Federal Aviation Administration – Regulations and Policies
Aviation Rulemaking Advisory Committee

Training and Qualification Issue Area
Air Carrier Pilot Pay for Training Working Group
Task 1 – Pay for Training

Task Assignment

Abstract: Sections 18 of the Bus Regulatory Reform Act of 1982 (codified at 49 U.S.C. 31138) requires the Secretary of Transportation to establish regulations to require minimal levels of financial responsibility for-hire motor carriers of passengers to cover public liability and property damage. The Endorsement for Motor Carrier Policies of Insurance for Public Liability (Form MCS–90B) and the Motor Carrier Public Liability Surety Bond (Form MCS–82B) contain the minimum amount of information necessary to document that a motor carrier of passengers has obtained and has in effect the minimum levels of financial responsibility as set forth in 49 CFR 387.33. The information within these documents is used by the FHWA and the public to verify that a motor carrier of passengers has obtained and has in effect the required minimum levels of financial responsibility.

Estimated Annual Burden: The total annual burden is 105 hours.

Address: Send comments to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725–17th Street, NW, Washington, DC 20503, Attention FHWA Desk Officer.

Comments are invited on: whether the proposed collection of information is necessary for the proper performance of the functions of the Department, including whether the information will have practical utility; the accuracy of the Department's estimate of the burden of the proposed information collection; ways to enhance the quality, utility and clarity of the information to be collected; and ways to minimize the burden of the collection of information on respondents, including the use of automated collection techniques or other forms of information technology.

Issued in Washington, DC, on January 17, 1997.

Phillip A. Leach,

Clearance Officer, United States Department of Transportation.

[FR Doc. 97–1748 Filed 1–23–97; 8:45 am]

BILLING CODE 4910–62–P

Office of the Secretary; White House Commission on Aviation Safety and Security; Open Meeting

AGENCY: Office of the Secretary (OST), DOT.

ACTION: Notice of meeting.

SUMMARY: The White House Commission on Aviation Safety and Security will hold its final meeting to discuss aviation safety and security issues. Part of the meeting is open to the public and part is not.

DATES: The meeting will be held on Tuesday, January 28, 1997, from 9:00 AM–12:00 noon and 2:00 PM to 5:00 PM.

ADDRESSES: The meeting will take place in the Commerce Department Auditorium, 14th Street, between Constitution and Pennsylvania Avenues, NW, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Richard K. Pemberton, Administrative Officer, Room 6210, GSA Headquarters, 18th & F Streets, NW, Washington, DC 20405; telephone 202–501–3863; telecopier 202–501–6160.

SUPPLEMENTARY INFORMATION: Pursuant to the Federal Advisory Committee Act (5 USC Appendix), DOT gives notice of a meeting of the White House Commission on Aviation Safety and Security (''Commission''). The Commission was established by the President to develop advice and recommendations on ways to improve the level of civil aviation safety and security, both domestically and internationally. The principal purpose of the meeting on January 28 is to formulate the Commission's final recommendations to the President.

The portion of the meeting from 9:00 AM–12:00 noon, during which the Commissioners will formulate their recommendations on measures to improve aviation security, will be closed to the public pursuant to the following exemptions in the Government in the Sunshine Act, which apply to public meetings under the Federal Advisory Committee Act:

Exemption 1: Classified information. In order properly to formulate their recommendations, the Commissioners may need to discuss or refer to information properly classified in the interest of national security, which may not be done in public.

Exemption 3: Information exempted from public disclosure by some other statute. Under 49 USC 40119(b), the Administrator of the Federal Aviation Administration (FAA) may prohibit public disclosure of certain categories of information relating to aviation security, if disclosure would constitute an unwarranted invasion of personal privacy, reveal company confidential information, or create a risk to the safety of individuals traveling in inter- or intra-state air transportation. These categories are described at 14 CFR Part 191. Such information will be discussed or referred to at the meeting.

Exemption 4: Company confidential information. There is competition in the aviation industry in many forms: among carriers, among equipment manufacturers, and among software manufacturers, among others. Public discussion of some of these matters could violate 18 USC 1905, which makes it a crime to reveal improperly company confidential information that has come into the possession of the Government.

Exemption 9: Premature disclosure would lead to frustration of proposed agency action. The final recommendations of the Commission have not been formulated; it is possible, however, that public knowledge of some of the security recommendations may frustrate their acceptance and implementation by the FAA and other agencies. The Commission is authorized to protect against this possibility.

Limited seating for the public portion of the meeting is available on a first-come, first-served basis. The public may submit written comments to the Commission at any time; comments should be sent to Mr. Pemberton at the address and telecopier number shown above.

Issued in Washington, DC on January 21, 1997.

Nancy E. McFadden,

General Counsel, Department of Transportation.

[FR Doc. 97–1749 Filed 1–23–97; 8:45 am]

BILLING CODE 4910–62–P

Federal Aviation Administration

Aviation Rulemaking Advisory Committee; Training and Qualification Issues—New Tasks

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of new task assignments for the Aviation Rulemaking Advisory Committee (ARAC).

SUMMARY: Notice is given of three new tasks assigned to and accepted by the Aviation Rulemaking Advisory Committee (ARAC). This notice informs the public of the activities of ARAC.

FOR FURTHER INFORMATION CONTACT: Mr. Thomas Toula, Assistant Executive Director for Training and Qualification Issues, Flight Standards Service (AFS–210), FAA, 800 Independence Avenue SW, Washington, DC 20591; telephone (202) 267–5229; fax: (202) 267–5229.

SUPPLEMENTARY INFORMATION:

Background

The FAA has established an Aviation Rulemaking Advisory Committee to provide advice and recommendations to the FAA Administrator, through the Associate Administrator for Regulation and Certification, on the full range of the FAA's rulemaking activities with

respect to aviation-related issues. This includes obtaining advice and recommendations on the FAA's commitment to harmonize its Federal Aviation Regulations and practices with its trading partners in Europe and Canada.

One area ARAC deals with is training and qualification issues. These issues involve training and qualification of air carrier crewmembers and other air transport employees.

As part of the Federal Aviation Reauthorization Act of 1996, the Administrator was directed to appoint a task force consisting of appropriate representatives of the aviation industry to conduct certain studies. The Act directed that the FAA conduct: (1) A two-part study directed at (a) identifying standards and criteria for pre-employment testing for air carrier pilot applicants and (b) standards and criteria for pilot training facilities that would incorporate this pre-employment screening; (2) a study to determine if the practice of some employers requiring individuals to pay for training is in the public interest; and (3) a study to determine whether current minimum flight time requirements applicable to an individual seeking employment as an air carrier pilot is sufficient to ensure public safety.

The Tasks

This notice is to inform the public that the FAA has asked ARAC to conduct the following studies:

1. Identify standards and criteria for pre-employment screening of air carrier pilot applicants that would measure the psychomotor coordination, general intellectual capacity, instrument and mechanical comprehension, and overall physical and mental fitness of pilots applying for employment with air carriers. The second half of this study would be directed toward addressing training facilities that could be licensed by the Administrator to ensure the incorporation of pre-employment screening standards and criteria;

2. Determine if the practice of some air carriers to require employees or prospective employees to pay for their own training or obtain experience is in the public interest; and

3. Determine whether current minimum flight time requirements applicable to an individual seeking employment as a pilot with an air carrier are sufficient to ensure public safety.

The FAA has asked that ARAC provide the findings of the studies, including background, economic analysis, other related guidance material, and collateral documents. In addition, the reports should be submitted in a format suitable for presentation to Congress. The final report on the findings of the task numbered 1 is due to the FAA by January 1999. The final reports on the findings of the tasks numbered 2 and 3 are due to the FAA by August 1997.

ARAC Acceptance of Tasks

ARAC has accepted the tasks and has chosen to establish three working groups: The Air Carrier Pilot Pre-Employment Screening Standards and Criteria Working Group, the Air Carrier Pilot Pay for Training Working Group, and the Air Carrier Minimum Flight Time Requirement Working Group. The Air Carrier Pilot Pre-Employment Screening Standards and Criteria Working Group has been assigned task number 1, the Air Carrier Minimum Flight Time Requirement Working Group has been assigned task number 2, and the Air Carrier Pilot Pre-Employment Screening Standards and Criteria Working Group has been assigned task number 3.

The working groups will serve as staff to ARAC to assist ARAC in the analysis of the assigned tasks. Working group recommendations and reports must be reviewed and approved by ARAC. If ARAC accepts the working groups' recommendations and reports, it forwards them to the FAA as ARAC recommendations.

Working Group Activity

The working groups are expected to comply with the procedures adopted by ARAC. As part of the procedures, the working groups are expected to:

1. Recommend a work plan for completion of the tasks, including the rationale supporting such a plan, for consideration at the Training and Qualifications issues meeting held following publication of this notice.

2. Give a detailed conceptual presentation of the proposed studies, prior to proceeding with the work stated in item 3 below.

3. Draft appropriate documents with supporting economic and other required analyses, and/or any other related guidance material or collateral documents the working group determines to be appropriate.

4. Provide a status report at each Training and Qualifications issues meeting.

Participation in the Working Groups

The aforementioned working groups will be comprised of individuals having an interest and expertise in the assigned task areas. Working group members will be selected by the ARAC assistant chair, ARAC assistant executive director, and working group chair(s).

The Secretary of Transportation has determined that the formation and use of ARAC are necessary and in the public interest in connection with the performance of duties imposed on the FAA by law.

Meetings of ARAC will be open to the public. Meetings of the working groups will not be open to the public, except to the extent that individuals with an interest and expertise are selected to participate. No public announcement of working group meetings will be made.

Issued in Washington, DC, on January 10, 1997.

Thomas Toula,

Assistant Executive Director for Training and Qualifications Issues, Aviation Rulemaking Advisory Committee.

[FR Doc. 97–1767 Filed 1–23–97; 8:45 am]

BILLING CODE 4910–13–M

[Summary Notice No. PE–97–5]

Petitions for Exemption; Summary of Petitions Received; Dispositions of Petitions Issued

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of petitions for exemption received and of dispositions of prior petitions.

SUMMARY: Pursuant to FAA's rulemaking provisions governing the application, processing, and disposition of petitions for exemption (14 CFR Part 11), this notice contains a summary of certain petitions seeking relief from specified requirements of the Federal Aviation Regulations (14 CFR Chapter I), dispositions of certain petitions previously received, and corrections. The purpose of this notice is to improve the public's awareness of, and participation in, this aspect of FAA's regulatory activities. Neither publication of this notice nor the inclusion or omission of information in the summary is intended to affect the legal status of any petition or its final disposition.

DATE: Comments on petitions received must identify the petition docket number involved and must be received on or before February 13, 1997.

ADDRESS: Send comments on any petition in triplicate to: Federal Aviation Administration, Office of the Chief Counsel, Attn: Rule Docket No. (AGC–200), Petition Docket No. _____, 800 Independence Avenue, SW., Washington, D.C. 20591.

Comments may also be sent electronically to the following internet address: nprmcmts@faa.dot.gov.

Recommendation Letter

Regional Airline Association
1200 19th Street, NW • Suite 300 • Washington, DC 20036-2401 • 202/857-1170 • FAX 202/429-5113 • ARINC "WASRAXD"

JUL 24 1997

Mr. Guy S. Gardner
Associate Administrator
for Regulation & Certification
Federal Aviation Administration
800 Independence Avenue, SW
Washington, DC 20591

Dear Associate Administrator Gardner:

The Training and Qualifications Issues Group on which I serve as Assistant Chairman, has completed the Air Carrier Pilot Minimum Flight Time Requirement study task assigned to the Training and Qualifications Issues Aviation Rulemaking Advisory Committee (ARAC) as part of the Federal Aviation Reauthorization Act of 1996 (Act).

In February, ARAC established the Air Carrier Pilot Minimum Flight Time Requirement working group. In accordance with Section 504 of the Act, entitled Minimum Flight Time Requirements, the working group conducted the study, and forwarded its recommendation to ARAC. The working group's recommendation was accepted at the July, 1997 ARAC meeting.

The study addresses the issue regarding whether current minimum flight time requirements applicable to an individual seeking employment as a pilot with an air carrier are sufficient to ensure public safety.

In addition we have enclosed a copy of the Allied Pilots Association's minority opinion concerning the Air Carrier Pilot Minimum Flight Time Requirement study.

The Training and Qualifications Issues group appreciates the opportunity to participate in this effort.

Sincerely,

Walter S. Coleman
Assistant chairman Training and
Qualifications Issues group

Attachments

Recommendation Letter

Regional Airline Association
1200 19th Street, NW • Suite 300 • Washington, DC 20036-2401 • 202/857-1170 • FAX 202/429-5113 • ARINC "WASRAXD"

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Associate Administrator
for Regulation & Certification
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800 Independence Avenue, SW
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Sincerely,

Walter S. Coleman
Assistant chairman Training and
Qualifications Issues group

Attachments

Acknowledgement Letter

AUG 18 1997

Mr. Walter S. Coleman
President
Regional Airline Association
1200 19th Street, NW.
Washington, D.C. 20036

Dear Mr. Coleman:

Thank you for your July 24 letter forwarding the Aviation Rulemaking Advisory Committee (ARAC) recommendation regarding the Air Carrier Pilot Pay for Training study.

The recommendation will be presented to the Federal Aviation Administrations (FAA) management as soon as possible. In turn, the FAA will develop a report to Congress and forward the report and study to Congress in the near future.

I would like to thank the aviation community for its commitment to ARAC and its expenditure of resources in the development of this recommendation. More specifically, I would like to thank the Air Carrier Pilot Pay for Training Working Group for their commitment to the ARAC process and prompt action on this task.

Sincerely,

Original Signed By
Guy S. Gardner

Guy S. Gardner
Associate Administrator for
Regulation and Certification

Recommendation

Pilot

Pay-For-Training

Congressional Study

Aviation Rulemaking Advisory Committee
Training and Qualifications Issues Group
and
Federal Aviation Administration

June 16, 1997

Table of Contents

Pilot Pay-For-Training

INTRODUCTION

As part of the Federal Aviation Reauthorization Act of 1996, Congress directed the Administrator of the Federal Aviation Administration (FAA) to appoint a task force, consisting of appropriate representatives of the aviation community, to conduct a study of Pilot Pay-for-Training (See Appendix A: HR 3539.503(a)2(b)).

The Administrator submitted the task to the Aviation Rulemaking Advisory Committee (ARAC) for consideration. A task force was formed to determine if the practice of some air carriers to require employees or prospective employees to pay for their training and/or experience is in the public interest.

The task force, comprised of individuals with diverse aviation backgrounds directly related to pilot training and experience, (See Appendix B: Task Force Members), addressed regulatory and safety issues associated with Pilot Pay-for-Training (PFT). The representatives include Air Line Pilots Association (ALPA), Allied Pilots Association (APA), Air Transport Association (ATA), FAA, Regional Airline Association (RAA), University Aviation Association (UAA), FlightSafety International (FSI), and National Transportation Safety Board (NTSB). The task force membership was finalized in January 1997 with the first meeting held in February 1997.

