

active service with at least one year of creditable service. The Board considers any member on an approved leave of absence as being in active service.

If he is eligible for service retirement or is age 55 with 15 years of service and named his spouse as the sole primary beneficiary, the spouse will have the choice of a monthly benefit under the provisions of option 2 or the regular lump sum death benefit, should the member die in active service.

Vesting

An Act of the General Assembly in 1966 provided vesting of the member's share of the State's pension reserve, as well as his own contributions and interest, after 20 years of creditable service, should the member leave State employment. A deferred retirement allowance, based on the vested credit, will be paid to the ex-member, beginning at age 60, provided he filed for such benefit while he was actively employed.

State Police Retirement

A member of the State Police Retirement System may retire at age 50 and must retire at age 60. The benefit is equal to 2% of average final compensation for the first 25 years and 1% of average final compensation for each year over 25. State Troopers are not covered under Social Security. The Retirement System does, however, pay child's insurance benefits, widow's insurance benefits, etc., equal to those paid in accordance with the Federal Social Security Act, should a member retire after service or ordinary disability die. The accidental disability benefit to a State Trooper is equal to the benefit paid to a State employee, except that upon the death of a State Trooper, one half of his allowance is paid to his widow or minor children.

The Employees' Retirement System of the State of Maryland with Social Security benefits in full supplement, ranks as one of the finest in the nation. Regardless of this favorable comparison, continuous studies are being made to provide the most modern benefits.

THE PATROL AREA CONCEPT IN WILDLIFE LAW ENFORCEMENT

By Robert B. Hazel, Chief

Division of Protection, N. C. Wildlife Resources Commission

The classic concept of the typical successful wildlife law enforcement officer is that of a rugged individual who, under all sorts of adverse conditions, prevails as master of a vast territory in which he is literally the boss of wildlife affairs. His domain usually consists of an entire county, and he not only represents the wildlife agency and enforces its laws and regulations, but often, either through choice or necessity, makes his own rules and regulations. He likes to work alone, make his own decisions, and his own work plans. He handles the problems which land in his lap promptly and to the best of his ability. He is fearless and firm in dealing with violators, and completely dedicated to his work. To a certain extent he exemplifies all of the admirable characteristics of the rugged pioneer ancestors from whence he came. There have been many men who have become successful wildlife officers in terms of these standards.

But while all these qualities are admirable and the efforts of such men have done much for wildlife conservation, this concept has a serious defect — it places the emphasis almost entirely on *individual* effort. I submit to you that this concept is outdated and needs to be replaced with a new concept — a concept that emphasizes *group* effort, while still making use of individual effort and initiative.

All of us recognize that we will never have enough men to adequately police the activities of all of the millions of hunters and fishermen. No one can say for sure how many men would actually be required to do this, but it is safe to say that wildlife budgets will never be able to support anywhere near this amount of manpower. Therefore, we must accept the fact that we will be forever short of personnel, and that some other answer must be found for the problems of expanding activities and

numbers of people. At the same time, the hunter and fisherman and his equipment will continue to become more sophisticated, further complicating our problems. The sportsman is more mobile than ever before, and if he is inclined to violate the law, this mobility tends to give him an advantage.

All of this illustrates the fact that we must find new and more efficient methods of doing our work without increases in numbers of personnel. The old concepts and methods of wildlife law enforcement are simply inadequate to deal with today's problems, if in fact they ever were adequate. The only way by which we can hope to handle the problems of wildlife law enforcement is through *organized, well-planned, and well-supervised* programs which make maximum use of the *combined* talents and efforts of the men which comprise the wildlife agency's law enforcement division. Organized group effort can be far more effective than the collective results of unorganized individual effort. This brings me to the patrol area concept.

The patrol area concept is an idea which we have put to use in North Carolina and which we feel is accomplishing the desired results. I will describe to you what we have done in the hope that others might benefit therefrom.

