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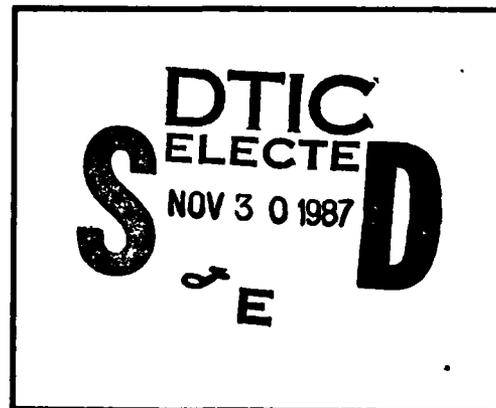
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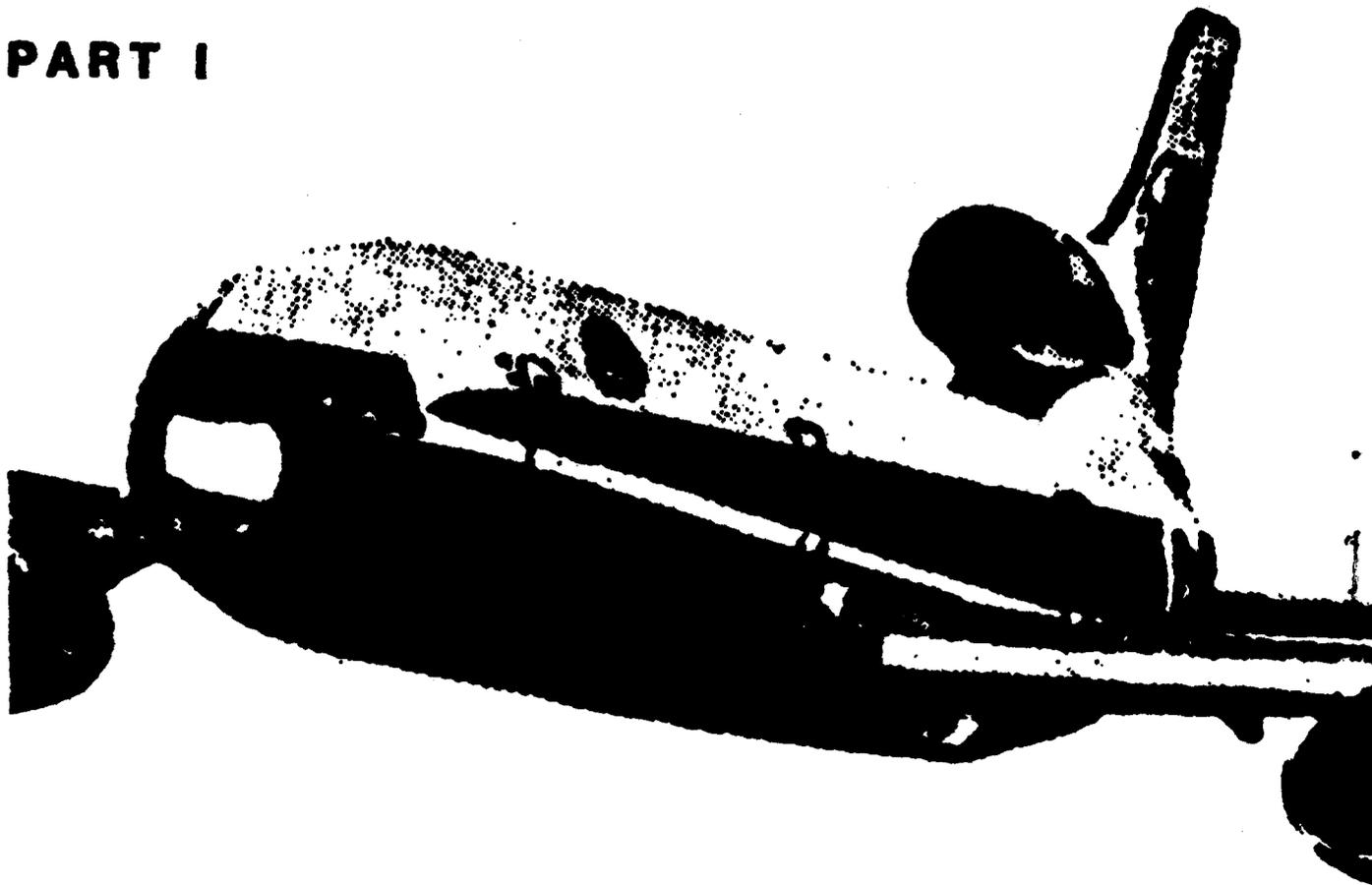
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**PROJECT SAFE:
A Blueprint For Flight Standards**

PART I



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PROJECT SAFE: A BLUEPRINT FOR FLIGHT STANDARDS

SEP 20 1985

EXECUTIVE SUMMARY

This report contains the findings of Project SAFE and a blueprint for revamping the Federal Aviation Administration's management of its Flight Standards field operations. It is based on a comprehensive evaluation of FAA's existing operations and describes changes necessary if FAA is to improve safety in a dynamic aviation environment.

BACKGROUND

On February 13, 1984, the Secretary of Transportation directed the FAA to conduct a comprehensive review of its safety inspection system to determine if it meets the challenges of the changing aviation environment.

During the course of Project SAFE, its scope was enlarged from an initial focus on safety inspectors to a much broader review of all elements of FAA's "Flight Standards System." Flight Standards is the organization within FAA responsible for regulating the users of the National Airspace System, both in how they operate and the equipment they use. The elements of the Flight Standards System that received critical appraisal included: regulations, directives, work programs, program management information, industry safety findings, evaluation programs, budget, resources, position descriptions, classifications, hiring practices, career development, training, and supervisory evaluation. The Flight Standards System is described in detail in Chapter 1.

The analysis of the system involved several national inspections and studies with the objective of defining problem areas and updating the Flight Standards program. The reports and studies all confirmed FAA's outstanding aviation safety record and identified areas where problems exist and improvements could be made.

FINDINGS

1. Flight Standards field and headquarters staff should be increased.

Field staffing has been deficient for several years. Additional headquarters staff is needed to guide and to evaluate field activities and promote standardization through updating regulations and handbooks.

2. Flight Standards needs an effective evaluation program. The interdependency of all functional elements of the Flight Standards System at all management and field levels is critical. Each of the key elements of the system must be capable of updating on a continuous, real-time basis. Training programs supported by standardized written guidance based on a job task analysis and automated recordkeeping must be built into a management system that is responsive to changes in the operating environment. An assessment of the industry, based on actual inspection data, should be part of the evaluation program, thereby allowing changes in the industry to be integrated into FAA training and inspection programs.

3. Updating applicable Federal Aviation Regulations (FARs) should receive priority. Expedited action should be taken to adopt regulations that address the current environment and to rescind obsolete regulations.

4. Field staff need standardized guidance on a timely basis. This guidance should facilitate uniformity in inspection practices and interpretations of regulations.

5. The automated Aviation Safety Analysis System (ASAS) can increase the productivity of field personnel. Automated systems can provide a real-time national data base effectively eliminating the existing problem of inter-regional data sharing. ASAS can also provide field personnel with operator inspection and enforcement histories without regard to geographical or FAA administrative boundaries; and allow management at all levels to evaluate partial or total program effectiveness and industry safety.

6. Personnel management and training programs should be revised to provide sufficient numbers of highly qualified and trained inspectors to accomplish the Flight Standards mission. The numbers of inspectors and support staff should be predicated on the size and scope of the workload. Applicants for inspector positions should be selected, hired, and trained based on work program needs and their entry level experience.

7. Attention to the problems identified by Project SAFE requires strong management oversight to ensure that corrective action occurs within a time frame that is compatible with the total program.

PROJECT SAFE IMPLEMENTATION PLAN

The FAA has already moved to correct the deficiencies identified by Project SAFE. Completed actions include:

1. Enforcement and other actions to ensure that industry corrects problems uncovered during the NATI and GASA inspections (ongoing).

2. Developed and issued standards for objectively determining the number of inspectors necessary to monitor the aviation industry (completed January 1985).

3. Redefined and established standards for investigations, certifications, inspections, and enforcement actions (completed August 1985).

4. Evaluated and recommended adjustments in headquarters and field staffing for 1986, 1987, and 1988 (completed September 1985).

5. Established and set national objectives and priorities for field operations (completed August 1985).

6. Updated FAA's automated system to improve the agency's ability to monitor field operations (completed August 1985).

In addition to measures that the agency has already implemented, other measures that Project SAFE identified as part of a blueprint for short-term and long-range change include:

1. Use of program management information and inspection safety findings from Flight Standards' new automated monitoring system to objectively determine field staffing requirements to avoid either understaffing or overstaffing.
2. Realign the duties and responsibilities of field inspectors to more closely fit the requirements of a dynamic aviation industry.
3. Upgrade criteria and procedures for hiring FAA inspectors.
4. Ensure adequate formal inspector training by updating courses and improving the administration of training programs.
5. Closely monitor and forecast aviation industry changes in order to anticipate their impact on FAA programs.
6. Review and update regulations to reflect the deregulated aviation environment.

7. Revise and standardize inspector handbooks and improve the distribution system to ensure that inspectors have timely and accurate guidance.

8. Monitor data gathered during inspections and from other sources to detect emerging problems and, as data indicate, to refocus inspector and management attention.

The Project SAFE Implementation Plan will update each part of the Flight Standards System by FY-1988 and by FY-1990 will standardize and integrate the parts into an automated, interactive system in order to keep the system up-to-date and document FAA performance. The following chapters describe how and when this plan will be accomplished.

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CHAPTER 1

BACKGROUNDThe FAA's Safety Mission

The Federal Aviation Administration's mission is "service to the nation by providing a safe and efficient aviation system which contributes to national security and the promotion of U. S. aviation." The safety thrust of the mission is derived from §§ 601 of the Federal Aviation Act of 1958, which requires the Secretary of Transportation, through the Administrator of the FAA, to ". . . prescribe reasonable rules and regulations and minimum standards in the interest of safety."

Flight Standards is the organization within each FAA Region responsible for regulating the users of the National Airspace System, both in how they operate and the equipment they use. The burden for ensuring aviation safety, however, belongs to the operators, schools, repair facilities, and other users within the aviation industry. The Federal Aviation Act (§§ 601) states that it is the air carriers' basic requirement ". . . to perform their service with the highest possible degree of safety in the public interest," establishing the safety responsibility of the industry as well.

The Flight Standards System

In its mission to regulate the aviation industry, Flight Standards develops safety standards, oversees industry compliance with the standards and enforces the standards. The FAA Flight Standards System is the process resulting from the regulations and directives that the FAA has issued to implement the agency's regulatory program.

The system is comprised of two major sub-systems; the Program Management System, which directs Flight Standards activities, and the Human Resource Management System, which provides trained personnel to accomplish the activities. Flight Standards' inspectors and programs together regulate the industry within the constraints of the environment. There are, therefore, from the Flight Standards point of view, four major aspects of aviation safety: the environment, the industry, program management, and Flight Standards personnel. Figure 1 illustrates the elements of the Flight Standards System and the connections between the elements of the system.

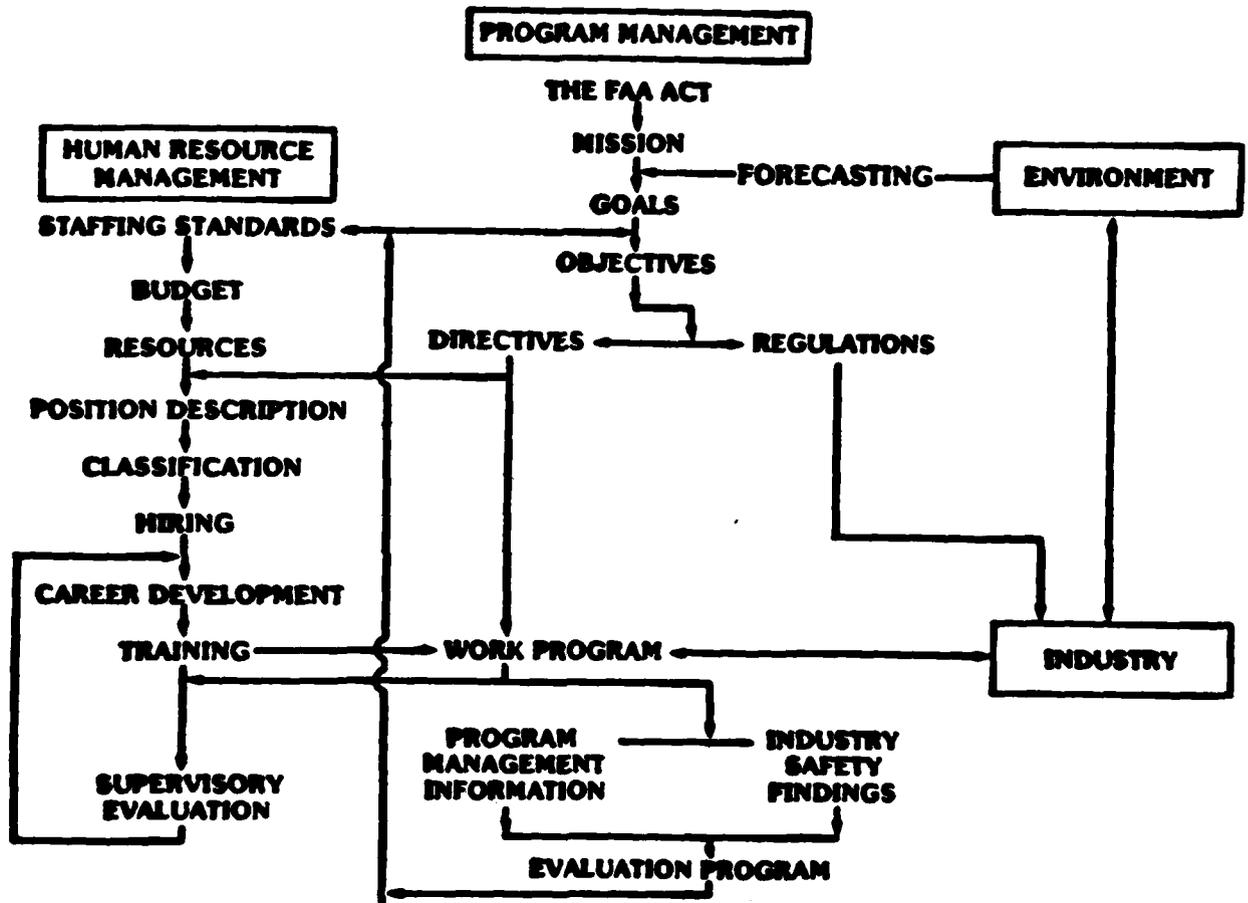
As shown in Figure 1, the environment affects the industry and the FAA. It does this through conflicting incentives, forces and personalities. These include such things as the economy, laws, and regulations outside FAA control, past practices and precedents, competitive forces, industry associations, the media, interest groups, etc.

The industry is affected by the environment, and in two ways, by the FAA through regulations and through the Flight Standards work programs. FAA regulations comprise the safety framework within which the industry operates. They form the basis for industry safety efforts and provide a standard for measuring safety. Flight Standards work programs are designed to ensure that the industry meets FAA safety standards. This objective is achieved by Flight Standards personnel who are experienced pilots, mechanics, and avionics technicians. Inspectors are trained to investigate aircraft accidents and incidents, certificate operators to ensure that they initially meet the standards, inspect operators to ensure that they continue to meet the standards, and enforce the regulations if an operator fails to meet the standard. Industry safety is therefore fine-tuned by the FAA through safety regulation and direct quality control oversight brought about by the Flight Standards System.

Flight Standards Program Management

Program management begins with the Federal Aviation Act and the Flight Standards missions, goals, and objectives, which are established from the Act. The objectives are achieved through two means: (1) regulations which directly affect the aviation industry; and (2) agency directives which include FAA administrative orders, program guidelines, technical information, and inspection procedures.

FLIGHT STANDARDS SYSTEM



Flight Standards work program plans are developed annually based on national program guidelines. As inspectors accomplish the work programs, their reports are entered into a part of the Aviation Safety Analysis System (ASAS), the Work Program Management System (WPMS). This automated system records work program accomplishments and compares the accomplishments to the plan. The results of these comparisons along with quality of work assessments become part of the supervisory evaluation of inspectors and part of the evaluation of the work program as a whole.

Other parts of ASAS document and analyze data on inspection findings that aid in evaluating the status of industry safety. The evaluation of the national work program and the status of industry safety become feed-back for adjustments in staffing standards and program objectives. Program management, therefore, begins with the Federal Aviation Act and ends one cycle with an evaluation of both FAA work program effectiveness and industry safety.

Flight Standards Human Resource Management

The human resource management system begins with an assessment of staffing needs which are derived from the evaluation of effectiveness of Flight Standards programs. The staffing needs are reflected in staffing standards.

Staffing standards are the means of determining what Flight Standards staffing and support resources are required to accomplish an effective work program. Staffing standards support budget requests which result in resources being allocated for Flight Standards activities.

After acquiring the resources, the next step in the process is describing the job functions of each employee and determining the grade/classification of the position. Individuals are then hired for a position and trained according to the career development plan to do their assigned jobs.

Individuals are evaluated by their supervisor and additional training is recommended based on their deficiencies, career aspirations, and the needs of the agency. The human resource management process, therefore, begins with a determination of need from the evaluation of program effectiveness and ends one cycle with supervisory evaluations to ensure that the employees within Flight Standards meet the goals and objectives of the safety program.

The Flight Standards System is the integration of the Program Management System and the Human Resource Management System to provide quality control of industry safety.

Project SAFE

On February 13, 1984, the Secretary of Transportation announced that the FAA would conduct an in-depth review of the entire safety inspection system to determine if the Flight Standards work force was being used as efficiently and effectively as possible in light of the changing aviation environment. The review, entitled Project SAFE (Safety Activity Functional Evaluation) included a forecast of aviation activity under deregulation, the National Air Transportation Inspection (NATI), the General Aviation Safety Audit (GASA), and an evaluation of existing regulations, directives, programs, studies, and reports concerning Flight Standards Inspection programs.

Airline Economic Deregulation

Today's aviation industry is characterized by a vigorous growth in service and competitive marketing among air carriers. From 1978 to 1984, the number of major air carriers grew from 60 to 148 carriers. In addition to the growth in the total number of air carriers, the economic deregulation of the aviation industry in 1978 resulted in a sorting out of those practices and carriers that were the most economically profitable from those that were not. The rapid turnover of new carriers entering the system, then departing and being replaced by new entrants, further complicates the growth picture, and adds a new layer of complexity to the Flight Standards Mission.

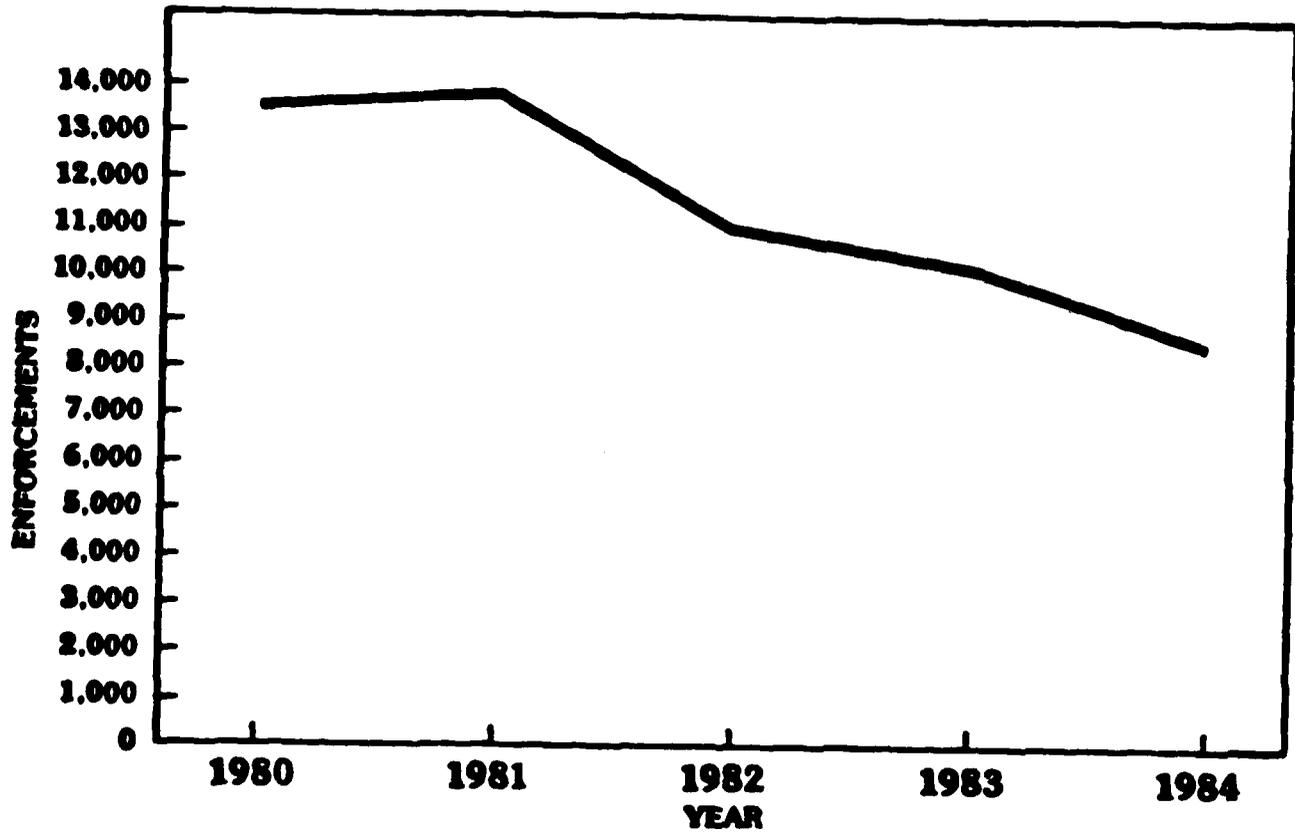
While deregulation and the 1980-81 recession produced economic pressures on the carriers, the safety record over the last 8 years has shown continual improvement ^{1/}. Nevertheless, some indicators, such as enforcement actions (See Figure 2) and increased accidents (Figure 3) in some segments of the industry, have raised concerns about the overall safety of the industry and FAA's ability to perform in this increasingly sophisticated environment. Central to the management problem is the fact that FAA has had to accomplish its safety regulatory mission with a work force that decreased in size between 1978 and 1984.

