

SEMINAR I FOR LAND SURVEY PARTY CHIEFS

This one day seminar is designed to inform all participants of the role of the Land Survey Party Chief within the context of the Land Management Team, and to discuss the knowledge requirements incumbent upon those seeking to attain that position.

The ideas and concepts are not new, but are presented in a way to fully define the actual Job Classification of the Survey Party Chief.

The seminar will also include some basic information of those aspects of surveying which have been allowed to deteriorate over the passage of time but which have always been a priority in the knowledge required by those wishing to attain the position of Land Survey Party Chief.

Instructor's Notes

These notes are the background of a sixty minute discussion on the job-related information, skills, techniques and knowledge that is required for the performance of the classification of Party Chief.

The material is conveniently divided into three separate sections:

1. Basic general knowledge required,
2. Professional attributes required, and
3. Performance factors which set a bench mark for evaluation and assessment purposes.

The basic premise underlying this set of lecture notes is that the survey profession at large does not have a yard stick to measure the performance of those survey personnel who are used as Party Chiefs, and the Party Chiefs themselves have no criteria against which to measure their own competence.

It is hoped that the following information will satisfy both these deficiencies.

DAILY SYLLABUS

TIME	SUBJECT	SUBJECT DETAIL	REMARKS
0900		Introduction to the Seminar	The aim is to make today a learning experience.
0915	Duties and Responsibilities	Professional Knowledge Professional Attributes Performance Factors	Here is where you might learn just what you know and what you should know.
1015	COFFEE BREAK		
1035	Leadership and Man-Management	The qualities of a leader The function of management Practical know-how	Leaders are the doers and shakers. Are you one? Here is how.
1200	LUNCH		
1325	Survey Law I	Rules of Evidence Retracement Principles Boundaries Monumentation	Do you really know, understand and practise basic survey principles?
1430	Survey Reports	What they are What to include How to compose them	Some tips on how to explain what you did and why you did it.
1500	COFFEE BREAK		
1520	Construction Surveying	Introduction Research required Field work Validation	Mistakes are costly. Here are some ideas to prevent them.
1620	Question Period		Your turn to talk.
1700	End of Seminar		

DUTIES AND RESPONSIBILITIES

OF THE PARTY CHIEF

LECTURE NOTES

Introduction

This lecture is derived from discussions with surveyors and survey personnel within the survey profession who have expressed a concern regarding the lack of a set of guidelines governing the standards required for a Survey Party Chief.

To solve this problem, we will discuss the subject under three main title headings:

1. Professional Knowledge, which sets out what basic knowledge is required;
2. Professional Attributes, which govern the ability to use that knowledge;
3. Performance Factors, the criteria upon which the Party Chief can rate his own performance and capabilities.

The detailed and comprehensive Job Classification for a Party Chief is long, and is beyond the scope of this short discussion. It must be realized that a list of all the skills, knowledge and techniques is a major work, so to some extent, we must deal in generalities. Some abilities, such as the ability to fix a chain saw, take a solar observation or sharpen an axe, are not mentioned because a Party Chief is expected to know and do all those types of work anyway.

What he must be an expert in, apart from Professional Knowledge, are such things as keeping field notes; the collection, collation and dissemination of required survey data in a form that is easily understood by junior survey personnel; the maintenance and protection of equipment and vehicles; the accurate recording of time and disbursements spent on each project.

Field notes shall include:

1. A north arrow.
2. The part of the geographic area being surveyed and those it abuts, including, if possible, the actual instrument numbers or parcel numbers.
3. The date, weather, names of crew members and their function, type of equipment used, and the notation METRIC or IMPERIAL, depending on what system is used.
4. Full entries of all observations and measurements.
5. Complete description of all evidence found, all monuments set, and structures used for reference purposes.
6. Offset lines and traverse lines correctly identified.
7. All street names, street widenings.
8. Instrument stations, interline stations and intersections to be numbered; angles and distances delineated as being set or measured.
9. Dimensioning arrows.
10. Pages numbered in sequence as the work progresses.

Remember that field notes must be recorded at the time the work is done, not on a scrap of paper and recorded later.

When calculations are required, draw a diagram showing the station numbering and indicate what measurements were used and what measurements were calculated.

If you must use a hanging traverse, then show clearly how all the angles and distances were checked.

After completing a closed figure, sum the interior angles and show the answer on your notes.

Note the type and condition of all fences and show the distances from monuments to fences.

PROFESSIONAL KNOWLEDGE:

1. Ten years of field experience in a variety of surveys.
2. Minimum of Ontario Grade 13 Mathematics, English and Geography.
3. Good general working knowledge of Business Law, Office Procedures and Word Processing.
4. Extensive practical know-how in the use of hand-held calculators and office computers.
5. Comprehensive knowledge of basic Survey Law.
6. Understanding of Planning Procedures.
7. Thorough understanding of Standards and Guidelines for Surveys.
8. Comprehensive knowledge of drafting procedures, co-ordinate systems and tolerances.

