ANALYSIS AND RECOMMENDATIONS
BEACH PATROL
CITY OF GALVESTON

CENTER FOR MARINE TRAINING AND SAFETY

OF THE

COASTAL ZONE LABORATORY

TEXAS A&M UNIVERSITY AT GALVESTON

AUGUST 1980

FINAL REPORT

ANALYSIS AND RECOMMENDATIONS
BEACH PATROL
CITY OF GALVESTON

Presented to
the
Park Board of Trustees
of the City of Galveston

by
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INTRODUCTION

On June 6, 1980, Mr. Steve Huffman, the Galveston City Manager, proposed in a letter to Mr. John Dellanera that the Park Board of Trustees assume management and operation of the Beach Patrol effective 1981; and on July 24, 1980, the City Manager presented the 1980-81 budget to the City Council which did not provide for any monies to operate the Beach Patrol. This Final Report provides the Park Board of Trustees with recommendations on appropriate levels of funding, management, and operational commitment sufficient to maintain a quality lifeguard service for the City of Galveston.

Methodology of the Study - To obtain a professional assessment of the day-to-day operation of the present Beach Patrol two consultants were hired, Mr. Richard Miller, Chief of the Marine Safety Office, City of Long Beach, California and President of the United States Lifesaving Association; and Mr. Gene Bergman, Captain of the Beach Patrol, Ft. Lauderdale, Florida. They spent July 17-20 in Galveston and their analyses and recommendations were made to the study with a wide knowledge of both regional and national lifeguard practices, techniques, and management alternatives. The consultants rode with the Beach Patrol Commander and lieutenants, walked the beach, flew over the island, met with the lifeguards, observed a training session, met with the Executive Director of the Park Board and his Administrative Assistant, and discussed lifeguarding practices and management with the Chairperson of the Subcommittee on Beach Safety. They also met with various beach concessionaires and concerned citizens.

Financial, legal, and operational information and data regarding the Beach Patrol were obtained from the City Manager, the City Attorney, the Chief of Police, and the Executive Director of the Park Board.

Members of the Board of Trustees, the Mayor, the City Council, beach

concessionaires, the Director of the Galveston County Parks and Recreation Department, and other concerned citizens recommended to the project were asked a series of questions regarding the operation of the Beach Patrol (Appendix A).

The Beach Patrol Commander and the lieutenants were interviewed by the principal investigators and the consultants. The lieutenants and the lifeguards anonymously filled out a questionnaire (Appendix B).

Statistics were obtained from the research project "Water-related Fatalities in Coastal Texas", funded by the Texas A&M University Sea Grant Program and The Moody Foundation. As used herein, near-term means one to two years; long-term means three to five years.

The Report is deliberately concise and utilizes appendices to provide background information and expanded discussion of the subject at hand.

Philosophy of the Study - A basic premise of the study was that the residents of, and the visitors to, the City of Galveston deserved and required a quality lifeguard service. This service should be one adhering to professionally acceptable standards and practices. It would provide protective and rescue services and when appropriate members would engage in community education activities and programs.

The study recognizes that there are fiscal constraints to such a service. All recommendations provide the most cost effective options available to the study.

Population Served - Texas has approximately 373 miles of shoreline on the Gulf of Mexico, 300 of which are classified as beaches (1). Some beaches are extremely remote and some inaccessable by wheeled vehicle. The Texas Open Beaches Act (1959), recognizes public ownership and right to access to the coastal beaches -- which in fact are mostly undeveloped shorelines.

Recreational usage by fairly large numbers of people is focused into only a few places on the Texas coast and nowhere is it more concentrated than on Galveston Island. The majority of the persons engaged in beach-oriented recreation during the swimming season are non-residents of Galveston.

The number of visitors to Galveston Island beaches is going to increase and possibly at a dramatic rate if gas rationing is imposed. Galveston Island is a major recreational site for one of the most rapidly growing regions in the United States and it is important to note that of the twelve recreational activities engaged in on the Texas coast, those that are water-related rank first, second, third, and sixth (Appendix C).

The lifeguard operations are providing the visitors to Galveston's beaches with a measure of protection while they recreate in what may be to them an unfamiliar and possibly dangerous environment -- the nearshore waters of the Gulf of Mexico. In this sense, lifeguard services are different from most other types of city services (i.e., police and fire protection, utilities, parks and recreation, etc.), that primarily serve a resident population.

Population at Risk - The study considers the population at risk to be those people on, in, or near the water who could in some manner need the services of the Beach Patrol. These people could be injured or they could walk, wade, swim, float, slip, or fall into the water and need assistance. In general, these would be any persons on the beach as well as all the people on the rip rap, piers, and the seawall, and boaters on the water.

OBLIGATION AND DEMAND FOR PREVENTIVE AND RESCUE SERVICES

The City of Galveston through the Park Board of Trustees engages in an active tourist recruitment campaign both within and outside the State of Texas. Beach activities are prominent in both pictures and print. Prudent individuals

in this society have reason to assume that when enticed to water-related recreational activities there will be protective and rescue services provided.

Over the past several years litigation dealing with drowning and lifeguard service practices, rescue techniques, and personnel training have dramatically increased in other regions of the United States. While not claiming any legal expertise, the authors are familiar with the growing problem of damage claims or tort suits involving those agencies that provide lifeguard services. The local experience seems to be an exception to a national trend in which persons who have suffered injury, or the families of those who have died, as a result of incidents occurring at open-water beaches have filed suit against the cities, counties, or other agencies that are responsible for the lifeguard services at the site. Risk management, as it is often referred to, is a growning concern for lifeguard operations in other parts of the country.

Whatever the reason, be it assumed or real governmental immunity, "southern manners", ignorance of the opportunity, or some other deterrent, Galveston has apparently escaped the cost of a major lawsuit stemming from incidents on its beaches as long as the City has been providing the lifeguard services. Whether this situation would continue should the Park Board assume the responsibility for lifeguard operations is unknown. The state legislation that authorizes the creation of the Park Board stipulates that the Board has the power "to sue and be sued in its own name" (VACS, Art. 6081g, sect. 7 (j)). Apparently, for such reasons, the Board carries liability insurance that covers the properties under its control. The possibility exists that additional liability coverage would be necessary should the Board accept the control of the Beach Patrol. Analysis of some applicable legal cases can be found in:

Van Der Smissen, Betty, 1968
Legal Liability of Cities and Schools
for Injuries in Recreation and Parks;
Cincinnati, Ohio, Anderson Pub. Co.,
402 p.; also, 1975 Supplement, 209 p.

In the American society there is an apparent moral obligation, backed by legal precedent, to provide some preventive and rescue services on public open-water recreational beaches. This study assumes that through historical and legal precedents a Beach Patrol should be maintained by the City of Galveston.

RECOMMENDATION: The City Attorney or counsel of the Board's choosing should determine if the City of Galveston must maintain a lifeguard service because of historical and/or legal precedent.

RECOMMENDATION: The City Attorney or counsel of the Board's choosing should review the pertinent legal cases to assist in determining potential liability and the level of insurance coverage if such coverage must be extended and increased if the Beach Patrol operations are managed by the Board.

BEACH PATROL: CONTROL AND FUNDING

The quality and effectiveness of a lifeguard operation is closely related to the kind of administration and funding it receives. The choice of where the control of the lifeguard services should reside is therefore an important one. The final decision should assure that lifeguard services receive the same attention and commitment afforded other emergency services in the community.

In some communities the lifeguard operations are part of regular fire, police, or recreation departments. Other lifeguard services have been included with agencies that have a more marine or aquatic orientation, for example, marine safety departments, beach departments, or in some cases, simply lifeguard departments. In deciding on where to house any lifeguard

operation, it is essential to consider the local situation in terms of the population served, potential liabilities, authority, and funding.

Presently, Galveston city code designates that the Chief of Police has jurisdiction and control of the "lifesaving corps" (Ch. 4, 4-2). At several points in the past, however, the responsibility for the lifeguard services resided outside of the Police Department. Because of budgetary reasons, the City in 1963 transferred the control of the lifeguards to the management of Stewart Beach (2). During the period 1971 to 1973, the City Parks and Recreation Department managed the Lifeguard Corps. In each case the responsibility was eventually returned to the Police Department.

The provision of lifeguard services could be viewed in the same category as other visitor-oriented programs. If this is the case, then the question arises as to which agency is the most responsive to the needs of the visitors as well as the local citizenry.

The Park Board of Trustees has the unique position of being a semi-autonomous arm of the City of Galveston that is charged with administering visitor-related programs and facilities. Because of the composition of the Board, its interest and experience in the area of tourism, and the nature of the parks and facilities that it operates, the Park Board is more aware of the needs for beach-related safety services than other city agencies. Additionally, the Board is free from the wide variety of demands for services that other city agencies experience and, therefore, may provide more efficient and responsive management for its own programs.

It is crucial to examine the future of funds for lifeguard operations when looking at possible program locations. Lifeguard services are currently budgeted as part of the City's general fund, although the Park Board of Trustees has contributed substantial amounts to the fund for this purpose

in the past few years (this year the Board provided nearly fifty-percent of the lifeguard budget). However, a January 20, 1979 amendment to the city charter has limited the city's total budgeted expenditures to a seven-percent annual increase over the prior years figure. Since this involves reporting the total expenditures for each line item in the city's budget, irregardless of the source of the funds, the city is seeking to reduce the budgeted expenditures for such services as the lifeguards. In fact, the proposed 1980-81 budget does not include any expenditures for lifeguard operations. This in itself will mean transferring the lifeguard operations to another funding agency if Beach Patrol operations are to continue next year and beyond.

Closely involved in the issue of funding is the basic philosophical question of "who should be paying for these types of services?" It can be argued strongly that the users of the services should ultimately bear the burden of the cost. In this case the majority of the users are visitors to the island. Although they contribute directly to the city's general fund through their sales tax expenditures and indirectly through the ad valorem and other taxes collected on visitor-related facilities, it is both a reasonable and logical argument that services such as lifeguards, beach cleaning, and other beach safety services be partially financed through "user fees" such as paid beach parking. An important point to make here is that the revenues generated by user fees would have to be designated, or "earmarked", for providing these types of services.

The Park Board has the ability and authority to collect user fees and, in turn, provide visitor-oriented facilities and services. Parking revenues and other income from Stewart Beach Park, R.A. Apffel Park, Seawolf Park and the West Beach parking lot should be sufficient to meet the needs for their normal operational expenses and still provide enough additional funds to

support a professional lifeguard service for Galveston and its visitors. Even if significant capital outlays were required to make improvements to R.A. Apffel Park, money for lifeguards would still appear to be available.

In addition to locally obtained funds, other potential sources of money for lifeguard services may exist. Texas' 1969 Beach Cleaning Act (Art. S415d-1, VCTS), as amended in 1973, allows eligible counties and cities to be partially reimbursed for funds spent on lifeguards, beach patrols, and litter patrols. However, there has never been a State appropriation to the Texas Parks and Wildlife Department, which administers the Beach Cleaning Act, for any purpose except litter removal operations. Efforts to have money appropriated for lifeguards, beach patrols, and litter patrols might be a possible lobby priority for the Galveston delegation in the next session of the Legislature. Another funding source that may be available is a grant from the Coastal Energy Impact Fund, which is managed by the Office of Coastal Zone Management, National Oceanic and Atmospheric Administration, U.S. Department of Commerce. Local governments may apply for funds to finance "new or improved public facilities required due to new or expanded coastal energy development ... (and) to prevent, reduce, or repair damage to environmental or recreational resources" (TNRC, 1978). Certainly the offshore energy development in the Gulf of Mexico has contributed to the increased level of recreational activity on Galveston's beaches, especially since the economy of the greater Houston area is heavily involved in the offshore industry (Appendix C). There may be other non-local funding sources that are yet to be identified, but could eventually assist in providing for lifeguard operations and capital improvements.

RECOMMENDATION: The Park Board of Trustees should assume responsibility for the management and funding of Galveston's lifeguard services, effective October 1, 1980.

RECOMMENDATION: The Park Board should recognize there are firm indicators that the number of beach visitors will increase significantly in both the near-term and the long-term. Planning for Beach Patrol services should reflect this fact.