In 1962, we had an opportunity to make some changes in our law enforcement division. We had recently added nine men to our staff, one in each wildlife district, to help us handle the new responsibility of boat law enforcement. Our organization consisted of 9 District Supervisors, 18 Wildlife Patrolmen (who were in reality nothing more than roving game protectors each of whom worked roughly half of a district), and 102 Wildlife Protectors (most of whom were assigned an entire county to patrol). This system had several serious defects. First, the territories assigned to the individual protectors were nowhere nearly equal in either size or intensity of work load. Some individuals had two or three times the amount of activity as did others. Second, there was a lack of adequate supervision and organization of work. We were depending mainly on the individual efforts of men working largely on their own. Third, there were not sufficient ranks within the organization to provide opportunities for promoting deserving individuals, and this was becoming a serious morale factor. Fourth, there was not a sufficient number of supervisory personnel to insure that the activities of individual protectors could be directed or closely observed and evaluated. We did not have adequate knowledge of what our men were doing or of the results achieved, and this opened the door for a serious lack of uniformity in the enforcement of our statutes and regulations in one place as compared to another.

After careful study of our work load distribution, based on prosecution and activity records and our men's knowledge of the areas they worked, our Commission approved a new organizational structure which included a division of our districts into what we called "patrol areas." Each district was divided into three such areas. Each patrol area was then further divided into individual work areas, the size and number of which were determined by work load distribution. Every patrol area was then staffed by a team consisting of one Wildlife Patrolman and a number of Wildlife Protectors. The Wildlife Patrolman was stationed in the work area which had the highest work load density, and was elevated to a new position in which he had leadership responsibility over the work of all the protectors in his assigned area. His new job was not only to patrol his assigned area, but also to see that his protectors handled the work in their assigned areas. Emphasis was placed on *teamwork* rather than individual effort, and the patrolman was given authority to use his men as he saw fit, either individually or as a group. This required careful work planning, even to the point of pre-planned work schedules which determined in advance the days each officer was on or off duty.

This realignment gave us an opportunity to promote some of our best men to the new Wildlife Patrolmen positions. At the same time, we added another new position to the organization — that of Assistant District Supervisor. This position was added to meet the very evident need for a man in each district who would be responsible for training, equipment procurement, and planning of work details which involved more than one patrol area. In addition, the new Assistant Supervisors were trained as experts in investigative and undercover work and made available for special

assignments when and where needed. Salaries were adjusted to match the new organizational structure.

The results of this reorganization were almost immediate and far exceeded our expectations. During the year following the reorganization, the amount of work done by the division — measured in terms of hunters, fishermen, and boats checked in the field and cases brought to court — increased by one-third. This high level of work production continues at the present time. For instance, during 1967, our staff of 156 men checked 442,191 hunters, fishermen, and boats, and made 10,780 cases. Administration of the division was greatly improved, and we were finally able to handle adequately many enforcement problems which were beyond our reach under the old system. The new organization provided a degree of flexibility which allowed the proper number of officers to be on hand at the proper location to handle adequately most of the problems which we encountered. Illegal activities involving groups of people and organized attempts to violate the law could finally be dealt with, where previously a lone officer could not hope to cope with them. The morale of the division improved considerably. The men now felt that they were members of a team, rather than being left to struggle alone as individuals.

A further refinement in our organization was made this past January. We added nine additional men to the force, and again divided each district, this time into four patrol areas instead of three. We again promoted our best men to the new patrol positions. This new organization has given us even more flexibility and reduced the number of men and areas which each man must supervise. I should mention that we also expanded our air patrol arm to provide for one Supervisory Pilot and two Patrol Pilots with three aircraft which are used almost continually for law enforcement work. Our division is now constituted as shown on the attached organizational chart. Each district has a District Supervisor and Assistant Supervisor, four Wildlife Patrolmen, and a varying number of Wildlife Protectors.

The patrol area system, in addition to the benefits already enumerated, has brought about several other desirable changes. It has done away with the little "kingdoms" which often were built up by local officers under the old system. At the same time it has taken considerable pressure off the local officer, since he is no longer totally responsible for all that happens in his assigned area. The public is now dealing with a team of men rather than an individual. This tends to spread the pressure.

