

PERSONNEL SELECTION AND PERFORMANCE PROFILE  
OF AIRPORT POLICE OFFICERS

by

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A THESIS

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## ABSTRACT

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### Purpose

It was the intention of this thesis to validate the central theme of this study and present empirically-designed evidence supporting the fact that the selection of police officers at airports serving certificated-air-carriers can be scientific in its orientation thereby greatly reducing interviewer subjectivity, curtailing nepotism and projecting increased longevity while simultaneously delineating duties.

### Methods

To accomplish the purpose of this study three research questions were formulated and subsequently validated utilizing recognized statistical methods of measurement. The instruments employed for the acquisition of data varied. The first included a survey of the nation's forty leading airports taken in an attempt to determine any existing pertinent affiliations. This served a two-fold function: (1) It was utilized to determine the importance assigned to the Federal Aviation Regulations (FARs) by the individual airport operators. (2) It was

used to ascertain the possibility of developing a standard, incorporating similar desirable characteristics, capable of being utilized on a national scale.

The second instrument included a survey of enplaning passengers, conducted at both Houston airports by The Engineers of the Southwest. Findings derived from this survey were applied to this thesis in anticipation of discovering common characteristics of persons using airports.

An additional analysis included the comparison of crime-related statistics gathered from existing records of the Houston Municipal Police and the Houston Airport Police which were to be translated into personality characteristics and ultimately integrated into the predictive airport police profile.

The information gained from validating these research inquiries was then to be interspersed with factors discovered as a consequence of a retrospective examination of personnel records of the Houston Airport Police.

### Findings

It was concluded that FAR Part 121.538 and Part 107 were instrumental in aligning the duties and symbiotically coordinating equipment and training pertinent to assigned regulatory functions.

As the analysis progressed, additional statistical correlations compounded the fact that persons using an

airport have basic needs. This study defined the travelling public as a relatively homogeneous group and regardless of the geographical location of passenger residence or airport facility, the needs of those persons using an airport were analogous.

As this study progressed it was determined that the peace-keeping function is most prevalent at airports and must be considered of primary importance. This is not to imply an attitude of under-enforcement but one which does not require the use of arrest powers extensively. The available evidence supporting this research inquiry clearly indicated that citizen contact with the airport police is essentially non-negative in context.

One aspect of this study which failed to materialize was the attempt to define and develop criteria to increase the productivity of airport police officers. Each pre-selected index had to be rejected because of insufficient validity. Consequently, after an exhaustive attempt to relate the indices to the situation being experienced in Houston it was found that productivity was directly proportional to and commensurate with the amount and degree of highly subjective autocratic supervision.

By integrating the information empirically determined by the precise correlation of responses to questionnaires and recorded demographic factors, it was possible to delineate and classify the specific variables considered

most important in predicting the longevity and over-all success of sworn airport police personnel.

The precise correlation of available facts indicated that specific demographic characteristics appeared among the various classifications utilized to explicate the disposition of those persons hired for this position. The resultant a posteriori percentages culminated in the recommendation of specific variables being adopted for the assessment and selection of airport police officers.

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So as not to understate the actual facts, this author will refrain from using any phrases of adulation in expressing his appreciation for the untiring supervision and the intense interest displayed by Dr. Merlyn D. Moore, under whose careful scrutiny this thesis was written.

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## TABLE OF CONTENTS

	PAGE
ABSTRACT .....	iii
ACKNOWLEDGEMENTS .....	vii
LIST OF TABLES .....	xi
LIST OF FIGURES .....	xii
CHAPTER	
I. THE PROBLEM AND ITS RAMIFICATIONS (The Past Decade--A Turbulent Period) .....	1
Pertinent Issues .....	1
Recent Regulatory Development .....	6
Responsibility Delineation .....	14
Statement of the Problem .....	20
Significance of the Study .....	21
Methods and Procedures .....	22
II. LITERATURE REVIEW .....	23
Recognizing Inherent Problems .....	24
Selection Standards .....	27
Job Analysis .....	30
Significance of Behavioral Characteristics .....	34
Supervisory Considerations .....	34
Conclusion .....	36
III. THE STUDY SITE .....	37
Organizational Profile:	
Department of Aviation .....	39

	PAGE
Houston Intercontinental Airport .....	40
Hobby Airport .....	47
Airport Police .....	53
IV. METHODOLOGY .....	68
Research Question Formulation .....	69
Research Design .....	72
Research Question Association .....	78
Productivity Sampling .....	79
Data Acquisition .....	82
Data Sorting .....	83
V. DATA ANALYSIS .....	86
Research Questions Validation Results .....	87
Question Number One .....	87
Findings .....	89
Question Number Two .....	93
Findings .....	94
Question Number Three .....	102
Restatement of the Problem .....	112
Central Theme .....	115
VI. SUMMARY AND CONCLUSION .....	126
Summary .....	126
Conclusions .....	130
Discussion .....	137
Recommendations for Further Study .....	140



	PAGE
APPENDIXES .....	142
Appendix A. Summary of Skyjackings and Attempted Skyjackings of U.S. Registered Air- craft (1961-1975) .....	143
Appendix B. Explosions Aboard Aircraft of U.S. Registry .....	149
Appendix C. Factual Identity Inquiry .....	152
Appendix D. Additional Information Questionnaire .	156
Appendix E. Vicinity Maps .....	165
BIBLIOGRAPHY .....	168

## LIST OF TABLES

TABLE	PAGE
1. Skyjacker Profile .....	3
2. Air-Carrier Designation Symbols .....	10
3. Full-Time Police Officers (By Jurisdiction 1973) .....	28
4. Number of Operations By Type of Service .....	38
5. Statutory Standards for Officer Certification .	56
6. Authorized Personnel Positions .....	60
7. Factual Identity Inquiry Responses .....	75
8. Sampling Selection (General Overview) .....	88
9. Questionnaire Distribution and Returns .....	88
10. Questionnaire Response Comparison .....	90
11. Survey Characteristics (Interview Significance) .....	94
12. Regional Characteristics (Passengers Residing in Region) .....	95
13. Statistical Regional Area .....	95
14. Destination (Originating Passengers) .....	96
15. Business Trips .....	97
16. Frequency Characteristics (Trips Taken in 1975) .....	97
17. Crimes Against the Person .....	104
18. Crimes Against Property .....	105
19. Passenger Frequency (By Age) .....	107
20. Social Characteristics .....	109

## CHAPTER I

### THE PROBLEM AND ITS RAMIFICATIONS (The Past Decade - A Turbulent Period)

Technological advances in a sophisticated society such as ours frequently manifest themselves in the formulation and development of proscriptions specifically designed to prohibit abuses inherent in these new developments. As a consequence the necessity for additional law enforcement personnel with expertise in specific categories becomes an indispensable juncture in a society endeavoring to stabilize the existing state of affairs while simultaneously struggling against a transgressing social order. This paradoxical interrelationship has culminated in, among other factors, the formulation and development of law enforcement agencies whose functions revolve around the ever-increasing specialized bodies of regulatory legal restraints. Among these are agencies whose primary objectives are the safety and well-being of those persons using our nation's aviation facilities.

#### Pertinent Issues

##### Skyjacking

The taking of hostages has invariably been considered a highly effective strategic maneuver to elicit cooperation from superior forces. It was soon discovered that an easier method of effecting a more rapid and positive response was

simply to have more hostages. This destined the commandeering of passenger-carrying aircraft as a "natural" target for the demands of terrorists' groups as well as the selfish motives of some individuals and extortionists.

In relationship to other illicit acts the piracy of aircraft, or "skyjacking," is a comparatively recent phenomenon in the United States. The first officially recorded incident of air piracy transpired on a scheduled airliner bound from Miami, Florida to the Island of Key West in the Gulf of Mexico. On May 1, 1961, this usually inconspicuous flight quickly gained national prominence when it was diverted to Communist Cuba by coercive threats of violence. This was followed in the same year by four additional skyjackings, half of which were successful. (Success in this instance is measured in terms of arriving at a desired destination other than that pre-scheduled by the air carrier.)

The notoriety received by those initiating this type of criminal act increased the frequency with which skyjackings occurred. This, in turn, effectuated a compilation of pertinent correlative characteristics, prevalent in the majority of known skyjackers, which culminated in the formulation of a "profile" designed to detect potential perpetrators of this specific act of piracy. This profile consisted of four basic factors which are outlined in Table 1.

TABLE 1  
Skyjacker Profile

Designated Factor	Distinguishing Feature
Sex	Male
Age	25-55
Passage Preference	One-Way
Mode of Payment	Cash

Although not totally ineffectual, the profile failed to curtail the alarming increase in skyjacking. Consequently, the magnetometer, an electronic device designed to detect ferrous metals, was introduced. This, in conjunction with a newly developed program consisting of the placement of armed guards (Sky Marshals) aboard major flights, resulted in no discernible decrease in the number of skyjacking incidents. (Please refer to Appendix A for a recapitulation of skyjacking incidents which have transpired in the United States.)

Skyjacking appears to have evolved through three distinct metamorphic stages. The first of these was a consequence of politically motivated terroristic groups. The second was a result of individuals acting alone for emotionally disoriented personal reasons. The final stage appears to have been predicated upon the desire of certain

individuals to become independently wealthy by extorting large sums of money from the air carriers.

The exigency of this situation was soon realized when airline cost over-runs came into focus. Economics appear to have been a silent instigator in the decision making process. Although the reasons for the commandeering of aircraft vary, extortion obviously promulgated the most urgent response from the legislators.

### Bombings

The motives underlying the massive destruction and great loss of life associated with most explosions in airports and aboard aircraft are undoubtedly as varied as the number of explosions themselves. However, a brief analysis of the bombings which have occurred in the history of American aviation reveals an etiology not unlike that of skyjacking. Bombings, like skyjackings, have been plagued by three distinct categories of perpetrator.

The first of these can best be characterized by referring to the initial bombing which took place aboard an aircraft of U.S. registry. On November 1, 1955, John Gilbert Graham, selfishly took the lives of forty-four persons, including that of his own mother, in an effort to collect travel insurance policies issued in her name with him as the sole beneficiary.

The second category is typified by an individual whose behavior has become so maladaptive that he is

incapable of adjusting to the demands placed on him by his social environment.

The final category is the political terrorist whose unpopular cause and insignificant numbers incite him to employ this tactic in an endeavor to gain additional support and effect a positive response from agents of authority.

The paucity of actual bombings precludes the correlation of sufficient data relating to the formulation of a specific psychological profile as that delineated in Table 1. Although bombing offers advantages not present in other coercive acts of violence, (such as being in a remote location when the destruction transpires), it has been surmised that the difficulty in obtaining explosives has been responsible for the limited number of explosions which have occurred aboard aircraft and at airports.

#### Bomb Threats

Of equal importance is the fear of impending disaster created by bomb threats. In each instance the threat must be considered as hazardous as the stated threat. That is evidenced in the AIRPORT EMERGENCY PLAN for Houston Intercontinental Airport, which, in part, states:

E. After notifying the Airport Manager and the Operations Duty Officer of the bomb threat, the Airport Police Dispatcher will immediately notify the following agencies in the order shown below:

1. FBI (Federal Bureau of Investigation)

2. Houston Police Department
3. FAA Control Tower
4. FAA Security
5. Fire Stations 54 & 63
6. Director of Aviation

F. Airport Police Officers will conduct an intensive search of the public areas of the buildings concerned. Use of the explosives detection dogs, if available, will be maximized [Carey, (Director), 1974, p. 37].

Bomb threats require an immediate response from the participating agencies in a concerted effort to avert disaster. (Please refer to Appendix B, a summary of facts pertinent to aircraft bombings.)

#### Recent Regulatory Development

On October 15, 1966, Public Law 89670 established a new agency within the Executive Branch known as the Department of Transportation (DOT) which is directed by a Secretary of Transportation appointed by the President. Included within this departmental framework is the Federal Aviation Administration (FAA) which is directed by an appointee of the President who has been confirmed by the Senate. The FAA has been granted the authority to establish and maintain the management functions necessary to coordinate the endeavors of all aspects of aviation in the United States. As a consequence, aviation in America has been divided into two distinct classifications, both of which are controlled, in part, by the FAA.

The first of these is military aviation. This



includes all the required aircraft, support equipment, and facilities prescribed by the Department of Defense for all branches of the armed forces. The very nature of their objective precludes the necessity for an elaborate treatise of the security measures employed by this classification.

The second classification is civil aviation and includes all other aspects of air traffic activity. Civil aviation is, in itself, divided into two major categories: commercial aviation and general aviation (see Figure 1). General aviation is a composite of all aircraft operations that are not classified as commercial or military.

Commercial aviation is comprised of those operations by organizations or persons who have been granted the privilege of operating aircraft for the transportation of goods or passengers for compensation or hire. Foremost within this category are the certificated route air carriers.

#### Air Carriers

The term 'certificated-route-air-carrier' is utilized to refer to those airlines which have been issued certificates of public convenience and necessity by the Civil Aeronautics Board (CAB). The Board issues certificates of operation, predicated upon public need, permitting persons or organizations to engage in air transportation as a business. This general group of entrepreneurs includes the passenger/cargo and the all-cargo carrying aircraft and

DEPARTMENT OF TRANSPORTATION  
(Parent Organization)

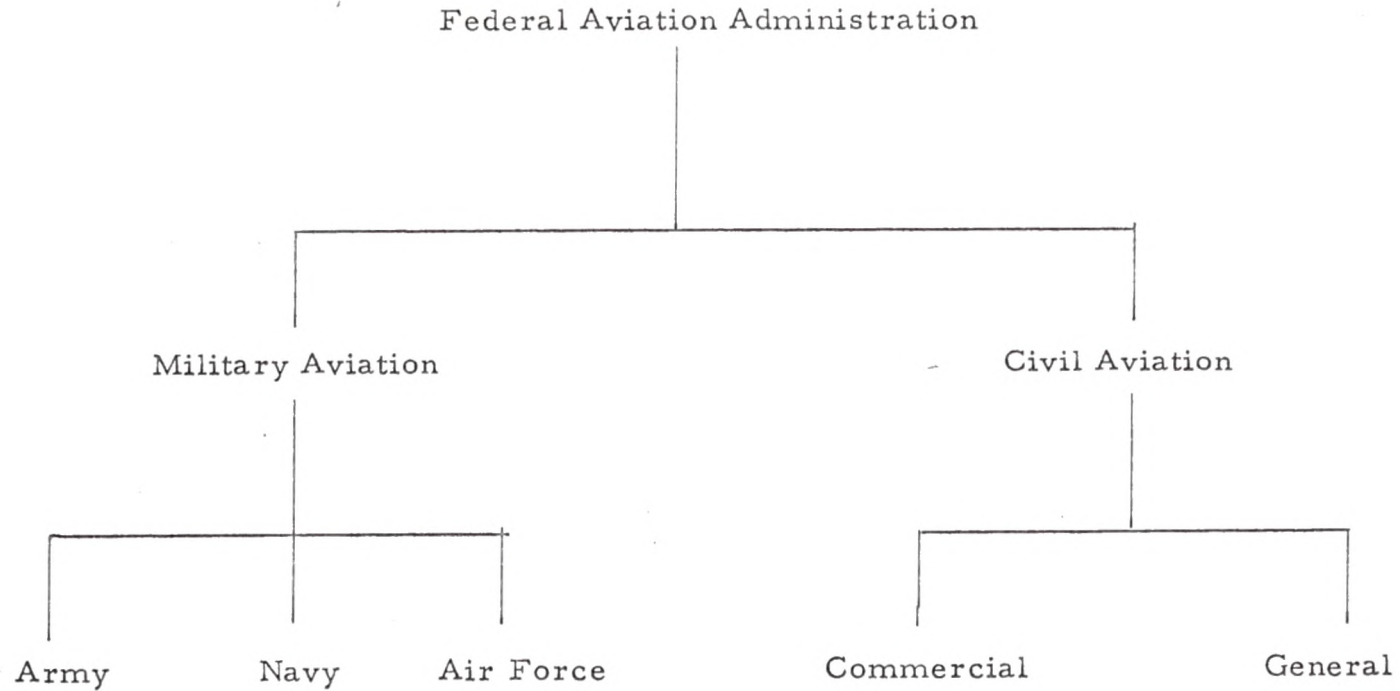


Figure 1 — Organizlational Structure: Federal Aviation Administration

encompasses all of the airlines certificated by the CAB. This entitles the airlines to perform scheduled air service over pre-designated routes in addition to a limited amount of non-scheduled air operations.

Certificated route air carriers are often referred to as 'scheduled airlines'. Scheduled service is air transport service operated over an air carrier's certificated routes, granted by the CAB, structured upon published schedules. Although air carriers occasionally perform non-scheduled air service, such as charter flights, the majority of their operations are based on published flight schedules.

At the present there are 37 air carriers operating within and between 48 contiguous states, Alaska, and Hawaii under the auspices of the CAB (see Table 2). In addition, there are 45 supplemental air carriers operating intrastate as granted by the aeronautical authorities of the individual states. In each instance the term 'air-carrier' is used to refer to those operators engaging in passenger/cargo revenue activities regardless of their official designation as certificated route air carrier or supplemental air carrier. The air carrier operations are the central focus of the FAA security measures outlined in Part 121 and Part 107 of the Federal Aviation Regulations (FAR). These stringent security measures were adopted as a consequence of the 60 attempted aircraft hijackings (44 of which were successful) which transpired between 1970

TABLE 2  
AIR CARRIER DESIGNATION SYMBOLS \*

<u>AIR CARRIER</u>	<u>NUMBER OF AIRCRAFT</u>	<u>DESIGNATION SYMBOL</u>
Air New England	unk	ANE
Alaska Airlines	51	ASA
Allegheny Airlines	102	AAA
Aloha Airlines	5	TSA
American Airlines	271	AAL
Aspen Airways	5	APN
Braniff Airways	70	BNF
Chicago Helicopter Airways	6	CHP
Continental Airlines	59	CAL
Delta Air Lines	181	DAL
Eastern Air Lines	239	EAL
Frontier Airlines	49	FAL
Hawaiian Airlines	14	HAL
Hughes Airwest	44	AWI
Kodiak Western Alaska Airlines	12	KWA
National Airlines	63	NAL
New York Airways	4	NYA
North Central Airlines	48	NCA
Northwest Airlines	109	NWA
Ozark Air Lines	44	OZA
Pan American World Airways	152	PAA
Piedmont Aviation	45	PAI
Reeve Aleutian Airways	14	RAA
SFO Helicopter Airlines	3	SFO
Southern Airways	32	SOU
Texas International Airlines	46	TXI
Trans World Airlines	244	TWA
United Air Lines	359	UAL
Western Air Lines	71	WAL
Wien Air Alaska	19	WAA
Wright Airlines	2	WRT

\* U. S. Registry only.

Source: FAA Statistical Handbook of Aviation

and 1972, as evidenced by the explanation in the preamble pursuant to FAR Part 107 which states:

Because of the recent alarming increase in hijacking, and the bomb threats and actual bombing of aircraft, the Administrator is of the opinion that an emergency requiring immediate action exists in respect of safety in air commerce. Accordingly, it is essential in the interest of safety in air commerce, particularly in air transportation, to meet this emergency by requiring airport operators to immediately adopt and put into use facilities and procedures designed to prevent or deter unauthorized access to air operations areas [FAR Part 107, 1972, p. 1].

#### FAR Part 121

The following is a synopsis of Part 121, Section 121.538 as pertains to the aircraft security requirements of certificate holders as described in Advisory Circular No. 121.17:

3. REQUIREMENTS. Section 121.538 requires that each air carrier as defined in Section 121.1(a) (1) or (2) and commercial operators engaging in intrastate common carriage covered by Section 121.7 to:
  - a. Adopt and put into use a screening system, acceptable to the Administrator, before 6 February 1972, that is designed to prevent or deter the carriage of explosive or incendiary devices or weapons aboard aircraft in carry-on baggage or on or about the persons of passengers (except as provided in Section 121.585).
  - b. Immediately (9 March 1972) adopt and put into use security program.
  - c. Prepare in writing and submit for approval by the Administrator its security program including a passenger and carry-on baggage screening system and showing the procedures, facilities, or a combination thereof, that it uses or intends to use to support the program and that are designed to:
    - (1) Prevent or deter unauthorized access to its

aircraft;

- (2) Assure that baggage is checked in by a responsible agent or representative of the certificate holder;
- (3) Prevent cargo and checked baggage from being loaded aboard its aircraft unless handled in accordance with certificate holder's procedures; and
- (4) Notify the FAA Administrator upon receipt of information that an act or suspected act of aircraft piracy has been committed [FAR, AC 121.7, 1972, p. 2, para 4].

#### FAR Part 107

Part 107 was adopted 16 March 1972 to become effective 18 March 1972. The principle aspect of this regulation was to promulgate specific security standards for operators of airports serving scheduled air carriers. It authorized the formulation and implementation of regulations required to protect air carriers holding certificates of public convenience and necessity as issued by the CAB and those defined in Part 121.7 as engaging in intrastate common carriage. Part 107, as presented in part below, is specifically directed to the operators of airports serving the air carriers listed in Table 2.

For purposes of this Part 107, "law enforcement officer" means an armed person-

- (1) Authorized to carry and use firearms;
- (2) Vested with a police power of arrest under Federal, State or other political subdivision authority;
- (3) Identifiable by uniform, badge, or other indicia

of authority; and

- (4) Assigned the duty of providing law enforcement support for the pre-boarding screening aspects of the security programs filed by Part 121 certificate holders, foreign air carriers requesting such support, and for airport security programs.

As continued in Part 107.4 entitled LAW ENFORCEMENT OFFICERS:

- (1) Each airport operator shall, not later than January 6, 1973, submit for approval by the Administrator an amendment to the master security plan included in its security program that sets forth facilities and procedures which ensure that as soon as possible, but in no event later than February 6, 1973-
  - (a) At least one law enforcement officer is present at the point of, and prior to and throughout, the final passenger screening process prior to boarding, for each flight conducted by a certificate holder required to have a security program under Part 121.538 of this chapter, and by each foreign air carrier that requests such law enforcement support;
  - (b) The law enforcement officer is present continuously until all doors on the aircraft being boarded are closed and the aircraft has taxied away from the boarding area; and
  - (c) The requirements of paragraphs (a) and (b) of this section are complied with in the event that the aircraft returns to the boarding area before takeoff [FAR, Part 107, 1973, p. 1].

As of January 5, 1973, FAR Part 107 was amended to include the following:

The certificate holder shall not permit any passenger to board the aircraft unless:

- (A) The carry-on baggage items are inspected to detect weapons, explosives, or other dangerous objects and
- (B) Each passenger is cleared by a detection device without indication of unaccounted for metal on



his/her person--hand-held detection may be used until walk-through units are available, or

- (C) In the absence of a detector, each passenger has submitted to a consent search prior to boarding [FAR, Part 107-4, 1973, p. 3].

Sophisticated technological advances such as the magnetometer and x-ray units have been adopted by the airport operators to expedite the security measures delineated in the FARs.

### Responsibility Delineation

#### Airport Operators

Airport operators are defined as those political entities conducting the activities of a civil air terminal in addition to being in control of the surrounding civil air operations area. Of the 405 airports in the United States serving recognized air carriers, all but two are located within the jurisdictional confines of an established political community of county proportions or smaller. This delineates the decisive responsibility for political (administrative), economic, and most regulatory functions to the community in which the facility is located. As a consequence of this, the prerogatives exercised in directing the activities at an airport are proportionately influenced by the community leaders. This manifests itself in a bifurcated situation which precludes the selection of law enforcement personnel predicated upon two distinct factors.

The first of these is the fact that a coordinated



effort is required for the safe and courteous movement of aircraft and people from one distinct political community to another with a minimum of conflict. It is imperative that the anticipations regarding behavioral expectations be homogeneous between the various airport locations. The accomplishment of this has required the compilation of law enforcement techniques specifically formulated to harmonize these variable circumstantial characteristics.

The second distinct factor can be explained in terms of legal restraints required to facilitate the most desirable and orderly behavior of those persons whose presence is required to implement the various other activities needed to place in motion such a divergent business conglomerate. These proscriptions are invariably a reflection of local community influences as evidenced by the numerous city ordinances enacted by most municipalities. In effecting these formal regulations it is imperative that precise individual discretion be utilized so as to harmonize these endeavors without obfuscating the overall objective assigned to an airport.