RISK POTENTIAL OF GALVESTON ISLAND GULF BEACHES

Environmental Parameters and Hazards - The Galveston Island environmental system is the product of well-defined processes and energy regimes and they comprise a complex system which controls the physical environment (Appendix D). In sum, the beaches are fine sand, affected by low to moderate wind and wave energy on the average, and the water and air temperatures are very warm for the majority of the year. Physical hazards are to be found in conjunction with the man-made jetty, wood and concrete supported piers, groins ("piers" in local terminology), rip rap at the base of the seawall, and the rip currents and scour holes associated with them. Wind direction and strength is sometimes considered a hazard. Biological hazards are those associated with Portuguese Man-O-War and jellyfish stings, and sting ray punctures. Social hazards are delimited in Appendix D.

Risk Potential - The professional lifeguard consultants conducted an analysis of the City of Galveston beaches utilizing a system developed and approved for use by the United States Lifesaving Association (USLA). The USLA is the only organization in the United States composed of professional open-water beach lifeguards and their associates. IN SHORT, THE GALVESTON BEACH PATROL COVERAGE AREA IS A "HIGH RISK BEACH" WITH A "HIGH RISK POTENTIAL". THE HIGH RISK AND HIGH RISK POTENTIAL EVALUATION DELIMITS GALVESTON TO HAVE THE MOST DANGEROUS AND POTENTIALLY DANGEROUS TYPE OF BEACH TO GUARD -- A FIVE STAR BEACH ON THE USLA RATING SCALE OF ONE TO FIVE.

An analysis of the USLA consultant's report shows the following:

1) Geographics - types of beaches, holes, and man-made objects
   16 possible points Score: 13.0

2) Hydrographics - Environmental processes and parameters
   16 possible points Score: 12.5

3) Meteorology - cloud cover, wind, air temperature
   12 possible points Score: 10.5

4) Demographics - age, sex, day and night impaction, ocean impaction by visitors, and duration of stay on beach
   23 possibly points Score: 17.5

5) Sociology - aquatic proficiency and possibly enforcement problem level
   20 possible points Score: 19.5

6) Rip Currents - types and duration
   8 possible points Score: 4.0

7) Ocean Activity - swimming, surfing, etc.
   5 possible points Score: 4.0

Total Possible Points: 100 Score: 81.0

USLA Survey Rating Categories:

1.	High Risk Beach/High Risk Potential	80-100 points = 5-star beach
2.	High Risk Beach/Medium Risk Potential	60-79 points = 4-star beach
3.	Medium Risk Beach/Medium Risk Potential	40-59 points = 3-star beach
4.	Medium Risk Beach/Low Risk Potential	20-39 points = 2-star beach
5.	Low Risk Beach/Low Risk Potential	0-19 points = 1-star beach

The USLA considers those beaches that have relative low energy, high air and water temperatures, and sunny skies to be potentially more dangerous because the people will stay in the water longer.

ANALYSIS OF CURRENT BEACH PATROL MANAGEMENT AND PRACTICES

The analysis of the Beach Patrol by the professional consultants could only have been made with the candid and unselfish cooperation of the Patrol Commander, Mr. Bill Scott, his lieutenants, and the lifeguards. Everyone was extremely cooperative and their comments were straightforward and reasoned.

An analysis of any operation by its nature will contain constructive criticism. Forthright statements contained herein should not be taken personally, but as an effort to provide the Park Board with a baseline critique and to assist in improving the management and practices of the Beach Patrol to the highest level given fiscal constraints. Most areas in need of change or modification reflect a state of geographic isolation and lack of first-hand knowledge regarding current techniques and practices used elsewhere. Or, though aware of the need to provide additional improvements, there have not been funds to do so.

The recommendations regarding training and management are based upon the United States Lifesaving Association criteria for professional beach safety, rescue services, and operations as modified subsequent to the Guidelines which were generated at the "Conference to Develop Guidelines for Establishing Open-water Recreational Beach Standards", held April 16-18, 1980, Texas A&M University at Galveston.

Management and Operations - Ineffective. Presently, the Beach Patrol is managed by a police officer on a part-time basis and the Beach Patrol must take a secondary position to his career as an officer in the Police Department. There is an apparent lack of concern as well as direction of the Beach Patrol operation at all levels of the management structure. In short, it appears that a sum of money is set aside, a member of the Police Department is given the responsibility for a six-month period to run the operation, and a brief

report is written at the end of the season. There are no goals or objectives; there is no operations manual; there is no training manual; there are no guidelines for lifeguard or officer qualifications or conduct, nor are there adequate testing procedures; and there is not even a designated office for the Beach Patrol to operate out of.

Beach Patrol Supervision - If the Beach Patrol is to be upgraded to an acceptable professional level of service and expertise there will have to be considerably more supervisory direction, planning, and development of interagency cooperative relationships. Managing a professional lifeguard operation cannot be done properly by a seasonal Captain. Budget preparation, purchasing, repair, oversight, lifeguard recruitment, community education, and other activities that should take place in the "offseason" are too important to crowd into the busy schedule that occurs during the regular season.

RECOMMENDATION: The position of Captain of the Beach Patrol should be established as a 12-month billet and a position of Lieutenant as a 9-month billet.

Beach Patrol Coverage - Thirty-two miles of Gulf beach front is entirely too much to guard within the present fiscal guidelines. Also, there are no historically compelling reasons to provide lifeguard service to the bay, port, bayou, or West End beaches. Possibly the West End state and county beaches where tourists congregate may wish to either contract or coordinate lifeguard service in the future. In general, the patrolled area of R.A. Apffel Park to 61st Street corresponds to the vehicle response time limit of five minutes. Beyond five minutes the Beach Patrol would probably have to engage in recovery rather than rescue action.

RECOMMENDATION: Beach Patrol lifeguard service for the near-term should be limited to the Gulf Beach from R.A. Apffel Park to 61st Street.

Systematic Recruiting of Personnel - Nonexistant.

RECOMMENDATION: Recruit regionally; letters should be sent to regional high schools, colleges, and swim team coaches; keep regional aquatic newsletters and bulletings apprised of the upcoming Beach Patrol needs, test dates, scope of the test, and other applicable requirements.

Salaries, Wages, and Work week - Salaries and wages are very inadequate at all levels and in some instances may be in violation of the minimum wage laws. The work week is excessive. Presently the lifeguards are compensated on an hourly basis below minimum wage ($3.00/hr. vs. minimum wage of $3.10/hr.), with no additional monies for overtime beyond their base rate. Lieutenants are only paid $3.50/hour. Lifeguards are hired to assume responsibility for the protection and rescue of lives from a dangerous environment; they should be well trained, with a high level of skills, be willing to accept a significant amount of responsibility, and at times risk their lives. They should be compensated accordingly -- not on a level with parking lot attendants. Similarly, the 60-70 hour work weeks are not conducive to maintaining vigilence and an alert demeanor; there are split-shift alternatives to provide adequate coverage of the beach.

RECOMMENDATION: All personnel should be assigned 40-hour work weeks with designated daily breaks at reasonable compensation (see section on Program Development and Implementation).

Lifeguard Qualifications - Testing of aquatic skills and rescue techniques: Nonexistant. Through discussion it has been learned that non-swimmers have been hired in the past and that pressure to hire friends or politically connected individuals has been exerted. Through observation it has been determined that the Beach Patrol is not practicing even the basic preventive and rescue techniques as accepted by most national, regional, and local lifeguard organizations.

RECOMMENDATION: A qualifying annual test should be administered to all individuals under the rank of Lieutenant.

RECOMMENDATION: Minimum suggested requirements for entry level Beach Patrol members:

1) 17 years of age or a high school graduate
2) Require a physical examination statement from personal physician which must include statements on general health, vision, hearing, and cardio-vascular system
3) Be CPR certified by a nationally recognized organization either prior to or within 30 days of hire
4) Pass a swim test and rescue technique qualifying examination as designed by the Beach Patrol
5) Subsequent to passing the local qualifying examination and prior to hire as a lifeguard the candidate must complete the U.S. Lifesaving Association 56-hour lifeguard training examination, or equivalent, as taught by a qualified and certified instructor. (Note: The Red Cross, YMCA, YWCA, or other equivalent senior lifesaving or water safety instructor certification are not appropriate qualification for hire as a Beach Patrol Lifeguard -- these certificates were in almost all instances obtained in swimming pools and are not sufficiently applicable to the energy conditions or rescue techniques needed for open-water beach lifesaving requirements).
6) The examinations should be conducted by a designated Beach Patrol administrator under the rank of Captain. The qualification and re-qualification examinations should provide determination of: physical conditioning, ability to swim long distances within a definite time, provide an indicator of quickness, and the ability to run and then swim.

In-service Training - Below minimum acceptable standards. Through both discussion and observation the daily physical and skills training did not meet the needs of the Beach Patrol nor did it approach acceptable national criteria. The conditioning and skills practiced were not oriented to the environmental conditions, hazards, or processes. The practice observed indicates that the Beach Patrol personnel were without adequate direction and their skill and technique training were not sufficient to provide for the maintenance of safe beach standards.

RECOMMENDATION: The Beach Patrol immediately adopt a formal and highly structured training program for all lifeguards and officers based upon the USLA Training Officer Manual, or equivalent, that would also take into consideration the hazards, conditions of the environment, cultural makeup of the beach users, and other important local considerations.

Communication Systems - Observation and verbal communication between Beach Patrol officers and guards: very inadequate. Station-to-station (lifeguard to lifeguard): nonexistant. Station to supervisory: almost nonexistant -- only one phone on Stewart Beach. Supervisor to interagency dispatch: fair. There is only the radio linking the cruising police units manned by guards to the guard system and the down time of hand-held radios is estimated at 25% by the Beach Patrol. Visual communication between guards: nonexistant. Standardized and acceptable procedures for signaling between guards are neither known nor practiced.

RECOMMENDATION: Implement a whistle system between guards; a hand-held rescue buoy signaling system for station-to-station communication; a flag system for water safety conditions; obtain and install a telephone system between guards that is integrated to other safety, protective, and rescue departments and services.

Statistics - Analysis of several sets of statistics (Appendix E), developed some important points. The present statistical data system as maintained by the Beach Patrol is grossly inadequate, particularly in light of a nationwide trend toward litigation involving water-related accidents and fatalities. The vast majority of the data found in Appendix E were obtained from non-Beach Patrol sources. A statistical program needs to provide accurate figures for estimating and justifying lifeguard manning requirements, tower placement, vehicle usage, and management strategy for protecting the population at risk. Further, these figures are crucial to support arguments for major capital improvements such as a lifeguard headquarters, vehicles, and a communications system.

RECOMMENDATION: A complete statistical analysis package should be developed to assist in Beach Patrol management. The package should include as a minimum: - beach attendance figures maintained on a daily basis, all year long, and by beach segment.

- detailed statistics should be kept on all phases of Beach Patrol activity. A form should be completed on every service rendered. See Appendix E for examples.
- A map should be maintained which shows where all Galveston Island drownings and near-drownings occur, whether or not on a guarded beach.
- A map should be maintained which shows where all Galveston Island drownings and near-drowning victims resided.

RECOMMENDATION: The Board should recognize the fact that an extremely high percentage of ethnic minorities have drowned on or adjacent to Galveston Island over the past ten years in relation to their proportion of the total population (Appendix E).

RECOMMENDATION: The Board should recognize the fact that approximately 42% of the people who drowned in Galveston County in the past ten years were engaged in recreational activities on or adjacent to Galveston Island. (Appendix E).

RECOMMENDATION: The Board should recognize the fact that 65% of the recreationally-related drownings on or adjacent to Galveston Island in the past ten years were in the 10-25 year age group (Appendix E).

Ordinances and Enforcement Authority - Existing beach ordinances were not being enforced although lifeguards apparently have limited enforcement authority. If the ordinances were enforced the beach would be safer and more conducive to attracting visitors. There are some potentially dangerous situations that should be analyzed and possibly new ordinances written.

Safeguarding swimmers and other beach users necessarily involves the regulation of potentially hazardous activities in the beach area. In fact, the city code states that the duties of a lifeguard "shall be to safeguard and regulate people using bathing beaches in order to prevent drowning and other accidents". (Ch. 4, Sec. 4-3(c)). The city, in effect, recognizes that lifeguards have some limited powers to enforce beach regulations. So long as the lifeguard operations are part of the Police Department, the authority for the enforcement of beach ordinances appears to be no problem. However, when the operations are removed from the Police Department the question of adequate enforcement authority may arise. The experience of the City Parks and Recreation Department gives substance to these concerns -- one of the major problems they encountered when they managed the lifesaving corps was the lack of authority to regulate certain activities; it was still necessary to rely on police back-up, which at times was difficult to obtain (Davis, 1980,(9)).