At the initial meeting, the task force identified issues and concerns surrounding the Congressional request for a study report about pilot Pay-for-Training (PFT). A review of existing regulations, documents, and current practices associated with PFT was conducted. The task force discussed and assessed the advantages and disadvantages of various study approaches and selected an approach which would include some interviews and a review of NTSB accident reports. The task force next finalized the proposed study plan and defined the scope of the study. Members volunteered to research and write sections of the study.

An initial report, documenting the findings from the task force, was presented and submitted to ARAC April 23, 1997. ARAC submitted the prepared study report to the FAA in July. The FAA then transmitted the study report to Congress by its September 1997 deadline.

BACKGROUND

The Airline Deregulation Act of 1978 caused increased competition in the airline industry and forced air carriers to become increasingly cost conscious. Startup and smaller air carriers felt this impact the most. These air carriers in particular discovered that costs incurred from training was one of the larger expenses of their operations. These costs were then aggravated by a high attrition rate due to increased expansion and consolidation in the industry.

In an effort to reduce training costs, the smaller and startup air carriers recognized that an increasing supply of available flight crew members wanting jobs could allow air carriers to require these prospective employees to pay for their training. This practice became known as Pay-for-Training, and will likely continue to be used as long as a large number of prospective employees is available.

Approximately twenty of the 3,079 certificated commercial operators involved, to some extent, in passenger carrying operations, require their flight crew employees to pay for their training. This policy has existed to some extent since the advent of commercial aviation, but Pay-for-Training (PFT), as defined by this study, has only recently become a conventional practice.

CURRENT STATISTICS

The National Transportation Safety Board (NTSB) annually complies and releases aviation accident statistics. For 1996, the NTSB's preliminary data show that 1,070 people lost their lives in 2,040 civil aviation accidents. In 1995, 962 people died in 2,175 accidents. These statistics are based on accidents involving US carriers that operate scheduled and charter (nonscheduled) passenger airline service with aircraft equipped with 30 or more seats and cargo carriers with large aircraft. The 1996 statistics show a reduction in the fatal accident rate for scheduled commuter operations from 1995. (See Appendix D: NTSB Accident Statistics Tables).

Scheduled large US airlines, in 1996, surpassed all previous years in the numbers of hours flown, flight hours and departures. In the same year, large scheduled US carriers logged 12.9 million flight hours, flew more than 5.4 billion miles and had about 8.2 million aircraft departures—all aviation records. With few exceptions, these numbers have increased steadily from 1982 statistics, which show 6.7 million flight hours, 2.8 billion miles flown and 5.2 million departures.

A total of 319 airline passengers died in 1996. The worst US airline accident in 1996 was the inflight explosion of a TWA Boeing 747, which crashed off Long Island on July 17, killing all 230 on board. A ValuJet DC-9 crashed in the Florida Everglades on May 11 after an inflight fire. All 110 on board died. Two passengers were killed when a Delta Air Lines MD-88 suffered an uncontained engine failure in Pensacola, Florida on July 6.

In 1996, scheduled commuter airlines, those with less than 30 seats, posted their lowest fatal accident rate in 15 years -- 0.032 per 100,000 departures. A total of 14 people were killed in the Quincy, Illinois, November 19 runway collision of a commuter plane and private plane. In the same year, there were almost 3.2 million commuter airplane departures nationwide. Nine people were killed in scheduled commuter aircraft accidents in 1995, while 25 lost their lives in 1994.

PURPOSE AND SCOPE

The Federal Aviation Administration asked the task force to conduct this study to determine if the practice of air carriers to require employees or prospective employees to pay for their own training or to obtain experience constitutes a risk to aviation safety.

The task force set the study's parameters by stating that the Pay-for-Training period, for study purposes, begins when a pilot is enrolled as a participant in the air carrier's FAA-approved training program and continues until the pilot, as an employee of the same air carrier, successfully completes the first annual checking event. (See Appendix E: Definitions).

The study focuses on the Part 135 air carriers, sometimes referred to as regional air carriers, which operate in accordance with Title 14 of the Code of Federal Regulations, Parts 121 and 135. Some applicable aviation regulations were changed on March 20, 1997 when Part 119 went into effect. Part 119 seeks to bring one level of safety to the Nation's air carriers that operate planes which carry 10 or more passengers. Nearly all of these air carriers have at least a two pilot crew. That is why the study focuses on the first officer or second in command (SIC) rather than the captain or pilot in command (PIC). The first officer is normally less senior to the pilot in command and is usually the most recently hired and less seasoned of the two pilots.

STUDY PARAMETERS

For purposes of the study, the task force defined the time period of this study as beginning when the pilot accepts an air carrier's offer of employment and extending through the first recurrent training and checking period which is normally one year.

Even before an employment offer is made, the applicant usually undergoes a screening process which is conducted by either the employing air carrier or a contractor. The pre-employment screening determines that the applicant is an acceptable candidate for the job. If the candidate successfully completes the screening process, the pilot is given a conditional offer of employment by the air carrier. The applicant pilot must successfully complete the air carrier's FAA-approved training program. At this point, the applicant pilot can decide to either accept or reject the employment offer and its associated training costs. (See Appendix C: Pilot Employment Progression). The pilot will, more than likely, then be offered a job or be placed in a pool of prospective employees; however, this is not always the case.

PROCESS

The task force conducted a literature search on PFT which included recent articles, position papers, and other publications. Title 14 of the Code of Federal Regulations, Parts 119, 121 and 135 were consulted as well as FAA Order 8400.10, Aviation Safety Inspector Handbook. Information was obtained from the National Transportation Safety Board (NTSB), the FAA, ALPA, the Consolidated Pilots Association, and other sources. (See Appendix H: Bibliography). Some informal interviews were also conducted with FAA Principal Operations Inspectors (POI's).

TRAINING PROGRAMS, AIRMAN QUALIFICATIONS, AND FAA OVERSIGHT

To better examine the impact of PFT on aviation, the task force looked at the entire air carrier flight crew training process. The process is described in the following paragraphs. An applicant for an air carrier certificate or operating certificate is required by regulations to develop a training program. An existing air carrier operator may need to revise its training program when purchasing new equipment, operating in a new environment, obtaining new authorizations, or

when new FAA requirements are specified. These new or revised training requirements must be incorporated into an air carrier's training program.

Each Part 121 and Part 135 certificate holder (with the exception of a Part 135 operator using a single pilot or only one pilot-in-command (PIC) in its operation) must obtain FAA approval of curriculums used for training flight crewmembers. The air carrier is responsible for ensuring that its training program is complete, current, and in compliance with regulations. (Unless otherwise specified, the terms "certificate holder", "operator", or "air carrier" apply equally to an applicant for a certificate and an existing certificate holder). Since there is no one standardized FAA-approved training program, each air carrier designs and develops its own training program to meet its operational needs; each training program is unique to that operator.

FAA Principal Operations Inspectors are responsible for ensuring that regulatory requirements are met and that the operator's flight crewmembers can competently perform their assigned duties before the pilots are authorized to conduct revenue service. POI's review all the elements of an air carrier's training program. These elements document the relationship between the total training program and the categories of training, curriculums, curriculum segments, and training modules. (See Appendix F: Schematic Depiction of Pilot Training Programs). If the training program meets all the regulatory requirements, the FAA Inspector issues an initial approval of the training program. The initial training program approval is usually followed, after a period of oversight, by a second FAA approval. At any time, based on cause, FAA approval of the training program may be withdrawn.

There are six categories of air carrier pilot training. These are briefly discussed in the following paragraphs:

A. *Initial New-Hire Training.* Initial new-hire is a training category is for personnel *who have not had previous experience* with the operator (newly-hired personnel). It also applies to personnel employed by the operator who have not previously held a crewmember or dispatcher duty position with that operator. Initial new-hire training includes basic indoctrination training and training for a specific flight duty position and aircraft type. Except for a basic indoctrination curriculum segment, the regulatory requirements for "initial new-hire" and "initial equipment" training are the same. Since initial new-hire training is usually the employee's first exposure to specific company methods, systems, and procedures, it must be the most comprehensive of the six categories of training. For this reason, initial new-hire training is a distinct category of training and should not be confused with initial equipment training.

B. *Initial Equipment Training.* This category of training is for personnel who have been previously trained and qualified for a duty position by the operator (not new-hires) and who are being reassigned for any reason.

C. *Transition Training.* This category of training is for an employee who has been previously trained and qualified for a specific duty position by the operator and who is being assigned to the same duty position on a different aircraft type.

D. *Upgrade Training.* This category of training is for an employee who has been previously trained and qualified as either Second-In-Command (SIC) or Flight Engineer (FE) by the operator and is being assigned as either Pilot-In-Command (PIC) or SIC, respectively, to the same aircraft type for which the employee was previously trained and qualified.

E. *Recurrent Training.* This category of training is for an employee who has been trained and qualified by the operator, who will continue to serve in the same duty position and aircraft type, and who must receive recurring training and/or checking within an appropriate eligibility period to maintain currency.

F. *Requalification Training.* This category of training is for an employee who has been trained and qualified by the operator, but has become unqualified to serve in a particular duty position and/or aircraft due to not having received recurrent training and/or a required flight and competency check within the appropriate eligibility period.

The FAA placed special emphasis on outsourced training by issuing Flight Standards Handbook Bulletin for Air Transportation (HBAT) 96-06, "Outsourced Crew Training: Audit by Operators," July 26, 1996. This handbook bulletin provides guidance to POI's regarding outsourced training. Using the FAA's Program Tracking and Reporting Subsystem (PTRS). PTRS is a database which stores useful information about the activities FAA inspectors perform to evaluate operator compliance with Federal Aviation Regulations. PTRS consists of files, records, and fields. Files store groups of related information called records; records consist of individual items of data or fields. Each record in the file stores all the information about an individual inspection, and each field contains an individual piece of information about that inspection. For example, a transmittal record contains a field that identifies the inspector who performed the inspection, a field for the activity number, and another field that tells the current status of the inspection, and so on. Together all of this information forms a transmittal record, and all of this information resides in the transmittal file. PTRS contains functions that allow the inspector to add new records to the database, or work with existing ones. POI's have made 969 entries related to outsourced training since the handbook bulletin was issued in July 1996. These entries

document that the FAA is closely monitoring all part 121 air carriers and part 135 air carriers in transition to part 121 that outsource flight crew training to training providers.

In one case studied by the task force and documented in PTRS, a Part 121 air carrier maintained an extensive pool of first officer candidates for hire by the carrier. These candidates had paid to participate in the carrier's training and qualification program. If the candidates successfully completed the training and qualification program, the carrier would then charge these applicants to complete operating experience requirements as first officers on revenue flights. This procedure is allowed if the pilot-in-command of the flight is a check airman. This practice was identified by the FAA, and the carrier was required to discontinue the practice. Although the carrier had no accidents or notable increases in pilot deviation while it was using this practice, the FAA stopped the practice when its inspectors were overwhelmed by the manpower it found was required to provide the needed safety oversight. A much larger number of inspectors was required to ensure that the pilots in the air carrier's employment pool maintained their currency.

METHODOLOGY

When the task force was conducting its records search to identify applicable documentation related to Pay-for-Training, the task force found that it was difficult, if not almost impossible, to determine how a pilot paid for training. It was discovered that PFT is not routinely tracked or documented by FAA or NTSB accident reports. A crewmember's complete training history may, or may not, be discussed in a major accident report. An accident investigator could list training as a probable or contributing cause of an accident, but, in fact, training is rarely documented. Even when training is discussed in an accident report, the issue of how the training was financed is usually not mentioned.

The task force found little or no specific accident data that mentioned pay for training. Existing databases were queried to determine if information existed that could establish causal relationships between risks to aviation safety and flight deck crew members who paid for their training. (See Appendix G: Data Sources).

ANALYSIS

Safety records for Part 135 air carriers (1987-1996) indicate that these airlines have continued to improve their safety records over the past decade.

The task force, although its members are not experts in accident investigation and human factors, identified some factors which may have contributed to the decrease in aviation accidents in years prior to 1996. The task force believes that this decrease is based largely on improved aviation equipment—i.e., Traffic Collision Alert and Avoidance Systems (TCAS), Ground Proximity Warning Systems (GPWS), Cockpit Voice Recorders (CVR)--as well as increased use of simulation and improved training programs, such as the Advanced Qualification Program (AQP). An additional aviation regulation Part 119, requires Crew Resource Management (CRM) training which may contribute to a decrease in aviation accidents. These changes have been brought about as a result of industry, labor, and regulatory authorities working together toward a goal of zero accidents.

The FAA's Aviation Safety Hotline, in operation since July 1985, has received one call (1995) concerning Pay-for- Training and its potential effect on safety. The Aviation Safety Reporting System (ASRS) has received and documented 60,000 reports of potential hazards; two reports concerned Pay for Training.

The task force read and discussed each of the 175 commercial aviation accidents that have occurred in the US since 1990. Nonscheduled 135 operations were excluded. In the group's judgment, twenty-five (25) of the accidents presented scenarios in which a crew member's training may have been a factor.

A significant number of the accidents were ruled-out as being linked to PFT. The accidents which were ruled-out involved circumstances which would have challenged even the most highly experienced, well-trained crew members. Examples of types of accidents which were ruled-out included unexpected weather or turbulence encounters, injuries to passengers while boarding or deplaning, and certain ground collisions during taxi. One accident which was ruled-out involved a midair collision between a commuter aircraft and a general aviation aircraft as the commuter aircraft was flying towards the setting sun.

Of the 25 accidents, nine (9) were found to be worthy of study and the full NTSB accident reports were reviewed. Only two reviewed accidents involved a flight

crew member paying for training or a screening process which led to an interview. Both were fatal accidents.

In the one case, the screening process was accomplished prior to the period of consideration listed under the parameters of this study. It is noteworthy only in that the applicant paid for the screening process, not the training program. The work group does not believe the screening process itself poses a safety risk.

In the June 29, 1992, accident report, the NTSB stated, "In January 1992, the captain (PIC) completed the evaluation portion of FlightSafety International's (FSI) Airline Training Program. The two day screening process was paid for by the captain and included an examination of his instrument and multiengine knowledge; an evaluation of his piloting skills, including Instrument Flight Rules (IFR) procedures using a motion based simulator, and a background check. After successfully completing the evaluation program, the captain's name was placed on FSI's list of qualified candidates awaiting airline interviews."