#### Encapsulated Community

Airports are unique in that they provide a service which necessitates the interaction of persons encompassing the entire socio-economic spectrum. Because of the vast numbers of diverse cultural entities utilizing the facilities

of an airport it is imperative that the regulatory mechanisms incorporate their specific ethnicities. In addition, authoritative procedures directed toward subjugating the supportive services required to properly operationalize a transportation facility must be subsumed within the general framework of control.

Because of the various designs of the individual physical plant structures, each airport is governed by a separate set of rules unlike those of the area in which it is located. In an endeavor to expedite the activities required to service the needs of the air carriers and their patrons, laws pertinent only to an airport must be developed.

To this must be added the problem of general security required to protect the many millions of dollars of aircraft and related equipment using the facilities at an airport. In each of these specific services it must be provided by the airport police. In conjunction with the service function it is imperative to develop investigative techniques and regulatory requirements specifically designed to cope with overt acts of criminal behavior found only at airports. This is demonstrated by the preamble to the City of Houston Ordinance No. 57-116 which states:

An ordinance regulating the use, operation and maintenance of the Houston International Airport; prescribing the definition of terms used in the regulation; prescribing the rules for the general use, operation and maintenance of said airport; prescribing

the rules for the use of motor vehicles at said airport; prescribing the rules for fire safety and the elimination and prevention of fires and fire hazards; prescribing rules for operation of aircraft; prescribing rules for aircraft refueling and defueling; containing a severability clause; providing a penalty; containing a repealing clause; and declaring an emergency [City of Hou., Ord. No. 57-116, 1957].

This relegates airport security operations to a position unique among law enforcement agencies. Because so many of their functions are situational in context, airport police are unable to be cast from the traditional mold of either a police agency or an industrial security agency.

#### Role Definition

Not until the formulation and implementation of FAR Part 107 did most airport security agencies have a specified function designation. They were often surrogate to local police departments and considered an unimportant segment of the law enforcement community. As a consequence of this FAR airport operators serving the air carriers found that they needed to convert a low profile security force into a highly sophisticated, well-organized police agency designed to halt the increasing incidents of skyjacking.

Most police agencies, like so many other bureaucratic organizations, are opposed to rapid alterations of established methods of procedure. In this respect it is most admirable that those entities, whose specific function

is the security of our nation's airports, not only altered their policies but implemented these changes with a minimum of difficulty. Traditional structures were not only questioned, but were modified to comply with changes required by Part 107.

### Decentralization

Being cognizant of the fact that all human behavior is a manifestation of the pressures exerted on the individual by his milieu (Dragun & Phillips, 1971) the FAA designed Part 107 using general terms. This allowed each airport operator to initiate the compulsory regulations while simultaneously retaining the autonomy needed to satisfy the needs of the numerous heterogeneous communities.

A brief analysis of the required conditions outlined in Part 107 exemplify these facts: (1) Local laws were given the support of the F.A.A.; (2) The selection and training of the personnel to be peace officers were left to the discretion of the commissioning authority; (3) The political entity responsible for the administration of the airport was afforded the opportunity to design the organizational structure in a manner consistent with the demeanor of the community. Figure 2 is the organizational chart for the Airport Police commissioned by the City of Houston which will be the object of this study. This is evidenced by House Bill No. 82 contained in Vernon's Annotated Civil Statutes, Article 46G:

CITY OF HOUSTON AIRPORT POLICE

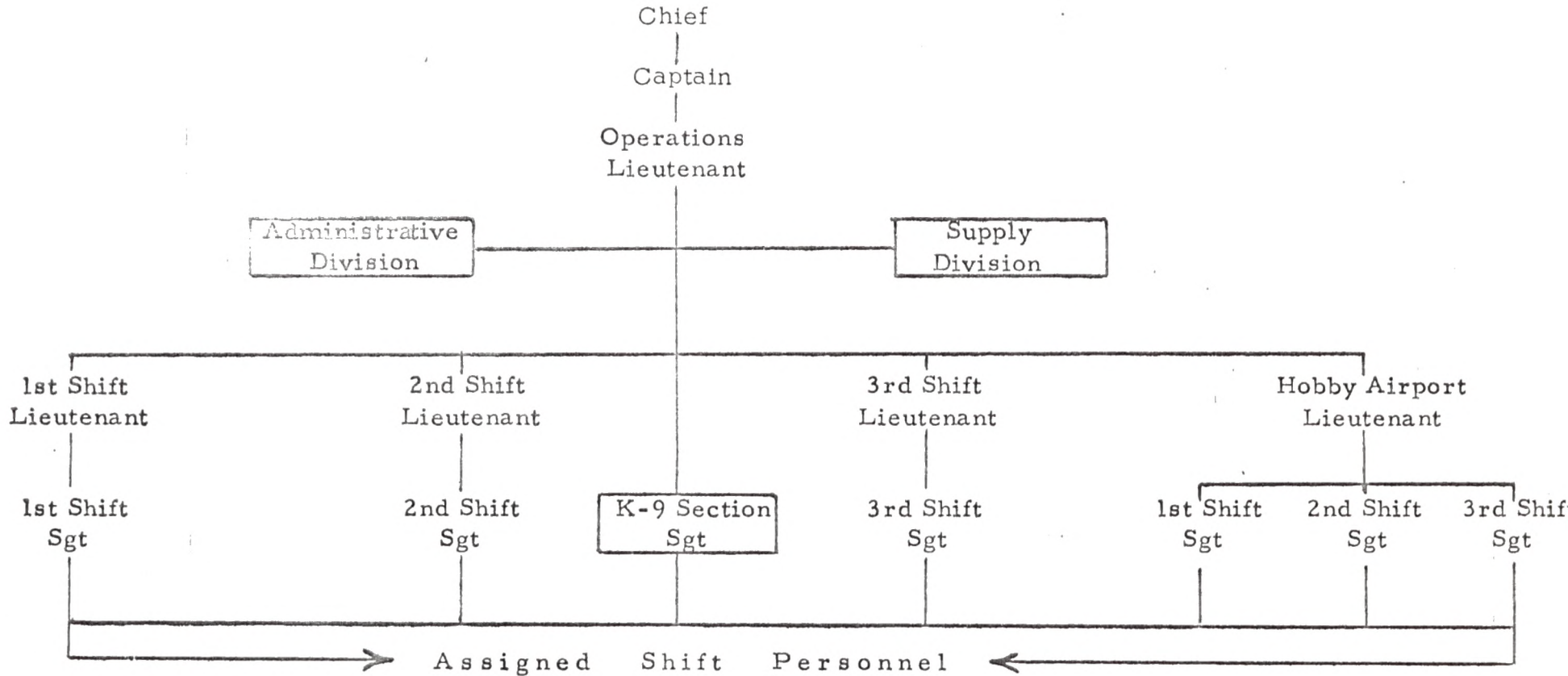


Figure 2

Organizational Chart - City of Houston Airport Police

Be it enacted by the Legislature of the State of Texas:

Section 1.

(a) The governing body of any political subdivision of this state that operates an airport served by a Civil Aeronautics Board certificated air carrier may establish an airport security force and employ airport security personnel.

(b) A governing body may commission any employee of an airport security force established under this Act as a peace officer if he is certified as qualified to be a peace officer by the Commission on Law Enforcement Standards and Education.

(c) Any person commissioned as a peace officer under this Act shall give an oath and such bond for the faithful performance of his duties as the governing body may require. The bond shall be approved by the governing body and made payable to the political subdivision that operates the airport. It shall be filed with the governing body.

(d) Any peace officer commissioned under this Act shall be vested with all the rights, privileges, obligations, and duties of any other peace officer in this state while he is on the property under the control of the airport [State of Texas, H.B. 82, 1973].

Statement of the Problem

The expeditious and efficient implementation of FAR's, in conjunction with local legal restraints is the central focus promulgating the need for this study. The increased responsibilities delegated to airport police officers as a consequence of the protective measures recently initiated by the Federal Government have generated a greater need for more highly qualified persons in this profession.

The purpose for this specific inquiry is an endeavor

to formulate a descriptive profile of a person whose individual characteristics are conducive to the ultimate in performance regarding the judicious utilization of available knowledge and training culminating in a professional application of the regulatory and service functions.

Although this study is confined primarily to the aviation facilities operated by the City of Houston it is felt that it possesses universal applicability to the current situation being experienced throughout the United States as a consequence of legislation recently developed by the Federal Government.

#### Significance of the Study

This study has attempted to delineate, classify, and categorize those specific variables considered most important in predicting the performance, longevity, and overall success of sworn airport police personnel. It proposes to be a body of knowledge culminating in a valid method of selecting airport police officers. Additionally, it is a specific psychological, social and actual physical description of a person whose individual traits are considered most adaptable to a career as an airport police officer and considered necessary for the achievement of optimum productivity in this capacity.



### Methods and Procedures

This study was conducted by correlating responses to questionnaires and recorded demographic factors of all past and present airport police officers who have been employed by the City of Houston. In addition, a survey of the nation's forty leading airports was taken using thirty-two questions comprising seven categories in an attempt to determine any existing affiliations. This served a two-fold function: (1) It was utilized to determine the importance assigned to the FARs by the individual airport operators; (2) It was used to ascertain the possibility of developing a standard, incorporating similar desirable characteristics, capable of being utilized on a national scale.

A survey of enplaning passengers was conducted at both Houston airports by The Engineers of the Southwest. Findings derived from this survey were applied to this thesis in anticipation of discovering common characteristics of persons using airports. These results were further correlated in an endeavor to provide a possible clarification of a proposed research inquiry regarding the placement of the primary role requirements of the airport police on the service function.



## CHAPTER II

### LITERATURE REVIEW

This review of pertinent literature is an endeavor to draw upon the knowledge of those scholars whose past efforts have partially filled a void created by inevitable change. This procedure will attempt to analyze and catalogue all available information to justify and emphasize the need for the material contained within this thesis.

Three specific areas of interest will be reviewed in an attempt to determine the critical need for precision regarding the formulation and implementation of specific personnel appraisal and selection criteria which will culminate in the prediction of which candidates will become successful law enforcement officers. For analytical purposes, success as herein applied will be defined and measured, in part, by indices such as: length of service, absence of official disciplinary actions, promotional accomplishments, etc.

The first of these areas will concentrate on the contemporary exigency for a superior methodological approach in the quest for qualified persons to apply for and enter this challenging and rewarding professional career field. This is to be predicated upon an expansion of the usual procedures of selecting police officers by investigating the applicability of behavioral characteristics logically

and empirically interpreted from recorded demographic factors.

The second area of exploration will focus upon those social-psychological factors believed to be influential in governing the behavior of police officers and the recipients of their discretionary behavior. Its purpose will be an attempt to integrate these relationships into the selection process.

The third and final area will deal with some aspects of supervision. Traditionally, promotions in the field of law enforcement are made from within the ranks (Bopp, 1974). As a consequence, administrative concepts regarding the most desirable characteristics of supervisors will also be examined to ascertain whether or not these factors can be incorporated into the selection criterion without detracting from the significance of the originally intended purpose of personnel assessment and selection.

#### Recognizing the Problems

As evidenced by the President's Commission on Law Enforcement and Administration of Justice (1967), (herein after cited as 'The President's Commission'), the public is constantly demanding more appropriate police services both in controlling crime and maintaining order. Accordingly, these demands have not been adequately met for two reasons-- symbiotic in nature--which have culminated in a general shortage of police officers.

The President's Commission (1967) clearly states that in the span of only a single year as many as 50,000 new officers may be needed as a consequence of municipal expansion and normal attrition consisting of retirement, resignations, deaths, dismissals, etc. This has resulted in the majority of large-city police agencies being an average of 10 percent below desired quotas.

The second reason stems from the increasing complexities inherent in modern policing which requires a progressively higher degree of intelligence, education, emotional stability and balanced social attitudes (Morris and Hawkins, 1969). While the need for applicants with these qualities is apparent, the process of selection is being inhibited by outmoded policy. Although law enforcement has been diligently striving to improve and refine the selection process by emulating techniques utilized by business and industry, there remains a serious void. It is imperative that selection standards to counter this dilemma be significantly raised for reasons such as those expressed by the President's Commission (1967) which states:

The raising of standards, however, should actually have the overall effect of attracting more and better candidates by bolstering the prestige of police service. There are many able and young men who will be willing and even eager to enter police work if police departments offered professional opportunities [The President's Commission, 1967a, p. 133].

The President's Commission clearly indicates that the universal problem confronting the current personnel need is

improved quality.

Although paradoxical in scope, it is imperative that the requirements be elevated even though the majority of departments are below authorized strength. By raising the standards it is assumed that fewer persons will be available by virtue of the fact that fewer persons will be qualified. In retrospect to this, the President's Commission (1967) discovered two important facts: (1) High quality personnel substantially outperform those selected by traditional methods; (2) Those departments that have raised their standards have no difficulty in attracting or retaining personnel because of the prestige associated with working in such departments. Whisenand (1971) states that the commitment to the organization and the subsequent performance are directly proportional to the degree of selectivity.

The number of persons applying for the position of police officer is not the source of the problem since only a small percentage of the applicants are selected (O'Conner, 1962). The basic problem then is the selection of officers who have the potential to perform the ever-increasing complex functions demanded by the community.

Predicated upon these facts, the issue becomes one of being able to adequately attract suitable applicants and then predict success on the merits of the selection process.

### Selection Standards

The selection process which appears to be gaining popularity toward predicting success among police candidates is that which incorporates psychological testing. The President's Commission (1967) states:

Psychological tests, such as the MMPI, and interviews to determine emotional stability should be conducted by all departments [The President's Commission, 1967a, p. 129].

It further states that the primary function served by the administration of such tests is to screen out those considered as unfit for police service. With the exception of physical requirements, the existing selection procedures in the majority of departments fail to screen out the incompetent.

In their recapitulation of the standard recruitment policies the Eastmans (1971) emphasized that the rigidity frequently associated with the selection process should be evaluated from the standpoint of being a detriment to the recruitment of exceptional personnel. According to Levy (1973) requirements such as age, height, residence, visual acuity, etc., should be waived and the primary emphasis placed on the educational background, character and personality of the applicant.

When considering the alteration of the established police employment practices, numerous problems associated

with personnel selection revolve around the proposed disenfranchisement of nepotism--often the subject of political abuse in small rural departments. To this Kaplan replies:

The police must adapt themselves to the rapid changes in patterns of behavior that are taking place in America. This is a time when traditional ideas and institutions are being challenged with increasing insistence [Kaplan, 1973, p. 141].

Considering that an overwhelming majority of police agencies are serving divisional jurisdictional confines of small townships, villages, boroughs, and special districts (see Table 3) it is little wonder that recruitment standards have been slow to evolve (Clark, 1974).

TABLE 3

Full Time Police Officers  
(By Jurisdiction 1973)

Agencies	Number	% of Total	Personnel (full-time)	% of Total
Federal	50	00.1	64,000	11.0
State	200	00.5	82,000	14.2
Cities*	56	00.1	160,000	27.8
County	3,044	07.3		
Cities**	4,443	10.6	270,000	46.9
<u>Other***</u>	<u>34,207</u>	<u>81.4</u>		
TOTALS:	42,000	100.0	576,000	100.0

\*Cities with population of 250,000 and over

\*\*Cities with population of 2,500 to 250,000

\*\*\*Towns, Boroughs, Villages, and Special Districts

Source: AMERICAN ALMANAC (1976)

The idea of changing and conforming to specific criteria established by a federal or state agency is thought to threaten the stringently guarded autonomy of these departments. In 1532, Machiavelli wrote:

It must be considered that there is nothing more difficult to carry out, nor more doubtful of success, nor more dangerous to handle than to initiate a new order of things. For the innovator has enemies in all those who would profit by the old order and only luke-warm defenders in all those who would profit by the new order ... [Machiavelli (Ricci, Translator), 1955, p. 55].

Although most individual state commissions have made substantial gains regarding the required peace officer training, they have merely touched the periphery of personnel selection. This is evidenced by a cursory review of the rules and regulations published by the State of Texas relating to law enforcement officer standards and education, which, in part, state:

2. Each and every officer must satisfactorily complete the prescribed Basic Course within a one-year period from the date of his original appointment, or shall forfeit his position as a peace officer and shall be removed therefrom [TCLEOSE, 1972, Sec 1005].

In reference to selection, The Texas Commission on Law Enforcement Officer Standards and Education, the QUARTERLY NEWSLETTER AND TRAINING CALENDER, includes:

Entry Level Selection -

In July, 1975, Field Services Division received a grant from the Criminal Justice Division of the Governor's Office to develop, and validate, a testing program for an "Entry Level Selection Process" to be used for prospective future police officers.



... "An Entry Level Selection Process" will be administered by Commission personnel, free of charge, on a request basis, to any Texas Municipal Police Departments wishing to use this validated selection process [TCLEOSE, Mar., 1976, p. 3].

As is evidenced by these publications, training is mandatory, whereas the selection of prospective future police officers is solely a matter for the individual municipal police agency.

### Job Analysis

Most fundamental in the recruitment process is an alignment of those characteristics considered essential in the meritorious performance of the duties assigned to the police. Lefkowitz (1971) declares that police agencies, although often reluctant to do so, need to develop a systematic job analysis. Smith and Stotland (1973), relate the importance of looking directly and clearly at the role for which the police are selected and then working back from this role to ascertain the most important characteristics needed in police recruits. By specifically delineating the duties to be performed, the qualities required for these duties can be formulated and integrated into the selection procedures.

Indigenous to each job analysis, to be utilized in the formulation of selection standards, must be the consideration of a displayed personal demeanor not less than exemplary (Law Enforcement Code of Ethics). This is to assure the presence of an intrinsic controlling influence necessitated



by the inherent responsibilities delegated to all peace officers by the virtue of having the power to restrict personal freedom; and having the power of life and death. This further emphasizes the need for the application of the behavioral sciences in the development and formulation of characteristics considered paramount in all peace officers.

### Behavioral Characteristics

In applying the behavioral sciences to the assessment process Lefkowitz (1973) explained that the issue to be considered foremost is whether or not a typical "police personality" actually exists. In reference to this, Trojanowicz (1973) states:

Occupational personalities tend to be most sharply differentiated in the professions; and over a period of time every profession develops a common set of beliefs, values, attitudes, and working styles which tend to characterize members of that profession [Trojanowicz, 1974, p. 145].

Levy (1973), alters this somewhat by suggesting that the so-called successful policemen vary from city to city. In keeping with this theme Clark (1971), equates the police subculture with the social structure present in the different communities.

In the event that policemen can be classified as a specific homogeneous group, then identification techniques would be easy to derive, and would culminate in an easily identifiable "packaged" entity.

By utilizing the behavioral characteristics as a predictor of performance it is possible to avoid the many difficulties--such as reliance upon bounded nosological labels often substituted for an explanation of marginal behavior--which occur when the pathology of the individual is measured.

Thomas and Znaniecki (1927), were among the first to conceive personality development as contingent upon interaction between the individual and his sociocultural environment. Behavioral characteristics should, therefore, be considered essential and determined during the traditional background check. The President's Commission (1967) states:

If properly conducted a background investigation can provide invaluable information on the character of the applicant ... Since background investigations are expensive, if properly conducted, they should be restricted to those who otherwise have qualified [The President's Commission, 1967a, p. 45].

Adding further importance to this, Schrag (1971) states that the pressures exerted upon the individual by a pluralistic culture determine standards of conduct which can not be realistically investigated without considering his social and cultural milieu.

In evaluating the credibility and the necessity of the application of behavioral characteristics to the selection process, this investigation consulted many postulated sociological theories which concordantly stated that the social system within which the individual interacts is the primary determining factor relevant to his anticipated reactions to

society.

### Social Psychological Factors

According to Freedman, Carlsmith and Sears (1970), man is gregarious, at first by necessity and then by the desire for need fulfillment, especially during the early years. As a consequence of this, man learns through the process of operant conditioning, to satisfy his needs by affiliating with others (Skinner, 1969). In conjunction with this, Bopp (1974) declares that man needs love, appreciation, respect, comfort, and oftentimes power. Because of the vast divisions of labor experienced in an advanced society such as ours, Turner (1971) emphasizes the necessity to interact with others in order to achieve these needs. It is this interaction that is delineated and described by social psychology.

An example of this is the 'maladjustment thesis' which explains that conformity to the group, regardless of the amount of deviancy, is a necessity for the members of the group (Foreman, 1971). Reactions to groups, whether they are known or unknown to the individual, are explained by social psychology. By a careful examination of the individual's primary group it is possible to determine characteristics of the police applicant. Tailoring selection standards to enhance communications with groups is imperative.

Additionally this discipline helps define those

characteristics considered essential to the development of leadership--a most important concept for a peace officer--both in terms of controlling adverse situations and in terms of future promotions.

### Supervisory Considerations

The need to influence others is a characteristic inherent within the police function. This need is partially fulfilled by the authority vested in the status accompanying the position of 'peace officer'. However, partial fulfillment is not sufficient either from the standpoint of controlling breaches of the peace or organizational effectiveness.

In the first instance the broad range of social issues makes it most important to guard against the development of an authoritarian personality (Johnson, 1974). This is to assure that a person will not usurp the stated authority in the formal position. Conversely, it is imperative that the individual be able to expand and alter the methods of exercising positional authority (discretion) as the situation demands.

Secondly, organizational effectiveness is most often accomplished by fulfillment of stated objectives--a primary function of supervision (Whisenand, 1971). The President's Commission (1967) emphasizes that effectiveness diminishes as a consequence of the absence of adequate leadership. Clark (1971) states that:

Administrative skills in police departments can increase effective manpower by more than all the additional patrolmen likely to be provided over a period of several years [Clark, 1971, p. 116].

Whisenand (1971) delineates the difference between leadership and supervision and concludes that leadership is not a quality specifically reserved for a supervisory position and can be found existing actively without a formally designated position.

In describing assessible traits, Freedman, et al. (1971) conclude that leaders usually are more active, better able to communicate, generally more assertive, and do not differ from the group they lead. To these Whisenand (1971) adds as necessary elements: (1) A degree of salesmanship (persuasion), (2) the ability to listen, and (3) the ability to follow.

### Knowledge Implementation

Having established a critical need for the utilization of the behavioral sciences in the personnel assessment process it now becomes a question of their proper implementation through developed techniques.

Biographical data supplying the necessary demographic factors, as used by Lieren (1973) in his endeavor to determine significant relationships regarding the selection of deputy marshals in Los Angeles County, appears to be the most viable research method for this study. Although Smith and Stotland (1973) feel that retrospective

studies based on personnel files have not been successful, Marsh (1962) demonstrated the predictive usefulness of established behavioral characteristics gleaned from recorded demographic factors. In predicting the job performance of law enforcement officers, Snibbe, Azen, Montgomery, and Marsh (1973) successfully integrated biographical variables into the basic formula.

#### Ancillary Anticipations

Reasons for this review also included an endeavor to locate factors to be applied in the possible development of a typology concentrated in identifying etiological factors culminating in a predictive formula surrounding the reasons why officers leave during the early part of their career. The paucity of available literature in this area is conclusive evidence of the need for this study.

#### Conclusions

Conceding that: (1) all behavior is a manifestation of the pressures exerted upon the individual by his milieu, and (2) that a prerequisite for enforcing laws and maintaining order is predicated upon group manipulation, and (3) that supervision is a function concerning groups; it becomes more than a perfunctory duty to incorporate the previously described characteristics into the selection criteria.

## CHAPTER III

### THE STUDY SITE (A Descriptive Profile)

The organization and administration of the Department of Aviation is specifically structured so as to exclude the possibility of uninterrupted service to the community. Each phase of the operation consists of procedural guidelines eliminating the autonomous dependency upon any single element within the system. The accelerated evolution inherent in the aircraft industry requires that all aspects be programmed for easy alteration and expansion with a minimum period of transition. This was recognized over a decade ago by the Federal Aviation Administration and was acted upon accordingly.

In 1961 the System Analysis Research Corporation, Commissioned by the City of Houston, acting under the auspices of the FAA submitted findings indicating the need for the City of Houston to supplement their Aviation Department with a new airport in order to provide adequate facilities for the projected increase in demand for air service.

Table 4 consists of the anticipated gains in aircraft operations by type of service. Column one is the year anticipated for the growth. Every column thereafter contains the projected figures for that classification indicated by the column heading.