This list of Professional Knowledge requirements may appear to be too detailed and may be looked upon as the standards required of an O.L.S. However, we must realize that the Party Chief is just not a technologist in the sense of carrying out a detailed set of instructions. The Party Chief is the eyes and ears of the professional surveyor whose work it is to acquire all the survey data necessary and make those decisions in the field that will finalize all and any survey requirements. The Party Chief must know as much as the O.L.S. respecting surveying, and probably much more than the O.L.S. in solving problems in the field. It is the Party Chief who must be capable of handling all aspects of any survey; directing and supervising the work through all the necessary phases. The Party Chief is the true para-professional and must play a key role in the survey team.

The Party Chief should have ten years field experience in a variety of surveys. When you have been involved in the following list of surveys (not necessarily as a Party Chief), then you have some idea of the basic scope of what you may be called upon to accomplish.

1. Subdivision layout, both normal procedures and radial stake-out;
2. Pipeline, Bell Canada, Hydro or Gas long distance easement surveys;
3. Retracement or original boundary surveys in the bush;
4. Construction layout work for roads, sewers, water, etc.
5. Topographic surveys for a large industrial plan;
6. Precise base line surveys for geodetic work;
7. Building location surveys in very old established areas and where most survey evidence is lost; and
8. Condominium layout and survey.

The Party Chief should have a minimum of Grade 13 Mathematics, English and Geography. He needs a very good grounding in mathematics to solve the everyday problems he runs into in surveying and to be able to easily grasp the concepts associated with computer technology. He needs a thorough knowledge of English to understand the rules and regulations of planning documentation, to write comprehensive survey reports, and to decipher solicitor's letters of instruction and the literature associated with new survey equipment and techniques. He needs a comprehensive knowledge of Geography to easily grasp the fundamentals of town planning, transportation and servicing corridors, subdivision design, etc.

The Party Chief must have a good general working knowledge of Business Law, office procedures and word processing. He is an integral part of the Survey Team and must be the position to compile business letters and reports and ensure they are approved and sent on time.

The Party Chief must have extensive practical know-how in the use of calculators and computers. He needs to not only know how to use them, but also how to programme them to be able to use their technology effectively. He must be capable of giving direction to the staff in the methods he wants used to effect solutions to the problems that arise.

The Party Chief must have a comprehensive knowledge of Survey Law. He needs to understand the basic tenets of his craft. Anyone can plant an iron bar, but planting it in the correct location can only be possible with a full understanding and appreciation of reasons for putting it there.

The Party Chief must have an understanding of the planning process. He needs to fully understand the concepts behind the Official Plan, the restricted area zoning by-laws in his area of study, together with the system of Land Division Committees and the Committees of Adjustment. It is with this knowledge that he is able to correctly layout buildings, swimming pools, etc.

The Party Chief must have a thorough understanding of the O.L.S.-published manuals of Standards and Guidelines for Surveys. Without this knowledge, the Party Chief is unable to conduct and finalize any survey.

The Party Chief must have a comprehensive knowledge of drafting procedures, co-ordinate systems and tolerances. How can the Party Chief direct the office staff in their work if he does not understand the systems used and the methods that must be employed in the field so the work can be plotted and correctly calculated?

PROFESSIONAL ATTRIBUTES

Appearance:

The Party Chief is the field representative of the survey team and as such is the individual seen by the general public. Are we willing to accept a dirty-looking, unkempt, nondescript, unshaven individual to be that representative, or would we prefer a neat, tidy, clear-eyed professional-looking person who can impress both clients and staff with the way he looks, acts, and handles any situation?

Physical Fitness:

A Party Chief must have those physical qualities that enable him to work in -40°C or 35°C temperatures, to carry out his functions in all types of weather and over all types of terrain. He must have the temperament to battle flies in the summer and frost-bite in the winter with equal composure. A Party Chief must be able to lead the way cutting through cedar swamps or breaking trail on snowshoes as well as being prepared to share the physical load with his survey crew.

Conduct:

The Party Chief must always conduct himself in a manner which projects a professional approach and attitude. He must be considerate of clients, the public and the members of his survey crew, always being fully aware of the responsibility entrusted to that position and of his employer's interest in all things pertaining to the work.

Intellect:

A Party Chief must possess a keen analytical approach to the many spatial problems encountered in field work so as to correctly solve the situations concerning assessment of evidence, and the ability to mentally superimpose the title search over the field work to clarify faulty descriptions and disturbed evidence.

Integrity:

The especially dedicated Party Chief must be a person who is not only faithful to his duties, honest in his dealings, and conscientious in fulfilling obligations, but must also be professional enough to conduct the required work in a manner that is unbiased and always designed to accomplish the correct results in the least time and at the lowest cost.

Loyalty:

In this context, the word LOYALTY expresses the meaning of being true to the concepts, traditions and beliefs of the surveying profession, and being true and totally honest in any dealings with owners, contractors, developers and management respecting the performance of work done or to be done.

Dedication:

The Party Chief must be that singular type of person who is committed to his craft and more than willing and able to spend the extra time and effort not only to finish the work to his exacting standards, but also to instruct his staff in all aspects of land surveying and keep himself up-to-date in all things respecting his profession.

These key factors are the Professional Attributes that go into the make up of the first-class professional Party Chief. Without them, you are only a technician. With these attributes, you are indeed above the rest of the survey assistants and should be suitably remunerated by your employer.

The question that now confronts us is how to define a set of standards that both employers and Party Chiefs can use to determine the capability of the Party Chief.