On April 20, 1992, the captain was interviewed by the director of operations, the chief pilot of the southern operations, and the chief pilot for (the airline). The director of operations stated that normally the airline hired pilots only as first officers with the prospect for upgrading to captain. However, because of his experience and the immediate needs of the company, the captain of (the accident flight) was offered the position of captain (which he accepted). In this case, the captain had paid for a screening process which facilitated an interview with a prospective employer. In part, the NTSB listed as the probable cause of this accident, "an inadequately prepared captain with a relatively inexperienced first officer in revenue passenger service...." Other contributing causes were also listed; none were linked to pay for training.

In the second accident that was studied, NTSB noted that the first officer..."had paid $8,500 to FlightSafety International, Inc. for his BA-3100 training to become a first officer." The training records show that he was the only candidate in his class to pass the simulator check ride on the first attempt. This indicates that the first officer demonstrated above average skills. The NTSB listed the probable accident cause, in part, as "... the captain's actions that led to a breakdown in crew coordination...." Another factor contributing to the accident was the failure of the company management to adequately address the previously identified deficiencies in airmanship and crew resource management skills of the captain. Although the copilot had paid for his training, the quality of his training and skills was not in question. This was confirmed by a review of the public docket and comments received by the NTSB regarding this accident.

Reports of pilot deviations were also studied for all Part 121 and Part 135 operators for the years 1987 through 1996. Pilot deviations were searched by

year and carrier to determine if any trends or shifts in the data could be linked to PFT. This was part of the task force's action to gain information on trends and indicators that could show an emerging flight safety risk. There were no pilot deviation trends indicating risks which were linked to PFT. The number of pilot deviations, related to total operations, is generally decreasing. This shows an improvement in operations.

An area which is related to PFT involves operators offering experience to first officers through the applicant paying for a prescribed number of hours in on-line operations. This practice which is called Pay-for- Experience, provides no promise of employment. This practice is outside the scope of the study since there is no promise of employment; however, for the study to be complete, the task force examined the practice of Pay-for- Experience.

An interview was conducted with an FAA Principal Operations Inspector (POI) for an air carrier that offers Pay-for-Experience. The inspector stated there have been questions regarding how the Pay-For-Experience candidate would log the flight time in the right seat under a single pilot operation. This question required a legal interpretation from the FAA's Regional Counsel, which found that pilot experience acquired in the right seat can be logged as second-in-command time.

A subsequent interview was conducted with the Director of Operations from the air carrier. This carrier provides one week of ground school and then six to seven hours of flight time in preparation for the first officer's flight check. The flight check must be successfully completed to meet the qualifications requirements, per FAR 135.115, prior to flying in the airline's line operations.

This practice, when properly administered, provides valuable experience for the pilot employee candidate as well as a qualified and experienced labor pool from which an airline may hire. This practice began as the airline industry continued to evolve after deregulation and in response to economic changes and pilot supply and demand.

FINDINGS AND CONCLUSIONS

Accident rates for scheduled Part 121 (major airlines) and Part 135 (regional and commuter airlines) have shown a general, overall improvement from 1987 to 1996. With these years comprising those in which Pay-For-Training was largely implemented, the task force believes any safety risk introduced by PFT would have been more than offset by other safety improvements. This means that the character and nature of the smaller number of accidents which remain could have been attributable, in some fashion, to PFT, however, data does not support this assumption. The character and nature of accident scenarios are steady for the years studied, with some pointing to crewmember experience levels, but none specifically to Pay-for-Training or Pay-for-Experience.

Based on the empirical data, the quality of a crewmember's training is very important, but who pays for the training is a financial matter rather than a safety issue. In the accidents studied by the task force, the crewmember's experience level is extremely important, as are the pilot's knowledge, skills, and abilities. Other intangibles such as professionalism and dedication also play a part in a crewmember's competency.

Experience plays an important role in flight safety since a number of the reviewed accidents involved low-time and newly-hired flight crew personnel. NTSB statistics show the median years of employment with the operator at the time of an accident for both the PIC and the SIC. The company experience, as measured in median years, of the PICs involved in 1995 accidents reached a low of nine (9), while the SIC's median years was 1.4 years.

These attributes do not relate to the issue of who paid for an individual's training. Some critics of PFT contend that only those individuals who are less experienced are willing to pay for training and therefore less experienced crewmembers comprise the "initial-hire" labor pool. The safety impact of this point is lost, however, when the fact is considered that both the individual who is willing to pay for training and the individual who receives the training at no cost from the carrier, must successfully complete an FAA-approved training program, to be further considered for employment. The quality of the training these pilots receive meets the regulatory requirements irregardless of whether the carrier provides or outsources its training. Further, the training is specific to the flight operations and type of aircraft operated by the hiring air carrier. The task force would have liked to expand the study to include data from industry, but with the limited timeframe, was unable to do so.

Further, because the practice of Pay-for-Training is relatively new to the airline industry, the data (accident/incident and pilot deviations) available to the task force were limited and did not include specific information about the pilot's method(s) of payment for his/her training. The current data is insufficient to draw conclusions about future risk of such training. Thus, it is necessary to develop a method/system to collect the specific data about PFT for analysis.

From its study, the task force found that experience plays an extremely important role in flight safety. A number of the accidents studied involved low-time and newly-hired flight crew personnel.

TASK FORCE RESPONSE

While the task force worked diligently on the issue of PFT, we feel it is essential to note that given the time constraints (approximately 3 months), it has been difficult, if not impossible, to obtain the data that would have to be gathered for an adequate study.

Bibliography "H" notes that we were only able to reference four (4) articles published on the subject. To get a more complete picture of PFT, additional interviews, surveys and comments would have to be obtained. This was not possible within the time allotted. We believe the information gathered from this study should be reviewed at a later date along with the above additional input to determine a more complete assessment of PFT. We do not feel enough data has been gathered/analyzed/reviewed to make any determination at this time.

STUDY REPORT SUBMISSION

The study is submitted to the ARAC Training and Qualifications Issues Group for review and comment. It will be sent to Congress per the FAA Reauthorization Act of 1996 on or before September 26, 1997.

16 June 1997

Appendices

Appendix A: HR 3539.503 (a) 2 (b)

Congressional Record—House H11302 September 26, 1996

Sec. 503. STUDIES OF MINIMUM STANDARDS FOR PILOT QUALIFICATIONS AND OF PAY FOR TRAINING

(a) STUDY.—The Administrator of the Federal Aviation Administration shall appoint a task force consisting of appropriate representatives of the aviation industry to conduct...

(2) a study to determine if the practice of some air carriers to require employees or prospective employees to pay for the training or experience that is needed to perform flight check duties for an air carrier is in the public interest.

(b) REPORT.—Not later than 1 year after the date of the enactment of this Act, the Administrator shall transmit to Congress a report on the results of the study conducted under subsection (a)(2).

Appendix B: Task Force Members

The Pay-For-Training Task force membership and organizations represented are as follows:

Peter Davis, Air Line Pilots Association, Chairman
Rob Bowen, Allied Pilots Association
Greg Feith, National Transportation Safety Board
Larry Gross, University Aviation Association
Mike Suckow, Regional Airlines Association
Thomas Toula, Federal Aviation Administration
Terry Hibler, FlightSafety International
Ron Welding, Air Transport Association

Alternate Task force members included:

Michael Lenz, Federal Aviation Administration
Richard Nelson, University Aviation Association
Warren Robbins, Federal Aviation Administration
Mike Shelton, Air Line Pilots Association

Project Manager

Ruth Ann Hodges, Federal Aviation Administration

*Appendix C: Pilot Employment Progression**

The following narrative is one, but not the only, method, which a candidate pilot experiences as a Pay-For-Training user.

1. The candidate answers an advertisement, receives a word of mouth reference, or is referred from an airline that is a customer of the organization which provides this program.
2. The candidate calls a central New Hire Program office and requests an application.
3. The application is sent if the pilot meets minimum qualifications (usually 1,200 hours of total flight time with 250 of those hours in multiengine aircraft). The candidate receives an application form, including release forms for FAA, driver's license, and employment background checks. The form is completed and returned. The organization begins these searches. The candidate also states a preference for a particular airline or region.
4. The candidate is then scheduled for a standardized simulator evaluation and written test (that is a profile type test). The 1997 fee for this screening and processing charged by one organization was $325 but is sometimes waived.
5. The results of the simulator evaluation are recorded and if the candidate was successful a packet is developed that includes the profile test, simulator evaluation (including hard printouts of events), results of background checks and the resume/application. If the candidate failed the simulator check, the pilot is advised why and given any appropriate recommendations. The candidate cannot retry until the issues are resolved.
6. The customer airline, in the meantime, has contracted with the organization to use this service and obtained any FAA approvals for training that will be provided by an organization other than the carrier. The customer airline also has defined the profile test parameters it is looking for that will be indicated on the written test (based on giving the same test to their most desirable current employees).

   When the airline has a new hire requirement, it contacts the organization which will then provide pilot packets of those who meet the airline's specific profile and pilot time requirements.

7. The airline takes the packets and decides who they want to interview, invites the candidate to that interview and then decides who will receive a "conditional offer of employment."
8. Candidates who receive offers are told that if they successfully complete the airline's FAA-approved training program they will be hired. Candidates are then scheduled for a class. NOTE: Some airline do the training themselves, although they use a non-carrier central processing facility to get the candidate.
9. The candidate then attends the class. Depending on what was contracted and agreed on between the airline, the Principal Operations Inspector, and the training providing organization, the candidate could

receive complete training, from Day 1 of Indoctrination (Indoc) to Initial Operating Experience (IOE) on the line. NOTE: Most receive basic indoc, systems and simulator (sim) training either to 100% completion in a Level D simulator, or 85% in a simulator and 15% with the carrier in the aircraft.

10. After successful completion of the 15% aircraft or 100% simulator rides, whichever is the case, they are employees of the airline. Many get seniority numbers on Day 1, but the numbers are not valid until the pilots pass the rides.
11. If a candidate fails any part of the training, the "conditional offer of employment" is withdrawn. The candidate is either given a rebate on unused training money, if any is left. If the failure occurs before the first sim session, the candidate receives a 100% refund. Some airlines will allow additional training, within the constraints of their own training programs.

- at FlightSafety International only.

Appendix D: NTSB Accident Statistics Tables

Table 1. Accidents, Fatalities, and Rates, 1996 preliminary Statistics U.S. Aviation

Table 2. Accidents and Accident Rates by NTSB Classification, 1982 through 1996, for U.S. Air Carriers Operating Under 14 CFR 121

Table 3. Passenger Injuries and Injury Rates, 1982 through 1996, for U.S. Air Carriers Operating Under 14 CFR 121

Table 4. Accidents, Fatalities, and Rates, 1982 through 1996, for U.S. Air Carriers Operating Under 14 CFR 121, Scheduled Service (Airlines)

Table 5. Accidents, Fatalities, and Rates, 1982 through 1996, for U.S. Air Carriers Operating Under 14 CFR 135, Scheduled Service (Commuter Air Carriers)

Table 6. Fatal Accidents, 1996 Preliminary Data for All Operations Under 14 CFR 121 and for Scheduled Operations Under 14 CFR 135

Table 1. Accidents, Fatalities, and Rates, 1996 Preliminary Statistics
U.S. Aviation

	Accidents		Fatalities				Accidents per 100,00 Flight Hours		Accidents per 100.00 Departures	
	All	Fatal	Total	Aboard	Flight Hours	Departures	All	Fatal	All	Fatal
U.S. Air carriers operating under 14 CFR 121 Scheduled	32	3	342	342	12,900,000	8,185,000	0.248	0.023	0.391	0.037
U.S. Air carriers operating under 14 CFR 135 Scheduled	11	1	14	12	2,474,000	3,171,000	0.445	0.040	0.347	0.032

Note All data are preliminary and released by the National Transportation Safety Board
Hours and departures are complied and estimated by the Federal Aviation Administration.

Table 2. Accidents and Accident Rates by NTSB Classification, 1982 through 1996, for U.S. Air Carriers Operating Under 14 CFR 121

	Accidents				Aircraft Hours Flown	Accidents per Million Hours Flown			
Year	Major	Serious	Injury	Damage	(millions)	Major	Serious	Injury	Damage
1982	3	4	6	7	7.040	0.426	0.568	0.852	0.994
1983	4	2	9	8	7.299	0.548	0.274	1.233	1.096
1984	2	2	7	5	8.165	0.245	0.245	0.857	0.612
1985	8	2	5	6	8.710	0.918	0.230	0.574	0.689
1986	4	0	14	6	9.976	0.401	0.000	1.403	0.601
1987	5	1	12	16	10.645	0.470	0.094	1.127	1.503
1988	4	2	13	10	11.141	0.359	0.180	1.167	0.898
1989	8	4	6	10	11.275	0.710	0.355	0.532	0.887
1990	4	3	10	7	12.150	0.329	0.247	0.823	0.576
1991	5	2	10	9	11.781	0.424	0.170	0.849	0.764
1992	3	3	10	2	12.360	0.243	0.243	0.809	0.162
1993	1	2	12	8	12.706	0.079	0.157	0.944	0.630
1994	4	0	12	7	13.122	0.305	0.000	0.914	0.533
1995	3	2	14	17	13.513	0.222	0.148	1.036	1.258
1996	6	0	18	14	13.683	0.439	0.000	1.316	1.023

Definitions of NTSB Classifications

Major - an accident in which any of three conditions is met:
- a Part 121 aircraft was destroyed, or
- there were multiple fatalities, or
- there was one fatality and a Part 121 aircraft was substantially damaged.

Serious - an accident in which at least one of two conditions is met:
- there was one fatality without substantial damage to a Part 121 aircraft, or
- there was at least one serious injury and a Part 121 aircraft was substantially damaged.

Injury - a nonfatal accident with at least one serious injury and without substantial damage to a Part 121 aircraft.

Damage - an accident in which no person was killed or seriously injured, but in which any aircraft was substantially damaged

Table 3. Passenger Injuries and Injury Rates, 1982 through 1996, for U.S. Air Carriers Operating Under 14 CFR 121

Year	Passenger Fatalities	Passenger Serious Injuries	Total Passenger Enplanements (millions)	Million Passenger Enplanements per Passenger Fatality
1982	210	17	299	1.4
1983	8	8	325	40.6
1984	1	6	352	352.0
1985	486	20	390	0.8
1986	4	23	426	106.5
1987	213	39	456	2.1
1988	255	44	464	1.8
1989	259	55	464	1.8
1990	8	23	475	59.4
1991	40	19	461	11.5
1992	26	14	485	18.7
1993	0	7	500	No Fatalities
1994	228	16	541	2.4
1995	152	15	560	3.7
1996	319	16	582	1.8

Note Injuries exclude flight crew and cabin crew.