TABLE 4

## NUMBER OF OPERATIONS BY TYPE OF SERVICE

## HOBBY AIRPORT

Year	General Aviation	Air Carrier	Air Taxi	Military	Total
1972	219,780	10,506	1,310	2,517	234,113
1975	282,811	13,857	1,714	2,600	301,000
1985	472,942	13,463	2,995	2,600	492,000

Source: PRELIMINARY ENVIRONMENTAL IMPACT: Background Studies

## HOUSTON INTERCONTINENTAL AIRPORT

Year	General Aviation	Air Carrier	Air Taxi	Military	Total
1972	25,463	131,566	21,425	467	178,921
1975	39,653	117,879	34,909	512	192,953
1985	130,596	326,490	Not Available	Not Available	465,001

Source: PLAN OF DEVELOPMENT - SECOND STAGE: Engineer of the Southwest



In response to this a master plan for Houston's Aviation Department was developed which included a new airport specifically designed to accommodate scheduled airlines. On June 8, 1969, Houston Intercontinental Airport (IAH) became operational at which time all air carrier traffic was transferred to the new facility.

#### Current Structure

The Greater Houston Metropolitan Area has two airports that are operated under the direction of the City of Houston Aviation Department in compliance with FAA standards and regulations. Houston Intercontinental Airport serves as the City's major airport for certificated-air-carrier service and handles 95 percent of Houston's domestic air carrier traffic and all of the international air carrier flights.

William P. Hobby Airport serves as the City's principal general aviation airport and although some commercial air carrier service is offered, it is confined to intrastate travel.

#### Aviation Department Administration

The Aviation Department is under the astute surveillance of the Director of Aviation who is appointed by the Mayor and confirmed by the City Council. He has the requisite authority and the ultimate responsibility for all activities pertinent to aircraft and airport

operations. His immediate staff is composed of seven administrative assistants who conduct diverse activities of a highly technical nature. At each end of the spectrum are the managers of Houston Intercontinental and Hobby Airports. (See Figure 3 for an organizational chart of the Aviation Department.)

### Houston Intercontinental Airport

Historical highlights. A response to the Federal Government's prediction of the 1950's regarding the projected growth of Houston in conjunction with the anticipated expansion of air travel, culminated in the development and construction of Houston Intercontinental Airport (IAH). June 8, 1969, marked the official opening and dedication of the new airport which had been in the planning stages of the Aviation Committee of the Chamber of Commerce since the initial Federal recommendation.

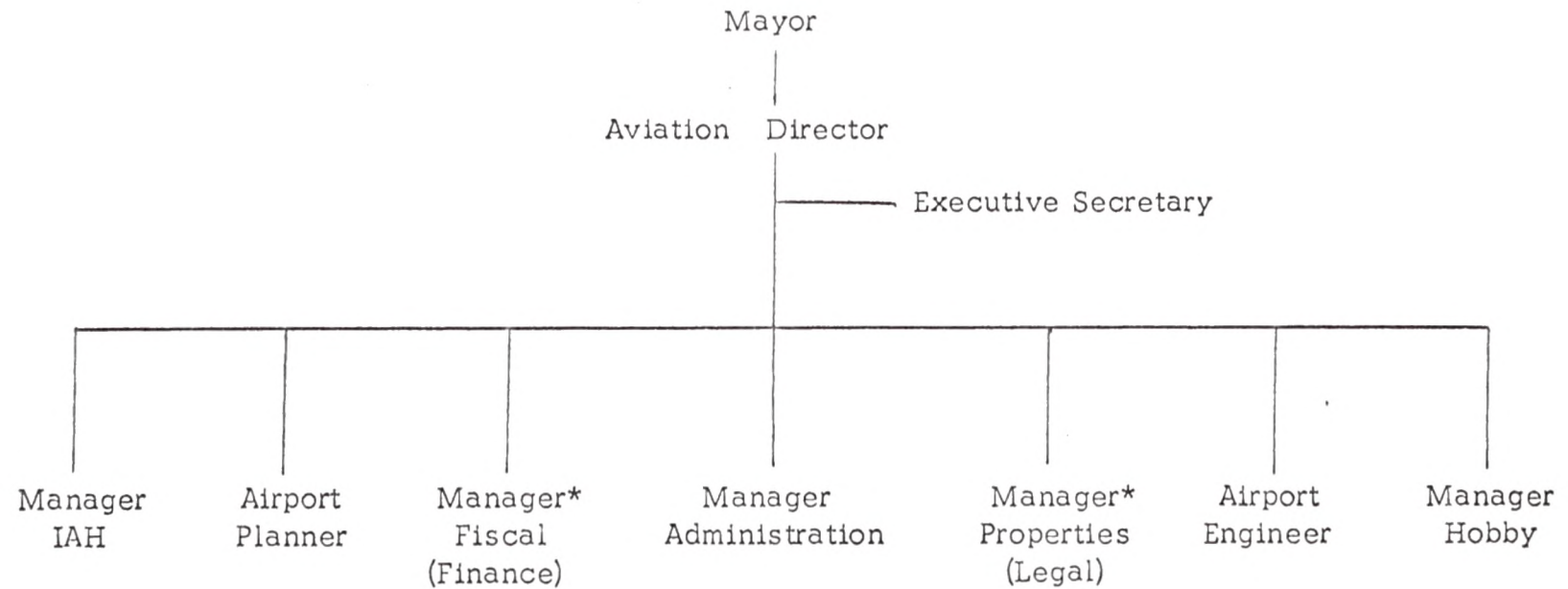
In 1960 the City of Houston authorized the initial developmental planning and purchased 3,000 acres of land from the Jet Era Ranch Company. This was a holding company of eighteen prominent citizens whose objective was the acquisition of a site amendable to the ultimate in growth potential and certification by the FAA. This included an area in which additional land was readily available in the event of expansion.

Following the necessary trend to expand Jetero

CITY OF HOUSTON

AVIATION DEPARTMENT  
(Administrative Staff)

ORGANIZATIONAL CHART



\* Authorized to act as Director Pro Tem

Figure 3

Airport, as it had come to be known, quickly grew to 7,300 acres by 1964. It was at this time that the idea of development-by-stages, designed to coordinate with the growth pattern of the community, was conceived.

Location. Houston Intercontinental Airport is located in the extreme northern portion of the City of Houston approximately 17 miles from the central business district. Situated between multi-lane highways IH 45 and US Highway 59, which are connected by North Belt, the airport is easily accessible from all surrounding areas. Bounded on the north by undeveloped farm land, on the east by Lee Road, on the South by Greens Road and on the west by Aldine-Westfield Road (see Appendix E for a map of the vicinity).

Administration. The management of Houston Intercontinental Airport emulates that of a complex industrial facility. Operating under the guidance of the aviation director, the airport manager assumes the responsibility for the operation of the entire facility. This manifests itself into a bureaucratic structure with commensurate authority delegated to various section leaders. Each position is responsible to the airport manager for the efficient coordination of assigned personnel. (See Figure 4 for the Organizational Chart of IAH.)

Physical Plant Structure. From its inception IAH was developed and designed with a single-minded theme of

## ORGANIZATIONAL CHART

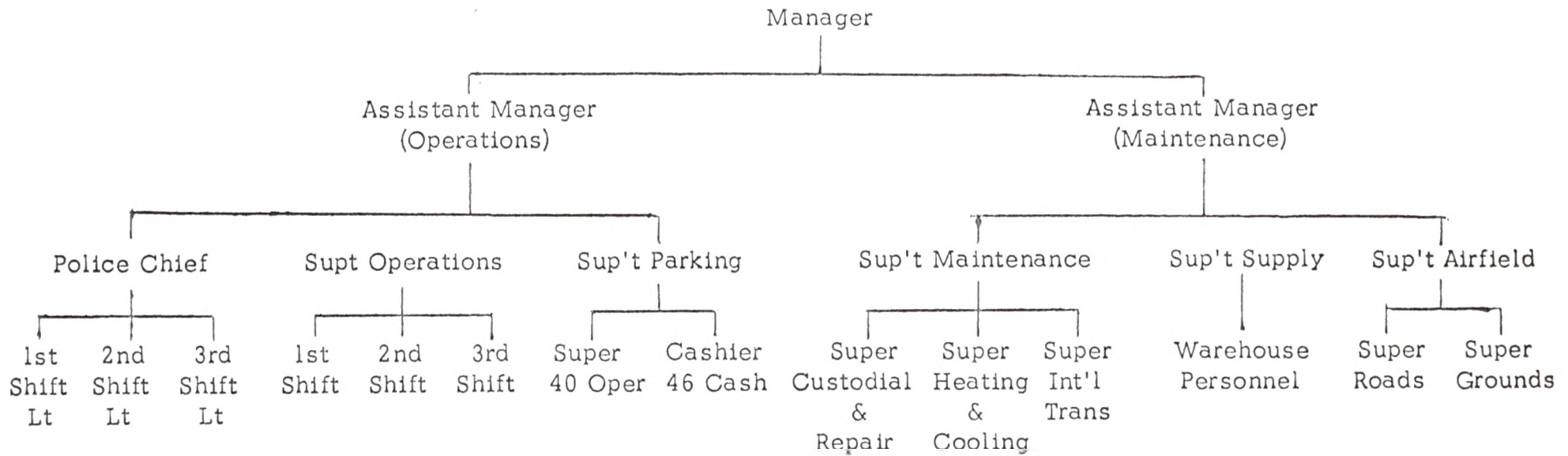


Figure 4

comfort and convenience for those using the airport's facilities. This manifested itself into two unique design concepts, the first of which was the unit terminal concept.

The unit terminal is a self contained module consisting of four flight stations emanating 300 feet from the corners of a square four-level structure. Each flight station is capable of accommodating five aircraft simultaneously. Each terminal is a separate entity and provides all vital airport services independently of other terminals. Currently there are two existing terminals of the four that are planned. Each provides covered parking for 750 cars. Also provided are such conveniences as car rental companies, barber shop, news stand, and gift shop in addition to adequate dining facilities. These form the periphery of a spacious one acre lobby area designed for the easy access and movement of passengers without interfering with those waiting for connecting flights.

Each terminal has six different entrance/exit points, one on each side, covered valet parking above, and the electronic train below. The underground train connects the terminals, the Host Hotel, and ground level parking areas between the terminals. The fact that all vehicular traffic moves in a counter-clockwise direction facilitates less confusion by virtue of less congestion. The idea of

multiple directional movement separates vehicles and pedestrian traffic resulting in greater passenger safety.

The second innovative concept has been termed as the linear expansion concept. This provides for expanding the existing facilities by constructing a new unit terminal as community growth demands. Because the planning stages included additional units, it requires only a minimum of coordination and time to phase a unit terminal into the existing layout without excessive cost.

Aircraft Operating Area. Heralded by many as the leader among worldwide centers of aviation service the nation's sixth largest city is understandably proud of its \$120 million Intercontinental Airport. Within its current confines of 9,600 acres of varied terrain, Houston Intercontinental boasts of two independent runways capable of accommodating the most advanced super-jet aircraft. Both runways currently provide for twenty-four, all-weather simultaneous operation of arriving and departing aircraft. The ten major scheduled air-carriers, in addition to corporate aircraft and cargo haulers using IAH, provides sufficient evidence for the value of these facilities.

The Houston concept of expansion also included plans for additional parallel runways when needed. High speed taxiway turn-off points guarantee a minimum of time required to reach the flight stations following touch-down, thereby facilitating greater passenger convenience.

Support Facilities. Situated between these runways at the northernmost end of it is Houston Fire Department Crash and Rescue Station No. 54. Their advanced equipment and training enable them to effect appropriate rescue operations with a minimum time loss. Also housed within this unit is a paramedical team and an ambulance whose function is to respond to emergencies at the airport.

Immediately adjacent and south of the main terminal complex is the cargo facility. Houston's diversified industry has generated a phenomenal increase in the amount of air cargo processed at IAH. This has necessitated the expansion of this specific area beyond most expectations. Currently, there are more than one hundred freight forwarders utilizing the cargo facility and handling in excess of ninety million tons of cargo annually.

Among the most notable accomplishments is the 350-room Host Hotel completed in 1972. Its revolving restaurant atop the main building offers a panoramic view of the entire airport area. As the airport expands the hotel will be located in the center of all unit terminals. Its current location is at the easternmost end of those units completed. It provides ample parking and is connected to the existing terminals by the electronic underground train.



Air Traffic Facility. The importance of Houston Intercontinental Airport is further emphasized by the presence of the FAA Air-Traffic Control Center. Completed in 1965 prior to dedication of IAH, this technical facility is staffed by almost 560 specialists who diligently direct the activities of both civil and military air operations over a 400,000 square mile area encompassing the entire southwest region of the United States.

#### Hobby Airport

Historical Highlights. William P. Hobby Airport is the City's oldest airport, being established in 1937 by decree as Houston Municipal Airport. A terminal building was constructed on Travelair Street at this time to provide for a budding airline industry and a rapidly growing community.

In 1951, ground was broken for the construction of a new five-million dollar terminal and two new runways to complement runway 17-35. Construction of runways 12-30 and 21-3 was completed in 1955 and ready for use. Their modern design and sophisticated lighting systems enabled them to be utilized on a twenty-four-hour basis and during periods of inclement weather. On April 15, 1955, the new facilities were activated under the name of Houston International Airport (HOU).

During the next decade, both the City of Houston and the field of aviation experienced phenomenal growth

and in 1968 the FAA recorded in excess of 304,000 aircraft operations (defined as takeoffs and landings) at Hobby Airport. This was because of the major significance of being Houston's only airport and serving all of the commercial and general aviation.

Expansion of the facilities at Hobby Airport was improbable as a consequence of territorial limitations. This resulted in the absence of sufficient area to maintain conditions commensurate with the proportional evolutionary development of the aircraft using the airport. Factors such as the limitations on expanding the length and the width of the runways, in addition to their now inferior load-bearing capacity, relegated Hobby Airport to a position of obsolescence regarding air-carrier operations.

The utilization of Hobby Airport was altered dramatically upon the completion of Houston Intercontinental Airport. In 1969 the scheduled airlines operations were transferred to the new airport and the main terminal building at Hobby Airport was closed. Only those operations classified under general aviation were allowed at Hobby Airport.

In 1969, the name was changed from Houston International Airport to William P. Hobby Airport to commemorate the late Publisher of THE HOUSTON POST and the principal benefactor of properties now under control of the airport.

Among his other accomplishments, William P. Hobby served as Lt. Governor of the State of Texas from 1915-1917 and Governor from 1917-1921.

In November, 1971, the demand for additional intrastate commuter flights soon culminated in the resumption of passenger operations on a limited scale at Hobby Airport. This accounts for the current FAA classification of S-1, meaning that Hobby Airport is a high density secondary airport and enplanes from 50,000 to 1,000,000 passengers commercially and has no less than 250,000 aircraft operations annually.

Location. William P. Hobby Airport is located approximately ten miles southeast of the central business district in a modestly populated section of the City. It comprises 1,260 acres of land which is bounded on the north side by Airport Boulevard, the east side by Monroe Street, the south side by Braniff Street, and the west side by Telephone Road.

There are three major thoroughfares that serve to bring traffic to Hobby Airport. Interstate 45, State Highway 35 (Telephone Road), and the recently completed Intracity Loop 610 located approximately one and one-half miles from the airport. (See Appendix E for a map of the vicinity.)

Physical Plant Structure. William P. Hobby Airport, as it operates today, was first opened for service

in 1955. It has one passenger terminal building with a total of 164,000 square feet of space. It is located on the northernmost portion of the airport property in order to facilitate easy access from public thoroughfares. It was designed with two separate levels. The upper level is passenger lobby and aircraft access gates. The lower level contains baggage pick-up and ground transportation services. Currently only the easternmost portion of the lobby and the passenger loading facility is operational and accommodates Southwest Airlines.

Holdings of the City of Houston in addition to the main terminal are the cargo building, located immediately northeast of the terminal building, and the aircraft control tower and flight service center, located in the extreme southern portion of the airport. The remainder of the airport property is occupied under lease agreements from the City by general aviation fixed base operations and the aircraft facilities of private corporations. (See Appendix E for an existing layout of Hobby Airport.)

Administration. Hobby Airport is under the direction of an appointed manager who is responsible to the Director of Aviation. All other employees, regardless of assigned status, are in positions referred to as "classified" by Civil Service. (See Figure 5, "W.P. Hobby Airport, Organizational Chart".)

Support Services. Also located on Hobby Airport

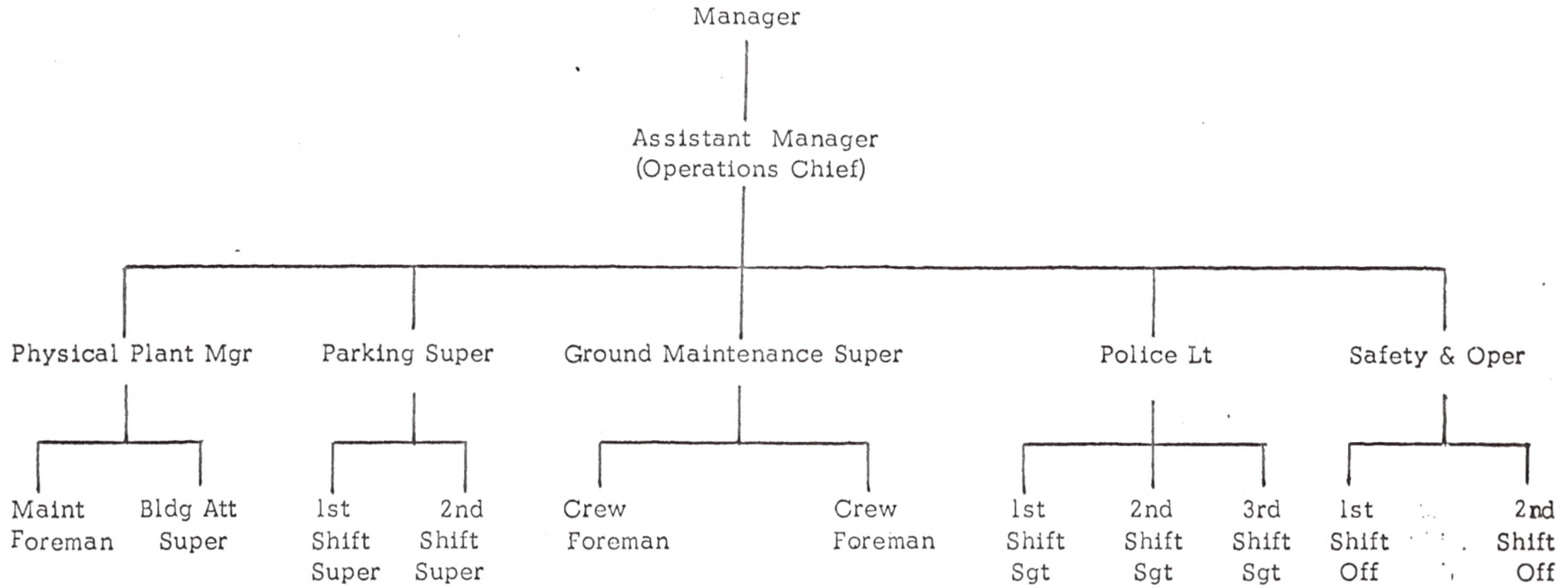
ORGANIZATIONAL CHART

Figure 5

is Houston Fire Department Station No. 36 which is highly specialized in the fire and rescue operations associated with aircraft. Station No. 36 also responds to alarms from the surrounding residential community.

The problems realized as being inherent in a general aviation airport and the pilot training facilities associated with it necessitated the formulation and development of a team of experts whose primary function is to ascertain that the function and condition of the facility is in no way a threat to continued aircraft operations. As a consequence of this, the Safety-and-Operations Division was formed to handle all operations, including regulatory inspection and maintenance of all aircraft operating areas.

Aircraft operations requiring formal surveillance are under the direction and control of this specialized unit.

The ever-increasing influx of persons demanding the services of an airport oftentimes strain the design limits of the existing facility. When this transpires, the maintenance personnel are utilized to capacity to repair damage or modify design inequities so as to prevent accidents.

Of major importance in the repertoire of airport services is the parking division. The impact of increasing vehicular registrations is greatly felt at the airports. In addition to providing adequate area and control, the

parking facilities produce substantial revenue for the City.

The orderly movement of persons and traffic is the responsibility of the Airport Police. Their duties consist of maintaining order and assisting the travelling public in a manner designed to promote confidence in local law enforcement.

### Airport Police

Historical Highlights. Several years following the opening of Houston's first City-operated airport it was decided that the property belonging to the City should be more carefully watched. This resulted in the hiring of three persons, who were distinguishable by their khaki uniforms, to help maintain the inventory of supplies and equipment required to service the airport's needs. They also served as Aviation Department couriers.

Houston's phenomenal growth soon rendered these facilities obsolete and with the construction of the main terminal and the new runways, a few additional security personnel were hired. When the first plans of Houston Intercontinental Airport were conceived, it was decided that a Chief of Security was needed in anticipation of the great expanse of the City property which was soon to require security maintenance.

In 1966, Mr. Jack Walling was appointed to the position of airport Security Chief. Having been chief



of the Warrant Division of the Houston Police Department and consequently strongly police oriented, he changed the image of what previously had been guards to that of security officers. This involved the adaptation of a distinctive medium-blue uniform with black accessories, including a black pistol belt and holster. Personnel selection, orientation and training was then begun using Hobby Airport as a base of operations.

In 1970, Percy R. Follis was appointed to the position of Chief of Airport Security. Having been a provost marshall in the U.S. Air Force prior to his retirement, Mr. Follis immediately adopted a semi-military rank structure. During his tenure, the force grew in strength to a capacity of 144 officers. It was during this time that the first female was hired to perform the duties of an Airport Security Officer.

The enactment of FAR Part 107 signaled the next change in status which was to transpire during the administration of Mr. Follis. His insistence upon their being entrusted with greater responsibility resulted in the Airport Security Force being converted into a bonafide state-certified police agency.

In 1973, House Bill No. 82 was passed by the Legislature of the State of Texas which granted peace officer status to the security personnel at airports serving certificated-route air carriers.



## Recruitment

A program for attracting qualified applicants was proposed and developed in 1974 in compliance with the Texas Commission on Law Enforcement Officer Standards and Education (TCLEOSE). It consists of two general areas. The first of these is a reiteration of those prerequisites explained in the Commission's RULES AND REGULATIONS (1973). The criterion established for selection constitutes minimum acceptable standards.

The second general area has at its theme tangible personal benefits. These include such factors as salary, training, vacation, sick time, insurance and retirement. Each of these is explained in detail to further emphasize those aspects of employment considered to be most attractive.

Although the implementation of this program has yet to appear formally, its proposal and development is a positive approach toward the professionalism of this organization.

## Hiring

A stratified-level entry system is currently employed by the Houston Airport Police in selecting officers. In deciding to enter this profession, a prospective applicant must satisfy two critical evaluators. The first of these is the City of Houston Civil Service Department. Those requirements pertinent to employment with the City must first

be fulfilled. Factors such as residence prerequisites and physical requirements must be met according to pre-determined standards. In addition, it is the duty of the Civil Service Department to ascertain compliance with Federal guidelines outlined by the Equal Employment Opportunity Commission (EEOC).

The second critical evaluator is the Houston Airport Police. As a candidate reports from Civil Service upon satisfactory completion of their criteria, he is placed on a tentative employment list (TEL). It is at this time that a three-phase processing program is activated by the Airport Police.

In keeping with TCLEOSE, those conditions promulgated by statutory decree must be verified. Table 5 is a review of the "Minimum Standards for Appointment" as granted by authority of Article 4413 (29aa), V.T.C.S.

TABLE 5

## Statutory Standards for Officer Certification

Specification	Means of Verification
1. U.S. Citizen	Birth Certificate
2. 19 years of age, minimum	Birth Certification
3. No felony convictions	Fingerprints - TCIC & NCIC
4. No DWI or DUID convictions last 10 years	D.P.S. driving/criminal History - TCIC & NCIC
5. Good moral character	Background investigation
6. High School or GED	Documentary evidence (Diploma)
7. Good physical condition	Exam by licensed physician
8. Emotionally stable	Exam by licensed physician
9. Personal interview	Conducted by hiring agency
10. Honorable Discharge (if appl)	Documentary evidence

In verifying these, an examination of all pertinent records of each candidate is conducted. School records, credit records, military records (if applicable) and especially any records associated with past criminal activity are thoroughly reviewed. If successfully completed, the second phase is begun. Although this is not required by statute and further restricts recruitment, it is thought to be of paramount importance in the selection process.

