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Civil Aeronautics Manual 49

Transportation of Explosives and Other Dangerous Articles

FEDERAL AVIATION AGENCY

April 1961

FEDERAL AVIATION AGENCY

N. E. HALABY, *Administrator*

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Introductorv Note

Civil Aeronautics Manual 49 contains in consolidated form (1) Civil Air Regulations Part 49, Transportation of Explosives and Other Dangerous Articles, effective June 25, 1958, Amendment 49–1, effective October 10, 1958, and the editorial changes required by Special Regulation SR–430 effective December 31, 1958; and (2) any rules, policies, and interpretations issued by the Administrator of the Federal Aviation Agency in application to the various sections of the regulations.

FAA *rules* are supplementary regulations issued pursuant to authority expressly conferred on the Administrator in the Civil Air Regulations. Such rules are mandatory and must be complied with.

FAA *policies* provide detailed technical information on recommended methods of complying with the Civil Air Regulations. Such policies are for the guidance of the public and are not mandatory in nature.

FAA *interpretations* define or explain words and phrases of the Civil Air Regulations. Such interpretations are for the guidance of the public and will be followed by the Agency in determining compliance with the regulations.

This manual is arranged to give the number, title, and text of each section of the regulations followed by any rules, policies, or interpretations applicable to that section of the regulations. These rules, policies, or interpretations of the Administrator are identified by consecutive dash numbers appended to the regulation section number.

This manual supersedes Civil Aeronautics Manual 49, dated August 1959. As amendments and other pertinent materials pertaining to Part 49 are issued, they will be included in this manual.

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Transportation of Explosives and Other Dangerous Articles

Applicability and Definitions

49.1 *Applicability of this part.*

(a) Explosives and other dangerous articles, as defined and regulated in Parts 72 through 78 of the ICC Regulations (49 CFR Parts 72 through 78) including but not limited to flammable liquids, flammable solids, oxidizing materials, corrosive liquids, compressed gases, and poisonous articles [, or any other articles specifically regulated by the rules of this part,] shall not be loaded in or transported by civil aircraft in the United States, or transported anywhere in air commerce in civil aircraft of United States registry, except as hereinafter provided.

(b) Explosives and other dangerous articles listed in Part 72 of the ICC Regulations (49 CFR Part 72) as articles not accepted for rail express shall not be loaded in or transported by civil aircraft in the United States or transported anywhere in air commerce in civil aircraft of United States registry.

(c) The provisions of this part shall not be applicable to radioactive materials meeting the requirements of Parts 72 and 73 of the ICC Regulations (49 CFR Parts 72, 73) which exempt them from the prescribed packing, marking, and labeling requirements thereof for shipment by rail express.

(d) The provisions of this part shall not be applicable to aircraft equipment such as signaling devices, aviation fuel and oil carried in tanks complying with the fuel and oil tanks installation provisions of the Civil Air Regulations, and other equipment and materials necessary for the safe operation of the aircraft on which they are carried.

(e) The provisions of this part shall not be applicable to materials while carried in the hoppers or tanks of aircraft certificated for use in aerial seeding, dusting, spraying, fertilizing, crop improvement, or pest control and which are to be dispensed during such operations.

Note: In addition to other authorized sanctions, section 902 of Title IX of the Federal Aviation Act of 1958, as amended (72 Stat. 784, as amended; 49 U. S. C. 1472), provides that any person who knowingly delivers or causes to be delivered to an air carrier or to the operator of any civil aircraft for transportation in air commerce, or who causes the transportation in air commerce of, any shipment, baggage, or property, the transportation of which would be prohibited by any rule, regulation, or requirement prescribed by the Administrator under Title VI of the Federal Aviation Act of 1958, as amended, relating to the transportation, packing, marking, or description of explosives or other dangerous articles shall, upon conviction thereof for each such offense, be subject to the applicable penalties set forth therein.

(Part 49, 23 F.R. 2790, Apr. 26, 1958, effective June 25, 1958; as amended by Amdt. 49-3, 27 F.R. 5393, June 7, 1962, effective July 9, 1962.)

49.2 *Special authority.*

(a) In emergency situations or where other forms of transportation are impracticable:

(1) Authority to deviate from any of the provisions of this part for a particular operation, involving one or more flights, may be issued by an authorized representative of the Administrator subject to such terms, conditions, and limitations as he finds necessary in the interest of safety in air commerce.

(2) Shipments made by the Atomic Energy Commission shall be exempt from the quantity limitation prescribed for radioactive materials in the ICC Regulations for shipment by rail express provided such shipments are otherwise in accordance with the requirements approved by the Interstate Commerce Commission for shipment by rail express and prior notification of each shipment is given by the Atomic Energy Commission in the form and manner prescribed by the Administrator.

(b) Shipments of radioactive materials made by the Atomic Energy Commission or under its direction or supervision, which are escorted by personnel who are especially designated by the Atomic Energy Commission, shall be exempt

from the provisions of this part where special arrangements are made with and approved by the Administrator.

(Part 49, 23 F.R. 2790, Apr. 26, 1958, effective June 25, 1958; as amended by Amdt. 49–2, 26 F.R. 12213, Dec. 21, 1961, effective Dec. 21, 1961.)

49.2–1 Authority to deviate from the provisions of Part 49 (FAA policies which apply to sec. 49.2(a)). Authority to deviate from the provisions of Part 49 for a particular operation may be issued to cover the cases described in paragraph (a) or (b) of this section.

(a) An emergency situation in which the issuance of the authority to deviate from the provisions of Part 49 would serve the public interest in connection with any actual or imminent disaster such as flood, fire, storm, earthquake, or other calamitous visitation, or any humanitarian effort such as to save lives or to alleviate distress or suffering. Any situation which is solely a matter of convenience or economic advantage to the shipper, consignee, or persons who desire to transport any shipment is not deemed to be an emergency situation for a deviation to be authorized under section 49.2 (a).

(b) When other forms of transportation are found to be impracticable such as when: (1) the transit time by other forms of transportation would result in spoilage, damage, or forfeit the normal or intended use of the shipment at destination; (2) the destination is not safely accessible by other means of transportation.

(Published in 23 F.R. 7990, Oct. 16, 1958, effective Oct. 16, 1958; amended 26 F.R. 12213, Dec. 21, 1961, effective Dec. 21, 1961.)

49.2–2 *Conditions and limitations (FAA policies which apply to sec. 49.2).* An authorization to deviate from the provisions of Part 49 will be issued only under the following conditions and limitations:

(a) The persons carried aboard the aircraft are limited to the minimum flight crew necessary to the safety of the particular flight and such other persons that are essential to the handling en route of the particular shipment for which deviation authority is requested.

(b) The shipper certifies that the shipment can be handled in air transportation with a reasonable degree of safety to persons and cargo aboard the aircraft and provides full instructions with regard to any special handling procedures and precautions to be observed which are necessary to assure safe transit.

(c) The aircraft can be located on airports for loading and unloading and operated during takeoff, en route, and landing so as to remain a safe distance from all heavily populated areas and, insofar as possible, avoid being in hazardous proximity to any place of human abode or assembly when the shipment of any explosive or other dangerous articles can create destructive forces or have lethal or injurious effect over an appreciable area as a result of accident to the aircraft or shipment.

(d) The authorization is limited to the particular operation and to the articles for which the authorization is requested, and it will specify the point or points of origin where the articles are to be placed aboard the aircraft and the point or points of destination where such articles are to be removed from the aircraft.

(e) The shipment is loaded, unloaded, packed, marked, stowed, and secured aboard the aircraft in accordance with any rules or special instructions of the Interstate Commerce Commission for the item or items for which deviation authority is requested.

(f) The crew of the aircraft is thoroughly briefed on the characteristics and proper handling of the cargo and, when any crew change is involved during the flight, the new crew shall be briefed under a hand-to-hand signature service furnished by the carrier.

(g) The holder of the authorization will notify and obtain permission from the operators or managers of the airports used in the operation.

(h) The authorization is limited to the carriage of the particular articles on civil aircraft within the continental limits of the United States including its territories and possessions. Aircraft of United States registry engaged in air commerce outside of the United States must obtain the authorization necessary for such flights within foreign countries from the appropriate authority of each such country involved. Extra copies of the authorization should accompany the request for clearance.

(Published in 23 F.R. 7990, Oct. 16, 1958, effective Oct. 16, 1958; amended 26 F.R. 12213, Dec. 21, 1961, effective Dec. 21, 1961.)

49.2–3 *Application for authorization to deviate from the provisions of Part 49 (FAA policies which apply to sec. 49.2 (a)).*

(a) Application for authorization to deviate from the provisions of Part 49 will be made on Form FAA–400, Application for Certificate of Waiver, which may be obtained from any Bureau of Flight Standards District Office of the Federal Aviation Agency (see appendix A for sample form). The application will be completed in triplicate and submitted to the nearest Bureau of Flight Standards District Office. The application should be completed as follows:

(1) Type or print in ink.

(2) Give complete information on items 1 through 7 (if additional space is required, use a separate sheet in triplicate which shall be attached to each copy of the application and made a part thereof).

(3) Under item 3, insert the appropriate section of Part 49 for which deviation authorization is desired.

(4) Item 4, describe specifically the explosive and/or dangerous articles to be carried.

(5) Item 5, state the airports to be used and describe the routes to be flown.

(6) Item 6, state the date(s) on which the flight will begin and end and approximate duration of elapsed flight time stated in hours.

(7) Item 7, fill in as indicated and in addition give the name, address, and purpose of any other person(s) who will be aboard the aircraft during the flight for which deviation is requested.

(8) Sign all copies of the application on the reverse side in the space provided for the applicant's signature.

(b) At the time the application is submitted, the applicant will arrange with the Bureau of Flight Standards inspector to inspect the aircraft, the loading arrangement, and to ascertain the safety precautions being employed or otherwise necessary for the safe conduct of the flight.

(c) In cases of emergency requiring immediate transportation of the articles for which a deviation is necessary, application may be made by telephone or telegraph to the Bureau of Flight Standards District Office.

(Published in 23 F. R. 7990, Oct. 16, 1958, effective Oct. 16, 1958.)

(Rev. 6/15/62)

49.5 *Definitions.* As used in this part, terms are defined as follows:

***Cargo aircraft.* A cargo aircraft is an aircraft which is not a passenger-carrying aircraft and which is used for the carriage of goods.**

***Explosives and other dangerous articles.* (As defined in Part 73 of the ICC Regulations (49 CFR Part 73)):**

Acids and other corrosive liquids.
Compressed gases.
Explosives.
Flammable liquids.
Flammable solids.
Oxidizing materials.
Poisonous articles.

***ICC Regulations.* ICC Regulations are the currently effective "Interstate Commerce Commission's Regulations for Transportation of Explosives and Other Dangerous Articles," as amended or revised from time to time (49 CFR Parts 71–78).**

Note: These ICC Regulations may be obtained from the Government Printing Office, Washington 25, D. C., or from the Bureau of Explosives, 30 Vesey Street, New York 7, New York.

***Labeling.* Labeling is the display on a container of the appropriate label specified in the ICC Regulations for the particular class of article.**

***Marking.* Marking is the display on the outside of a container of the name of the article inside as required by this part.**

***Operator of aircraft.* Operator of aircraft is any person who causes or authorizes the operation of any civil aircraft, whether with or without the right of legal control (in the capacity of owner, lessee, or otherwise) of such aircraft.**

***Passenger-carrying aircraft.* A passenger-carrying aircraft is an aircraft carrying any individual other than a flight crew or crew member, company employee, or an authorized Government representative, or individuals accompanying shipments.**

***Person.* Person is any individual, firm, copartnership, corporation, company, association, joint-stock association, or body politic; and includes any trustee, receiver, assignee, or other similar representative thereof.**

Pilot in command. The pilot in command is the pilot responsible for the operation and safety of the aircraft during the time defined as flight time.

Quantity. Quantity is that net amount specified in United States liquid measure or in avoirdupois weight, unless otherwise provided in this part.