The Park Board of Trustees, on the other hand, may already posses sufficient authority to regulate activities within the beach areas that it

manages. State law provides that a Park Board may "adopt, promulgate, and enforce all reasonable rules and regulations for the use of parks and facilities under the jurisdiction and control of the Board by the public or by lessees, concessionaires and other persons or corporations carrying on any business activity within the area of such public parks and facilities" (VACS, Art. 6081g-1, sect. 7(h)). If, however, the Board provides lifeguard services for areas outside of its direct jurisdiction and control, then the problem of enforcement authority may still exist. Methods to alleviate this problem need to be explored.

RECOMMENDATION: Obtain a ruling from the City Attorney or counsel of the Board's choosing on the aspects of enforcement authority of the Park Board.

RECOMMENDATION: Determine how to develop an interagency cooperation that will provide for the enforcement of existing ordinances relating to the beach.

RECOMMENDATION: Possible new ordinances:

- Restricted Areas: Separate various incompatable activities. Examples - All boat launching from the beach should be restricted to designated sections of the beach -- boats and bathers do not mix well. Confine ball playing and Frisbee tossing to designated areas. Restrict boating to a certain distance offshore from swimming areas.
- Dogs: Ban dogs from the beaches from R.A. Apffel Park to 61st Street from April 1 to October 1, between the hours of 10:00am and 6:00pm.
- Enforcement: Address the possibility of giving the Beach Patrol Captain and lieutenants limited powers of enforcement.
- Inflatables: Most inflatables are extremely dangerous as they have no rigidity and are easily swept away by wind and/or currents when

a person falls off; also they tend to give poor or non-swimmers a false sense of security (Appendix E). Allow only those inflatables that are rigid and which have lifelines around the edges.

- Warning signs: Adopt, whenever possible, the international visual scheme (Appendix F); post hours of operation; post guarded vs. unguarded beaches; post no swimming areas; post no boating areas; post flag system; post surfing and non-surfing areas; and post allowable ball game and Frisbee areas; etc.

General Management and Operations - Inadequate. There is a genuine need to institute a professional lifeguard management and operations hierarchy.

RECOMMENDATION: Generate a manual for the day-to-day operation of the Beach Patrol -- this would include rules, regulations, professional and personal conduct requirements, and qualifications and training of the Patrol.

RECOMMENDATION: Generate a five-year plan that will include goals and objectives for the operation and development of the Beach Patrol.

RECOMMENDATION: Provide administrative support -- access to secretarial service; duplication; and bookkeeping as a minimum.

RECOMMENDATION: Establish a capital outlay account with appropriate five-year plan and fiscal oversight.

RECOMMENDATION: Budget cross-training visits for the Captain of the Beach Patrol to observe and participate in other regional lifeguarding systems and programs. The first year: Suggest two weeks on the east coast of Florida; second year: two weeks in Southern California. Budget travel so that either the patrol Captain or a lieutenant can attend the USLA annual meeting at least every other year. The importance of keeping abreast of current regional and national techniques and management practices cannot be overemphasized, nor can being kept aware of the possible areas of litigation.

EQUIPMENT AND FACILITIES

It is basic to a quality lifeguard program that there are sufficient inventories of equipment and supplies to professionally accomplish the mission. Similarly, there should be facilities that are conducive to an efficient operation. The Galveston Beach Patrol is in a woeful condition where the office of the Commander is the glove compartment of a patrol car; where communications are almost nonexistant; and lifeguards feel compelled to provide first aid supplies out of their own pockets.

Lifeguard Uniforms - Inadequate. The lifeguards could not be distinguished from the crowd when out of the towers, their lounge chairs, or the patrol units if they were not wearing their t-shirts or carrying a buoy. There is no identifying uniform and most visitors have absolutely no idea what a rescue buoy is or looks like.

RECOMMENDATION: Provide bathing suits and t-shirts of a uniform color with identifying patch on each. Provide hats or sunvisors for the guards that are uniform and recognizable.

Lifeguard Equipment - Inadequate. The lifeguards are being asked to administer first aid services without equipment or supplies being provided (Appendix E); some of the guards stated they provide first aid materials out of their own pockets. The rescue buoys are adequate, but some will have to be replaced soon. The Patrol vehicles are police units being manned by non-police personnel, a potentially dangerous situation. The life-guard towers were inadequate to protect the guards from the elements and some towers did not exist where needed. Flag system not apparent.

RECOMMENDATION: Provide all lifeguards with waterproof first aid kits (ex. Igloo cooler with handle on top), and adequate supplies.

RECOMMENDATION: Provide adequate towers that will get the guards off the

seawall and into elevated chairs that will allow adequate visual coverage of the beach. Attach large numbers to all towers to aid beach visitors and particularly the children, from becoming lost or separated from the location of their party.

RECOMMENDATION: Start a purchase program for surf rescue boards.

RECOMMENDATION: Install buoyed lifelines parellel to the rock groins and approximately 100 feet to either side, with the exception of the surfing areas. These lines could be strung out and taken in daily by attaching to an offshore anchor; this would prevent biofouling and vandalism to the protective gear.

RECOMMENDATION: Obtain an adequate number of resuscitators and train all guards in their use.

RECOMMENDATION: Provide all guards with a set of swim fins and train in their use.

RECOMMENDATION: Vehicles. Those presently in use are both inadequate and inappropriate. Police vehicles should not be driven by non-police personnel. Recommend as a minimum for the Beach Patrol operation: two 4-wheel drive vehicles and one sedan station wagon for the Captain. The vehicles should be of a distinctive color not to be confused with police or fire vehicles and suitable marked with large and clear lettering identifying it as a rescue vehicle. They should be properly equipped with siren, lights, resuscitator, backboard, jumper cables, blanket, fire extinguisher, rescue buoys, bolt cutters, high intensity spot light, first aid kit, swim fins, rescue buoys, binoculars, camera, appropriate radio and communication system for police and lifeguard channels at a minimum, and a loud speaker.

RECOMMENDATION: Implement and use daily a flag system for all towers for surf energy conditions with appropriately posted explanations of the system.

Headquarters Facility - There is a pressing need for an operational and storage area where the Captain can have an office, communications can be headquartered, and repair, storage, and maintenance of vehicles, towers, and equipment can occur.

RECOMMENDATION: Create a management, storage, and repair facility -- a Beach Patrol Headquarters. On the beach if possible -- initially this might be a trailer or some other semipermanent structure on Stewart Beach.

First Aid Facility - There are numerous times during the season when the EMS cannot respond quickly to a medical emergency on the beach due to equipment downtime or all the vehicles being on call.

RECOMMENDATION: A small room with appropriate bed and equipment be outfitted in the Beach Patrol headquarters to be used as a stabilizing unit until EMS arrives. On weekends a qualified attendant with proper communications equipment should be on duty.

Patrol and Rescue Boat - Presently, a boat exists, however, it was not in use during the consultants visit due to a lack of manpower because of budgetary limitations. In both the near- and long-term it would be prudent to have a patrol and rescue boat to keep recreational and commercial boats offshore from the swimmers, to keep swimmers from venturing too far offshore, to assist tired swimmers and overturned sail boats (if part of R.A. Apffel Park is designated as a sailboat launching area then there will be an increase in this type of assist), to provide backup when lifeguards are working a rip current, and to provide mutual aid to the Coast Guard on the water front.

RECOMMENDATION: Plans should be formulated to provide for a patrol and rescue boat in the near-term, particularly for weekend service. The boat should be of substantial construction and manned by two uniformed Beach Patrol lifeguards; the boat should be painted the same color as the Beach

Patrol vehicles; should be designated as a rescue boat in bold letters, and be suitably equipped as per USLA, or equivalent, guidelines -- i.e., tow bit, first aid kit, backboard, flares, rescue buoys, swim fins, emergency light and siren, fire extinguisher, emergency radio, and loudspeaker.

EMERGENCY COOPERATION AND AUXILLARY FUNCTIONS

Mutual Aid - Presently, a good relationship exists between the Police, the Coast Guard, and the Beach Patrol based upon personal and professional contacts. If the Park Board assumes management of the Beach Patrol then a more formal agreement will undoubtedly have to be arranged.

RECOMMENDATION: Formalize the relationship between those services and agencies that have enforcement responsibilities for the beaches. The responsibilities should be clearcut and mutually supportive.

Diligent police enforcement of ordinances is a prime consideration to having a safe and manageable recreational environment and provides a preventive rather than a reactive atmosphere regarding the public wellbeing and safety.

Emergency Preparedness - All beaches have the potential for emergency situations. These situations may range from controlling a riot, to a shipping disaster in shallow water, to hurricane rescue procedures. There is a definite need to plan for these and other contingencies and it can only be accomplished by a mutual respect and cooperation among agencies such as the police, fire, Coast Guard, EMS, Civil Defense, and the Beach Patrol. Worst-case scenarios should be developed and studied and appropriate plans for ameliorating such occurrences formulated.

RECOMMENDATION: The Beach Patrol cooperate, and if necessary, initiate discussions in the role that they should take in various emergency situations. Due to the particular expertise that will be the province of the Beach Patrol

it is recommended that they develop a SCUBA team for search and recovery of bodies, weapons, automobiles, etc., and that they have emergency contingency plans to rescue as well as coordinate water activities during floods and storms. Possible guidelines for the above can be obtained from the USLA ALERT program which provides training of mutual emergency services for water-related disasters. The SCUBA ALERT-type team might be composed of local SCUBA diving instructors and expert divers under the direction of the Beach Patrol.

Junior Lifeguard Program - In other parts of the United States there are successful, self-supporting, junior lifeguard programs. These programs provide physical training, competition, and daily schooling in lifeguard practices, techniques, and skills. This is an excellent method for filling annual lifeguard vacancies as well as maintaining a high community visibility. These junior lifeguards range in age from eight or nine years to sixteen years -- they are not used as lifeguards while in the program, they sometimes are used as aides to help with lost children, etc.

RECOMMENDATION: A junior lifeguard program should be established as soon as practicable. The program should be self-sufficient and self-supporting through registration fees.

PROGRAM DEVELOPMENT AND IMPLEMENTATION

A professional lifeguard service will not suddenly appear in Galveston ready to offer the finest protection with minimum costs and no management headaches. It is going to take time, effort, and commitment on the part of the Park Board and Beach Patrol personnel in order to achieve the professional level and quality of services desired. While recommendations have been set forth in previous sections of this report that address perceived weaknesses or problems in the current Beach Patrol, the Park Board will be in a position to "start from scratch" in establishing a Beach Patrol under its authority.

The Board should decide upon a coherent and timely program of policies and actions in order to develop a professional lifeguard operation based upon the recommendations contained in this report.

The various program elements are divided into the following categories for implementation purposes: management, operations, professional development, risk management, and funding. Within each of these categories there are those items that must be addressed immediately if lifeguard services are to be provided by the Park Board next season. Other program elements may be phased in over the next few years as management experience increases and financial resources become available. This section establishes an overall goal for program development, outlines specific program objectives for immediate and long-range implementation, and proposes a five-year schedule for achieving the desired coverage level.

Overall Goal - The ultimate goal of the Park Board in developing a lifeguard program should be "to prevent injury or loss of life at recreational beaches by providing professional lifeguard services in order to reduce the high risk/high potential for accidents, and thereby enhance the recreational opportunities for local citizens and visitors".

Program Objectives - Management

Short-Term:

(1) Select and hire a full-time Captain on a 12-month appointment and a full-time Lieutenant on a 9-month appointment.

(2) Determine budgetary requirements for the first year of operation and set budgetary policies.

(3) Provide adequate office facilities and administrative support for management personnel.

(4) Initiate a widespread recruitment program to develop a sufficient

pool of qualified candidates for lifeguard positions.

(5) Develop operations and training manuals.

(6) Design and implement a thorough, accurate, and efficient statistical record-keeping system.

(7) Establish formal agreements with other local emergency services in the areas of enforcement, back-up, and disaster preparedness.

(8) Designate the guarded areas between R.A. Apffel Park and 61st St.

(9) Designate the opening and closing dates of regular and extended seasons of operations.

Long-Term:

(1) Institute long-range planning and budget programs.

(2) Initiate community education and public relations activities.

(3) Design and construct an appropriate headquarters building that would include administrative offices, a communications center, a first-aid station, training facilities, and storage and shop space.

Program Objectives - Operations

Short-Term:

(1) Establish stringent employment standards in the areas of age, qualifications, training, and performance.