The second phase consists of a personal background investigation. The primary function of this aspect of the process is the determination of the presence of such factors as temperament, aptitude, and community responsibility. Sources close to the applicant are queried as to those qualities considered imperative in each candidate. A board of review then inspects the results of this investigation and decides if the third phase should be activated.

Phase three consists of a staff assessment which includes additional screening beginning with willful false statements regarding background conditions as represented on the initial application. Dismissal from another City position is considered and weighed on the basis of possible incompatibility with the system. Addiction to liquor, drugs and gambling, along with any evidence of political insurrection, is considered at this time. The final measure of this phase is a careful compilation of all results

which is presented to the Chief of Airport Police who personally interviews each candidate for job suitability.

The favorable conclusion of all phases culminates in the candidate being numerically chronicalled on a prospective-officer roster. Selection of persons to become Houston Airport Police Officers then becomes a matter of contacting the succeeding number on the eligibility roster.

### Training

Each newly hired Airport Police Officer is exposed to forty hours of classroom orientation. Following this, each officer receives 360 hours of scheduled instruction at the Harris County Sheriff's Academy. This curriculum exceeds the certification standards required by the State of Texas.

Following this, the officers are assigned to field positions and are exposed to most duties through a process of rotation. Those officers displaying a specific propensity for a given aspect of police work are enrolled in advanced classes in that speciality.

### Promotions

There are five incremental positions within the Houston Airport Police ranging from patrolman to chief. In each instance the position has three specific requirements for promotion to that level. The first of these is experience. Two years experience in the previous rank are

required prior to advancement to the next highest rank (with the exception of chief which is a political appointment).

The second prerequisite is successful completion of a job-related written examination formulated in compliance with Federal guidelines resulting from Griggs vs. Duke Power Co., (915 Sup. Ct. 849, 1971). These examinations, soon to be offered on a once-a-year basis, are conducted under the auspices of the Civil Service Commission of the City of Houston.

The third requirement is a favorable performance evaluation report from the individual's immediate supervisor. This consists of eleven categories whose aggregate score is numerically calibrated to equal no more than thirty points. The score achieved on the written examination in conjunction with the score attained from the personal evaluation are combined and result in a composite score which is then rank-ordered in proportional ordinal sequence. As vacancies occur, they are filled from the list of available candidates.

### Strength

Table 6 is the current complement of sworn personnel commissioned by the Houston Airport Police by authority of the CITY CODE: Ordinance No. 73-200. The first column contains the position classification. Column two represents those positions available at IAH, and column three the

corresponding positions at Hobby Airport. Column number four is the total authorized for each position for the entire organization.

TABLE 6  
Authorized Personnel Positions

Positions	IAH	Hobby	Organizational Total
Chief			1
Captain			1
Lieutenant	4	1	5
Sergeant	8	3	11
Patrolman	95	13	106
TOTALS	107	17	124

Source: CITY CODE, Ordinance No. 73-200, Article I  
(Amended 1968)

#### Span of Control

The nature of the duty assignments at Houston's airports are composed of many fixed duty stations resulting from the enactment of FAR Part 107. The sedentary aspect of the weapons detector coupled with the limited scope of activities associated with duties assigned to these posts broadens the number of subordinates a supervisor can adequately control. The current number of officers assigned approximates ten per sergeant.

#### Chain of Command

The chain of command outlined in operating procedures is of classic design. The ultimate responsibility and

authority rests with the Chief and is delegated downward according to officially designated rank. All communication is required to follow the appropriate channels although infractions are occasionally allowed in the event of personal grievances.

### Functions

The Airport Police should be recognized as having many complex and multiple tasks to coordinate in the performance of their duties. The diversity of the responsibilities delegated to the Houston Airport Police is indicative of the importance of delineating these duties.

The security of Houston's airports has three distinct phases. Although there is no distinct line of demarcation between these phases, they will be specifically categorized for purposes of explanation and analysis.

The first of these categories may be subsumed under the heading of "regular police duties". Within this realm is traffic control, investigation, and crowd control. Not unlike the community it serves, Houston's airports are subject to traffic congestion, especially following the simultaneous arrival of aircraft. Although the central focus of patrol concerns the main terminal areas, occasional traffic offenders and parking meter violations supply a moderate deviation from monotonous perimeter patrol. Vehicle patrol also involves the surveillance of mechanical control devices in an endeavor to



ascertain the orderly movement of vehicles and pedestrians and to eliminate accidents.

The maintenance of order is a priority police function at Houston's airports. Because of the vast numbers of persons assembled at the airport, the Airport Police must possess the ability to recognize potential threatening situations and be in command of the commensurate authority to deal with these threats to avert a possible chaotic situation.

Of parallel significance is the community service function which is concerned with the collective contribution being made toward the welfare of those persons using Houston's airports. This requires that the Airport Police maintain a close liaison with those persons associated with the airlines and with other airport support groups in an endeavor to promote continuity of the scheduled operations. Examples of this include coordinating emergency first-aid for the sick and injured, offering assistance to lost or confused travelers, locating missing persons and luggage, and supplying general information on an ad hoc basis. Although other agencies have been specifically designed to perform these tasks, it is the Airport Police who are most visible and available twenty-four hours a day, and thus assume these duties upon demand.

The police, being a major element within the criminal



justice system, have the monumental task of dealing with serious criminal offenses. In order to discharge this responsibility effectively, the capacity of the police must be enlarged.

Investigation of alleged criminal activity is an inherent aspect of all police agencies and must be considered as a major function of the Houston Airport Police.

Recognizing the fact that police effectiveness in dealing with crime is often dependent upon the effectiveness of other agencies to provide avenues of support, provisions were made during the initial developmental states to ascertain cooperation. The limitations normally resulting from a restricted compilation of available supportive data are minimal because of the sophisticated retrieval systems possessed by cooperating agencies. By tendering identifying facts to the appropriate authority, the discovery of criminal similarities, and the consequential detection of the person involved, is accelerated and yields more positive results. The Houston Airport Police have been assigned TX 1013700 as an NCIC inquiry identification number for this purpose.

Bombings and bomb threats have grown to major proportions at airports in the last few years. (Refer to Appendix B for a recap of bombings at airports.) The need for rapid and positive detection of incendiary devices resulted in the Houston Airport Police obtaining two dogs

specifically trained to detect explosives. Working in conjunction with the explosive detection dogs, the Airport Police conduct evacuation and search procedures. This does not include neutralizing or removing the suspected explosive device. This is left to a specialized detached ordinance demolition team not connected with the Houston Airport Police.

The complexities of aircraft design demand highly trained officers capable of conducting thorough searches without the assistance of aircraft specialists. A twelve-step search procedure has been developed for the specific purpose of diminishing errors and eliminating the possibility of injury.

Airfield Surveillance. The second distinct category requiring the assiduous endeavors of the Houston Airport Police is the security of aircraft operating areas. Being cognizant of the interrelatedness of aircraft security and aviation safety the Houston Airport Police maintain a constant vigil of all areas exposed to aircraft movement.

Airports are a transient facility not only from a passenger perspective but also from an employee standpoint. The attrition associated with this results in novice employees whose knowledge of procedures regarding aircraft operating areas is in need of perpetual observation.

Facilities such as Houston Intercontinental Airport with such expansive cargo operations find that they must

supervise the movement of personnel and equipment at all times. For purposes of expediency, persons not familiar with the airport are occasionally allowed to operate vehicles on the apron bordering the aircraft operating area. This oftentimes results in directional confusion leading to unauthorized vehicular operation in areas restricted solely to aircraft.

Closely related to this function is the fact that the Airport Police must possess an intense familiarity of the emergency crash procedures. This entails an inclusive knowledge of: (1) The aircraft movement area including-- but not confined to--runways, taxiways, ramp areas and points of entry; (2) Aircraft specifications relating to passenger carrying capacities, emergency exits, type of fuel and corresponding volatility; (3) A working knowledge of assigned fire fighting equipment; (4) Rescue and evacuation procedures including the most expeditious routes for transportation of the injured; (5) Radio procedures demanded by the FAA as outlined in the AIRMANS' INFORMATION MANUAL governing ground vehicle control.

Each aspect of the emergency crash procedures is conducted under the auspices of the FAA. However, the airport operator is granted considerable latitude as a consequence of the physical plant layout as well as the demands of the community.

Skyjacking Prevention. The prevention of skyjacking

is the third major security priority demanding stringent compliance by those certificate holders regulated by FAR Part 121.538. This part specifically states that at least one Airport Police Officer will be present at the point of passenger loading. This officer is to be present prior to and throughout the entire pre-boarding screening process for each flight. It further states that the Airport Police Officer will be present-without-leave until all doors on the aircraft being boarded are closed and the aircraft has taxied from the boarding area. In any event whereby the aircraft must return to the gate, prior to departure, an Airport Police Officer will be present.

Socialization. The previously delineated functions are permeated by six major themes which are used to guide the demeanor of each officer in the performance of his duties. Needing no elaborate explanation, there are: (1) Preservation of the peace; (2) Enforcement of the law; (3) Protection of life and property; (4) Prevention of crime; (5) Arrest of offenders; (6) Recovery of property.

From the initial orientation period, all phases of training stress these factors in an attempt to internalize their importance in directing individual intrinsic actions. The prescription used to guide the training philosophies reflects the fact that the development of the self is clearly dependent upon the social context in which the individual interacts. By the same standards, societal role expectations

are formed as a consequence of reciprocal behavior. It is for this reason that the selection of Airport Police personnel is of paramount importance to the community.

## CHAPTER IV

### METHODOLOGY

The formulation, development and implementation of any organization is predicated upon efficiency, economy and effectiveness (Etzioni, 1964). Occasionally, as a consequence of inevitable change, these organizations experience conditions which alter the stated purpose of their intended implementation. As an example, the role of the airport police officer has undergone a complete metamorphosis since the enactment of FAR Part 107. This altered the duties so drastically that those methods of personnel assessment previously used have become obsolete.

#### Primary Determinant

The success or failure of a law enforcement agency to perform its intended function is directly related to the selection and development of its personnel. Sophisticated equipment, elaborate training and facilities, as well as stated objectives and goals are ineffectual without the infusion of intelligent personnel to operationalize them. As a consequence, the most important determinant becomes the individual officer who is capable of producing results conducive to continued public service and favorable support from the community.

This chapter thoroughly describes the experimental design and data collection instruments employed to investigate

and substantiate the validity of the formulated research questions. The time frame or span was important only from a historical perspective in relationship to the development, over time, of the required personnel data. In considering the longitudinal development of circumstances pertinent to the proof desired for reliability of measurement, only that time required for initial collection and consequential analysis was reflected in this study.

### Research Question Formulation

Research invariably begins with a desire to answer a question. Although the question is frequently general in nature it must be reduced from general to specific by an investigation of pertinent facts. Prior to the actual investigation of the situation, the compilation of facts, or the correlation of pertinent data, tentative assumptions must be formulated. These assumptions, known as research questions, are made in an attempt to reach a precise conclusion concerning a specific problem. In an endeavor to further enhance the significance of this study, three research questions were formulated.

Research Question Number 1. The first question was one concerning the possible affiliative relationships which may have developed as a consequence of the enactment of FAR Part 107. In complying with this, it is plausible to assume that a facsimile of services and duties would develop a

similarity of organizational structures. From this it was postulated that a uniform procedural regulation would manifest itself in a general classification encompassing all recipient airport law enforcement agencies.

The reliability associated with this explanation was measured by verifying the authenticity of the following assumption: Houston's airport situation, regarding security measures as prescribed by FAR Part 107, is characteristic of the national criterion.

Ascertaining the validity of this would have a profound impact on airport police, especially concerning the universal applicability of required services. Because each airport could be considered a viable representative sample of the population concerned, conditions realized to be important for any single facility could be of major significance for all airports.

Research Question Number 2. The ease with which people have been able to change geographical locations has been a major factor considered in this study. Although they emanate from different areas, backgrounds, ethnic groups, and income levels, they gravitate to airports for common reasons. Predicated on this reasoning, research question number 2 states: Those persons utilizing this nation's airports, regardless of geographical location are similar in their needs and desires regarding aviation services.



Confirming this question would indicate a strong need for an easily recognizable authoritarian representative to respond to situations with reasonable expectations easily anticipated by those unfamiliar with the community in which the airport is located.

Research Question Number 3. Frequently research has an element of factual void which is filled by that premise referred to as "given". Not unlike other studies, this investigation became dependent upon this factor for the support of the conclusion of the third hypothesis. Although this research is not equipped to measure individual criminal tendencies, it must be assumed that the popularity associated with air travel--and its symbiotic support agencies--has attracted a degree of criminal propensity equivalent to that tolerated by the community it serves. Given that this is a bonafide assumption, the question becomes one of what percentage of criminality is experienced at an airport? The answer to this question will then form the basis of the third research question, which will concern itself with the role to be played by the airport police.

The role of the airport police must be directly related to and consistent with the type and the amount of crime prevalent at an airport. Predicated upon this factor it is assumed that: The interaction between those persons using an airport and the airport police is unlike the police agency serving the community in which the airport is located.

Verifying this research question would have a major impact on the purpose of this thesis from the standpoint of initial selection and subsequent training. Training would especially benefit from this inasmuch as the training, designated to be a redundant response to repetitive situations, could concentrate on developing remedies for anticipated situations.

### Research Design

#### Research Question Number 1

One purpose of this study was to determine the possible interrelatedness of the ways and means of implementing the responsibilities currently relegated to those law enforcement agencies of major airports. The development of the first stated question and its validation being pertinent to this thesis necessitated the utilization of mail-out questionnaires for a survey of relevant correlative information.

Questionnaire Development. Development of a questionnaire was begun to determine the relativity of the representativeness of Houston's Airport Police concept. This was accomplished first by investigating and then chronicling those conditions known to exist within the City of Houston's aviation complex. These conditions were then analyzed and drafted into numerous questions which were subsequently edited and separated into two general categories. The

administrative and security classifications, as they were titled, were ultimately divided into seven distinct areas. Each area was considered essential in developing a comprehensive profile of the responding airport in addition to determining the uniformity of the administrative and security functions.

The completed questionnaire (see Appendix C) consisted of thirty-two questions capable of being answered under separate columns for 'yes' or 'no'. Each question was specifically designed to avoid ambiguity. Questions known to elicit possible inconsistencies by virtue of factors such as size and novelty of operation were included in an attempt to eliminate biases.

Questionnaire Distribution. The selection of airports to participate in this survey was predicated upon three determinants: (1) the population of the municipality in which the airport is located, (2) the population of the metropolitan area serviced by the airport. In a number of instances it was found that the city in which the airport is located is bounded by numerous communities whose aggregate total elevated it to a position of much greater proportions than indicated by the population ranking. (3) Those airports whose FAA profile depicted an excess of 200 operations in a twenty-four hour period as reported by the U.S. Department of Transportation. As operations decreased the spread became less evident, thereby adding

increased significance to this study.

This questionnaire entitled "Factual Identity Inquiry," was then forwarded by the U.S. mails to the forty airports whose certificated-air-carrier operations were listed in succession as being the highest in number in the nation. Houston was ranked sixteenth by this method, thereby attempting to qualize the number above and below this standing. A cover letter explaining the purpose of the questionnaire accompanied the enclosed self-addressed stamped envelope to be used to return the completed form.

An I.D. number was issued to each airport for purposes of determining with a minimum of effort, who the respondents were. To eliminate the need for their identifying themselves or failure to identify themselves, this number was included. Table 7 is an alphabetical listing of airports used for this survey. As the returns came in, they were logged according to the date they were received. Also logged was whether or not the respondent was interested in the results of the survey. The forty airports used in comprising the alphabetical list in Table 7 represents 10 percent of the national total.

#### Research Question Number 2

Beginning January 27 and ending February 2, 1976, Engineers of the Southwest, under the auspices of the Houston-Galveston Area Council (H-GAC), were commissioned

TABLE 7

## Factual Identity Inquiry Responses

I.D. No.	FACILITY	DATE OF RESPONSE	REPLY REQUIRED	I.D. No.	FACILITY	DATE OF RESPONSE	REPLY REQUIRED
1	Anchorage Int'l.	4/28/76	yes	21	Las Vegas Int'l.	4/28/76	yes
2	Atlanta Int'l.	4/22/76	yes	22	Logan Int'l.	5/22/76	yes
3	Baltimore Int'l.	-----	---	23	Los Angeles Int'l.	4/28/76	yes
4	Buffalo Int'l.	5/2/76	yes	24	Memphis Int'l.	-----	---
5	Charlotte Int'l.	5/12/76	yes	25	Miami Int'l.	4/28/76	yes
6	Cincinnati Int'l.	4/24/76	yes	26	Milwaukee Int'l.	4/24/76	yes
7	Cleveland Airport	-----	---	27	Minneapolis Int'l.	4/22/76	yes
8	DFW Regional	4/25/76	yes	28	New Orleans Int'l.	4/22/76	yes
9	Denver-Stapleton	4/21/76	yes	29	O'Hare Int'l.	4/25/76	yes
10	Detroit Int'l.	4/21/76	yes	30	Philadelphia Int'l.	4/30/76	yes
11	Dulles Int'l.	4/28/76	yes	31	Portland Int'l.	4/30/76	yes
12	Ft. Lauderdale Int'l.	-----	---	32	San Antonio Int'l.	4/23/76	yes
13	Greater Pitts. Int'l.	5/1/76	yes	33	San Francisco Int'l.	5/12/76	yes
14	Hartford Int'l.	4/25/76	yes	34	Salt Lake Municipal	-----	---
15	Honolulu Int'l.	4/28/76	yes	35	San Diego Int'l.	4/28/76	yes
16	Indianapolis Municipal	4/22/76	yes	36	Seattle-Tacoma Int'l.	4/25/76	yes
17	Jacksonville Int'l.	4/22/76	yes	37	Sky Harbor Airport	-----	---
18	Jersey City Int'l.	Undelivered	---	38	St. Louis Int'l.	4/28/76	yes
19	Kansas City Int'l.	4/25/76	yes	39	Tampa Int'l.	4/19/76	no
20	Kennedy Int'l.	4/28/76	yes	40	Wichita Mid-Continent	4/17/76	no

Source: Primary

to conduct a short-take-off-and-landing (STOL) feasibility study in the greater Metropolitan Houston area. This consisted of the random sampling of departing passengers at both Houston airport facilities. The population surveyed involved enplaning passengers only. Reasons for this included such factors as: (1) less noise in the waiting area, (2) more time with each person being interviewed, and (3) the possibility of missing those persons who were waiting for connecting flights.

The interview consisted of eleven questions, each of which generated multiple possible responses which were designed to further clarify and refine the original question. As a consequence of this, each interview produced between eighteen and twenty-two functional responses.

Both males and females were used as interviewers so as to minimize possible sampling biases. This four-day survey produced more than 8,000 significant interviews from both Houston airports. Predicated upon statistics from THE ANNUAL REPORTS: 1975 this represents approximately 20 percent of those enplaning passengers utilizing both facilities during the survey period. This includes both originating and transferring passengers.

Although, to date, this information has not been published, the Engineers of the Southwest consented to allow the results of their survey to be used in this study. The findings as they pertain to this thesis will be identified,

defined and interpreted in detail in the following chapter.

No specific statistical formulae or techniques were employed in analyzing the data realized from this survey. Polar comparisons were not the intention of this questionnaire. The population sampled was primarily separated into percentages for comparison as a homogeneous group rather than separate and opposing factions.

The results of the survey were then categorically analyzed emphasizing social-psychological explanations pertinent to the situation described by the survey.

### Research Question Number 3

Ascertaining the credibility of this inquiry was accomplished using two methods. The first method consisted of a five-year review of the index crimes of the Houston Police Department as reported to the FBI for the Uniform Crime Reports. These were then separated into two classifications: (1) crimes against the person, and (2) crimes against property.

The records of both police agencies were compared and contrasted predicated upon four distinct reasons: (1) The basic general qualifications of both agencies are alike in that both are commissioned by the City of Houston in compliance with peace officer certification standards prescribed by the State of Texas; (2) Both agencies are sworn to enforce the same proscriptions including all ordinances of the City of Houston; (3) Both agencies are

dedicated to preserving the standards of the same community; (4) Persons coming within the jurisdiction of one agency have often experienced contact with the other agency.

Predicated upon the previous alignment it is assumed that like percentages should prevail and result in a close correlation indicating that parallel police duties should exist.

The second method employed concentrated on social psychological theories empirically proven to govern situations of a similar nature. Large crowds of people from different backgrounds and ethnic groups are to be accorded special interest in this instance. Application of these prominent theories to the conditions being examined should readily reveal the utility of these theories in describing and predicting behavior.

#### Research Question Association

As this study progresses, it will become obvious that each of these research questions will have a significant impact on the major proposed topic. The proper application of the findings will result in the blending of these research questions into a compound unit indicating the meaningfulness of the primary inquiry explained in this study. These research questions were considered most important from a standpoint of their combined applicability



for the implementation of the central theme of this thesis which is: "The selection of persons best suited for career employment as an airport police officer can be scientific in its orientation and result in fewer failures as well as increasing productivity, both individually and collectively." For analytical purposes of this study, 'failures' are defined as those persons who for any reason--exclusive of death or illness--did not remain with the original hiring agency until retirement. This is to include resignations, dismissals, and the inability to complete the probationary period.

#### Productivity Sampling

The ability to accomplish the assigned task in a manner conducive to upgrading the community while simultaneously advancing the individual officer is the one goal that must supercede all others during the assessment process. For this reason, productivity was considered to be a major factor in this study.

Operationally Defined. For purposes of this thesis it was concluded that productivity could be defined as that aspect of individual output measurable in terms of: (1) Arrests, as validated by in-file offense reports; (2) Citizen complaints; and (3) Commendations and awards.

Fact Acquisition. Having decided upon the units of measure, the following procedures for acquiring the

necessary factual information were implemented. First, all offense and incident reports contained within the records of the Houston Airport Police Department were examined and delineated as follows: (a) Type of offense - (felony or misdemeanor); (b) How notified of the offense or incident - (dispatched, on view, or complainant); (c) Category of the crime - (Against the person or against property).

Second, the individual personnel records were scrutinized for complaints registered by fellow officers or citizens. The records were also inspected at this time for evidence of personal awards.

Information Implementation. Each of these was to be catalogued for each officer the sum total of which was to be weighted by the assignment of a numerical value for the degree and type of incident. Commendations and awards were assigned a positive value among with arrests. Factors such as complaints and absenteeism were assigned negative values.

The mathematical computation of these will manifest themselves in a number to be designated as a "coefficient-of-conduct" for purposes of individual officer comparison.

#### Emergent Sequence

In selecting those individuals with the required personality characteristics, psychological tests, basic intelligence tests, physical examinations, background investigations,

and interviews are commonly used. However, prior to the administration of these tests it must be decided what characteristics of personality and behavior are to be considered favorable, readily measurable, and amenable to the specific position of Airport Police Officer. In deciding these distinguishing traits, a factorial analysis of the duties to be performed is imperative to establish the need for each prerequisite defined in the position classification.

In formulating the methods to be utilized in developing the profile of a successful airport police officer it was decided that an empirical research design would best satisfy this requirement. The numerous categories and the resultant variables, in addition to their symbiotic measures of dependency, negated the use of exact hypothesis-testing research.

Predicated upon this, it was concluded that a process involving correlational research would best enhance the significance of this postulate. Reasons for this included such factors as the availability of pertinent material and the possibility of discovering a significant number of relationships and interrelationships in a relatively short period of time.

In further elucidating the methodological reasoning to be employed, it was decided that a cause-and-effect relationship would be of little consequence in this

investigation. The primary concern was not what initiated the behavior, but the utilization of behavioral concepts in depicting a graphic representation of a successful airport police officer to be used in the selection criterion.