Unit of radiation. As defined in Part 73 of the ICC Regulations (49 CFR Part 73).

(Part 49, 23 F.R. 2790, Apr. 26, 1958, effective June 25, 1958.)

Shipping Requirements

49.11 *Packing and marking requirements.* Unless otherwise specifically provided in this part, explosives and other dangerous articles shall be packed and marked in accordance with the requirements prescribed in Parts 72, 73, and 78 of the ICC Regulations (49 CFR Parts 72, 73, 78) as are applicable to rail express.

Note: The marking required by this provision may be followed by additional identification in parentheses.

(Part 49, 23 F.R. 2790, Apr. 26, 1958, effective June 25, 1958.)

49.12 *Labeling requirements.* Unless otherwise specifically provided in this part, explosives and other dangerous articles acceptable under the provisions of this part for transportation in air commerce shall be labeled by the shipper with the appropriate label specified in the ICC Regulations even though they may be exempt from ICC labeling requirements by virtue of ICC quantity and packing limitations.

(Part 49, 23 F.R. 2790, Apr. 26, 1958, effective June 25, 1958.)

49.13 *Certification requirements.*

(a) [No shipper shall offer, and no air carrier or other operator of aircraft shall knowingly accept, explosives and other dangerous articles for carriage by air unless the package is accompanied by, or shows, a clear and plainly visible statement that the shipment complies with the requirements of this part which shall be signed by the shipper or his duly authorized agent. The shipper or his duly authorized agent may use a facsimile stamp of his signature in lieu of his actual signature.] No such shipment shall be accepted for transportation by passenger-carrying aircraft unless the shipper's certification includes an additional statement that the shipment is within the limits prescribed by this part for passenger-carrying aircraft. Any air carrier or other operator of aircraft may rely on such a certification as prima facie evidence that the shipment so certified complies with the requirements of this part.

Note: The following statement signed by [or stamped with the facsimile signature of] the shipper or his duly authorized agent will be accepted as meeting this requirement: This is to certify that the contents of this package are properly described by name and are packed, marked, and labeled and are in proper condition for transportation according to the regulations prescribed by the Interstate Commerce Commission and the Administrator of the Federal Aviation Agency.

For shipment on passenger-carrying aircraft the following must be added to the above: This shipment is within the limitations prescribed for passenger-carrying aircraft.

(b) The shipper's certification of compliance with this part shall be made upon the ICC label affixed to each package containing explosives or other dangerous articles when there is a provision on the face of the label for such certification. When the label used does not so provide, such certification shall be made in duplicate and signed by [or stamped with the facsimile signature of] the shipper or his duly authorized agent for each consignment. One signed [or stamped] copy shall accompany the shipment and the other signed [or stamped] copy shall be retained by the originating carrier. The air carrier or other operator of aircraft may also require the shipper to have the shipper's statement certified by an authority approved by the carrier.

(Part 49, 23 F.R. 2790, Apr. 26, 1958, effective June 25, 1958; as amended by Amdt. 49–4, 27 F.R. 5392, June 7, 1962, effective June 7, 1962.)

49.14 *Quantity equivalents.* Quantities measured by the metric system or the imperial system may be substituted on the basis of one liter or one imperial quart per quart specified, and 500 grams per pound specified, up to one gallon for liquids or 10 pounds for solids.

(Part 49, 23 F.R. 2790, Apr. 26, 1958, effective June 25, 1958.)

49.15 *Containers for liquids.*

(a) Liquids shall be packed only in inside

containers which are securely closed, sufficient in strength to prevent any leakage or distortion of the containers caused by change in temperature or pressure during transit, and so filled as to provide adequate outage.

(b) When liquids are restricted to quantities of one quart in inside containers, each such inside container shall be packed in a strong outside container with suitable cushioning and absorbent material to prevent breakage or leakage.

(c) When liquids are restricted to quantities of less than one quart in inside containers, each such inside container shall be packed in a strong outside container with suitable cushioning and absorbent material to prevent breakage or leakage: *Provided*, That such inside containers of a total capacity not to exceed one quart may be packed in a strong outside container with suitable cushioning and absorbent material to prevent breakage or leakage.

(Part 49, 23 F.R. 2790, Apr. 26, 1958, effective June 25, 1958.)

[*49.16 Packing and marking requirements for magnetized materials.* No shipper shall offer magnetized materials for shipment by air unless:

[(a) The outside of the package has been plainly marked "Magnetized Materials";

[(b) Magnets or magnetized devices such as magnetrons and light meters have been packed so that the polarities of the individual units oppose one another; and

[(c) Permanent magnets have keeper bars installed, or are shielded so as to prevent the magnetic field from affecting the magnetic compass.]

(Added by Amdt. 49–3, 27 F.R. 5393, June 7, 1962, effective July 9, 1962.)

Loading and Handling Requirements

49.21 *Cargo location.*

(a) Articles subject to the requirements of this part shall not be carried in the cabins of passenger-carrying aircraft.

(b) Any article acceptable only for cargo aircraft shall be carried in a location accessible to a crew member in flight.

(c) Articles shall not be placed in the same cargo pit or bin nor placed side by side in cabins so that yellow label material is mixed with white label material.

[(d) Magnetized materials shall not be loaded on the aircraft in the vicinity of the magnetic compasses or compass master units which are a part of the instrument equipment of the aircraft so as to affect their operation. If it is not possible to meet this requirement, a special aircraft swing and compass calibration shall be made. Care shall be taken so that warning markers are not obscured upon cargo loading.

[Note: Magnetized material as used herein is that material which is magnetized to the extent that it might affect the magnetic compass and produce an erroneous compass reading.]

(Part 49, 23 F.R. 2790, Apr. 26, 1958, effective June 25, 1958; as amended by Amdt. 49–3, 27 F.R. 5393, June 7, 1962, effective July 9, 1962.)

49.22 *Notification of pilot in command.* When articles subject to the provisions of this part are carried on aircraft, the operator of the aircraft shall be responsible for informing the pilot in command of the name of the explosive or other dangerous article, the type of label, the quantity, and the location thereof. The cargo load manifest shall be conspicuously marked to indicate articles subject to the provisions of this part.

(Part 49, 23 F.R. 2790, Apr. 26, 1958, effective June 25, 1958.)

49.23 *Damaged articles.* If any package subject to the provisions of this part, except as otherwise provided in section 49.25, appears to the pilot in command or the operator of the aircraft to be damaged or leaking, the operator of the aircraft shall remove it from the aircraft and it shall not be returned to transportation by air until it has been determined that the package and its contents comply with the requirements of this part. In such instances, the operator of the aircraft shall promptly report the circumstances to a representative of the Administrator.

(Part 49, 23 F.R. 2790, Apr. 26, 1958, effective June 25, 1958.)

49.24 *Quantity limitations.* Except as provided below, not more than 50 pounds net weight of any article subject to the packing, marking, and labeling provisions of this part may be carried in any cargo pit or bin on

passenger-carrying aircraft, or in any inaccessible cargo pit or bin on any aircraft:

(a) Not more than 150 pounds net weight of nonflammable compressed gas may be carried in any single cargo pit or bin on passenger-carrying aircraft or in any inaccessible cargo pit or bin on any aircraft.

(b) Not more than 40 units of radioactive material Groups I or II may be carried on any aircraft.

(Part 49, 23 F.R. 2790, Apr. 26, 1958, effective June 25, 1958.)

49.25 *Special requirements for radioactive materials.*

(a) Whenever any shipment of radioactive materials is damaged or appears to the pilot in command or the operator of the aircraft to be damaged, the operator shall remove it from the aircraft and segregate it from human contact. The operator of the aircraft shall immediately contact the shipper for disposal instructions and notify the Administrator or the Board of the incident.

(b) Whenever there is any actual spillage of radioactive materials of such nature that the materials are no longer contained within their inner containers, no attempt shall be made to remove or clean up the materials until instructions are received from the shipper or other qualified persons, and then only when necessary protective measures have been taken, and qualified persons are present to supervise the handling.

(c) A container or group of containers of radioactive materials shall not be placed closer than the distance specified in the distance table below to any area that may be continuously occupied by crew members or passengers. If more than one such container is present, the distance shall be computed from such table by adding together the number of units shown on the label of each package.

Table for Personnel Separation [1]

Total number of units [2]	Minimum distance to crew members and passengers (feet) [3]
0–2	1
3–5	2
6–10	3
11–20	4
21–30	5
31–40	6

[1] This table is designed to afford maximum protection to human beings from the effects of radiation and will not protect X-ray film from such effects under all conditions of exposure. Distance separation required by this table for Groups I and II (red label) radioactive materials is not required for Group III (blue label) radioactive materials.

[2] Total number of units refers to the number found on the red label of a single package entered on the line reading, "Radiation Units from Package: No. * * *." For two or more packages stored together, the total of the numbers of all such packages is meant.

[3] Distance means the number of feet from the nearest edge of the nearest radioactive container.

(d) If any aircraft is engaged frequently in the transportation of radioactive materials, it shall be the responsibility jointly of the shipper and the operator of the aircraft to monitor all personnel involved so that the accepted limits of personnel radiation exposure are not exceeded.

(Part 49, 23 F.R. 2790, Apr. 26, 1958, effective June 25, 1958.)

Passenger-Carrying Aircraft

49.31 *Articles which may be carried on passenger-carrying aircraft.* No explosive or other dangerous article shall be carried on passenger-carrying aircraft, other than the following:

(a) Explosives and other dangerous articles which are exempt under the ICC Regulations from the specification packing, marking, and labeling requirements of Parts 72, 73, and 78

thereof (49 CFR Parts 72, 73, 78) applicable to rail express.

(b) Class C explosives when packed, marked, and labeled in accordance with the requirements of Parts 72 and 73 of the ICC Regulations (49 CFR Parts 72, 73) for shipment by rail express except that the maximum that may be packed in one outside container is 50 pounds.

(c) Subject to the limitations contained in section 49.24 (a), nonflammable compressed gases when in ICC approved cylinders and at pressures not to exceed those permitted by the ICC Regulations for shipments by rail express except that the following may not be carried: Anhydrous ammonia, boron trifluoride, chlorine, hydrogen bromide, hydrogen chloride, nitrosyl chloride, and sulfur dioxide.

(d) Motion picture film and X-ray film (nitrocellulose base) exposed and unexposed when packed, marked, and labeled in accordance with the requirements of Parts 72 and 73 of the ICC Regulations (49 CFR Parts 72, 73) for shipment by rail express.

(e) Pyroxylin plastics containing nitrocellulose in sheets, rolls, rods, or tubes when packed, marked, and labeled in accordance with the requirements of Parts 72 and 73 of the ICC Regulations (49 CFR Parts 72, 73) for shipment by rail express.

(f) Subject to the limitations contained in section 49.24 (b), radioactive materials, Groups I, II, and III, may be carried when packed, marked, and labeled in accordance with the requirements of Parts 72 and 73 of the ICC Regulations (49 CFR Parts 72, 73) for shipment by rail express.

(Part 49, 23 F.R. 2790, Apr. 26, 1958, effective June 25, 1958; as amended by Amdt. 49–1, 23 F.R. 7943, Oct. 15, 1958, effective Oct. 16, 1958.)

Cargo Aircraft

49.41 *Articles which may be carried on cargo aircraft.* In addition to the articles acceptable for transportation on passenger-carrying aircraft, the following articles may be carried on cargo aircraft:

(a) Any article acceptable under the ICC Regulations for transportation by rail express. The maximum quantity in any one outside package or container shall not exceed that prescribed for rail express in the commodity list of Part 72 of the ICC Regulations (49 CFR Part 72).

(b) (1) Radioactive materials such as ores, residues, etc., of low activity packed in strong, tight containers are exempt from the packing and labeling requirements of this part for shipment in planeload lots, provided the per-planeload radiation intensity at one meter from any outside surface of the load (as loaded in place in the airplane) does not exceed 10 milliroentgens per hour of gamma radiation or equivalent. There shall be no loose radioactive material in the airplane, and the shipment must be braced and lashed so as to prevent leakage or shift of lading under normal conditions of flight.

