13 and Above:
Senior Scout Handbook Volume 2

The *Senior Scout Handbook, 13 and Above, volume 2*, welcomes you to a world of fun-filled, exciting adventures unique only to Scouting. This is the sequel to the first volume and a special one, too. Special because, unlike any other book that comes along your way, that you discard after going through it once, this is meant to be your constant companion. It will serve as your compass in guiding you as you navigate your way along the adventure-packed Eagle Scout trail.

13 and Above will pave the way into manhood. It will pluck out, from your natural curiosity, your enthusiasm for learning through challenging activity in the wilderness. It beacons you to explore and learn the things you would need as you enter adulthood.

May you find this book a rewarding reading experience, and may it serve you well in the years to come.

Special thanks to **Bong Saculles for creating this digital copy**

for the **Boy Scouts of the Philippines**.

MESSAGE

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The knowledge accumulated in this book is acquired through years of hard work. Previous generations of dedicated Scouters unselfishly imparted their contributions to the Scouting Movement. It is a product of years of experience and dedication. It is meant to prepare you with the skills and knowledge necessary to enable you to enjoy life in the out-of-doors. More important than knowledge and skills as a woodsman, this handbook contains some of the most useful information on environmental issues and nature awareness. It will not only teach you how to become a seasoned bushwhacker, but also a responsible one. It will help you minimize your impact on the environment. In this way, it will help to protect and preserve it for the enjoyment of generations to come.

This is not a panacea to all Scouting needs. Rather, the quest for learning continues – it does not stop here. This is only intended to open the door and guide you towards the right path. The search for knowledge is a never-ending process. It simply goes on until you accumulate enough of it to provide you with the necessary skills that will serve as your armor when you enter the threshold of life's real challenges.

May you find this book a rewarding reading experience, and may it serve you well in the years to come.

BOY SCOUTS OF THE PHILIPPINES

Chapter 1: Finding Directions

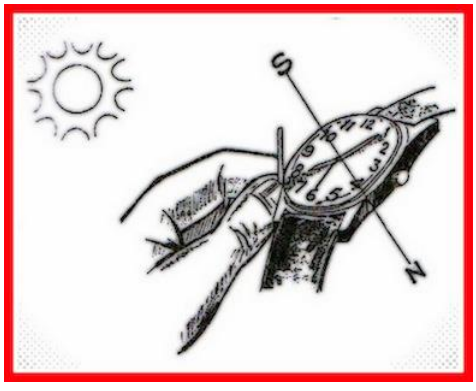
The art of finding directions dates back to the ancient times when man travelled over unfamiliar terrain or country without any map or compass. Primitive man was able to find his way around using the stars, the sun, the moon, and natural signs in the forest.

Senior Scouts like you are fortunate to have this art handed down to you through generations, in addition to the use of compass and map. You should learn both of these skills.

FINDING YOUR WAY WITHOUT A COMPASS

The first thing to learn in finding your way when you have no compass is to locate North. There are several ways of doing this: (1) by the sun and your watch, (2) the sun shadow as a compass, (3) by the stars, and (4) moss on trees and rocks.

Finding North by Your Watch

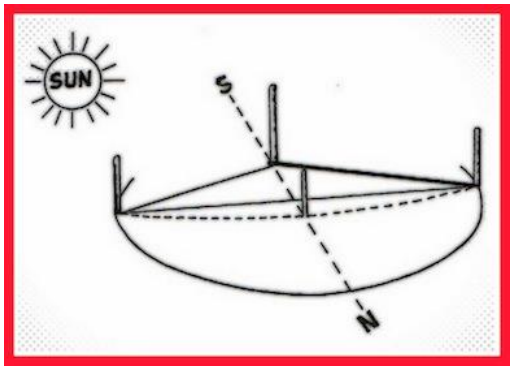


This method is useful as long as (1) your watch is a standard 2-hand type and is running at the correct standard time, and (2) the sun is visible.

With your watch in your hand, point the hour hand at the sun. Do this by holding a matchstick so that its shadow falls along the hour hand. From the center of the dial and halfway between 12 o'clock and the hour hand, draw an imaginary straight line. That is South; the opposite direction is North.

Finding North by the Sun

Using a flat area, clear away debris until you have a three-foot circle. Get a straight stick, sharpen both end and push it into the ground until its shadow fall into the center of the cleared area. Place a twig at the tip of the shadow. Two more times for about 15 mins. Interval place another twig at the shadow tip and then use these twigs as your guide to draw a straight line in the dirt.