(2) Provide salaries for lifeguard personnel at a level commensurate with the age, experience, qualifications, and responsibility required of the position, and competitive with similar job categories.

(3) Institute a forty-hour work week and schedule appropriate breaks for all hourly personnel.

(4) Select and provide appropriate uniforms for all lifeguard personnel.

(5) Provide necessary communications, rescue, and first-aid equipment for each post, vehicle, and first-aid station.

(6) Institute pre-season and in-service training programs in all aspects of lifeguard operations.

(7) Rehabilitate and/or construct lifeguard towers for each semipermanent post.

(8) Erect signs designating appropriate/inappropriate activities at certain areas along the beach.

(9) Enforce existing ordinances regulating hazardous activities.

(10) Institute an annual performance review of the entire lifeguard program as well as individual lifeguard personnel.

Long-Term:

(1) Establish a five-year schedule for achieving the desired level of coverage and staffing.

(2) Promote auxillary functions such as the ALERT/SCUBA team and the Junior Guard program.

Program Objectives - Professional Development

Short-Term:

(1) Initiate contacts with other lifeguard operations and professional organizations (i.e. Southeast Regional Council, United States Life-saving Association, etc.).

(2) Provide incentives for personnel to attend additional training and certification courses in areas relevant to operations.

(3) Encourage individual physical conditioning programs and provide opportunities for participation in traditional lifeguard competition.

Long-Term:

(1) Provide opportunities for management and staff to visit lifeguard operations in other geographical areas for cross-training to learn

new techniques, observe new equipment, and develop mutual ties with fellow lifesavers.

Program Objectives - Risk Management

Short Term:

(1) Maintain professional standards and performance in order to reduce the possibility of successful litigation.

(2) Have legal counsel advise on the position of liability the Park Board assumes, if any, by providing lifeguard services and purchase adequate liability insurance if necessary.

(3) Identify hazardous activities, sites, structures, etc. and take measures to alleviate the hazard potential.

(4) Maintain a duplicate file on all drowning and near-drowning incident reports.

Long-Term:

(1) Keep abreast of current litigation issues that arise from lifeguard activities in other parts of the country and be prepared to deal with the possibility of similar litigation locally.

Program Objectives - Funding

Short-Term:

(1) Designate revenues generated by user-fees to support lifeguard operations.

(2) Create a detailed operating budget and institute a year-end fiscal review to ensure cost-effective operations.

(3) Investigate potential sources of outside funds to finance capital improvements.

Long-Term:

(1) Project and maintain annual operating and capital expenditures for a five-year period beyond any present time.

Time-Frame for Implementing Recommendations

Although a minimum level of lifeguard coverage has been recommended for the area from R.A. Apffel Park to 61st Street, it is not anticipated that this level will be achieved in a single season of operation. Certainly many of the short-term objectives must be achieved during the first year, but it is proposed that a phased program of coverage of staffing be carried out over the next five years. Initially, the number of posts and guards would be only slightly increased over the 1980 level. Gradually, the coverage would increase until the recommended levels are achieved. (This schedule is not inflexible, however. Should the Board decide to speed up the process, the yearly increments may be increased.) Figure 1 illustrates the proposed schedule for achieving the coverage goal.

Figure 1 : Five-Year Schedule of Coverage and Staffing Requirements

	Year				
	1	2	3	4	5
Regular Season					
Posts:	19	21	23	25	27
Man-Hrs:	18,000	19,800	21,600	24,000	25,800
Guards:	32	36	39	42	46
Extended Season					
Posts:	10	11	12	13	14
Man-Hrs:	2,688	2,912	3,136	3,360	3,584
Guards:	12	13	14	15	16

Certain assumptions used to derive the numbers in Figure 1 need to be explained.

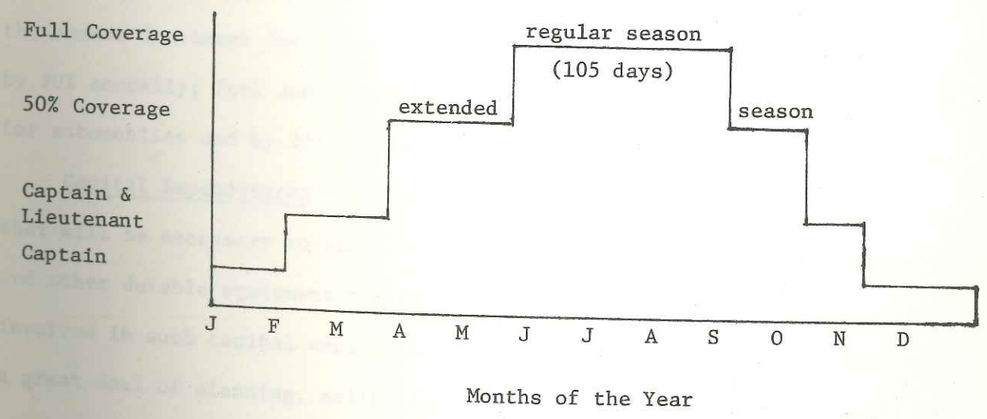
(1) The total number of posts includes both stationary towers and patrol vehicles.

(2) Each post requires 9 man-hrs. of staffing per eight hour shift (i.e. regular guard - 8 hrs; relief guard - 1 hr.).

(3) The number of guards necessary to staff all the posts during the regular season, assuming a 40 hour work-week, is calculated by multiplying the number of posts by a factor of 1.7 in order to provide enough guards for breaks, allow each guard 2 days off per week, and ensure adequate back-up in case extra guards are needed.

(4) The guards are deployed daily during the regular season and on weekends only during the extended season. The regular season was assumed to be 105 days and the extended season to be 14 weekends. See Figure 2 for a proposed calendar of seasonal staffing levels.

Figure 2: Calander of Seasonal Coverage Levels



FUNDING REQUIREMENTS

Currently the Beach Patrol budget reflects mainly the operating costs associated with providing lifeguard services. It does not include any significant capital expenditures for vehicles (which are leased from the Central Garage, City of Galveston), communications systems, rescue equipment, or facilities. The Park Board should expect that the annual costs of providing a professional lifeguard operation will be considerably more than the $105,000 budgeted for the Beach Patrol for the 1980 season. The increase, however, will be primarily in the area of capital expenditures necessary to adequately support the lifeguard operations. For instance, operating expenses for the first year will not be significantly greater than the present despite higher salaries and an increased number of guards. (The increase in the number of guards reflects a move away from the 60-70 hour work week in favor of a 40 hour week at an adequate salary, versus a straight $3.00/hr.).

Annual Operating Expenses: Five-Year Estimate - Figures 3 through 7 detail the estimated annual operating costs for lifeguard services over the period of the next five years given the coverage levels proposed in Figure 1. Benefits for the Captain and Lieutenant are assumed to be 15% while those of the lifeguards are calculated at 10%. An annual 5% salary increase is provided for the Captain and Lieutenant, whereas a straight $.25/hour is the annual increment for lifeguards. Expendable items are figured to increase by 20% annually; fuel and maintenance costs are increased by $.05/mi. annually for automobiles and by 20% annually for the cost of operating the rescue boat.

Capital Expenditures - It is difficult to estimate the annual funding that will be necessary to acquire facilities, vehicles, communication systems, and other durable equipment for the Beach Patrol because of the many variables involved in such capital expenditures. Major capital expenditures will require a great deal of planning, solicitation of bids, and other steps that are not

within the scope of this report. However, the types and quantities of equipment and vehicles necessary for a professional lifeguard operation have been set forth in previous sections of the report. From these recommendations, the Board should be able to establish the near-term levels of capital expenditures required and take action on making some of the more immediate purchases since some of the equipment and vehicles will be necessary to start the first season of operations.

The reduction of city-wide services and the decision by the City Manager to not contribute the previously promised $52,000 for the 1980-81 Beach Patrol budget creates both a problem and a possible solution. Capital equipment - vehicles, radios, trailers, etc., must be obtained to effectively operate the Beach Patrol. Because the levels of city services and the number of personnel are being reduced, there should be vehicles and other city equipment that are not being fully utilized. Possibly the City's contribution to the support of the Beach Patrol could be through capital equipment transfer and in-kind services via maintenance and repair.

Figure 3

Year 1

A. Salaries:

Position	Man-Hrs.	Hourly Pay	Total Salaries	Benefits	Total Pay
Captain	2,080	$7.75	$16,120	$2,418	$18,538
Lieutenant	1,560	6.00	9,360	1,404	10,764
LG - II's	2,248	4.75	10,678	1,068	11,746
LG - I's	18,440	4.25	78,370	7,837	86,207
Admin. Asst.	1,040	4.25	4,420	442	4,862
					$132,117

B. Expendable Items:

First aid supplies	$1,100	
Office supplies, report forms, etc.	100	
Uniforms	1,500	
		2,700

C. Vehicle Fuel and Maintenance:

Two rescue vehicles (50 mi./day each for 6 mo. @ $.25/mi.)	$4,550	
One all-purpose vehicle (25 mi./day for 12 mo. @ $.25/mi.)	2,250	
One rescue boat (100 days @ $20.00/day)	2,000	
		8,800
TOTAL OPERATING COSTS FOR YEAR 1		$143,617

Figure 4

Year 2

A. Salaries:

Position	Man-Hrs.	Hourly Pay	Total Salaries	Benefits	Total Pay	
Captain	2,080	$8.14	$16,926	$2,539	$ 19,465	
Lieutenant	1,560	6.30	9,828	1,474	11,303	
LG - II's	2,248	5.00	11,240	1,124	12,364	
LG - I's	20,464	4.50	92,088	9,209	101,297	
Admin. Asst.	1,040	4.50	4,680	468	5,148	
						$149,577

B. Expendable Items:

First aid supplies	$1,320	
Office supplies, report forms, etc.	120	
Uniforms	1,800	
		3,240

C. Vehicle Fuel and Maintenance:

Two rescue vehicles (50 mi./day each for 6 mo. @ .30/mi.)	$5,460	
One all-purpose vehicle (25 mi./day for 12 mo. @ .30/mi.)	2,700	
One rescue boat (100 days @ $24.00/day)	2,400	
		10,560

TOTAL OPERATING COSTS FOR YEAR 2 $163,377

Figure 5

Year 3

A. Salaries:

Position	Man-Hrs.	Hourly Pay	Total Salaries	Benefits	Total Pay	
Captain	2,080	$8.55	$ 17,784	$ 2,668	$ 20,452	
Lieutenant	1,560	6.61	10,312	1,547	11,959	
LG - II's	2,248	5.25	11,802	1,180	12,982	
LG - I's	22,488	4.75	106,818	10,682	117,500	
Admin. Asst.	1,040	4.75	4,940	494	5,434	
						$168,330

B. Expendable Items:

First aid supplies	$1,584	
Office supplies, report forms, etc.	144	
Uniforms	2,160	
		3,888

C. Vehicle Fuel and Maintenance:

Two rescue vehicles (50 mi./day each for 6 mo. @ $.35/mi.)	$6,370	
One all-purpose vehicle (25 mi./day for 12 mo. @ $.35/mi.)	3,190	
One rescue boat (100 days @ $29.00/day)	2,900	
		12,460
TOTAL OPERATING COSTS FOR YEAR 3		$184,678

Figure 6

Year 4

A. Salaries:

Position	Man-Hrs.	Hourly Pay	Total Salaries	Benefits	Total Pay	
Captain	2,080	$8.98	$ 18,678	$ 2,802	$ 21,480	
Lieutenant	2,080	6.94	14,435	2,165	16,600	
LG - II's	2,848	5.50	15,664	1,566	17,230	
LG - I's	24,512	5.00	122,560	12,256	134,816	
Admin. Asst.	1,040	5.00	5,200	520	5,720	
						$195,846

B. Expendable Items:

First aid supplies	$1,900	
Office supplies, report forms, etc.	173	
Uniforms	2,592	
		4,665

C. Vehicle Fuel and Maintenance:

Three rescue vehicles (50 mi./day each for 6 mo. @ $.40/mi.)	$10,920	
One all-purpose vehicle (25 mi./day for 12 mo. @ $.40/mi.)	3,650	
One rescue boat (100 days @ $35.00/day)	3,500	
		18,070