Flight Standards Job Task Analysis and Project SAFE

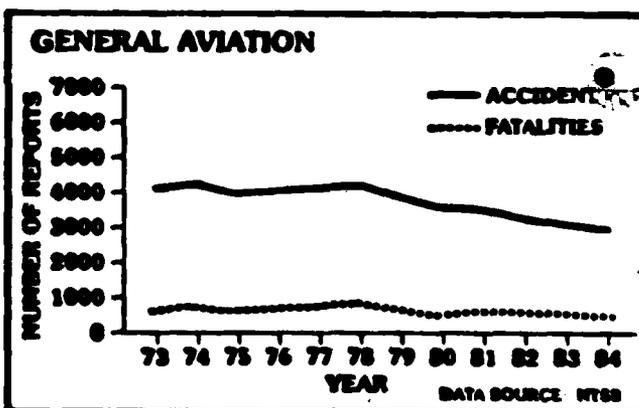
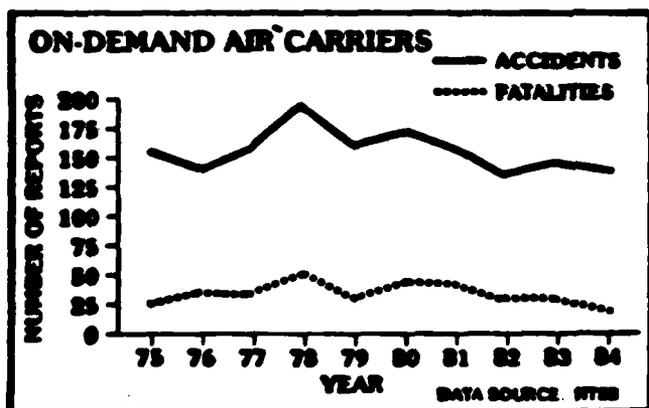
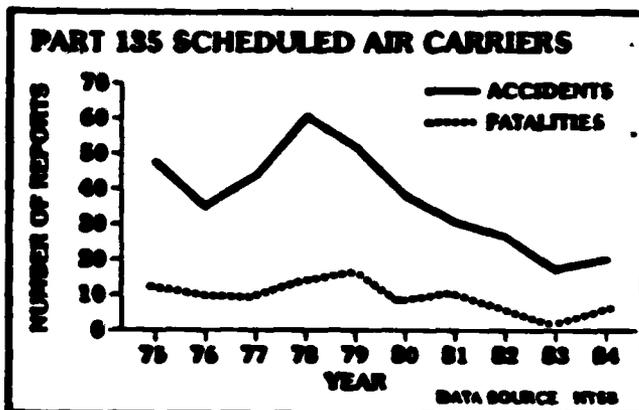
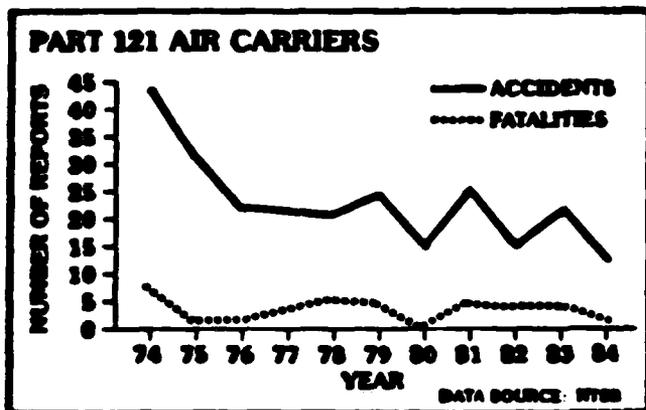
The initial goal of Project SAFE was to review and determine whether or not the current inspector work force was being used as effectively as possible. Initially, Project SAFE was developed as a job task analysis of the aviation safety inspectors. With the participation of over 300 FAA inspectors from the field and headquarters, the Allen Corporation of America, under contract to the Office of Personnel Management, began work in June 1984, to identify and document every major task a safety inspector performs. The objective was to determine a standard of performance, the necessary skills and knowledge required to perform, and ultimately to provide data to redesign training to ensure adequate job performance.

^{1/} The safety statistics for 1985 will deviate from the downward trend due to recent accidents.

ENFORCEMENT CASES INITIATED



AVIATION ACCIDENTS AND FATALITIES BY YEAR



Phase I of the study was completed in November 1984 and provided demographic profiles of inspectors, information on experience and training, and a list of tasks performed by inspectors. In November 1984, inspectors selected by FAA participated on subject matter panels to develop consolidated job data sheets. Each job data sheet specifies the precise elements and steps that constitute a particular task, the cues that trigger the task performance, the tools and equipment required to complete the task, the environment in which the task is performed, and the standards of performance. Initially over 300 tasks were identified, but they were consolidated into approximately 230 tasks.

The Allen Corporation reported the following general findings. Their final report was issued in August 1985. (See Volume 2 for Executive Summary.)

1. Lack of Standardization. Most inspectors identified the lack of standardization as a major problem which is seen as preventing uniform interpretation and application of the Federal Aviation Regulations and agency directives.

2. Inadequate FARs and Handbooks. Inadequate and outdated handbooks and other guidance material, as well as confusing and obsolete FARs, have contributed to the lack of standardization. Inspectors have assembled and use their own set of guidance materials to help them interpret standards.

3. Inadequate Training. The inability of the inspector work force to keep abreast through FAA training of the fast-changing technology, especially in such areas as avionics, directly impacts the credibility of the inspectors and the FAA. Further, the timing and sequencing of training for all inspectors is a serious problem in that there is no standard pattern for who goes to training and when.

4. Insufficient Clerical Assistance. The lack of clerical help significantly affects the efficiency of the inspector work force. Due to the lack of office support, inspectors spend a portion of their time performing clerical functions.

5. Use of Designees. While the use of designees is generally accepted by air carrier inspectors, it has been questioned by the general aviation inspectors due to their lack of control and knowledge about the standards being imposed by designees theoretically under their purview.

6. Geographical Area Concept. The concept is not fully working as intended partially due to the lack of staffing to accomplish even those duties the inspector is charged with performing in the specific region.

7. Human Relations Program. Eighty percent of the personnel surveyed stated that the human relations program has had little or no impact on them.

In addition to the documentation of tasks and general findings, the panel deliberations produced comments concerning the adequacy and shortcomings of existing FAA orders, handbooks, and procedures. Almost 150 recommendations were developed in areas such as standardization, training, and clerical support. These recommendations and findings as well as those of the NATI and GASA inspections resulted in a broadening of the objectives of Project SAFE to include plans to address all of the elements of the Flight Standards System.

National Air Transportation Inspection (NATI)

In response to concerns that the recent growth of the air carrier industry has the potential to create safety problems, the Secretary of Transportation, on February 13, 1984, directed FAA to conduct a nationwide inspection of the air transportation industry. On March 4, 1984, the Administrator initiated this special 90 day program to increase inspections of air carriers operating under FAR Part 121 and commuter carriers operating under FAR Part 135. The National Air Transportation Inspection programs (NATI) overall goals were: (1) to assess industry compliance with FAA regulations and policies; (2) to assess the effectiveness of normal FAA surveillance and inspection procedures in the current environment; and (3) To develop a data base for DOT/FAA long-term review of the entire aviation safety inspection program.

During the program, 13,643 intensified inspections were conducted on 327 Part 121 air carriers and Part 135 commuters to determine the general level of compliance of the industry. As a result of this, 43 air carriers were selected for a more in-depth review because their operations warranted further investigation. In addition, special purpose teams inspected 89 air carriers and support groups in order to survey problem areas that appeared generic in nature, such as contractual training and maintenance, airworthiness programs, carry-on luggage, emergency equipment, etc. The findings of the inspections and report follow.

1. Ninety-five percent of all carriers, including new entrants and established carriers, were in compliance with FAA regulations. Those not in compliance were generally new entrants or carriers undergoing significant changes in the scope of their operations or in their internal management.

2. Since the Airline Deregulation Act of 1978, certain practices among air carriers have changed, such as the degree to which air carriers contract for services. Present regulations have not recently been reviewed and updated to address these practices.

3. Air carriers do not always understand what type and degree of experience is required for their own personnel who are responsible for assuring compliance with safety standards.

4. FAA inspector resources have not kept pace with the demands of the rapidly growing and changing air carrier industry. Emphasis has shifted from inspection to certification.

5. FAA needs more complete and timely information on air carrier operations and on inspection and surveillance management in order to accomplish its mission.

6. Non-standard application of FAA policies occurs because of agency decentralization and rapid changes in air carrier operations. Improved communications are required between headquarters and field offices.

General Aviation Safety Audit (GASA)

On June 20, 1984, the Secretary of Transportation ordered the Federal Aviation Administration to conduct a comprehensive safety audit of the general aviation and the commercial industry. The audit began on July 22, 1984, and will continue through December 1985. This project was not initiated with the intent of solving any particular problem; rather, the audit is being used to identify potential problems.

The Offices of Airworthiness and Flight Operations developed a comprehensive plan to inspect and survey selected elements of the general aviation and commercial industry. The plan consists of five segments, each of which has a specific work element to be completed within a given time frame.

The selected elements to be inspected are: FAR 125, Operators (non air carrier operators of large aircraft); Part 36, Noise Effected Aircraft; FAR 61 and 141, Pilot Schools; FAR 145, Repair Stations; Non Certificated Repair Facilities and Mechanics with Inspection Authorization; FAR 135, On-Demand Air Taxis; Part 125, Holders of Deviations; Pilot Examiners; and Certificated Flight Instructors.

The objective of the audit is to determine, on a nationwide scale, the effectiveness of FAA standards governing the operation and maintenance of aircraft. In addition, GASA will assess whether operators, agencies, and airmen required to comply with the Federal Aviation Regulations are qualified and performing in accordance with the applicable requirements of those regulations.

In order to accommodate the large volume of data collected, a computerized data collection system has been implemented. After collection and analysis of these data the FAA expects to be able to assess its overall effectiveness and the need to update or modify regulations and procedures as they relate to safety.

Interim reports on the findings are being issued as the analysis of the data is complete. A final report will be issued in early 1986.

FINDINGS

In general, Project SAFE has shown that since deregulation the environment of the aviation industry has changed dramatically creating the need for the FAA to reassess the Flight Standards System. While hundreds of specific findings and recommendations have emerged from Project SAFE, the following constitute the major areas where improvements to Flight Standards System can have the greatest effect:

1. Flight Standards field and headquarters staff should be increased.

Field staffing has been deficient for several years. Additional headquarters staff is needed to guide and to evaluate field activities and promote standardization through updating regulations and handbooks.

2. Flight Standards needs an effective evaluation program. The interdependency of all functional elements of the Flight Standards System at all management and field levels is critical. Each of the key elements of the system must be capable of updating on a continuous, real-time basis. Training programs supported by standardized written guidance based on a job task analysis and automated recordkeeping must be built into a management system that is responsive to changes in the operating environment. An

assessment of the industry, based on actual inspection data, should be part of the evaluation program, thereby allowing changes in the industry to be integrated into FAA training and inspection programs.

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7. Attention to the problems identified by Project SAFE requires strong management oversight to ensure that corrective action occurs within a time frame that is compatible with the total program.

PROJECT SAFE IMPLEMENTATION PLAN

The following chapters will describe the plan to modernize the Flight Standards System based on these findings.

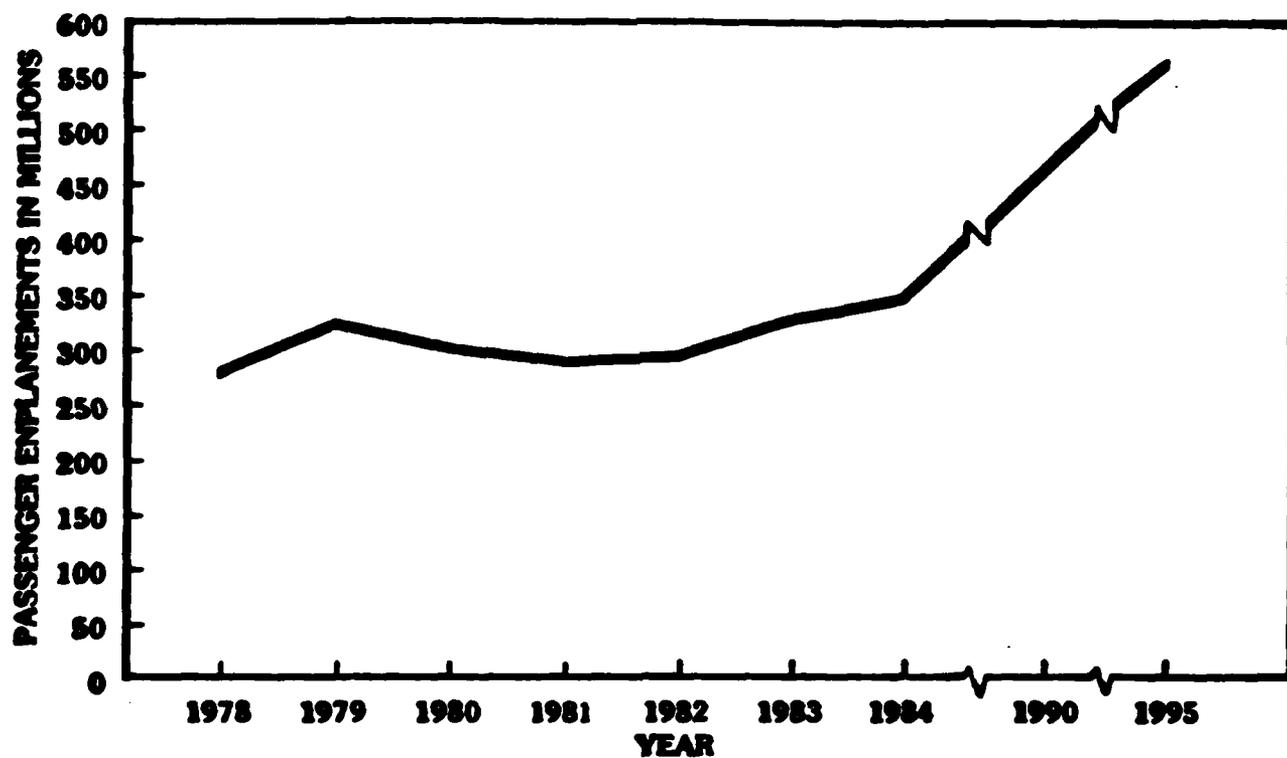
CHAPTER 2

FORECAST AND ASSUMPTIONSStatus and Forecast for the Aviation Industry

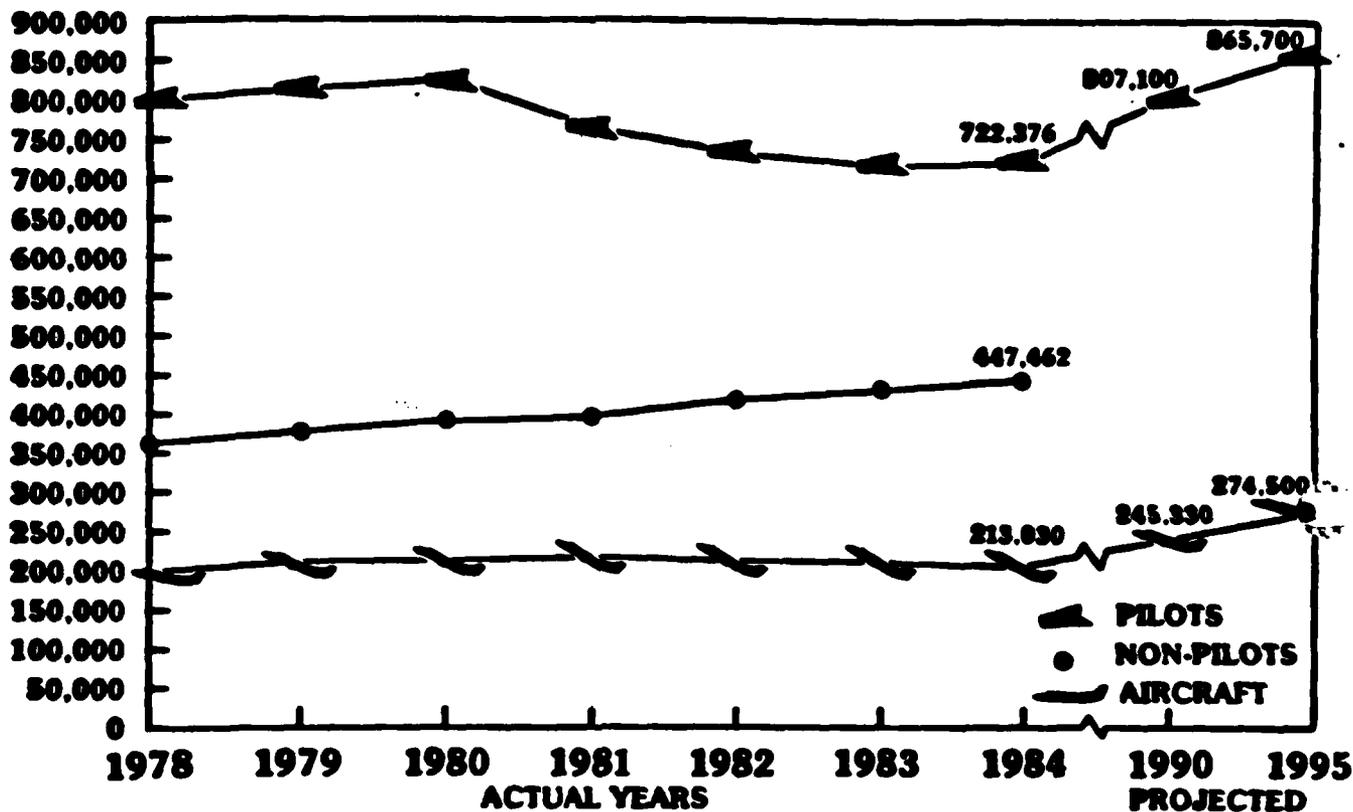
This chapter provides statistical information about the size of the aviation industry in 1984, and forecasts what the size and composition of the industry will be in 1995.

By any measure, the United States airspace system is the busiest and the safest in the world. Approximately 325 scheduled operators serve over 550 airports and enplane over 300 million passengers annually. (See Figure 4.) In addition, there are over 200,000 aircraft traversing the nation's airways, and they are becoming more sophisticated and will intensify the use of controlled airspace and the services FAA provides. (See Figure 5.) Over 3 million people are directly or indirectly involved in the aviation industry. Of these, the FAA has direct oversight responsibility for almost three-quarters of a million active pilots and half a million non-pilot airmen. (See Figure 5.) Among these are over 15,000 designated pilot and mechanic examiners who perform safety functions delegated to them by the FAA.

REVENUE PASSENGER ENPLANEMENTS
U.S. AIR CARRIERS OPERATING UNDER 14 CFR 121
SCHEDULED SERVICE
1978-1984



ACTIVE PILOTS, NON-PILOTS AND AIRCRAFT BY YEAR



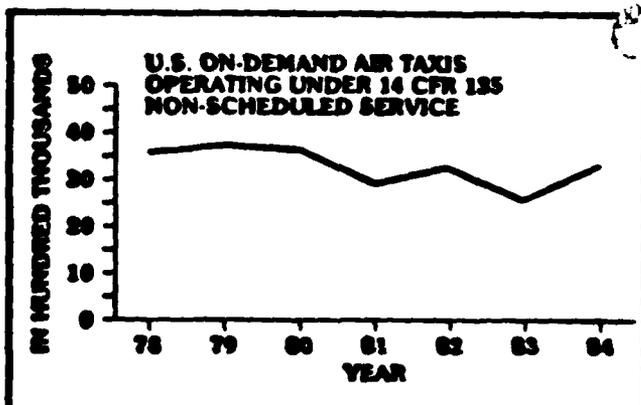
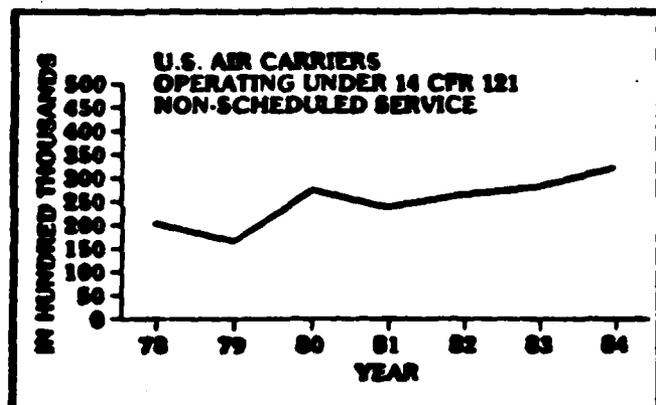
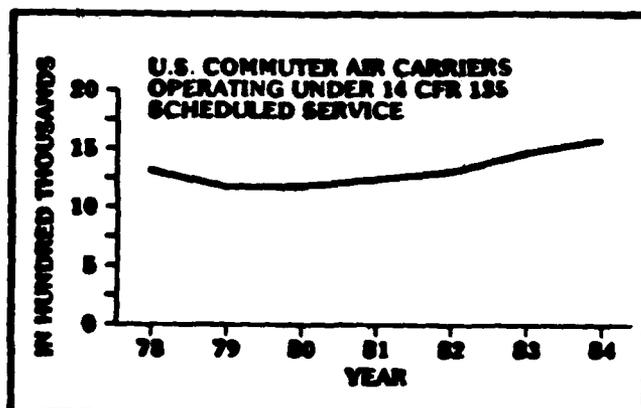
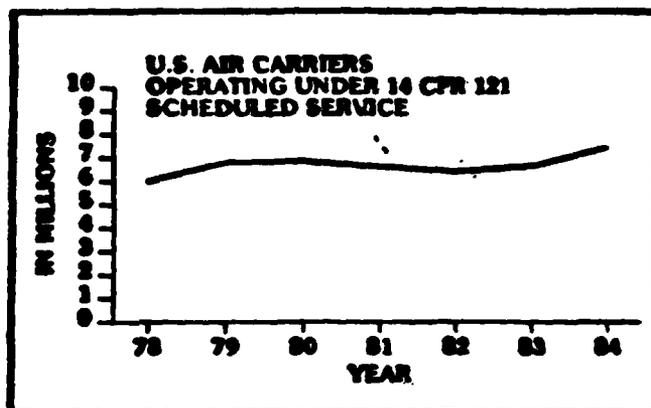
*NOTE: NON-PILOTS INCLUDES MECHANIC, PARACHUTE RIGGER, GROUND INSTRUCTOR, DISPATCHER, CONTROL TOWER OPERATOR, FLIGHT NAVIGATOR & FLIGHT ENGINEER.

Economic Environment

The FAA has developed its own economic forecasting model using Chase Econometrics data and software. The FAA's forecast for the period from 1985 to 1995 calls for strong economic growth, relatively stable fuel prices and moderate inflation. The gross national product, adjusted for price changes, is estimated to expand at an annual rate of 3.4 percent throughout the period. Fuel prices are expected to increase at an annual rate of 3.5 percent, considerably lower than the 4.7 percent forecast of average annual inflation.

Generally, historical changes in aviation activity have paralleled changes in business activity; however, in addition to business cycles, several important structural changes have occurred recently that have had dramatic impacts on aviation. As noted earlier, the Airline Deregulation Act of 1978 opened previously protected, regulated markets to low fare competition, which led to significant changes in the composition of the scheduled airline industry. Deregulation was followed in 1979-1980 by large increases in the price of aviation fuel, then a recession, and in August 1981, by the air traffic controller strike. These phenomena impacted both commercial and general aviation.

AIRCRAFT HOURS FLOWN 1978-1984



The economic outlook through 1995 will have a strong positive effect on the growth of commercial aviation, but a more moderate rate of growth is projected for general aviation due to the structural changes taking place in the industry. (See Figure 6.)

Commercial Aviation

Commercial aviation includes Part 121 scheduled airlines and Part 135 air carriers (those using aircraft that have more than 30 seats or a payload capacity of more than 7,500 pounds). Prior to deregulation, the primary distinction between air carriers and commuter airlines was the size of aircraft and the freedom, or lack of it, to enter or exit markets. The removal of entry barriers and the relaxation of restrictions on the size of aircraft operated by commuters has blurred the two classes of carriers and contributed to the proliferation of new airlines.