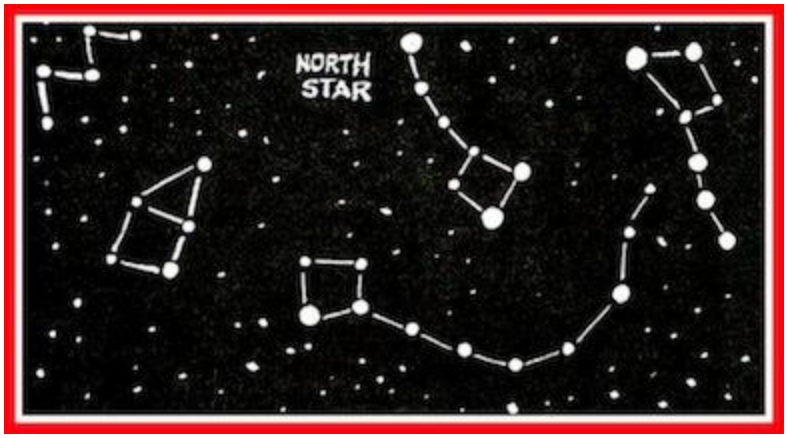
Knowing that the sun rises in the East and sets in the West, therefore, the first marking on the shadow is West and the second one is the East. Draw a line perpendicular to the East-West line to establish North-South direction

Finding North by the North Star

When you have to travel at night and the stars are clearly visible, it is fun to look at them. The chart of the northern sky should be studied so you can identify and isolate the Big Dipper and the Small Dipper from the other stars. When you look at these stars at night, imagine them connected by straight lines to form imaginary figures.

On a cold night, when the sky is clear and the stars visible, take time out to gaze up in the heavens to study stars. Study the chart of the northern night sky and learn to identify the Big Dipper and Small Dipper so when you look for them at night you can isolate them from the rest of the stars. When you viewed these stars at night, imagine them connected by a straight lines to from an imaginary figures.

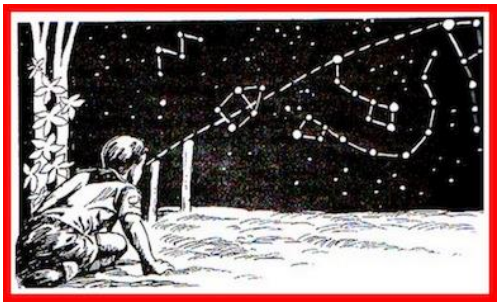
The Big Dipper is relatively easy to spot in the night sky, it consist of seven bright stars arrange in the shape of a big hanging pot, with the first four stars forming the bowl and the remaining three stars forming the shape of crooked handle. To get a fix on Polaris Star’s position, trace an imaginary line between the two stars that formed the beaker, then extend this line towards the direction where the pot seems to be pouring its content. About five to six times the distance between the two pointer stars you will find the Polaris or North Star.



Incidentally, the Polaris Star formed the end handle of the Small Dipper.

When you are facing the horizon directly underneath the Polaris Star, you are facing towards true North.

Between these two dippers stretches a long line of four faint stars which represent the tail of Draco the Dragon. Locate these stars to make sure you have really located the North Star.



Other Ways of Finding North

In dense forests of the Philippines, you will observe that green moss attach themselves on that part of the tree trunk that faces North. This is so, because the northerly portion of all trees do not receive any sunlight at any time of the year.

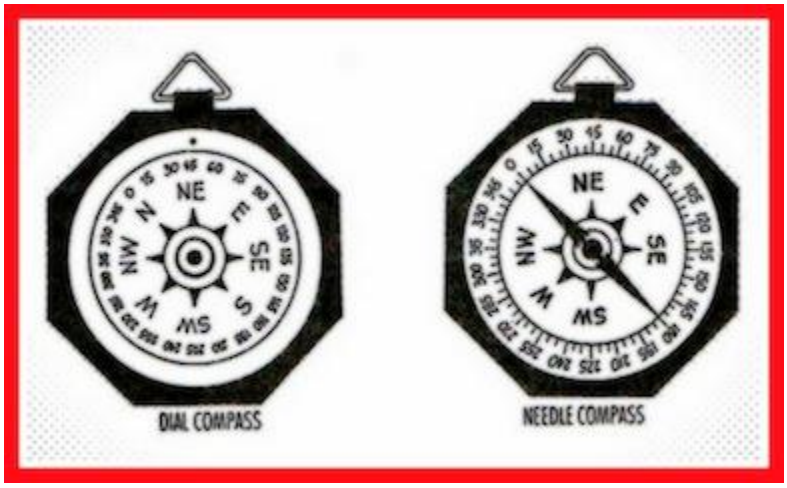
In open areas of the country, look for long anthills. They are oriented in a north-south position with the wider portion of the anthill colony facing north.

In some parts of the Philippines, a certain kind of palm tree called the Travelers Palm grows. This is a special tree whose leaves are not spread out in several directions, but follow a North-South orientation.

FINDING DIRECTION BY COMPASS

Using the Magnetic Compass

If there is one piece of outdoor Scout equipment that a Senior Scout should be thoroughly familiar with, it is his Compass. With it, he can follow trail maps or sketch his own maps. With its proper use, he cannot get lost even in new territory.