PERFORMANCE FACTORS

Answering the following questions honestly will help you judge how you fare in the scheme of things.

1. Do you accept and carry out your RESPONSIBILITIES AND DUTIES in a willing, methodical and professional manner?
2. Do you apply JOB KNOWLEDGE AND SKILLS in a manner that will guarantee success with no lost time or motion?
3. Do you have the capability to MAKE DECISIONS and then TAKE ACTION to carry out your decisions?
4. Do you make comprehensive PLANS for your method of work and are you FULLY PREPARED for difficult or unexpected eventualities?
5. Can you DELEGATE specific types of work, DIRECT the survey crew correctly and SUPERVISE them in all they do?
6. How well do you EXPRESS yourself, both orally and in writing?
7. How well do you PERFORM UNDER STRESSFUL conditions?
8. How well do you WORK WITH OTHERS?
9. Do you really ENSURE THE WELL-BEING OF YOUR CREW?

Conclusion:

In this brief discussion, we have attempted to set the standard for SURVEY PARTY CHIEFS so that each one of you can have a benchmark against which you can measure your performance and realize your potential. Self-assessment is the first step in the road of Continuing Education which will bring you to the top of the ladder in your chosen profession. Use it wisely.

LEADERSHIP AND MAN-MANAGEMENT

LECTURE NOTES

INSTRUCTOR'S NOTES:

These notes are a background for a series of lectures which can be taught in a series of twenty minute long lectures.

The material is conveniently divided into three separate sections:

1. LEADERSHIP AND MAN-MANAGEMENT

- the qualities of a leader
- the function of man-management

2. PRACTICAL KNOW-HOW OF LEADERSHIP

- sources of information
- when to find information
- types of information
- planning and organizing
- giving out information
- how and when to supervise
- how to critique

3. BACKGROUND KNOWLEDGE

- handling problems
- representing your staff
- setting the example
- why people act the way they do
- communicating with people
- leaders and followers
- self-assessment

Because of the depth and concentration required by the student, it may be advantageous to conduct the series of lectures in twenty minute sessions on consecutive days. This will allow the student time to absorb the material, review it, and use each session as a stepping stone to the next session.

LEADERSHIP AND MAN-MANAGEMENT

Introduction:

The definitive statement regarding LEADERSHIP is contained in the Congressional Record of the U.S.A. as Congressional Record Document 289. It is a verbatim copy of an address by Major C.A. Bach to the graduating officers of the Second Training Camp at Fort Sheridan in 1917.

One brief excerpt from that address puts LEADERSHIP in its true perspective:

"When you join an organization, you will find there a willing body of men who ask from you nothing more than the qualities that will command their respect, their loyalty and their obedience. They are perfectly ready and eager to follow you as long as you can convince them that you have those qualities. When the time comes that they are satisfied you do not possess them you might as well kiss yourself goodbye. Your usefulness in that organization is at an end."

Commentary:

LEADERSHIP is a composite of many qualities which are listed as self-confidence, moral ascendancy, self-sacrifice, paternalism, fairness, initiative, decisiveness, dignity and courage, and from the knowledge and application of these qualities will flow the ability to influence and direct your staff to attain any objective.

However, you really cannot hope to reach the status of a true LEADER without having an in-depth understanding of human nature -- the knowledge of how each one of your staff will react in any given circumstance; in other words, MAN-MANAGEMENT.

Leadership and Man-management go hand-in-hand:

To manage men, you must display the qualities of LEADERSHIP and to be a leader, you must practise MAN-MANAGEMENT.

The Qualities of a Leader consist of nine attributes, each one distinctive in its application.

SELF-CONFIDENCE comes from accurate up-to-date knowledge and the ability to impart that knowledge to others.

To be a LEADER, you must know your business from the ground up and be able to demonstrate that know-how at any-time. If the occasion arises where you do not know and attempt to bluff your way, your staff will realize it, and from then on whatever you say will be calmly disregarded and your staff will go about doing things their own way.

MORAL ASCENDANCY, stemming from self-confidence, is your own belief and knowledge that you are, in fact, the better man. With it comes your capability for self-control, physical and mental vitality and endurance, and the moral force to do only that which is right.

Instances will always arise to try your temper, and, if you "fly off the handle" you have no business being in charge of men. Men in anger say things that they will regret, and do things that will lower their status in the eyes of their staff. Always be an example. You set the example and they will follow your lead. Remember that a poor organization is the direct result of poor leadership.

SELF-SACRIFICE means that you must always be the one on the spot, work the longest hours and accept the greatest responsibility willingly. You must be capable of giving of yourself mentally in sympathy and appreciation of the problems, both work-related and personal problems, of your staff.

When any of your staff turn to you with their problems do not turn them off with such comments like you have problems of your own. Listen to them carefully and hear them out. A little sympathy, a brief explanation or even a simple suggestion may be all that is needed to solve a problem that is easy for you, but may be of gigantic size to the staff member.

PATERNALISM is that attribute of watchful care for ease of working conditions, coupled with essential safety precautions, and the ability to demonstrate the easiest way of doing things.