(2) It is the responsibility of the consignor and/or consignee as appropriate to supervise all loading and unloading operations and to monitor all personnel involved so that the accepted limits of personnel radiation exposure are not exceeded.

(Part 49, 23 F.R. 2790, Apr. 26, 1958, effective June 25, 1958.)

Appendix A

Sample Forms

FEDERAL AVIATION AGENCY

APPLICATION FOR CERTIFICATE OF WAIVER

FORM APPROVED
BUDGET BUREAU NO. 04-R073

APPLICANTS—DO NOT USE THESE SPACES

REGION NO.	DATE

ACTION

☐ APPROVED ☐ DISAPPROVED *(Explain under "Remarks")*

SIGNATURE OF AUTHORIZED FAA REPRESENTATIVE

To: FEDERAL AVIATION AGENCY.

INSTRUCTIONS

Submit this application in triplicate (3) to your local FAA General Aviation District Office.

Applicants requesting a Certificate of Waiver for an air meet will complete all items and certification on this form and will attach a properly marked map or diagram of the operations area. This map or diagram must be to scale, and distances must be shown. It must include race courses, obstructions, grandstands; congested areas, parking areas, dead lines, police stations; ambulance, fire-truck, crash-wagon, and control stations.

Applicants requesting a Certificate of Waiver, for activities other than an air meet, will complete items 1 through 7 only and the certification on the reverse.

1. NAME (FIRST, MIDDLE, AND LAST)

2. PERMANENT MAILING ADDRESS	HOUSE NUMBER AND STREET, OR ROUTE NUMBER	POST OFFICE	STATE	TELEPHONE

3. TO AUTHORIZE NONOBSERVANCE OF CIVIL AIR REGULATIONS, SECTION (INDICATE SECTIONS WHICH PROHIBIT PROPOSED OPERATION)

4. IN PERFORMANCE OF (DESCRIBE PROPOSED OPERATION AND PURPOSE THEREOF IN DETAIL)

(IF NECESSARY, ATTACH SUPPLEMENT TO CONTINUE)

5. AREA OF OPERATION

6. FOR THE PERIOD OF—				BEGINNING (*Date*)	ENDING (*Date*)	BETWEEN THE HOURS OF—
HOURS	DAYS	WEEKS	MONTHS			

7. AIRCRAFT MAKE AND MODEL	IDENTIFICATION MARK	OWNER	ADDRESS (STREET, CITY, STATE)

WHILE BEING FLOWN BY THE FOLLOWING PILOTS:

NAME	ADDRESS (STREET, CITY, STATE)	CERTIFICATE NUMBER AND RATING

16—57823-5

Form FAA-400 (1-48)

8. THE AIR MEET WILL BE SPONSORED BY—

9. PERMANENT MAILING ADDRESS	HOUSE NUMBER AND STREET OR ROUTE NUMBER	POST OFFICE	CITY	STATE

10. POLICING (WHAT PROVISION WILL BE MADE FOR POLICING THE MEET?)

11. EMERGENCY FACILITIES

☐ PHYSICIAN ☐ AMBULANCE ☐ FIRE TRUCK ☐ CRASH WAGON

☐ OTHER (*Specify*) _____

12. AIR TRAFFIC CONTROL (DESCRIBE METHOD OF CONTROLLING TRAFFIC, INCLUDING PROVISION FOR ARRIVAL AND DEPARTURE OF SCHEDULED AIRCRAFT)

13. SCHEDULE OF EVENTS (INCLUDE ARRIVAL AND DEPARTURE OF SCHEDULED AIRCRAFT AND OTHER OPEN PORT PERIODS; UNFORESEEN CHANGES AND REVISIONS TO BE SUBJECT TO APPROVAL OF LOCAL INSPECTOR)

HOUR	DATE	EVENT	PILOT RATING

(If sufficient space is not available, the entire schedule of events may be submitted on separate sheets, in the order and manner indicated above.)

The undersigned applicant accepts full responsibility for the strict observance of the terms of the Certificate of Waiver, and understands that the authorization contained in such certificate will be strictly limited to the above-described operations.

I CERTIFY that the foregoing statements are true.

_____ (DATE) _____ (SIGNATURE OF APPLICANT)

REMARKS:

Form FAA-400 (1-48)

Appendix B

Special Civil Air Regulations
Which Affect Part 49

591893 O - 61 - 2

SPECIAL CIVIL AIR REGULATION NO. SR-397

Effective: June 30, 1953
Adopted: June 30, 1953

Authorization for the United States Forest Service to Deviate from the Civil Air Regulations

The Forest Service of the United States Department of Agriculture uses both public and civil aircraft to carry personnel and equipment to fire areas. The aircraft and pilots are certificated and, where possible, Forest Service operations are conducted in accordance with the Civil Air Regulations. In order to deal effectively with fire control and other Forest Service specialized activities, however, it is often necessary to use uncertificated personnel as parachute riggers during peakload periods, to remove seats and safety belts from aircraft in which firefighters are carried, to drop equipment and supplies from aircraft, and to deviate from other provisions of the Civil Air Regulations such as minimum altitudes and visibility conditions. Due to the exigencies of the particular situation, it is usually impracticable for the Forest Service to seek authority in each particular instance to deviate from the provisions of the Civil Air Regulations. In view of the public service rendered by this organization and the well-organized supervisory control which the Forest Service exercises over its operations, it is considered desirable that the Board authorize the Forest Service to deviate from the Civil Air Regulations and normal practices thereunder when necessary for their operations.

This regulation authorizes the Chief of the Forest Service to permit aircraft and airmen, while engaged in Forest Service operations, to deviate from the Civil Air Regulations to the extent that he finds necessary for the expeditious conduct of such operations. The regulation also provides that the Administrator shall establish a procedure for notification by the Chief of the Forest Service of those deviations which he has authorized.

Interested persons have been afforded an opportunity to participate in the making of this regulation, and due consideration has been given to all relevant matter presented. Since this regulation imposes no additional burden on any person, it may be made effective without prior notice.

In consideration of the foregoing the Civil Aeronautics Board hereby makes and promulgates the following Special Civil Air Regulation, effective immediately:

Contrary provisions of the Civil Air Regulations notwithstanding, the Chief, Forest Service, United States Department of Agriculture, is authorized to permit aircraft and airmen, while engaged in operations conducted for the United States Forest Service, to deviate from the provisions of the Civil Air Regulations to the extent that he finds necessary for the expeditious conduct of such operations. The Chief, Forest Service, shall notify the Administrator of any deviation which he has authorized and the reasons therefor in accordance with a procedure established by the Administrator.

SPECIAL CIVIL AIR REGULATION NO. SR-443

Effective: Nov. 14, 1960
Adopted: Nov. 14, 1960

Authority to Deviate from Certain Provisions of Part 49 of the Civil Air Regulations Within the State of Alaska

The Federal Aviation Agency has recently received requests from various operators in Alaska for authority to transport in cargo aircraft within the State of Alaska flammable liquids, viz., gasoline and fuel oil, in larger quantities than presently permitted by Part 49 of the Civil Air Regulations and Part 72 of the Interstate Commerce Commission Regulations.

These operators state that they have the need to transport gasoline and fuel oil supplies in 55-gallon drums to mining sites, exploration groups, and small villages in relatively remote areas, as well as to the various outlying stations served by scheduled and charter services. Although water transportation to some of these locations is possible at certain times, surface freezing during the major part of the year makes air transportation the only practicable means of resupply. Annual resupply by stockpiling fuel in 55-gallon drums, during the limited time when surface transportation is possible, presents a fuel contamination problem, due to the water and rust accumulation which develops in the drums. This is especially critical where aviation fuel is concerned.

Section 49.41(a) of Part 49 of the Civil Air Regulations permits transportation in cargo aircraft of any article packed, marked, and labeled in accordance with ICC Regulations for transportation by rail express. The ICC Regulations do not permit the carriage by rail express of gasoline and fuel oil in quantities exceeding 10 gallons. They do, however, permit larger quantities to be shipped in an outside container aboard trucks and in freight carriage, and 55-gallon drums have been approved for such shipments. Section 49.2 provides, in emergency situations or where other forms of transportation are impracticable, for deviation from any of the provisions of Part 49 for a particular flight subject to such terms, conditions, and limitations as the Administrator finds necessary in the interest of safety in air commerce.

Certain of the operators in Alaska have previously been granted individual authorizations for the carriage of gasoline and fuel oil in the larger quantities under consideration. The experience gained under these individual authorizations has indicated that such operations can be conducted without an adverse effect upon safety. Since there is a continuing need to transport these flammable liquids and an authorization granted under section 49.2 for a particular flight is not sufficient to meet this need, special authority for a series of flights is required. Therefore, it would be consistent with present procedures to grant special authority to such operators to deviate from the provisions of Part 49 to the extent provided herein.

The provisions of this Special Civil Air Regulation authorize deviations from Part 49 only with respect to the carriage of gasoline and fuel

oil in 55-gallon drums aboard cargo aircraft, and the shipper and operator are required to comply with the requirements of Part 49 in all other respects.

Prior to engaging in operations pursuant to this Special Civil Air Regulation, each operator will be required to furnish the Chief, Flight Standards Field Division, Region 5, with a list showing the type aircraft, registration number, airports to be used, and the area in which the aircraft is to be operated.

This special regulation shall continue in effect until October 31, 1962. Prior to this date, the experience gained under this authorization will be evaluated for the purpose of considering the incorporation of the substance of this rule in the permanent body of the Civil Air Regulations.

Since this special regulation grants relief and imposes no additional burden on any person, notice and public procedure hereon are unnecessary, and good cause exists for making it effective immediately.

In consideration of the foregoing, the following Special Civil Air Regulation is hereby adopted to become effective November 14, 1960:

1. Contrary provisions of section 49.41(a) of Part 49 of the Civil Air Regulations notwithstanding, and subject to the conditions hereinafter set forth, any operator of aircraft while conducting operations entirely within the State of Alaska, may deviate from the provisions of such section to the extent necessary to permit the transportation in cargo aircraft of 55-gallon drums of gasoline or fuel oil.

(a) Prior to engaging in operations pursuant to this Special Civil Air Regulation, each operator furnishes the Chief, Flight Standards Field Division, Region 5, with a list showing the type aircraft, registration number, airports to be used, and the area in which the aircraft is to be operated. All operations must be conducted with the aircraft and at the places listed unless express approval to do otherwise is obtained from the Chief, Flight Standards Field Division.

(b) Gasoline and fuel oil are prepared for shipment in 55-gallon containers which meet Specification 5, 5B, 5C, or 5M prescribed in Part 78 of the Interstate Commerce Commission Regulations.

(c) Each container is inspected prior to and after being loaded aboard the aircraft to determine that it is airtight and leakproof. Any defective container shall be rejected for shipment.

(d) Each container is loaded with the filling hole up, and blocked, braced, and secured so as to prevent change of position by ordinary shocks incident to transportation.

(e) The cargo compartment is ventilated so as to prevent accumulation of fumes from the contents of the containers.

(f) Other cargo carried in the same compartment with flammable liquid containers is blocked, braced, and secured so as to prevent change of position by ordinary shocks incident to transportation.

(g) Each container is conspicuously labeled with a flammable liquids label or plainly marked to indicate its contents. In lieu thereof, "DANGEROUS—FLAMMABLE LIQUID CARGO" may be conspicuously and legibly marked on the outside of the cargo doors.

(h) No smoking, lighting of matches, or carrying of any flame or lighted cigar, pipe, or cigarette is permitted while loading or unloading the aircraft, or during flight.

(i) Loading and unloading of flammable liquids are not to be accomplished while the aircraft engines are running.

(j) The operator or a competent authorized employee of the operator must supervise the loading of the aircraft, inspect each finished load, and certify as to its compliance with the pertinent requirements of this Special Civil Air Regulation. The operator must maintain a record of such inspections, showing the dates, quantities carried, and the results of the inspections made.

