring or resulting in an abrupt change in its attitude, an abnormal attitude, or operations in excess of the aircraft's design level-flight speed (placard value). A normal bank not in excess of 70° will not be considered as an abrupt change in the aircraft's attitude or as an abnormal attitude."

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