You must be capable of looking after their health and welfare in conserving their strength by not demanding any needless exertion or useless labour. Paternalism also includes the capability to coach your staff to learn more about their profession, expand their horizons and pave the way for them to climb the ladder to success.

FAIRNESS is the quality which treats all members of your staff justly. Justly, because all men cannot be treated in the same manner. Some, being physically robust, can easily handle tough jobs, carry heavier loads and work longer hours. Others, being more facile and mentally agile, can handle complex calculations with ease. You must know which one of your staff can do what, and when.

Fairness also encompasses the ability to point the finger at poor work, as well as giving credit when it is warranted. Fairness also includes courtesy, consideration and respect to all of your staff at all times.

INITIATIVE is that concept of being fully prepared at all times for any situation that may arise, and being able to take the correct and immediate steps to affect a solution.

Initiative stems from a complete study of the policies and idiosyncracies of your organization, coupled with the mental alertness that comes from educated study, which enables you to do the right thing at the right time without any recourse to any higher authority.

DECISIVENESS, allied with initiative, is the capability to thoroughly analyse given situations, formulate plans, order their execution and stick to your decisions without wavering.

Occasions will arise when you must face a situation that is unanticipated by all concerned respecting the work at hand. If you have trained yourself to think through various emergencies, and have prepared yourself for such eventualities, then that mental training will always serve you well in facing the unexpected without panic, but with calm and promptness.

DIGNITY is that quality which always allows you to be friendly with your staff, but never their intimate. Treat them always with great cheerfulness, but always be fair and firm.

Dignity springs from your particular sense of values and your position within the organization coupled with your inner sense of your own worth and value to that organization. It does not mean being stiff, formal and stand-offish.

COURAGE in this context means Moral Courage, that type of courage which enables you to stick to a course of action, (knowing that it is the correct course of action,) which you have decided upon so as to attain the results that you wish to attain.

There will be times and situations which affect the livelihood of your staff, either by transfer or re-classification. Irrespective of your personal feelings, you must display that moral courage which accords a strict sense of justice at the situation, and, if you feel the situation is without merit, you must be capable of standing up and being counted.

Conclusion:

This short introduction to LEADERSHIP and MAN-MANAGEMENT has discussed those qualities which are essential to becoming a LEADER.

Many well-known service, political and economic managers all agree that LEADERSHIP is an acquired skill brought about by serious study and long practice. The student is well-advised to learn and practise these on a daily basis until the qualities just discussed become an integral part of their daily work.

Introduction:

In general, most people tend to seek guidance and leadership from an immediate and local source.

As a Leader, your own sources of information must be obtained from your superiors, seminars, research and technical manuals, textbooks, continuing education courses, and naturally, other personnel who are engaged in similar endeavours as your own. One point of warning, however -- not all sources of information are of equal accuracy. You must verify all information received, where possible, from a distinct and separate source.

Commentary:

Obtaining information is a long and continuing process. However, there are specific times in our line of work when it is of particular importance to seek out and verify information that is required.

1. When you join a new organization, you will require information regarding your specific job classification, duties and responsibilities, liaison personnel, supervisor, hours of work, etc.
2. When assigned new work, you will require the job parameters, past history, future considerations, completion dates, etc.
3. When new activities are planned, you must be made aware of how you fit into the scheme and what is expected of you.
4. When changes are made in equipment or techniques, you must discover all that you can about them, assimilate all the knowledge available, and be prepared to adopt the procedures without loss of pace or time.
5. When co-ordinating with other groups, you must define timing, location, work schedules, personnel, etc.

Whatever the circumstances, you must have the capability to ask the correct questions and locate and understand the correct information.

Discussion:

TYPES OF INFORMATION

There is unlimited information available, on every subject you can think about, ranging from the local newspaper to the local library. The information you require to do your work intelligently, with purpose, and finalize it correctly can be obtained from:

1. Technical manuals respecting the equipment you use.
2. Previously finalized survey data that may affect the work at hand.
3. Full knowledge of your superior's requirements and his philosophy.
4. Intimate knowledge of all the personnel in your crew.
5. Your employers' standards of work, professed working conditions, and required safety measures.
6. The requirements and regulations set out in the R.S.O. governing all aspects of land surveying.
7. Full knowledge and complete understanding of the published Standards and Guidelines for Surveys.

PLANNING AND ORGANIZING

Irrespective of whatever activity you may be involved in doing, there is a simple set of basic rules you can follow:

1. Consider all of the aspects of what must be done.
2. Delineate all the know factors that affect that end.
3. Consider all the courses and methods available to you.
4. Formulate a comprehensive plan that will accomplish what must be done.

This very basic planning guide covers every situation, and when it is done in a thorough and conscientious manner you will find that you can not only anticipate what staff and resources are required, and anticipate all problems that may occur, but you also will be more confident and more capable when you actually begin to carry out your workload.

How to Plan:

Job requirements given to you for completion in the field generally fall into two categories:

A) Complete specifications, which require little pre-planning on your part because the major details have been worked out for you, such as:

1. What is to be done.
2. Where to go to do the work.
3. How to go about doing the work.
4. What equipment you will require.
5. When to begin.

B) Incomplete specifications, which require full major planning considerations as none of the details have been arranged and all you are given is a job file and instructions to go ahead and do the work.