TOTAL OPERATING COSTS FOR YEAR 4 $218,581

Figure 7

Year 5

A. Salaries:

Position	Man-hrs.	Hourly Pay	Total Salaries	Benefits	Total Pay	
Captain	2,080	$9.43	$ 19,615	$ 2,942	$ 22,557	
Lieutenant	2,080	7.29	15,163	2,274	17,437	
LG - II's	2,848	5.75	16,376	1,638	18,014	
LG - I's	26,536	5.25	139,314	13,931	153,245	
Admin. Asst.	1,040	5.25	5,460	546	6,006	
						$217,259

B. Expendable Items:

First aid supplies	$2,280	
Office supplies, report forms, etc.	208	
Uniforms	3,110	
		5,598

C. Vehicle Fuel and Maintenance:

Three rescue vehicles (50 mi./day each for 6 mo. @ $.45/mi.)	$12,285	
One all-purpose vehicle (25 mi./day for 12 mo. @ $.45/mi.)	4,106	
One rescue boat (100 days @ $42.00/day)	4,200	
		20,591

TOTAL OPERATING COSTS FOR YEAR 5 $243,448

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APPENDIX A

CITIZEN QUESTIONNAIRE

1. Do you favor or oppose the proposal to place the Beach Patrol under the auspices of the Park Board of Trustees? Why or why not?
2. If opposed, where do you think it should be?
3. Do you feel that the Park Board can effectively manage and provide lifeguard services?
4. Do you feel that the current Beach Patrol provides the level of safety services this Island should offer? Explain.
5. Is there a need for a permanent, full-time lifeguard supervisor and/or lifeguard(s)?
6. Should lifeguards be required to enforce beach regulations other than those directly pertaining to activities in the water? i.e., glass ordinance, fire and littering regulations.
7. Should there be standards or minimum qualifications for lifeguards? What types would you suggest?
8. The current budget ($105,000) provides for a Beach Patrol staff of 25, including the commander, 4 lieutenants, and 20 lifeguards, for the months June thru August. During April, May, and September there are 15 positions budgeted. Given the amount of beach to be guarded and the levels of beach use, do you feel that this is a proper amount to spend on lifeguard services? If not, at what level should these services be funded.
9. Presently, funds for lifeguard services come from two sources, the City's ad valorem revenue ($52,636) and user fees, primarily parking fees, collected by the Park Board ($52,364). Would you agree that this is an equitable distribution of the burden for supporting lifeguard services? Why or why not?
10. In view of both the number of non-residents who use the local beaches and

the local efforts to attract tourist trade, is it the responsibility of local agencies to fund and provide lifeguard services, or should the responsibility be shared by the state or other non-local agencies?

11. Do you feel there are any serious constraints, fiscal or otherwise, to upgrading the current lifeguard services? What types?
12. Would you like to comment further on any aspect of the management and provision of lifeguard services that we've covered, or any topic we've failed to cover?

APPENDIX B

SUMMARY OF RESPONSES TO THE BEACH PATROL QUESTIONNAIRE

APPENDIX B: SUMMARY OF RESPONSES TO THE BEACH PATROL QUESTIONNAIRE

The attached survey form was provided to the lifeguards who were present at the training session held at the 10th St. groin on Monday, July 14, 1980. A total of twelve lifeguards filled out and returned the questionnaire.

Results

I. Personal Information

- Age: Ages ranged from 15 to 19 (avg.=17) with the following distribution:

Age -	15	16	17	18	19
# -	3	2	2	1	4

- Race: All guards responding were Anglos.

- Sex: 10 males; 2 females

- Residence: All respondents resided in Galveston; 75% had been born and raised in Galveston.

- Education: Most guards were still in high school and none had more than one year of college.

II. Qualifications and Experience

- Of the guards responding, 8 indicated they had a Red Cross Advanced Lifesaving certification. Two guards had only the Junior Lifesaving certification and two guards failed to list any certifications. One guard was also a Red Cross Water Safety Instructor (WSI).

- All guards stated that they were CPR certified, although some indicated they were still taking the course. Only one guard listed any additional first-aid certifications.

- None of the guards possessed any other pertinent certifications or qualifications as indicated by the lack of responses to question 3.

- Only one guard acknowledged any competitive swimming experience, that being only in summer recreational swim leagues.

- The minimum experience listed for open-water lifeguarding was 2 months, while several guards stated that they had 24 months of open-water experience; the average amount of experience was 10.4 months. (The amount of experience listed in some cases would have meant that the guard began work at 13 or 14 years of age, leading the investigators to urge some caution in viewing the stated figures.)

III. Recruitment

- Nearly all respondents indicated that they had found out about the job from either family or friends. Two persons also mentioned the city personnel office as a source of information.

- Only three out of twelve guards stated that they were required to pass any kind of performance test administered by the Beach Patrol prior to being hired.

- Only four guards took part in some kind of pre-season training program supervised by the Beach Patrol.

- Nearly all the guards stated that they engage in daily training exercises conducted by the Beach Patrol. Training mentioned includes: run-swim-run exercises, rescue simulations, and CPR practice.

IV. Responsibilities and Performance

- Every guard polled works 60 hrs. per week.

- Only four out of twelve guards indicated that they received any relief in order to take a break. (Discussions with the guards reveals that they generally leave their post unmanned when they take a break for lunch, go to the bathroom, etc.)

- The only equipment provided by the Beach Patrol to the individual guards are T-shirts and rescue buoys. Guards stated that they provide additional equipment out of their own pocket, including: whistles, first-aid kits, swim suits, chairs, umbrellas, sunscreen, hats, water jugs, and, in one case, a walkie-talkie.

- Eleven guards responded that they are responsible for enforcing regulations concerning activities occurring out of the water, such as the glass container ban, parking regulations, and bicycle restrictions at Stewart Beach.

- Nearly all guards administer minor first aid.

- Ten out of twelve guards assisted in reuniting lost children with their parents.

- Only three guards stated that they keep records of their activities and turn them in to their supervisor on a regular basis. Four others kept records but did not turn them in regularly, and five did not keep records at all.

IV. - The most commonly stated method that guards have to contact their supervisors or other back-up in an emergency is to go to the nearest public or private telephone and call in or "send a messenger," apparently meaning to send a nearby person to the phone. One guard stated that a whistle would be used to contact other guards or the supervisor and another would use a personal walkie-talkie.
One person stated that they had no way of communicating with their supervisors or back-up.

V. Problems

Guards were asked to rank a list of potential problems on a scale of 1 to 5, with one being the most severe problem and 5 indicating no problem at all. The two categories of problems were: Hazardous Activities/Conditions, and Management/Operations. Although the averaging of the rankings tends to concentrate responses in the middle range, the list of problems may be broken out into three basic groups based on the responses.

- Hazardous Activities/Conditions:
  1. Serious Problems: not heeding warnings, rip currents, rocks, and ignorance of water safety.
  2. Occasional Problems: inflatable devices, lack of parental supervision, inability to swim, and holes or dropoffs.
  3. Potential Problems: surfing in no-surfing areas, unruly behavior, swimming in surfing areas, alcohol, drugs, dangerous marine life, and high energy conditions.

- Management/Operations:
  1. Serious Problems: pay, communications, equipment, relief, facilities, and recognition.
  2. Occasional Problems: hours, visibility, distractions, vehicles, recruitment, and supervision.
  3. Potential Problems: testing, responsibilities, and training.

VI. Opinions

- The guard's evaluation of the Beach Patrol overall were:

Excellent	- 3
Good	- 5
Fair	- 3
Poor	- 0
No response	1

VI. - Guards would like to see improvements in the areas of: better pay, emergency communications, first-aid supplies, facilities, hours, benefits, and increased staffing.

- The most frequent opinion of the areas of strength for the Beach Patrol was that the members worked well together and supported each other (in the face of some criticisms that were being aired at the time the survey took place); another several persons felt that they were "good guards" and "hard-working." At least one person felt that the parties were the best aspect.

TEXAS A&M UNIVERSITY AT GALVESTON
MITCHELL CAMPUS P.O. BOX 1675 GALVESTON, TEXAS 77553

CENTER FOR MARINE TRAINING AND SAFETY

LIFEGUARD SURVEY

NOTE: This survey is designed to assist us in evaluating the safety services offered at recreational beaches in Galveston. All responses will be on an anonymous basis and will be kept confidential; your supervisors will not see any of the answers on these original forms, only the pooled results. Please be honest and candid in your answers. In advance, thank you for your cooperation.

I. Personal Information

Age: _____ Race: _____ Sex: M/F

Height: __ft ___in Weight: _____lb.

Birthplace: _____

City of Residence: _____ How long? _____

Education: High School 9 10 11 12 graduated GED (circle one)
College 1 2 3 4 (years) Major _____ Degree _____
Masters ___ Doctorate ___

II. Qualifications/Experience

1. List all pertinent water-safety certifications you have in effect at the present time:

Certification	Organization
_____	_____
_____	_____
_____	_____
_____	_____

Qualifications/Experience, continued

2. List all pertinent emergency medical certifications you have in effect at the present time:

Certification	Organization
_____	_____
_____	_____
_____	_____

3. List any other pertinent certifications or qualifications:

_____

_____

4. Have you participated in organized aquatics programs? How long? (ie swim teams, water polo teams, lifeguard competitions)

_____

_____

5. How many months experience (actual months of employment) do you have as a lifeguard?

Pool: ____ mos. Open-water (beach): _____mos.

III. Recruitment/Training

How did you find out about this job? (family, friends, city personnel office, etc.)

_____

What kind of test(s) did you take to qualify for the position?

_____

_____

Recruitment/Training, continued

Did you participate in any required training sessions prior to starting the job? Describe the training.

_____

_____

_____

Do you participate in any in-service training presently? Describe the training.

_____

_____

_____

IV. Responsibilities/Performance

1. How many hours a week do you usually work? _____hrs

2. Do you receive any relief for breaks during your duty time? Y/N

   If so, how often? _____

3. What equipment/supplies are provided for you by the Beach Patrol?

   _____

   What do you provide in addition? _____

4. Are you responsible for enforcing any beach regulations not directly related to activities in the water? Y/N

   If so, what types? _____

5. Do you provide first aid for minor emergencies? (ie stings, cuts, etc.) Y/N

6. Do you assist in locating parents of lost children? Y/N

7. Do you keep records of your activities? (rescues, assists, first aid, etc.) Y/N If so, are they turned in to your supervisor on a regular basis? Y/N

Responsibilities/Performance, continued

8. What means do you have of contacting your supervisors, emergency medical services, or other guards?

_____

V. Problems (please rank each item as follows: 1 - severe, recurrent problem; 2 - serious problem; 3 - occasional problem; 4 - potential problem; 5 - no problem)

Hazardous Activities/ Conditions

__ Ripcurrents
__ Holes/dropoffs
__ inflatable devices
__ drugs
__ alcohol
__ unruly behavior
__ ignorance of water safety
__ inability to swim
__ not heeding warnings
__ dangerous marine life
__ lack of parental supervision
__ surfing in no-surfing areas
__ swimming in surfing areas
__ high energy conditions (waves)
__ rocks
__ other: _____
_____

Management & Operations

__ pay
__ hours
__ responsibilities
__ communications
__ facilities
__ equipment
__ supervision
__ recruitment
__ testing
__ training
__ relief
__ vehicles
__ visibility
__ recognition
__ distractions (people)
__ other: _____
_____

VI. Opinions

1. What is your overall evaluation of the Galveston Beach Patrol as far as the level and quality of services it renders?

   Excellent __ Good __ Fair __ Poor __

2. What improvements would you like to see made? _____

   _____

3. What are its strengths? _____

   _____

4. Are you planning to continue working as an open-water lifeguard in coming seasons? Y/N For how long? _____

5. Additional comments: _____

   _____

APPENDIX C

POTENTIAL GALVESTON VISITORS

POTENTIAL GALVESTON VISITORS

Houston, estimated to be the fourth largest city in the United States is but an hours drive away. Figure 1 provides a ranking and future estimate of the recreational participation activities being engaged in on the Texas Gulf Coast(1); only six of the twelve categories are shown. The vast