The composition of the domestic air carrier industry has changed markedly in the 6 years since deregulation. In 1978, the major airlines accounted for 90.7 percent of domestic scheduled passenger enplanements. By 1984, this share had dropped to 71.6 percent. A large part of this loss was due to the fact that new carriers now account for 16.7 percent of all passenger enplanements.

Commuter Airlines

The commuter airline industry developed and grew in an unregulated environment, and between 1970 and 1984 almost 600 different commuter airlines operated at one time or another. Given the large number of commuters that have initiated service since 1970 and the fact that the largest number of commuter air carriers that were ever active in any one year was about 250, the industry appears to be highly volatile. When examined in more detail, however, there is a much greater degree of stability than is apparent when looking at only the total number of carriers operating in any given year. Of the current top 50 commuters about 70 percent have been in business for over 10 years. Over 30 percent of the commuters operating in 1984 have been in business for 10 years or more, and over 50 percent for 7 years or longer.

In 1984, there were 217 commuter airlines, down from a high of 250 in 1980. While the trend in the number of commuters has been downward, there does exist a core of stable, growing commuters that have evolved from relatively small business operations to very large business organizations. This declining trend in numbers, accompanied by increasing average size of the business entities, is expected to continue through the forecast period. This is due, in part, to a greater number of mergers, acquisitions, and, to a lesser extent, bankruptcy. This trend within the commuter industry may ultimately lead to an industry dominated by 50 to 60 very large commuter airlines.

PART 135 SCHEDULED AIR CARRIERS BY FAA REGION



Air Taxis

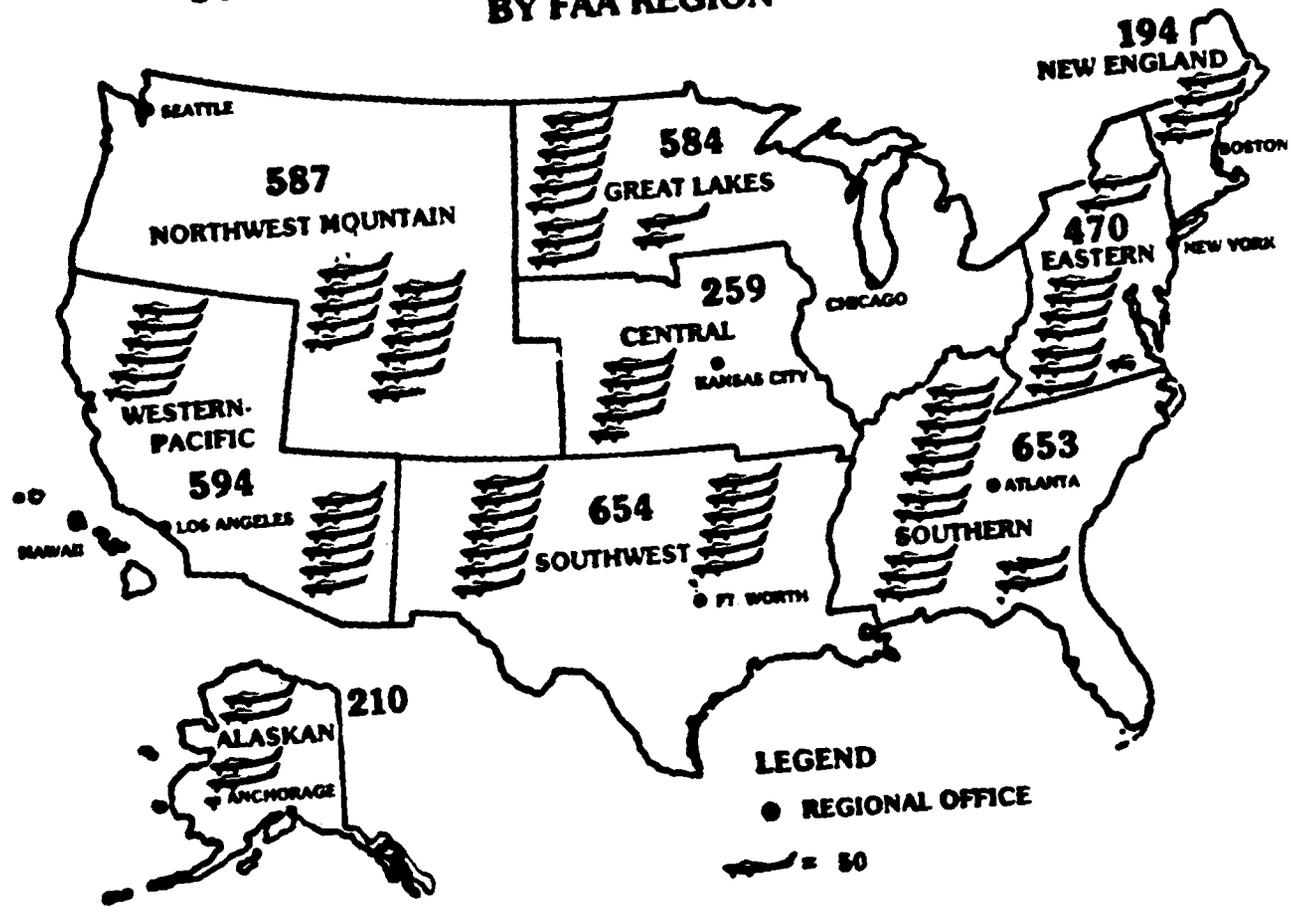
The latest available estimate for the number of air taxis is about 4,200, although this may be low due to some double counting in other categories. Because of the dynamic nature of this segment of the aviation industry, a considerable amount of effort is still required to improve national information gathering and forecasting of the number and operating characteristics of the air taxi sector.

General Aviation

The general aviation industry is experiencing substantial change. New aircraft sales are down from 17,811 in 1978 to only 2,438 in 1984. Student pilots also dropped from 210,000 to 147,200 between 1980 and 1984. However, the dollar volume of sales has increased during this period due to the increase in sales of more expensive turboprop and turbojet aircraft. Along with the decrease in aircraft sales, prices and operating costs have been increasing faster than the rate of inflation.

There also has been an introduction of ultralight aircraft and vehicles since the late 1970's. There are approximately 15 active powered ultralight manufacturers, and an estimated 10,000 active powered ultralights operating in the United States. There are also approximately 10,000 active ultralight pilots. In addition, there are approximately

PART 135 ON-DEMAND AIR CARRIERS BY FAA REGION

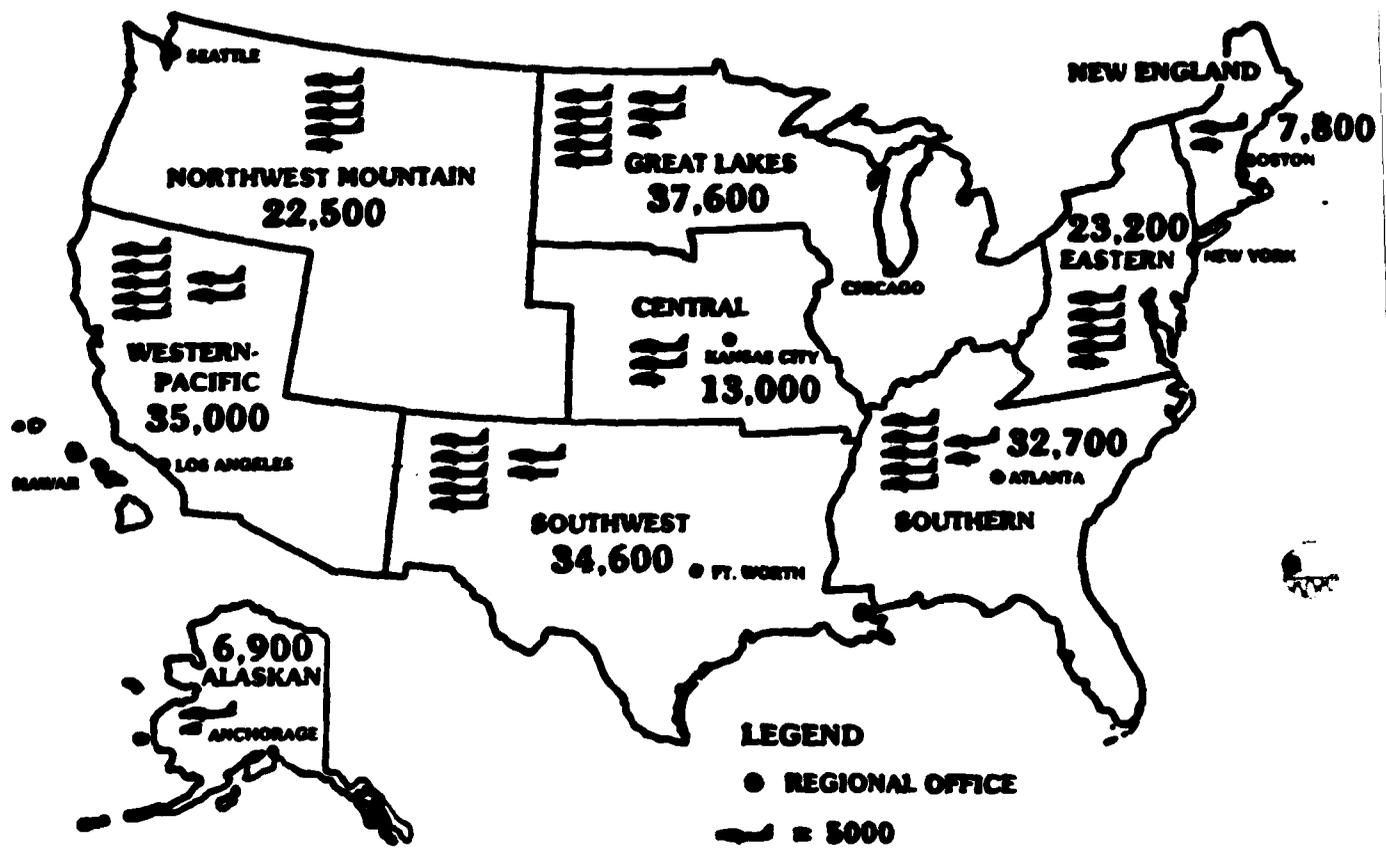


8,000 to 9,000 unpowered ultralights operated by an estimated 6,000 pilots. The costs of owning and operating powered ultralights are relatively low, with the cost of the vehicles ranging between \$5,000 and \$8,000, and the average operating cost of about \$15 per hour. In comparison, the average price of a single-engine certificated aircraft is \$60,000, with an average operating cost of \$30 to \$60 per hour.

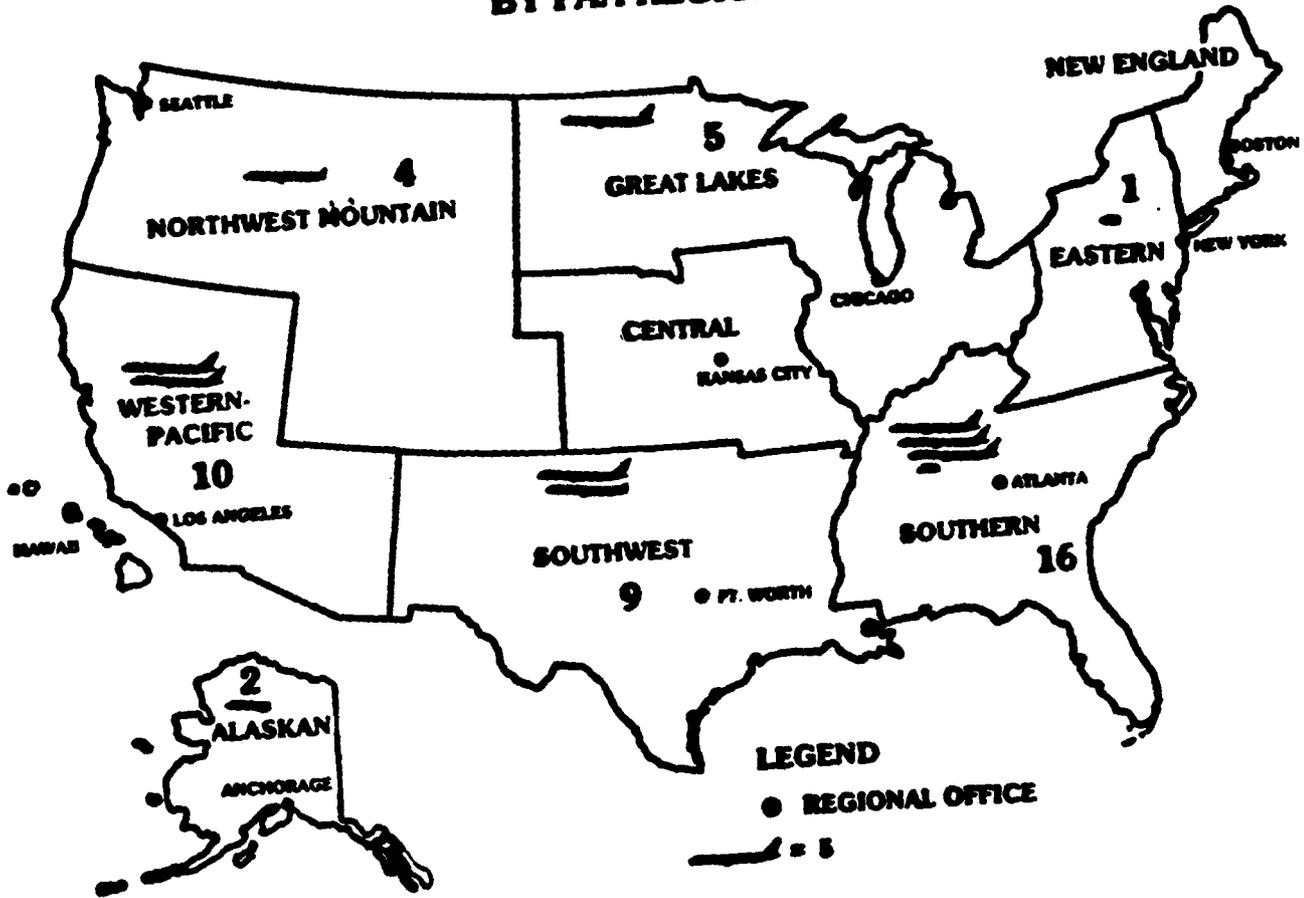
Additional evidence suggesting that general aviation growth may be moderating is the 12.7 percent decline in active pilots between 1980 and 1984. The 1984 numbers were up just slightly over 1983, an increase of 0.6 percent. During the period 1984 to 1995, active airmen are projected to increase at an average annual rate of just under 1.7 percent per year (from 722,376 to 865,700).

Given the factors stated above, the growth in the active general aviation fleet will continue at a moderate rate. The population of active general aviation aircraft is projected to increase from 210,200 in 1984 to 270,500 in 1995, an average annual rate of just over 2.1 percent. Within the active general aviation fleet, the highest rates of growth will be in the number of business use aircraft and the commuter airline fleet, with annual increases of 3.5 percent and 4.0 percent respectively from 1984 to 1995.

GENERAL AVIATION AIRCRAFT BY REGION



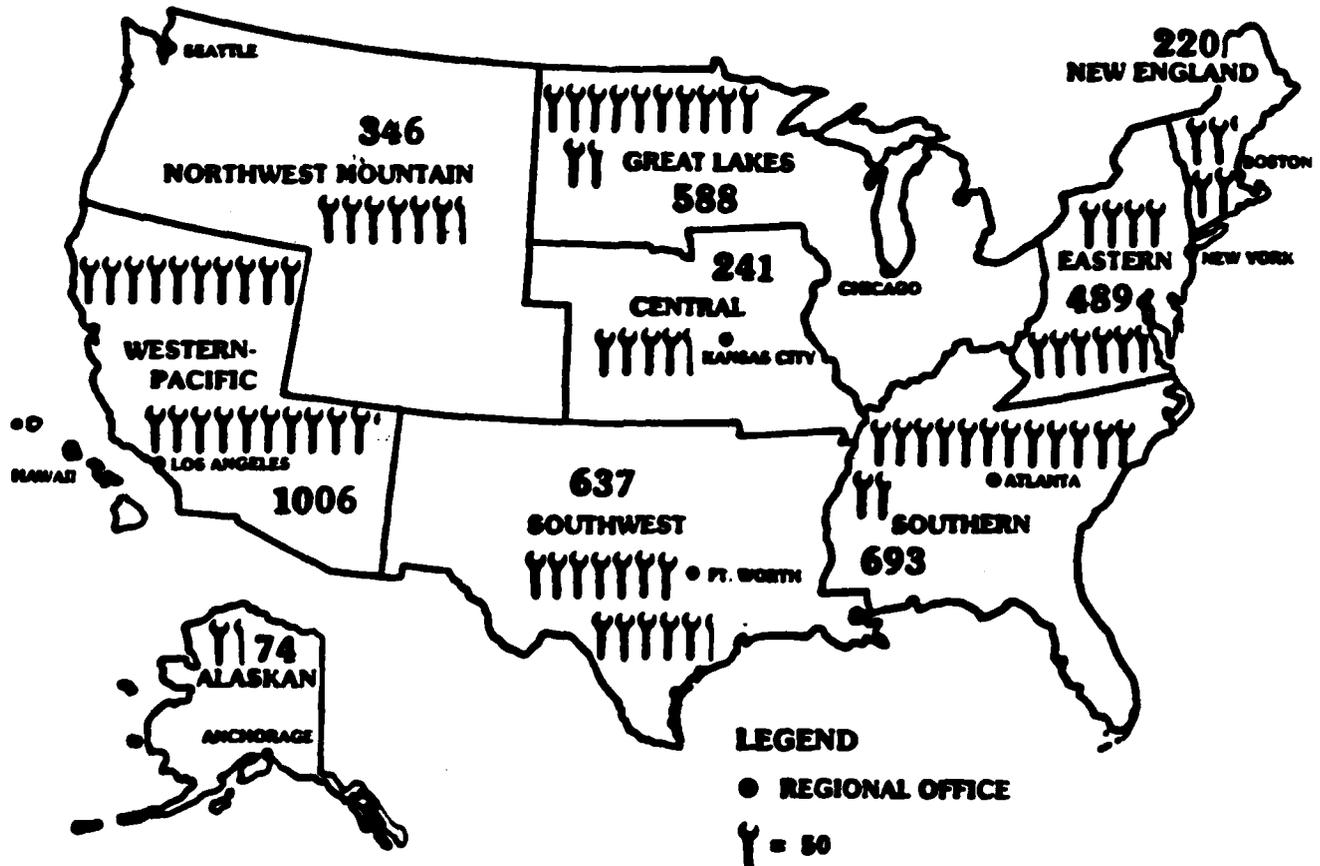
PART 125 - OPERATORS BY FAA REGION



Mechanics and Other Air Agencies

While it is projected that the number of certified mechanics will grow over the next 10 years, actual numbers are difficult to obtain since mechanic certification occurs only one time, and the FAA files have not been purged of those who have left the field. The best current estimate is that there are 100,000-125,000 mechanics. There is a slight increase forecast in the number of maintenance technician schools, and repair stations are also expected to increase at about a 2.1 percent average annual rate, from 4,458 in 1985 to 5,600 in 1995. Pilot schools approved by the FAA under FAR Part 141 have declined in recent years. The cessation of the Veterans Administration program of assistance for pilot training on September 30, 1981, has been a contributing factor. However, fixed base operators employing individual flight instructors and self-employed flight instructors continue to provide pilot training under FAR Part 61. This latter rule does not require specific FAA approval to conduct pilot training programs or the use of supervisory instructor personnel with specific qualifications.

CERTIFICATED REPAIR STATIONS BY FAA REGION



PILOT AND AVIATION MAINTENANCE TECHNICIAN SCHOOLS BY FAA REGION

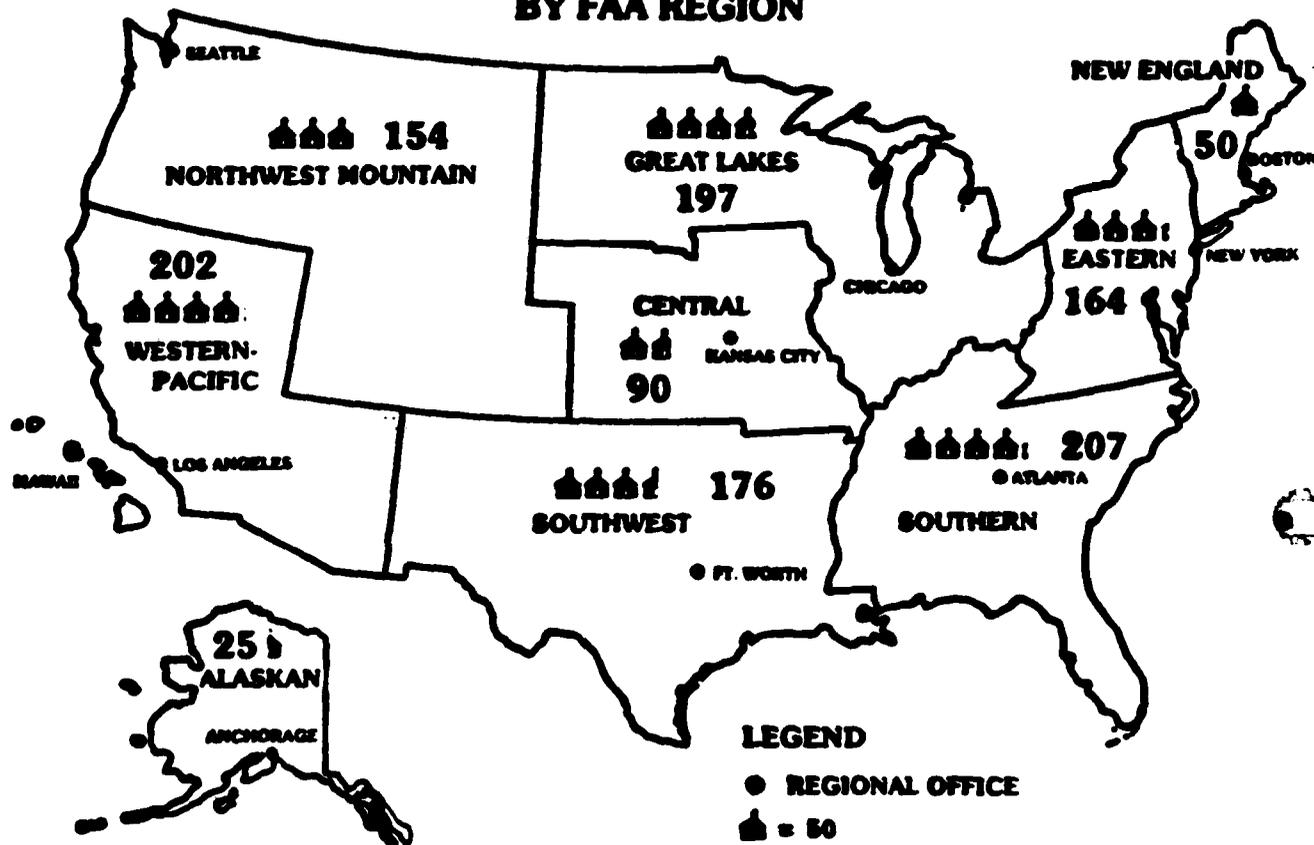


TABLE 1: FORECAST 1984 - 1995

	1978	1984	1990	1995	Percent Growth 1984-1985
Pilot Schools	1,617	1,200	1,100	1,000	-16.7
Maintenance Tech Schools	144	156	164	175	12.2
Active Pilots	798,833	722,376	807,100	865,700	19.8
Mechanics	*	100- 125,000*	*	*	
Repair Stations	3,609	4,458	5,000	5,600	25.6
Commercial Carriers					
Part 121	40	110	100	90	-18.2
Part 135 Commuter	208	179	155	135	-24.6
Part 121/135	1	38	45	55	44.7
Aircraft					
Air Carrier (Part 121)	2,240	2,830	3,430	4,000	41.3
General Aviation	198,800	210,200	241,900	270,500	28.7
Business	55,500	62,500	77,600	91,100	45.8
Commuter (Part 135)	1,400	1,530	1,900	2,300	53.3
Other GA	141,900	146,170	162,400	177,100	21.2
Commercial Domestic Passenger Enplanements (In Millions)					
Air Carrier (Part 121)	246.5	313.2	417.7	508.4	62.3
Commuter (Part 135)	9.8	23.2	35.8	50.7	118.5

* Estimates provided from FAA file are generally much higher because there is no mechanism to purge the file of individuals no longer in the field.