In both cases, you must do some planning, and, in order that you work in a logical and progressive manner, the following questions must be answered:

1. What work must be done?
2. Who will do what particular job?
3. When must the work begin and end?
4. What order will the work follow?
5. How and what procedures will be used?
6. How will emergencies be handled?
7. What equipment and resources are required?
8. What routes are to be followed?
9. What special signals may be required?
10. Who will be in charge?
11. Who must you report to when the work is finished?

What to Plan For:

There are many times that you are given specific instructions for a survey, but there are also times, depending upon your knowledge and your ability, when you will be expected to act on your own initiative. It is natural therefore for you to plan for these occurrences.

Special surveys, rarely standardized, call for specific and detailed instructions.

Routine surveys can be easily handled with a simple set of Standard Operating Procedures, such as:

1. Each member of the survey team has definite and continuing responsibilities.
2. Specific survey methods are defined and always followed in logical order.
3. Specific checks are always made.
4. Specific types of monuments are used.
5. Specific loads are always carried by detailed personnel.

Giving out Information:

One critical requirement of a leader is his ability to give out information. Irrespective of the type of information, be it technical, current or specific orders of what must be done, you should follow a definite method and sequence.

1. Cover only one topic at a time.
2. Cover the topics in a logical sequence of occurrence.
3. Ensure that you are understood correctly.

And, in giving out the information, you must:

1. Make yourself heard.
2. Speak clearly in understandable language.
3. Use positive words in a positive tone of voice.
4. Emphasize the importance of the information.
5. Promise an inspection of the finished work.

Supervision:

The art of supervision can be easily acquired. Observe what is being done, examine the finished work and the quality of it. When you notice anything being done incorrectly:

1. Stop the work.
2. Explain what is wrong and why it is wrong.
3. Demonstrate the correct method.
4. Have the work re-done correctly.

Critiques:

As a leader, you must be prepared to conduct specific critiques on varying subjects, and to conduct it correctly, it must be of benefit to all concerned.

1. Summarize the original instructions.
2. Describe what actually happened.
3. Point out the errors and mistakes that occurred.
4. Note all the things done correctly.
5. Develop procedures for future use.

Conclusion:

Leadership is the ability to influence and direct your staff to attain a set objectives. It can be achieved by understanding the qualities that make up good leadership and by practising the best qualities of Man-Management.

Good leadership includes the inherent ability to diagnose problems and produce easy-to-follow plans and guidelines. Following the precepts just discussed will most certainly put you on the path of being a good leader.

Introduction:

Being a leader of a group of people from diverse backgrounds and varying degrees of knowledge, intellect and technical expertise is a challenge that must be faced and solved to produce the team of survey assistants who will pull together, support each other in times of need, and enjoy the time they spend at work. You are the person who must motivate the individual to become a member of a smooth-running and efficient team.

Despite all you may do in this regard, there will always be times when your failure to resolve the minor problems that do arise with promptness and fairness will result in one or more of your staff becoming dissatisfied.

When problems are solved satisfactorily and your staff is relieved of its worries, then it is much easier for all concerned to concentrate on the job at hand.

It is only when all of your staff see that you do take a personal interest in each one of them, and work with them to solve the problems, that they will co-operate fully with you in all your endeavours.

Commentary:

Invariably, each problem that arises will be different and will affect different people in different ways. However, certain general rules, when properly understood and effectively applied, will enable you to catch most problems while they are still small enough to be dealt with easily.

BE AVAILABLE

One method which is most effective is the weekly meeting to go over the past activities and discuss future planning for the next week, allowing time for discussion.

However, the only method of solving personal problems is through a face-to-face meeting.

In both cases, all members of your staff must be fully aware of your willingness to talk about and solve their problems.

GET ALL THE FACTS

Some individuals are hesitant to express their problems and anxieties so you must be able to recognize when a problem exists. Typical symptoms are:

1. Normal good performance beings to fall off.
2. Excessive complaining and arguments.
3. A lackadaisical approach to work.

When you notice any of these signs, you must carefully:

1. Gather all the facts.
2. Consider the information in the light of how your decision will effect each individual concerned.
3. Take speedy remedial action.

Representing Your Staff:

In any working group of people, you will invariably come across complaints about working conditions, pay schedules, expenses, etc. which can affect the proficiency of that group. Being the Leader of the group puts the onus on you to solve those complaints. Many methods are available to you in this regard, such as:

1. Defining the division of work on an equal basis.
2. Defining pay schedules based on a Job Classification.
3. Setting out on paper where and when expenses are paid as part of company policy.

However, there will be many times when the complaint is beyond your power to solve. It is then your mandate to review the situation with management, suggest means and methods of solving the problem, and in doing so, represent the interests of your staff to the best of your ability.

Setting the Example:

Being the Leader of a group means not only that you give direction to that group for the work they must accomplish, but you also designate the manner in which they do the work. The group will look to you for guidance in all they do and your word will be their law.

Your system of doing things and the methods you use will be copied and will become their standard of work. It is therefore up to you to set the highest standards possible. The manner in which you do this take two forms of action:

1. Deliberate action by actual demonstration, or
2. Unconscious action on your part by the manner in which you give your best at all times to function as a good citizen, a respected worker, and a knowledgeable Leader.