### Personnel Parameters

The subjects for this study were carefully selected because of the multifold purpose served by their application. The first was the fact that the sample was of significant proportions ( $N=124$ ). The second contributing factor was that the sample was thought to be highly representative of the concerned statistical population. The third reason is the fact that the study group consisted of the entire population of Airport Police Officers ever employed by the City of Houston ( $N=339$ ). This was assumed to lend credence to the recognizable evolutionary development of this highly specialized law enforcement entity. The fourth reason emerged from the fact that Houston is served by two airports. This is significant from the standpoint of the variability or variety required in the security functions.

### Data Acquisition

The variables to be applied in the derivation of this predictive profile were extracted from the records of all past and present Airport Police Officers ever hired by the City of Houston. In addition, each officer with the department at the time of this study was issued a form

entitled, "Additional Information Questionnaire." This consisted of forty-nine questions comprising seven general categories relating to all phases of the individual's personal history. (For an examination of this questionnaire, refer to Appendix D.)

This precise method of gathering the required information was selected in view of the fact that the utilization of recorded demographic factors adds a valuable dimension to the study of peace officers. First, it eliminates the possible intrusion of false information as a consequence of effects such as those described as a result of the Hawthorne studies; namely, unanticipated reactions to experimentation. Second, it guards against 'sentimentality' which Becker (1964) defines as a disposition on the part of the researcher to deliberately ignore important variables in attempt to influence the results. Because constraints normally associated with research diminish as a consequence of the application of biographical data, the technique of examining demographic factors will prevail throughout this study.

### Data Sorting

In preparation to analyzing the data the subjects for this study were divided into two distinct classifications. The first of these consisted of those persons who left the organization prior to retirement. The fact that

no maximum age limitation is contained in the requirements must be taken into consideration regarding this classification. For this reason, retirement is defined as the completion of the minimum time of ten years required to be eligible for pension at age sixty.

The second classification is composed of those persons who have remained with the agency. In some instances the subjects left the agency for intermittent periods and were re-hired. In these cases, the term 'successful' was also used to describe these officers.

These two classifications were then sub-divided into four general groupings: (1) Hired, (2) Terminated, (3) Males, (4) Females. These groupings were then chronologically arranged on an annual scale.

The demographic characteristics obtained from the questionnaire issued were broken into sixteen measurable factors. A numerical Likert-type number was assigned to each variable with the exception of: age, weight, height, and scholastic achievement, which were already in numerical form. (A GED certificate was issued a number of 12; the equivalent of a high school graduate.)

A model form of averaging was utilized in grouping the analysis of these factors. From this, a profile of characteristics possessed by the most officers would emerge. This, in conjunction with the large number of variables required for the most accurate comparison, precluded the

utilization of methods of statistical measurement other than the theory of multiple correlation as described by the formula:

$$Y = a_1x_1 + a_2x_2 + a_3x_3 + a_4x_4 + \dots a_nx_n(b)$$

### Safeguarding Confidentiality

Upon presenting the concept of this thesis to the Aviation Department for tentative approval, the Director, William E. Carey, was enthusiastic over the prospect of being able to contribute to the advancement of law enforcement. However, in compliance with the "Open Records Act," legislated in 1973, he insisted that the dignity of each officer was to be given preferential consideration regarding anonymity. In compliance with this request, the acquisition of pertinent biographical facts was accomplished without revealing the personal identity of any of the respondents.

## CHAPTER V

### DATA ANALYSIS

It is the intention of this chapter to interpret the accumulated data associated with this study and catalogue the results in a repertoire of meaningful information designed to offer a solution to the problem previously described in Chapter I.

An examination of the factors contributing to a successful airport police officer will render it possible to reconstruct a representative model capable of being used as a pattern during the employment process. The pertinent findings will then be arranged so as to characterize significant variables to be used as predictors of success. This task will be accomplished by programming each fact into one of several general categories and ultimately delineating these categories into specific elements of assessment.

Three research questions were formulated in an endeavor to strengthen both the need for the material contained in this study and how the pertinent findings were to be applied. Each research question added a dimension of credibility for implementing the ultimate results regarding airport police personnel selection, not only within the realm of this study's parameters, but nationwide.



### Presentation Sequence

For purposes of continuity, the findings will be presented in the same order as they were during their introduction and methodological formulation. Each will be prefaced by a general statement of fact followed by the results obtained through observation and experimentation substantiating the research question.

The final section will address the central theme of this thesis by introducing a group of variables whose strict application during the employment process will be conducive to increased longevity in newly hired airport police officers.

### Research Question Validation

Each research question required different methods of experimentation and observation for proper proof. The method used was thought to be that which offered incontrovertible verification of the postulated statement.

### Results

#### Research Question Number 1

The questionnaire-survey method of sampling devised for the validation of this postulate proved to be satisfactory in substantiating the initial research question. Table 8 is a general overview of the statistical relativity posed by the sample selection. Column one is first the total

population of all air-carrier airports and then the sample selected. Column two is the actual number of airports in each category. Column three is a representation of the totals in percentage form.

TABLE 8  
Sampling Selection  
(General Overview)

Air-Carrier Airports	Number	% of Total
Population	405	100
Sample	40	10

Source: Primary

Table 9 depicts the distribution and return of those questionnaires mailed. The first column categorizes the disposition of the questionnaire. Column two is the actual number of inquiries in each category. Column three is the disposition of each classification in percentage form.

TABLE 9  
Questionnaire Distribution and Returns

Questionnaires	Number	% of Total
Mailed	40	100.0
Undelivered	1	2.5
Not Returned	5	12.5
Completed and Returned	34	85.5*

\*Computes to 87.2% after subtracting those undelivered

Source: Primary

Respondent Characteristics. The returns from this inquiry proved to be significant from the perspective of computed returns. The dissemination of information by contributing airports is indicative of: (1) A need for the material being investigated, and (2) The concern for the safety and security of this nation's travelling public.

As is evidenced by the percentage factors, those responding concluded a viable representative sample of the population concerned in this study.

Table 10 is a comparison of all questions from all responding airports. Column one is the actual question number. Column two is the response to each question by Houston. Column three is the sum total of the responses of all other airports involved in this inquiry.

The answers to each question were matched for similarity of response and then compared to Houston's answer to each question. By simple arithmetic averaging it was relatively uncomplicated to determine the correlations.

Because Table 10 is descriptive of each reply, it became easy to draw conclusions predicated upon the responses. A comparison of all questions and their interrelationships were easily coordinated as a unit confirming the research question as stated.

### Findings

Differences occurred, as measured by the Factual

# QUESTIONNAIRE RESPONSE COMPARISON

Question Number	Houston		Other Respondents				Question Number	Houston		Other Respondents			
	Yes	No	Yes	%	No	%		Yes	No	Yes	%	No	%
1	X		11	32	23	68	16	X		32	94	2	6
2		X	23	68	11	32	17	X		34	100	-	-
3	X		29	85	5	15	18	X		28	82	6	18
4	X		21	62	13	38	19	X		26	76	8	24
5	X		19	55	15	45	20	X		32	94	2	6
6	X		17	50	17	50	21	X		34	100	-	-
7	X		20	59	14	41	22	X		20	59	14	41
8	X		25	74	9	26	23	X		34	100	-	-
9		X	10	29	24	71	24a	X		32	94	2	6
10a		X	3	8	31	92	b	X		33	97	1	3
b	X		26	76	8	24	25	X		34	100	-	-
11a	X		7	21	27	79	26	X		14	41	20	59
b		X	13	38	21	62	27	X		14	41	20	59
12	X		31	91	3	9	28	X		31	91	3	9
13	X		25	74	9	26	29	X		11	32	23	68
14a	X		28	82	6	18	30	X		34	100	-	-
b		X	31	91	3	9	31		X	26	76	8	24
15	X		32	94	2	6	32	X		33	97	1	3

Source: Primary

Identity Inquiry, in the size of the facility which was to be expected. Because of this, the equipment required to adequately effect security measures varied considerably. Also, a variation was present in the administration of the airports. Some of those replying were under the jurisdiction of a political subdivision whereas others operated under the auspices of an authority designed solely for that purpose. Even though these conditions were present, the requirements as outlined in FAR Part 107 functioned to align the duties.

The criteria for selection were closely correlated and in some cases exact. Reviewing the selection criteria gave considerable insight into what characteristics to look for in developing the central theme. Training was another area highly correlated, and only minor variations appeared as a consequence of local requirements. The methods used for training were universal.

The findings definitely substantiated the research question as stated by verifying that: Houston's airport situation, regarding security measures as prescribed by FAR Part 107, is characteristic of the national criterion.

#### Commentary

The possibility of far-reaching ramifications became evident as a consequence of the verification of this research question. Each airport can now be considered a viable

representative sample of the population concerned. A condition realized to be important for any single facility can now be of major significance for all airports. Ideas can be centralized for analysis and commensurate action suggested for the most economical and effective method of aggregate implementation. Although national standards are imperative, the sovereignty of each community must be preserved.

Another factor to be considered is the alignment of personnel. The need for police service is indigenous at airports and law enforcement agencies policing airports realize that their function is now specifically delineated. Recognizing that the effective appraisal of personnel is bounded only by limitations inherent in the selection procedures, the airport police may now combine proven scientific methods of assessment. Areas such as recruitment, selection, training, evaluation and promotion can be standardized. This, in itself, would serve a two-fold function.

The first of these is that persons using our nation's airports would be subjected to a high-quality police officer whose function would not be dissimilar to those of one's own community.

The second function served by standardization can be measured in terms of increased employee utilization. Sworn personnel occasionally find that they must change geographical locations to satisfy a condition over which they possess

little control. In events of this nature, the fact that the officer's knowledge of federal airport security measures need only be supplemented by a brief concentrated effort concerning local ordinances, merits strong consideration for a position at another airport. Rather than lose the training, knowledge, and experience gained by this officer over the years, a transfer could be effected. The sum total of personnel alignment is the practicality of utilizing the highly controversial aspect of lateral entry.

#### Research Question Number Two

The instrument available to confirm the research question as stated proved to be adequate. As analytically applicable to this postulate the enplaning passenger survey--conducted by Engineers of the Southwest--was not concerned with correlations involving a control-group setting, but merely separated information into categories for lineal comparison. With this serving as a point of commencement, an analysis of the material collected by this survey was begun. Since no theoretical positions were included in the initial research question, the need to defend any given aspect was not necessary. This eliminated the need to influence a specific response or control conditions or interpret findings by the manipulation of variables. Thus, the material is being presented to display the facts supporting the research question.

Table 11 is a review of the survey characteristics. Included in the table is the airport where the survey was conducted and how many persons were and were not interviewed, including their corresponding percentages.

TABLE 11  
Survey Characteristics  
(Interview Significance)

Airport	Interviewed	<u>Number of Enplaning Passengers</u>		Total*
		% of Total	Not Interviewed	
IAH	6,098	18.1	27,502	33,600
Hobby	1,930	42.9	2,570	4,500
TOTALS:	8,028	21.1	30,072	38,100

\*Averaged from: ANNUAL REPORTS--1975

Source: Engineers of the Southwest

### Findings

The first series of questions was directed toward determining the percentage of passengers permanently residing in the region of Houston's airport complex. Table 12 depicts passenger residency and clearly indicates that less than half of the passengers interviewed do not live in the region of either airport.

For purposes of this survey, the statistical regional area is described by Table 13.



TABLE 12  
Regional Characteristics  
(Passengers Residing in Region)

Airport	Number	% of Total Interviewed
IAH	2,500	41
Hobby	869	45
TOTALS:	3,369	42

\*Engineers of the Southwest

TABLE 13  
Statistical Regional Area

County	Population*	Daily Passenger Density**
Harris	1,741,912	500-599
Montgomery	49,479	50-99
Ft. Bend	52,314	100-199
Brazoria	108,312	50-99
Galveston	169,812	100-199
Waller	14,285	Under 50
Liberty	33,014	Under 50
Chambers	12,187	Under 50

Source: \*TEXAS ALMANAC

\*\*Engineers of the Southwest

By identifying the fact that more than half of those persons interviewed were from areas other than the statistical regional area described, indicates the necessity

for the comprehension of corresponding methods of behavior required to facilitate harmonious interrelationships anticipated by the community in which the airport is located.

As an adjunct to this, the destination of originating passengers was considered. Table 14 represents the destination of those persons. Included in this table are two general categories of passengers. The first column comprises those who were to remain in the state and the corresponding percentage. Column two is a compilation of the respondents travelling to all other points.

TABLE 14  
Destinations  
(Originating Passengers)

Texas	% of Total	Interstate	% of Total
2,300	42.7	3084	57.3

Source: Engineers of the Southwest

The projection of such an explosive pattern obviates the fact that the needs of those passengers interviewed are being distributed throughout the entire nation.

To further define the corresponding variables required for proof of this postulate, the various reasons for taking the trip were considered eminently significant. Although the reasons varied considerably, one prevalent response merits mentioning. Table 15 depicts the responses

listed under business trips.

TABLE 15  
Business Trips

Airport	Number	% of Total Interviewed
IAH	4,695	77
Hobby	1,216	63
TOTALS:	5,911	73

Source: Engineers of the Southwest

Analyzing this aspect from the perspective elaborated upon in this research question may indicate a similarity of personalities and consequently a strong similarity of needs and desires.

Familiarity with the system was taken into consideration and is partially explained in Table 16, which lists the number of trips taken in 1975 by those interviewed.

TABLE 16  
Frequency Characteristics  
(Trips Taken in 1975)

Number	IAH	%	Hobby	%	Total (By %)
None	1,890	31	425	22	28.8
1-9	2,439	40	733	38	39.5
10-19	671	11	309	16	12.2
20-49	915	15	328	17	15.5
Over 50	183	3	135	7	4.0

Source: Engineers of the Southwest

Because only 28.8 percent did not utilize the services of the air-carriers in 1975, strong support was accorded the possibility that many passengers may have tailored their needs to those necessary for expediency based on previous experience.

### Commentary

Although this phase of the study proved difficult to assess empirically, the conclusion was logically derived through inferences deduced from the application of the correlations from the survey responses. Each succeeding inquiry further substantiated the preliminary requirement of temporary identification with requirements of the system.

Beginning with a panoramic observation, it must first be considered that the air-carriers are regulatorily aligned by procedural guidelines delineated by the Federal Government. Compliance with these regulations predisposes the travellers to a commonality regarding airline policy and organizational similarity. Each succeeding collection of data further enhanced the necessity for the temporary development of interest-group standards producing a result collectively desired.

The final analytical step employed a microsociological perspective which explained the behavior as being situational in context. Although the ethnic and socioeconomic backgrounds varied, all persons were contingent

upon the needs of the moment if they were to use the services of the airport. It appears that persons become temporarily detached from possible conflicting norms when in close proximity to others having a common goal.

It was statistically determined that the sample was significant and reliable. A 95 percent confidence level indicated that the sample was within one percent accuracy. Predicated upon this (in conjunction with the inferences deduced from the responses given), additional credence and increased support was gained for the research question as stated. Ascertaining that the regulations were the same; and that those coming under the jurisdiction of these regulations had similar momentary requirements, it was logically surmised that regardless of the geographical location of passenger residence or airport facility, the needs of those persons using an airport were analogous. As the analysis progressed, additional statistical correlations compounded the fact that persons using an airport have basic needs.

### Productivity

The original prospectus included provisions for the development of a method for adequately measuring the productivity of each officer predicated upon numerically-divisible pre-selected variables. These variables would ultimately be converted into a mathematical coefficient capable of being implemented during the initial personnel

assessment process.

In preparing the variables for analysis, it was discovered that each of the categories selected failed to provide uniform results and culminated in the rejection and withdrawal of this proposition on the basis of two general situations. The first of these was the fact that available records of the Houston Airport Police were incomplete and the application of the pre-selected units of measure were unable to be applied to all officers. Those records that were subjected to investigation revealed that three factors controlled reported productivity.

(1) Shift Assignment. The air-carrier schedules are arranged so as to conduct most business during the morning and early evening hours. Consequently, those officers assigned to work hours other than those are not involved in the same job-tasks. Additionally, the fact that the officers do not rotate shift assignments fails to expose them to the same duties required of those assigned during the prime scheduling times. They do not have the same degree of contact with persons using the airport and are not subjected to the same standards of conduct because of the difference in duties. Predicated upon the indices to be utilized for measuring productivity, these officers would be considered as 'less productive'. Therefore, the disparity of duties associated with shift assignment was considered to be an influencing factor regarding the

measure of productivity and ranked negatively.

(2) Duty Posts. Some assignments are observational in nature and do not include interaction with the public. Others are administrative and do not afford citizen contact of a nature commensurate with the line officer. Still others are considered punitive and often result in withdrawal of the officer from public view. In each of these instances the measures associated with productivity were not consistent with those initially planned and were not considered viable, and, therefore rejected.

(3) Supervision. The most single influential factor having the potential to effect the productivity of the Houston Airport Police was found to be supervision. This includes the entire range of ranking officers from the chief to the line supervisor. Each supervisor was allowed to develop his own perceptions regarding the definitions of productivity and introspective judgement of officer appraisal. The absence of seniority preference endows the supervisor with unusually authoritative influence. This effects the duty assignments and the placement of the officer on shift designation. In addition it is the supervisor who authorizes the insertion of commendations and complaints into the individual's personnel records. The fact that subjectivity is allowed to permeate supervisory appraisal culminated in rejecting their evaluations of the individual officer's ability to complete assigned job-tasks.

The second major contributing factor which eventually lead to the demise of utilizing the proposed method of measuring individual output was the aspect of valuable productivity characteristics which are, in fact, not measurable. An example of this is the deterrent effect. Another example is the impact of the officer's conduct regarding effective police-community relations. Being unable to assess the officer's effectiveness in these areas renders it impossible to conscientiously measure productivity.

It was initially thought that the devised coefficient-of-conduct could have been programmed into the profile-equation thereby adding a valuable dimension by focusing on characteristics other than demographic factors. However, the multitude of uncertain measures associated with productivity precluded the incorporation of this specific criterion for selection purposes. Each aspect of the attempted analysis resulted in the rejection of the pre-selected units of measure. Consequently, it is now felt that continued employment with the organization must suffice as the only viable measure of favorable productivity.

### Research Question Number Three

It was the intention of this research question to concentrate on the development of a desired behavioral role capable of being incorporated into the selection standards of those law enforcement agencies whose responsibility is



the security of this nation's airports. The results were then to be translated into personality characteristics known to elicit behavior consistent with the empirically-devised role and ultimately integrated into the predictive airport police profile.

This aspect of the study concentrated on two fundamental sets of data: (1) crimes against the person, and (2) crimes against property as reported to and compiled by the Houston Police Department and the Houston Airport Police. A simple numerical comparison was considered sufficient to adequately conduct the analysis associated with this research question. The data presented were not designed to provide information concerning the individual offender, but all known offenses.

A major function of any law enforcement agency is the restraint of the aggressive acts of one person or group against another. Aggression, in this sense, must be defined as that action which is intended to inflict bodily injury upon another. Aggression was selected to help define this research question because, according to leading psychologists, it is defined as a basic drive intrinsic in the behavior of all persons.

It is generally accepted that frustration arouses aggression. Missed flights, lost baggage, and departure delays all lead to thwarting the attainment of a goal and increases frustration. From this it was postulated that

large gatherings of people would lead to a greater expression of aggression, especially when combined with the frustrations endemic at any airport.

Statistical parameters. Table 17 is a comparison of those crimes chronicled in the Uniform Crime Report (UCR) as 'crimes-against-the-person'. Column one is the year the crimes were reported to the respective agencies. Column two is the actual number reported to the Houston Police Department. Column three reflects those crimes reported to the Houston Airport Police as having been committed within the jurisdictional confines of the airport.

TABLE 17  
Crimes Against the Person

Year	Houston Police	Airport Police
1971	15,533	23
1972	14,677	33
1973	15,629	33
1974	15,897	35
1975	14,705	38

Predicated upon the statistics as presented in Table 17, the probability of increased acts of aggression perpetrated at airports was rejected.

The remainder of the crime-oriented data gathered for the validation of this research question was sorted into the

second general UCR index classification of 'crimes-against-property'. These are correspondingly compared in Table 18 in an attempt to determine a possible existing correlative relationship.

TABLE 18  
Crimes Against Property

Year	Houston Police	Airport Police
1971	69,548	51
1972	70,277	105
1973	76,364	91
1974	84,184	297
1975	86,161	282

Most crimes in the UCR classification of crimes-against-property transpire in settings offering clandestine conditions. The multitudes of people utilizing the airports precludes affording this opportunity. As evidenced by the preceding tables, the Houston Airport Police had significantly fewer crimes reported to them in the categories listed.

Citizen density. The air carriers operating from Houston's airports enplaned nearly six million passengers in 1975. In conjunction with those deplaned and those not classified as passengers, the total increased to almost fifteen million. Considering the tremendous influx of people patronizing the airports, the rate of criminality

displayed is exceptionally low. Although additional sanctions are present as a consequence of federal regulations, fewer infractions occur at airports.

To analyze this disparity by means other than those associated with tenets describing collective behavior and criminological theories would be un-descriptive of the actual conditions governing situations of this magnitude.

Sequential synthesis. Upon ordering the information for purposes of explanation, specific personalities and individual motives for the commission of the offenses catalogued were grouped under one heading--deviance. For purposes of this analysis the deviant was classified statistically rather than pathologically, and operationally defined as: "One upsetting the delicate interactive processes within our social system by perpetration of criminal acts."

The visibility of law enforcement is greater at airports as a consequence of the required fixed-duty stations at passenger screening points. As a result, the strong possibility of direct confrontation with an authoritarian figure reduces the propensity to behave deviantly. Although external pressures are a very effective method of altering deviant behavior, the police cannot be totally credited with the dramatic absence of crime at an airport.

Table 19 is a frequency distribution portrayal of

six age intervals and the incidence of occurrence per age group, including the corresponding percentage of the total.

TABLE 19  
Passenger Frequency  
(By Age)

Age Interval	Respondents	Percent
18-24	335	8.1
25-35	1,804	43.6
36-45	1,315	31.8
46-55	443	10.7
56-65	219	5.3
Over 56	21	0.5
TOTALS	4,137	100.0

Typologies depicting criminal activity invariably include the fact that most crimes are perpetrated by males between the ages of 18-24 and further describe this period as the "age of maximum criminality." Table 19 obviates the fact that this specific age group is not a plurality among those at airports.

Theoretical considerations. Two theories dominate the explanations relevant to crime and delinquency during the age of maximum criminality. The first of these deals with the socio-economic aspect and explains that the aspirations of the poor class toward egalitarian status with the middle and upper classes often produces criminal

behavior. A preponderance of those representing the lower socio-economic faction is not represented at an airport. This is evidenced from two perspectives:

- (1) airline fares being the highest in the transportation field usually prohibits their using this mode of travel;
- (2) as is evidenced by Table 15, 73 percent of those enplaning passengers interviewed were on business trips.

This must be interpreted as lucrative employment for the majority of those travelling and a consequential insignificant representation of those of lower socio-economic classification.

The second explanation proposes that deviant behavior flourishes where it receives group support and is not a solitary enterprise. As depicted in Table 20, 86 percent of the enplaning passengers were alone. This may indicate their temporary separation from those known to them and a departure from support for criminal activity.

Table 20 describes some social characteristics of persons travelling together in pre-arranged parties. Column one is the actual number in each party. Column two represents those interviewed who responded to each category. Column three is the percent in each category of the total interviewed.

Statistics describing aggression have also been correlated by criminologists and include the fact that most aggression occurs between those who are acquainted.

TABLE 20  
Social Characteristics

Number in Party	Number Responding	% of Total Interviewed
One	6,904	86
Two	883	11
Three	161	2
Four or more	80	1
TOTALS:	8,028	100%

Combining this knowledge with the information in Table 20 is demonstrative of a low level of aggressive behavior on behalf of persons utilizing an airport because of insufficient familiarity with those about them.

Social influence. In group settings such as those experienced at an airport, the social influence factor permeates the behavior of all persons including those classified as deviant. Anticipated interaction of a nature inconsistent with that normally experienced by the deviant act to control his usual behavior from four distinct perspectives:

(1) Affiliation. Deviants are not certain as to how they should behave in situations of this magnitude so they compare their actions with those about them. To determine the appropriateness of their actions, they will affiliate with others in the same situation in an attempt to reduce the fear of uncertainty. This social comparison theory

strongly supports the need for affiliation which manifests itself in a pattern of behavior emulating conventionality. In a display of social desirability, they socialize with those about them in a manner which does not reveal deviancy.