Table 4. Accidents, Fatalities, and Rates, 1982 through 1996, for U.S. Air Carriers Operating Under 14 CFR 121, Scheduled Service (Airlines)

	Accidents		Fatalities					Accidents per 100,000 Flight Hours		Accidents per 1,000,000 Miles Flown		Accidents per 100,000 Departures	
Year	All	Fatal	Total	Aboard	Flight Hours	Miles Flown	Departures	All	Fatal	All	Fatal	All	Fatal
1982	16	4	234	222	6,697,770	2,806,885,000	5,162,346	0.224	0.045	0.0053	0.0011	0.291	0.058
1983	22	4	15	14	6,914,969	2,920,909,000	5,235,262	0.318	0.058	0.0075	0.0014	0.420	0.076
1984	13	1	4	4	7,736,037	3,258,910,000	5,666,076	0.168	0.013	0.0040	0.0003	0.229	0.018
1985	17	4	197	196	8,265,332	3,452,753,000	6,068,893	0.206	0.048	0.0049	0.0012	0.280	0.066
1986	21	2	5	4	9,495,158	3,829,129,000	6,928,103	0.211	0.011	0.0052	0.0003	0.289	0.014
1987	32	4	231	229	10,115,407	4,125,874,000	7,293,025	0.306	0.030	0.0075	0.0007	0.425	0.041
1988	28	3	285	274	10,521,052	4,260,785,000	7,347,575	0.257	0.019	0.0063	0.0005	0.367	0.027
1989	24	8	131	130	10,597,922	4,337,234,000	7,267,341	0.226	0.075	0.0055	0.0018	0.330	0.110
1990	22	6	39	12	11,524,726	4,689,287,000	7,795,761	0.191	0.052	0.0047	0.0013	0.282	0.077
1991	25	4	62	49	11,139,166	4,558,537,000	7,503,873	0.224	0.036	0.0055	0.0009	0.333	0.053
1992	16	4	33	31	11,732,026	4,782,825,000	7,515,373	0.136	0.034	0.0033	0.0008	0.213	0.053
1993	22	1	1	0	11,981,347	4,936,067,000	7,721,975	0.184	0.008	0.0045	0.0002	0.285	0.013
1994	19	4	239	237	12,292,356	5,112,633,000	7,824,802	0.146	0.033	0.0035	0.0008	0.230	0.051
1995	34	2	166	160	12,770,405	5,326,266,000	8,102,491	0.266	0.016	0.0064	0.0004	0.420	0.025
1996	32	3	342	342	12,900,000	5,419,380,000	8,185,000	0.248	0.023	0.0059	0.0006	0.391	0.037

Notes

1996 data are preliminary.

Hours, miles, and departures are compiled by the Federal Aviation Administration.

The 62 total fatalities in 1991 includes the 12 persons killed aboard a Skywest commuter aircraft and the 22 persons killed aboard the USAir airliner when the two aircraft collided.

The following suicide/sabotage cases are included in "Accidents" and "Fatalities" but are excluded from accident rates in this table.

			Fatalities	
Year	Location	Operator	Total	Aboard
1982	Honolulu, HI	Pan American	1	1
1986	Near Athens, Greece	Trans World	4	4
1987	San Luis Obispo, CA	Pacific Southwest	43	43
1988	Lockerbie, Scotland	Pan American	270	259
1994	Memphis, TN	Federal Express	0	0

Table 5. Accidents, Fatalities, and Rates, 1982 through 1996, for U.S. Air Carriers Operating Under 14 CFR 135, Scheduled Service (Commuter Air Carriers)

	Accidents		Fatalities					Accidents per 100,000 Flight Hours		Accidents per 1,000,000 Miles Flown		Accidents per 100,000 Departures	
Year	All	Fatal	Total	Aboard	Flight Hours	Miles Flown	Departures	All	Fatal	All	Fatal	All	Fatal
1982	26	5	14	14	1,299,748	222,355,000	2,026,691	2.000	0.385	0.1169	0.0225	1.283	0.247
1983	17	2	11	10	1,510,908	253,572,000	2,328,430	1.125	0.132	0.0670	0.0079	0.730	0.086
1984	22	7	48	46	1,745,762	291,460,000	2,676,590	1.260	0.401	0.0755	0.0240	0.822	0.262
1985	21	7	37	36	1,737,106	300,817,000	2,561,463	1.209	0.403	0.0698	0.0233	0.820	0.273
1986	15	2	4	4	1,724,586	307,393,000	2,798,811	0.870	0.116	0.0488	0.0065	0.536	0.071
1987	33	10	59	57	1,946,349	350,879,000	2,809,918	1.695	0.514	0.0940	0.0285	1.174	0.356
1988	19	2	21	21	2,092,689	380,237,000	2,909,005	0.908	0.096	0.0500	0.0053	0.653	0.069
1989	19	5	31	31	2,240,555	393,619,000	2,818,520	0.848	0.223	0.0483	0.0127	0.674	0.177
1990	16	4	7	5	2,341,760	450,133,000	3,160,089	0.683	0.171	0.0355	0.0089	0.506	0.127
1991	22	8	99	77	2,291,693	433,900,000	2,820,440	0.960	0.349	0.0507	0.0184	0.780	0.284
1992	23	7	21	21	2,363,745	508,242,000	3,114,932	0.931	0.296	0.0433	0.0138	0.706	0.225
1993	16	4	24	23	2,641,268	554,963,000	3,601,902	0.606	0.151	0.0288	0.0072	0.444	0.111
1994	10	3	25	25	2,787,904	594,716,000	3,850,372	0.359	0.108	0.0168	0.0050	0.260	0.078
1995	11	2	9	9	2,478,872	565,577,000	3,216,900	0.444	0.081	0.0194	0.0035	0.342	0.062
1996	11	1	14	12	2,474,000	608,814,000	3,171,000	0.445	0.040	0.0181	0.0016	0.347	0.032

Notes

1996 data are preliminary.

Hours, miles, and departures are compiled by the Federal Aviation Administration.

The following attempted suicide case is included in "Accidents" and "Fatalities" but is excluded from accident rates in this table.

			Fatalities	
Year	Location	Operator	Total	Aboard
1992	Lexington, KY	Mesaba Airlines	0	0

Table 6. Fatal Accidents, 1996 Preliminary Data for All Operations Under 14 CFR 121 and for Scheduled Operations Under 14 CFR 135

Date	Location	Operator	Service	Aircraft	Fatalities				No. Aboard	Circumstances
					Psgr	Crew	Other	Total		
Scheduled 14 CFR 121										
5/11/96	Miami, FL	Valujet	Psgr	DC-9-32	105	5	-	110	110	In fight fire. Uncontrolled descent.
7/6/96	Pensacola, FL	Delta Air Lines	Psgr	MD-88	2	-	-	2	147	Uncontained engine failure
7/17/96	East Moriches, NY	Trans World Airways	Psgr	B-747	212	18	-	230	230	In flight explosion.
Scheduled 14 CFR 135										
11/19/96	Quincy, IL	Great Lakes Aviation, DBA United Express	Psgr	Beech 1900C	10	2	2	14	12	Collided with a general aviation aircraft at a runway intersection.

Appendix E: Glossary

Air carrier— Operator, airline, certificate holder, carrier, and air carrier are interchangeable terms and refer to a person or organization that conducts business under 14 Code of Federal Regulations, Parts 119, 121, 127, and/or 135.

Categories of training— The classification of instructional programs by the regulatory requirement the training fulfills. Categories of training consist of one or more curriculums. The categories of training are initial new-hire, initial equipment, transition, upgrade, recurrent, and requalification.

Certificate holder- Operator, airline, air carrier, carrier, and certificate holder are interchangeable terms which refer to a person or organization that conducts business under 14 Code of Federal Regulations, Parts 119, 121, and/or 135.

Code of Federal Regulations (14)

A. Part 119- Certification: Air Carriers and Commercial Operators. This part (119.1) applies to each person operating or intending to operate civil aircraft--(1) As an air carrier or commercial operator, or both, in air commerce; or

   (2) When common carriage is not involved, in operations of U.S.-registered civil airplanes with a seat configuration of 20 or more passengers, or a maximum payload capacity of 6,000 pounds or more....

B. Part 121- Operating Requirements: Domestic, Flag, and Supplemental Operations. This part (121.1) prescribes rules governing--(a) The domestic, flag, and supplemental operations of each person who holds or is required to hold an Air Carrier Certificate or Operating Certificate under part 119 of this chapter. (b) Each person employed or used by a certificate holder conducting operations under this part, including maintenance, preventive maintenance, and alteration of aircraft....

C. Part 135- Operating Requirements: Commuter and On-Demand Operations. (a) This part (135.1) prescribes rules governing--(1) The commuter or on-demand operations of each person who holds or is required to hold an Air Carrier Certificate or Operating Certificate under part 119 of this chapter. (2) Each person employed or used by a certificate holder conducting operations under this part including the maintenance, preventative maintenance and alteration of an aircraft....

   Commuter— An FAR Part 135 operator who carries passengers on at least 5 round trips per week or at least 1 route between 2 or more points according to its published flight schedule that specifies the

times, days of the week, and places between which those lights are performed.

Curriculum— A complete training agenda specific to an aircraft type, a crewmember or dispatcher duty position, and a category of training. An example is an "initial new-hire, Boeing 727 flight engineer curriculum." Each curriculum consists of several curriculum segments. These curriculum segments are logical subdivisions of a curriculum which can be separately evaluated and individually approved. Examples are a "ground training" segment and a "flight training" segment.

Direct air carrier— A person who provides or offers to provide air transportation and who has control over the operational functions performed in providing that transportation.

Duty position— Refers to the functional or operating position of a crewmember or aircraft dispatcher. For Parts 121 and 135 operations, duty positions are pilot-in-command (PIC), second-in-command (SIC), flight engineer (FE), flight attendant (FA), flight navigator (NAV), and aircraft dispatcher (AD).

Incident— An occurrence involving the operation of one or more aircraft in which a hazard or a potential hazard to safety is involved but which is not classified as an accident due to degree of injury and/or extent of damage.

Kind of operation— Means one of the various operations a certificate holder is authorized to conduct, as specified in its operations specifications, i.e., domestic, flag, supplemental, commuter, or on-demand operations.

NTSB classifications:

A. Major— an accident in which any of three conditions is met: a Part 121 aircraft was destroyed, or there were multiple fatalities, or there was one fatality and a Part 121 aircraft was substantially damaged.

B. Serious— an accident in which at least one of two conditions is met: there was one fatality without substantial damage to a Part 121 aircraft, or there was at least one serious injury and a Part 121 aircraft was substantially damaged.

C. Injury— a nonfatal accident with at least one serious injury and without substantial damage to a Part 121 aircraft.

D. Damage— an accident in which no person was killed or seriously injured, but in which any aircraft was substantially damaged.

On-demand operation— Any operation for compensation or hire that is a passenger-carrying operation in which the departure time, departure location, and arrival location are specifically negotiated with the customer or the customer's representative....

Passenger- Carrying operation—Any aircraft operation carrying any person, unless the only persons on the aircraft are those identified in Part 121.583(a) or 135.85 of this chapter (subchapter G), as applicable....

Pay-For-Training— Shall be considered as that training specifically required as a condition of employment, starting as the commencement of an air carrier's training, as a condition of employment, or post-employment training for which the employee pays or foregoes normal compensation.

Pilot deviation— the actions of a pilot that result in the violation of a Federal Aviation Regulation or a North American Aerospace Defense Command (NORAD Air Defense Identification Zone (ADIZ) tolerance.

Pilot-In-Command (PIC)- The person who has responsibility for the flight; occupies the left seat; the captain.

Scheduled operation— Any common carriage passenger-carrying operation for compensation or hire conducted by an air carrier or commercial operator for which the certificate holder or its representative offers in advance the departure location, departure time, and arrival location. It does not include any operation that is a charter operation for which the certificate holder or its representative offers in advance the departure location, departure time, and arrival location. It does not include any operation that is a charter operation.

Second-In-Command (SIC)- The person who assumes responsibility for the flight if the pilot-in-command becomes incapacitated; the person who occupies the right seat; the co-pilot.

Study timeframe— The period of this study which shall be from the commencement of an air carrier's training as a condition of employment and ends at the first annual training or checking event as an employee of the air carrier under consideration.

Testing and checking— Refer to methods for evaluating students as they demonstrate a required level of knowledge in a subject, and when appropriate, apply the knowledge and skills learned in instructional situations to practical situations.

Training program— A system of instruction which includes curriculums, facilities, instructors, check airmen, courseware, instructional delivery methods, and testing and checking procedures. This system must satisfy the training program requirements of Part 121 or Part 135 and ensure that each crewmember and dispatcher remains adequately trained for each aircraft, duty position, and kind of operation in which that person serves.

Appendix G: Data Sources

AVIATION SAFETY STATISTICAL HANDBOOK. Volume 4, number 6. July 1996. Department of Transportation. Federal Aviation Administration.

Federal Aviation Administration Pilot Deviation Reports 1987-Present.

Federal Aviation Administration Safety Hotline reports.

National Aeronautical and Space Administration (NASA) Aviation Safety Reporting System 1994-Present.

National Transportation Safety Board Aviation (NTSB) Accident Reports 1990-Present.

National Transportation Safety Board, News, Special Bulletin 97-03, February 21, 1997. "Number of Major Airline Accidents, Deaths Rise: General Aviation Has Lowest Fatal Accident Rate."

Order 8400.10, AIR TRANSPORTATION OPERATIONS INSPECTOR'S HANDBOOK, Volume 3, Chapter 2, Change 10, December 10, 1994.

U.S. Department of Transportation. Federal Aviation Administration. Title 14, Code of Federal Regulations, Parts 60 to 139, Revised as of January 1, 1996, Office of the Federal Register, National Archives and Records Administration.

Appendix H: Bibliography

"Buy-a-Job and Pay-for-Training Practices Employed By Scheduled Air Carriers." Career Pilots Association position paper. March 1997.

Glenn, S.B. "Paying for Training: The B Scale for the '90s." *Air Line Pilot*, October 1996, pg 6-7, 62.

"New Pilots Group Founded in Washington." *Working Pilots, Volume 1, Issue 1, November/December 1996, pg 1-2.*

Wachs, K. L. "Who Pays For Training?". *Professional Pilot*. Sept 1996, pg. 10-12.

FAA Action: ARAC report sent to Congress 3/2/98.

U.S. Department
of Transportation

**Federal Aviation
Administration**

Report to Congress

Pilot Pay-for-Training Study

Washington, DC 20591 February 1998 Report of the Federal Aviation Administration to the Congress of the United States Pursuant to the Federal Aviation Reauthorization Act of 1996, P.L. 104-264.

U.S. Department
of Transportation
**Federal Aviation
Administration**

Office of the Administrator

800 Independence Ave., S.W.
Washington, D.C. 20591

MAR 2 1998

The Honorable Albert Gore, Jr.
President of the Senate
Washington, DC 20510

Dear Mr. President:

The enclosed report is provided in response to the requirement in Section 503(a)(2) of the Federal Aviation Authorization Act of 1996, P.L. 104-264. The Federal Aviation Administration (FAA) was directed to appoint a task force representative of the aviation industry to study certain matters related to pilot qualifications and training. With respect to training, the task force was to examine whether the public interest is served when air carrier operators require employees to pay for the training needed to perform flight crewmember duties.