Assumptions

During the formulation of the plan to improve the Flight Standards System, many premises or assumptions were used to underpin the objectives of the plan. These assumptions, combined with the forecast, present the aviation environment in which the Flight Standards System will operate.

FAA Mission

The safety responsibilities established for the FAA by the Federal Aviation Act will continue to be emphasized and be of keen interest to the public. The mission, goals, and values of the FAA will not fundamentally change, but the FAA will be challenged to keep pace and accomplish its safety objectives in a dynamic environment.

The Economy

Aviation and air transportation will continue to be recognized as significant contributors to the U.S. economy. Aviation activity and demand for FAA services will continue to grow as specified in the forecast, and the agency and industry will operate in a deregulated economic market that is subject to some uncertainties.

Government Climate

There will be continuing emphasis on controlling Federal expenditures, and the FAA activities will be conducted within relatively austere budget constraints. More efficient inspection methods must be developed to better target FAA inspector resources to more effectively discover and correct safety issues developing in the evolving aviation fleet.

Technology

Advances in the development and application of new technology, as well as innovative business practices, will drive the industry to improved productivity and profitability. These technological and operational changes will require careful oversight and more timely response from the FAA inspector work force.

Human Resources

As the environment becomes more complex and expectations for services and productivity from FAA personnel increase, an even greater emphasis must be placed on the individuals who make the safety system work. Enhancement of the training system and access to improved automation and communications, combined with increased staffing of both technical and clerical personnel, will renew the capability and morale of the work force.

CHAPTER 3

PROJECT SAFE IMPLEMENTATION PLANIntroduction

This is FAA Aviation Standards first 5-year plan to guide changes to the Flight Standards System. The plan will be included as a portion of the Aviation Standards strategic plan being developed as part of the Administrator's overall planning initiative. Each April the FAA will solicit comments and recommendations from interested parties inside and outside the agency to improve the plan so that a revision can be published each September. The plan will provide a guide for the future of Flight Standards.

As Project Safe progressed the Offices of Program and Regulations Management, Airworthiness, and Flight Operations began work correcting deficiencies in the Flight Standards System as they were identified. At the time of this report, the FAA has moved to correct the deficiencies identified by Project SAFE. Completed actions include:

1. Enforcement and other action to ensure that industry corrects problems uncovered during the NATI and GASA inspections.

2. Developed and issued standards for objectively determining the number of inspectors necessary to monitor the aviation industry (completed January 1985).

3. Redefined and established standards for investigations, certifications, inspections, and enforcement actions (completed August 1985).

4. Evaluated and recommended adjustments in headquarters and field staffing for 1986, 1987, and 1988.

5. Established and set national objectives and priorities for field operations (completed August 1985).

6. Updated FAA's automated system to improve the agency's ability to monitor field operations (completed August 1985).

The Project SAFE Implementation Plan builds on these accomplishments.

The Project SAFE Implementation Plan is a two-phase approach to addressing the problems documented in Project SAFE. Phase I will update each part of the Flight Standards System. This phase will be completed by the end of FY-1987. Phase II will more accurately define and automate the system so that by FY-1990 the system will continuously evaluate the environment,

program management, and industry safety status and identify the need to update staffing requirements, training programs, regulations, policy, etc. Appendix 5 contains the program activity resumes which identify the principal specialist responsible for developing changes to a particular part of the system and for defining the objectives, requirements, and milestones associated with those changes.

The plan is divided into two major areas, Human Resource Management and Program Management. Each relate to one of the major sub-systems, which comprise the Flight Standards System.

Human Resource Management

The FAA's most important resource is its people. The central element of the Project SAFE Implementation Plan is the inspector (and the support staff). Almost all of the project plans are organized around the inspector and the support staff and strive to improve the climate in which they work. Hundreds of inspectors at all levels have been directly involved in defining the Implementation Plan through their participation in the Job Task Analysis and in serving on teams to develop each of the projects under the Plan.

The ultimate objective of the Flight Standards Human Resource Management Plan is to achieve and maintain excellence in productivity, competence, and human relations through the development and effective use of managers and employees. There are several fundamentals upon which the Implementation Plan has been built. They include:

- ° Establishing and maintaining effective relationships among employees and between employees and management.
- ° Maintaining a strong communications network throughout the organization so that all employees are apprised of pertinent information in a timely fashion; and,
- ° Operating in a cooperative and collaborative manner across all organizational lines.

The Flight Standards Human Resource Management philosophy also includes the objective of promoting equal opportunity in an affirmative manner. Continuing efforts will be made to encourage and increase the participation of minorities and women in the work force and through contracts and other funded projects. One example of this is a project to develop a para-inspector position. This position could provide an opportunity for talented, experienced, clerical and secretarial personnel to perform

certain inspector tasks. This can offer career enhancement opportunities for minorities and women not previously available while relieving inspectors from many tasks where technical experience is unnecessary.

The Human Resource Management is the system to ensure that there are a sufficient numbers of trained inspectors, managers, and support staff to accomplish Flight Standards work programs. Since deregulation the growth in the aviation environment has not been paralleled by an equivalent increase in the number of FAA personnel devoted to the inspection, certification, and surveillance of the air carriers and general aviation activities. Instead, Flight Standards staffing in the field declined by 9 percent and headquarters staffing was reduced by 27 percent between 1978 and 1984. Due to the Secretary's initiative, the air carrier field inspector staffing was increased by 166 positions in 1984 to return it to the 1981 level. However, general aviation staffing is still insufficient to fulfill existing work programs.

Aside from the need for more Flight Standards personnel, Project SAFE has identified human resource management areas where efficiency and effectiveness of aviation safety inspector performance can be enhanced. Each of the areas is being analyzed and alternatives are being developed.

1. Analysis of Functions. The manner in which the certification, inspection, and surveillance functions must be accomplished by the aviation safety inspectors has been significantly impacted by the major changes in the aviation industry since deregulation in 1979. The phenomenal growth in commuter and air taxi operators, and the rapidity with which carriers may enter the market, and change routes and fleet composition, coupled with the extensive external contracting of maintenance functions have brought about significant changes in the functions and responsibilities of Flight Standards field offices. Changes have occurred in the experience, qualifications, and training required of the inspector personnel assigned to those field offices.

The analysis of tasks contained within the JTA establishes the basis for a joint headquarters/field review of the manner in which functions and tasks are grouped and managed for program performance at the field office level. A task group is being formed to review the present structure, to analyze the findings and recommendations of the JTA regarding the most effective grouping and structure of tasks and functions, and to recommend the most effective assignment of functions by type of office and tasks by type of inspector. This task should be completed by March 30, 1986.

2. Position Management. After the completion of the analysis of the JTA, the position descriptions of field aviation safety inspectors will be reviewed for accuracy and standardized position descriptions will be prepared. This will be accomplished by December 1, 1986. At that time, the GS-1825 qualification standards will be revised to reflect the appropriate knowledge and skill levels for entry into the aviation safety inspector field. Any required changes will be prepared by June 15, 1987, for submission to the Office of Personnel Management. Concurrently, the GS-1825 Classification Guide will be reviewed to assess its accuracy and completeness. If required, a project to modify and update the Classification Guide will be initiated by September 1, 1987.

3. Inspector Selection Process. The current inspector selection procedure includes a review of applicants' claimed past experience, certificates, and ratings. Their credentials are rated and they may be interviewed during selection for available vacancies. Guidelines for selection are qualitative; further screening does not occur, and applicants become career employees at completion of a one-year probationary work period. When the applicant pool is rich in talent and there are many applicants for each available position, the current approach is adequate. The number of technically trained personnel in the applicant pool fluctuates, however, while the number of vacant positions has increased.

An Aviation Safety Inspector Selection/Screening Program is being developed to provide Flight Standards with valid and objective procedures to identify applicants with maximum potential for successful performance as aviation safety inspectors. The proposed procedures will be completed by December 1986. They will include:

- a. Initial applicant information to include aptitude and occupational knowledge tests to determine acceptance and placement on the register;
- b. An introductory placement test and flight proficiency assessment to determine training course placement and expedited flow of new hires based upon expertise obtained prior to entry in the FAA;
- c. A pass-fail training program that includes safety inspector technical training and acceptable behaviors during accomplishment of enforcement activities, and;
- d. A data bank for tracking such information on employees who enter the program. This system would be used for evaluation of the tests being used, the training course(s), and the differences in performance among facilities and personnel. The purpose of such tracking data is to monitor the system and develop changes for its improvement.

4. Staffing Standards. Additional staffing and a better method of determining appropriate resource levels were identified as critical by Project SAFE. As an interim measure and in recognition of the time required for completion and implementation of SAFE, an existing but incomplete staffing standard was applied to the Fiscal Year 1984 actual workload to determine resources required. That effort documented a requirement for more than 350 additional inspector positions supported by 150 direct; administrative; and clerical personnel. FAA has requested the first increment of those resources through the regular budget process.

A project is now being initiated to use the JTA data to develop a new and complete staffing standard covering all aviation safety inspector functions in the Flight Standards field offices. That project should be completed by May 1986, and the requirements generated will be reflected in the FY-1988 budget submissions.

5. Training Programs. The need for major improvements in the agency's Flight Standards technical training program has been recognized for some time. During the past 2 years, significant effort has been expended in updating the existing courses, developing of the most critically needed new courses, and increasing enrollments in current classes. A key part of Project SAFE has been the completion of a JTA in order that an appropriate, well structured, and effective technical training program for aviation

safety inspector personnel can be developed. While the JTA focuses primarily on technical training requirements, it also specifies the need to improve the agency's system for identifying training requirements and the overall management of the training program.

The inspector work force requires both initial and recurring technical training to carry out assigned aviation safety programs. Required training is provided by the FAA Academy, either in-house or by contract with out-of-agency sources. Major changes in air carrier fleets and the increase in the number and complexity of equipment used by air taxis, commuters, and corporate aircraft operators have generated requirements for training, which exceed the capability of the FAA Academy.

Due to staffing shortages, the FAA has only been able to update a few courses in recent years. More students have been accommodated by increasing class sizes where possible.

Recognizing that the solution will take two or more years, a task group consisting of representatives of Aviation Standards, Personnel and Training, the Aeronautical Center, and the regions has been formed to focus on short term actions. These improvements will occur in the FY-1986 and FY-1987 time period and will meet as many of the technical training requirements for aviation safety inspectors as possible.

Most training program improvements require longer term actions using contractor support and will involve task groups representing headquarters and regional Flight Standards organizations. Longer term projects to improve training courses include the following:

a. Develop comprehensive training program recommendations based upon the details of the JTA to be completed by April 1986.

b. Review the current structure and methodology for training program management. Recommendations will include the most practical means of accomplishing the required training; i.e., the Academy, commercial contract, manufacturer supplied, computer based instruction, seminars, or other methodology. This will be completed by April 1986.

c. Review current training courses to determine their applicability and validity in terms of the new training program requirements by June 1986.

d. Assess the availability and currency in qualifications of FAA Academy instructors. This will also be completed by July 1986.

e. Develop a revised aviation safety inspector technical training program for all operations, maintenance, and avionics inspectors from entry level through full performance job requirements to be completed by April 1987.

f. Revise agency orders defining the required and desired training profiles for all aviation safety inspectors to reflect the new training program requirements by April 1987.

6. Training System. The training system used by the agency to forecast training requirements, obtain required resources, allocate quota and resources, and to manage quota utilization and scheduling was designed to meet a more stable and predictable training environment than that which now exists in the Flight Standards technical training area. While the requirement for orientation and initial job functions courses is determined by the attrition and new-hire rates, other training requirements are driven by the ever changing structure of the aviation environment for which the Flight Standards field offices are responsible. Project SAFE emphasized the need for a review of the system to make it more responsive to the needs of the Flight Standards safety program. Specific planned actions to improve the training system include:

a. Study the benefits that would accrue from centralized training quota and training travel management by April 1986.

b. Analyze by December 1986 the training requirements forecasting process and develop a revised process which will fulfill the needs of Flight Standards programs. These requirements are driven by the aviation industry/external demands and may change rapidly.

c. Design and implement by September 1987 a system using the program, personnel, and environmental data contained in the Consolidated Personnel Management Information System (CPMIS) and ASAS subsystems such as WPMS to automate both the training requirements identification, training quota, and enrollment processes.

d. Review existing training policies, procedures, and directives and prepare changes to revise as indicated by the aforementioned studies and actions by December 1987.

Program Management

One of the FAA's most important statutory responsibilities is to promote safety and to provide for the safe use of airspace. Flight Standards does this through program management. In pursuing the goal of promoting and maintaining safety, the following policies apply:

- ° Flight Standards will maintain an aggressive action-oriented attitude toward aviation safety. Flight Standards will identify and implement those safety improvements necessary to achieve and sustain the high level of safety mandated by the Federal Aviation Act.

- ° Flight Standards will recognize and take into account both the private rights and public obligations of the various segments of the aviation industry in the development of safety standards.

- ° Flight Standards will pursue a regulatory policy that recognizes the obligation of the air carrier to maintain the highest possible degree of safety. Federal regulations will exist to the extent necessary to attain this goal in the most economical and efficient manner to the Government and the carrier.

- ° Flight Standards will inform the aviation community about the regulations, safety standards, and safety practices through the dissemination of information relating to air safety.

- ° Flight Standards will provide a strong and consistent enforcement program and will thoroughly and expeditiously investigate all reported violations.

- ° Flight Standards has a strong interest in promoting aviation safety internationally, and will actively work to encourage the use and adoption of aviation standards that will maintain and improve the current level of aviation safety.

Flight Standards Program Management is the system that ensures that the industry is meeting its safety responsibilities. It is a complex system defined by the regulations and directives which direct inspectors and their work programs. The work programs include over 227 distinct inspector tasks. The findings of NATI, GASA, and the Job Task Analysis all point to the need to change the Program Management System. The following 10 major areas of the program have been identified for change.

1. Forecast. A forecast of the aviation environment has been made upon which assumptions can be based to update the Flight Standards System. The forecast and assumptions are contained in Chapter 2 of this report. This forecast will be updated annually or when significant changes take place in the environment. Forecasts will keep Flight Standards attuned to changes in the industry that will impact FAA programs and provide time for making system changes.

2. JTA Recommendations. The nearly 200 Job Task Analysis recommendations have been reviewed and will be considered as part of upcoming handbook revisions or as proposed amendments to the regulations.

3. Regulations. By April 1986, each of the JTA recommendations for change to the FARs will be reviewed and accepted or rejected. Those recommendations accepted for regulatory action will be included in a project to review and rewrite the FARs to include Parts 121 and 135 which will be initiated in FY-86.

4. Handbooks. The JTA recommendations which involve policy or guidance have been turned over to the operating divisions responsible for inspector handbooks. These divisions are not only reviewing the JTA recommendations, but are also rewriting all of the handbooks. This project will standardize the format, organization, and presentation of operations and airworthiness inspector handbooks. The rewritten handbooks will also provide guidance to standardized performance by field personnel, update

guidance due to technological changes, make handbooks compatible with the WPMS system, and provide standardized indexing and cross referencing. The handbook development will begin completing projects by July 1986. Complete handbooks will be published by April 1987. The new handbooks will become not only the principal source of guidance for safety inspectors but also the source document for training program development.

5. Certificate Numbers. In an effort to automate, standardize, and better evaluate industry safety, a project has been established to standardize air operator, air agency, and manufacturing certificate numbers. This project will be coordinated with regional offices and implemented in January 1986.

6. Office Identifiers. A similar project to evaluate Flight Standards work programs has been established to standardize Flight Standards district office names and identification numbers.

7. Program Guidelines. A program guidelines order has been issued. This order mandates a minimum program of surveillance of certificated operators. By FY-88, FAA will develop an automated feedback system which will make it possible to rapidly update program guidelines to reflect ongoing safety findings. These guidelines will provide sufficient information for Flight Standards to assess the safety status of the industry as a whole and have confidence in the safety status of particular operators.

8. WPMS. The WPMS has been updated to be consistent with the findings of the Job Task Analysis. Terms such as "surveillance" and "informal inspection" have been deleted and replaced with terms which refer to specific inspection requirements. The WPMS will be operational in conjunction with the JTA and program guidelines in October 1985. It will simplify planning and recording of inspector work. By FY-88, FAA will develop a national automated system which will provide the capability to:

- a. Update program guidelines,
- b. Monitor the growth of the air operator population,
- c. Evaluate all surveillance, enforcement, and certification activities other than program guidelines designated functions,
- d. Provide rapid access to safety data,
- e. Provide more accurate and timely reporting of field office activities, and
- f. Provide improved capability to conduct national level analyses to predict and prevent future safety deficiencies.

9. Evaluation Program. A project has been established to formalize the national evaluation of Flight Standards Work Program Management. The objective is to develop an evaluation program which will assess the status of industry safety and the effectiveness of the Flight Standards program in ensuring that safety.

As it relates to industry safety, the evaluation program will draw on the experience gained in the NATI inspection. It will use inspection data and ASAS to identify indicators of deficiencies in the industry operating systems. When the indicators of potential problem areas are identified, FAA guidelines and work programs can be amended to focus more inspector attention in the areas where problems are more likely to occur.

To determine the effectiveness of Flight Standards Program Management, the evaluation program will review programmed versus actual work accomplishments to assess staffing standards and field management. The evaluation will also use ASAS to analyze safety findings and compare the findings and existing regulations, program guidelines, and technical and procedural directives to recommend where revisions could improve safety or program effectiveness. The evaluation will ensure (1) that the type of inspections conducted are likely to identify safety deficiencies, (2) that the quantity and quality of inspections provide an accurate evaluation of operators, (3) that sufficient inspector resources are available and applied to industry surveillance, and (4) that a dynamic, up-to-date data

base is maintained to facilitate evaluations. Revisions to the Program Management System would also affect Human Resource Management in terms of changes to position descriptions, hiring practices, career development programs, training, etc.

The evaluation program is currently being developed. An order describing and implementing the program is expected by mid FY-86. Improvements to the ASAS will continue to improve Flight Standards evaluation capabilities.

10. Accident Prevention Program. The Accident Prevention Program was initiated in 1971 to reduce the general aviation rate by improving pilot aeronautical skills, knowledge, and safety attitudes. The program has since been expanded to include aircraft mechanics, air taxi, and commuter operators under Part 135 industrial operators of aircraft and, to a limited extent, Part 121 operations. The primary activity of the program is to hold pilot safety meetings which are sponsored and conducted jointly by the FAA and the aviation industry.

The program's success is evidenced by calendar year 1983 figures which show that there were 10,763 safety meetings with 420,790 in attendance. The aircraft accident rate has shown a downward trend that coincides with the activity of the Accident Prevention Program. It has been documented that when there are regularly scheduled, well executed safety meetings at an airport, the aircraft accident and incident rate decreases and flying activity increases at that airport.

The Accident Prevention Program is formulating a "Back-to-Basics" approach as its principal thrust in 1986. This will result in an increase in the number of safety meetings in 1986 and increased FAA communication of safety information to the industry.

APPENDIX 1

GLOSSARY

APPENDIX IGLOSSARY

For the purpose of this report, the following definitions will apply:

1. Aircraft Accident - An "aircraft accident" is defined by the NTSB as "an occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight until all such persons have disembarked, and in which any person suffers death or serious injury as a result of being in or upon the aircraft or by direct contact with the aircraft or anything attached thereto, or in which the aircraft receives substantial damage."
2. Aircraft Incident - An "aircraft incident" is defined by the FAA as "as aircraft occurrence, not classified as an accident, in which a hazard or potential hazard to safety is involved." It is important to note that many of the incidents have no identifiable operational factors involved, but are found in routine maintenance and airworthiness inspections. Most incident information is forwarded by the operator to the FAA for analysis; however, the NTSB does specify all type of incidents which must also be reported to them.

3. Aviation Safety Analysis System (ASAS) - The national aviation standards computer system for acquisition, retrieval and analysis of data.
4. Certification - Inspector tasks associated with establishing initial compliance with the regulation and issuing the certificate required by the regulations.
5. Enforcement Case - An enforcement case represents an action taken by the FAA as the result of one or more violations.
6. Geographic Area Responsibility Concept - The concept places the same inspection and surveillance responsibilities for those operators within its boundaries whose certificates are held by another office as it does for the activity whose certificates it holds. This concept does not lessen the assigned principal inspector's responsibility for overall certificate management.
7. Industry - All members of the aviation community include 146 users of the national airspace system and supporting organizations.
8. Inspection - Inspector tasks associated with determining on-going compliance with the regulations.

9. Investigation - Inspector tasks associated with determining regulatory compliance of the operations and/or airworthiness of aircraft as a result of accidents, incidents, inspections or complaints.
10. Operator - A person holding a certificate authorizing the transportation of passengers and/or cargo for compensation or hire.
11. Part 121 Air Carriers - Any person who undertakes, whether directly or indirectly, to engage in air transportation under the rules contained in FAR Part 121. Such operations would characteristically be conducted with aircraft having a maximum seating capacity of more than 30 seats or a payload capacity of more than 7,500 pounds.
12. Part 135 Air Taxi - Any person who conducts passenger carrying operations under the rules contained in FAR Part 135 (and thus would operate aircraft having a maximum passenger seating capacity of 30 seats or less and a maximum payload capacity of 7,500 pounds or less).
13. Part 135 Commuter - Any person who conducts scheduled passenger carrying operations with a frequency of at least 5 round trips per week under the rules contained in FAR Part 135 (and thus would

operate aircraft having a maximum passenger seating capacity of 30 seats or less and a maximum payload capacity of 7,500 pounds or less).

14. Program Guidelines - National order prescribing the minimum inspection program and the process for developing district office work programs.
15. Staffing Standards - Standard average times to accomplish a special Flight Standards task. By comparing the standards, the program guidelines, and the number of operations in the industry, the Flight Standards staffing requirements can be derived.
16. Ultralight - A vehicle that weighs less than 254 pounds and is used for recreation and sport purposes only and by a single occupant.
17. Violation - For the purpose of this report, a violation is "an official report filed by an FAA Aviation Safety Inspector, which alleges that an operator has failed to comply with one or more requirements of the air safety regulations."
18. Work Program - Planned and actual investigation, certification, inspection, and enforcement tasks.
19. Work Program Management System (WPMS) - A subsystem of ASAS which contains data on actual and planned inspection activity. Data is entered into the WPMS at the district office and will be monitored and analyzed in the regions and nationally through a national data base made up of routine input from district offices.