Why People Act the Way They Do

In most situations the reaction of individuals can be predicted with a fair degree of accuracy. The study of human behaviour is not the sole prerogative of psychiatrists, and as LEADERSHIP is the ability to influence the outcome of specific events, you should understand why people act the way they do.

Each individual's personality is the sum of ancestry, upbringing, schooling, training plus their physical, mental and emotional experiences. Despite the apparent differences which this will bring in all types of personalities, we all share certain needs.

1. PHYSICAL NEEDS such as air, water, food, clothing, warmth, etc.
2. LEARNED NEEDS such as security, recognition by one's peers, etc.

Besides these needs, we are motivated by certain personal and moral values inbred in us by our religious beliefs, parental guidance and the moral code of our society.

In our efforts to satisfy our PHYSICAL and LEARNED NEEDS we place certain values on those things we most desire, and if we fail to reach those goals, our frustration takes the form of anger, shouting, cursing, or laying the blame on something or someone else. We cannot avoid these frustrations, but most of us have the ability to plan ahead so as to reach our goals by taking the necessary paths.

Your understanding of this facet of human behaviour put to intelligent use is the greatest step you can take in the process of becoming a Leader.

We have noted that we all share the same basic PHYSICAL NEEDS of air, water, food, clothing, warmth, etc. What motivates us to acquire them is nearly always controlled by our subconscious mind. We do not notice the air we breathe until we are being suffocated, then it becomes a pressing need to fight for the air we require. Once we acquire all our basic PHYSICAL NEEDS, we strive to ensure they will not be removed from us, and this SAFETY NEED is the next basic step in understanding Human Behaviour.

When our PHYSICAL NEEDS and our SAFETY NEEDS are satisfied, other needs surface. SOCIAL NEEDS include:

1. The need to belong.
2. The need for identification within a group.
3. The need for giving and receiving friendship.

Above these SOCIAL NEEDS are our individual SELF NEEDS, which include:

1. Self esteem.
2. Status.
3. Recognition and Respect.

And finally, at the highest level is our need for:

1. Self development
2. Self fulfillment.

The total sum of human behaviour follows this pattern of needs:

1. PHYSICAL
2. SAFETY
3. SOCIAL
4. SELF

A Leader must recognize this pattern of development in each member of his group and create the conditions to encourage individuals to climb the ladder of self fulfillment.

COMMUNICATING WITH PEOPLE

Communication is the transmission and receipt of information. It is generally thought of as factual, i.e. ideas, knowledge. However art, music and literature are also methods of communication, just as a smile or a frown are -- and are readily understood. So are conventional signs on a map, gestures and body movements.

But there is a specific process in the art of communication. The originator must:

1. Estimate the knowledge of the receiver.
2. Select the information for transmission.
3. Decide the best means of transmission.
4. Organize the message in a logical sequence.
5. Select the symbols to convey the message.
6. Send the message.

The receiver must:

1. Decode the symbols.
2. Organize the meanings into ideas.
3. Relate the information to past experiences.
4. Understand the meaning of the originator.

If the receiver cannot relate the information to past experiences, the message may get lost.

COMMUNICATIONS are received by sight and/or sound and we must ensure that they are not only received, but also that they are understood, because there cannot be effective LEADERSHIP without effective COMMUNICATION.

SELF ASSESSMENT

To help you, as an individual, assess your performance as a Leader, (and therefore your qualification in being considered for the job as Party Chief) a simple twenty-two question guide has been prepared. If you answer each question honestly, on a scale of 1 to 10, the results will show you where your areas of competence lie, and the areas in which you must improve so as to attain that professional competence that is necessary for the job.

Conclusion:

As was noted at the beginning, LEADERSHIP and MAN-MANAGEMENT skills are an integral part of being rated as a Party Chief.

It is hoped that this brief lecture will give you the insight to apply the necessary skills which can make you a great Party Chief.

SELF ASSESSMENT GUIDE

This self assessment guide is presented to enable you to determine those spheres of activity in which you must improve so as to attain that professionalism necessary to be a Party Chief.

Read each question carefully and honestly rate yourself 0 to 10. Your own judgement of yourself will show you where you must improve.

1. How well do you know the job?
2. How correctly do you apply that knowledge?
3. How well do you assume responsibility?
4. How well do you take personal action when required?
5. Do you perform successfully under extended periods of physical stress?
6. Do you perform successfully under extended periods of emotional stress?
7. How well do you ensure your staff's understanding of assigned tasks?
8. How well do you ensure the supervision and completion of assigned tasks?
9. Do you honestly admit your mistakes?
10. How well do you accept constructive criticism?
11. How well do you learn from experience?
12. How well do you maintain and increase team performance by demanding consistent high standards regardless of conditions?
13. Do you always tell the truth?
14. Do you always act honestly?
15. Do you express yourself clearly and concisely orally?
16. Do you express yourself clearly and concisely in writing?
17. How well do you work as a team member?
18. How well do you delegate required tasks to other who are competent?
19. How well do you comply with regulations, standards and guidelines?
20. Do you give continuous support to superiors and associates?
21. Do you maintain a high degree of appearance and hygiene?
22. Do you maintain good personal habits and manners?