The FAA tasked the Aviation Rulemaking Advisory Committee (ARAC), Training and Qualifications Issues, to conduct the study. The ARAC assigned the project to an industry task force comprised of representatives of the Air Line Pilots Association, Allied Pilots Association, Air Transport Association, FAA, Regional Airline Association, University Aviation Association, FlightSafety International, and National Transportation Safety Board. The FAA carefully examined the findings of the ARAC task force, and our conclusions are contained in the enclosed report. A copy of the ARAC study is also enclosed for your information.

An identical letter has been sent to the Speaker of the House of Representatives.

Sincerely,

Jane F. Garvey
Administrator

Enclosures

U.S. Department
of Transportation

**Federal Aviation
Administration**

Office of the Administrator

800 Independence Ave., S.W.
Washington, D.C. 20591

MAR 2 1998

The Honorable Newt Gingrich
Speaker of the House of Representatives
Washington, DC 20515

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The FAA tasked the Aviation Rulemaking Advisory Committee (ARAC), Training and Qualifications Issues, to conduct the study. The ARAC assigned the project to an industry task force comprised of representatives of the Air Line Pilots Association, Allied Pilots Association, Air Transport Association, FAA, Regional Airline Association, University Aviation Association, FlightSafety International, and National Transportation Safety Board. The FAA carefully examined the findings of the ARAC task force, and our conclusions are contained in the enclosed report. A copy of the ARAC study is also enclosed for your information.

An identical letter has been sent to the President of the Senate.

Sincerely,

Jane F. Garvey
Administrator

Enclosures

Executive Summary

This report is submitted to the Congress of the United States in response to the requirement in §503 (a)(2) and (b) of the Federal Aviation Reauthorization Act of 1996, Pub. L. 104-264, 110 Stat. 3213, 3263 (1996). The Federal Aviation Administration (FAA) was directed to conduct a study to determine if the practice of some air carriers to require employees or prospective employees to pay for their training or experience needed to perform flight crewmember duties is in the public interest.

The FAA tasked the Aviation Rulemaking Advisory Committee (ARAC) to conduct the study. The ARAC assigned the project to an industry task force consisting of individuals with diverse aviation backgrounds that emphasize pilot training and experience. This report is based on results of the ARAC study, which focuses on training practices by some air carriers that operate under parts 121 and 135 of Title 14, Code of Federal Regulations (14 CFR). The ARAC study is submitted as an attachment to this report.

The task force's findings and conclusions are as follows:

- The task force could not establish any relationship between pilot pay-for-training and aviation safety.

- The existing data are not statistically sufficient to draw conclusions about pilot pay-for-training and aviation safety.

- Regardless of whether the pilot or the air carrier pays for training, all pilots with an air carrier must successfully complete the carrier's FAA-approved training program before conducting passenger-carrying operations.

The task force's response is as follows:

- Reexamine this study when more data are available.

The FAA response to the study is as follows:

- The FAA agrees with the ARAC that the pilot pay-for-training issue is an economic issue rather than a safety issue and does not plan to conduct further study of the practice. The FAA principal operations inspectors will continue to monitor carrier training programs, with special attention given to contract training programs. Any safety issues that are identified, especially any issues related to pilot pay-for-training, will be addressed to ensure all flight crewmembers are properly trained in accordance with the regulations.

Introduction

This report is submitted to the Congress of the United States in response to the requirement in §503 (a)(2) of the Federal Aviation Reauthorization Act of 1996, Pub. L. 104-264, 110 Stat. 3213, 3263 (1996). The Federal Aviation Administration (FAA) was directed to conduct a study to determine whether requiring employees or prospective employees to pay for their training or experience is in the public interest.

The FAA tasked the Aviation Rulemaking Advisory Committee (ARAC), Training and Qualifications Issues, to conduct the study. The ARAC assigned the task to an industry task force consisting of individuals with diverse aviation backgrounds emphasizing pilot training and experience. The representatives included the Air Line Pilots Association (ALPA), Air Transport Association (ATA), Allied Pilots Association (APA), FAA, FlightSafety International (FSI), National Transportation Safety Board (NTSB), Regional Airline Association (RAA), and University Aviation Association (UAA). This report is based on the results of the ARAC study.

The task force concentrated its study on air carriers that operate under parts 121 and 135 of Title 14, Code of Federal Regulations (14 CFR). In addition, the task force narrowed its study to seconds in command (first officers) as opposed to pilots-in-command (captains), because first officers are usually the most recently hired pilots.

In conducting the study, the task force reviewed recent articles, position papers, and other publications, including 14 CFR parts 119, 121, and 135 and FAA Order 8400.10, Air Transportation Operations Inspector's Handbook. Although the task force felt that time constraints made it difficult to conduct comprehensive research relevant to the study, the task force did reference four articles that address pay-for-training. The task force also obtained information from ALPA, Consolidated Pilots Association, FAA, and NTSB documents. In addition, the task force examined training processes, conducted two interviews, and reviewed FAA pilot deviation reports and NTSB accident reports.

Background

As a result of the Airline Deregulation Act of 1978, competition in the airline industry increased as numerous startup carriers entered the passenger service market. To remain profitable, most carriers initiated cost-cutting campaigns. Because training expenses are a large portion of operating costs, some smaller carriers began to require prospective pilot employees to pay for their initial training. This practice became known as pay-for-training (PFT). For the purposes of the study, PFT can be described as a situation when a pilot is given a conditional offer of employment by an air carrier, contingent on successful completion of a training program for which the candidate pays. Today, approximately 20 of the 3,079 certificated air carriers require their flight crewmembers to pay for their training.

The PFT practice can be described as follows. Before an air carrier selects a pilot to participate in its training program, the air carrier may require the candidate to complete a "screening process." This process may include a knowledge examination, a background check, and an evaluation of pilot skills using a simulator. If the candidate meets the air carrier's employment criteria, the pilot is given an offer of employment upon successful completion of the air carrier's training program. The pilot may be required to pay for the "screening process," the training program, or both. The air carrier may offer the pilot a job or place the pilot in a "pilot pool" of prospective employees. If the pilot fails any part of the training, the conditional offer of employment is withdrawn and the pilot may receive a rebate.

Air carriers must comply with and conduct operations under the requirements of part 121 or part 135, and other appropriate regulations of 14 CFR. Air carriers are required by regulation to develop FAA-approved training programs. Each air carrier designs and develops its own training program to meet its operational needs. The programs vary among airlines because no standardized curriculum exists which can satisfy every air carriers' operational needs. The air carrier may "outsource" (contract out) its training. It is however, the carrier's responsibility to ensure that its training program meets regulatory requirements. FAA principal operations inspectors (POI) review each air carrier's training program to ensure that regulatory requirements are met and approve the training program. The POI has the authority to revoke approval of the training program if the air carrier does not maintain regulatory requirements.

Accident and Safety Data Review

The task force reviewed NTSB accident investigation data and statistics, FAA pilot deviation reports, FAA Aviation Safety Hotline calls, and National Aeronautics and Space Administration (NASA) Aviation Safety Reporting System (ASRS) reports.

The task force reviewed NTSB accident statistics for civil aviation between 1985 and 1996. Statistics confirm that from 1985 to 1996, part 135 air carriers have reduced their accident rates. In fact, in 1996, these air carriers had their lowest fatal accident rate in 15 years.

The task force believes that a decrease in fatal accident rates is attributable to improved aviation equipment (e.g., traffic collision alert and avoidance systems, ground proximity warning systems, and cockpit voice recorders) in addition to improved flight simulator and training programs. The task force believes that crew resource management training, now required for all air carriers, may contribute even further to a decrease in aviation accidents.

The task force reviewed 175 NTSB reports of commercial accidents that have occurred since 1990, excluding those accidents involving nonscheduled part 135 operators. The task force selected 25 accidents in which it believed crewmember training may have been a factor. A number of these accidents involved low-time, newly hired pilots. Of the 25 accident reports, 9 were found to be appropriate for consideration in the study. After

reviewing the entire NTSB report for each of these accidents, the task force identified two fatal accidents in which a crewmember either paid for training or for a "screening process" that led to an interview. As supported by the following accident reports, the task force does not believe that the "screening process" poses a safety risk.

The first accident, according to the NTSB report, involved a captain who had paid for a 2-day screening process and was hired directly into a position as a captain. The NTSB report listed the probable cause of the accident as "an inadequately prepared captain with a relatively inexperienced first officer in revenue passenger service...."

The second accident involved a first officer who had paid $8,500 for his initial training. The NTSB report listed the probable cause as "the captain's actions that led to a breakdown in crew coordination...." In fact, the first officer was the only pilot in his class to pass the check ride on the first attempt, indicating that he had above-average skills. The task force does not believe that the quality of the first officer's skills and training was in question, as confirmed by a review of the comments received in the public docket and those received by the NTSB.

The task force also reviewed FAA pilot deviation reports in an effort to identify shifts in data that may have indicated increases in pilot deviations attributed to PFT. The research included pilot deviations occurring between 1987 and 1996 that involved part 121 or part 135 operations. The task force found that the number of pilot deviations as a function of total operations is generally decreasing, indicating improved operations.

Finally, the task force reviewed the FAA Aviation Safety Hotline and NASA ASRS reports. The task force found that the FAA Aviation Safety Hotline received one call concerning PFT since 1985, and the ASRS has documented two reports concerning PFT out of 60,000 total reports.

When researching NTSB accident reports and FAA pilot deviation reports, the task force found it difficult to determine who had paid for a pilot's training. PFT information is not routinely tracked in those reports. The task force did not find any safety-related data that correlated PFT to accident or deviation rates. Furthermore, based on current accident data, the task force found no correlation indicating that pilots who paid for their training were less safe than those whose training was paid for by an air carrier. The task force also concluded that recent safety improvements would have more than offset any safety risk incurred as a result of PFT.

Training Process Review

The FAA maintains a Program Tracking and Reporting Subsystem that includes information regarding the tasks that FAA inspectors perform to evaluate operators. FAA POI's have entered 969 items regarding outsourced training into the system since July 1996. The task force notes that these entries help the FAA closely monitor part 135 air carriers transitioning to part 121 that outsource flightcrew training.

The task force reviewed the practices of pilot pay for experience by two air carriers. One air carrier provided what is known as pay-for-experience (PFE) in which a pilot pays for a specified number of hours of "on-line" operations with no guarantee of employment. Two interviews were conducted, one with a POI for an air carrier that offers PFE and a second with the director of operations for the same carrier. The task force found that the air carrier provides one week of ground school and 6 to 7 hours of flight training before conducting a flight check to qualify the first officer for line operations. The task force believes that this practice provides valuable experience to the pilot and an experienced "pilot pool" for the airline.

In the second case, the air carrier charged applicants to complete first officer operating experience requirements on revenue flights, a practice that is allowed if the pilot-in-command is a check airman. The task force noted that the FAA required the carrier to discontinue the practice, because the FAA did not have the resources to ensure that the pilots in the carrier's "employment pool" maintained qualification requirements.

Conclusion

The task force members recognize that a criticism of PFT is that individuals who may be less experienced will be more inclined to pay for training; therefore, the initial-hire "labor pool" could be less experienced. However, the task force noted that all pilots, whether they pay for training or not, must successfully complete FAA-approved training to conduct passenger-carrying operations for an air carrier.

The task force found that experience and the quality of training play important roles in flight safety, but it was unable to draw the conclusion that requiring pilots to pay for training negatively affects public safety. The issue of who pays for a pilot's training was concluded to be a financial issue rather than a safety issue. According to the task force, current data are statiscally insufficient to determine the potential risk of PFT. However, the task force noted that time constraints made gathering more adequate data difficult. The task force believes that specific PFT data should be collected and that this study should be reevaluated when the additional information is available.

The FAA's Response to the ARAC's PFT Study

The FAA recognizes that the task force accomplished a great deal in a limited amount of time and thanks the members for their efforts. Analysis of existing data supports the ARAC's determination that PFT is an economic issue rather than a safety issue. With the pilot pool shrinking and with increasing competition among airlines, the practice of PFT is declining and may disappear. Although some pilot unions do not support the practice, any pilot who participates in PFT must successfully complete an FAA-approved training program before conducting passenger service operations on a revenue flight. The FAA principal operations inspectors will continue to monitor carrier training programs, with special attention given to contract training programs. Any safety issues that are identified, especially any issues related to PFT, will be addressed to ensure all flight crewmembers are properly trained in accordance with the regulations.

Pilot

Pay-For-Training

Congressional Study

Aviation Rulemaking Advisory Committee
Training and Qualifications Issues Group
and
Federal Aviation Administration

June 16, 1997

Table of Contents

Pilot Pay-For-Training

INTRODUCTION

As part of the Federal Aviation Reauthorization Act of 1996, Congress directed the Administrator of the Federal Aviation Administration (FAA) to appoint a task force, consisting of appropriate representatives of the aviation community, to conduct a study of Pilot Pay-for-Training (See Appendix A: HR 3539.503(a)2(b)).

The Administrator submitted the task to the Aviation Rulemaking Advisory Committee (ARAC) for consideration. A task force was formed to determine if the practice of some air carriers to require employees or prospective employees to pay for their training and/or experience is in the public interest.

The task force, comprised of individuals with diverse aviation backgrounds directly related to pilot training and experience, (See Appendix B: Task Force Members), addressed regulatory and safety issues associated with Pilot Pay-for-Training (PFT). The representatives include Air Line Pilots Association (ALPA), Allied Pilots Association (APA), Air Transport Association (ATA), FAA, Regional Airline Association (RAA), University Aviation Association (UAA), FlightSafety International (FSI), and National Transportation Safety Board (NTSB). The task force membership was finalized in January 1997 with the first meeting held in February 1997.

At the initial meeting, the task force identified issues and concerns surrounding the Congressional request for a study report about pilot Pay-for-Training (PFT). A review of existing regulations, documents, and current practices associated with PFT was conducted. The task force discussed and assessed the advantages and disadvantages of various study approaches and selected an approach which would include some interviews and a review of NTSB accident reports. The task force next finalized the proposed study plan and defined the scope of the study. Members volunteered to research and write sections of the study.

An initial report, documenting the findings from the task force, was presented and submitted to ARAC April 23, 1997. ARAC submitted the prepared study report to the FAA in July. The FAA then transmitted the study report to Congress by its September 1997 deadline.

BACKGROUND

The Airline Deregulation Act of 1978 caused increased competition in the airline industry and forced air carriers to become increasingly cost conscious. Startup and smaller air carriers felt this impact the most. These air carriers in particular discovered that costs incurred from training was one of the larger expenses of their operations. These costs were then aggravated by a high attrition rate due to increased expansion and consolidation in the industry.