APPENDIX 2

RESUMES

AVS PROGRAM ACTIVITY RESUME

Date of Resume: July 26, 1985 **Program Activity No.**

PROJECT TITLE:

Job Task Analysis

PRINCIPAL SPECIALIST:
Charles W. Bular, AFO-200

OBJECTIVE: (Brief description of what is to be accomplished.)

Perform a comprehensive review and analysis of the tasks performed by field Flight Standards inspectors.

REQUIREMENT: (Brief description of why project is being undertaken.)

The objective of the JTA study is to provide a basis for defining the work tasks of aviation safety inspectors and to identify the training necessary to perform those tasks in the most effective and standardized way. In addition to information on the tasks being performed, recommendations will be developed addressing training and many other facets of the inspectors work force.

MILESTONE SCHEDULE: (List significant events and dates during project life.)

	<u>Initial Scheduled Completion</u>	<u>Revised Scheduled Completion</u>	<u>Actual Completion</u>
Phase I	10/15/84		10/15/84
- Initiate identification of technical functions and inspector activities			
- Conduct onsite surveys at selected FAA facilities			
- Phase I deliverable; study report			
Phase II	05/15/85	05/24/85	05/24/85
- Task validation by subject matter experts			
- Determinations by subject matter expert panels of preferred methods of performing each identified tasks			
- Development of recommendations			
Phase III	08/15/85		
- Legal review of consolidated task sheets			
Final Products	08/30/85		08/31/85
- Final report			
- Final documented job (task) sheets			
- Consolidated data base of survey information collected in Phase I			

STATUS: (Enter current information.)

REMARKS/NOTES:

AVS PROGRAM ACTIVITY RESUME

Date of Resume: July 26, 1985 Program Activity No.
PROJECT TITLE:

Job Task Analysis (JTA Recommendations)

PRINCIPAL SPECIALIST:

Charles W. Euler, Robert Dame, Raymond Ramakis, Michael Sacrey

OBJECTIVE: (Brief description of what is to be accomplished.)

1. Collate JTA recommendations.
2. Determine appropriate action and action office.
3. Assign to appropriate action office or ongoing project.

REQUIREMENT: (Brief description of why project is being undertaken.)

As part of the JTA, subject matter expert panels composed of FAA field inspectors formulated nearly 200 recommendations that may have an affect on the tasks that they perform. These recommendations must be reviewed and properly addressed in conjunction with the various subsets of Project SAFE as the JTA, training, regulatory, guidance, organizational, and other matters are processed in connection with Project SAFE.

MILESTONE SCHEDULE: (List significant events and dates during project life.)

	<u>Initial Scheduled Completion</u>	<u>Revised Scheduled Completion</u>	<u>Actual Completion</u>
Collate and review JTA recommendations	08/15/85		
Collect and review regional input	08/30/85		8/30/85
Determine appropriate action	09/13/85		
Assign action to appropriate action office	09/25/85		
Automate tracking process for actioned recommendations	09/25/85		

STATUS: (Enter current information.)

REMARKS/NOTES:

AVS RESUME

Resume No. TR-1

Date of Resume:

Date Deferred/Canceled:

Date of Revision:

Final Completion:

PROJECT TITLE:

Evaluation of Training System (as it relates to FS)

PRINCIPAL SPECIALIST: Team Leader: Alice Payne, APR-110

Team Members: C. Hicks, M. Hardester, M. Brown, APT-300; L. Basham, D. Potter, AFO; C. Mayernick, AWS-300; Walter Moor, ANE-200; Barbara Jenkins, AEA-200; Jerry Byram, AAC-950; Martha Baese, ACE-17

OBJECTIVE: (Brief description of what is to be accomplished)

Ensure that there is a training system that provides the most effective and efficient means for planning, scheduling, and maintaining national flight standards training requirements/programs (quota management, resources, course maintenance, system procedures/policies, etc.), and that the system is utilized and managed properly.

REQUIREMENT: (Brief description of why project is being undertaken)

Recent studies, the Project SAFE JTA, and the NATI document the need for improving the existing system of identifying/scheduling ASI training needs. Because FS technical training requirements are driven in large part by industry/external demands which change rapidly, it is difficult to effectively budget and plan for actual course needs 1 to 3 years in advance without flexible budgeting, forecasting, and scheduling system for programmed and unprogrammed requirements.

MILESTONE SCHEDULE: (List significant events and dates during project life)

	Scheduled Completion	Revised Scheduled Completion	Actual Completion
Establish Team	7/15/85		7/15/85
Develop sub-resumes for evaluation of training system	7/29/85	8/16/85	
Management approval of resume and sub resumes (Sub-resume teams develop recomm.)	9/1/85		
Team review of recommendations	4/1/86		
Management review/concurrence of recommndatins	5/1/86		
Develop Implementation Plan	7/1/86		

STATUS: (Enter current information)

REMARKS/NOTES:

Milestones and scheduled completion dates are dependent upon other SAFE projects which may impact this project. The sub-resumes to be developed at this time will address 3 areas concerning the training system, and are subject to change later. The 3 areas are; 1) training budget process; 2) training directives, policies, and procedures, and 3) training data management. (See attached for more specific information concerning sub-resumes.)

Project #1: Evaluation of Training System (as it relates to FS)**SUB-RESUME'S****1. Training Budget Process**

- a) (ASI) training requirements forecasting
- b) training equipment requirements
- c) course development workload estimates
- d) new technology training needs - long and short-term

2. Training Directives, Policy, and Procedures

AVS- Categories (mandatory, etc.), timing, priorities, identifying new technology training needs (long- and short-term)

APT- System procedures, design, processes, CPMIS, Order 3000.6B (Training)

AAC- System implementatin, course development, course delivery, out-of-agency training arrangements

3. ASAS/CPMIS/VAX(CAMI) interface to identify, schedule, and record training IRMP

AVS RESUME

Resume No. TR-1A

Date of Resume:

Date Deferred/Canceled:

Date of Revision:

Final Completion:

PROJECT TITLE:

Review/Evaluation of the Training Budget and Forecasting Process

PRINCIPAL SPECIALIST: Team Leader:

TED

OBJECTIVE: (Brief description of what is to be accomplished)

Ensure that there is effective and efficient planning and forecasting for FS training resources (training travel, tuition, equipment) and that existing FY resources are utilized and managed efficiently.

REQUIREMENT: (Brief description of why project is being undertaken)

Forecasting FS training requirements (enrollments, course development, new technology training needs) is done at AVS headquarters with little, if any, regional FS Division input (except for the annual Call for Training Requirements). Also, there is minimal AVS involvement in the processes that our projected requirements go through when being converted into dollars for inclusion in the Centralized Training Budget. In addition, existing FY resources (travel and tuition) are very vulnerable to being reprogrammed due to other Agency requirements. Regions are allocated training travel, while training schedules, quota and tuition are managed at the Academy. The result of recent studies, the NATI, and Project SAFE, lead to the need for a review/evaluation of the training forecasting and budget process and the AVS involvement in that process. Some of the suggestions/concerns which have recently surfaced are: a) amount of FS regional involvement in forecasting; b) follow-up by AVS, and feedback from APT, concerning the FS portion of the Training Budget; c) improved forecasting of FS training requirements; d) centralization of training travel to match quota allocation.

MILESTONE SCHEDULE: (List significant events and dates during project life)

	Scheduled Completion	Revised Scheduled Completion	Actual Completion
Analyze forecasting process	12/86		

(More specific milestones to be developed by team)

STATUS: (Enter current information)

REMARKS/NOTES:

The forecasting processed include, but may not be limited to: 1) Five-year Training Estimates; 2) Call for CY/BY Training Estimates, and; 3) Call for FY Training Requirements. Also, consideration should be given to the Budget Modernization Program during this project, to avoid conflict or duplication of activities.

AVS RESUME Resume No. TR-1B

Date of Resume: Date Deferred/Canceled:
Date of Revision: Final Completion:

PROJECT TITLE:
Review/Evaluation of Training Directives, Policies, and Procedures

PRINCIPAL SPECIALIST: Team Leader:

TBD

OBJECTIVE: (Brief description of what is to be accomplished)

Ensure that AVS/APT/AAC training directives, policies, and procedures which support the system used in managing FS training, are accurate, valid and effective. Where necessary recommend improvements/changes that will lead to an effectively managed, but flexible system that supports the FS training program.

REQUIREMENT: (Brief description of why project is being undertaken)

Existing directives, policies, and procedures which relate to FS training are those that were established several years ago, and in some cases are no longer effective or have been superseded, resulting in difficulties and inconsistencies in trying to manage the FS training program at headquarters, the Academy, and in the regions. Directives such as 3000.6B, FS 3000.17, and AVS training profile orders are in need of updating to ensure standardized FS training guidance. Improvements are needed in policies and procedures relating to CPMIS utilization, the course development revision process, training categories and priorities, flight training identification and management, and procurement of FS out-of-agency training. These are only examples of parts of the overall system which we know should be reviewed— there may be others.

MILESTONE SCHEDULE: (List significant events and dates during project life)

	Scheduled Completion	Revised Scheduled Completion	Actual Completion
Updated training directives, policies, procedures	12/87		
(More specific milestones to be developed by team)			

STATUS: (Enter current information)

REMARKS/NOTES:

AVS RESUME	Resume No. TR-1C
Date of Resume:	Date Deferred/Canceled:
Date of Revision:	Final Completion:

PROJECT TITLE:

Training Data Identification, Interface and Management

PRINCIPAL SPECIALIST: Team Leader:

TED

OBJECTIVE: (Brief description of what is to be accomplished)

Identify sources fo data (automated or non-automated) that have the potential to be interfaced to lead to a totally automated system of identifying, scheduling, and recording FS training for the ASI work force, as well as forecasting long range training needs.

REQUIREMENT: (Brief description of why project is being undertaken)

It appears that the information contained in the CMPIS and WPMS, and the JTA data that is to be stored in the VAX (CAMI) has the potential for interfacing which could lead to a more effective and automated means of handling the training needs of the work force.

MILESTONE SCHEDULE: (List significant events and dates during project life)

	Scheduled Completion	Revised Scheduled Completion	Actual Completion
(TO BE DEVELOPED BY TEAM)			

(TO BE DEVELOPED BY TEAM)

STATUS: (Enter current information)**REMARKS/NOTES:**

The IRMP should be considered during this project so as to avoid conflict or duplication of activities.

AVS RESUME Resume No. TR-2

Date of Resume: Date Deferred/Canceled:
Date of Revision: Final Completion:

PROJECT TITLE:
Development of a new/revised Training Program for Aviation Safety Inspectors

PRINCIPAL SPECIALIST: Team Leader: Alice Payne, AFR-110
Team Members: C. Johnson, AEA-200; C. Chang, AWP-200; J. Kearn, AAC-950;
C. Hicks, M. Hardstar, AWP-300; L. Basham, D. Potter, AFO; C. Mayernik, AMS-300

OBJECTIVE: (Brief description of what is to be accomplished)
Ensure that the training program and the training organizational structure are effective and efficient and they fully support the Aviation Safety Inspector in the standardized performance of their FAA job tasks. Monitor OPM contractor training program recommendations.

REASON: (Brief description of why project is being undertaken)
Recent studies, the Project 3072 JIA, and the NATI, have documented the need for improvement of the Aviation Safety Inspector training program. Significant improvements are needed in training methods, curriculum, training profiles, and scheduling of trainings. In addition, the training organizational structure must be examined to determine its effectiveness in supporting the program.

MILESTONES: (List significant events and dates during project life)

	Scheduled Completion	Revised Scheduled Completion	Actual Completion
Establish Team	07/15/85		07/15/85
Develop sub-resume	07/29/85	08/16/85	
Team conference with OPM Contractor			
Statement of Work	08/02/85	08/19/85	
Management approval of resume and sub-resume	09/01/85		
(Sub-resume team develop recommendations)			
Contractor development of working program recommendations	04/30/86		
Team conference with contractor recommendation	06/30/86		
Management review for concurrence with contractor recommendations	06/30/86		
Complete contractor statement of work for development of new/revised training program	08/30/86		
Develop recommendations for program and curriculum	08/30/87		
Develop program and curriculum			

STATUS: (Current status of project)

REMARKS/NOTES:
Complete team conference with contractor and other OPM projects. At this time, sub-resume and working program are being prepared to evaluate for acceptance the OPM contractor recommendations. In addition, contractor recommendations concerning training profiles, and 41 instructor certification/training requirements.

AVS RESUME

Resume No. TR-2A

Date of Resume:

Date Deferred/Canceled:

Date of Revision:

Final Completion:

PROJECT TITLE:

Develop ASI Training Program Recommendations

PRINCIPAL SPECIALIST: Team Leader:

TED

OBJECTIVE: (Brief description of what is to be accomplished)

Based on the JTA data, and via OPM contract, develop training program recommendations for the ASI training.

REQUIREMENT: (Brief description of why project is being undertaken)

One of the most useful tools in structuring an effective training program is a JTA. Knowing there are deficiencies in our existing training program, the JTA data should now be converted into recommendations of how the ASI training program should be structured, what it should contain, and the most effective methods that could be used to deliver the training. Because of limited internal resources, the development of these recommendations should be accomplished by contract.

MILESTONE SCHEDULE: (List significant events and dates during project life)

	Scheduled Completion	Revised Scheduled Completion	Actual Completion
Team concurrence with Contractor statement of work	8/2/85	8/19/85	8/19/85
Mgt. approval of contractor work plan	9/13/85		
Contractor development of training program recommendations	4/30/86		
Team concurrence with recommendations	5/30/86		
Mgt concurrence with recommendations	6/30/86		

STATUS: (Enter current information)

REMARKS/NOTES:

The principle specialist on this project should ensure that the contractor progress is monitored and that overview by AVS/APT/AAC, collectively, does occur.

AVS RESUME

Resume No. TR-2B

Date of Resume:

Date Deferred/Canceled:

Date of Revision:

Final Completion:

PROJECT TITLE:

Develop a New/revised ASI Training Program

PRINCIPAL SPECIALIST: Team Leader:

TBD

OBJECTIVE: (Brief description of what is to be accomplished)

Based on the JTA and acceptance of training program recommendations, ensure the development of a new/revised ASI training program, which will consider what is currently in place, as well as any new/revised FS policies concerning training. Should be accomplished by contract.

REQUIREMENT: (Brief description of why project is being undertaken)

MILESTONE SCHEDULE: (List significant events and dates during project life)

	Scheduled Completion	Revised Scheduled Completion	Actual Completion
Team concurrence with statement of work	5/30/86		
Mgt approval of contractor work plan	7/30/86		
Contractor development of new/revised training program	4/30/87		
Delivery of Prototype	4/30/87		
Delivery Implementation Plan			

STATUS: (Enter current information)

REMARKS/NOTES:

(Same as Project #TR-2A.)

AVS RESUME

Resume No. TR-2C

Date of Resume:

Date Deferred/Canceled:

Date of Revision:

Final Completion:

PROJECT TITLE:

Examine and make recommendations concerning training organizational structure

PRINCIPAL SPECIALIST: Team Leader:

TED

OBJECTIVE: (Brief description of what is to be accomplished)

Ensure the existing organizational structure clearly supports the ASI training program in the most effective and efficient manner.

REQUIREMENT: (Brief description of why project is being undertaken)

There are several organizations (APT, AAC, TSI, APR, APO, AWS, and regional counterparts) which currently have some type of responsibility for, or input to, the ASI training program. It is very important that the responsibilities for each be examined, as well as their relationships with one another, to ensure the most efficient and effective management of the training program. Whether or not any responsibilities or relationships change, they should be clearly identified to avoid any misunderstandings or duplication of duties.

MILESTONE SCHEDULE: (List significant events and dates during project life)

<u>Scheduled Completion</u>	<u>Revised Scheduled Completion</u>	<u>Actual Completion</u>
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(TO BE DEVELOPED BY TEAM)

STATUS: (Enter current information)

REMARKS/NOTES:

Should consider activities of projects associated with Evaluation of Training System (TR-1).

AVS RESUME

Resume No. TR-2D

Date of Resume:

Date Deferred/Canceled:

Date of Revision:

Final Completion:

PROJECT TITLE:

ASI Training Profiles

PRINCIPAL SPECIALIST: Team Leader:

TED

OBJECTIVE: (Brief description of what is to be accomplished)

Ensure valid and concise ASI training profiles exist that will support a new/revised training program.

REQUIREMENT: (Brief description of why project is being undertaken)

Existing profiles for the existing training program are not being adhered to for various reasons (e.g., training slots not available, profiles too flexible concerning sequence and timing of training). In view of a new/revised training program, we must make sure there is standardization of training for new (or journeyman) inspectors (i.e., what training, when, how often, category, etc.).

MILESTONE SCHEDULE: (List significant events and dates during project life)

	Scheduled Completion	Revised Scheduled Completion	Actual Completion
Revised training profiles for new training program	4/87		

(More specific milestones to be developed by team)

STATUS: (Enter current information)

REMARKS/NOTES:

Should consider activities associated with projects under Evaluation of Training System (TR-1). Also, must consider any other Project SAFE projects that include policies.

AVS RESUME

Resume No. TR-2E

Date of Resume:

Date Deferred/Canceled:

Date of Revision:

Final Completion:

PROJECT TITLE:

Instructor Qualification, Utilization, and Training

PRINCIPAL SPECIALIST: Team Leader:

TBD

OBJECTIVE: (Brief description of what is to be accomplished)

Ensure there is an effective and well-qualified instructor staff to deliver a new/revised training program.

REQUIREMENT: (Brief description of why project is being undertaken)

Several issues concerning FS instructor qualifications have surfaced recently. Some of those issues are; a) difficulties in recruiting instructors, b) qualification and recency of experience of instructors, and c) instructors also being course developers. In view of a new/revised ASI training program, we must have effective and well qualified instructors. In addition, the instructor staff that will deliver the new training program must first receive the training themselves, since the development of it will be accomplished via contract.

MILESTONE SCHEDULE: (List significant events and dates during project life)

	<u>Scheduled Completion</u>	<u>Revised Scheduled Completion</u>	<u>Actual Completion</u>
Assess availability and currency in qualifications of instructors staff	7/86		

(More specific milestones to be developed by team)

STATUS: (Enter current information)

REMARKS/NOTES:

AVS RESUME	Resume No.
Date of Resume:	Date Deferred/Cancelled:
Date of Revision:	Final Completion:

PROJECT TITLE:
 Establish procedures to standardize aviation safety inspector (ASI) personnel activities to comply with Project Safe recommendations.

PRINCIPAL SPECIALIST: Team Leader: Joyce Savoy, APR-110; Team Members: Scotty Sudduth, ASO-203; David Hill, Farmingdale GADO (AEA); Mike Sobczyk, APT-200; Ken Giordan, APT-400; Lynn Jensen, Cleveland PSDO (AGL); Charles Morris, AWS-330; Angelo Mastrullo, AWS-340; Mike Sacrey, AFO-820; Dave Potter, AFO-260

OBJECTIVE: (Brief description of what is to be accomplished)
 Develop national guidance concerning standardization of ASI personnel activities jointly with AVS and APT for issuance to the field.

REQUIREMENT: (Brief description of why project is being undertaken)
 If changes occur to work programs and staffing standards, as a result of Project Safe, need to ensure that ASI personnel activities (position descriptions, qualification standards, classification standards) are updated to reflect these changes.

***MILESTONE SCHEDULE:** (List significant events and dates during project life)

	<u>*Estimated Completion</u>	<u>Revised Scheduled Completion</u>	<u>Actual Completion</u>
1. Conduct joint headquarters/field review of present structure to analyze findings of JTA regarding most effective grouping and structure of tasks and functions and recommend assignment of functions by type of office and tasks by type of inspector.	03/30/86		
2. Review position descriptions of field aviation safety inspectors.	12/01/86		
3. Review/revise qualification standards.	06/15/87		
4. Review/revise classification guide (to be initiated by 09/01/87)			

STATUS: (Enter current information)

REMARKS/NOTES:
 *Above milestones and estimated completion dates not developed by Team. Completion of these milestones will be dependent upon information received from other projects. Sub-resumes to be developed by team.

RESUME

Resume No.

Date of Resume:

Date Deferred/Cancelled:

Date of Revision:

PROJECT TITLE:

Aviation Safety Inspector Selection Program

PRINCIPAL SPECIALIST:

E. W. Pickrel, AAM-500

OBJECTIVE: (Brief description of what is to be accomplished)

Develop initial selection and screening (pass-fail training) procedures that will enhance the ability to identify persons who have maximum potential for successful performance as Aviation Safety Inspectors.

REQUIREMENT: (Brief description of why project is being undertaken)

Today's procedure includes only a rating based upon claimed past experience, certificates, and ratings. Guidelines are qualitative, there is no field evaluation, and applicants become career employees at completion of a one-year probationary work period. Valid and objective, quantitative procedures are needed for identification of persons with maximum potential for successful performance as aviation safety inspectors.

MILESTONE SCHEDULE: (List significant events and dates during project life)

- | | |
|---|----------------|
| 1. Report reviewing current rating procedures | November 1985 |
| 2. Report on validation of achievement tests for pass-fail screening course | September 1986 |
| 3. Report on development of occupational knowledge and aptitude tests | December 1986 |

STATUS: (Enter current information)

CHANGES/NOTES:

OVERVIEW

Today's procedure includes a review of applicants' claimed past experience, certificates, and ratings. Their credentials are rated by the Special Examining Unit and they may be given interviews during selection for available vacancies. Guidelines for selection are qualitative; further screening does not occur, and applicants become career employees at completion of a one-year probationary work period.

When the applicant pool is rich in talent and there are many applicants for each available position, the current approach has been adequate. However, the number of technically trained personnel in the applicant pool is ever decreasing, and the number of positions available (and number of persons needed to fill positions) is increasing. This proposed Aviation Safety Inspector Selection/Screening Program is for development of valid and objective procedures to identify persons with maximum potential for successful performance as aviation safety inspectors. The procedures to be designed must be flexible, adaptive to changes in the quantity and quality of persons in the applicant pool and the number of jobs available.

The experimental approach will include a multiple-step screen. At the time of initial entry into the career field, persons will attend a centralized, pass-fail training course. Course content will simulate job requirements, including the operations/airworthiness technical aspects and acceptable inspector behaviors when accomplishing regulatory enforcement actions. Instructor evaluations may be included in pass-fail evaluations. Tests to be used in the course will first be administered to various levels of aviation safety inspectors in the field, and their scores will serve as a data base for evaluation of student performances in the course.

A second group of tests will be designed for administration to applicants before entry into the training program. These will include measures of aptitude and knowledge of the occupation and the methods for presenting the material may include paper/pencil, CRT, training devices, and simulators. They will be administered to various experience and performance levels of aviation inspectors in the field and initial classes of students entering the training course to derive a data base for evaluating future applicants.