SURVEY LAW

LECTURE NOTES

SEMINAR FOR PARTY CHIEFS

Lesson Plan

SUBJECT: Survey Law I

METHOD: Lesson

AIM: To teach the basic Rules of Evidence

Teaching Points:

1. Rules of Evidence
 - a) Natural boundaries
 - b) Original monuments
 - c) Fences or possession
 - d) Measurements

2. Principles of Retracement
 - a) All available information
 - b) All court decisions
 - c) Intention of original survey

3. Basic Rules
 - a) Monuments govern
 - b) Where monuments are lost, measurements prevail
 - c) Area to be considered
 - d) Boundaries fixed by statutes are unalterable

Aim:

To discuss the "rules of evidence" as they pertain to the re-establishment of a corner, limit or boundary of a parcel of land.

Introduction:

The A.O.L.S. has published a short precis relating to the "best available evidence" as it pertains to land surveying. In it, the hierarchy of the "rules of evidence" are:

- | | |
|--------|---|
| First | Natural Boundaries |
| Second | Original monuments, or evidence of their location |
| Third | Fences, or possession, that can be related to the time of the original survey |
| Fourth | Measurements |

Our requirement is to set out a system, or a set of principles, which will guide us during any retracement survey so that we can use these "rules of evidence" satisfactorily.

Commentary:

There can be no doubt that the first principle in any retracement survey is that ALL AVAILABLE INFORMATION must be collected and collated before going out in the field. All available information includes:

1. Original plans and field notes
2. Land Registry Office search
3. Other surveyors' plans and field notes
4. Aerial photographs, Ontario Base Maps, etc.

The second principle, which can be difficult, is that ALL COURT DECISIONS which may have a bearing on the survey must be thoroughly studied and understood.

The third principle is that EVERY EFFORT must be made to establish the intention at the time of the original survey.

When these three principles are digested and explored we can then proceed with the physical aspects of the survey.

However, there are also some other basic rules to remember.

1. MONUMENTS GOVERN ABOVE ALL ELSE.

Monuments are of two kinds - natural and man-made. NATURAL monuments are those you can see and touch, walk over, sit upon, or wade through. MAN-MADE monuments are items such as posts, iron bars, rock piles, pits, etc. All monuments are visible traces that men have used or noted to define lines and space on the surface of the earth.

We must give the highest regard to natural boundaries, firstly, and secondly, to lines actually run and corners actually marked. Whether we can accept other evidence such as blazed trees, renewed monuments, fence lines, lines of limitation of tree or crop planting, and the like, as evidence of the original line is debatable. They really are not original, but they just may be the next best evidence of what was original, provided it can be proved they were set when the original lines were in evidence. It is really a judgement call that can only come from a thorough knowledge of the area.

2. WHERE ORIGINAL MONUMENTS ARE LOST, COURSES AND DISTANCES WILL PREVAIL

Here we are allowed some leeway as no one has established the priority between courses or distances.

If you can make the distances in the deed fit the parcel - fine.

If you can make the bearings in the deed fit the parcel - fine.

If a combination of distances and bearings fit the parcel - also fine.

Always use the combination that gives the most reasonably correct solution.

We must remember that most original surveys were run by compass and chain, both subject to a fair amount of error. Such errors combined with the habits and practices of those early surveyors must be tolerated, although we can never tolerate such errors in our own work.

3. AREA TO BE CONSIDERED

The amount of acres prescribed in any deed must be taken into account when attempting to determine boundaries. For instance, if a description is such that it will give two different constructions, the one that most closely approximates the area noted will probably be the one to use.

4. BOUNDARIES FIXED BY STATUTE ARE UNALTERABLE

If your research has been completed correctly, it may indicate that certain boundaries in your area of survey are fixed by statute. These include:

1. Reserved Roads
2. Reserves along rivers, streams and lakes
3. Limits of expropriated lands
4. Boundary Act plans

It must always be remembered that relocation surveys, (i.e. those surveys made to define boundaries of recorded existing parcels of land) require the best skill, analytical facilities, judgement and a high degree of accurate work on the part of the land surveyor.

He cannot take anything for granted, but must verify each and every monument, every calculation, every measurement, every description that abuts his boundary of interest, and every legal interpretation that applies to the area of survey.

The land surveyor must always bear in mind that monuments found cannot be accepted in themselves, but must be identified as to their location by measurement to prove:

1. that they are in the position of the original corners,
2. that if they are replacements of originals, they have not been accidentally or deliberately misplaced.

Conclusion:

This short overview of the basic precepts of survey law, which included the aspects of the "rules of evidence", makes five main points.

1. Skilled, experienced and able professionals are required in the re-location of boundaries.
2. Complete up-to-date information is absolutely required prior to field survey.
3. It is necessity to corroborate physical measurements.
4. Sound intelligent analysis of the title, the evidence on the ground, and the legal requirements provide a sound basis for finalizing the survey.
5. The professional attribute enables the surveyor to keep digging until he finds the correct answer.

SURVEY REPORTS

LECTURE NOTES

SEMINAR FOR PARTY CHIEFS

Lesson Plan

SUBJECT: Survey Reports

METHOD: Lecture

AIM: To detail the content and compilation of the Survey Report.