In an effort to reduce training costs, the smaller and startup air carriers recognized that an increasing supply of available flight crew members wanting jobs could allow air carriers to require these prospective employees to pay for their training. This practice became known as Pay-for-Training, and will likely continue to be used as long as a large number of prospective employees is available.

Approximately twenty of the 3,079 certificated commercial operators involved, to some extent, in passenger carrying operations, require their flight crew employees to pay for their training. This policy has existed to some extent since the advent of commercial aviation, but Pay-for-Training (PFT), as defined by this study, has only recently become a conventional practice.

CURRENT STATISTICS

The National Transportation Safety Board (NTSB) annually complies and releases aviation accident statistics. For 1996, the NTSB's preliminary data show that 1,070 people lost their lives in 2,040 civil aviation accidents. In 1995, 962 people died in 2,175 accidents. These statistics are based on accidents involving US carriers that operate scheduled and charter (nonscheduled) passenger airline service with aircraft equipped with 30 or more seats and cargo carriers with large aircraft. The 1996 statistics show a reduction in the fatal accident rate for scheduled commuter operations from 1995. (See Appendix D: NTSB Accident Statistics Tables).

Scheduled large US airlines, in 1996, surpassed all previous years in the numbers of hours flown, flight hours and departures. In the same year, large scheduled US carriers logged 12.9 million flight hours, flew more than 5.4 billion miles and had about 8.2 million aircraft departures—all aviation records. With few exceptions, these numbers have increased steadily from 1982 statistics, which show 6.7 million flight hours, 2.8 billion miles flown and 5.2 million departures.

A total of 319 airline passengers died in 1996. The worst US airline accident in 1996 was the inflight explosion of a TWA Boeing 747, which crashed off Long Island on July 17, killing all 230 on board. A ValuJet DC-9 crashed in the Florida Everglades on May 11 after an inflight fire. All 110 on board died. Two passengers were killed when a Delta Air Lines MD-88 suffered an uncontained engine failure in Pensacola, Florida on July 6.

In 1996, scheduled commuter airlines, those with less than 30 seats, posted their lowest fatal accident rate in 15 years -- 0.032 per 100,000 departures. A total of 14 people were killed in the Quincy, Illinois, November 19 runway collision of a commuter plane and private plane. In the same year, there were almost 3.2 million commuter airplane departures nationwide. Nine people were killed in scheduled commuter aircraft accidents in 1995, while 25 lost their lives in 1994.

PURPOSE AND SCOPE

The Federal Aviation Administration asked the task force to conduct this study to determine if the practice of air carriers to require employees or prospective employees to pay for their own training or to obtain experience constitutes a risk to aviation safety.

The task force set the study's parameters by stating that the Pay-for-Training period, for study purposes, begins when a pilot is enrolled as a participant in the air carrier's FAA-approved training program and continues until the pilot, as an employee of the same air carrier, successfully completes the first annual checking event. (See Appendix E: Definitions).

The study focuses on the Part 135 air carriers, sometimes referred to as regional air carriers, which operate in accordance with Title 14 of the Code of Federal Regulations, Parts 121 and 135. Some applicable aviation regulations were changed on March 20, 1997 when Part 119 went into effect. Part 119 seeks to bring one level of safety to the Nation's air carriers that operate planes which carry 10 or more passengers. Nearly all of these air carriers have at least a two pilot crew. That is why the study focuses on the first officer or second in command (SIC) rather than the captain or pilot in command (PIC). The first officer is normally less senior to the pilot in command and is usually the most recently hired and less seasoned of the two pilots.

STUDY PARAMETERS

For purposes of the study, the task force defined the time period of this study as beginning when the pilot accepts an air carrier's offer of employment and extending through the first recurrent training and checking period which is normally one year.

Even before an employment offer is made, the applicant usually undergoes a screening process which is conducted by either the employing air carrier or a contractor. The pre-employment screening determines that the applicant is an acceptable candidate for the job. If the candidate successfully completes the screening process, the pilot is given a conditional offer of employment by the air carrier. The applicant pilot must successfully complete the air carrier's FAA-approved training program. At this point, the applicant pilot can decide to either accept or reject the employment offer and its associated training costs. (See Appendix C: Pilot Employment Progression). The pilot will, more than likely, then be offered a job or be placed in a pool of prospective employees; however, this is not always the case.

PROCESS

The task force conducted a literature search on PFT which included recent articles, position papers, and other publications. Title 14 of the Code of Federal Regulations, Parts 119, 121 and 135 were consulted as well as FAA Order 8400.10, Aviation Safety Inspector Handbook. Information was obtained from the National Transportation Safety Board (NTSB), the FAA, ALPA, the Consolidated Pilots Association, and other sources. (See Appendix H: Bibliography). Some informal interviews were also conducted with FAA Principal Operations Inspectors (POI's).

TRAINING PROGRAMS, AIRMAN QUALIFICATIONS, AND FAA OVERSIGHT

To better examine the impact of PFT on aviation, the task force looked at the entire air carrier flight crew training process. The process is described in the following paragraphs. An applicant for an air carrier certificate or operating certificate is required by regulations to develop a training program. An existing air carrier operator may need to revise its training program when purchasing new equipment, operating in a new environment, obtaining new authorizations, or

when new FAA requirements are specified. These new or revised training requirements must be incorporated into an air carrier's training program.

Each Part 121 and Part 135 certificate holder (with the exception of a Part 135 operator using a single pilot or only one pilot-in-command (PIC) in its operation) must obtain FAA approval of curriculums used for training flight crewmembers. The air carrier is responsible for ensuring that its training program is complete, current, and in compliance with regulations. (Unless otherwise specified, the terms "certificate holder", "operator", or "air carrier" apply equally to an applicant for a certificate and an existing certificate holder). Since there is no one standardized FAA-approved training program, each air carrier designs and develops its own training program to meet its operational needs; each training program is unique to that operator.

FAA Principal Operations Inspectors are responsible for ensuring that regulatory requirements are met and that the operator's flight crewmembers can competently perform their assigned duties before the pilots are authorized to conduct revenue service. POI's review all the elements of an air carrier's training program. These elements document the relationship between the total training program and the categories of training, curriculums, curriculum segments, and training modules. (See Appendix F: Schematic Depiction of Pilot Training Programs). If the training program meets all the regulatory requirements, the FAA Inspector issues an initial approval of the training program. The initial training program approval is usually followed, after a period of oversight, by a second FAA approval. At any time, based on cause, FAA approval of the training program may be withdrawn.

There are six categories of air carrier pilot training. These are briefly discussed in the following paragraphs:

A. *Initial New-Hire Training.* Initial new-hire is a training category is for personnel *who have not had previous experience* with the operator (newly-hired personnel). It also applies to personnel employed by the operator who have not previously held a crewmember or dispatcher duty position with that operator. Initial new-hire training includes basic indoctrination training and training for a specific flight duty position and aircraft type. Except for a basic indoctrination curriculum segment, the regulatory requirements for "initial new-hire" and "initial equipment" training are the same. Since initial new-hire training is usually the employee's first exposure to specific company methods, systems, and procedures, it must be the most comprehensive of the six categories of training. For this reason, initial new-hire training is a distinct category of training and should not be confused with initial equipment training.

B. *Initial Equipment Training.* This category of training is for personnel who have been previously trained and qualified for a duty position by the operator (not new-hires) and who are being reassigned for any reason.

C. *Transition Training.* This category of training is for an employee who has been previously trained and qualified for a specific duty position by the operator and who is being assigned to the same duty position on a different aircraft type.

D. *Upgrade Training.* This category of training is for an employee who has been previously trained and qualified as either Second-In-Command (SIC) or Flight Engineer (FE) by the operator and is being assigned as either Pilot-In-Command (PIC) or SIC, respectively, to the same aircraft type for which the employee was previously trained and qualified.

E. *Recurrent Training.* This category of training is for an employee who has been trained and qualified by the operator, who will continue to serve in the same duty position and aircraft type, and who must receive recurring training and/or checking within an appropriate eligibility period to maintain currency.

F. *Requalification Training.* This category of training is for an employee who has been trained and qualified by the operator, but has become unqualified to serve in a particular duty position and/or aircraft due to not having received recurrent training and/or a required flight and competency check within the appropriate eligibility period.

The FAA placed special emphasis on outsourced training by issuing Flight Standards Handbook Bulletin for Air Transportation (HBAT) 96-06, "Outsourced Crew Training: Audit by Operators," July 26, 1996. This handbook bulletin provides guidance to POI's regarding outsourced training. Using the FAA's Program Tracking and Reporting Subsystem (PTRS). PTRS is a database which stores useful information about the activities FAA inspectors perform to evaluate operator compliance with Federal Aviation Regulations. PTRS consists of files, records, and fields. Files store groups of related information called records; records consist of individual items of data or fields. Each record in the file stores all the information about an individual inspection, and each field contains an individual piece of information about that inspection. For example, a transmittal record contains a field that identifies the inspector who performed the inspection, a field for the activity number, and another field that tells the current status of the inspection, and so on. Together all of this information forms a transmittal record, and all of this information resides in the transmittal file. PTRS contains functions that allow the inspector to add new records to the database, or work with existing ones. POI's have made 969 entries related to outsourced training since the handbook bulletin was issued in July 1996. These entries

document that the FAA is closely monitoring all part 121 air carriers and part 135 air carriers in transition to part 121 that outsource flight crew training to training providers.

In one case studied by the task force and documented in PTRS, a Part 121 air carrier maintained an extensive pool of first officer candidates for hire by the carrier. These candidates had paid to participate in the carrier's training and qualification program. If the candidates successfully completed the training and qualification program, the carrier would then charge these applicants to complete operating experience requirements as first officers on revenue flights. This procedure is allowed if the pilot-in-command of the flight is a check airman. This practice was identified by the FAA, and the carrier was required to discontinue the practice. Although the carrier had no accidents or notable increases in pilot deviation while it was using this practice, the FAA stopped the practice when its inspectors were overwhelmed by the manpower it found was required to provide the needed safety oversight. A much larger number of inspectors was required to ensure that the pilots in the air carrier's employment pool maintained their currency.

METHODOLOGY

When the task force was conducting its records search to identify applicable documentation related to Pay-for-Training, the task force found that it was difficult, if not almost impossible, to determine how a pilot paid for training. It was discovered that PFT is not routinely tracked or documented by FAA or NTSB accident reports. A crewmember's complete training history may, or may not, be discussed in a major accident report. An accident investigator could list training as a probable or contributing cause of an accident, but, in fact, training is rarely documented. Even when training is discussed in an accident report, the issue of how the training was financed is usually not mentioned.

The task force found little or no specific accident data that mentioned pay for training. Existing databases were queried to determine if information existed that could establish causal relationships between risks to aviation safety and flight deck crew members who paid for their training. (See Appendix G: Data Sources).

ANALYSIS

Safety records for Part 135 air carriers (1987-1996) indicate that these airlines have continued to improve their safety records over the past decade.

The task force, although its members are not experts in accident investigation and human factors, identified some factors which may have contributed to the decrease in aviation accidents in years prior to 1996. The task force believes that this decrease is based largely on improved aviation equipment—i.e., Traffic Collision Alert and Avoidance Systems (TCAS), Ground Proximity Warning Systems (GPWS), Cockpit Voice Recorders (CVR)–as well as increased use of simulation and improved training programs, such as the Advanced Qualification Program (AQP). An additional aviation regulation Part 119, requires Crew Resource Management (CRM) training which may contribute to a decrease in aviation accidents. These changes have been brought about as a result of industry, labor, and regulatory authorities working together toward a goal of zero accidents.

The FAA's Aviation Safety Hotline, in operation since July 1985, has received one call (1995) concerning Pay-for- Training and its potential effect on safety. The Aviation Safety Reporting System (ASRS) has received and documented 60,000 reports of potential hazards; two reports concerned Pay for Training.

The task force read and discussed each of the 175 commercial aviation accidents that have occurred in the US since 1990. Nonscheduled 135 operations were excluded. In the group's judgment, twenty-five (25) of the accidents presented scenarios in which a crew member's training may have been a factor.

A significant number of the accidents were ruled-out as being linked to PFT. The accidents which were ruled-out involved circumstances which would have challenged even the most highly experienced, well-trained crew members. Examples of types of accidents which were ruled-out included unexpected weather or turbulence encounters, injuries to passengers while boarding or deplaning, and certain ground collisions during taxi. One accident which was ruled-out involved a midair collision between a commuter aircraft and a general aviation aircraft as the commuter aircraft was flying towards the setting sun.

Of the 25 accidents, nine (9) were found to be worthy of study and the full NTSB accident reports were reviewed. Only two reviewed accidents involved a flight

crew member paying for training or a screening process which led to an interview. Both were fatal accidents. .

In the one case, the screening process was accomplished prior to the period of consideration listed under the parameters of this study. It is noteworthy only in that the applicant paid for the screening process, not the training program. The work group does not believe the screening process itself poses a safety risk.

In the June 29, 1992, accident report, the NTSB stated, "In January 1992, the captain (PIC) completed the evaluation portion of FlightSafety International's (FSI) Airline Training Program. The two day screening process was paid for by the captain and included an examination of his instrument and multiengine knowledge; an evaluation of his piloting skills, including Instrument Flight Rules (IFR) procedures using a motion based simulator, and a background check. After successfully completing the evaluation program, the captain's name was placed on FSI's list of qualified candidates awaiting airline interviews."

On April 20, 1992, the captain was interviewed by the director of operations, the chief pilot of the southern operations, and the chief pilot for (the airline). The director of operations stated that normally the airline hired pilots only as first officers with the prospect for upgrading to captain. However, because of his experience and the immediate needs of the company, the captain of (the accident flight) was offered the position of captain (which he accepted). In this case, the captain had paid for a screening process which facilitated an interview with a prospective employer. In part, the NTSB listed as the probable cause of this accident, "an inadequately prepared captain with a relatively inexperienced first officer in revenue passenger service...." Other contributing causes were also listed; none were linked to pay for training.

In the second accident that was studied, NTSB noted that the first officer..."had paid $8,500 to FlightSafety International, Inc. for his BA-3100 training to become a first officer." The training records show that he was the only candidate in his class to pass the simulator check ride on the first attempt. This indicates that the first officer demonstrated above average skills. The NTSB listed the probable accident cause, in part, as "... the captain's actions that led to a breakdown in crew coordination...." Another factor contributing to the accident was the failure of the company management to adequately address the previously identified deficiencies in airmanship and crew resource management skills of the captain. Although the copilot had paid for his training, the quality of his training and skills was not in question. This was confirmed by a review of the public docket and comments received by the NTSB regarding this accident.