(k) Persons other than crewmembers are not carried aboard the aircraft while transporting flammable liquids under this authorization.

This Special Civil Air Regulation shall expire October 31, 1962, unless sooner superseded or rescinded by the Federal Aviation Agency.

SPECIAL CIVIL AIR REGULATION NO. [SR-447]

Effective: June 3, 1961
Adopted: May 26, 1961
Published: June 3, 1961
(26 F.R. 4930)

Authority to Deviate from Certain Provisions of Part 49 of the Civil Air Regulations Within the State of Alaska

Many of the hunting, fishing, logging, and mineral exploration sites in Alaska are in remote and relatively isolated areas where transportation by air is the only practicable means of access. Flights to these areas usually are made in small aircraft carrying passengers and their supplies and equipment. However, these passengers are not permitted to carry sufficient gasoline to operate their outboard motors, chain saws, cook stoves, lanterns, and related equipment, due to the restrictive provisions of Part 49 of the Civil Air Regulations.

The current provisions of Part 49 limit the quantity of gasoline that may be carried in passenger-carrying aircraft to 50 pounds in any cargo pit or bin when packed in one quart inside containers which are packed in a strong outside container with suitable cushioning and absorbent material to prevent breakage or leakage. Therefore, passengers desiring to transport greater quantities of gasoline packed in larger containers, such as refinery sealed cans of 5-gallon capacity, are required to utilize a cargo-only flight for this purpose. Such a requirement places an undue burden on the passengers and does not permit full utilization of the aircraft in the manner intended. The remoteness of many areas in Alaska, with the consequent dependence on air transportation as a means of access to those areas, indicates that there is a need for relief from the gasoline quantity restriction of Part 49 with respect to those small aircraft not engaged in scheduled passenger-carrying operations.

Certain air carriers in Alaska have previously been granted individual authorizations for the carriage, under specified conditions, of not more than 20 gallons of gasoline in the cabin of small passenger-carrying aircraft operated in charter operations. Alaska Coastal Airlines presently holds Exemption No. 149, expiring February 15, 1963, granting such authorization. The experience gained under these individual authorizations has indicated that gasoline can be carried under such specified conditions without an adverse effect on safety. Since there is a need by other operators to transport gasoline in the larger quantities under consideration, it would be consistent with present procedures to grant special authority to the operators of small aircraft, not engaged in scheduled passenger-carrying operations, to deviate from the provisions of Part 49 to the extent provided herein.

The provisions of this Special Civil Air Regulation authorize deviations from Part 49 only with respect to the carriage of up to 20 gallons of gasoline in passenger-carrying aircraft in other than scheduled opera-

tions. The shipper and operator are required to comply with the requirements of Part 49 in all other respects.

Prior to engaging in operations pursuant to this Special Civil Air Regulation, each operator will be required to furnish the Chief, Flight Standards Field Division, Region 5, with (1) a list showing the type of aircraft, registration number, and the area in which the aircraft is to be operated, and (2) a statement that such carriage is necessary to meet the needs of passengers, and that air is the only practicable means of transportation.

This special regulation shall continue in effect until July 15, 1963. Prior to this date, the experience gained under this authorization will be evaluated for the purpose of considering the incorporation of the substance of this rule in the permanent body of the Civil Air Regulations.

Since this special regulation grants relief and imposes no additional burden on any person, notice and public procedure hereon are unnecessary, and good cause exists for making it effective immediately.

In consideration of the foregoing, the following Special Civil Air Regulation is hereby adopted, to become effective June 3, 1961.

1. Contrary provisions of sections 49.15 and 49.24 of Part 49 of the Civil Air Regulations notwithstanding, and subject to the conditions hereinafter set forth, an operator of aircraft of 12,500 pounds or less maximum certificated takeoff weight may deviate from the provisions of such sections to the extent necessary to permit the transportation of not more than 20 gallons of gasoline in other than one-quart containers in such aircraft operated entirely within the State of Alaska in other than scheduled passenger-carrying operations, provided that:

(a) Prior to engaging in operations pursuant to this Special Civil Air Regulation, each operator furnishes the Chief, Flight Standards Field Division, Region 5, with a list showing the type aircraft, registration number, and the area in which the aircraft is to be operated, and indicates that such carriage is necessary to meet the needs of its passengers, and that air is the only practicable means of transportation; and

(b) The gasoline is packed in airtight and leakproof inside containers of at least 28 gauge metal and of not more than 10 gallons capacity each, and each such inside container is packed in an outside wooden box of at lease one-half inch thickness; and

(c) The compartment in which the gasoline container is packed is ventilated so as to prevent the accumulation of gasoline fumes within the aircraft; and

(d) Prior to each flight, the pilot in command orally informs all passengers as to the location of the gasoline, the hazards involved, and prohibits smoking, the carrying of any lighted cigar, pipe, or cigarette, the lighting of matches, or the use of any object that might cause an open flame or spark while loading or unloading the aircraft, or during flight.

This Special Civil Air Regulation shall expire July 15, 1963, unless sooner superseded or rescinded.

Appendix C

Federal Aviation Agency Exemptions
Which Affect Part 49

Exemption No. 108

UNITED STATES OF AMERICA
FEDERAL AVIATION AGENCY
WASHINGTON, D.C.

In the matter of the petition of

DEPARTMENT OF NATURAL RESOURCES
STATE OF WASHINGTON

for an exemption from the provisions of certain sections of the Civil Air Regulations

Regulatory Docket No. 473

GRANT OF EXEMPTION

By letter dated July 29, 1960, the Department of Natural Resources, State of Washington, petitioned for an exemption to deviate from the Civil Air Regulations in order to deal effectively with fire control and other specialized activities in connection with state and privately owned forest land in the State of Washington. The authorization sought through this exemption is similar to that granted to the U.S. Forest Service in Special Civil Air Regulation SR–397.

The Department of Natural Resources of the State of Washington uses both civil and public aircraft to carry personnel and equipment to fire areas. The aircraft and pilots are certificated, and, where possible, operations are conducted in accordance with the Civil Air Regulations. However, to deal effectively with fire control and the other specialized activities incident to the care and maintenance of the forest land in the State of Washington, it is often necessary (1) to use uncertificated personnel as parachute riggers for rigging cargo parachutes during peak-load periods; (2) to transport cargo droppers in aircraft from which approved seats and safety belts have been removed; (3) to carry gasoline or diesel oil packed in quantities up to 5 U.S. gallons in one metal container aboard passenger-carrying aircraft; (4) to carry gasoline or diesel oil packed in quantities up to 55 U.S. gallons in any one drum aboard cargo aircraft; and (5) to deviate from minimum altitude rules in sparsely populated areas. Due to the exigencies of a particular situation, it is usually impracticable for the Department of Natural Resources to seek authority in each of the above-mentioned instances to deviate from the applicable provisions of the Civil Air Regulations.

In view of the service rendered to the public in the preservation of life and property by this organization and the well-organized supervisory control which it exercises over its operations, I find that an exemption from certain provisions of the Civil Air Regulations as more specifically set forth hereinafter is in the public interest. Therefore, pursuant to the authority contained in sections 313(a) and 601(c) of the Federal Aviation Act of 1958, as amended, which has been delegated to me by the Administrator (14 CFR 405.31), the Department of Natural Resources, State of Washington, is hereby granted an exemption from sections 25.80, 43.30(a)

(12), 49.15, 49.24, 54.2(a), and 60.17(c) of the Civil Air Regulations as follows:

Contrary provisions of the above enumerated sections of the Civil Air Regulations notwithstanding, the Department of Natural Resources of the State of Washington is authorized to conduct fire control operations, and other specialized activities in connection with state and privately owned forest land in the State of Washington, which require deviations from the designated provisions of the Civil Air Regulations within the limitations stated in the petition for this exemption to the extent that the Commissioner of Public Lands, Department of Natural Resources, State of Washington, finds necessary for the expeditious conduct of such operations. The Commissioner of Public Lands shall maintain current records of each flight or series of flights for which a deviation is required. These records shall be available for inspection by an authorized representative of the Administrator and shall contain at least the following information, as appropriate:

1. Date, period of time, and location.
2. Deviation required.
3. Names of personnel involved.
4. Certificate number.
5. Aircraft make, model, and registration number.
6. Nature of flight.

This exemption and the authorization granted herein supersedes the telegram of August 5, 1960, to the Department of Natural Resources, State of Washington, and shall remain effective until superseded or rescinded.

/s/ George C. Prill
Acting Director,
Bureau of Flight Standards

Issued in Washington, D.C., on November 22, 1960.

Exemption No. 127

UNITED STATES OF AMERICA
FEDERAL AVIATION AGENCY
WASHINGTON, D.C.

In the matter of the petition of
ABBOTT LABORATORIES
for an exemption from certain provisions of Part 49 of the Civil Air Regulations
} Regulatory Docket No. 560

GRANT OF EXEMPTION

By letter dated September 12, 1960, Abbott Laboratories of Chicago, Illinois, and Oak Ridge, Tennessee, hereinafter referred to as Abbott, has requested permission to transport quantities of radioactive materials exceeding two (2) curies but not more than fifty (50) curies aboard civil aircraft. Carriage of such material aboard civil aircraft in quantities in excess of two curies generally requires an exemption from the provisions of Part 49 of the Civil Air Regulations.

In support of their request Abbott states:

a. The production of certain basic, short-lived radioactive materials (targets) obtained from various reactor sites must be further processed at their Oak Ridge (Knoxville, Tennessee) plant before they can be shipped to institutions primarily concerned with medical diagnosis and therapy.

b. The short-life period during which the targets retain their effectiveness demands fast transportation.

c. These targets consist of stable, solid, organic materials, usually elements which have been subjected to the neutron fix of a nuclear reactor. Economic considerations require that multicurie quantities (more than 2 curies) of radioactivity be produced in each target.

d. The target material is contained within a hermetically sealed aluminum capsule. For shipment, this capsule will be placed within a container providing sufficient shielding to reduce the external radiation to the limits required by regulation; i.e., 200 mr/hr at the surface and 10 mr/hr at 1 meter maximum.

e. Details of the disaster-proof shipping container which we propose to use can be found in the attached drawing. It has been approved by ICC for the shipment of multicurie quantities of solid radioactive material and has been assigned BE Permit 741.

We find that Abbott is a "licensee" of the Atomic Energy Commission and as such has wide experience and knowledge in the handling and processing of radioactive materials.

The materials to be transported are being manufactured by contractors authorized by the Atomic Energy Commission to produce radioactive materials for use by institutions furthering medical diagnosis and therapy. The shipments, however, are made in the name of the Abbott Laboratories. It appears to be in the public interest that such research

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should be provided with the fullest use of these short-lived materials insofar as public safety permits. Air shipment will reduce greatly the time lost during transportation and would materially aid the research program.

Presently, the safety standards prescribed by the Civil Air Regulations limit the quantity of radioactive materials to 2 curies, or, in some instances, 2.7 curies with respect to the materials which Abbott seeks to transport by air. The present limitations do not distinguish between those materials which are "short-lived" and those which are "long-lived" and may retain hazardous effects for long periods of time. By comparison, the carriage of multicurie quantities of *short-lived* materials do not present the continuing hazard that might be encountered by a 2-curie shipment of *long-lived* materials in the event of crash emergency conditions. The principal safety items that require careful consideration involve adequate shielding within the container to prevent external radiation and the strength of the container to withstand fire and crash forces. In this respect Abbott has developed a shipping container which has been fully tested and is regarded as disaster proof. The container has been approved by the Bureau of Explosives (BE), a technical arm of the Interstate Commerce Commission, and BE Permit 741 authorizes this container to be used for shipment of quantities of radioactive materials not exceeding 50 curies in rail express.

The specifications submitted by Abbott in support of their petition conform to the specification of BE Permit 741. The container is steel-clad, leakproof, and fireproof, and of such strength that it would resist impact and fire under all the forces and fire conditions attendant upon airplane total crash conditions. The radioactive material is enclosed in a hermetically sealed aluminum capsule so shielded within the steel-clad container that the external radiation is within the limits prescribed for the 2 curie shipment, i.e., 10 milliroentgens per hour at a distance of 1 meter of 200 milliroentgens per hour at the surface. This external radiation limit would not be increased by fire or crash forces. The reliability of the container data described above has been confirmed by the Bureau of Explosives.