(2) Proximity. Taking a trip is a planned venture. In situations where interaction is anticipated and mandatory, not only does the deviant convince himself that his experience will be pleasant, he will be unusually pleasant to those around him. This leads to mutual complementarity and consequently reinforces favorable conditions and reactions which diminish deviancy.

(3) Conformity. While at home in their individual communities, deviants are known and do not try to conceal deviancy. But the possibility of being thrust into a group that disagrees with him results in an alteration of deviant tendencies. He wants those in the group to like him, treat him well, and accept him. Deviants do not want to be rejected, and consequently, conform to those about them.

(4) Territoriality. People will tolerate behavior, otherwise adverse when in a foreign environment. Unfamiliarity with the surrounding community acts to quell displays of criminality. This is especially true when dealing with possible aggressive behavior of persons travelling alone.

Conclusion. It is not that deviants are not present,



they merely do not display this factor at airports. Although dissonance may exist because of inconsistencies between beliefs and behavior, it is minimized by generating consonance with socially acceptable behavior. The end-result is not a change in the basic attitude, but a temporary alteration of deviant behavior so as to comply with accepted patterns of behavior being experienced at that given time.

### Commentary

All police are required to function in two separate capacities. The first of these is the law enforcement function and usually includes contact resulting in punitive measures levied by some agency of the criminal justice system. The second capacity is described as the peace-keeping function and includes a style of policing which is best characterized by frequent but informal intervention and the consequent absence of apprehension and punitive action.

It is the peace-keeping function which is most prevalent at airports and must be considered of primary importance. All complaints are taken seriously but less formal sanctions are applied. This is not to imply under-enforcement but an attitude which does not require the use of arrest power extensively.

As the division between law enforcement officer and peace officer became more visible, the need for selection

criteria to match the role requirements with the requirements of those persons using airports became apparent. Consequently, the comparison of pertinent crime-oriented statistics of overlapping jurisdictional authorities was conducted to determine a correlation of the elements required for the proper assessment of the behavioral characteristics enhancing the service function.

The delineation of factors resulting in the reduction of adverse behavior was stressed in order to explain and emphasize the necessity of instituting reciprocal role expectations predicated upon non-criminal activities displayed by audiences at airports.

The available evidence supporting this research question clearly indicated that citizen contact with the airport police is essentially non-negative in context. Therefore, occupational interaction must be geared to anticipated socialization as dictated by non-negative community contact.

#### Restatement of the Problem

In retrospect the problem--as formally stated in Chapter I--is that the enactment of FARs increased the responsibilities of the airport police and consequently generated a greater need for more highly qualified personnel. This, in turn, stimulated concern in determining a method of selecting airport police officers whose

individual distinctive characteristics exhibit the most desirable qualities pertinent to longevity and productivity.

Figure 6 is a diagrammatic presentation of the existing facts and is a general historical overview representing the disposition of the total complement of sworn personnel of the Houston Airport Police.

### Operational Definitions

For purposes of explanation and comprehension, the specific classifications are defined as they pertain to this thesis. The first term is 'successful' and encompasses those sworn personnel currently employed by the agency regardless of position. The second term to be utilized in this analysis is 'failure'. This term was selected to be descriptive of the fact that the Houston Airport Police agency failed from two standpoints: (1) Either their selection of the person to accomplish the assigned tasks was inadequate as defined by prerequisites; or (2) the agency failed to recognize, compensate or adequately reward--in some respect--the individual's contribution.

Failures are those individuals who did not remain with the original hiring agency until reaching a status of retirement or terminal classification. It is intended to define those persons who went to other jobs regardless of the length of time with the agency. (This classification is not intended to reflect the fact--expressed or implied--

PERSONNEL CLASSIFICATIONS

HOUSTON AIRPORT POLICE

( Historical Overview 1968-1975)

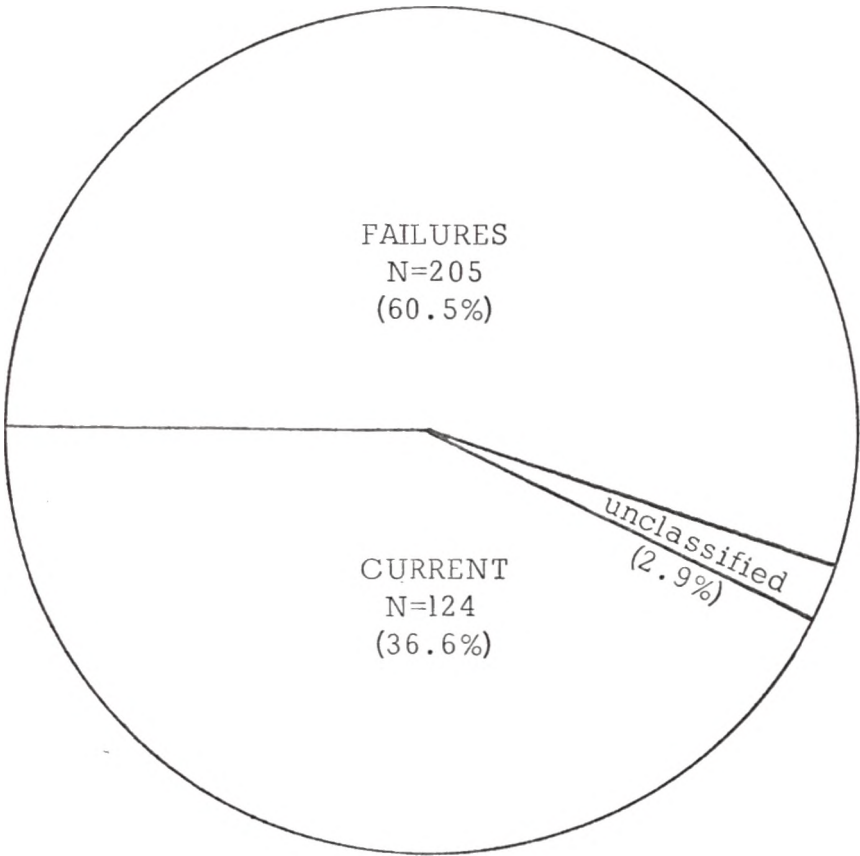


Figure 6

that the individual was a failure.)

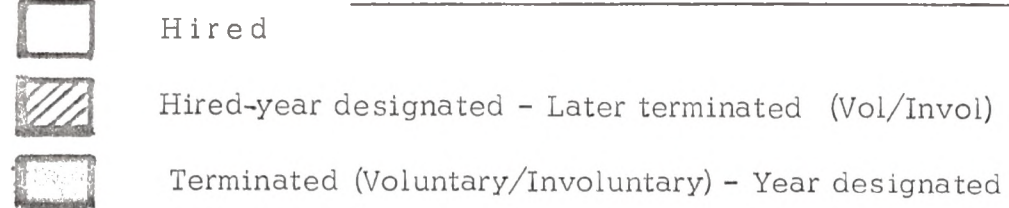
The final term to be defined in this area is 'unclassified'. It includes those sworn personnel who left the agency for any reason other than to accept employment of any nature. In this classification are such reasons as terminal illness, death, retirement, etc.

Figure 7 is a detailed graphic recapitulation of: (1) officers hired (year indicated); (2) hired and finally terminated at some later date; (3) officers hired and terminated during the same year.

#### Central Theme

The primary aspect of this segment of the thesis was to bring together those pertinent facts regarding desirable characteristics of successful airport police officers and combining them into easily recognizable and measurable variables capable of being utilized during the entire employment process. These were then to be combined with other factors learned from ancillary experimental areas dealing with this study.

Selection has become increasingly more difficult as a consequence of the expanding role demanded by the addition of new responsibilities relegated to the airport police. The fact that additional functions have not been properly delineated or defined has complicated the process



LEGEND

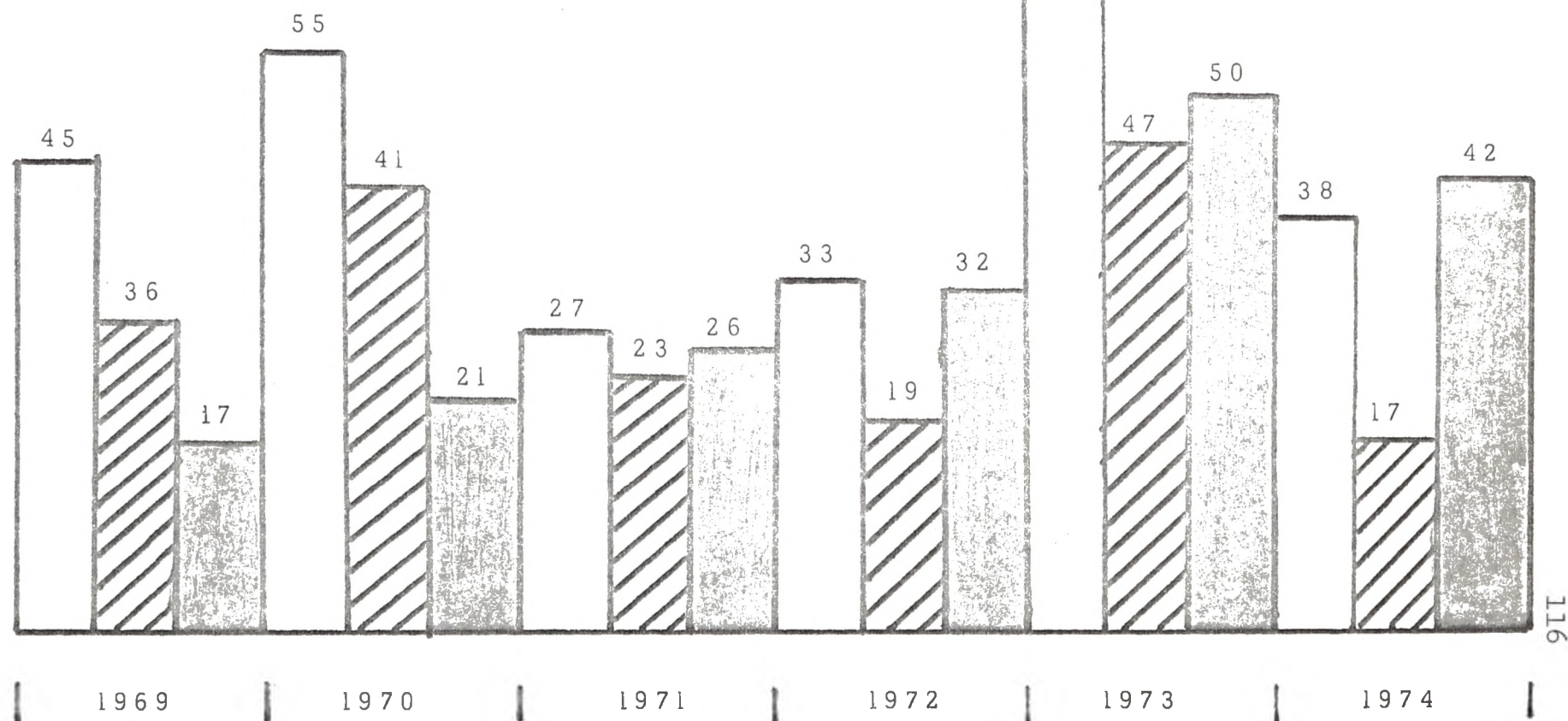


Figure 7

even more. It is hoped that a panoramic perspective of the characteristics of successful officers, in conjunction with the social psychological characteristics investigated, will formulate a profile of an individual with emotional suitability to perform the duties of an airport police officer.

Prior events. The historical perspective is an indispensable variable for the comprehension of present situations and the prediction of future events. In keeping with this theme, this aspect of the study concentrated on combining past events known to have produced results favorable to the longevity and performance of airport police officers. These were then to be utilized in conjunction with current objectives and priorities portraying a form of specialization which depicts a profile from which a successful airport police officer may be selected.

Analytic constructs. The findings were first programmed into three general categories and then into specific factors. In ranking each factor, two similar structures were employed. One was length of service and the other was advancement within the system. Those factors coordinated and correlated most frequently were given the highest positive rankings. Conversely, those with the least correlative relationship were given the highest negative rankings.

Following the isolation of pertinent information



the abstracted facts were delineated into one of three specific categories for purposes of explanation and implementation. Each of the components in these separate areas was then subjected to a factor analysis predicated upon well-established empirically-determined principles of behavior.

Basic requirements. The first classification was entitled 'preliminary criterion requirements'. These consisted of a recapitulation of the minimum standards for certification as required by the State of Texas for appointment as peace officer. (See Table 5 for a review of these requirements.) Included in this classification is the personal background investigation which is somewhat delineated by Texas statutory provisions but is essentially interpreted by the hiring agency. Predicated upon this factor, the following two classifications of variables are subsumed within the category of 'differential background investigation of life-historical facts'.

Subjecting these to a factor analysis and arranging them into meaningful categories resulted in a group of variables called 'predictive profile variables'. As the classification implies, an increasing incidence of listed factors indicates that the applicant will be more successful as an airport police officer.

Demographic delineation. The first of these classifications delineated the demographic variables which were



carefully scrutinized to determine the possibility of inadequate reliability. Facts such as place of birth, number of residences, ordinal position, military service, marital status, age, and number of children were enlarged and examined in detail by the precise correlation of existing knowledge. This culminated in the adaptation of a group of conditions known to be present in the biographical data of successful Houston Airport Police Officers.

Place of birth proved to be significant in that the majority of current officers were born in Texas. Furthermore, a large percentage were from the immediate vicinity of the community being served by the airport. Closely related to this was the number of residences listed by the officers. Those considered successful had fewer residences.

Ordinal position was considered important from two perspectives: (1) success as an airport police officer, and (2) promotion within the agency. In both instances, the family's only son or the first-born son was considered most suitable for the position.

Military status was discovered to have two significant aspects. The first was the fact that serving in the military was in no way related to the success of an officer. However, the second significant factor was found to be somewhat contradictory to the first in respect to the amount of time spent in the service. The length of time on active

duty was inversely related to success. It was definitely concluded that military retirees are highly subject to failure within the airport police system.

Marital status was examined from two perspectives which culminated in three important findings: (1) Almost all successful officers had been married; (2) With the exception of two officers, all those receiving promotions were married; (3) With the exception of a small minority of the current officers, the parents of the officers had not been divorced.

Both employment classifications (successful/failure) exhibited age differentiations encompassing the entire allowable spectrum. Consequently, the statistical mean of those officers categorized as successful was calculated and combined with current applicable minimum pension requirements. These were then correlated with the officers displaying the greatest tenure in order to reach a determination which indicated that the most favorable age for initial employment is between twenty-four and thirty-eight.

Those officers with dependents remained with the agency for a longer period of time. This was also true of those officers with step-children. Although the number of dependents was available, no significant determination was made based on increasing dependency. However, of those officers receiving promotions, only two were without dependents.

Factor rejection. Certain available demographic factors were rejected for various reasons. Among these were an officer's military rank if he had served in the armed forces. Also, the branch of military service was rejected because it failed to correlate significantly. Another statistic rejected because of the availability of too many variables was the wife's employment in those cases where the spouse was employed. The father's employment was also rejected because there was insufficient information to warrant a meaningful determination.

Education as prescribed by statutory requirement proved to be adequate. Increased formal education failed to guarantee success as an airport police officer. Although most officers attaining the rank of lieutenant had attended college, the level of educational achievement had no relationship with predicting success as herein described.

Theoretically-oriented variables. Data available for analysis included individual life-historical factors as well as conditions sorted out on the basis of similarities displayed by groups exhibiting exaggerated negative percentages. Variables pertinent to this category were gathered from the initial application and during the background investigation. When matched with those areas considered detrimental to extended longevity, specific patterns emerged.

The single most important area which yielded the greatest number of significant variables was the area of

previous employment. From this it was concluded that a pre-determination for attaining rank was to have had an employment history which included extensive sales or promotional experience.

Stability in the previous job was highly correlated with success. With the exception of those officers who had remained with their previous job for a period of time enabling them to retire, stability proved to be a reasonably accurate predictor of success.

Retirees, regardless of the previous occupation, were less susceptible to continued employment. Although stability proved valuable, upon attaining retirement, an inverse relationship appeared. This was especially obvious with military retirees whose rate of failure was the greatest of all occupational areas studied.

The number of residences was closely aligned with stability in employment and displayed an inverse relationship obviating the fact that: the greater the number of residences, the less the chance of success as a Houston Airport Police Officer.

Another area of employment found to be negatively associated with success was previous police experience. Almost all officers with previous experience in this occupation and especially those having once been employed by the Houston Airport Police and subsequently re-hired, came under the heading of failure.

Among the variables listed in this classification, which culminated in failure, were members of the immediate family of employed officers. Almost all officers in this capacity terminated their employment with the agency.

Variable aggregation. The three previous classifications culminated in a manifestation of a select combination of factors logically and empirically determined to enhance the success of selecting airport police officers. The chronicling of these factors was accomplished by assigning a heading of 'predictor profile variables'. These variables were formulated to strengthen a discriminate equation containing two factors: (1) Continued employment, and (2) Eventual promotion within the department. In elucidating a predictive profile in outline form, the following variables should be incorporated into the existing selection criteria where applicable.

#### Predictor Profile Variables

##### A. Preliminary Criterion Requirements: (TCLEOSE)

1. U.S. Citizen
2. 19 years of age (Modified to 24-38)
3. No felony convictions
4. No DWI or DUID convictions last 10 years
5. Good moral character
6. High school or GED
7. Good physical condition
8. Emotional stability
9. Personal interview
10. Honorable discharge (if applicable)

##### B. Demographic Factors:

1. Place of birth

2. Number of residences
3. Military status
4. Marital status
5. Age upon employment
6. Dependents

C. Theoretically Oriented Variables:

1. Previous employment:
  - a. Stability
  - b. Retirement status
  - c. Police experience
2. Re-hire characteristics
3. Members of the immediate family
4. Ordinal position

Factors such as height, weight, visual acuity and agility commonly associated with individual rejection were without significance. During the investigation, physical attributes normally associated with mandatory requirements, proved to be too arbitrary to be subjected to a meaningful correlation. Oftentimes a candidate is rejected on the basis of physical characteristics which have no connection with the individual's ability to adequately perform the assigned duties.

Further recommendations would include the utilization of the MMPI and the spectroscope to determine the degree of violence associated with the candidate's perceptions of the events occurring at airports.

Commentary

It has been concluded that success may be partially measured by retrospective performance based on tenure. It

was also concluded that the presence of specific demographic factors would demonstrate accurately those who would qualify, perform adequately, and eventually be promoted in this capacity. The explicit application of the stated variables during both recruiting and promoting will be conducive to the ultimate in longevity and productivity.

The investigations associated with this thesis have clearly indicated that development of proficient airport police officers, employing optimal rational behavior, is possible by the prescription of the most desirable characteristics discovered during this project.

This study should not be considered as a terminal decision regarding the selection of airport police officers. Rather, it should be recognized as a beginning in a possible series of related studies.

## CHAPTER VI

### SUMMARY AND CONCLUSIONS

#### Summary

The primary emphasis of this study concentrated on the need for precision regarding the formulation of a 'fail-safe' recruitment, assessment, and selection criterion to be utilized by law enforcement agencies whose function is the safety and security of this nation's airports being served by certificated-air-carriers.

The basic reason why this study was conducted was to determine and identify--if possible--the etiological factors present in the current hiring process resulting in what has been classified as an excessive loss of sworn personnel from the ranks of the Houston Airport Police.

The intention of this study was to determine the most feasible characteristics to be utilized during the employment process in order to develop optimal longevity and productivity. The major objective was to determine whether there were any significant relationships existing between the specific demographic factors and those officers considered successful. By the same reasoning, the preponderance of a given factor by those who were classified as failures was also considered important--conversely--from a negative perspective.

Of major importance in this study was the emphasis



placed on the behavior of those persons using these air service facilities. Their actions, as measured by the varied instruments, had a profound effect on the intermediate inferences which were necessary in order to reach the final conclusion.

This summary will not include the various social psychological theories utilized in the previous chapter to explain the behavior of those persons using airports or the airport police. The reason is that this research was not instrumental in formulating or developing these authoritative explanations but humbly used them to further elucidate those facts which were empirically discovered during this study.

#### Inaugural Influence

FAR Part 107 signaled the demise of the vestiges of nepotism which were often present in the selection of officers for this position. As a consequence of this regulatory legislation, it became necessary to convert a surrogate security force into a first-line police agency.

The paucity of literary references dealing with airport police agencies, their duties, their personnel and organizational structures, was indicative of the novelty associated with this inquiry. But, because of the recently inherited police functions delineated by FAR Part 107, it was decided that recruitment and selection criteria used by police agencies serving county and municipal communities would parallel those required by airport police.

Predicated upon this assumption, a review of existing literature revealed that typically most police agencies suggest that the police candidate should be at least a high school graduate (or have completed an equivalency exam), be a U.S. citizen, meet specific age and physical conditions, etc. To this, a dimension of psychological stability and community awareness was added.

Having decided upon the indices to be utilized to ascertain the presence of the most favorable characteristics, it then became a matter of deciding the most appropriate method of extracting these from the candidate's background. Pondering this point culminated in the decision to use available demographic factors and empirically decipher and interpret these facts in order to derive a set of variables which would, when consolidated, form a graphic profile of an ideal airport police officer. This profile included those aspects of personal integrity considered highly amenable to optimum productivity.

It is not the intention of this chapter to explicate the methods or the findings, but rather to reiterate, in capsule form, what was discovered as a consequence of this study.

In reaching the proper determination regarding the selection of the most appropriate characteristics, three research questions were formulated and the corresponding methodological instruments were devised. In the first

research question a mail-out questionnaire was used to determine if the situation experienced at Houston was characteristic of those conditions being encountered nationwide.

Research question number two was validated by surveying enplaning passengers at both Houston airports and asking a series of questions to determine the likeness of the travelling public.

The third research question was an attempt to determine the proper role to be displayed by the airport police. A comparison of the police criminal activity reports from the Houston Police Department and the Houston Airport Police was conducted and the results deliberated, interpreted, and catalogued.

Following this, the central theme was concentrated upon and an investigation of available personnel records of both former and current sworn personnel was conducted. In conjunction with this, each officer employed at the time of this study was requested to complete a newly prepared questionnaire structured for Airport and Park Police Officers by the City of Houston Civil Service Department. (see Appendix C)

In formulating a replica of a successful officer one important factor determining success was presumed to be the completion of assigned tasks. Consequently, indices of measurement associated with productivity permeated all

phases of the research dealing with this inquiry.

### Conclusions

The by-products of this study generated sufficient evidence to substantiate the findings presented in this section. In an endeavor to simplify the major issues, each will be separated into segments for purposes of explanation and comprehension.

### General Information

1. FAR Part 107 specifically delineated the pre-requisites governing law enforcement officers at airports. This forecast the need for the coordination of efforts regarding recruitment, selection, training, and communications.

2. Texas House Bill No. 82 added momentum to the Federal legislation by granting state peace-officer certification to airport law enforcement agencies at airports being served by certificated-air-carriers.

3. This study was conducted using two facilities thereby adding a degree of variability to the results by virtue of similar but diverse settings (Hobby Airport has only 17 officers, whereas Intercontinental Airport has a complement of 97 sworn personnel).

### Research Question Number 1

1. The response to the mail-out "Factual Identity Inquiry" questionnaire was significant and produced returns

of 87.5 percent.

2. With the exception of some administrative and physical plant differences, the response to the questionnaire was highly correlative with other airports responding to the inquiry.

3. Most airports have smaller complements of sworn personnel than Houston Airport Police even though there is more than one facility in 62 percent of those responding.

4. Police equipment varied considerably and was closely correlated with physical plant differences.

5. The selection criterion was the same with the exception of minor differences being accorded the value of previous police experience and age requirements.

6. Although private agencies are allowed to assist in some areas of airport security, in all but 8 percent these options were filled by sworn personnel.

7. Seventy-four percent of those agencies responding employed certified female officers to perform police duties.

8. Duties were closely aligned at each airport responding.

9. Training was closely correlated so as to conform to the required duties. Response to questions on training were 97 percent alike, indicating an exceptionally close relationship.

Research Question Number 2

1. The STOL feasibility survey conducted by the Engineers of the Southwest produced a significant number of usable interviews (8,028) generating a 95 percent confidence level indicating accuracy to one percent.