Teaching Points:

1. What is a Report of Survey.
2. What is to be included in the Report of Survey
3. The sequence to use
4. The summary of events

Introduction:

A survey is never classed as finally completed until the Report of Survey is finished. The Report of Survey is compiled by the Party Chief from his field notes. The Report of Survey should be brief, to the point and easily understood and should precede the actual field notes.

The Report accomplishes three definite functions.

1. It makes you, the Party Chief, review all you have done and gives you the opportunity to ensure that you have completed the survey correctly. It is, in reality, a check list.
2. It gives the O.L.S. an overall picture of how things were done, why they were done, and what the results were.
3. It becomes a permanent record of what was accomplished so that personnel who must follow your work are able to easily understand your methods, reasoning and progress of work. It also allows them to clearly determine what evidence was found, what evidence was accepted or rejected, and to rationalize any errors that may be present.

Commentary:

The Report of Survey, as with any written document, should follow a standard format and include the following:

1. A statement describing what you were authorized to accomplish.
2. A short description of the land and any difficulties encountered.
3. A detailed description respecting each boundary in the sequence you used in the field notes noting:
 - a. evidence found, accepted and/or rejected;
 - b. offset lines set and traverse lines finalized;
 - c. monuments planted;
 - d. discrepancies between title documents and field measurements.
4. Where necessary, and especially with complicated surveys, direction to draftsmen and calculators regarding how they should accomplish specific work that is required.
5. A summary of the sequence of events in their logical order of progression.

Conclusion:

As you can now understand, the Report of Survey serves many functions and is of unestimable value to the O.L.S., the staff and others who may be required to use your field notes many years hence.

The Report of Survey will give you a good insight into what you have accomplished and can include many details that may tend to clutter up your field notes.

It is important to complete a Report of Survey so that greater insight into your work can be obtained by all who are required to follow in your tracks.

CONSTRUCTION SURVEYS

LECTURE NOTES

SEMINAR FOR PARTY CHIEFS

Lesson Plan

SUBJECT: Construction Surveys

METHOD: Lesson

AIM: To discuss the basic precepts of Construction Surveys

Teaching Points:

1. Research required
2. Field Work and Verification of Measurements
3. Validation

Aim:

To teach the necessary requirements of Construction Surveying.

Introduction:

The expression "Construction Surveying" covers all the detailed ground layout of any plant that is to be placed on, above or below the earth's surface. It encompasses all types of physical layout from nation-wide road, railway, hydro and pipeline projects to the neighbour's dog-house.

Irrespective of the size and complexity of the project, specific items regarding the work must be recognized, checked against the working drawings, laid out, recorded and checked.

Whether the work is required in street and sewer layout or building layout, it always seems that the contractor requires the work completed at least 24 hours before he actually orders the work and, of course, any error is naturally our fault.

So, a word to the wise being generally sufficient, take the time to perform the work accurately and correctly and never allow yourself to be pressured into inferior work, whatever the circumstances.

Commentary:

In general, the work involved in Construction Surveying can be divided into three phases.

1. RESEARCH, done by the office staff to provide all the required research information and all the necessary checks to ensure the proposals will fit onto the parcel of land in question and will provide the sufficient setbacks and yard requirements under the current zoning restrictions. Where there are problems, they must be ironed out between the contractor, the owner and municipal officials prior to any field layout being done.
2. FIELD WORK, includes actual physical determination of limits of the work, actual physical lay-out of the plant and the verification of all measurements.
3. VALIDATION, done by the office staff to check for any errors, omissions, differences between what was proposed and what was actually done, and a report to the client.

The actual field work to be done will depend entirely upon the scope of the work required. It would be a monumental task to detail guidelines for every type of construction work we can become involved in. However, certain general methods that are applicable on every job must be considered and followed.

1. A boundary survey must be done to determine the physical limits of the work.
2. Determine specific reference lines that will always be used during the lifetime of the project.
3. Determine vertical control and establish local bench marks.
4. Layout the required plant as determined from the up-to-date construction drawings.
5. Verify the layout by other methods than the original methods used and by random level checks.
6. Determine ties to all boundaries and, where necessary, determine ties to adjacent structures.
7. Record all data on field note paper, showing all the checks made to verify the layout.

Construction Surveying can be a nerve-racking facet of our profession with job site superintendents screaming for attention, earth moving equipment roaring in your ears and concrete forming crews ruining all your work when ten tons of runny concrete is poured on the wrong side of your staked lines. However, you must be cool, precise, collected and accurate.

Never allow anyone or anything to rush you into an inferior product. You are there to do a specific job and must be allowed to do it correctly.

Remember that any error will be blamed on you, so, do the job properly and take the time to make the required checks that will prove, in front of a judge if necessary, that your field notes are a true reflection of the work performed on a specific date, and that you conducted the checks to prove your work was indeed correct.

Any work done on the site other than that authorized by your office must have the approval of your employer, be shown on a separate purchase order and be signed by the site superintendent.

Conclusion:

Construction Surveying is probably the most delicate work we may be required to perform. It provides the base for multi-million dollar projects and even a small error can lead to a very costly law suit.

The criteria is not to be accurate to the millimieron, but to ensure the work is in agreement with the working drawings and that the checks you do perform substantiate the work.