Additionally, we have discussed with representatives of the Atomic Energy Commission the safety considerations involved in the shipments of radioactive materials by air which exceed the quantity limitations. They have advised us that they have made numerous excess quantity shipments during the past several years under exemption authority given AEC by the regulations and they were completed with an excellent safety record.

In consideration of the foregoing and pursuant to the authority contained in sections 313(a) and 601(c) of the Federal Aviation Act of 1958, which has been delegated to me by the Administrator (14 CFR 405.31), I find that an exemption to Abbott Laboratories from the provisions of sections 49.31(f) and 49.41 of the Civil Air Regulations as more specifically set forth hereinafter would not adversely affect safety and is in the public interest since the transportation of these materials by air would permit the continuation of medical research and therapy work performed by institutions serving a public need. Therefore, Abbott Laboratories is hereby

granted an exemption from sections 49.31(f) and 49.41 of the Civil Air Regulations to the extent necessary to transport quantities of radioactive materials exceeding two (2) curies but not more than fifty (50) curies aboard civil aircraft when packed in the BE Permit 741 container. All such shipments are subject to the conditions hereinafter set forth.

a. Abbott shall furnish to each contractor making such shipments the container specifications and requirements perscribed by BE Permit 741. A record shall be retained by Abbott listing the contractors to whom such specifications have been furnished. A list of the contractors shall be furnished to the Director, Bureau of Flight Standards, Federal Aviation Agency, Washington 25, D.C.

b. All shipments exceeding the quantities as prescribed by section 73.391 (b) and (c) of the Interstate Commerce Commission regulations shall be made only in the approved containers and shall show the assigned BE Permit number (741) on the outer shipping container.

c. The shipper's certificate required by Part 49 shall include the certification that the shipment is being made in accordance with the container specifications and conditions prescribed by BE Permit 741. The certification shall be made by a duly authorized representative of the shipper who has determined that the shipment has been thoroughly checked and has been found to meet the packaging and labeling requirements prescribed by Part 49 of the Civil Air Regulations except with respect to the quantity limitations prescribed by sections 49.31(f) and 49.41.

d. This authorization shall expire January 1, 1962,* unless sooner superseded or rescinded by the Federal Aviation Agency.

/s/ Oscar Bakke
Director,
Bureau of Flight Standards

Issued in Washington, D.C., on November 4, 1960.

*See Exemption No. 127A below

Exemption No. 127A
Regulatory Docket No. 560

TELEGRAM

February 14, 1962

Mr. Geoffrey I. Gleason
Nuclear Scientist; Oak Ridge Division
Abbott Laboratories,
Radio-Pharmaceuticals
Oak Ridge, Tennessee

This is in response to your letter of February 9, 1962, in which you petitioned for a renewal of Exemption No. 127. Exemption No. 127 granted Abbott Laboratories of Chicago, Illinois, and Oak Ridge, Tennessee, an exemption from sections 49.31(f) and 49.41 of the Civil Air Regulations to the extent necessary to transport quantities of radioactive

materials exceeding two (2) curies but not more than fifty (50) curies aboard civil aircraft when packed in the BE Permit 741 container.

This exemption expired January 1, 1962. The justification advanced for the renewal of Exemption No. 127 is identical to that which supported the issuance of Exemption No. 127 on November 4, 1960. In view of this fact and for the same reasons set forth in Exemption No. 127, I find that the granting of another exemption similar to Exemption No. 127 would not adversely affect safety and is in the public interest.

Therefore, pursuant to the authority contained in sections 313(a) and 601(c) of the Federal Aviation Act of 1958, which has been delegated to me by the Administrator (14 CFR 405.31), Abbott Laboratories is hereby granted an exemption, to be designated Exemption No. 127A, from sections 49.31(f) and 49.41 of the Civil Air Regulations to the extent necessary to transport quantities of radioactive materials exceeding two (2) curies but not more than fifty (50) curies aboard civil aircraft when packed in the BE Permit 741 container. Such shipments shall be made subject to the conditions set forth in Exemption No. 127. This exemption shall become effective immediately and shall expire February 15, 1963, unless sooner superseded or rescinded by the Federal Aviation Agency.

/s/ G. S. Moore
Acting Director,
Flight Standards Service

UNITED STATES OF AMERICA
FEDERAL AVIATION AGENCY
WASHINGTON. D.C.

In the matter of the petition of
ALASKA COASTAL AIRLINES
for an exemption from certain provisions of Part 49 of the Civil Air Regulations
Regulatory Docket No. 261

GRANT OF EXEMPTION

Since August 29, 1958, Alaska Coastal Airlines has been authorized, under specified conditions, to carry up to 20 gallons of gasoline in metal containers of greater capacity than one quart in the cabin of small civil aircraft operated entirely within Alaska. This authorization was originally granted by Civil Aeronautics Board Order No. S-917, and more recently by Federal Aviation Agency Exemption No. 57 which expires on December 31, 1960.

Current provisions of Part 49 of the Civil Air Regulations permit the carriage in passenger-carrying aircraft of not more than 50 pounds net weight of gasoline in any cargo pit or bin when packed in one quart inside containers which are packed in a strong outside container with suitable cushioning and absorbent material to prevent breakage or leakage. Exemption from the foregoing provisions of Part 49 is necessary to alleviate the problem associated with transporting sufficient quantities of gasoline to remote areas in the State of Alaska to meet the needs of the passengers utilizing the services of Alaska Coastal, since access to these areas by any transportation means other than air is impracticable. Many of these passengers desiring to hunt, fish, conduct logging operations, etc., require gasoline for their outboard motors, chain saws, lanterns, and related equipment. However, to transport sufficient quantities of gasoline for such equipment under the provisions of Part 49 would require that a separate cargo-only flight be chartered. Such a requirement places an undue burden on the passengers and does not permit full utilization of the service otherwise made available by the carrier.

The petitioner states that the circumstances which justified the granting of the original waiver by Civil Aeronautics Board Order No. S-917 on August 29, 1958, and of Exemption No. 57 by the FAA on January 25, 1960, still exist. In consideration of the foregoing, I find that an exemption from the provisions of Part 49 of the Civil Air Regulations, as more specifically set forth hereinafter, would permit better utilization of air carrier service in the remote areas of Alaska without compromising safety and would be in the public interest. Therefore, pursuant to the authority contained in sections 313(a) and 601(c) of the Federal Aviation Act of 1958, which has beeen delegated to me by the Administrator (14 CFR 405.31), Alaska Coastal Airlines is hereby granted

an exemption from sections 49.15 and 49.24 of Part 49 of the Civil Air Regulations as follows:

(a) Contrary provisions of the above enumerated sections of the Civil Air Regulations notwithstanding, Alaska Coastal Airlines is authorized to transport not more than 20 gallons of gasoline in other than one-quart containers in any small civil aircraft operated entirely within the State of Alaska in charter operations, provided that:

(1) Such gasoline is packed in airtight and leakproof inside metal cans of at least 28 gauge of not more than 10 gallons capacity each, and each such inside metal can is packed in an outside wooden box of at least one-half inch thickness; and

(2) Each such container of gasoline is placed in the aircraft in a location which is ventilated so as to prevent the accumulation of gasoline fumes within the aircraft; and

(3) Prior to each flight on which gasoline is to be carried pursuant to this exemption, the pilot in command orally informs all passengers as to the location of the gasoline, the hazards involved, and prohibits smoking, the lighting of matches, or the carrying of any lighted cigar, pipe, or cigarette, or the use of any object that might cause an open flame or spark; and

(4) Prior to each flight on which gasoline is to be carried pursuant to this exemption, Alaska Coastal Airlines furnishes the FAA Air Carrier District Office, Juneau, Alaska, with a list showing the type of aircraft, registration number, and the area in which the aircraft is to be operated, and indicates that such carriage is necessary to meet the needs of its passengers, and that air is the only practicable form of transportation.

(b) This exemption and the authorization granted herein supersedes Exemption No. 57, issued January 25, 1960, and shall expire February 15, 1963, unless sooner superseded or rescinded.

/s/ Oscar Bakke
Director,
Bureau of Flight Standards

Issued in Washington, D.C., on December 31, 1960.

Exemption No. 170

UNITED STATES OF AMERICA
FEDERAL AVIATION AGENCY
WASHINGTON, D.C.

In the matter of the petition of
RICHFIELD OIL CORPORATION
for exemption from certain provisions of Part 49 of the Civil Air Regulations
} Regulatory Docket No. 34

GRANT OF EXEMPTION

By letter dated May 1, 1961, Richfield Oil Corporation, Long Beach, California, hereinafter referred to as Richfield Oil, requested a one-year extension of Exemption No. 93 (Regulatory Docket No. 34). This exemption permitted the transportation of Class A explosives and experts trained in the handling and use of such explosives in civil aircraft within the State of Alaska, notwithstanding certain provisions of Part 49 of the Civil Air Regulations.

Richfield Oil uses these explosives and personnel in connection with geophysical seismic explorations directed toward the development of oil and gas resources in the State of Alaska. The areas in which such explorations are conducted are, in many cases, inaccessible by any transportation means other than air. In the petitioner's case, it is necessary in the furtherance of its explorations to transport Class A explosives, and personnel trained in the handling and use of such explosives, to and between seismic shot point locations, in light aircraft and in helicopters because of the lack of other means of transportation. Richfield Oil states that in small aircraft, such as Bell helicopters, there would be two experts and a maximum of 150 pounds of material which would include Class A explosives. In larger aircraft, such as the Sikorsky S–55, the maximum load would consist of a crew of three experts and their equipment, which would include Class A explosives. The quantity of explosives on normal flights would consist of not more than 50 TNT primers and 50 electric blasting caps. At no time will any personnel other than those in charge of handling explosives be transported with the explosives.

By Exemptions Nos. 18 and 93, the Federal Aviation Agency authorized Richfield Oil to carry Class A explosives in civil aircraft within Alaska without a waiver for each individual flight. Experience under this authority has indicated that such operations by Richfield Oil can be conducted without an adverse effect on safety.

The previous exemptions required that, prior to each flight during which Class A explosives and technical personnel were to be carried, the operator furnish the Regional Manager with a list showing the type aircraft, registration number, area in which the aircraft is to be operated, and the names of the technical personnel to be carried. This requirement has placed a burden upon the operator and the Regional Manager, and has been deleted from similar exemptions granted to other operators. A substitute requirement, as shown in paragraph (2) of this exemption, will serve the intended purpose and relieve the administrative burden, and will

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insure that the Regional Manager has full knowledge of the extent and scope of the operations being conducted and the operating procedures established, and has found them acceptable.

The previous exemptions also required further instructions from the Regional Manager to the exemption holder. Revision to the extent necessary to reduce the need for additional instructions from the Regional Manager will further simplify administrative procedures.

In consideration of the foregoing, I find that the requested extension of the privileges granted by Exemption No. 93 would reduce an administrative burden, would not adversely affect safety, and would be in the public interest. Therefore, pursuant to the authority contained in sections 313(a) and 601(c) of the Federal Aviation Act of 1958, which has been delegated to me by the Administrator (14 CFR 405.31), Richfield Oil Corporation is hereby granted an exemption from the provisions of Part 49 of the Civil Air Regulations to the extent necessary to permit the aircraft operators listed in paragraph (6) to carry Class A explosives in civil aircraft within the State of Alaska. Such carriage shall be conducted under the following terms and conditions:

(1) The aircraft shall not be used to carry persons other than crewmembers and personnel trained in the use and handling of Class A explosives who are assigned by Richfield Oil to handle and use the Class A explosives. The names of such personnel shall be furnished to the Regional Manager, Federal Aviation Agency, Post Office Box 440, Anchorage, Alaska, by Richfield Oil.