Reports of pilot deviations were also studied for all Part 121 and Part 135 operators for the years 1987 through 1996. Pilot deviations were searched by

year and carrier to determine if any trends or shifts in the data could be linked to PFT. This was part of the task force's action to gain information on trends and indicators that could show an emerging flight safety risk. There were no pilot deviation trends indicating risks which were linked to PFT. The number of pilot deviations, related to total operations, is generally decreasing. This shows an improvement in operations.

An area which is related to PFT involves operators offering experience to first officers through the applicant paying for a prescribed number of hours in on-line operations. This practice which is called Pay-for- Experience, provides no promise of employment. This practice is outside the scope of the study since there is no promise of employment; however, for the study to be complete, the task force examined the practice of Pay-for- Experience.

An interview was conducted with an FAA Principal Operations Inspector (POI) for an air carrier that offers Pay-for-Experience. The inspector stated there have been questions regarding how the Pay-For-Experience candidate would log the flight time in the right seat under a single pilot operation. This question required a legal interpretation from the FAA's Regional Counsel, which found that pilot experience acquired in the right seat can be logged as second-in-command time.

A subsequent interview was conducted with the Director of Operations from the air carrier. This carrier provides one week of ground school and then six to seven hours of flight time in preparation for the first officer's flight check. The flight check must be successfully completed to meet the qualifications requirements, per FAR 135.115, prior to flying in the airline's line operations.

This practice, when properly administered, provides valuable experience for the pilot employee candidate as well as a qualified and experienced labor pool from which an airline may hire. This practice began as the airline industry continued to evolve after deregulation and in response to economic changes and pilot supply and demand.

FINDINGS AND CONCLUSIONS

Accident rates for scheduled Part 121 (major airlines) and Part 135 (regional and commuter airlines) have shown a general, overall improvement from 1987 to 1996. With these years comprising those in which Pay-For-Training was largely implemented, the task force believes any safety risk introduced by PFT would have been more than offset by other safety improvements. This means that the character and nature of the smaller number of accidents which remain could have been attributable, in some fashion, to PFT, however, data does not support this assumption. The character and nature of accident scenarios are steady for the years studied, with some pointing to crewmember experience levels, but none specifically to Pay-for-Training or Pay-for-Experience.

Based on the empirical data, the quality of a crewmember's training is very important, but who pays for the training is a financial matter rather than a safety issue. In the accidents studied by the task force, the crewmember's experience level is extremely important, as are the pilot's knowledge, skills, and abilities. Other intangibles such as professionalism and dedication also play a part in a crewmember's competency.

Experience plays an important role in flight safety since a number of the reviewed accidents involved low-time and newly-hired flight crew personnel. NTSB statistics show the median years of employment with the operator at the time of an accident for both the PIC and the SIC. The company experience, as measured in median years, of the PICs involved in 1995 accidents reached a low of nine (9), while the SIC's median years was 1.4 years.

These attributes do not relate to the issue of who paid for an individual's training. Some critics of PFT contend that only those individuals who are less experienced are willing to pay for training and therefore less experienced crewmembers comprise the "initial-hire" labor pool. The safety impact of this point is lost, however, when the fact is considered that both the individual who is willing to pay for training and the individual who receives the training at no cost from the carrier, must successfully complete an FAA-approved training program, to be further considered for employment. The quality of the training these pilots receive meets the regulatory requirements irregardless of whether the carrier provides or outsources its training. Further, the training is specific to the flight operations and type of aircraft operated by the hiring air carrier. The task force would have liked to expand the study to include data from industry, but with the limited timeframe, was unable to do so.

Further, because the practice of Pay-for-Training is relatively new to the airline industry, the data (accident/incident and pilot deviations) available to the task force were limited and did not include specific information about the pilot's method(s) of payment for his/her training. The current data is insufficient to draw conclusions about future risk of such training. Thus, it is necessary to develop a method/system to collect the specific data about PFT for analysis.

From its study, the task force found that experience plays an extremely important role in flight safety. A number of the accidents studied involved low-time and newly-hired flight crew personnel.

TASK FORCE RESPONSE

While the task force worked diligently on the issue of PFT, we feel it is essential to note that given the time constraints (approximately 3 months), it has been difficult, if not impossible, to obtain the data that would have to be gathered for an adequate study.

Bibliography "H" notes that we were only able to reference four (4) articles published on the subject. To get a more complete picture of PFT, additional interviews, surveys and comments would have to be obtained. This was not possible within the time allotted. We believe the information gathered from this study should be reviewed at a later date along with the above additional input to determine a more complete assessment of PFT. We do not feel enough data has been gathered/analyzed/reviewed to make any determination at this time.

STUDY REPORT SUBMISSION

The study is submitted to the ARAC Training and Qualifications Issues Group for review and comment. It will be sent to Congress per the FAA Reauthorization Act of 1996 on or before September 26, 1997.

16 June 1997

Appendices

Appendix A: HR 3539.503 (a) 2 (b)

Congressional Record—House H11302 September 26, 1996

Sec. 503. STUDIES OF MINIMUM STANDARDS FOR PILOT QUALIFICATIONS AND OF PAY FOR TRAINING

(a) STUDY.—The Administrator of the Federal Aviation Administration shall appoint a task force consisting of appropriate representatives of the aviation industry to conduct...

(2) a study to determine if the practice of some air carriers to require employees or prospective employees to pay for the training or experience that is needed to perform flight check duties for an air carrier is in the public interest.

(b) REPORT.—Not later than 1 year after the date of the enactment of this Act, the Administrator shall transmit to Congress a report on the results of the study conducted under subsection (a)(2).

Appendix B: Task Force Members

The Pay-For-Training Task force membership and organizations represented are as follows:

Peter Davis, Air Line Pilots Association, Chairman
Rob Bowen, Allied Pilots Association
Greg Feith, National Transportation Safety Board
Larry Gross, University Aviation Association
Mike Suckow, Regional Airlines Association
Thomas Toula, Federal Aviation Administration
Terry Hibler, FlightSafety International
Ron Welding, Air Transport Association

Alternate Task force members included:

Michael Lenz, Federal Aviation Administration
Richard Nelson, University Aviation Association
Warren Robbins, Federal Aviation Administration
Mike Shelton, Air Line Pilots Association

Project Manager

Ruth Ann Hodges, Federal Aviation Administration

*Appendix C: Pilot Employment Progression**

The following narrative is one, but not the only, method, which a candidate pilot experiences as a Pay-For-Training user.

1. The candidate answers an advertisement, receives a word of mouth reference, or is referred from an airline that is a customer of the organization which provides this program.
2. The candidate calls a central New Hire Program office and requests an application.
3. The application is sent if the pilot meets minimum qualifications (usually 1,200 hours of total flight time with 250 of those hours in multiengine aircraft). The candidate receives an application form, including release forms for FAA, driver's license, and employment background checks. The form is completed and returned. The organization begins these searches. The candidate also states a preference for a particular airline or region.
4. The candidate is then scheduled for a standardized simulator evaluation and written test (that is a profile type test). The 1997 fee for this screening and processing charged by one organization was $325 but is sometimes waived.
5. The results of the simulator evaluation are recorded and if the candidate was successful a packet is developed that includes the profile test, simulator evaluation (including hard printouts of events), results of background checks and the resume/application. If the candidate failed the simulator check, the pilot is advised why and given any appropriate recommendations. The candidate cannot retry until the issues are resolved.
6. The customer airline, in the meantime, has contracted with the organization to use this service and obtained any FAA approvals for training that will be provided by an organization other than the carrier. The customer airline also has defined the profile test parameters it is looking for that will be indicated on the written test (based on giving the same test to their most desirable current employees).

   When the airline has a new hire requirement, it contacts the organization which will then provide pilot packets of those who meet the airline's specific profile and pilot time requirements.

7. The airline takes the packets and decides who they want to interview, invites the candidate to that interview and then decides who will receive a "conditional offer of employment."
8. Candidates who receive offers are told that if they successfully complete the airline's FAA-approved training program they will be hired. Candidates are then scheduled for a class. NOTE: Some airline do the training themselves, although they use a non-carrier central processing facility to get the candidate.
9. The candidate then attends the class. Depending on what was contracted and agreed on between the airline, the Principal Operations Inspector, and the training providing organization, the candidate could

receive complete training, from Day 1 of Indoctrination (Indoc) to Initial Operating Experience (IOE) on the line. NOTE: Most receive basic indoc, systems and simulator (sim) training either to 100% completion in a Level D simulator, or 85% in a simulator and 15% with the carrier in the aircraft.

10. After successful completion of the 15% aircraft or 100% simulator rides, whichever is the case, they are employees of the airline. Many get seniority numbers on Day 1, but the numbers are not valid until the pilots pass the rides.
11. If a candidate fails any part of the training, the "conditional offer of employment" is withdrawn. The candidate is either given a rebate on unused training money, if any is left. If the failure occurs before the first sim session, the candidate receives a 100% refund. Some airlines will allow additional training, within the constraints of their own training programs.

- at FlightSafety International only.

Appendix D: NTSB Accident Statistics Tables

Table 1. Accidents, Fatalities, and Rates, 1996 preliminary Statistics U.S. Aviation

Table 2. Accidents and Accident Rates by NTSB Classification, 1982 through 1996, for U.S. Air Carriers Operating Under 14 CFR 121

Table 3. Passenger Injuries and Injury Rates, 1982 through 1996, for U.S. Air Carriers Operating Under 14 CFR 121

Table 4. Accidents, Fatalities, and Rates, 1982 through 1996, for U.S. Air Carriers Operating Under 14 CFR 121, Scheduled Service (Airlines)

Table 5. Accidents, Fatalities, and Rates, 1982 through 1996, for U.S. Air Carriers Operating Under 14 CFR 135, Scheduled Service (Commuter Air Carriers)

Table 6. Fatal Accidents, 1996 Preliminary Data for All Operations Under 14 CFR 121 and for Scheduled Operations Under 14 CFR 135

Table 1. Accidents, Fatalities, and Rates, 1996 Preliminary Statistics
U.S. Aviation

	Accidents		Fatalities				Accidents per 100,00 Flight Hours		Accidents per 100.00 Departures	
	All	Fatal	Total	Aboard	Flight Hours	Departures	All	Fatal	All	Fatal
U.S. Air carriers operating under 14 CFR 121 Scheduled	32	3	342	342	12,900,000	8,185,000	0.248	0.023	0.391	0.037
U.S. Air carriers operating under 14 CFR 135 Scheduled	11	1	14	12	2,474,000	3,171,000	0.445	0.040	0.347	0.032

Note All data are preliminary and released by the National Transportation Safety Board
Hours and departures are complied and estimated by the Federal Aviation Administration.

Table 2. Accidents and Accident Rates by NTSB Classification, 1982 through 1996, for U.S. Air Carriers Operating Under 14 CFR 121

	Accidents				Aircraft Hours Flown	Accidents per Million Hours Flown			
Year	Major	Serious	Injury	Damage	(millions)	Major	Serious	Injury	Damage
1982	3	4	6	7	7.040	0.426	0.568	0.852	0.994
1983	4	2	9	8	7.299	0.548	0.274	1.233	1.096
1984	2	2	7	5	8.165	0.245	0.245	0.857	0.612
1985	8	2	5	6	8.710	0.918	0.230	0.574	0.689
1986	4	0	14	6	9.976	0.401	0.000	1.403	0.601
1987	5	1	12	16	10.645	0.470	0.094	1.127	1.503
1988	4	2	13	10	11.141	0.359	0.180	1.167	0.898
1989	6	4	6	10	11.275	0.710	0.355	0.532	0.887
1990	4	3	10	7	12.150	0.329	0.247	0.823	0.576
1991	5	2	10	9	11.781	0.424	0.170	0.849	0.764
1992	3	3	10	2	12.360	0.243	0.243	0.809	0.162
1993	1	2	12	8	12.706	0.079	0.157	0.944	0.630
1994	4	0	12	7	13.122	0.305	0.000	0.914	0.533
1995	3	2	14	17	13.513	0.222	0.148	1.036	1.258
1996	6	0	18	14	13.683	0.439	0.000	1.316	1.023

Definitions of NTSB Classifications

Major - an accident in which any of three conditions is met:
- a Part 121 aircraft was destroyed, or
- there were multiple fatalities, or
- there was one fatality and a Part 121 aircraft was substantially damaged.

Serious - an accident in which at least one of two conditions is met:
- there was one fatality without substantial damage to a Part 121 aircraft, or
- there was at least one serious injury and a Part 121 aircraft was substantially damaged.

Injury - a nonfatal accident with at least one serious injury and without substantial damage to a Part 121 aircraft.

Damage - an accident in which no person was killed or seriously injured, but in which any aircraft was substantially damaged

Table 3. Passenger Injuries and Injury Rates, 1982 through 1996, for U.S. Air Carriers Operating Under 14 CFR 121

Year	Passenger Fatalities	Passenger Serious Injuries	Total Passenger Enplanements (millions)	Million Passenger Enplanements per Passenger Fatality
1982	210	17	299	1.4
1983	8	8	325	40.6
1984	1	6	352	352.0
1985	486	20	390	0.8
1986	4	23	426	106.5
1987	213	39	456	2.1
1988	255	44	464	1.8
1989	259	55	464	1.8
1990	8	23	475	59.4
1991	40	19	461	11.5
1992	26	14	485	18.7
1993	0	7	500	No Fatalities
1994	228	16	541	2.4
1995	152	15	560	3.7
1996	319	16	582	1.8

Note Injuries exclude flight crew and cabin crew.

Table 4. Accidents, Fatalities, and Rates, 1982 through 1996, for U.S. Air Carriers Operating Under 14 CFR 121, Scheduled Service (Airlines)

	Accidents		Fatalities					Accidents per 100,000 Flight Hours		Accidents per 1,000,000 Miles Flown		Accidents per 100,000 Departures	
Year	All	Fatal	Total	Aboard	Flight Hours	Miles Flown	Departures	All	Fatal	All	Fatal	All	Fatal
1982	16	4	234	222	6,697,770	2,806,885,000	5,162,346	0.224	0.045	0.0053	0.0011	0.291	0.058
1983	22	4	15	14	6,914,969	2,920,909,000	5,235,262	0.318	0.058	0.0075	0.0014	0.420	0.076
1984	13	1	4	4	7,736,037	3,258,910,000	5,666,076	0.168	0.013	0.0040	0.0003	0.229	0.018
1985	17	4	197	196	8,265,332	3,452,753,000	6,068,893	0.206	0.048	0.0049	0.0012	0.280	0.066
1986	21	2	6	4	9,495,158	3,829,129,000	6,928,103	0.211	0.011	0.0052	0.0003	0.289	0.014
1987	32	4	231	229	10,115,407	4,125,874,000	7,293,025	0.306	0.030	0.0075	0.0007	0.425	0.041
1988	28	3	285	274	10,521,052	4,260,785,000	7,347,575	0.257	0.019	0.0063	0.0005	0.367	0.027
1989	24	8	131	130	10,597,922	4,337,234,000	7,267,341	0.226	0.075	0.0055	0.0018	0.330	0.110
1990	22	6	39	12	11,524,726	4,689,287,000	7,795,761	0.191	0.052	0.0047	0.0013	0.282	0.077
1991	25	4	62	49	11,139,166	4,558,537,000	7,503,873	0.224	0.036	0.0055	0.0009	0.333	0.053
1992	16	4	33	31	11,732,026	4,782,825,000	7,515,373	0.136	0.034	0.0033	0.0008	0.213	0.053
1993	22	1	1	0	11,981,347	4,936,067,000	7,721,975	0.184	0.008	0.0045	0.0002	0.285	0.013
1994	19	4	239	237	12,292,356	5,112,633,000	7,824,802	0.146	0.033	0.0035	0.0008	0.230	0.051
1995	34	2	166	160	12,770,405	5,326,266,000	8,102,491	0.266	0.016	0.0064	0.0004	0.420	0.025
1996	32	3	342	342	12,900,000	5,419,380,000	8,185,000	0.248	0.023	0.0059	0.0006	0.391	0.037

Notes 1996 data are preliminary.