Figure 1

TEXAS GULF COAST

RECREATION PARTICIPATION - RANK ORDER

Activity	1968	1975	1980	1990	2000
Fishing	1	1	1	1	1
Swimming	2	2	2	2	2
Boating	3	3	4	4	4
Camping	4	4	5	5	5
Picnicking	5	5	3	3	3
Surfing	6	6	6	6	6

after: Outdoor Recreation on the Texas Gulf Coast, TORP

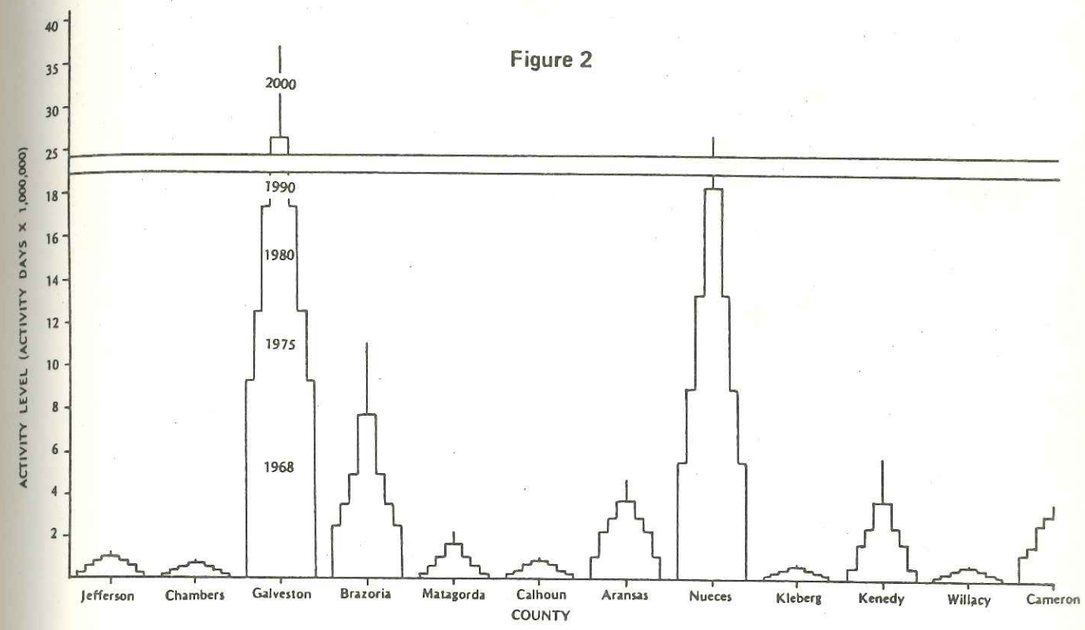
majority of all recreational activities are concentrated in water-related pursuits which is an important consideration for recreational planners.

In the long-term, and possibly the near-term, there will be gasoline rationing; where can the millions of people in the Greater Houston area go for a days recreation and return on half a tank of gas? The only areas that can accomodate large numbers of people are the beaches.

The Texas Outdoor Recreation Plan (1) predicts that recreational use of the Gulf shorefront will increase with the highest visitation levels occurring in Galveston and Nueces counties (3). Figure 2 provides a comparison of recreational activities by county. Even more importantly, the General Land Office figures for traffic counts on 61st Street indicate that prior to closure of West Beach to traffic, 90% of the tourists were day visitors

from the Houston metropolitan area (3).

Figure 2



Historical and projected recreational participation (fishing, surfing, swimming, camping, picnicking, walking, hiking, and nature study activities) on Gulf beaches in the Texas coastal counties (adapted from TPWD, 1977, based on TORP data).

Most of Galveston's visitors come from the 13-county area under the jurisdiction of the Houston-Galveston Area Council; their population estimates for these 13 counties are shown in Figure 3.

FIGURE 3

POPULATION ESTIMATES

13-COUNTY AREA OF THE

HOUSTON-GALVESTON AREA COUNCIL

Year	Estimate
1975	2,699,553
1980	3,209,645
1985	3,897,486
1990	4,765,017

after: H-GAC (4)

APPENDIX D

RISK POTENTIAL AND THE ENVIRONMENT

RISK POTENTIAL AND THE ENVIRONMENT

Galveston Island is fronted by the Gulf of Mexico, an almost entirely enclosed sea with a small tidal range; the slope of the bottom from the shoreline to the deeper ocean is gentle and fairly uniform, sloping seaward at about 5 to 15 feet per mile (about 1/6 degree slope). The sediment peculiar to Galveston Island is generally fine sand with coarser marerials derived principally from shells. Most of the year there is a substantial amount of clay carried in suspension in the nearshore waters resulting in very reduced visibility (5).

Water and air temperatures during the tourist season are quite warm and do not deter the visitor from staying in the water for prolonged periods of time, thereby increasing the potential for exhausted swimmer incidents.

Figure 1
AVERAGE ANNUAL TEMPERATURES
CITY OF GALVESTON
(°F)

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Mean
Air	54.9	56.8	61.4	68.5	75.8	81.7	83.1	83.3	80.1	73.5	63.0	57.2	69.9
Water	56	58	63	71	78	84	86	87	83	76	66	59	72

after: 6 & 7

The energy conditions average from low to moderate -- that is, the average wind velocity is about 13 knots, and blows onto the shore approximately 60% of the time (5). There are periods of strong offshore winds, particularly in the winter and spring during frontal passage and in association with the passage of squall lines during the spring, summer, and fall months. During the spring and summer tourist seasons the reversal of wind direction from onshore to offshore can be dramatic and the wind velocity can rise to 30 knots or more in less than a minute. The offshore winds are extremely dangerous to

people using inflatable recreational apparatus as they can very quickly be blown offshore beyond the notice of even the most astute observer.

In comparison to the west and east coasts of the United States, Galveston Island on the average receives only moderate amounts of wind and wave energy. Occasionally there are tropical storms and hurricanes that affect the island and surrounding areas, but they are exceptional occurrences. With moderate to low energy, a gently sloping sea floor and essentially a sand sediment supply, the nearshore area has been sculpted into a series of low relief offshore bars and troughs aligned parallel to the beach; this configuration can be readily discerned by observing the breaking wave pattern over the bar crests. As very few waves approach exactly parallel to shore there is usually a longshore current running along the beach away from the approaching waves. As the waves carry water up onto the beach face, the water must somehow return to sea level; this is accomplished through currents running from the beach back toward the offshore and they are termed "rip currents". On the beaches having rock groins (called "piers" locally), there is a circulatory pattern established between the groins with the rip current running along the edge of the groin seaward -- usually on the side opposite from the advancing waves. Sometimes these rip currents are sufficiently strong to scour deep holes along the edge of the rocks. Those beaches to the east and west of the seawall/rock groin area do not exhibit strong and easily identified rip currents, except for the south jetty area; this is in strong contrast to the east and west coasts of the United States where there are semi-permanent rip currents on the open beaches that can be identified by water discoloration, reduction in wave height, and foam patterns on the surface. Very few swimmers are able to recognize rip currents and fewer still know how to swim out of them to safety before they are carried seaward

into the deep water. Rip currents constitute one of the most hazardous situations on a recreational beach.

Piers with wood and cement pilings are also found on the Galveston beaches and they pose an additional hazard to the swimming public if one is swept into the structures by waves and currents resulting in either injury or disorientation. Other exceptional hazard areas occur where rip rap fronting the toe of the seawall extends into the water in place of sand beaches - i.e., 12-16 Sts.; 25-27 Sts.; 32 St.; 35 St.; 37-52 Sts.; 55-58 Sts.; and 61st St. to the end of the seawall.

Dangerous marine life can effect swimmers in the form of Portuguese Man-O-War and jellyfish stings, as well as sting ray punctures.

Risk Analysis - The Risk Analysis Rating Steets submitted by the professional consultants from the United States Lifesaving Association are on file at the Coastal Zone Laboratory, Texas A&M University at Galveston. Their analysis took place over the period July 17-20, 1980.

APPENDIX E

STATISTICS

STATISTICS

Data should be kept regarding all Beach Patrol activities; every preventive, aid, and rescue action should be documented. Though some feel that "there isn't time to fill out forms", it must be pointed out that professionally managed lifeguard services do keep detailed records. In fact, the statistics generated on services rendered by the Long Beach, California Marine Safety Operations have shown that they are primarily servicing people from outside their city and there is a move to have part of the cost of this service borne by other municipalities and counties.

Additionally, should litigation result from an incident in which the Beach Patrol participated the statistical report would provide the necessary information to prepare both lifeguard and management testimony. Litigation could occur after two or three years and lack of written documentation and dependence upon memory recall could be detrimental to the defense.

No counts have been made in the past nor are there any being made presently of the number of visitors on Galveston Beaches, their location, or their density. Beach attendance counts are extremely important for several reasons. Presently lifeguard placement is based upon historical precedents, intuition, and adherence to fiscal constraints. Delimiting the pattern of people on the beach, and at risk, could justify lifeguard placement, particularly in protecting management decisions and reasoning in court cases. Attendance figures when statistically analyzed provides management with rates of first aid rendered, drowning, near-drowning, and rescues. These can be compared with other beaches as a crude indicator of activity and performance. Periodically there are estimates regarding numbers of visitors to Galveston Island and their purported activities and duration of stay. Possibly these data generated by state, federal, or local agencies or private consulting firms

could be used in some manner to either limit or expand funding by some formula method. Precise or best estimate headcounts of the population at risk should be on file to dispel inconsistancies between visually counted data and report estimates.

In both the near- and long-term there will have to be major capital expenditures to maintain and improve the Beach Patrol. Without data regarding the population at risk and services rendered it is very difficult to justify levels of operation.

The importance of keeping detailed statistics cannot be overemphasized. For example, Figure 1 shows the number of drownings and, in parenthesis, the rate of drowning per 100,000 people. These are the type of statistical tables that need to be explained fully or Galveston County would appear to have one of the highest drowning rates in the nation. In actuality, the vast majority of those who drown in Galveston County are people from outside the county and the figures undoubtedly reflect the significant amount of tourism and related recreational activity as well as the high level of water-related commercial activities.

Figure 1

DROWNINGS: U.S., TEXAS, AND THE GALVESTON REGION 1970-77

Year	U.S.		TEXAS		HARRIS CO.		GALVESTON CO.	
1970	7,860	(3.9)	641	(5.7)	69	(4.0)	35	(20.6)
1971	7,396	(3.6)	568	(5.1)	57	(3.3)	21	(12.4)
1972	7,586	(3.6)	604	(5.4)	74	(4.2)	28	(16.5)
1973	7,725	(4.2)	725	(5.8)	80	(4.0)	36	(19.6)
1974	7,876	(3.7)	696	(5.6)	85	(4.3)	39	(21.3)
1975	8,000	(3.8)	726	(5.9)	71	(3.6)	39	(21.3)
1976	6,827	(3.2)	562	(4.6)	84	(4.3)	22	(12.0)
1977	7,100	(3.3)	654	(5.3)	80	(4.0)	31	(16.9)

after: U.S. - National Safety Council; Texas - Texas Dept. Health; Harris Co. - Medical Exam. Office; Galveston Co., Medical Exam. Office. Census - Bureau of the Census

Figure 2 presents a further breakdown providing sex and race; the important point being that a very high percentage of ethnic minorities have drowned in Galveston County over the past ten years in relation to their proportion of the total population. Figures 1 and 2 do not provide much information that is useful in either justifying the Beach Patrol at some particular funding level or increasing or decreasing the service because the figures are cumulative for all types of water-related fatalities.

Figure 2

GALVESTON COUNTY DROWNINGS

1970 - 1979

Race/Sex	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	Total
White male	24	7	9	13	8	18	14	12	5	19	129
White female	2	3	2	0	3	3	0	1	3	3	20
Black male	8	7	13	17	13	7	4	8	5	12	94
Black female	0	2	0	2	9	3	1	3	1	2	23
Spanish male	1	2	4	3	5	6	3	7	5	5	41
Spanish female	0	0	0	1	0	2	0	0	0	0	3
Other male	0	0	0	0	0	0	0	0	0	1	1
Other female	0	0	0	0	1	0	0	0	0	0	1
Totals	35	21	28	36	39	39	22	31	19	42	312

Of the 312 people who drowned in Galveston County in the ten-year period 1970-1979, 132, or 42% of the total were engaged in recreational activities on or adjacent to Galveston Island. Their activities were: Swimming: 94 (includes 17 cases involving an inflatable device); Fishing: 15; Boating: 6; Wading: 4; Surfing: 4;, and Other: 9 (i.e., attempting a rescue, etc.).

As visitors to Galveston Island's beaches have not been visually counted an estimate of the population at risk has been made by taking information from the August 1979 report to the Park Board of Trustees from Economics Research Associated (ERA)(8). ERA estimated that for 1978 3,032,336 visitors came to Galveston Island and that 67% said the beaches were instrumental in attracting

them to the island. There is no estimate as to the number of Galvestonians that used the beach in 1978. Therefore, we estimated that there was a 10% increase in visitors from 1978 to 1979 and that including Galvestonians, approximately 70% of that total were beach users in some manner and were therefore the population at risk -- a total of approximately 2,335,000. This estimate is probably high because of rainy weather and oil on the beaches during the 1979 tourist season.