(2) Prior to conducting operations, Richfield Oil shall notify the Regional Manager, Region Five, in writing, of the operating base or bases, the area or areas of operations, and the operating procedure established for such operations, and the Regional Manager or his designated representative shall have found these to be acceptable. Richfield Oil and its authorized aircraft operators will then be notified in writing by the Regional Manager or his representative of the acceptability of the listing and procedures. No deviations from this listing shall be made without the express approval of the Regional Manager or his designated representative.

(3) Transportation of Class A explosives to and from a civil airport may be made only if prior arrangements have been made by the operator of the aircraft with the local civil airport management. "Civil airports" include FAA intermediate fields and the international airports at Anchorage and Fairbanks. The station manager at an FAA intermediate field is also the airport manager.

(4) Each operator shall apply to the nearest General Safety District Office for approval of departure or approach routes for operations conducted on or in the vicinity of civil airports, or any landing area located in the vicinity of cities, towns, or settlements. The carriage of explosives in *airplanes* may not be authorized to or from Merrill Field, Anchorage, or Phillips Field, Fairbanks. At airports served by control towers, the controller shall be notified that explosives are being carried, prior to takeoff or entry into the traffic pattern. If use of radio is prohibited or not advisable, as when electric firing caps are carried, other acceptable means shall be used to inform the controller in advance. All

flights shall be under Visual Flight Rules. These requirements are in addition to other requirements which may be imposed by local airport management.

(5) The aircraft, when used in this operation, shall meet the aircraft performance and weight limitations applicable to passenger-carrying aircraft.

(6) The authorization granted in this exemption shall be restricted to the following named aircraft operators currently under contract to Richfield Oil to conduct geophysical seismic explorations directed toward the development of oil and gas resources in the State of Alaska, and to such other operators as may be approved by the Regional Manager, Region 5, or his designated representative:

E.R.A. Helicopter, Inc.
P.O. Box 1850
Ventura, California

Hill-I-Copters
Anchorage, Alaska

Alaska Helicopters, Inc.
Anchorage, Alaska

Richfield Oil shall notify the Regional Manager, Federal Aviation Agency, P.O. Box 440, Anchorage, Alaska, of such other operators of aircraft as it may wish to put under contract to engage in the same work. Upon investigation of fitness and ability to comply with the requirements of this exemption, Richfield Oil will be notified of the Regional Manager's approval or disapproval.

This exemption and the authorization granted herein shall become effective on June 23, 1961, and shall remain in effect until June 23, 1962, unless sooner superseded or rescinded by the Federal Aviation Agency.

/s/ George C. Prill
Acting Director,
Bureau of Flight Standards.

Issued in Washington, D.C., on June 8, 1961.

Exemption No. 172

UNITED STATES OF AMERICA
FEDERAL AVIATION AGENCY
WASHINGTON, D.C.

In the matter of the petition of MILITARY TRAFFIC MANAGEMENT AGENCY *for exemption from the provisions of Part 49 of the Civil Air Regulations*	Regulatory Docket No. 15

GRANT OF EXEMPTION

By letter dated 19 April 1961, the Executive Director, Military Traffic Management Agency, U.S. Army, on behalf of the Department of Defense, requested the Federal Aviation Agency to authorize the transportation of certain kinds of explosives and other dangerous articles via the Department of Defense contract airlift services (QUICKTRANS) and (LOGAIR) between military airports in the United States. Such authorization requires exemption from certain provisions of Part 49 of the Civil Air Regulations in order to transport these materials aboard civil aircraft.

Petitioner advises that: (1) QUICKTRANS and LOGAIR are all-cargo airlift services between selected points of Department of Defense logistic interest within the continental United States contracted annually between the Department of Defense and certain air carriers; (2) the Department of Defense considers the requested exemption authority to permit the transportation of urgently required explosives and other dangerous articles via the QUICKTRANS and LOGAIR contracts to be in the national interest and in support of vital functions of the Department of Defense; (3) shipments of such materials by QUICKTRANS and LOGAIR will be, for the major part, of a classification whose primary hazard is one of flammability rather than of mass detonation, or chemical munitions which will be mostly escorted toxic material (Class A poisons) or tear gas (Class C poison) which may be in larger quantities than presently authorized in FAA or Interstate Commerce Commission Regulations, as well as laboratory samples packed in gas identification sets authorized for movement in limited quantities, without escort, in ICC Regulations; (4) in consideration of the special hazards in air transportation of the materials involved, the cognizant military services (Bureau of Supplies and Accounts, Department of the Navy; Director of Transportation, Air Force Logistic Command; Chemical Corps, Department of the Army) will issue detailed instructions governing the packing of the explosives and other dangerous articles, including toxic material, to be moved, the handling of these materials, and the criteria for determining the emergency nature of the shipment which precludes transportation by other means; (5) carriage of passengers not essential to the flight will be prohibited; (6) arrangements can be made to restrict flights to military airfields; and (7) for transportation of toxic material, escorts will provide sufficient protective clothing for each of the personnel in the airplane and carry sufficient agent (caustic soda) to combat any decontamination problem which may arise.

Section 49.41 of Part 49 of the Civil Air Regulations permits transportation in cargo aircraft of any article packed, marked, and labeled in accordance with ICC Regulations that is acceptable for transportation by rail express. It is noted that the Interstate Commerce Commission, pursuant to section 71.13 of its regulations, has authorized the various United States military departments to transport Class A explosives by rail whenever critical situations dictated such authorization. In these situations, however, the ICC has required that certain stringent packing, stowing, and carriage provisions of its regulations be complied with as a condition of such authorization. In addition, it is noted that a number of contract air carriers have been authorized to transport by air, under specified terms and conditions and during national emergency status, Class A explosives in civil aircraft where it was found necessary in the national defense.

Part 49 of the Civil Air Regulations prohibits the transportation by civil aircraft in the United States of explosives and other dangerous articles listed in Part 72 of the ICC Regulations as articles not accepted for shipment by rail express except that, in emergency situations or where other forms of transportation are impracticable, carriage of such articles may be authorized by the Administrator for a particular flight.

The Department of Defense has stated it has a continuing requirement for the transportation of these explosives by air and, although Part 49 provides for an individual authorization granted for a particular flight, its issuance involves time-consuming procedures that are not readily sufficient to meet this need; thus, a general exemption for a series of flights has been found necessary. The Air Force contract airlift service (LOGAIR), and the Navy contract airlift service (QUICKTRANS), both of the Department of Defense, presently hold such exemptions (Nos. 89 and 92, respectively) which expire July 1, 1961. The civil contract carrier experience gained under such exemptions has been favorable from a safety standpoint. It appears that the issuance of a single exemption to the Department of Defense, in lieu of exemptions to each of the services, would provide uniform standards and procedures for the transport of these materials by civil contract carriers as required by the various services of the Defense Department.

Petitioner has indicated that arrangements can be made to transport explosives and other dangerous articles in civil aircraft only between military airfields. In view of the hazards involved and the proprietary interests of local airport management where a terminal point is a civil airport, it is considered to be in the interest of safety to restrict shipment of such explosives and other dangerous articles to the use of military airfields only.

In addition, the Department of Defense will require the Assistant Chief for Transportation and Facilities, Bureau of Supplies and Accounts, Department of the Navy, or the Director of Transportation, Air Force Logistic Command (AFLC), to certify: (1) that the shipment by air of the explosives and other dangerous articles authorized to be transported under this exemption is required to meet an emergency situation and is in the national interest; (2) that other forms of transportation are impracticable; and (3) that the shipment is made in accordance with the applicable provisions of the ICC Regulations for the shipment of ex-

plosives and other dangerous articles with respect to packaging, marking, stowing, and security of cargo.

In consideration of the foregoing, I find that the exemption requested is in the public interest. Therefore, pursuant to the authority contained in sections 313(a) and 601(c) of the Federal Aviation Act of 1958, which has been delegated to me by the Administrator (14 CFR 405.31), the Department of Defense is hereby granted an exemption from the provisions of Part 49 of the Civil Air Regulations to the extent necessary to permit the transportation by air of explosives and other dangerous articles solely via Department of Defense contract airlift services (QUICKTRANS) and (LOGAIR), subject to the following conditions:

(1) No shipment of explosives and other dangerous articles listed as not acceptable in the commodity list in Part 72 of the Interstate Commerce Commission Regulations shall be transported via QUICKTRANS or LOGAIR flights unless the Assistant Chief for Transportation and Facilities, Bureau of Supplies and Accounts, Department of the Navy, or the Director of Transportation, Air Force Logistic Command, has determined that the shipment is being made in response to an emergency situation and that movement via other modes of transportation is impracticable in terms of time, spoilage, damage, or forfeiture of the normal or intended use of the material at destination;

(2) The Assistant Chief for Transportation and Facilities, Bureau of Supplies and Accounts, Department of the Navy, or the Director of Transportation, Air Force Logistic Command, shall certify that each shipment by air of the explosives and other dangerous articles authorized to be transported under this exemption meets the requirements of paragraph (1), and is in accordance with applicable provisions of the Interstate Commerce Commission Regulations;

(3) Only U.S. military airfields shall be utilized by QUICKTRANS and LOGAIR aircraft for air cargo required to be transported under the terms of this exemption:

(4) Explosives and other dangerous articles shall be packed in accordance with, or in excess of, the requirements of the Interstate Commerce Commission Regulations, and DOD publication NAVAER 15-03-500; TM 38-250; AFM-71-4; and NAVMC-2501, dated 1 June 1959;

(5) Explosives and other dangerous articles not accepted for transportation on passenger or cargo aircraft under Part 49 may be transported by aircraft under the terms of this exemption only if approved for surface transportation by Special ICC permit, and packed in accordance with paragraph (4) and such other special requirements as may be necessary for the particular article to be carried;

(6) The hazard classification of all explosive and other dangerous article items shall be determined in accordance with approved procedures of the Department of Defense, Bureau of Explosives, and the Bureau of Safety and Service, Interstate Commerce Commission, prior to being tendered for movement;

(7) A qualified Department of Defense ordnance or chemical technician, designated by the Assistant Chief for Transportation and Facilities, Bureau of Supplies and Accounts (Navy), or the Director of Transportation, Air Force Logistic Command, as the case may be, shall

supervise the loading and unloading operations of aircraft transporting the explosives and other dangerous articles under the terms of this exemption;

(8) No passenger may be carried without the specific authorization of the Assistant Chief for Transportation and Facilities, Bureau of Supplies and Accounts (Navy), or the Director of Transportation, Air Force Logistic Command: *Provided,* That any such authorization is restricted to the movement of Department of Defense couriers while accompanying security, classified, or sensitive cargo, Department of Defense route supervisors in the performance of their duties, or contractor personnel directly involved in the QUICKTRANS or LOGAIR operations;

(9) In all other respects, the operations conducted under the authority of this exemption shall comply with the requirements of Part 49 of the Civil Air Regulations; and

(10) The pilot in command shall be notified of the type, quantity, and location of the hazardous materials carried on the aircraft.

This exemption and the authorization granted herein supersedes Exemptions Nos. 89 and 92, issued June 1 and June 6, 1960, respectively, shall become effective July 1, 1961, and shall expire July 10, 1963, unless sooner superseded or rescinded by the Federal Aviation Agency.

/s/ Omer Welling
for *Director,*
Bureau of Flight Standards.

Issued in Washington, D.C., on June 29, 1961.

Exemption No. 172A
Regulatory Docket No. 15

TELEGRAM

September 22, 1961

Brigadier General E. W. Hampton
Department of the Air Force
Headquarters United States Air Force
Washington 25, D.C.

As requested by your letter of September 20, 1961, reference AFSTP-MC-C, the following action has been taken on your petition for waiver of Part 49 of the Civil Air Regulations.

The provisions of Exemption No. 172 presently authorize two Department of Defense airlift contractors, LOGAIR and QUICKTRANS, to perform services in the United States similar to those now requested by the USAF for civil aircraft operated under contract to the Military Air Transport Services (MATS) for airlift between a MATS aerial port of embarkation in the United States and overseas military air bases.