Hours, miles, and departures are compiled by the Federal Aviation Administration.

The 62 total fatalities in 1991 includes the 12 persons killed aboard a Skywest commuter aircraft and the 22 persons killed aboard the USAir airliner when the two aircraft collided.

The following suicide/sabotage cases are included in "Accidents" and "Fatalities" but are excluded from accident rates in this table.

			Fatalities	
Year	Location	Operator	Total	Aboard
1982	Honolulu, HI	Pan American	1	1
1986	Near Athens, Greece	Trans World	4	4
1987	San Luis Obispo, CA	Pacific Southwest	43	43
1988	Lockerbie, Scotland	Pan American	270	259
1994	Memphis, TN	Federal Express	0	0

Table 5. Accidents, Fatalities, and Rates, 1982 through 1996,
for U.S. Air Carriers Operating Under 14 CFR 135, Scheduled Service (Commuter Air Carriers)

	Accidents		Fatalities					Accidents per 100,000 Flight Hours		Accidents per 1,000,000 Miles Flown		Accidents per 100,000 Departures	
Year	All	Fatal	Total	Aboard	Flight Hours	Miles Flown	Departures	All	Fatal	All	Fatal	All	Fatal
1982	26	5	14	14	1,299,748	222,355,000	2,026,691	2.000	0.385	0.1169	0.0225	1.283	0.247
1983	17	2	11	10	1,510,908	253,572,000	2,328,430	1.125	0.132	0.0670	0.0079	0.730	0.086
1984	22	7	48	46	1,745,762	291,460,000	2,676,590	1.260	0.401	0.0755	0.0240	0.822	0.262
1985	21	7	37	36	1,737,106	300,817,000	2,561,463	1.209	0.403	0.0698	0.0233	0.820	0.273
1986	15	2	4	4	1,724,586	307,393,000	2,798,811	0.870	0.116	0.0488	0.0065	0.536	0.071
1987	33	10	59	57	1,946,349	350,879,000	2,809,918	1.695	0.514	0.0940	0.0285	1.174	0.356
1988	19	2	21	21	2,092,689	380,237,000	2,909,005	0.908	0.096	0.0500	0.0053	0.653	0.069
1989	19	5	31	31	2,240,555	393,619,000	2,818,520	0.848	0.223	0.0483	0.0127	0.674	0.177
1990	16	4	7	5	2,341,760	450,133,000	3,160,089	0.683	0.171	0.0355	0.0089	0.506	0.127
1991	22	8	99	77	2,291,693	433,900,000	2,820,440	0.960	0.349	0.0507	0.0184	0.780	0.284
1992	23	7	21	21	2,363,745	508,242,000	3,114,932	0.931	0.296	0.0433	0.0138	0.706	0.225
1993	16	4	24	23	2,641,268	554,963,000	3,601,902	0.606	0.151	0.0288	0.0072	0.444	0.111
1994	10	3	25	25	2,787,904	594,716,000	3,850,372	0.359	0.108	0.0168	0.0050	0.260	0.078
1995	11	2	9	9	2,478,872	565,577,000	3,216,900	0.444	0.081	0.0194	0.0035	0.342	0.062
1996	11	1	14	12	2,474,000	608,814,000	3,171,000	0.445	0.040	0.0181	0.0016	0.347	0.032

Notes 1996 data are preliminary.

Hours, miles, and departures are compiled by the Federal Aviation Administration.

The following attempted suicide case is included in "Accidents" and "Fatalities" but is excluded from accident rates in this table.

Year	Location	Operator	Fatalities Total	Fatalities Aboard
1992	Lexington, KY	Mesaba Airlines	0	0

Table 6. Fatal Accidents, 1996 Preliminary Data for All Operations Under 14 CFR 121 and for Scheduled Operations Under 14 CFR 135

Date	Location	Operator	Service	Aircraft	Fatalities				No. Aboard	Circumstances
					Psgr	Crew	Other	Total		
Scheduled 14 CFR 121										
5/11/96	Miami, FL	Valujet	Psgr	DC-9-32	105	5	-	110	110	In flight fire. Uncontrolled descent.
7/6/96	Pensacola, FL	Delta Air Lines	Psgr	MD-88	2	-	-	2	147	Uncontained engine failure
7/17/96	East Moriches, NY	Trans World Airways	Psgr	B-747	212	18	-	230	230	In flight explosion.
Scheduled 14 CFR 135										
11/19/96	Quincy, IL	Great Lakes Aviation, DBA United Express	Psgr	Beech 1900C	10	2	2	14	12	Collided with a general aviation aircraft at a runway intersection.

Appendix E: Glossary

Air carrier— Operator, airline, certificate holder, carrier, and air carrier are interchangeable terms and refer to a person or organization that conducts business under 14 Code of Federal Regulations, Parts 119, 121, 127, and/or 135.

Categories of training— The classification of instructional programs by the regulatory requirement the training fulfills. Categories of training consist of one or more curriculums. The categories of training are initial new-hire, initial equipment, transition, upgrade, recurrent, and requalification.

Certificate holder- Operator, airline, air carrier, carrier, and certificate holder are interchangeable terms which refer to a person or organization that conducts business under 14 Code of Federal Regulations, Parts 119, 121, and/or 135.

Code of Federal Regulations (14)

A. Part 119- Certification: Air Carriers and Commercial Operators. This part (119.1) applies to each person operating or intending to operate civil aircraft--(1) As an air carrier or commercial operator, or both, in air commerce; or

   (2) When common carriage is not involved, in operations of U.S.-registered civil airplanes with a seat configuration of 20 or more passengers, or a maximum payload capacity of 6,000 pounds or more....

B. Part 121- Operating Requirements: Domestic, Flag, and Supplemental Operations. This part (121.1) prescribes rules governing--(a) The domestic, flag, and supplemental operations of each person who holds or is required to hold an Air Carrier Certificate or Operating Certificate under part 119 of this chapter. (b) Each person employed or used by a certificate holder conducting operations under this part, including maintenance, preventive maintenance, and alteration of aircraft....

C. Part 135- Operating Requirements: Commuter and On-Demand Operations. (a) This part (135.1) prescribes rules governing--(1) The commuter or on-demand operations of each person who holds or is required to hold an Air Carrier Certificate or Operating Certificate under part 119 of this chapter. (2) Each person employed or used by a certificate holder conducting operations under this part including the maintenance, preventative maintenance and alteration of an aircraft....

   Commuter— An FAR Part 135 operator who carries passengers on at least 5 round trips per week or at least 1 route between 2 or more points according to its published flight schedule that specifies the

times, days of the week, and places between which those lights are performed.

Curriculum— A complete training agenda specific to an aircraft type, a crewmember or dispatcher duty position, and a category of training. An example is an "initial new-hire, Boeing 727 flight engineer curriculum." Each curriculum consists of several curriculum segments. These curriculum segments are logical subdivisions of a curriculum which can be separately evaluated and individually approved. Examples are a "ground training" segment and a "flight training" segment.

Direct air carrier— A person who provides or offers to provide air transportation and who has control over the operational functions performed in providing that transportation.

Duty position— Refers to the functional or operating position of a crewmember or aircraft dispatcher. For Parts 121 and 135 operations, duty positions are pilot-in-command (PIC), second-in-command (SIC), flight engineer (FE), flight attendant (FA), flight navigator (NAV), and aircraft dispatcher (AD).

Incident— An occurrence involving the operation of one or more aircraft in which a hazard or a potential hazard to safety is involved but which is not classified as an accident due to degree of injury and/or extent of damage.

Kind of operation— Means one of the various operations a certificate holder is authorized to conduct, as specified in its operations specifications, i.e., domestic, flag, supplemental, commuter, or on-demand operations.

NTSB classifications:

A. Major— an accident in which any of three conditions is met: a Part 121 aircraft was destroyed, or there were multiple fatalities, or there was one fatality and a Part 121 aircraft was substantially damaged.

B. Serious— an accident in which at least one of two conditions is met: there was one fatality without substantial damage to a Part 121 aircraft, or there was at least one serious injury and a Part 121 aircraft was substantially damaged.

C. Injury— a nonfatal accident with at least one serious injury and without substantial damage to a Part 121 aircraft.

D. Damage— an accident in which no person was killed or seriously injured, but in which any aircraft was substantially damaged.

On-demand operation— Any operation for compensation or hire that is a passenger-carrying operation in which the departure time, departure location, and arrival location are specifically negotiated with the customer or the customer's representative....

Passenger- Carrying operation—Any aircraft operation carrying any person, unless the only persons on the aircraft are those identified in Part 121.583(a) or 135.85 of this chapter (subchapter G), as applicable....

Pay-For-Training— Shall be considered as that training specifically required as a condition of employment, starting as the commencement of an air carrier's training, as a condition of employment, or post-employment training for which the employee pays or foregoes normal compensation.

Pilot deviation— the actions of a pilot that result in the violation of a Federal Aviation Regulation or a North American Aerospace Defense Command (NORAD Air Defense Identification Zone (ADIZ) tolerance.

Pilot-In-Command (PIC)- The person who has responsibility for the flight; occupies the left seat; the captain.

Scheduled operation— Any common carriage passenger-carrying operation for compensation or hire conducted by an air carrier or commercial operator for which the certificate holder or its representative offers in advance the departure location, departure time, and arrival location. It does not include any operation that is a charter operation for which the certificate holder or its representative offers in advance the departure location, departure time, and arrival location. It does not include any operation that is a charter operation.

Second-In-Command (SIC)- The person who assumes responsibility for the flight if the pilot-in-command becomes incapacitated; the person who occupies the right seat; the co-pilot.

Study timeframe— The period of this study which shall be from the commencement of an air carrier's training as a condition of employment and ends at the first annual training or checking event as an employee of the air carrier under consideration.

Testing and checking— Refer to methods for evaluating students as they demonstrate a required level of knowledge in a subject, and when appropriate, apply the knowledge and skills learned in instructional situations to practical situations.

Training program— A system of instruction which includes curriculums, facilities, instructors, check airmen, courseware, instructional delivery methods, and testing and checking procedures. This system must satisfy the training program requirements of Part 121 or Part 135 and ensure that each crewmember and dispatcher remains adequately trained for each aircraft, duty position, and kind of operation in which that person serves.

Appendix G: Data Sources

AVIATION SAFETY STATISTICAL HANDBOOK. Volume 4, number 6. July 1996. Department of Transportation. Federal Aviation Administration.

Federal Aviation Administration Pilot Deviation Reports 1987-Present.

Federal Aviation Administration Safety Hotline reports.

National Aeronautical and Space Administration (NASA) Aviation Safety Reporting System 1994-Present.

National Transportation Safety Board Aviation (NTSB) Accident Reports 1990-Present.

National Transportation Safety Board, News, Special Bulletin 97-03, February 21, 1997. "Number of Major Airline Accidents, Deaths Rise: General Aviation Has Lowest Fatal Accident Rate."

Order 8400.10, AIR TRANSPORTATION OPERATIONS INSPECTOR'S HANDBOOK, Volume 3, Chapter 2, Change 10, December 10, 1994.

U.S. Department of Transportation. Federal Aviation Administration. Title 14, Code of Federal Regulations, Parts 60 to 139, Revised as of January 1, 1996, Office of the Federal Register, National Archives and Records Administration.

Appendix H: Bibliography

"Buy-a-Job and Pay-for-Training Practices Employed By Scheduled Air Carriers." Career Pilots Association position paper. March 1997.

Glenn, S.B. "Paying for Training: The B Scale for the '90s." *Air Line Pilot*, October 1996, pg 6-7, 62.

"New Pilots Group Founded in Washington." *Working Pilots, Volume 1, Issue 1, November/December 1996, pg 1-2.*

Wachs, K. L. "Who Pays For Training?". *Professional Pilot*. Sept 1996, pg. 10-12.

JAN 27 1997

Mr. Walter S. Coleman
Aviation Rulemaking Advisory Committee
Regional Airline Association
1200 19th Street N.W., Suite 300
Washington, D.C. 20036

Dear Mr. Colemen:

As part of the Federal Aviation Reauthorization Act of 1996, the Federal Aviation Administration (FAA) was directed to appoint an industry task force to conduct certain studies. Therefore, the following new tasks have been assigned to the Aviation Rulemaking Advisory Committee, Training and Qualifications Issues. Public notification of the task will appear in the Federal Register in the near future.

The Act requires the following:

Section 503 - Minimum Standards for Pilot Qualifications.

Conduct a two-part study. This study should identify standards and criteria for the following:

(a) Pre-employment testing that would measure the psychomotor coordination, general intellectual capacity, instrument and mechanical comprehension, and overall physical and mental fitness of pilots applying for employment with air carriers; and

(b) Changes to pilot training facilities, if needed, that incorporate the pre-employment testing described in (a).

The FAA requests that the task be completed within 24 months following the public notice of the assignment of the task in the Federal Register.

Section 503 - Pay for Training. Conduct a study to determine if the practice of air carriers to require employees or prospective employees to pay for their own training or obtain experience constitutes a risk to aviation safety.

The Act requires a final report to Congress by September 1997.

Section 504 - Minimum Flight Time Requirements. Conduct a study directed to determine whether current minimum flight time requirements applicable to an individual seeking employment as a pilot with an air carrier are sufficient to ensure public safety

The Act requires a final report to Congress by September 1997.

It should be noted that the FAA is not tasking ARAC to devise any regulatory solutions but to conduct the aforementioned studies as directed by Congress based on data currently available to the aviation industry. FAA resources are available to assist in the gathering of information and drafting the reports.

If you have any questions, please contact Mr. Thomas Toula (202) 267-3729.

Sincerely,

Original Signed By
Guy S. Gardner

Guy S. Gardner
Associate Administrator for
Regulation and Certification