Figure 3 provides a comparison of selected lifesaving service figures for some municipalities in the United States. As the principal investigators of this study are the statistical coordinators for the U.S. Lifesaving Association, they have available to them data not readily obtained elsewhere. Also, based on previous years data, the figures for the cities other than Galveston are representative. Without detailed statistics it is difficult to

Figure 3

SELECTED GUARDED BEACH STATISTICS

1979

City	Attendance	Rescues	Drownings
Chicago, Ill.	15,403,987	7,298	0
San Diego, Calif.	13,372,735	2,215	5
Huntington Beach, Calif.	5,089,392	2,217	0
Hollywood, Fla.	3,746,700	266	1
Boca Raton, Fla.	1,678,321	144	1
Seal Beach, Calif.	880,026	1,811	0
Galveston, Tex.	2,335,000 (estimated)	1,055	3

tell if the beach was guarded on any particular day when a drowning occurred and in fact some Galveston drownings over the years may have been attributed to unguarded beaches and visa versa. It must be noted that Galveston tends to have quite high drowning numbers when compared with other cities and regions, particularly in relation to the number of visitors (the population at risk).

Figure 4 provides the city of Galveston Beach Patrol statistics for the period 1971-1980. It should be noted that some drownings attributed to

unguarded beaches occurred on guarded beaches after hours of operation.

Figure 4

BEACH PATROL STATISTICS - CITY OF GALVESTON

1971 - 1980

Year	Super-vision	Person-nel	First Aid	Lost Children	Rescues/ Assists	Near-Drownings	Drownings Guarded	Drownings Unguard	Total
1971	Pk & Rec	16	1,029	193	515	24	2	7	9
1972	Pk & Rec	16	2,050	462	685	31	5	10	15
1973	Pk & Rec	18	622	442	513	19	5	6	11
1974	Police	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1975	Police	20	N/A	N/A	194*	41	N/A	N/A	23
**1976	Police	35	1,353	N/A	1,014	24	N/A	N/A	9
1977	Police	N/A	1,483	34	832	32	1	8	9
1978	Police	N/A	836	773	1,517	20	2	7	9
1979	Police	N/A	383	600	1,055	32	3	11	14
1980 (as of 8-18)	Police	20	1,249	N/A	1,758	22	0	4	4

N/A = not available
* - assists not counted in 1975
** - 1976 data includes 23 miles of West Beach

Statistics regarding the 132 people who have drowned over the last ten years on or adjacent to Galveston Island while engaged in recreational activities are contained in Figures 5-8.

Seventy-six percent of these recreational drownings involved people from Harris or Galveston counties. For Harris County blacks comprised 44.7%, whites 34.2%, Spanish surname 19.7%, and other 1.3%. For Galveston County blacks 52.0%, whites 32.0%, Spanish surname 16.0%, and other 0%. Therefore, between 60 and 70% annually of Harris and Galveston County residents who drown on or adjacent to Galveston Island while engaged in recreational activities are minorities. For the recreationally-related drownings the percentage of individuals who lived in Galveston was 18.9%; the percentage who lived in Texas outside of Galveston was 70.4%; the percentage out-of-state was 9.8%; and the percentage who lived out-of-country was 0.8%.

Figure 5: Race/Sex Breakdown of Recreationally Related Drownings, Galveston, 1970-79 (N=132)

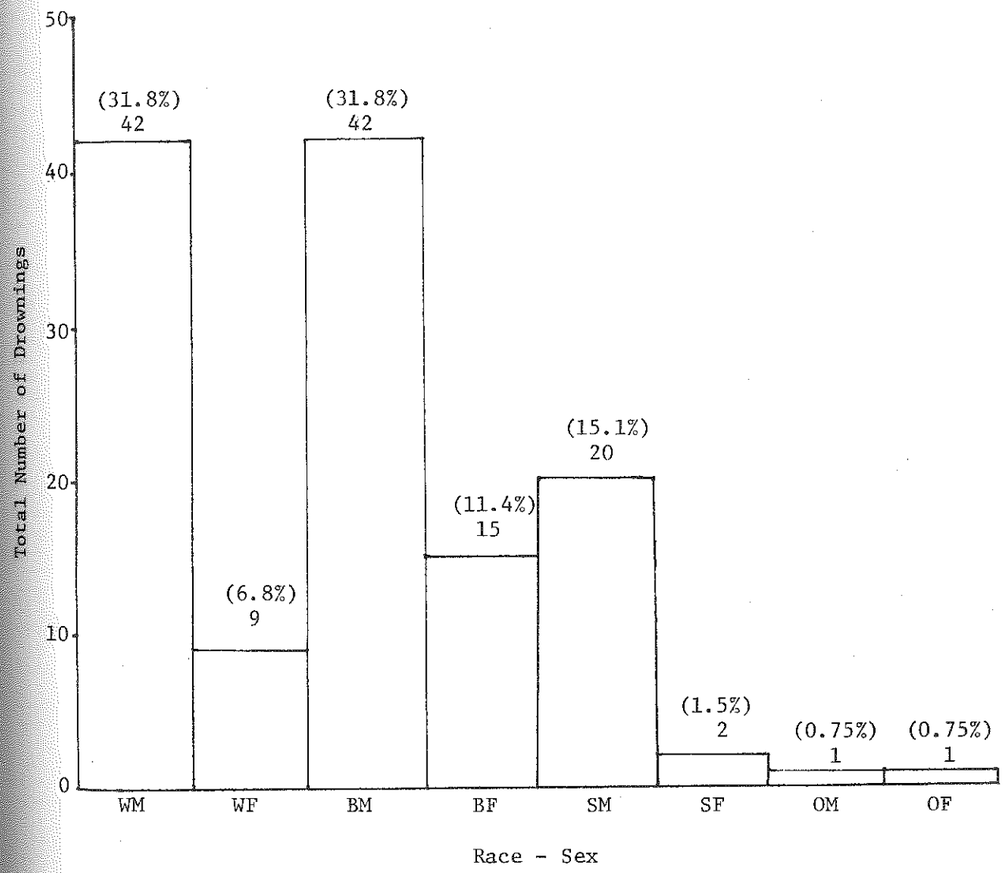


Figure 6: Month vs. Total Number of Recreationally Related Drownings, Galveston, 1970-79 (N=132)

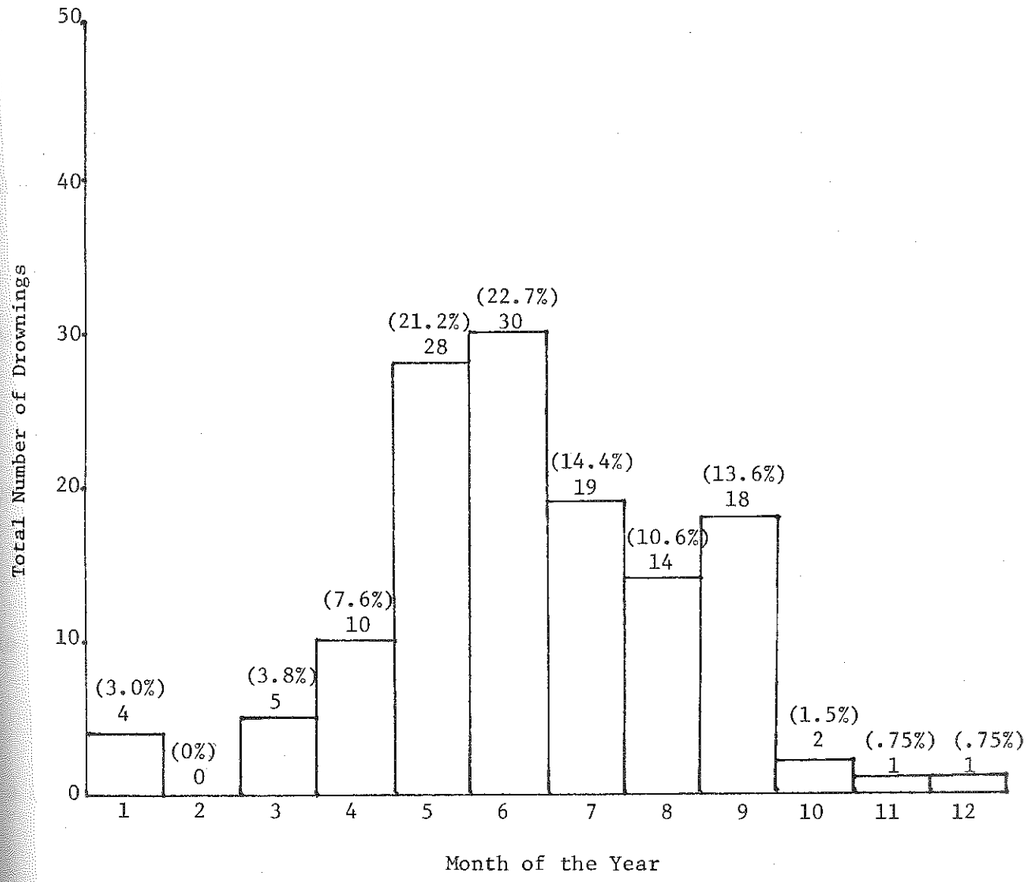


Figure 7: Day of Week vs. Total Recreationally Related Drownings, Galveston, 1970-79 (N=132)