The justification advanced for the issuance of the requested exemption is identical to that which supported the issuance of Exemption No. 172 on June 29, 1961. In view of these facts and circumstances, I find the exemption requested is in the public interest. Therefore, pursuant to the authority contained in sections 313(a) and 601(c) of the Federal Aviation Act of 1958, which has been delegated to me by the Administrator (14 CFR 405.31), Exemption No. 172 is hereby amended by this exemption desig-

nated as 172A, to further permit civil aircraft operators under contract to MATS to transport by air certain explosives and other dangerous articles between military airports in the U.S. and military airports located outside the U.S. subject to the terms and conditions of paragraphs 1 through 10 of Exemption 172 except that the certification and authorizations required by paragraphs 1, 2, 7, and 8 may be accomplished by the Chief of Traffic, Headquarters, MATS, or his duly authorized representative.

This exemption and the authorization granted herein shall become effective immediately, and shall expire July 10, 1963, unless sooner superseded or rescinded by the Federal Aviation Agency.

/s/ George C. Prill
Director,
Flight Standards Service

Exemption No. 174

UNITED STATES OF AMERICA
FEDERAL AVIATION AGENCY
WASHINGTON, D.C.

In the matter of the petition of
PRECISION EXPLORATION CONSULTANTS
for an exemption from certain provisions of Part 49 of the Civil Air Regulations
} Regulatory Docket No. 814

GRANT OF EXEMPTION

On June 13, 1961, Precision Exploration Consultants, Anchorage, Alaska, hereinafter referred to as Precision Exploration, requested a two-year exemption from certain provisions of Part 49 of the Civil Air Regulations. This exemption would permit the transportation of Class A explosives, and experts trained in the handling and use of such explosives, in civil aircraft within the State of Alaska, notwithstanding certain provisions of Part 49 of the Civil Air Regulations.

Precision Exploration uses these explosives and personnel in connection with geophysical seismic explorations directed toward the development of oil and gas resources in the State of Alaska. The areas in which such explorations are conducted are, in many cases, inaccessible by any transportation means other than air. In the petitioner's case, it is necessary in the furtherance of its explorations to transport Class A explosives, and personnel trained in the handling and use of such explosives, to and between seismic shot point locations, in small airplanes and in helicopters because of the lack of other means of transportation. Precision Exploration states that in small aircraft, such as Bell helicopters, there would be two experts and a maximum of 150 pounds of material, which would include Class A explosives. In larger aircraft, such as the Sikorsky S–55, the maximum load would consist of two crews of three experts each and their equipment, which would include Class A explosives. The quanity of explosives on normal flights would consist of not more than 24 TNT primers and 50 No. 6 electric blasting caps. At no time will any personnel other than those in charge of handling explosives be transported with the explosives.

The exemption sought by the petitioner is identical with exemptions granted to Richfield Oil Company of California, in connection with geophysical seismic explorations directed toward the development of oil and gas resources in the State of Alaska. Two years of experience under these exemptions indicates that exploration operations transporting explosives and experts in accordance with the terms and conditions hereinafter prescribed have been conducted without adversely affecting air or ground safety.

In consideration of the public interest in the development of oil and gas resources within the State of Alaska, and the experience gained in operations conducted in accordance with the terms and conditions hereinafter specified, I find that an adequate level of safety can be maintained

in the operation proposed by the petitioner and that it is in the public interest to grant this exemption. Therefore, pursuant to the authority contained in sections 313(a) and 601(c) of the Federal Aviation Act of 1958, which has been delegated to me by the Administrator (14 CFR 405.31), Precision Exploration Consultants is hereby granted an exemption from the provisions of Part 49 of the Civil Air Regulations to the extent necessary to permit the aircraft operators listed in paragraph (6) to carry Class A explosives in civil aircraft within the State of Alaska. Such carriage shall be conducted under the following terms and conditions:

(1) The aircraft shall not be used to carry persons other than crewmembers and personnel trained in the use and handling of Class A explosives who are assigned by Precision Exploration to handle and use the Class A explosives. The names of such personnel shall be furnished to the Regional Manager, Federal Aviation Agency, Post Office Box 440, Anchorage, Alaska, by Precision Exploration.

(2) Prior to conducting operations, Precision Exploration shall notify the Regional Manager, Region Five, in writing, of the operating base or bases, the area or areas of operations, and the operating procedure established for such operations, and the Regional Manager or his designated representative shall have found these to be acceptable. Precision Exploration and its authorized aircraft operators will then be notified in writing by the Regional Manager or his representative of the acceptability of the listing and procedures. No deviations from this listing shall be made without the express approval of the Regional Manager or his designated representative.

(3) Transportation of Class A explosives to and from a civil airport may be made only if prior arrangements have been made by the operator of the aircraft with the local civil airport management. "Civil airports" include FAA intermediate fields and the international airports at Anchorage and Fairbanks. The station manager at an FAA intermediate field is also the airport manager.

(4) Each operator shall apply to the nearest General Safety District Office for approval of departure or approach routes for operations conducted on or in the vicinity of civil airports, or any landing area located in the vicinity of cities, towns, or settlements. The carriage of explosives in *airplanes* may not be authorized to or from Merrill Field, Anchorage, or Phillips Field, Fairbanks. At airports served by control towers, the controller shall be notified that explosives are being carried, prior to takeoff or entry into the traffic pattern. If use of radio is prohibited or not advisable, as when electric firing caps are carried, other acceptable means shall be used to inform the controller in advance. All flights shall be under Visual Flight Rules. These requirements are in addition to other requirements which may be imposed by local airport management.

(5) The aircraft, when used in this operation, shall meet the aircraft performance and weight limitations applicable to passenger-carrying aircraft.

(6) The authorization granted in this exemption shall be restricted to the following named aircraft operators currently under contract to Precision Exploration to conduct geophysical seismic explorations directed

toward the development of oil and gas resources in the State of Alaska, and to such other operators as may be approved by the Regional Manager, Region 5, or his designated representative:

Era Helicopters of Alaska, Inc.
Post Office Box 762
Anchorage, Alaska

Era Helicopters, Inc.
Post Office Box 762
Anchorage, Alaska

GAE Airways
Merrill Field
Anchorage, Alaska

Barton Air Service
Merrill Field
Anchorage, Alaska

Johnson Helicopters, Inc.
Merrill Field
Anchorage, Alaska

Kenai Air Service
Kenai, Alaska

Precision Exploration shall notify the Regional Manager, Federal Aviation Agency, Post Office Box 440, Anchorage, Alaska, of such other operators of aircraft as it may wish to put under contract to engage in the same work. Upon investigation of fitness and ability to comply with the requirements of this exemption, Precision Exploration will be notified of the Regional Manager's approval or disapproval.

This exemption and the authorization granted herein shall remain in effect until July 15, 1963, unless sooner superseded or rescinded by the Federal Aviation Agency.

/s/ George C. Prill
Director,
Flight Standards Service

Issued in Washington, D.C., on July 25, 1961.

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Addendum

Preambles of Amendments to Civil Air Regulations Part 49

NOTE

Part 49 of the Civil Air Regulations was last revised by the Civil Aeronautics Board on April 21, 1958, to become effective on June 25, 1958. The preamble of the revised part, and the preambles of any amendments thereto, are given in the attached pages.

General Revision Part 49

Transportation of Explosives and Other Dangerous Articles

Adopted: April 21, 1958
Effective: June 25, 1958
Published: April 26, 1958 (23 F.R. 2790)

Regulations governing the air transportation of explosives were originally promulgated in 1942 and expanded to cover "other dangerous articles" in 1944. These rules were amended in 1949 by the promulgation of a revised Part 49 to permit the carriage of additional articles as the experience gained by operators had shown that they were capable of handling a greater variety of these materials with safety. The safety standards used were the then current Interstate Commerce Commission Regulations applicable to shipments by rail express since this type of shipment closely approximated conditions met in air transportation. These requirements were more conservative and provided a greater margin of safety than were required for other means of transportation.

In 1949, Appendices A and B were added which listed those articles prohibited from transportation by air and those articles prohibited from transportation on passenger-carrying aircraft, respectively. The articles listed in Appendix A were derived from those which were not acceptable under the ICC Regulations for shipment by rail express. The articles listed in Appendix B were derived from those which were not exempt from the packing, marking, and labeling requirements of the ICC Regulations for shipment by rail express. In promulgating Part 49, the Board envisioned that the commodities listed in the appendices would be examined periodically on the basis of information furnished by the Bureau of Explosives, changes in the ICC Regulations, and such other data as became available. On the basis of information furnished by the Bureau of Explosives, the ICC Regulations have been amended quarterly. However, the appendices of Part 49 have not been amended since they were adopted in 1949. In order to insure that Part 49, without further amendment, will be continuously in accord with the ICC Regulations as they are amended from time to time, this revision contains references to the appropriate ICC Regulations and the appendices have been deleted. However, it should be emphasized that the Board's close working relationship with the Bureau of Explosives, the Interstate Commerce Commission, the Civil Aeronautics Administration, and other organizations expert in this field will be continued.

The special authority provisions of present Part 49 authorize the Administrator to permit deviations from this part for a particular flight in emergency situations, or where other forms of transportation are impracticable, where he finds that the conditions under which the articles are to be carried are such as to permit the safe carriage of persons or cargo. This revision is similar except that the Administrator may impose such terms, conditions, and limitations as he finds necessary in the interest of safety in air commerce. This change gives discretion to the Administrator to impose conditions, such as prior approval of the management of the airport of intended landing, as are necessary to insure a safe operation.

Present Part 49, as amended by Amendment 49–2, refers to Board action on December 27, 1954, approving, under Section 412 of the Civil Aeronautics Act, International Air Transport Association Traffic Conference Resolution 608 (as amended) with respect to shippers' certification and labeling requirements. Subsequent action was taken by the Board on June 15 and December 16, 1955, approving the IATA Resolutions which contain "IATA Regulations Relating to the Carriage of Restricted Articles." Labels approved by this subsequent Board action have been accepted by the ICC and are presently approved for use by the ICC Regulations. Accordingly, reference to the IATA labels has been deleted. While either the pictorial or nonpictorial label as contained in the ICC Regulations is acceptable to the United States, Canada, and Mexico for both domestic and international air shipments, only the pictorial label is acceptable to other countries as a result of the IATA Resolution. Therefore, while this part continues to permit the use of either label, it may facilitate the international air movement of commodities covered under Part 49 if the pictorial label is initially affixed to such commodities.

This part, by referencing the ICC Regulations, automatically requires the marking of proper shipping names as shown in Part 72 of the ICC Regulations. The names of restricted articles listed in the IATA Tariff are not always identical with the proper shipping names in the ICC Regulations. Therefore, to facilitate international air move-

ment of these articles, a note has been added to § 49.11 which permits additional parenthetical identification of such articles.

Technically, some of the materials carried to be dispensed during aerial application operations are not permitted to be carried in air transportation under current Part 49. In order to correct this situation, a new section is being added which will exempt these materials when carried during actual aerial application operations.

Under present Part 49 notification to the pilot of the loading of dangerous goods on board his aircraft may be made by entering the required information on the load manifest. It has been brought to our attention that in many instances this procedure is not adequate, as often the pilot is not aware that articles subject to the provisions of Part 49 have been loaded aboard his aircraft. Accordingly, the appropriate section has been reworded in this revision to assure that the pilot in command is cognizant of such shipments and their location aboard the aircraft.