The proposed operational system will include:

- (1) Initial application information, as obtained today, and aptitude and occupational knowledge tests information to determine acceptance and placement on the register;
- (2) training course achievement test and training device/simulator scores to determine training course placement and expedited flow of persons based upon expertise obtained prior to entry in the FAA;
- (3) a pass-fail training program that includes safety inspector technical training and acceptable behaviors during accomplishment of enforcement activities, and;
- (4) a data bank for tracking such information on all who enter the program, for future evaluation of elements such as the tests being used and future tests that are developed, the training course(s), observing and studying differences in performance among facilities and personnel. The object of such tracking data will be for monitoring the system and developing changes for its improvement.

AVS PROGRAM ACTIVITY RESUME

Date of Resume: July 26, 1985 Program Activity No.

PROJECT TITLE:

AVS Flight Standards Field Inspector Handbook Modernization and Standardization

PRINCIPAL SPECIALIST:

Charles W. Euler, AFO-220; Michael Sacrey, AFO-820; Fred Laird, APR-200;
Leo Weston, AWS-340; Robert Dame, APR-300

OBJECTIVE: (Brief description of what is to be accomplished.)

1. Standardize the format, organization, and presentation of Operations and Airworthiness handbooks which are the principal source documents that provide guidance on concepts, policies, and practices to field inspectors.
 2. Provide effective directive guidance for standardized performance by field personnel.
 3. Update and develop necessary guidance in accordance with current and anticipated technology.
 4. Make handbooks compatible with JTA and WPMs and readily revisable when necessary.
 5. Eliminate conflicting information and unnecessary duplication and provide for standard indexing and cross referencing.
-

REQUIREMENT: (Brief description of why project is being undertaken.)

Results from the National Air Transportation Inspection Program and the flight standards Job Task Analysis (JTA) project indicate an urgent and practical need to modernize, coordinate, and standardize the handbooks used by field inspectors. JTA overview panels studied the feasibility of standardizing the format and presentation of handbooks used by general and air carrier operations and airworthiness inspectors and manufacturing inspectors. These panels recommended that such a project be undertaken. Project SAFE requirements indicate a need to initiate this project as soon as possible due to the impact these documents have on the many sub-projects associated with Project SAFE.

MILESTONE SCHEDULE: (List significant events and dates during project life.)

	<u>Initial Scheduled Completion</u>	<u>Revised Scheduled Completion</u>	<u>Actual Completion</u>
Develop an AVS order that sets forth specifications to standardize the format, design, and presentation of selected AVS handbooks	08/16/85		
Concurrent coordination and approval of order	08/30/85		
Assignment of personnel to a Handbook Review Board by AFO-1, AWS-1, and APR-1	08/30/85		
Initiate and have approved project resumes for divisional handbook rewrite			
AFO-800	09/13/85		
AFO-200	09/13/85		
AWS-300	09/13/85		
AWS-200	09/13/85		

STATUS: (Enter current information.)

REMARKS/NOTES:

The HRB will continue in effect for the life of the AVS order referenced above. The HRB will have the additional responsibility of periodically briefing AVS-1 and other interested parties on overall project status.

AVS RESUME

Resume No. VS-85-

Date of Resume: 01/23/85

Date Deferred/Cancelled:

Date of Revision:

Final Completion:

PROJECT TITLE: Flight Standards Program Guidelines

PRINCIPAL SPECIALIST(S): Raymond E. Ramakis (Team Leader)
 Tim Forte, AGL-201
 Wes Euler, AFO-220
 Dick Hall, AVN-120
 Jim Vaughn, AVN-120
 Floyd Shaw, ASO-PSDO-61
 Eileen Stickley, APR-300

OBJECTIVE: To develop national program guidelines relative to surveillance, investigation, certification, and aviation promotion and education of Part 121/135 operators, air agencies, airmen, and air operators that will provide an acceptable level of safety and maintenance of a safe aviation system.

REQUIREMENT: The analysis and evaluation of such efforts as the National Air Transportation Inspection (NATI), preliminary General Aviation Safety Audit (GASA), the Job Task Analysis Group, and other internal headquarters evaluations of air carriers coupled with major changes in the aviation industry caused by airline deregulation has generated the need to identify specific work functions that Flight Standards field personnel must accomplish to provide the appropriate assurance of the soundness and safety of the aviation system.

MILESTONE SCHEDULE:

	<u>Scheduled Completion</u>	<u>Revised Scheduled Completion</u>	<u>Actual Completion</u>
1. Initial team meeting and development of first draft document.	1/25/85		1/25/85
2. Coordination of first draft with Flight Standards Division Managers.	3/22/85		3/22/85
3. Revision of initial draft based on comments.	6/30/85		6/9/85
4. Development of final draft.	7/13/85		7/13/85
5. Coordination and system run through the TSC.	8/6/85		8/6/85
6. Final coordination with regional directors.	9/9/85		
7. System Implementation.	9/27/85		

STATUS:**REMARKS/NOTES:**

AVS RESUME	Resume No.
Date of Resume: 7/25/85	Date Deferred/Cancelled:
Date of Revision:	Final Completion:
PROJECT TITLE: REGULATORY CHANGES REQUIRED BY PROJECT "SAFE"	

PRINCIPAL SPECIALIST(S): Fred Laird, Acting Manager, Safety Regulations, Division, APR-200
 G. Bruno, APR-201, 426-8357
 S. Buxton, APR-200, 426-8357 (Team Leader)
 B. Courtney, APR-200, (Writer/Editor), 426-8357
 D. Catey, APO-240, 426-8096
 T. Stuckey, APO-850, 426-8150
 R. Seger, AWS-300, 426-8098
 L. Weston, AWS-300, 426-8098
 L. Basette, AWS-300, 426-8098
 Joel Yesley, APO 426-3070

OBJECTIVE: To evaluate recommended regulatory changes resulting from project "SAFE"

REQUIREMENT: Project SAFE is identifying regulations needing rewriting and or modernization to reflect today's aviation operating community. The level of sophisticated equipment currently available, together with the necessary training requirements, is not adequately addressed in parts of the existing regulatory structure.

MILESTONE SCHEDULE:

	Scheduled Completion	Revised Scheduled Completion	Actual Completion
On going Preliminary Analysis			9/1/85

STATUS: AVS/APR has established a secretariat to coordinate inputs from AVS.

REMARKS/NOTES: It can be expected that the National Air Transportation Inspection (NATI) and the companion General Aviation Safety Audit (GASA) reports will provide the larger inputs to this project. 7/16/85 meeting was held with APR-100 to review the implementation plan for project SAFE.

AVS Resume

Resume No.

Date of Resume: 7/26/85

Date Deferred/Cancelled:

Date of Revision:

Final Completion:

PROJECT TITLE:

ASAS Work Program Management Subsystem (WPMS) National Program Guidelines (NPG) Modifications

PRINCIPAL SPECIALIST:

E. Stickley, APR-300; Committee Chairperson; T. Boren, ASW-PSDO-64; J. Paulson, ANM-205; L. Weston, AWS-330; W. Euler, AFO-220; Dr. Ruth Thomas, consultant; designated TSC representatives

OBJECTIVE: (Brief description of what is to be accomplished)

To review and implement field office/regional suggestions to improve WPMS operation in conjunction with proposed National Program Guidelines.

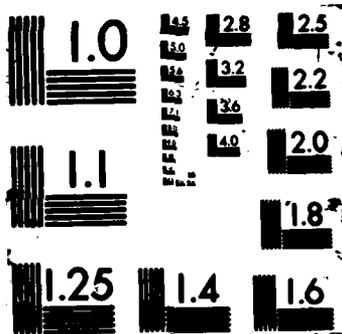
REQUIREMENT: (Brief description of why project is being undertaken)

Project is being undertaken to accomodate National Program Guidelines implementation.

MILESTONE SCHEDULE: (List significant events and dates during project life)

	<u>Scheduled Completion</u>	<u>Revised Scheduled Completion</u>	<u>Actual Completion</u>
1. Elicit enhancements from users	4/85		4/26/85
2. Review & solidify FY-86 changes (1st Enhancement Comm. Review)	6/85		6/21/85
3. Solidify proposed software changes with TSC	7/85		7/12/85
4. Develop master WPMS NPC codes	7/85		7/19/85
. Review FY-86 NPC software Reqs. (2nd Enhancement Comm. Review)	8/85		8/7/85
6. Conduct Beta Test for NPC Software at field site	8/85		
. Implement Phases I, II, III NPC software	9/85, 12/85		

STATUS: (Enter current information)**REMARKS/NOTES:**



AVS RESUME		Resume No.
Date of Resume: 8/12/85	Date Deferred/Cancelled:	
Date of Revision:	Final Completion:	
PROJECT TITLE: FLIGHT STANDARDS EVALUATION PROGRAM		
PRINCIPAL SPECIALIST(S): W. Euler R. Ramakis		
OBJECTIVE: Assess the status of (1) the aviation environment, (2) industry safety, (3) Flight Standards work programs, and (4) Flight Standards program management to identify changes in staffing standards, regulations, and guidance which will lead to enhanced safety and program efficiency and effectiveness. Develop a near real time index of the safety of that portion of the national air space that is regulated by Flight Standards.		
REQUIREMENT: An evaluation program is the critical feedback of the Flight Standards Safety System. NATI, GASA, and the JTA showed that the system was out of date. An evaluation program is needed to forecast, monitor, and analyze FAA and industry data to ensure that the Flight Standards Safety System is dynamic and up to date.		
MILESTONE SCHEDULE:		
	<u>Scheduled Completion</u>	<u>Revised Scheduled Completion</u>
		<u>Actual Completion</u>
Review existing evaluation program guidance, data, and data gathering systems.	8/1/86	
Develop statistically sound sampling procedures to continually assess: Industry compliance posture Flight Standards Work Program accomplishments Flight Standards Program Management effectiveness.	1/30/87	
Develop a plan to identify changes in the Flight Standards Safety System which would best address inspection findings of the industry and assessments of Flight Standards Program Management.	3/30/87	
Issue an order that implements Flight Standards Evaluation Program.	7/1/87	
STATUS:		
REMARKS/NOTES:		

WBS PROJECT ACTIVITY REPORTDate of Report: July 25, 1985 WBS Activity No. _____

PROJECT TITLE:

Industry evaluation and compliance determinations for WBS program direction input

PRINCIPAL SPECIALIST:

Charles W. Ruler

OBJECTIVE: (Brief description of what is to be accomplished.)

Study methods for determining the overall industry compliance posture based on evaluations of actual inspection results so as to revise work programs as necessary to obtain improved compliance postures.

REQUIREMENT: (Brief description of why project is being undertaken.)

The capability now exists through Automatic Data Processing (ADP) to analyze and evaluate large amounts of inspection data and to establish thresholds indicators that can be used to more efficiently direct resources and revise programs based on statistically valid information.

MILESTONE SCHEDULE: (List significant events and dates during project life.)

	<u>Initial Scheduled Completion</u>	<u>Revised Scheduled Completion</u>	<u>Actual Completion</u>
Review concepts and methods used in NATI and GASA to analyze and evaluate large amounts of inspection data	01/02/86		
Develop proposed methods for capturing inspection results data in WBS and integration of data into a national data base	03/15/86		
Submit plan to Project SAFE Steering Committee for action decision	06/15/86		

STATUS: (Enter current information.)

REMARKS/NOTES:

AVS RESUME	Resume No.
Date of Resume: 1/31/85	Date Deferred/Canceled:
Date of Revision: 7/25/85	Final Completion:
PROJECT TITLE:	

Flight Standards Safety Programs Resource Study

PRINCIPAL SPECIALIST:

Kenneth A. Parrish, APR-100, 426-8315
 Frances Melone, AMS-500
 John P. Foundos, AEU-100
 James C. Adler, APT-400

OBJECTIVE: (Brief description of what is to be accomplished)

To determine, from the most current data available, the staffing required by the field offices, regions, and the Washington headquarters to effectively accomplish flight standards safety programs.

REQUIREMENT: (Brief description of why project is being undertaken)

To determine and obtain the positions and other resources required in the FY-1985, FY-1986, and FY-1987 period, since implementation of the findings and recommendations of Project SAFE cannot be reflected in budget requirements prior to FY-1988.

MILESTONE SCHEDULE: (List significant events and dates during project life)

	Scheduled Completion	Revised Scheduled Completion	Actual Completion
Analyze regions input of G/A needs	12/01/84	—	12/01/84
Study Washington safety program staffing requirements	02/01/85	02/15/85	02/15/85
Compile draft FS Resources report	03/01/85	03/15/85	03/15/85
Review and compare staffing standard result to regional requests	04/10/85		04/10/85
Review FS Resources Report to use staffing standards data	05/15/85		05/15/85
Coordinate report	06/01/85	06/12/85	06/12/85
Submit FS Resources Report to AOA	06/01/85	06/15/85	06/15/85
AOA transmit report to OST	06/30/85		07/15/85

STATUS: (Enter current information)

REMARKS/NOTES:

AVS RESUME

Resume No. 7

Date of Resume: 7/26/85

Date Deferred/Cancelled:

Date of Revision:

Final Completion:

PROJECT TITLE:

Order 1380.28B Staffing Standards - Flight Standards Field Regulatory Programs
for ACDO/GADO/PSDO

PRINCIPAL SPECIALIST:

Joseph H. Flain
APR-120, 426-8302

Fran Malone
AMS-560, 426-8075

OBJECTIVE: (Brief description of what is to be accomplished)

Revise and update Order 1380.28B, Staffing Standards, to be compatible with the National Program Guidelines and the Work Program Management System.

REQUIREMENT: (Brief description of why project is being undertaken)

The staffing standards will be used to develop regional staffing requests for Flight Standards regulatory field activities in response to the Call for Estimates. Additional use of the standards include assisting management in distribution of available staffing, in productivity analyses, and in staffing impact assessment of proposed changes in procedures, policies, and work priorities, etc.

MILESTONE SCHEDULE: (List significant events and dates during project life)

	<u>Scheduled Completion</u>	<u>Revised Scheduled Completion</u>	<u>Actual Completion</u>
Develop project plan	1/30/86		
Field data collection (if any)	4/30/86		
Completion of revised standards	9/30/86		
Revised Order	1/30/87		

Schedule is contingent on the level of effort required, and will be determined from information provided by the job task analysis from Project SAFE.

STATUS: (Enter current information)**REMARKS/NOTES:**

This project is directly affected by the WMS modification project and the Proposed National Program Guidelines Project. The milestone schedule should be compatible.

APPENDIX 3
STAFFING STANDARDS

ORDERU.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

1380.28B

1/15/85

SUBJ: STAFFING STANDARDS - FLIGHT STANDARDS FIELD REGULATORY PROGRAMS

1. **PURPOSE.** This order contains initial staffing standards developed through the fractioned professional estimate (FPE) process for Flight Standards field regulatory programs.
2. **DISTRIBUTION.** This order is distributed to the division level in the Office of Management Systems, the Office of Budget, and the Office of the Associate Administrator for Aviation Standards; to the Flight Standards, Resource Management, Management Systems, and Budget Divisions in the regions; and a limited distribution to all Flight Standards field offices.
3. **CANCELLATION.** Order 1380.28A, Staffing Standards - Flight Standards Field Regulatory Programs, dated 11/23/75, is canceled.
4. **BACKGROUND.** The management staff of the Associate Administrator for Aviation Standards, in conjunction with the Office of Management Systems, decided to develop new staffing standards for Air Carrier District Offices (ACDO's), General Aviation District Offices (GADO's), and Flight Standards District Offices (FSDO's) for the following reasons:
 - a. There have been numerous requests from the field to provide staffing guidance that can be directly related to workload.
 - b. There have been changes in work program emphasis since previous staffing standards were developed.
 - c. Statements by the General Accounting Office (GAO) indicate that standards in this area should be revised, and a commitment was made by the Associate Administrator for Aviation Standards to accomplish this goal.
5. **EXPLANATION OF CHANGES.** Procedures for application of standards for ACDO's, GADO's, and FSDO's have been revised to include computer processing of environmental and activity data submitted by field offices. The data requirements are more extensive than those of the previous standards, and the staffing standards are constructed in a modular fashion to allow further study and modification of each component. Standards for regional engineering and manufacturing positions are canceled.
6. **DEFINITIONS.** The definitions required for processing standards for ACDO's, GADO's, and FSDO's are contained in Appendix 1, Staffing Standards for Air Carrier District Office, General Aviation District Office, or Flight Standards District Office.

1/15/85

7. FORMS AND REPORTS.

a. FAA Form 1380-126, ACDO, GADO, FSDO Staffing Standards - Staffing, Environmental, & Activity Data, is generated by computer and will be provided to each district office 6 weeks prior to the end of the fiscal year. A sample data collection form for the staffing standards report is included in appendix 1 as Figure 5, Sample Data Collection Form.

b. ACDO, GADO, and FSDO Staffing Standards Report (RIS: MS 1380-23) is the report produced from the input provided by the field offices and is explained more fully in paragraph 11. A sample report is contained in appendix 1 as Figure 6, Sample Staffing Standards Report.

8. **METHODOLOGY.** Prior standards for ACDO's, GADO's, and FSDO's were based on a regression analysis which related current authorized staffing to environmental factors. The new standards are based on approximately 300 different elements, including direct work tasks and allowances for indirect work such as travel, training, and technical assistance. The list of field office tasks was developed by a joint AMS/AVS team, with representatives from all areas of specialization (general aviation, air carrier, operations, and airworthiness). Estimates of the time required to complete each task were developed by field office inspectors based on past experience. The number of tasks required for demand work categories (certifications and investigations) is taken from the number actually completed during the past fiscal year. A standard number of non-demand tasks was developed from field estimates of the number of inspections and surveillances required for each environmental category.

9. **APPLICABILITY.** The staffing standards contained in this order apply to ACDO's, GADO's, and FSDO's. Staffing changes for Manufacturing Inspection District Offices (MIDO's), Engineering & Manufacturing elements at the regional offices, Aeronautical Quality Assurance Field Offices (AQAFO's), and Aircraft Evaluation Groups (AEG's) will be justified on an individual basis.

10. **USE OF STAFFING STANDARDS.** The staffing standards will be used to develop regional staffing requests for Flight Standards regulatory field activities in response to the annual Call for Estimates. Additional uses of the standards include assisting management in distribution of available staffing, in productivity analyses, and in staffing impact assessment of proposed changes in procedures, policies, work priorities, etc. Staffing at the district office level remains the prerogative of the regional director. Staffing standards were developed to that level and are provided for guidance only. Regional staffing requests which differ from those generated by use of the staffing standards will require separate justification to enable review officials to make analyses and judgments as to the validity of such requests. District offices will forward a count of the number of environmental units which they serve and activity counts for demand work areas to the regional office for review, analysis, and approval. Environmental counts, when multiplied by the appropriate factors, will form the basis for staffing. Major program changes will require updating of standards. Work units which are no longer carried out in the field offices will be deleted from the

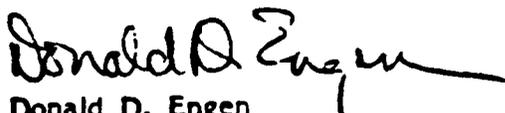
1/15/85

standards and new work units added as they become relevant. Standard time estimates will be revised through field studies of those areas having the greatest impact on staffing. While staffing standards are the basis for formulating the agency's request for staffing in the budget process, they do not guarantee the level of staffing that will be supported and ultimately authorized by the Office of the Secretary of Transportation, the Office of Management and Budget, and the Congress.

11. STANDARDS APPLICATION. Action for the field office workload submission is initiated by Washington headquarters 6 weeks prior to the end of the fiscal year. Computer listings of environmental and activity data for previous years will be sent to each ACDO, GADO, and FSDO to be updated to include values for the past year. After review by the regional Flight Standards Divisions, these forms shall be submitted, not later than 15 calendar days after the close of the fiscal year, to: Office of Management Systems, Attention: AMS-560. Computer-generated listings developed from this data submission will be provided to the regions for use in formulating staffing requests in response to the annual Call for Estimates. Appendix 1, Staffing Standards for Air Carrier District Office, General Aviation District Office, or Flight Standards District Office, contains the necessary definitions and time estimates for applying the standards.

12. AUTHORITY TO CHANGE THIS ORDER. Changes to this order will be approved in accordance with the provisions of Order 1380.34A, FAA Staffing Standards Program.

13. ONGOING STAFFING ANALYSIS. Results of current studies, initiated by the Associate Administrator for Aviation Standards, to review the required tasks and recommended work methods for aviation safety inspectors will be used to update the staffing allowances provided by this order upon completion of those studies. Areas to be addressed in the future include: training requirements, recruitment, attrition of the work force, and changes in program guidance. Refinements to these areas will be incorporated with the staffing standards to develop a human resources management plan for the Flight Standards program.


Donald D. Engen
Administrator

APPENDIX 4
PROGRAM GUIDELINES

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FOREWORD

The analysis and evaluations of information made available through the National Air Transportation Inspection (NATI) Program has been completed. Preliminary information compiled from the General Aviation Safety Audit (GASA) is being evaluated. The results of these efforts, along with an examination of past Flight Standards practices and other recent experiences provide the basis for the work program guidelines contained in this order.

To ensure that the Federal Aviation Administration (FAA) statutory and regulatory responsibilities are fulfilled, all of the Flight Standards work functions identified in Chapter 2 and Chapter 3 are considered to be essential and must be accomplished with regularity. Notwithstanding these essential work functions, certain activities, identified in Chapter 3, are considered to be work functions that must be accomplished with a priority ahead of other activities. These priority work functions are a required work program. The activities identified in Chapter 3 must be accomplished with a high degree of quality. Certain hourly work rate standards have been suggested by the Work Program Management System (WPMS) and other documents, however, with respect to the work functions identified in Chapter 3, quality work is emphasized, regardless of any suggested or published work rate standards.

The program guidelines outlined in this order are the basis for assuring that an acceptable level of safety is maintained within the aviation community. The maintenance of a safe aviation system requires continual commitment, understanding, and dedication by all Flight Standards personnel.

Anthony J. Broderick
Associate Administrator
for Aviation Standards

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**APPENDIX 1. LISTING OF OPERATIONAL WORK FUNCTIONS
(11 Pages)****APPENDIX 2. LISTING OF MAINTENANCE WORK FUNCTIONS
(12 Pages)****APPENDIX 3. LISTING OF AVIONICS WORK FUNCTIONS
(12 Pages)****DRAFT**

CHAPTER 1. INTRODUCTION.

1. **PURPOSE.** This order is designed to provide general guidance to Flight Standards organizational units in the development and execution of their annual work programs. More importantly, it identifies the specific work functions that Flight Standards personnel must accomplish to provide the appropriate assurances of the soundness and safety of the aviation system.
2. **DISTRIBUTION.** This order is distributed to Washington headquarters and Regional Flight Standards Offices to the branch level; branch level in the Aviation Standards National Field Office; and to all Flight Standards Field Offices.
3. **CANCELLATION.** Order 1800.12D, Flight Standards Program Guidelines dated September 21, 1977, is cancelled.
4. **BACKGROUND.** A panel of Division and Branch managers from Washington headquarters and regional offices was formed to analyze current data and develop the Flight Standards national program guidelines.
 - a. The most recent results from such efforts as the National Air Transportation Inspection (NATI), Job Tasks Analysis Groups, Management Systems Staffing Standards efforts and preliminary General Aviation Safety Audit (GASA) information were used as a basis for the design of these guidelines. Emphasis was placed on identifying the safety related issues essential to the Flight Standards work functions. Certain work functions and minimum levels of work activity are identified as required work activities. The selection of these functions was based on service experience and the data bases described above, as the necessary work functions in order to provide the highest possible level of assurances as to the safety, efficiency, and compliance posture of the aviation system.
 - b. All of the work functions identified in Chapter 2 of this Order are necessary to ensuring safety. The level or frequency of work activities was not identified in this Chapter. Regional division managers and office managers must retain the flexibility to effectively allocate resources in the accomplishment of these tasks, taking into consideration such things as specific geographical/environmental considerations, seasonal applications, staffing, and budgetary constraints.
 - c. Chapter 3 consists of work functions identified as critical to assuring an overall level of safety of the aviation system. It again takes into account the flexibility needed by regional management in the implementation of these tasks. The levels and frequencies of work activities are in established Chapter 3.
 - d. Areas covered in Chapter 3 consist of four major safety areas and are prioritized in the order listed.