2. Most passengers interviewed (74%) were on business trips.

3. Less than half of the passengers (42%) live in the region of Hobby or Intercontinental Airports.

4. The majority of persons (82%) travel alone.

5. Many persons (69%) had taken other trips by airplane in 1975.

6. Over half of those persons (53%) leaving on flights arrived at the airports by private automobile.

Research Question Number 3

1. Both the Houston Police Department and the Houston Airport Police are experiencing an increase in crimes reported to the police as indicated by appropriate records of each department.

2. The Houston Police Department and the Houston Airport Police are not alike as regards the rate of crime transpiring in their jurisdiction.

3. Although police duties do exist at airports they do not compare with municipal police functions.

4. A comparison of duties is possible utilizing crime-oriented statistical information.

### Productivity

1. In preparing the variables for statistical analysis it was discovered that the records of the Houston Airport Police were incomplete.

2. The absence of seniority preference controlled productivity from the standpoint of shift designation and duty-post assignment.

3. Shift designations determined the type and the amount of visible contact with possible offenders and other persons needing assistance of a non-criminal nature which consequently effects measures of productivity.

4. Duty posts greatly effected the exposure to those situations used as measures of productivity for this study.

5. Administrative assignments completely negated any contact with events culminating in selected measurable units of productivity.

6. Supervision was the most single influential factor controlling productivity. The supervisor assigns the duty posts and is responsible for shift designations. The supervisor evaluates each individual's performance and the fact that subjectivity permeates this evaluation relegated this aspect to an inconsequential index of measurement.

7. Absenteeism was rejected as a unit of measure on the basis of being discriminatory because of the inability to decipher feigned illness from legitimate physical distress.



8. The inability to measure factors such as the deterrent effect raised doubts as to the credibility of measuring productivity.

9. The measures originally thought to be available failed to include such valuable factors as effective individual influence upon favorable community relations.

10. Attempts to appraise productivity conflicted so frequently with the selected units of measure that any thoughts of using productivity as a favorable condition for the development of a coefficient-of-conduct were rejected.

Central Theme  
(Relationships Among Demographic Factors)

1. The historical total of Houston Airport Police Officers is 339 persons.

2. Personnel turnover has been in excess of 20 percent of the force per annum.

3. Of all officers hired, 60.5 percent have been classified as failures.

4. Of all the officers hired, 104 have failed to complete the first year of service.

5. Ten percent of the force is currently female.

6. The rate of failure among females has been established as 41 percent.

7. The number of sworn personnel was increased



substantially with the enactment of FAR Part 107.

8. The complement of sworn personnel reached a high of 144 officers but was finally stabilized at 124 officers by decree of City Ordinance.

9. The mean age of current officers is 37.5 years, but age varied by such a degree that a determination predicated upon age was not feasible.

10. The average age of female officers is 41.9 years.

11. Age did not affect tenure with the agency.

12. Age affected military status with those officers who were younger having less military service.

13. Age affected marital status with those officers who were younger being married a shorter period of time, more often classified as single, and divorced less.

14. A higher level of education was achieved by those officers who were younger.

15. Education is a determining factor for success as a ranking officer. All but one lieutenant had some college and one is in possession of a degree.

16. Previous occupation is a determining factor for success as a ranking officer. All current lieutenants have had extensive dealings with people while in a civilian status prior to becoming police officers. Most were in promotional occupations.

17. Fifty percent of all lieutenants ever promoted have been classified in this study as failures.

18. The lieutenants who left were younger, as a group, than those who have remained with the agency.

19. Fifty percent of those having attained the rank of sergeant have elected to pursue employment elsewhere.

20. The sergeants who left were older, as a group, than those who have remained with the agency.

21. Married officers attained rank sooner.

22. Married officers had greater tenure.

23. Relatives of officers classified as immediate family resulted in 95 percent failure.

24. Place of birth appears to be significant. Sixty-one percent of the current officers were born in Texas.

25. Birth order appears to have played a significant part in that 45 percent of the successful officers do not have a brother.

26. Retirees comprised 18.8 percent of the aggregate total.

27. Of all the military retirees hired, 76.6 percent resulted in failure.

28. Military service had no correlation to success.

29. Of the other retirees hired, 63.7 percent resulted in failures.

30. Those officers re-hired after terminating one time resulted in a final failure rate of 58.5 percent.

### Application

These findings are the product of a harmonious fusion of empirical data and logical inferences specifically amassed to verify that the selection of airport officers can be scientific in its orientation and be applied universally throughout the system.

### Discussion

This nation's aviation security problems encountered during the past decade increased the responsibilities relegated to the airport police and demanded a quality of law enforcement which has since been stabilized by the formulation and implementation of applicable Federal Aviation Regulations. This, in turn, generated an immediate need for more highly qualified persons to occupy positions commensurate with the responsibilities.

As a consequence it became necessary to concentrate on recruitment policies to foster the development of interest in this challenging and rewarding field of endeavor. However, prior to formulating a recruitment policy it was necessary to determine what personality characteristics were considered imperative for the achievement of optimum productivity.

In order to accomplish this, it was necessary to interpret, correlate and relate demographic factors and resultant variables considered most important into a body

of knowledge culminating in a graphic profile of an individual best suited for a career as an airport police officer.

As previously described, a police personality does exist and is characterized by most scholars in terms of acculturation fostered by interpersonal relationships derived from our diverse social system. Using this as a point of departure, it was assumed that this specific entity could be graphically portrayed by a retrospective investigation of personal records at one of the nation's busiest airports.

Prior to this, however, it became necessary to determine exactly what constitutes a typical airport from the perspective of needs based on administration, organization, and duties. Through the utilization of a questionnaire sent to forty airports, it was determined that the conditions at Houston were characteristic of those being experienced nationally.

The normal progression of events soon revealed that a predictive profile of an airport police officer could be composed only after ascertaining what his duties consisted of and who were to be the recipients of his discretionary behavior. Having established the fact that most people at airports are concerned with cooperation rather than confrontation, and will therefore tolerate a greater degree of dissonance in an effort to reach their destination, the

task became one of integrating this factor into the mainstream of the project.

Further experimentation and observation revealed that those officers classified as successful had displayed their awareness of the importance of dealing with persons on an ad hoc basis concerned with the amelioration of individual problems.

This study defined the travelling public as a relatively homogeneous group who should be accorded an amount of and degree of law enforcement easily anticipated by the traveller regardless of his point of entry or departure from the system.

One aspect of this thesis which failed to materialize was the attempt to define and develop criteria to increase the productivity of airport police officers. Each pre-selected index had to be rejected because of insufficient validity. Consequently, after an exhaustive attempt to relate the indices to the situation being experienced in Houston, it was found that productivity was directly proportional to and commensurate with the amount and degree of highly subjective autocratic supervision.

By integrating the information empirically determined by the precise correlation of responses to questionnaires and recorded demographic factors, it was possible to delineate and classify the specific variables considered most important in predicting the longevity and over-all success of sworn

airport police officers.

It is hoped that this study will prove to be as valuable as it was interesting to conduct since it identifies certain personality, biographical, and demographic variables to be used as predictors of the success of airport police officers.

#### Recommendations for Further Study

1. It is recommended that a longitudinal study replicating the conditions outlined in this thesis be conducted to determine the reliability of the findings of this investigation.

2. It is recommended that research be conducted with the express purpose of specifically defining the role requirements of airport police officers.

3. It is recommended that a study be conducted to determine the feasibility of instituting an airport police agency under the express jurisdiction of the Federal Government.

4. It is recommended that an investigation of the duties performed by airport police officers be conducted so as to ascertain, with precision, the type and the amount of training to be accorded these agencies.

5. It is recommended that a study be conducted in an attempt to determine the attitude of airport police officers toward their occupation.

6. It is recommended that a study be conducted to determine if a semi-military posture is the most desirable image to project at airports in lieu of their reduced rate of crime.

## APPENDIXES



## APPENDIX A

Summary of Skyjackings and Attempted  
Skyjackings of U.S. Registered Aircraft  
(1961-1975)

## APPENDIX "A"

Summary of Skyjackings and Attempted Skyjackings of U. S. Registered Aircraft  
(1961 - 1975)

Year	No.	Date	Air Carrier	Objective	Point Where Hyjacking Occurred	Result
1961	1	5/1/61	NAL	Cuba	Shortly after take-off	S
	2	7/24/61	EAL	Cuba	Shortly after take-off	S
	3	7/31/61	PAC	Unknown	Before take-off	U
	4	8/3/61	CAL	Cuba	Shortly before arriving at El Paso	I
	5	8/9/61	PAA	Cuba	Shortly after take-off	S
1962	1	4/13/62	(Gen)	Cuba	Chartered the aircraft	S
1963	0					
1964	1	2/18/64	(Gen)	Cuba	Chartered aircraft	S
1965	1	8/31/65	HAL	Honolulu	Shortly after take-off	U
	2	10/11/65	TSA	Unknown	Before take-off	
	3	10/26/65	NAL	Cuba	Shortly after take-off	
	4	11/17/65	NAL	Cuba	80 Miles out of New Orleans	
1966	0					
1967	1	11/20/67	(Gen)	Cuba	Chartered aircraft	S
1968	1	2/9/68	PAA	Unknown	Before take-off	U
	2	2/17/68	(Gen)	Cuba	Chartered aircraft	S
	3	2/21/68	DAL	Cuba	Shortly after take-off	S
	4	3/12/68	NAL	Cuba	Shortly after take-off	S
	5	6/29/68	SEAX	Cuba	9 minutes out of Marathon, Fla	S
	6	7/1/68	NWA	Cuba	38 miles north of Miama	S
	7	7/4/68	TWA	Mexico	20 minutes out of Las Vegas	U
	8	7/12/68	(Gen)	Cuba	Chartered aircraft	S
	9	7/12/68	DAL	Cuba	60 Miles SW of Nashville	I

Year	No.	Date	Air Carrier	Objective	Point Where Hyjacking Occurred	Result
1968	10	7/17/68	NAL	Cuba	10 Miles E of Houston, Tex	S
	11	8/4/68	(Gen)	Cuba	Chartered Aircraft	S
	12	8/22/68	(Gen)	Cuba	Chartered Aircraft	S
	13	9/20/68	EAL	Cuba	Vicinity of Caicos Island	S
	14	10/23/68	(Gen)	Cuba	Chartered Aircraft	S
	15	11/2/68	EAL	So. Vietnam	During stop at Birmingham, Ala	U
	16	11/4/68	NAL	Cuba	1 hr, 15 min E. of New Orleans	S
	17	11/23/68	EAL	Cuba	Over Louisville	S
	18	11/24/68	PAA	Cuba	550 miles E. of Bimini	S
	19	11/30/68	EAL	Cuba	11 Minutes out of Miami.	S
	20	12/3/68	NAL	Cuba	10 miles out of Miami	S
	21	12/11/68	TWA	Cuba	10 miles S of Chatanooga	S
	22	12/19/68	EAL	Cuba	Over Jacksonville	S
1969	1	1/2/69	EAL	Cuba	15 minutes out of Miami	S
	2	1/9/69	EAL	Cuba	60 Miles E. of Jacksonville	S
	3	1/11/69	UAL	Cuba	20 minutes after take-off	S
	4	1/13/69	DAL	Cuba	Shortly before touchdown in Miami	U
	5	1/19/69	EAL	Cuba	Near Jacksonville	S
	6	1/24/69	NAL	Cuba	4 minutes after take-off	S
	7	1/28/69	NAL	Cuba	40 Miles north of Fort Myer	S
	8	1/28/69	EAL	Cuba	200 Miles west of Tampa	S
	9	1/31/69	NAL	Cuba	200 Miles east of Houston	S
	10	2/3/69	NAL	Cuba	111 Miles E. of Charleston, S.C.	U
	11	2/3/69	EAL	Cuba	117 Miles N. of Wilmington, N.C.	S
	12	2/10/69	EAL	Cuba	Over Sol Acklin Island	S
	13	2/25/69	EAL	Cuba	Shortly after take-off	S
	14	3/5/69	NAL	Cuba	50 Miles S. of Norfolk, Va	S
	15	3/17/69	DAL	Cuba	20 Miles W. of Augusta	S

Year	No.	Date	Air Carrier	Objective	Point Where Hyjacking Occurred	Result
1969	16	3/19/69	DAL	Cuba	35 Miles NW of New Orleans	I
	17	3/25/69	DAL	Cuba	50 Miles W of Dallas	S
	18	4/13/69	PAA	Cuba	40 Miles W of Ciacos Island	S
	19	5/5/69	NAL	Cuba	30 Miles N of Palm Beach	S
	20	5/26/69	NEA	Cuba	150 Miles E of Jacksonville	S
	21	5/30/69	TXI	Cuba	On Final approach to New Orleans	U
	22	6/17/69	TWA	Cuba	Over Wilson Creek, Nevada	S
	23	6/22/69	EAL	Cuba	Shortly after take-off	S
	24	6/25/69	UAL	Cuba	15 Miles W of Riverside, Calif	S
	25	6/28/69	EAL	Cuba	30 Miles S of Barracuda	S
	26	7/26/69	CAL	Cuba	Approaching Midland, Texas	S
	27	7/31/69	TWA	Cuba	Over Wichita, Kansas	S
	28	8/5/69	EAL	Cuba	20 Minutes N of Tampa	U
	29	8/14/69	NEA	Cuba	Prior to reaching Gateway intersect.	S
	30	8/29/69	TWA	Syria	Over the Adriatic Sea, near Rome	S
	31	8/29/69	NAL	Cuba	55 Miles SE of Sarasota, Fla	S
	32	9/7/69	EAL	Cuba	650 Miles E of Jacksonville, Fla	S
	33	9/10/69	EAL	Cuba	One hour after departing New York	U
	34	9/24/69	NAL	Cuba	10 Minutes out of Jacksonville	S
	35	10/9/69	NAL	Cuba	8 Miles E of Fort Stockton, Texas	S
	36	10/21/69	PAA	Cuba	Upon descent for landing at Merida	S
	37	10/31/69	TWA	Italy	Over Salinas, Calif	S
	38	11/10/69	DAL	Sweden	Prior to take-off	U
	39	12/2/69	TWA	Cuba	50 Miles NE of Pawnee, Nebraska	S
	40	12/26/69	UAL	Cuba	20 Miles SE of Huguenot VOR	S
1970	1	1/6/70	DAL	Switzerland	Shortly before landing at Jacksonville	U
	2	1/8/70	TWA	Beirut	Shortly after departure from Paris	S
	3	2/16/70	EAL	Cuba	100 Miles E of Charleston, S. C.	S

Year	No.	Date	Air Carrier	Objective	Point Where Hyjacking Occurred	Result
1970	4	3/11/70	UAL	Cuba	15 minutes after departure	S
	5	3/17/70	EAL	Unknown	Shortly before landing at Boston	I
	6	4/22/70	(Gen)	Cuba	Chartered Aircraft	S
	7	4/23/70	NCA	Detroit	While flight was on ground	U
	8	5/25/70	AAL	Cuba	10 Minutes after departure	S
	9	5/25/70	DAL	Cuba	One-half hour after departure	S
	10	6/4/70	TWA	Extortion	Over Albuquerque, N.M.	I
	11	6/22/70	NAL	Ciario	30 Minutes after take-off	S
	12	7/1/70	EAL	Cuba	75 miles E. of New Orleans	S
	13	8/2/70	PAA	Cuba	2 hours after departure	S
	14	8/3/70	CAL	Budapest		U
	15	8/19/70	PAA	Cuba	Clark intersection (After departure)	S
	16	8/20/70	DAL	Cuba	8 Miles SE of Dublin, Ga	S
	17	8/24/70	TWA	Cuba	Above Ft. Wayne, Indiana	S
	18	9/6/70	TWA	Ciario	Shortly after departure	S
	19	9/6/70	PAA	Jordan	Shortly after departure	S
	20	9/15/70	TWA	N. Korea	After departure from Los Angeles	I
	21	9/19/70	AAA	Cuba	Over Lancaster, Pa	S
	22	9/22/70	EAL	Unknown	Three hours after departure	U
	23	10/30/70	NAL	Cuba	Enroute to Tampa	S
	24	11/1/70	UAL	Cuba	49 Minutes after take-off	S
	25	11/13/70	EAL	Cuba	Immediately after departure	S
	26	12/19/70	CAL	Cuba	Between Wichita and Denver	I
	27	12/21/70	(Gen)	Mexico	Chartered Aircraft	I
1971	1	1/3/71	NAL	Cuba	150 Miles S of Tallahassee, Fla.	S
	2	1/22/71	NWA	Cuba	Between Milwaukee and Detroit	S
	3	2/4/71	DAL	Cuba	50 Miles W. of Indianapolis	S
	4	2/25/71	WAL	Cuba	Over Medford, Oregon	S
	5	3/8/71	NAL	Canada	While on the ground at Mobile, Ala	S

# KINDS OF WEAPONS INVOLVED IN HIJACKING INCIDENTS

<u>TYPE</u>	<u>Number of Incidents *</u>
Firearms (Alleged and Real)	131
BB Gun	1
Knives:	
Alleged	2
Real	25
Total knives	<u>27</u>
Bombs, Explosives:	
Alleged	27
Unknown	18
Real	6
Total Explosives	<u>51</u>

<u>TYPE</u>	<u>Number of Incidents *</u>
Tear Gas Pen	1
Broken Bottle	1
Fire Threat	1
Hatchet	1
Acid	1
Ice Pick	1
Razor or razor blade	4
Nail	1

\* Several hijackers used combinations of two or more weapons.

APPENDIX B

Explosions Aboard Aircraft of U.S. Registry

## APPENDIX "B"

Explosions aboard Aircraft of U.S. Registry

Date	Air Carrier	Point of Departure	Bomb Placement	Motive	Casualties	Survivors
11/1/55	UAL	Denver, Colorado	Baggage Comp	Extortion	44	0
7/25/57	WAL	Las Vegas, Nevada	Passenger Area	Extortion	1	0
1/6/60	NAL	New York, N. Y.	Passenger Area	Undetermined	34	0
5/22/62	CAL	Chicago, Illinois	Passenger Area	Undetermined	45	0
11/12/67	AAL	Chicago, Illinois	Baggage Comp	Extortion	None	—
11/19/68	CAL	Los Angles, Calif.	Passenger Area	Psycho	None	—
9/29/69	TWA	Rome, Italy	Passenger Area	Terrorists	None	—
9/7/70	PAA	Amsterdam, Neth.	Passenger Area	Terrorists	None	—
9/12/70	TWA	Tel Aviv, Israel	After Hyjacking	Terrorists	None	—
12/29/71	(Gen)	Elkhart, Indiana	Passenger Area	Extortion	None	—
3/8/72	TWA	Las Vegas, Nevada	Cockpit	Undetermined	None	—
9/21/73	(Gen)	Crestwood, Illinois	Passenger Area	Undetermined	Unknown	—
12/17/73	PAA	Rome, Italy	Passenger Area	Terrorists	30	Few
8/26/74	TWA	Rome, Italy	Baggage Comp	Terrorists	None	—
9/8/74	TWA	Athens, Greece	Baggage Comp	Undetermined	88	0
2/3/75	PAA	Bangkok, Thailand	Passenger Area	Psycho	1 injured	Remainder



Bomb Explosions, Devices Found on U.S. Aircraft and  
on Foreign Aircraft in the U.S. and at U.S. Airports  
(As of 12/1/75)

DEVICES FOUND

Year	Airport	Aircraft	Total
1969	0	0	0
1970	0	0	0
1971	5	1	6
1972	5	2	7
1973	3	2	5
1974	11	1	12
1975	5	1	6
			<u>36</u>

EXPLOSIONS

Year	Airport	Aircraft	Total
1969	0	1	1
1970	0	2	2
1971	0	1	1
1972	2	1	3
1973	2	2	4
1974	4	3	7
1975	4	1	5
			<u>23</u>

## APPENDIX C

### Factual Identity Inquiry

Houston Intercontinental  
Airport  
2800 Terminal Road  
Houston, Texas 77060

Dear Sir:

The ever-increasing passenger usage of air transportation in conjunction with the highly publicized stringent security measures recently initiated by the Federal Government have resulted in the proper recognition and appreciation of the many services rendered by Airport Law Enforcement Agencies. As a consequence, this has generated an increased need for additional persons to apply for and enter this rewarding field of police work.

Prior to establishing a recruitment policy, it is necessary to develop a selection criterion. For this reason, it is imperative to seek the assistance of those who possess expertise in this specific area of law enforcement.

The accompanying questionnaire is an endeavor to determine if a possible affiliative relationship, culminating in a general security classification, exists.

The application of the information you supply will greatly enhance the further development of a more highly effective Airport Police Department.

Yours truly,

Airport Police

FACTUAL IDENTITY INQUIRY

ADMINISTRATIVE --

YES NO

1. Is the airport operated by the city in which it is located? \_\_\_\_ \_\_\_\_
2. Is the airport operated under separate established authority? \_\_\_\_ \_\_\_\_
3. Is the airport operated under the auspices of FAA? \_\_\_\_ \_\_\_\_
4. Is there more than one airport under this system? \_\_\_\_ \_\_\_\_

PHYSICAL --

5. Is the airport located more than 10 miles from the central metropolitan area? \_\_\_\_ \_\_\_\_
6. Is the airport more than 5000 acres of dedicated area? \_\_\_\_ \_\_\_\_
7. Is there more than one passenger terminal? \_\_\_\_ \_\_\_\_

SECURITY

GENERAL --

8. Is there separate Aviation Department Security (Airport or Authority Police)? \_\_\_\_ \_\_\_\_
9. Are local municipal police used for security? \_\_\_\_ \_\_\_\_
10. Are privately contracted security used for:
  - a. All security functions? \_\_\_\_ \_\_\_\_
  - b. Auxillary purposes only? \_\_\_\_ \_\_\_\_
11. The number of sworn personnel in the department:
  - a. More than 100? \_\_\_\_ \_\_\_\_
  - b. Less than 50? \_\_\_\_ \_\_\_\_
12. Are the officers classified as full-time peace officers by decree? \_\_\_\_ \_\_\_\_
13. Are there sworn female officers? \_\_\_\_ \_\_\_\_

SELECTION --

14. Is there an initial competitive qualification entrance test?
  - a. Verbal? \_\_\_\_ \_\_\_\_
  - b. Written? \_\_\_\_ \_\_\_\_

(over please)

	YES	NO
155		
15. Are there specific educational requirements?	___	___
16. Are there physical requirements?	___	___
17. Are there background investigations?	___	___
18. Are there age requirements?	___	___
19. Is previous police expertise considered valuable?	___	___

DUTIES --

20. Usual police duties (Traffic, routine investigations, reporting, etc.)?	___	___
21. Terminal surviellance (Lobby patrol, etc.)?	___	___
22. Magnotometer surviellance?	___	___
23. Vehicle patrol?	___	___
24. Accident reporting:		
a. Personal injury?	___	___
b. Property damage?	___	___

EQUIPMENT --

25. Patrol cars?	___	___
26. Motorcycles?	___	___
27. Radar (traffic)?	___	___
28. Separate radio & dispatch facilities?	___	___
29. Canines?	___	___

TRAINING --

30. Is there a specific amount of training required?	___	___
31. Is it required prior to actual service?	___	___
32. Is the training updated through in-service training?	___	___

WOULD YOU LIKE THE RESULTS OF THIS INQUIRY?	___	___
---	-----	-----

## APPENDIX D

### Additional Information Questionnaire

Date Returned
Height      Weight
Officer
Interview Date
Day and Time

POLICE DEPARTMENT

CITY OF HOUSTON

AIRPORT/ PARK POLICE/ SECURITY OFFICERS

ADDITIONAL INFORMATION QUESTIONNAIRE

This form is to be completed and returned in person.

THIS IS NOT AN EXAMINATION. If this application is considered favorable, you will be notified when and where to appear for further processing.

NOTE: Study each question carefully. Answer fully. Follow directions exactly. If not satisfactorily filled out, this questionnaire may be rejected on the grounds of being incomplete or the applicant's inability to follow directions.

Use ink and print neatly and legibly. This application must be completed in your handwriting. If you find space provided for any question to be insufficient, attach an additional sheet of paper (8-1/2 x 11); give your answer on this attached sheet the same number as the question being answered.