The carriage of nitrocellulose base film and pyroxylin plastics in passenger and cargo operations is permitted under currently effective Part 49. The carriage of this film is predicated upon its being packed, marked, and labeled in accordance with the requirements of the ICC Regulations. In Civil Air Regulations Draft Release No. 56–23 it was proposed that such articles be prohibited from shipment in air commerce. The comments received indicate that there is a continuing need to permit the shipment of this film in air transportation, and that it has been carried for many years under the present provisions without incident. Information received from the Bureau of Explosives indicates that there have been no incidents of a fire of this film other than old and worn-out or scrap material. In view of the above, certain film will continue to be permitted to be shipped in both passenger-carrying and cargo aircraft subject to the packing, marking, and labeling requirements contained in the ICC Regulations for such film. With respect to pyroxylin plastics in sheets, rolls, rods, or tubes, experience in the shipment of these products over the past years has indicated that these articles may be shipped safely in passenger-carrying and cargo aircraft in accordance with the specifications in the ICC Regulations. Additionally, the Bureau of Explosives has advised that these materials will not heat spontaneously under conditions normal to transportation. Accordingly, the shipment of these articles will continue to be permitted in air commerce.

Present Part 49 permits flammable liquids to be carried in quantities of not more than one quart in inside metal containers or in quantities of not more than one pint in inside glass or earthenware containers, and permits acids and other corrosive liquids in bottles of not more than one pint and Class B poisonous liquids in quantities of not more than one pint in glass containers or not more than one quart in metal containers. By referencing the ICC Regulations, this revision eliminates the present requirements in Part 49 which prescribe the type of inside container so that other adequate containers may be used as provided in the ICC Regulations. Provision is also made so that quantities up to a total net capacity of one quart may be packed in any one strong outside container. While no provision is made in the part, multiple outside containers meeting the requirements of this part may be consolidated in a suitable manner for ease of handling and shipping. If this is accomplished in an additional container, this container or package would not be interpreted to be "an outside container."

Part 49 presently permits the carriage of most nonflammable compressed gases. However, there are seven such gases which, according to expert opinion, should continue to be prohibited in passenger-carrying operations. This revision continues such a prohibition.

While safety matches (strike-on-the-box type) are presently listed by Part 49 as flammable solids and are required to be packed in tightly closed metal containers in quantities of not more than 25 pounds in strong outside containers, these articles are not presently subject to ICC regulation and, accordingly, are not regulated under this revision.

In addition to the comments received in response to Draft Release 56–23 (21 F. R. 6574), extensive discussions have been held with representatives of the Civil Aeronautics Administration, the Interstate Commerce Commission, the Bureau of Explosives, industry associations, and other interested persons, and due consideration has been given to all relevant matter presented.

Amendment 49-1

Passenger-Carrying Aircraft

Adopted: Oct. 10, 1958
Effective: Oct. 10, 1958
Published: Oct. 15, 1958
(23 F.R. 7943)

Effective June 25, 1958, the Civil Aeronautics Board revised Part 49 of the Civil Air Regulations. Prior to this revision, Part 49 permitted the carriage on passenger-carrying aircraft of certain radioactive materials when packed, marked, and labeled in accordance with the requirements for shipment by rail express. However, in the revised Part 49 such a provision was inadvertently omitted. It was not intended that the revised part should be more restrictive with respect to radioactive materials than was the previous part. The Board has found through experience, that radioactive materials when packed, marked, and labeled in accordance with requirements of Parts 72 and 73 of the ICC Regulations may be transported without any adverse effect on the safety of passengers aboard the aircraft. This amendment therefore will permit the carriage of radioactive materials as before.

Since this amendment corrects an error and imposes no additional burden on any person, notice and public procedure hereon are unnecessary, and it may be made effective immediately.

Amendment added new paragraph (f) to section 49.31.

Amendment 49-2

Special Authority for an Operation Including One or More Flights

Adopted: Dec. 15, 1961
Effective: Dec. 21, 1961
Published: Dec. 21, 1961
(26 F.R. 12213)

Regulations governing the air transportation of explosives were originally promulgated in 1942 and expanded to cover "other dangerous articles" in 1944. These rules have been revised several times since then to permit the carriage of additional articles as the experience gained showed that a greater variety and quantity of these materials could be transported with safety.

Section 49.2 presently authorizes deviations for a particular flight in an emergency situation, or when other forms of transportation are impractical. This requires an individual authorization for each flight and this has proved to be a cumbersome procedure for both the aircraft operators and the Administrator when the total amount of material cannot be carried on one flight. Repeated issuance for each flight can be so time-consuming that it can cause serious delays in an air carrier's operation and may create critical commercial and industrial shortages of material and economic loss to the user. Experience gained under these deviations over the years has proved that repeated individual flights have been operated under the same terms and conditions without adverse effect on safety and it now appears reasonable to apply the deviation to an overall operation rather than to a particular flight.

Adequate control over these operations is provided for in the authorization since each operation must be conducted under such terms, conditions, and limitations as are found necessary in the interest of safety in air commerce.

Since this amendment imposes no additional burden upon any person, notice and public procedure hereon are unnecessary, and it may be made effective on less than 30 days' notice.

Amendment revised paragraph (a)(1) of section 49.2, revised the introductory paragraph of section 49.2-1, and revised paragraph (d) of section 49.2-2.

Amendment 49–3

Transportation of Magnetized Materials

Adopted: May 31, 1962
Effective: July 9, 1962
Published: June 7, 1962 (27 F.R. 5393)

A notice of proposed rule making was published in the Federal Register on February 6, 1962 (27 F.R. 1073), and circulated as Draft Release No. 62–3 dated January 29, 1962, which proposed to amend Part 49 of the Civil Air Regulations to provide for the transportation of magnetic materials.

The comments received were generally in favor of requiring that certain safeguards be taken in the shipment of magnets or magnetic material by air and reflected endorsement of the principles of the proposal. However, there was some concern noted relative to the possible obscuration of warning markers on the packages of magnetized material which might occur during the loading of this cargo. The comments also reflected concern over requiring that keeper bars only be installed on magnets "where possible," and indicated the need to have keepers bars installed on magnets at all times or a need for other means of protection to be provided to prevent the magnetic field from adversely affecting the magnetic compass.

In proposing this amendment, the Agency considered that explosives and other dangerous articles as defined by Part 49 of the Civil Air Regulations do not include magnetic materials. Air shipments of magnets and magnetic devices can adversely influence the accuracy of magnetic compasses unless they are properly packed and kept at a safe distance from the aircraft's compass. In order to safeguard the navigation of the aircraft, it is necessary to require the shippers of magnetic materials to mark clearly any packages containing magnetized materials and to install keeper bars on permanent magnets at all times or provide other protection to prevent the magnetic field from adversely affecting the magnetic compass.

There are a number of magnetic shield materials available which are being used as dust covers on some airborne weather radar units. These dust covers are sufficiently effective as magnetic shielding devices so that compass external compensating magnets are not required.

Interested persons have been afforded an opportunity to participate in the making of this regulation, and due consideration has been given to all relevant matter presented.

Amendment made changes in section 49.1(a) and added new sections 49.16 and 49.21(d).

Amendment 49–4

Authorization for Use of Facsimile Signature

Adopted: May 31, 1962
Effective: June 7, 1962
Published: June 7, 1962 (27 F.R. 5392)

Section 49.13(a) of the Civil Air Regulations prohibits a shipper from offering, or an air carrier or other operator of civil aircraft from knowingly accepting, explosives and other dangerous articles for carriage by air unless the package is accompanied by or shows a clear and plainly visible statement signed by the shipper or his duly authorized agent that the shipment complies with the requirements of Part 49 of the Civil Air Regulations. Section 49.13(b) requires that this certification of compliance be made upon the ICC label affixed to each package when there is a provision on the face of the label for such certification. When the label used does not have such a provision, the certification must be made in duplicate and signed by the shipper or his duly authorized agent for each consignment.

The increase in the manufacture of new chemicals and other restricted materials has resulted in a greater demand for the shipment of these articles by air. Manufacturers who produce and ship by air large quantities of these articles have met with delays in preparing them for shipment because of the necessity of having each label or statement

actually signed by the shipper or a duly authorized agent. It has been recommended that the shipper be permitted to have the label or statement stamped with a facsimile signature of the shipper or his authorized agent as an alternative to the actual signature. This practice is permitted in other forms of transportation which are regulated by the Interstate Commerce Commission. It has been determined that the use of the stamped certificate of compliance is satisfactory and has caused no safety problems.

The authorization for the use of a facsimile signature under Part 49 would conform with the requirements for the shipment of these articles in other forms of transportation and thus facilitate their acceptance for shipment by air. The use of a facsimile signature identifies the shipper as clearly as an actual signature, thus meeting that purpose of the regulation.

Since this amendment relieves a restriction and imposes no additional burden on any person, I find that notice and public procedure hereon are unnecessary, and it may be made effective on less than 30 days' notice.

Amendment made changes in section 49.13.

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Federal Aviation Agency
Washington, D.C.

Civil Aeronautics Manual 49

Transportation of Explosives and Other Dangerous Articles

Supplement No. 1, CAM 49 dated April 1961 — August 1, 1961

SUBJECT: Revisions to CAM 49.

This supplement is issued to incorporate into CAM 49 Special Civil Air Regulation No. SR–447 and Exemptions Nos. 170, 172, and 174.

Special regulation SR–447 grants authority to deviate from certain provisions of Part 49 within the State of Alaska. It was issued May 26, 1961 to become effective on June 3, 1961.

Exemption No. 170, issued to Richfield Oil Corporation on June 8, 1961, supersedes **Exemption No. 93.** Exemption No. 172, issued to the Military Traffic Management Agency on June 29, 1961, supersedes Exemptions Nos. 89 and 92. Exemption No. 174, issued to Precision Exploration Consultants on July 25, 1961, is new.

Exemptions Nos. 108, 127, and 149, also submitted with this supplement, are unchanged except for page numbers.

Changes on the contents page submitted with this supplement are enclosed in black brackets. However, because of its length, the other material is not so marked.

Remove the following pages:	*Insert the following new pages:*
III	III
19 through 40	19 through 41

George C. Prill

GEORGE C. PRILL, *Director,*
Flight Standards Service.

Attachments.

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Federal Aviation Agency
Washington, D.C.

Civil Aeronautics Manual 49

Transportation of Explosives and Other Dangerous Articles

Supplement No. 2, CAM 49, dated April 1961 **March 15, 1962**

SUBJECT: Revisions to CAM 49.

This supplement is issued to incorporate into CAM 49 Civil Air Regulations Amendment 49–2, Exemptions Nos. 127A and 172A, and to correct Special Civil Air Regulation No. SR–447.

Amendment 49–2 amended Part 49 to permit deviations, under certain conditions, for particular operations involving one or more flights. It was issued December 15, 1961, to become effective December 21, 1961.

Exemption No. 127A was issued to Abbott Laboratories on February 14, 1962. Exemption No. 172A was issued to the Department of the Air Force on September 22, 1961.

In the last supplement to CAM 49, Special Civil Air Regulation No. SR–447 was inadvertently printed with the number SR–477. This regulation has been reprinted to show the correct number. **No changes have been made in the text.**

New or revised material is enclosed in black brackets on the pages submitted with this supplement except Exemptions Nos. 127A and 172A and the pages in the addendum containing the preambles of amendments.

Remove the following pages:	*Insert the following new pages:*
III	III
1 and 2	1 and 2
19 and 20	19 and 20
25 through 27	25 through 28
35 through 38	35 through 38–1
P–5	P–5

George C. Prill

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Attachments.

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FEDERAL AVIATION AGENCY

Washington, D.C.

Civil Aeronautics Manual 49

Transportation of Explosives and Other Dangerous Articles

Supplement No. 3, CAM 49, dated April 1961 **June 15, 1962**

SUBJECT: Revisions to CAM 49.

This supplement is issued to incorporate into CAM 49 Civil Air Regulations Amendments 49–3 and 49–4.

Amendment 49–3 concerns the transportation of magnetized materials. It was issued May 31, 1962, to become effective July 9, 1962.

Amendment 49–4 concerns the use of facsimile signatures. It was issued May 31, 1962, to become effective June 7, 1962.

New or revised material is enclosed in black brackets on the pages submitted with this supplement except the pages in the addendum containing the preambles of amendments.

Remove the following pages:	*Insert the following new pages:*
III	III
1 through 6	1 through 6–1
P–5	P–5 through P–7

George C. Prill

GEORGE C. PRILL, *Director,*
Flight Standards Service.

Attachments.