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(1) Surveillance - Ensures the validity of and compliance with the appropriate standards, regulations, and safe operating practices by inspections and systems evaluations.

(2) Investigation - The means with which to determine causal factors of potential items/areas with negative impacts on aviation safety and the vehicle to take the appropriate corrective actions.

(3) Certification - The validation of competency and the meeting of appropriate statutory and regulatory requirements prior to performance.

(4) Aviation Promotion and Education - The process through which the FAA promotes aviation safety standards and safe operating practices.

e. Subdivisions in each of the above sections deal with all or part of the following: Parts 121/135 Air Carriers and Part 125 Operators, Air Agencies, Airmen, and Air Operators.

f. Chapter 4 consists of reporting procedures that pertain to the planning, accomplishment, and reporting of Chapter 3 work functions.

5.-10. RESERVED.

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CHAPTER 2. FLIGHT STANDARDS PROGRAM WORK ACTIVITIES

11. **GENERAL.** The listings of work functions outlined in Appendices 1, 2, and 3 are those currently listed in the WPM order and as modified by this order, constitute those tasks employed by Flight Standards personnel to fulfill their oversight responsibilities. Accomplishment of these work functions is essential to assuring that the aviation community complies with regulations, standards and safe operating practices. These functions are not listed in priority nor are levels or frequencies of work activities specified. Planning the performance of these tasks is the responsibility of the appropriate Flight Standards Divisions using available resources (human and regulatory) to effectively accomplish the FAA mission. Flexibility is provided to Division Managers for the program implementation through existing orders and policy guidance and methods such as airmen designations, human resource management, sampling, Accident Prevention Specialist (APS) Program, situation monitoring, Aviation Safety Analysis System (ASAS), and other appropriate guidance and directives.

12.-16. **RESERVED.**

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CHAPTER 3. REQUIRED NATIONAL PROGRAM WORK FUNCTIONS

17. GENERAL. The work functions listed in this chapter are considered to be required work activity that must be accomplished by Flight Standards inspectors. Program planning and accomplishment of the listed work functions will be reported in accordance with Chapter 4 of this order. The systematic programming of this work, throughout the year, is encouraged to avoid extraordinary effort at year's end. The inability to accomplish the programmed work functions should be analyzed to determine the reasons. Recommendations concerning deficiencies in the accomplishment of the work activities should address the national work program as a whole.

18. SURVEILLANCE. This diverse work activity and the specific inspection tasks identified are the most important work functions performed by Flight Standards personnel in ensuring the safety and compliance posture of the aviation system. Chapter 3 surveillance has been identified as the Number 1 priority and must be accomplished within the annual work program. Surveillance should be planned, however, it may be rescheduled as necessary to accommodate the exigencies associated with other Chapter 3 work functions. The work activity levels and frequencies itemized are considered the minimum necessary for adequate surveillance of Air Carriers, Air Agencies, Air Operators and Airmen. The inspection tasks identified under surveillance hold equal weight in their importance. It is through this process that Flight Standards ensures the validity of and compliance with the appropriate standards, regulations and safe operating practices. The quality of thoroughness of these work functions impact all other work activities.

a. Operations.

(1) Air Carriers Parts 121/135, and Part 125 Operators.

<p>(a) Check Airman Inspections Note <u>1</u>/ WPMŚ (1815) (1818) (1816) Order 8430.6C, par. 1485.i. Order 8430.1D, Chap. 5 8720.2, par. 72.e.</p>	<p><u>1</u> inspection on 10 percent of the air carrier and Part 125 operator check airmen based within region.</p>
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Note 1/ The check airman inspection consists of the same type of observations and examinations that are required for original approval on at least one of the current authorizations held by the check airman.

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(b) Records Inspections Note 2/

1. Flight Records Inspections
 WPMS (1862) (1864)
 Order 8430.6C, par. 1130
 Order 8430.1D, Chap. 4

1 inspection on each air carrier that maintains flight records within region.

2. Airmen Records Inspections
 (including flight and duty time records)
 WPMS (1865) (1868)
 Order 8430.6C, pars. 1128,
 1129
 Order 8430.1D, Chap. 4

1 inspection on each air carrier that maintains airman records within region.

(c) Training Inspections
 (including ground, simulator, and flight)
 WPMS (1858) (1860)
 Order 8430.6C, par. 1425
 Order 8430.1D, Chap. 5

1 inspection on each air carrier conducting or contracting for crewmember training within region.

(d) Manuals Inspections
 (including MEL, if applicable)
 WPMS (1880) (1883)
 Order 8430.6C, pars. 1221,
 1226
 Order 8430.1D, Chap. 6

1 inspection for each type of crewmember manual on each air carrier that domiciles crewmembers within region.

(e) Ramp Inspections
 WPMS (1841) (1845) (1842)
 Order 8430.6C, par. 1101
 Order 8430.1D, Chap. 4
 Order 8720.2, par. 100

2 inspections on each scheduled air carrier that conducts operations within region.

4 inspections on each scheduled air carrier that conducts operations solely within region.

Note 2/ Records inspections require examination of a sufficient number of records to be reasonably assured that the results of the sampled records represent the overall condition of the record system. Records inspections include a cross examination of other documents to verify accuracy of recorded data.

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- 1 inspection on each nonscheduled air carrier and Part 125 operator that conducts numerous operations (more than 10 per month) within region. Principal Operations Inspector responsible for notifying affected regions.**
- (f) **Station Facility/Base Inspections Note 3/ WPMS (1836) (1839) (1837) Order 8430.6C, par. 1064 Order 8430.1D, Chap. 4 Order 8720.2, par. 99**
- 1 inspection on each air carrier and Part 125 operator that maintains or contracts for a station within region.**
- 2 inspections on each air carrier that maintains stations solely within region.**
- (g) **Cockpit En route Inspections WPMS (1870) (1872) (1871) Order 8430.6C, par. 987 Order 8430.1D, Chap. 4 Order 8720.2, par. 101**
- 2 inspections on each scheduled air carrier that conducts operations within region.**
- 1 inspection on each nonscheduled air carrier and Part 125 operator that conducts numerous operation (15 per month) within region. Principal Operations Inspector responsible for notifying affected region.**
- (h) **Dispatch Center/Flight Following/Flight Locating Facility Inspections WPMS (1886) (1888) Order 8430.6C, par. 1025 Order 8430.1D, Chap. 4**
- 1 inspection on each air carrier that maintains a center or contracts for a facility within region.**

Note 3/ Item (f) above may include either a base or a station facility inspection, but will be recorded as an (1836) (1839) (1837) for the purpose of planning and reporting Chapter 3 station facility/base inspections.

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(2) Airmen - Parts 61, 63, and 183.

**(a) Designated Pilot Examiner
Inspections - Large/Turbojet
Aircraft Note 4/
WPMS (1802)
Order 8430.6C, par. 1784.c.
Order 8430.1D, Chap. 5
Order 8710.3A, Chap. 4**

**1 inspection on each
examiner within region that
conducts ATP's or type
ratings in large/turbojet
aircraft. This is in
addition to renewals. These
inspections do not include
Aircrew Program Designees.**

**(b) Designated Pilot Examiner
Inspections - Other Note 4/
WPMS (1803)
Order 8710.3A, par. 39**

**1 inspection on 25 percent
of the Pilot Examiners not
inspected under Designated
Pilot Examiner inspections
required above. This is in
addition to renewals.**

**(c) Pilot Proficiency Examiner
Inspections Note 4/
WPMS (1801)
Order 8710.3A, par. 39**

**1 inspection on 25 percent
of the pilot proficiency
examiners. This is in
addition to renewals.**

**Note 4/ The designated pilot examiners and pilot proficiency examiners
inspections consist of the same types of observations and examinations
that are required for original certification or renewal and will be in
addition to certification or renewal work functions. It is desirable to
schedule this inspection at approximately 6 months after a certification
or a renewal.**

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b. Maintenance.

(1) Air Carriers Parts 121/135, and Part 125 Operators.

- | | |
|--|---|
| <p>(a) Contract Maintenance Facility Inspections
 WPMS (3841) (3845)
 Order 8320.12, Chap. 3, Sec. 10</p> | <p><u>1</u> inspection on each air carrier that contracts for maintenance within region.</p> |
| <p>(b) Aircraft Maintenance Records Inspections (Note 1)
 WPMS (3881) (3886)
 Order 8320.12, Chap. 3, Sec. 36
 Chap. 6, Sec. 7
 Order 8600.1 Chap. 3, Sec. 17</p> | <p><u>1</u> inspection on each aircraft make and basic model operated by each air carrier at the main facility and/or a subbase that maintains permanent or historical records within region.</p> |
| <p>(c) Training Inspections (including training records)
 WPMS (3870) (3871)
 Order 8320.12, Chap. 3, Sec. 33</p> | <p><u>1</u> inspection on each air carrier conducting or contracting for maintenance personnel training within region.</p> |
| <p>(d) Manuals Inspections
 WPMS (3896) (3898) (3897)
 Order 8320.12, Chap. 3, Sec. 4
 Chap. 3, Sec. 31</p> | <p><u>1</u> inspection on each air carrier and Part 125 operator at the main maintenance base and/or a subbase, if applicable, where checks are performed within region.</p> |
| <p>(e) Ramp Inspections
 WPMS (3859) (3864) (3860)
 Order 8320.12, Chap. 3, Sec. 17</p> | <p><u>1</u> inspection on each scheduled air carrier that conducts operations within region.</p> <p><u>2</u> inspections on each scheduled air carrier that conducts operations solely within region.</p> |

Note 1/ The aircraft maintenance records inspections require examination of a sufficient number of records to be reasonably assured that the results of the sampled records represent the overall condition of the record system. Records inspections include a cross examination of other documents to verify accuracy of recorded data.

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- (f) **Main Base Inspections**
 WPMS (3823) (3828) (3824)
 Order 8320.12, Chap. 3, Sec. 31
 Order 8600.1, Chap. 4
 Order 8720.2, Chap. 7
- (g) **Subbase Inspections**
 WPMS (3831) (3834)
 Order 8320.12, Chap. 3, Sec. 31
- (h) **Line Station Inspection**
 WPMS (3836) (3839)
 Order 8320.12, Chap. 3, Sec. 31
- (i) **En route Inspections**
 WPMS (3889) (3891) (3890)
 Order 8320.12, Chap. 3, Sec. 13
- (j) **Spot Inspections**
 WPMS (3853) (3857)
 Order 8320.12, Chap. 3, Sec. 17

1 inspection on each nonscheduled air carrier and Part 125 operator that conducts numerous operations (more than 10 per month) within region. Principal Maintenance Inspector responsible for notifying affected region.

1 inspection on each air carrier and Part 125 operator that maintains main base within region.

1 inspection on each air carrier that maintains a subbase within region.

1 inspection at a station where maintenance performance capability exists on each air carrier that conducts operations within region.

1 inspection on each scheduled air carrier that conducts operations within region.

1 inspection on each nonscheduled air carrier and Part 125 operator that conducts numerous operations (more than 15 per month) within region. Principal Maintenance Inspector is responsible for notifying affected region.

1 inspection on each aircraft make and basic model operated by each scheduled air carrier and one inspection on one aircraft operated by on-demand Part 135 operators where maintenance is performed within the region.

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- (k) **Reliability Program Inspections**
 WPMs (3878) (3880)
 Order 8320.12, Chap. 2, Sec. 14
 Chap. 3, Secs. 1
 and 4
- 1 inspection on each air carrier, if applicable, at the operator's main base.
- (l) **Continuing Surveillance and Analysis Program Inspections**
 WPMs (3876)(3877)
 Order 8320.12, Chap. 3, Sec. 6
- 1 inspection on each air carrier, if applicable, at operator's main base.
- (2) **Air Agencies - Part 145.**
- (a) **Formal Repair Station Inspections**
 WPMs (3745) (3746)
 Order 8600.1, Chap. 4, Sec. 11
- 1 inspection on each repair station within region that: performs complex modifications to aircraft, avionics and accessories; or that performs contractual maintenance and inspections under Section 145.2; or that holds powerplant class ratings.
- (3) **Airmen - Parts 65, 183.**
- (a) **Designated Mechanic Examiner (DME) Inspections Note 2/**
 WPMs (3805)
 Order 8600.1, Chap. 5, Sec. 10
- 1 inspection on each DME. This is in addition to renewals.
- (b) **Inspection Authorization (IA) Mechanic Inspections (FBO) Note 2/**
 WPMs (3803)
 Order 8600.1, Chap. 5, Sec. 13
- 1 inspection on each noncertificated facility within region which employs at least 5 certificated mechanics, one of which is an IA.
- (c) **Inspection Authorization (IA) Mechanic Inspections Note 2/**
 WPMs (3804)
 Order 8600.1, Chap. 5, Sec. 13
- 1 inspection on each IA within region that performs 25 or more annual inspections within a 12-month period.

Note 2/ The DME AND IA inspections will consist of the same types of observations of qualifications that are required for original certification and will be in addition to certification or renewal work functions. It is desirable to schedule this inspection at approximately 6 months after a certification or a renewal.

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c. Avionics.

(1) Air Carriers Parts 121/135, and Part 125 Operators.

- | | |
|---|---|
| <p>(a) Contract Maintenance Facility Inspections
 WPMS (5841) (5845)
 Order 8320.12, Chap. 9, Sec. 1</p> | <p>1 inspection on each air carrier that contracts for maintenance within region.</p> |
| <p>(b) Aircraft Maintenance Records Inspections (Note 1)
 WPMS (5881) (5886)
 Order 8320.12, Chap. 3, Sec. 36
 Chap. 6, Sec. 7
 Chap. 9, Sec. 1
 Order 8600.1 Chap. 3, Sec. 17</p> | <p>1 inspection on each aircraft make and model operated by each air carrier at the main facility and or subbase that maintains historical records within region.</p> |
| <p>(c) Training Inspections (including training records)
 WPMS (5870) (5871)
 Order 8320.12, Chap. 9, Sec. 1</p> | <p>1 inspection on each air carrier conducting or contracting for maintenance personnel training within region.</p> |
| <p>(d) Manuals Inspections
 WPMS (5896) (5898) (5897)
 Order 8320.12, Chap. 9, Sec. 1</p> | <p>1 inspection on each air carrier and Part 125 operator at the main maintenance base and/or a subbase, if applicable, where checks are performed within region.</p> |
| <p>(e) Ramp Inspections
 WPMS (5859) (5864) (5860)
 Order 8320.12, Chap. 9, Sec. 1</p> | <p>1 inspection on each scheduled air carrier that conducts operations within region.</p> <p>2 inspections on each scheduled air carrier that conducts operations solely within region.</p> |

Note 1/ The aircraft maintenance records inspections require examination of a sufficient number of records to be reasonably assured that the results of the sampled records represent the overall condition of the record system. Records inspections include a cross examination of other documents to verify accuracy of recorded data.

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- (f) **Main Base Inspections**
 WPMS (5823) (5828) (5824)
 Order 8320.12, Chap. 3, Sec. 31
 Order 8600.1, Chap. 4
 Order 8720.2, Chap 7
- (g) **Subbase Inspections**
 WPMS (5831) (5834)
 Order 8320.12, Chap. 3, Sec. 31
 Chap. 9, Sec. 1
- (h) **Line Station Inspection**
 WPMS (5836) (5839)
 Order 8320.12, Chap. 3, Sec. 31
 Chap. 9, Sec. 1
- (i) **En route Inspections**
 WPMS (5889) (5891) (5890)
 Order 8320.12, Chap. 3, Sec. 13
 Chap. 9, Sec. 1
- (j) **Spot Inspections**
 WPMS (5853) (5857)
 Order 8320.12, Chap. 3, Sec. 17
 Chap. 9, Sec. 1
- 1 inspection on each nonscheduled air carrier and Part 125 operator that conducts numerous operations (more than 10 per month) within region. Principal Avionics Inspector responsible for notifying affected regions.
- 1 inspection on each air carrier and Part 125 operator that maintains a main base within region.
- 1 inspection on each air carrier that maintains a subbase within region.
- 1 inspection at a station where maintenance performance capability exists on each air carrier that conducts operations within region.
- 1 inspection on each scheduled air carrier that conducts operations within region.
- 1 inspection on each nonscheduled air carrier and Part 125 operator that conducts numerous operations (more than 15 per month) within region. Principal Avionics Inspector is responsible for notifying affected region.
- 1 inspection on each aircraft make and basic model operated by each scheduled air carrier and one inspection on one aircraft operated by on-demand Part 135 operators where maintenance is performed within the region.

- (k) **Reliability Program Inspections**
WPMS (5878) (5880)
Order 8320.12, Chap. 2, Sec. 14
Chap. 3, Secs. 1
and 4
- 1 inspection on each air carrier, if applicable, at the operator's main base.
- (l) **Continuing Surveillance and Analysis Program Inspections**
WPMS (5876) (5877)
Order 8320.12, Chap. 3, Sec. 6
- 1 inspection on each air carrier, if applicable, at operator's main base.
- (2) **Air Agencies - Part 145.**
- (a) **Formal Repair Station Inspections**
WPMS (5745) (5746)
Order 8600.1, Chap. 4, Sec. 11
Chap. 6, Sec. 1
- 1 inspection on each repair station within region that: performs complex modifications to aircraft, avionics and accessories; or that performs contractual maintenance and inspections under Section 145.2; or holds powerplant class ratings.

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19. INVESTIGATIONS. This work activity is generated on an "as required" or "as discovered" basis. Many of the compliance and enforcement investigations will be generated by surveillance work activities. Investigations are the means in which the FAA determines causal factors of potential or actual problem areas and the vehicle to effect appropriate corrective action. Emphasis must be placed on those investigations that have the most potential for identifying significant adverse safety trends and/or safety recommendations. The investigations listed below have priority over all other types of investigations and are work functions second in priority to the surveillance activities listed in this chapter.

a. Operations, Maintenance and Avionics.

(1) Air Carriers, FAR Parts 121/135, and Part 125 Operators.

- (a) Accident Investigations As required
necessitating on-site investigation
WPMS (1501) (1504) (1505) (1502)
 (3501) (3504) (3505) (3502)
 (5501) (5504) (5505) (5502)
Order 8020.11
- (b) Compliance and Enforcement As discovered
Investigations
WPMS (1546) (1555)
 (3546) (3555)
 (5546) (5555)
Order 2150.3
- (c) Incident Investigations As required
necessitating on-site
investigations
WPMS (1514) (1516) (1517) (1515)
 (3514) (3516) (3517) (3515)
 (5514) (5516) (5517) (5515)
Order 8020.11

(2) Airmen, FAR Parts 61, 63, 65, and 183.

- (a) Compliance and Enforcement As discovered
Investigations
WPMS (1547) (1556)
 (3547) (3556)
 (5547) (5556)
Order 2150.3

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- (3) Air Agencies, FAR Parts 141, 145, 147, and 149.
- (a) Compliance and Enforcement As discovered
Investigations
WPMS (1548) (1557)
 (3548) (3557)
 (5548) (5557)
Order 2150.3
- (4) Air Operators, FAR Parts 91, 133, 137.
- (a) Accidents Investigations As required
necessitating on-site
investigation
WPMS (1506)
 (3506)
 (5506)
Order 8020.11
- (b) Compliance and Enforcement As required
Investigations
WPMS (1549) (1558)
 (3549) (3558)
 (5549) (5558)
Order 2150.3

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20. **CERTIFICATION.** It is essential that the certification work activity be accomplished with the degree of thoroughness necessary to ensure the competency required by the safety regulations. High quality work in this area will go a long way in relieving the problem areas in surveillance and investigations. Because of the unique complexities and safety implications of air carrier certification and the wide exposure and the potential influence designated examiners have on airmen, the work functions listed below have been identified as having priority over all other certification work functions.

a. Operations, Maintenance and Avionics.

(1) Air Carrier, FAR Parts 121/135.

(a) Certificate FAR Parts 121 and Part 135 Air Carriers All formal applications in order received.
 WPHS (1040) (1048) (1049) (1050)
 (3040) (3052) (3053) (3054)
 (5040) (5052) (5053) (5054)
 Order 8430.6C
 Order 8430.1D
 Order 8320.12

(b) Additional Approvals (added equipment) All formal request in order received.
 WPHS (1268) (1271) (1272) (1273)
 (3280) (3283) (3284) (3285) (3286)
 (5279) (5282) (5283) (5284) (5285)
 Order 8430.6C
 Order 8430.1D
 Order 8320.12

(2) Airmen, FAR Parts 61, 63, 65, and 183.

(a) Designated Pilot Examiners As needed
 WPHS (1022) (1023) (1024)
 Order 8430.6C
 Order 8430.1D
 Order 8710.3A

(b) Designated Mechanic Examiners As needed
 WPHS (3010)
 Order 8600.1

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21. AVIATION PROMOTION AND EDUCATION. The FAA has a statutory obligation to promote aviation safety. An integral part of meeting this requirement involves the education and guidance of all segments of the aviation community. The accomplishment of the work functions listed below are considered minimum requirements towards the meeting of the FAA's obligations in their work area.

a. Operations

- | | |
|--|--|
| (1) Flight Instructor Refresher Course
WPMS (1455)
Order 8710.4, Chap. 13 | Monitor 50 percent of refresher courses conducted within region. |
| (2) Public/User Meetings
WPMS (1415)
Order 8430.6C
Order 8430.1D
Order 8440.5A | Meet 80 percent of requests for FAA representation/participation within region. |
| (3) APS Program
WPMS (1420)
Order 8740.1 | No norms are established. However, the significance and importance of this program must be recognized and supported by all Flight Standards inspectors and their management. |
| (4) Wings Program
WPMS (1460)
Order 8740.1 | No norms are established. However, continual emphasis and support is considered beneficial to aviation safety. |

b. Maintenance and Avionics.

- | | |
|---|---|
| (1) Inspection Authorization Refresher Course
WPMS (3455)
(5455)
Order 8600, Chap 5, Sec. 6 | Annually in each region by AVN-100 or by regional personnel. |
| (2) Aircraft Maintenance Industry Seminars
WPMS (3460)
(5460)
Order 8320.12, Chap 2, Sec. 27
Chap 3, par. 667 | AMS/Regions to conduct at least one in each region. |
| (3) Public/User Meeting
WPMS (3415)
(5415)
Order 8600.1, Chap 2, Sec. 7 | Meet 80 percent of requests for FAA representative/participation within region. |

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(4) APS Program
WFS (3420)
(5420)
Order 8740.1

No norms are established.
However, the significance and
importance of this program must
be recognized and supported by
all Flight Standards inspectors
and their management.

22.-30. RESERVED.