However, our experience has shown that in order for this concept to work properly, there are several other necessary ingredients. These are:

1. *Careful selection and training of personnel.* The system requires highly-trained, professional personnel who work well as team members.
2. *Supervisory training for Wildlife Patrolmen, Assistant Supervisors, and District Supervisors.* Thorough training in supervision and personnel management is an absolute must if this system is to be successful.
3. *Direct-line chain of command, which is strictly followed.* To function properly, this type of organization needs positive control.
4. *A good communications system.* This is vital for the teams to function efficiently. The team members must be in close touch with each other. Also, it is important that the public have ready contact with the law enforcement teams. There must be locations throughout the state where people can call at any time, day or night, to report violations, and there must be someone available to give immediate attention to such reports.
5. *Careful work planning.* This is absolutely essential. Supervisory personnel and radio operators must know who is on duty at any particular time, and the daily schedules must be arranged so that there are an adequate number of personnel available to cover each patrol area at any time. This requires careful scheduling of days off and vacations.
6. *Proper equipment.* Men must be furnished equipment adequate to handle their work.

In summary, after several years of experience we are firmly convinced that the new concept of wildlife law enforcement which places emphasis on organized team effort in specific patrol areas, rather than on the unorganized individual effort, has

paid tremendous dividends and has allowed us to keep pace with changing and increased hunting and fishing activities. We are convinced that this direction is the only way to go within the obvious limitations of present and anticipated resources. We are sufficiently impressed with the results that we wholeheartedly recommend this approach to all wildlife law enforcement agencies.

THE FUTURE OF LAW ENFORCEMENT IN WILDLIFE CONSERVATION PROGRAMS

By David H. G. Gould *Deputy State Chief*
Law Enforcement Division Georgia Game and Fish Commission

The theme of this year's meeting, Planning for People, Places and Wildlife, is certainly appropriate. The increasing pressures being exerted by people in our expanding population are creating a critical need for additional places to hunt and fish and for intensified management of our wildlife resources.

The 1965 National Survey of Fishing and Hunting revealed that 33 million people in these United States actively engaged in hunting and fishing and that they spent 4 billion dollars in 700 million recreation days while traveling 31 billion passenger miles in pursuit of these worthwhile activities. This was an increase over 1955 of some 8 million sportsmen, 133 million recreation days and 1 billion dollars in expenditures. Projections for the year 1975 indicate that there will very likely be 45 million hunters and fishermen, or even more. Prospects are strong for a future work week of even fewer hours than the 40-hour week which is presently widely accepted, thus accounting for many more millions of recreation days which will be spent in field or stream by people.

Existing places for people to hunt and fish, and the resources which make these places suitable are limited. In many instances they are already threatened by excessive use or actual destruction. The ensuing decades will surely be demanding ones for all who engage in the tasks of maintaining and improving our nation's wildlife. Those of us who fail now to plan for the future will permit our already complex responsibilities to be compounded into insolvable problems.

I strongly feel that law enforcement is an integral part of the total program of wildlife management and that in order for us to properly evaluate its position, we should consider the over-all wildlife program. Each phase is dependent on one or more of the others and without a high degree of coordination and cooperation, the entire program will falter or fail.

Wildlife law enforcement has received attention in varying degrees throughout most of mankind's history. Records of the first attempts to administer game and fish are lost in the unwritten history of primitive tribes. P. A. Taverner, in his *The Law and the Prophets*, developed the theory that tribal taboos which were effective in preserving the game supply helped the tribes using such measures to survive and prosper. Coming down to the first written records, the Mosaic law of Moses is the first restriction on the taking of game in the sense of leaving breeding stock. Then a long step forward in wildlife development is represented by the game laws of Kublai, "The Great Khan", who lived between 1259 and 1294 A.D. He enforced closed seasons during the breeding seasons of important birds and mammals of his empire and also provided winter food for them.

The administration of wildlife as we know it stems from the legal codes of England. From the time of the Norman Conquest in 1066 until the signing of the Magna Charta in 1215, the King owned the wildlife and distributed it as a personal prerogative. The Magna Charta provided that the King still owned the wildlife, but only in his sovereign capacity in trust for his subjects.

When the first colonists arrived in America, they were forced to place dependence on wildlife as a source of food. Therefore, it is not surprising that some of the earliest laws of the Plymouth Colony were concerned with hunting and fishing. As early as