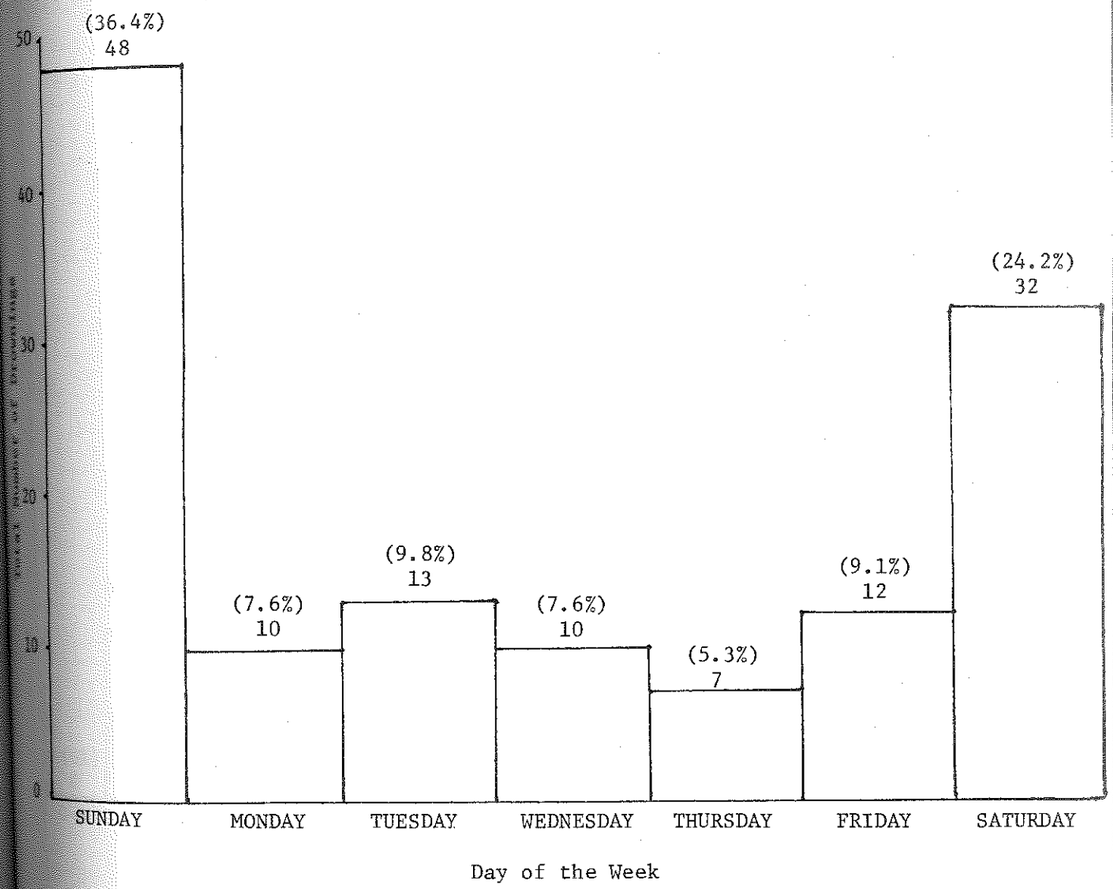
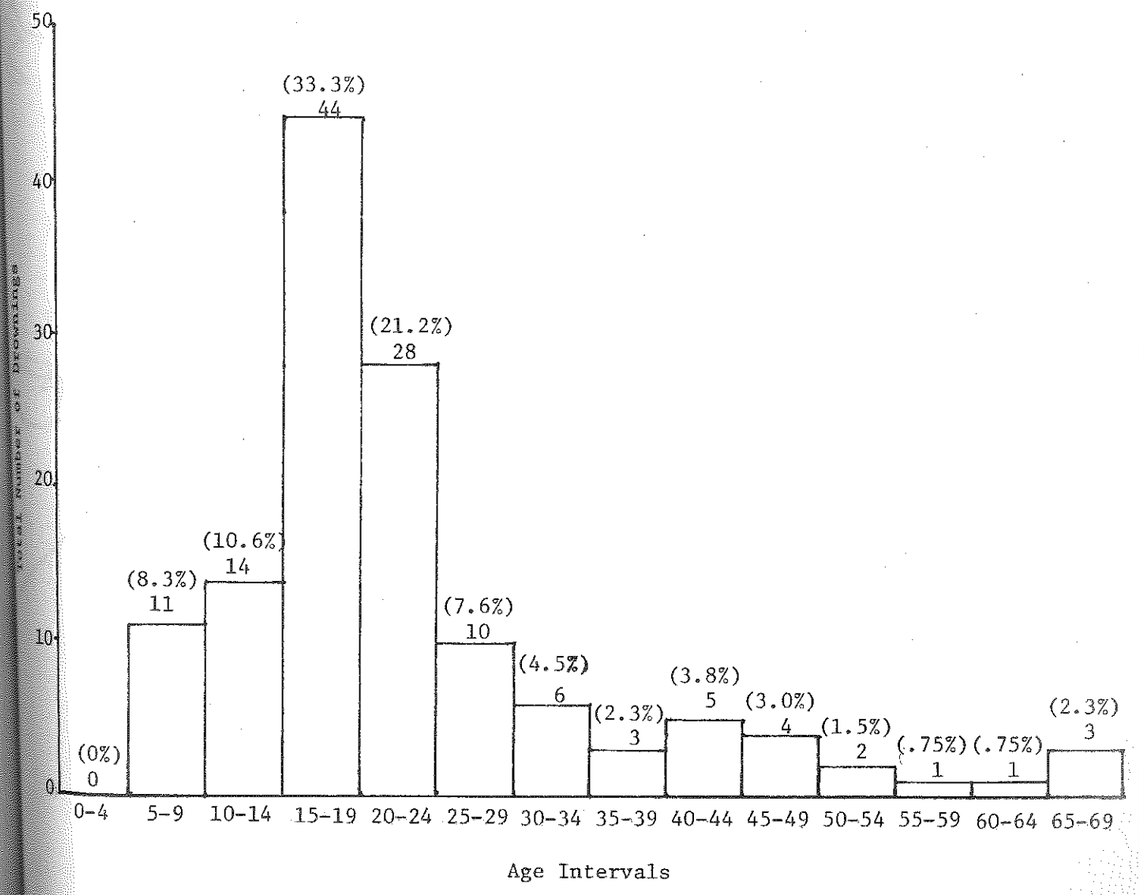


Figure 8: Age vs. Total Recreationally Related Drownings, Galveston, 1970-79 (N=132)



N
RECREATIONALLY RELATED DROWNINGS
GALVESTON ISLAND
1970-1979
0 1 2 3
Miles

DEPARTMENT OF RECREATION
Fort Lauderdale, Florida

MISSING PERSON REPORT

BEACH PATROL

DATE _____ TIME REPORTED: _____

FOUND _____

NAME: _____

ADDRESS: LOCAL _____ PHONE _____

_____

HOME _____ PHONE _____

_____

DESCRIPTION:

1. MALE _____
2. FEMALE _____
3. AGE _____
4. RACE _____
5. HEIGHT _____
6. BUILD _____ WEIGHT _____
7. EYES _____
8. HAIR _____
9. CLOTHING _____

LOCATION:

LAST SEEN: _____

FOUND: _____

SUPERVISOR IN CHARGE: _____

DEPARTMENT OF RECREATION - FORT LAUDERDALE, FLORIDA

AQUATICS DIVISION

WEEKLY BEACH PATROL REPORT

ATTENDANCE: WEEK ENDING_____ 19____

AREA	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY	TOTAL
Beach								
Picnic Area								
TOTAL								

WORK STATISTICS:

DESCRIPTION	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY	TOTAL
Rescues								
Assists								
First Aid								
Emergencies (Vehicle Use) Jeep - Amb - Boat								
Lost Children Returned								
Personnel & Equip. Insp.								
Arrests								
Police Assists								
No. Valuables Returned								
Estimated Cost								
Workout Hours								
Training Hours & Subject								
Maintenance Hours								
Maintenance Work Descript.								

HOURS OF OPERATION_____ TOTAL HOURS_____

BEACH PATROL SUPERVISOR_____ DATE_____ AQUATICS SUPERINTENDENT_____ DATE_____

R AQ-1
(Rev. 6/72)

DEPARTMENT OF RECREATION - FORT LAUDERDALE, FLORIDA
AQUATICS DIVISION

STATISTIC REPORT

Report Date_____

BEACH_____STATION NUMBER_____STREET AREA_____

POOL_____ADDRESS_____

CIRCLE ONE: (1) Rescue (2) Arrest (3) Lost Child (4) First Aid Case:
(5) Other_____ (6) Vandalism
a. Man-O-War e. Puncture
b. Laceration f. Fracture
c. Abrasion g. Stroke
d. Sunburn h. Exhaustion

DATE OCCURRED_____TIME_____ A.M. P.M.

NAME (S)	AGE	SEX	ADDRESS	PHONE	CONDITION

WITNESS (S)	AGE	SEX	ADDRESS	PHONE

THE INJURY

(Be specific when describing injury)

Nature and extent of injury_____

Where was injured taken after accident?_____

Name of Doctor (If one was consulted)_____

Address_____

DESCRIPTION OF ACCIDENT

(Be specific when describing accident)

Name of Lifeguard in charge when accident occurred_____ Assisting Lifeguard_____

Name of Supervisor present at scene of accident_____

What procedure was followed?_____

FINAL DISPOSITION_____

SIGNATURE

SUPERVISOR'S EVALUATION OF OPERATION:_____

NOTE: This report must be correct and submitted to Aquatic Headquarters no later than the day following the date of incident. Report any serious incidents immediately by phone at 527-2627.

SUPERVISOR

AQUATICS SUPERINTENDENT DATE

City of Huntington Beach

HARBORS, BEACHES, RECREATION & PARKS DEPARTMENT

ATE _____ TIME _____ LOCATION _____ GUARD _____

SCUE _____ FALSE ALARMS ____ PREVENT ACTION ____ MIN. F.A. ____ MAJOR F.A. ____ SURFBOARD INJURY ____ LOST CHILD ____ PUBLIC CONTACTS ____

☐ETOH

Rip
Apparatus
Pier
Hole
Other _____

☐ Boat Warning
☐ Other

☐ Bandaid
☐ Jelly Fish Sting

☐ Head
☐ Body
☐ Owners Board
☐ Other

☐ Holding
☐ Looking

Phone _____
Inf. _____
Other _____

ME _____ AGE _____ PHONE _____

REET _____ CITY, STATE-ZIP _____

TAILS _____

POSITION: RELEASED-BEACH ☐ RELEASED-PARENTS ☐ ADVISED TO SEE DOCTOR ☐ OTHER ☐

TIONAL REPORTS FILED: ☐ EMERGENCY CALL ☐ VESSEL CALL ☐ ACCIDENT ☐ MISCELLANEOUS

MR-164 (3/75)

RESCUE – REPORT – FIRST AID – BOAT (on back)

Name _____ Age _____ Date _____

Address _____ City _____

Lifeguard _____ Station _____ Time _____

RESCUE—CAUSE

_____ rip currents
_____ heavy waves
_____ tired swimmer
_____ non-swimmer
_____ drop off
_____ play equipment
_____ under pier
_____ intoxication
_____ yards out
_____ island swimmer
_____ location
_____ (_____
_____ (_____
_____ (_____
_____ (_____
_____ (_____

FIRST AID—CAUSE

_____ in water
_____ on ground
_____ barnacles
_____ surf board
_____ rough play
_____ hit by wave
_____ dive
_____ glass
_____ bite
_____ Sting (Ray)
_____ Jellyfish
_____ (_____
_____ (_____
_____ (_____
_____ (_____
_____ (_____

TYPE OF INJURY

MAJOR MINOR

_____ wound
_____ shock
_____ unconscious
_____ heart attack
_____ burn
_____ fracture
_____ dislocation
_____ (_____

BODY PARTS (R;L)

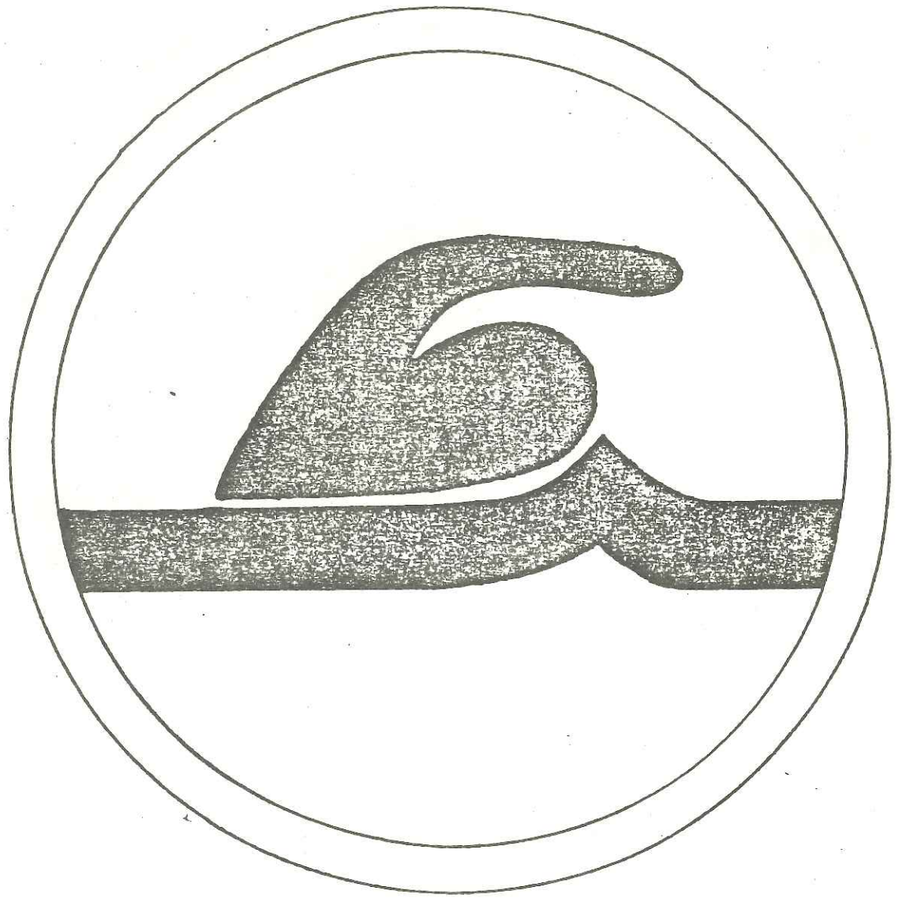
___ head ___ neck
___ eye ___ toe
___ chest ___ foot
___ back ___ knee
___ arm ___ low leg
___ finger ___ up. leg

DISPOSITION

_____ rescued
_____ bandaged
_____ resuscitation
_____ treat shock
_____ immobilize
_____ call parent
_____ call police
_____ refer to doctor
_____ refer to hospital
_____ transported
_____ released
_____ to parent
_____ to police
_____ to ambulance
_____ (_____
_____ (_____

APPENDIX F

SIGNS



SWIMMING PERMITTED

Black figure on white background with green circle.

SWIMMING PROHIBITED

Black figure on white background with red circle and diagonal.

SURFING PERMITTED

Black figure on white background with green circle.