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CHAPTER 4. REPORTING PROCEDURES

31. **GENERAL.** The primary purpose of requiring specific types and amounts of surveillance work functions is to ensure that responsible principal inspectors are obtaining a sufficient number of inspection reports on assigned air carrier(s), air agencies, and airmen to make basic compliance assessments. Principal inspectors are responsible for analyzing these reports for trends and to take appropriate action which may include the scheduling of additional inspections, as necessary, to assure compliance. This evaluation and corrective action process is essential to the success of these program guidelines.

a. The accurate and timely reporting of the planning and accomplishment of work functions is essential to evaluating the effectiveness of these program guidelines. In addition to surveillance work functions, the reporting of the investigation, certification and aviation promotion and education work functions is needed to provide Regional and Washington headquarters elements with basic information on the types and amounts of work being performed in accordance with Chapter 3. The Regional Flight Standards Divisions will be responsible for the submission of information for the preparation of five scheduled reports on a fiscal (FY) basis. The reports will consist of information on only the work functions identified in Chapter 3.

b. The first report will be the Regional Environmental Data Planning Document which will reflect only the Chapter 3 surveillance work functions planned to be accomplished by the region for the forthcoming fiscal year. Investigation, certification and aviation promotion, and education work functions will not be part of the Planning Report.

c. The next four reports will be the Quarterly Accomplishment Reports and will be submitted on a quarterly basis. The Accomplishment Reports will reflect all Chapter 3 work functions completed for the respective quarter on a cumulative basis.

32. **BACKGROUND.** The Work Program Management System (WPMS) established by Order 1380.47 provides the means for capturing most of the data necessary to monitor the work functions identified in Chapter 2 and the required work functions in Chapter 3. Timely entries of work program planning and work accomplishment updates are essential to provide realistic workload analysis. The planning required for surveillance activities will depend upon the development of a software revision to the current WPMS Burroughs Program. All other WPMS work program planning efforts remain unchanged.

a. Data from the field office WPMS will be extracted quarterly and hard copies forwarded to the Regional Office Flight Standards Division with associated floppy disk(s) forwarded to the National Data Base (NDB) System Manager.

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b. To assure standardization, a master file of certificated entries will be created initially by AVN-120. This master file will contain data such as maintenance designators, type of Operations Specifications held, etc.

c. NDE System Manager will enter field office reports into a national data base which will provide a national information sharing resource capability to track or analyze national, regional, or specific activities associated with any certificate and/or work activity. For example, an analysis can be made of any airline relating to the number of surveillance, certification, or investigative work functions identified by WPMS work program activity codes. It will provide routine outputs similar to those shown in Figures 4-1 and 4-2.

33. RECOMMENDED OPERATIONAL PROCEDURES.

a. General. The normal field office WPMS recording and reporting procedures will satisfy most of the reporting requirements of this order. Timely entries of work accomplished and periodic update reports should avoid peak workloads and provide field office management the opportunity to review and evaluate this critical portion of the district offices' work program. Compliance with the following procedural steps is essential to meet the reporting requirements of this Chapter:

<u>STEP</u>	<u>ACTION OFFICE AND DUE DATE</u>	<u>PROCEDURE</u>
(1)	AVN-120 by August 1.	Develop "Regional Environmental Data Planning Document" for each region in a format similar to Figure 4-1.
(2)	Regional Flight Standards Divisions. Transmit to District Offices by Sept. 15.	Using the above document, develop Regional work program in accordance with Chapter 3 work function guidelines and assign work functions to district offices. After development, transmit Regional Environmental Data Planning Document to appropriate district offices.
(3)	District Offices.	Review Regional Environmental Data Planning Document and National Program Guidelines. Verify that assigned work functions are compatible with district office geographic area responsibility and coordinate with Region on inconsistencies and/or changes.

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- (4) **NDB System Manager
by Sept 16.**
- Develop and distribute version 2.0 of the field office Burroughs WPMS software to add a new field titled National Program Guidelines (N) for identifying Chapter 3 required work items, provide a field for the air operator maintenance identification code, provide edit capability and the entry of air operator's name from the maintenance identifier. This includes distribution to all affected field offices.
- (5) **District Offices
Sept 30-Oct 17.**
- Enter Chapter 3 planned surveillance work program functions into the local WPMS by using the record entry function on the transmittal file. On entry of Chapter 3 required surveillance work functions, enter an "X" in the new field developed in (4) above to identify this as a Chapter 3 required work function.
- (6) **District Offices
by Oct 18.**
- Use version 2.0 for the WPMS software to produce floppy disk(s) containing a complete listing of planned surveillance Chapter 3 required work items and transmit disk(s) to the NDB System Manager.
- (7) **NDB System Manager
by Dec. 11.**
- Enter District Office planned surveillance Chapter 3 required work functions into a National Data Base and transmit the district office, regional consolidated and nationally consolidated reports of the planned activities to the regional offices and headquarters.
- (8) **Regional Flight
Standards Divisions
and District Offices
by Jan 2.**
- Review consolidated planning document produced by NDB System Manager in Step 7 above. If adjustments are required in accordance with regional instructions, District Offices will update WPMS Chapter 3 planned surveillance work functions, as necessary, and resubmit floppy disk(s) to the NDB System Manager, who will regenerate and redistribute planning documents, as necessary. No further changes are permitted after this step.

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- (9) **NDB System Manager by Dec 1.** Develop and distribute to each affected field office a Burroughs Report generation capability to produce a Quarterly Accomplishment Report of the planned and accomplished Chapter 3 required work items.
- (10) **District Offices on a continuing basis.** As required Chapter 3 surveillance work functions are accomplished, District Offices will update local WMS by changing the Activity Status field from a "P" to the appropriate status code. As required Chapter 3 certification, investigation, and aviation promotion and education work functions are accomplished, District Offices will also enter an "R" in the National Program Guidelines (R) field to assure these items are included in the Quarterly Reports.
- (11) **District Offices transmit report quarterly by the 10th working day after the end of the Quarter.** Produce a Quarterly Accomplishment Report (developed in Step 9 above) in hard copy. Review for accuracy and transmit copy to Region. After District Office reviews for accuracy and updates records, if necessary, run the program that produces the floppy disk(s). Mail floppy disk(s) to the NDB System Manager.
- (12) **Regional Flight Standards Divisions by the 15th working day after the end of the Quarter.** Collect all District Office hard copy reports and assure that all District Offices disk(s) have been mailed to the NDB System Manager.
- (13) **NDB System Manager by the end of the second month after the Quarter.** Enter District Offices' Chapter 3 floppy disk contents of accomplished items into the National Data Base. Produce and transmit district office, regional consolidated, and nationally consolidated reports to the district, regional offices, and headquarters.

34. REGIONAL FLIGHT STANDARDS DIVISION RESPONSIBILITIES. Regional Flight Standards Divisions will obtain from AVN-120 the Regional Environmental Data Planning Document (Step 2). The region must carefully review the document to assure that it accurately reflects its respective geographical environmental data. Additions, deletions, and any other adjustments should be made to the document at this time. The document provides a spread sheet for the regions to plan the surveillance work functions that they are responsible for accomplishing in accordance with Chapter 3 for the forthcoming fiscal year. Using this document, assignment of appropriate district offices to accomplish the required surveillance work functions will be recorded. In planning the annual regional surveillance work program and the assignment of specific work functions, regions should consider the following variables and conditions:

- a. The region's overall geographic area of responsibility.
- b. The district office's geographic area of responsibility.
- c. The district office's certificate responsibilities.
- d. The district office's inspector skills.
- e. Travel time to the work function site, etc.

f. After the regional work program is developed and work functions assigned, the Region will forward the work program assignments to the appropriate district offices. Flight Standards Divisions will be responsible for assuring the transmittal of Field Office version 2.0 floppy diskettes to the NDB System Manager in accordance with the schedule indicated in paragraph 33 above. The address and routing symbol of the NDB System Manager will be provided by way of preaddressed envelopes.

35. DISTRICT OFFICE RESPONSIBILITIES. The procedural steps listed in paragraph 33 above should minimize the additional workload needed to plan and report on Chapter 3 required work functions on a nationwide basis. During the planning process (Step 3), the district offices must carefully review Chapter 3 of this order and the work program assignments provided by the region. The district offices will determine that the work assignments are compatible with the following considerations:

- a. The district office's geographic area of responsibility.
- b. The district office's current certificate responsibilities.
- c. The district office's inspector skills.
- d. Travel time to the work function site, etc.

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e. This review should include a determination that the work program assignments accurately reflect the district office's geographic environment. Additions, deletions, or other adjustments must be coordinated with and approved by the Regional Flight Standards Division. After all adjustments have been approved, the district office will input, update, and forward reports in accordance with paragraph 33 above. Once the annual Regional Environmental Data Planning document has been finalized, no additions or deletions are permitted for the balance of the planning year. Reporting of Chapter 3 Surveillance work function accomplishments will not be reported on under this chapter for those operators, air agencies, or airmen added during the planning year. However, Chapter 3 Investigation, Certification, and Aviation Promotion and Education work activities will be reported on through the use of new WPMS field entitled "National Program Guidelines (R)".

36. AVN-120 RESPONSIBILITIES. This office will be responsible for providing regional and headquarters elements with gross environmental data in a format similar to Figure 4-1.

37. NDB SYSTEM MANAGER RESPONSIBILITIES.

a. Development and distribution of revisions to the field office Burroughs WPMS program to add a field for identifying Chapter 3 required work items. (See Step 4 in paragraph 33).

b. Development and distribution of revisions to the field office Burroughs WPMS program a report generation capability to produce a report of planned and accomplished Chapter 3 required work items. (See Step 4 and 9 in paragraph 33).

c. Receiving and inputting district office reports as prescribed in paragraph 33 above.

d. Providing quality control and error reports to district and regional offices.

e. Preparing and distributing consolidated Regional Environmental Data Planning Reports and the Quarterly Accomplishment Reports in a format similar to Figures 4-1 and 4-2.

f. Overall monitoring of the reporting program and recommendations to streamline the reporting of plans and accomplishments.

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MONTHLY QUANTIFIABLE ACCOMPLISHMENT REPORT

Period: From
Date of Report

OPERATIONS

NAME OF ENTITY

A. AIR CARRIER PART 121/135 AND PART 133 OPERATORS

Entity	1015	1061	1064	1058	1000	1041	1023	1070	1000	TOTAL
	P A	P A	P A	P A	P A	P A	P A	P A	P A	P A
PART 121 (A.0) DESIGN CMO	15	1	1	1	6	2	1	2	1	30
1/AMERICAN AIRLINES	15	1	1	1	6	2	1	2	1	30
2/WESTER AIRLINES	25	10	0	0	12	10	0	10	0	94
PART 121/135 (A. B. C)	1010	1002	1007	1000	1003	1045	1020	1070	1000	TOTAL
	P A	P A	P A	P A	P A	P A	P A	P A	P A	P A
1/DALLAS AIRLINES	3	1	1	1	3	2	1	2	1	15
2/SUNSHINE AIRLINES	2	1	2	1	3	1	0	2	1	23
PART 135 COMMITTEE (B)	1010	1002	1007	1000	1003	1045	1020	1070	1000	TOTAL
	P A	P A	P A	P A	P A	P A	P A	P A	P A	P A
PART 125 (B)	1016	1042	1024	1071						TOTAL
	P A	P A	P A	P A						P A

B. AIRLINE

Entity	1019	1020	1021	TOTAL
	P A	P A	P A	P A
PARTS 61/63/103 DESIGN CMO	1	1	1	3

C. AIR

NOTE: 1/Entity line item as it would appear on a specific Regional Quarterly Accomplishment Report.
2/Entity line item as it would appear on a consolidated Washington Headquarters Quarterly Accomplishment Report.

Figure 0-2

APPENDIX 5
HANDBOOK ORDER

ORDER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

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**AVIATION STANDARDS FIELD INSPECTOR HANDBOOK
MODERNIZATION AND STANDARDIZATION**

SUBJ:

1. **PURPOSE:** This order establishes new design and content specifications for the format, presentation and development of standardized field inspector handbooks. It also establishes a Handbook Review Board with primary responsibility for assuring consistent interoffice and interdivisional application of the provisions in this order.
2. **DISTRIBUTION.** This order is distributed to the Associate Administrator for Aviation Standards; to the Director of Rotorcraft Programs; to division level in the Offices of Civil Aviation Security and Aviation Medicine; to branch level in the Offices of Flight Operations, Airworthiness, and Program and Regulations Management; and the Flight Standards Branch of the FAA Academy. This order is also distributed to the regional Flight Standards, Aviation Medicine, Civil Aviation Security, and Aircraft Certification Divisions for information purposes only.
3. **BACKGROUND.** The results from such recent efforts as the National Air Transportation Inspection program, the flight standards Job Task Analysis (JTA) project and preliminary results from the General Aviation Safety Audit all indicate an urgent and practical need to modernize, coordinate and standardize the handbooks used by Aviation Standards field inspectors. As part of the JTA project, overview panels studied the feasibility of modernizing and standardizing the format and presentation of the Handbooks used by general aviation and air carrier operations inspectors, general aviation and air carrier airworthiness inspectors, and manufacturing inspectors. These panels recommended that such a project be undertaken. Other deliberations in connection with the Aviation Safety Analysis and Functional Evaluation (SAFE) project indicate a need to modernize and standardize the handbooks as soon as possible because of the impact these documents have on the many sub-projects associated with project SAFE.
4. **APPROVAL AUTHORITY.** Aviation Standards Office Directors are responsible for the approval of the handbooks covered by this order. This responsibility may be delegated to Division Managers when handbook information does not cross divisional lines of authority. Handbooks that contain information that affects two or more AVS Offices, must be approved by the AVS office director that originates the handbook with concurrence by the other offices, as appropriate.
5. **DEFINITIONS.** The definitions outlined herein provide standard terms and titles to be used in writing the handbooks.
 - a. **Handbook.** A handbook is a directive designed to provide essential overall instructions, guidance and requirements for operations, airworthiness, and manufacturing field personnel to accomplish their job functions.

Distribution: 2-N(FO/VS/PR)-3, A-W(CS/AM)-2, A-W(VS/RO)-2
2-X(CD/VS/AM/CS)-2 (Info only)

Initiated By:

b. Directive Information is information that is considered directive in nature and will contain terms such as "shall", "must", and means that the actions are MANDATORY. A "shall not" means that the action is PROHIBITED. The use of these terms will leave no flexibility and their direction shall be followed unless otherwise authorized by headquarters division managers. (Reference: FAA Directives System, Order 1320.1C, Paragraph 72).

c. Guidance Information is information that is considered guiding in nature and will contain terms such as "will", "should", or "may". These terms indicate actions that are desirable, permissive or not mandatory and provide for flexibility. (Reference: FAA Directives System, Order 1320.1C, Paragraph 72).

d. Handbook Review Board (HRB) is a group of persons responsible for consistent application of the provisions of this order. (See par. 8)

e. Organization. The term organization in this order describes an individual or group of individuals having formal status (such as company corporation, partnership, etc.) or informal status (such as a private citizen) who is (or are) air operators, air agencies, or manufacturers conducting aeronautical operations or functions under the provisions of and subject to the Federal Aviation Act of 1958, as amended, and attendant Federal Aviation Regulations (FAR).

f. Air Operator is any organization that conducts operations of an aircraft and is required to operate and maintain that aircraft in accordance with a specific regulation or combination of regulations.

g. Air Agency is any organization that is certificated to maintain or alter aircraft, aircraft engines, propellers and appliances or is certificated to provide training to airmen.

h. Manufacturer is any organization that is engaged in the fabrication, construction, assembly or manufacture of aircraft, aircraft engines, propellers, appliances, replacement and modification parts or components thereof, using systems that are set forth by the FAR and approved by FAA.

6. DIVISIONAL RESPONSIBILITIES. The Air Transportation Division (AFO-200), the General Aviation and Commercial Division (AFO-800), the Aircraft Maintenance Division (AWS-300), and the Aircraft Manufacturing Division (AWS-200) are the primary offices of interest in the development and amendment of the respective handbook(s) covered by this order. Each division will be solely responsible for the technical accuracy of the information contained in their respective handbook(s). Each division will prepare and have approved project resumes as well as detailed plans to implement the provisions of this order. These resumes and plans will be submitted to the Handbook Review Board (HRB) for concurrence prior to approval by the Office Directors. As each division's respective handbook(s) is/are developed it/they will be submitted to the HRB on a schedule indicated in its implementing resume or plan. Divisions will abide by the HRB's decisions with respect to consistent application of AVS philosophy and the provisions of this order. Each division will submit final drafts of handbooks to the HRB for review and concurrence prior to approval by the Office Directors. Divisions will submit any major changes subsequent to the initial rewrite and formatting of the handbook to the HRB for review and concurrence prior to approval by the respective Office Directors.

7. SPECIFICATIONS. The handbooks governed by this order shall conform to the standards outlined below:

a. Design Standards.

- (1) Overall size to be such that it is easily portable in an inspector's typical brief case.
- (2) Pages to be bound (looseleaf) by a flexible and durable binder.
- (3) Appendices, volumes and chapters, if appropriate, to be tabbed for easy access to information.
- (4) Print to be of a high quality and easily readable.
- (5) Contain provisions for revision guidance and control.
- (6) Physically easy to revise.
- (7) Contain adequate provisions for adding additional information such as selected regulations, etc.

b. Format Standard.

- (1) The handbook(s) will be formatted to include a cover, record of changes, and short order transmitting the document.
- (2) The handbook(s) will also include three or more appendices. Each appendix will include a table of contents.

(a) Appendix 1 will be divided into ten standard volumes. Standard volume titles will be used in all AVS operations, airworthiness and manufacturing inspector handbooks. Each volume will consist of chapters that can be arranged in sections, paragraphs and sub-paragraphs to provide for sufficient sub-divisions of each volume, as necessary. Appendix 1 volume titles will be as follows:

- | | |
|--------------|--|
| Definitions. | <u>1</u> Volume I - General Concepts, Policies Procedures, and |
| | <u>2</u> Volume II - Organizational Certification. |
| | <u>3</u> Volume III - Organizational Technical Administration. |
| | <u>4</u> Volume IV - Aircraft and Equipment. |
| | <u>5</u> Volume V - Airmen Certification |
| | <u>6</u> Volume VI - Surveillance |
| | <u>7</u> Volume VII - Investigations |

Promotion

Responsibilities.

8 Volume VIII - General Technical Functions

9 Volume IX - Aviation Education and Safety

10 Volume X - Technical Staff Administration and

(b) Appendix 2 will be used to include all respective AFO and AWS bulletins and alerts.

(c) Appendix 3 will include an AVS handbook subject matter cross reference.

(d) Each handbook may include additional appendices provided they have been approved by the AVS Office Directors. Additional appendices shall include a table of contents and be arranged sequentially using the same format standard as the other appendices.

(3) Charts and figures should normally be located as close as possible to the explanatory text. However, when it is more appropriate for clarity and ease of use, they may be grouped and arranged within their respective Volume or chapter in specific identifiable sections or paragraphs.

c. Presentation Standards.

(1) The handbook(s) shall be developed in a comprehensive manner and be directive in nature in those areas where a high degree of standardization is necessary. The presentation of material shall be such that no regional supplemental information will be required.

(2) The method of presentation should be such that it provides for clarity, ease of understanding and utilization. It shall include state of the art techniques and/or methods with respect to outlines, job aids, logic diagrams, pictures, presentation and technical composition.

(3) Appendix 1 will consist of information as outlined below:

(a) Volume I will set forth general concepts, overall roles, definitions and shall include guidelines with respect to AVS philosophy and inspector authority, the FAA Act and responsibilities regarding FAR development. It shall include general information on inspector oversight responsibilities, safety promotion responsibilities and industry responsibilities. This volume shall also provide for a system to update and revise the handbook(s) that is responsive to Regional and District Office input.

(b) Volume II will contain information on the general and basic certification processes and procedures of organizations under a specific FAR or combination of FAR's or organizations not requiring certification but nevertheless conduct aeronautical operations or functions.

(c) Volume III will include all necessary and administrative detail and technical requirements necessary to perform a specific task in support of certification and appropriate administrative tasks in support of existing organizations. This includes, but is not limited to, such tasks as operations specifications, proving flights, check airmen approval, air agency ratings, training programs, manual approvals, aircraft approvals and production approvals.

(d) Volume IV will contain all the necessary information regarding the approvals of certification of aircraft, aircraft components, or devices that are used to train airmen. This includes, but is not limited to, approval of aircraft simulators, major repairs and alterations, Category II/III approvals and procedures. It shall also include policies on equipment installations, equipment performance approvals and export airworthiness.

(e) Volume V will contain information on policies, practices and FAR requirements concerning airmen certification and all categories of airmen and airworthiness designees (it will not include check airmen approvals which will be included in Volume III).

(f) Volume VI will include all practices and procedures involved in the conduct of inspections of airmen, air operators, air agencies, manufacturers, and other certificate holders in the performances of overall FAA surveillance duties.

(g) Volume VII will contain specific information as necessary to supplement other FAA investigatory Orders. It will also include guidance on the conduct of investigations that are not covered by other orders such as complaints, Service Difficulty and Quality Control System breakdown investigations, allegations of fraudulent records or actions that require special investigative techniques.

(h) Volume VIII will contain policy, practices and procedures, concerning externally generated FAA responsibilities and special projects accomplished in support of airmen, operator, air agency, and other certificate holder activities. This includes such things as AEG's, FSB's, MRB's, PCB's and TCB's.

(i) Volume IX will contain information on participation in the accident prevention program and industry aviation community sponsored forums where inspectors represent the FAA.

(j) Volume X will contain information on FAA internally generated requirements such as inspector training, personal conduct, the SF-160 enroute program, credentials, district office and inspector responsibilities, etc.

8. HANDBOOK REVIEW BOARD (HRB). The Director of the Office of Airworthiness and the Director of the Office of Flight Operations will each appoint two members of their staff as permanent members of the Handbook Review Board (HRB). The HRB permanent members will be selected from AFO-800, AFO-200, AWS-300 and

AWS-200. The manager of the Flight Standards Branch, FAA Academy (AAC-950), will also participate as a permanent member of the HRB. The Office of Program and Regulations Management (APR-1) will provide a Directive Management Officer who will serve as a permanent member of the HRB. The HRB permanent members may, from time to time, select regional personnel as temporary HRB members to augment the board during periods of high activity or when special expertise is needed. The HRB will be primarily responsible for assuring consistent inter-office and inter-divisional application of the provisions of this order. In addition the HRB will be responsible for the following:

a. Review of and concurrence with divisional project resumes and detailed plans of action concerning the rewrite and reformatting of handbooks covered by this order.

b. Periodic reviews of handbook development as scheduled by the respective divisions throughout the development stages. During these reviews, the HRB will provide for final resolution of any inconsistent application of the provisions of this order. In the event the HRB detects inconsistent application of policy, procedure or technical content, the matter will be referred back to the appropriate division or divisions for resolution.

c. Final review and concurrence with drafts of divisional handbook(s) with respect to the provisions of this order prior to approval and publication of the handbook.

d. Review and concurrence with any major change subsequent to the initial rewrite and reformatting of the divisional handbooks. For the purpose of this order, a major change shall mean (1) any change that results in a significant change in the way in which inspectors perform their duties and/or tasks, or (2) any change which impacts on another division's area of responsibility.

END

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