Position Applying for			Social Security Number	
1.	Last Name	First	Middle	Sex
2.	Present Street Address		City	State Zip Code
	Residence Phone Number		Neighbor/Relative's Phone	
3.	Age	Location of Birth		Date of Birth
4.	Height (bare feet)	Color of Hair	Weight (stripped)	Color of Eyes
5.	Are you an American Citizen?		Naturalized or by Birth?	

\*\*\*\*\*

6.	Full Name of Father			Age
7.	Home Address of Father	City	State	Phone Number
8.	Present Employment of Father		Address	Phone
9.	Position Held			
10.	Father Deceased?		If so, Date and Cause	
11.	Full Name of Mother			Age
12.	Home Address of Mother	City	State	Phone Number
13.	Present Employment of Mother		Address	Phone
14.	Position Held			
15.	Mother Deceased?		If so, Date and Cause	
16.	Full Name of Stepfather (if any)			Age
17.	Home Address of Stepfather	City	State	Phone Number
18.	Present Employment of Stepfather		Address	Phone
19.	Position Held			
20.	Full Name of Stepmother (if any)			
21.	Home Address of Stepmother	City	State	Phone Number
22.	Present Employment of Stepmother		Address	Phone
23.	Position Held			
24.	Date of Present Marriage			
25.	Place of Present Marriage			
26.	Name, Age and Date of Birth of Children by Present Marriage:			
27.	a.	Name	Age	Date of Birth
28.	b.	Name	Age	Date of Birth
29.	c.	Name	Age	Date of Birth
30.	d.	Name	Age	Date of Birth



25. If Separated but not divorced, where are children, if any? \_\_\_\_\_

\_\_\_\_\_

26. Complete following information regarding ex-spouse (if any):

a. \_\_\_\_\_  
                     Name (Present)                      Address                      Phone Number

\_\_\_\_\_  
                     Date of Marriage                      Place of Marriage                      Date of Divorce

b. \_\_\_\_\_  
                     Name Present                      Address                      Phone Number

\_\_\_\_\_  
                     Date of Marriage                      Place of Marriage                      Date of Divorce

27. Do you have any children by a previous marriage? \_\_\_\_\_

If so, are they living with you full-time? \_\_\_\_\_ Part Time? \_\_\_\_\_

If part-time, are they living with their mother? \_\_\_\_\_

Mother's Name and Address: \_\_\_\_\_

28. Name, Age and Date of Birth of Children by Former Marriages:

a. \_\_\_\_\_  
                     Name                      Age                      Date of Birth

b. \_\_\_\_\_  
                     Name                      Age                      Date of Birth

c. \_\_\_\_\_  
                     Name                      Age                      Date of Birth

d. \_\_\_\_\_  
                     Name                      Age                      Date of Birth

29. Name, Age and Date of Birth of All Stepchildren:

a. \_\_\_\_\_  
                     Name                      Age                      Date of Birth

b. \_\_\_\_\_  
                     Name                      Age                      Date of Birth

c. \_\_\_\_\_  
                     Name                      Age                      Date of Birth

30. List all relatives employed by the Houston Police or Fire Depts:

a. \_\_\_\_\_  
                     Name                      Relationship                      Department

b. \_\_\_\_\_

31. List all brothers and sisters (including half-brothers, half-sisters, stepbrothers and stepsisters, etc.) by full name and date of birth;

Name	Date of Birth
Name	Date of Birth
Name	Date of Birth
Name	Date of Birth

32. Have you ever had any illnesses/injuries requiring hospitalization?

Type of illness/injury: (1) \_\_\_\_\_ (2) \_\_\_\_\_  
 Date of illness/injury: (1) \_\_\_\_\_ (2) \_\_\_\_\_  
 Name of Doctor: (1) \_\_\_\_\_

(2) \_\_\_\_\_

Name	Address	Phone Number
------	---------	--------------

(3) \_\_\_\_\_

Name	Address	Phone Number
------	---------	--------------

Name of Hospital: (1) \_\_\_\_\_

Name	Address	Phone Number
------	---------	--------------

(2) \_\_\_\_\_

Name	Address	Phone Number
------	---------	--------------

33. \_\_\_\_\_  
 Name of Family Physician Address Phone Number

34. Have you ever served in the Army, Navy, Marine Corps, R.O.T.C. or other military or semi-military organization?

a. \_\_\_\_\_  
 Organization Date Enlisted Date of Discharge Rank

b. \_\_\_\_\_  
 Organization Date Enlisted Date of Discharge Rank

35. \_\_\_\_\_  
 Present draft classification Has it been changed? when

Previous draft classification Reason for change

36. List all traffic violations, other than parking tickets; and all accidents.

Charge	Date	Disposition	Location
Charge	Date	Disposition	Location
Charge	Date	Disposition	Location
Charge	Date	Disposition	Location

37. List any arrest, whether you were actually charged or not  
(Include all juvenile arrests):

Charge	Date	Disposition	Location
Charge	Date	Disposition	Location
Charge	Date	Disposition	Location

38. Do you possess a valid Texas Driver's License? \_\_\_\_\_

Type of License (Operator, Commercial, Chauffeur, Etc.) \_\_\_\_\_

License Number: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

39. Do you own, or are you presently buying, an automobile? \_\_\_\_\_

If so, provide following information:

Make	Model
License Plate Number	Color

40. EDUCATION (Please Print)

Name of School	Address of School	Date Attended From year To year		Did You Graduate?

Give any additional information concerning your education. If you are NOT a high school graduate, List below the highest grade attained. If you have an equivalency certificate, list type of equivalency attained:

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- 41 PERSONAL REFERENCES: List below the names, addresses and phone numbers of three persons you have known for the past five years. These persons must not be relatives or former employers. Local references are preferred. Include their title (Mr., Mrs., Miss, Dr., Rev., Etc.)

	Name	Address	City	Zip Code	State	Phone	Business or occupation
1.							
2.							

42. EMPLOYMENT HISTORY FOR THE PAST TEN YEARS:

List all employments regardless of length of time employed, beginning with present employment. If in service, list dates and branch only. Account for all of past ten years. If unemployed, list dates of unemployment.

Date Appointed	Date of leaving	Employer Name of company-phone number    Address		City	State Zip Code	Position Held	super- visor

43. RESIDENCE HISTORY FOR THE PAST TEN YEARS:

List all locations where you actually resided, regardless of the length of time you resided there, beginning with present residence. If in service, list dates and branch only. Do not list mailing addresses, or so-called "permanent addresses," unless you actually lived at the location during the time in question.

From Mo    Yr		To Mo    Yr		Street Address	Apartment Number	City	State	Person rented from or with or person owning residence	
								Name: _____	Phone _____
								Address: _____	
								Name: _____	Phone _____
								Address: _____	
								Name: _____	Phone _____
								Address: _____	

Do we have your permission to verify your present employment? \_\_\_\_\_

44. List all current financial obligations:

Creditors	Total Debt	Amount Per Month	Are You Delinquent
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

45. Have you any special field of interest in this work? \_\_\_\_\_  
If so, what field would you prefer? \_\_\_\_\_

46. What prompted you to make this application?  
Radio \_\_\_\_\_ Television \_\_\_\_\_ Newspaper \_\_\_\_\_ Police Officer \_\_\_\_\_ Other \_\_\_\_\_

47. Does your religion preclude the bearing of firearms? Yes \_\_\_\_\_ No \_\_\_\_\_

48. What type of activities, organizations, or affiliations are you  
associated with or involved in during your non-working hours?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

49. How do you spend most of your non-working hours? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

I represent and warrant that the answers I have made to each and all of the foregoing questions are complete and true to the best of my knowledge and belief; and that falsification, misrepresentation, or omission of any information may be just cause for the rejection of this application.

\_\_\_\_\_

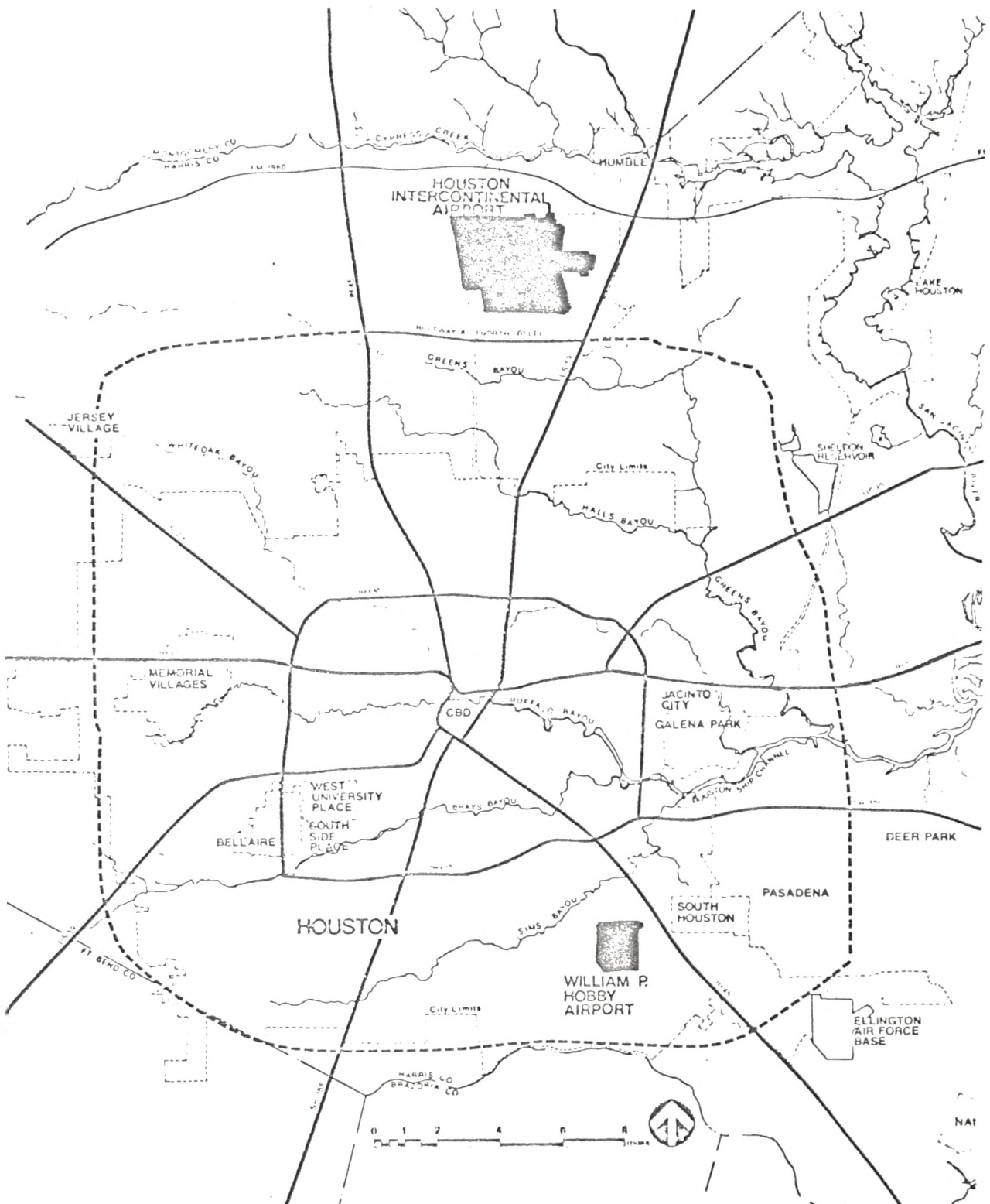
Date

\_\_\_\_\_

Signature of Applicant

APPENDIX E  
Vicinity Maps

# VICINITY MAP

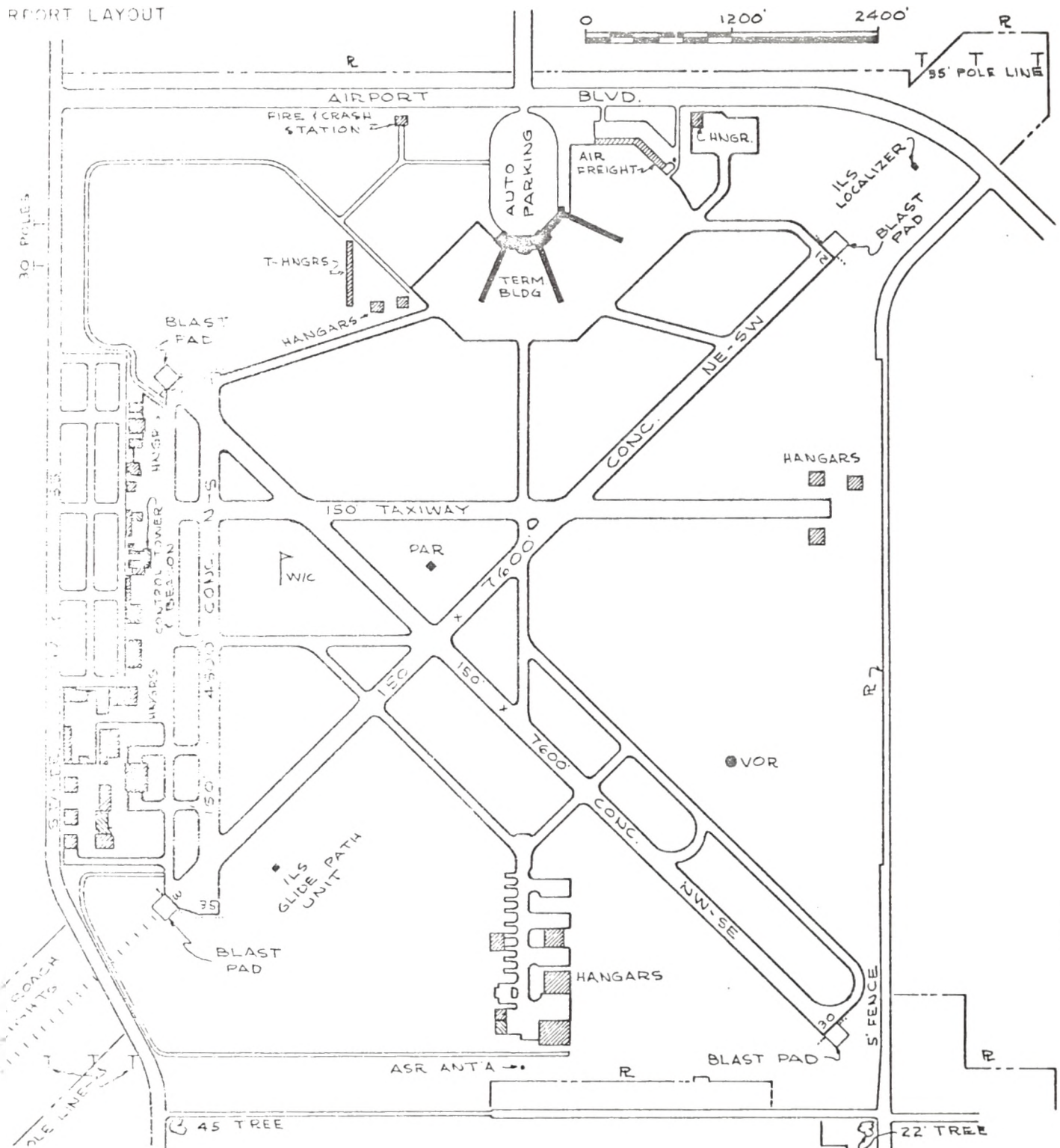




# WILLIAM P. HOBBY AIRPORT

## EXISTING LAYOUT

REPORT LAYOUT



## BIBLIOGRAPHY

## BIBLIOGRAPHY

- Becker, Howard S. THE OTHER SIDE, (London, The MacMillan Company, 1970), pp. 409-420.
- Bopp, William J., POLICE PERSONNEL ADMINISTRATION, "The Management of Human Resources," (Boston, Mass., Holbrook Press, Inc., 1974), p. 98.
- Bureau of Census, THE U.S. FACT BOOK: "The American Almanac," (New York, N.Y., Grosset and Dunlap, 1975), p. 160.
- City of Houston, CITY CODE, "Ordinances," Number 57-116, 1957.
- City of Houston, CITY CODE, Article I, Chapter 9, 1968 (Amended) Number 73-200, 1973.
- Clark, Ramsey, CRIME IN AMERICA: "Observations On Its Nature, Causes, Prevention and Control," (New York, N.Y.: Simon and Schuster, Inc., 1970), p. 116.
- Cloward, Richard A. and Ohlin, Lloyd E., DELINQUENCY AND OPPORTUNITY: "A Theory of Delinquent Groups," (New York, Free Press of Glencoe, 1960).
- Coleman, James C., ABNORMAL PSYCHOLOGY AND MODERN LIFE, 4th Ed. (Glenview, Ill.,: Scott, Foresman and Company, 1971).
- Dallas Morning News, TEXAS ALMANAC, (Dallas, Texas, A.H. Belo Corp., 1977), pp. 180-184.
- Department of Aviation, AIRPORT EMERGENCY PLAN, (Houston, Texas, City of Houston, 1972), p. 37.
- Department of Aviation, ANNUAL REPORTS: 1975, (Houston, Texas, City of Houston, 1975).
- Department of the Treasury, ATF Publication #874, BOMB THREATS AND SEARCH TECHNIQUES (U.S. Government Printing Office, Washington, D.C.), pp. 11-12.
- Draguns, Juris G. and Phillips, Leslie, PSYCHIATRIC CLASSIFICATION AND DIAGNOSIS: "An Overview and Critique," (New York, General Learning Press, 1971), p. 1.
- Earle, Howard H., DPA, POLICE RECRUIT TRAINING: STRESS VS. NON-STRESS, (Boston, Mass., Charles C. Thomas, 1973), pp. 80-120.

- Eastman, George D. and Eastman, Esther M., MUNICIPAL POLICE ADMINISTRATION, (Washington, D.C.: International City Management, 1971), pp. 130-134.
- Equal Employment Opportunity Commission, FEDERAL REGISTER, (Washington, D.C., U.S. Government Printing Office, Vol. 35, No. 149), pp. 12333-12336.
- Etzioni, Amatai, MODERN ORGANIZATION, (New York: Prentice-Hall, 1964), pp. 8-9.
- Federal Aviation Administration, FAA STATISTICAL HANDBOOK, (Washington, D.C.: U.S. Government Printing Office, 1973).
- Freedman, Jonathan L., Carlsmith, J. Merril, and Sears, David O., SOCIAL PSYCHOLOGY, (Los Angeles, Calif., Prentice-Hall, Inc., 1970), p. 69, 104, 348-354.
- Freedman, Jonathan L., Doob, Anthony N., DEVIANCY--THE PSYCHOLOGY OF BEING DIFFERENT (New York: Academic Press, 1968), pp. 135-147.
- Flowers, Robert C., Executive Director, CRIMINAL JUSTICE PLAN FOR TEXAS, (Austin, Texas, 1975), p. 78.
- Harris, Irving, "Who Would Kill a President?" PSYCHOLOGY TODAY, Vol. 10, No. 5, Sept. 1976, pp. 48-51.
- Ibrahim, Azimy Ishak, "Disorganization in Society, But Not Social Disorganization," AMERICAN SOCIOLOGICAL REVIEW, (Feb. 1968), pp. 47-49.
- International Association of Chiefs of Police, THE POLICE YEAR-BOOK, 1976 (Gaithersburg, Maryland, 1976), p. i.
- Johnson, Elmer H., CRIME, CORRECTION AND SOCIETY, (Homewood, Ill., The Dorsey Press, 1973), p. 344.
- Johnson, Gayle, Editor, ENCYCLOPEDIA OF SOCIOLOGY, (Guilford, Connecticut, Dushkin Publishing Group, Inc., 1974), p. 18.
- Kaplan, John, CRIMINAL JUSTICE: INTRODUCTORY CASES AND MATERIALS, (Mineola, New York, The Foundation Press, Inc., 1973), p. 141.
- Lefkowitz, Joel, "Job Attitudes of Police," THE URBAN POLICE-MEN IN TRANSITION (Springfield, Ill., Charles C. Thomas, 1973), pp. 203, 208.

- Levy, Ruth J., "Predicting Police Failures, JOURNAL OF CRIMINAL LAW, CRIMINOLOGY, AND POLICE SCIENCE, (Vol. 58, No. 2, 1967), pp. 265-276.
- Merton, Robert K. SOCIAL THEORY AND SOCIAL STRUCTURES, (Glenwood, Ill., Free Press, 1949), p. 125-126.
- Morris, Norval and Hawkins, Gordon, THE HONEST POLITICIAN'S GUIDE TO CRIME CONTROL, (Chicago: University of Chicago Press, 1969), pp. 93-94.
- O'Conner, George W. "Survey of Selection Methods," THE POLICE CHIEF, (Washington, D.C., IACP, 1962).
- Parker, William D., and Reherman, Carl F., "Criminal Justice in American Society," L.A.E. JOURNAL, Vol. 39, No. 6, June 1976, pp. 2-6.
- President's Commission on Law Enforcement and Administration of Justice, THE POLICE, (Washington, D.C.: U.S. Government Printing Office, 1967), pp. 45, 129, 133.
- U.S. Department of Transportation, Federal Aviation Administration, PROFILES OF SCHEDULED AIR CARRIER AIRPORT OPERATIONS, (Washington, D.C.: U.S. Government Printing Office, January, 1975).
- Radelet, Louis A. THE POLICE AND THE COMMUNITY, (Beverly Hills, Glencoe Press, 1973), p. 96.
- Schrag, Clarence, CRIME AND JUSTICE: AMERICAN STYLE, (Washington, D.C.: National Institute of Mental Health, 1972), p. 144.
- Schur, Edwin M., OUR CRIMINAL SOCIETY, (Englewood Cliffs, New Jersey, 1969), pp. 36-44.
- Skinner, B.F., BEYOND FREEDOM AND DIGNITY, (New York, Alfred A. Knopf, Inc., 1971), p. 24-25.
- Smith, Biran S., Roberts, John M., Rosenberg, B.C., "Sibling Association and Role Involvement," STUDIES IN ADOLESCENCE, Edited by Robert E. Grindler, (London: The Macmillan Company, 1970), pp. 409-420.
- Smith, David H. and Stotland, Ezra, "A New Look At Police Officer Selection," THE URBAN POLICEMAN IN TRANSITION, (Springfield, Ill., Charles C. Thomas, Publisher, 1973), pp. 5-52.

- Snibbe, John R. and Snibbe, Homa M., THE URBAN POLICEMAN IN TRANSITION, "A Psychological and Sociological Review," (Springfield, Ill., Charles C. Thomas, Publisher, 1973), p. 84.
- State of Texas, SESSION LAWS, 63 Legislature (Regular Session), Chapter 7, H.B. #82, "Airports--Security Personnel--Employment and Commission as Peace Officers," March 8, 1973, pp. 8-9.
- State of Texas, TEXAS REVISED CIVIL STATUTES: ANNOTATED, Article 4431 (29aa), 1975.
- Sutherland, Edwin H. and Cressy, Donald R., CRIMINOLOGY, (New York, J. B. Lippincott Company, 1970), pp. 75-91.
- Texas Commission on Law Enforcement Officers Standards and Education, RULES AND REGULATIONS, (Austin, Texas, 1975), pp. 28-34.
- Texas Commission on Law Enforcement Officer Standards and Education, "Minimum Standards for Training," (1972), Part 1005.
- Texas Commission on Law Enforcement Officers Standards and Education, QUARTERLY NEWSLETTER AND TRAINING CALENDAR, (March, 1976), p. 3.
- Thomas, William I., and Znaniecki, Florian, THE POLISH PEASANT IN EUROPE AND AMERICA, (New York: Alfred A. Knopf, Inc., 1927), pp. 31-33.
- Title 14 - AERONAUTIC AND SPACE, Chapter I, Federal Aviation Administration, Department of Transportation, Part 107, "Airport Security," (Washington, D.C.: U.S. Government Printing Office), p. P-1.
- Trojanowicz, Robert C., JUVENILE DELINQUENCY, "Concepts and Control," (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1974), p. 145.
- Turner, Jonathan H., PATTERNS OF SOCIAL ORGANIZATION, (New York: Mc Graw-Hill Book Company), pp. 32-33, 160.
- Whisenand, Paul M., POLICE SUPERVISION, "Theory and Practice," (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1971), pp. 155, 210, 211, 261.