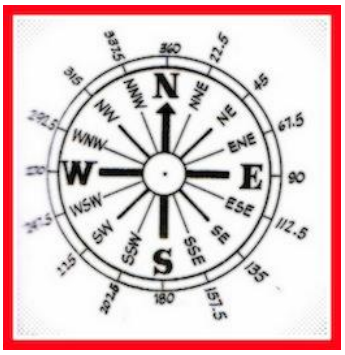


Magnetic North. The compass needle points not to True North, but to a Magnetic North. In the Philippines, this is a point about 2 degrees west of True North to which all Compass needles are attracted. This magnetic north is caused by the earth spinning on its axis creating a magnetic attraction.

If you want to know the True North by means of your compass, hold it flat on the palm of your hand and let the needle rotate freely until it stops and the arrowhead points to magnetic North. Sight an object two (2) degrees to the east of the compass needle and you are sighting at True North.

Since any compass needle is automatically attracted to any iron or steel that is close by, make sure no knife, axe, power line, or even another compass is so near as this will deflect the compass needle.

"Boxing the Compass"



This is a technical term which simply means identifying the various points of a magnetic compass.

The compass circle has 360 degrees. Each degree is called an Azimuth. There are four main points of the compass. East, which is 90 degrees azimuth; South, or 180 degrees azimuth; West, or 270 degrees azimuth; North, or 360 or 0 degree azimuth. In addition, there are four other points, namely: Northeast at 45 degrees azimuth; Southeast at 135 degrees azimuth; Southwest at 225 degrees azimuth; and Northwest at 315 degrees azimuth. Together, these 8 compass points are called the Cardinal points.

In-between these 8 cardinal points are eight other inter-cardinal points. Between North and Northeast is North-Northeast (NNE) at 22.5 degrees azimuth; between north-east and east is East-Northeast (ENE) at 67.5 degrees azimuth; between east and southeast is East-Southeast (ESE) at 112.5 degrees azimuth;

between south and southeast is South-Southeast (SSE) at 157.5 degrees azimuth; between south and southwest is South-Southwest (SSW) at 202.5 degrees azimuth; between west and southwest is West-Southwest (WSW) at 247.5 degrees azimuth; between west and northwest is West-Northwest (WNW) at 292.5 degrees azimuth; and between north and northwest is North-Northwest (NNW) at 337.5 degrees azimuth. In mentioning these inter-cardinal points, you mention first the main compass points before the cardinal points. Thus, you say "East-South-east", not Southeast-East.

Senior Scouts, however, go beyond these 16 points in boxing it. Particularly in the land-based and sea-based Senior Scouts, the techniques of boxing the compass up to at least 32 points, or a difference of 11.25 degrees per direction, is the mark of a master at compass work.

The midpoint between north and north-northeast is called North by East; between north-northeast and northeast is called Northeast by North; between north-east and east-northeast is Northeast by East; and between east-northeast and east is East by North.

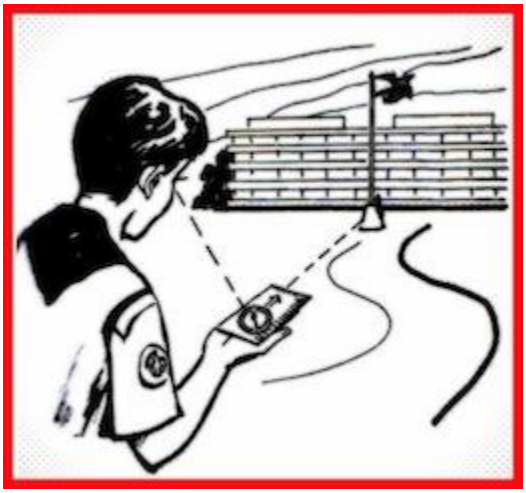
The other quadrants (or quarters of a compass) are named in the same style as may be seen in the illustration.

Using the Compass

When you follow a compass course, whether making or following a map, two things must be considered: direction and distance. Every Senior Scout owns a compass which he can use to find direction. Every Senior Scout has two legs, which he can use to measure distance.

To learn how to use your compass, practice by finding the direction to important landmarks in your community. To find the exact azimuth of a landmark, face in that parallel direction, holding your compass in your hand parallel to the ground. Let the needle or dial of the compass move until it becomes still; then sight across it. Read the degree number (azimuth) on the far side of the compass under an imaginary line running from your eye, through the needle point, to the landmark.

To find the direction of 105 degrees, for example, hold the compass flat on your hands parallel to the ground close to your stomach, and turn your body slowly until the line of sight from your eye, through the pivot, runs through the 105 degree mark. Extend an imaginary line further until you hit a landmark which, of course, lies along the 105 degrees azimuth.



ESTIMATING

Estimating Distances

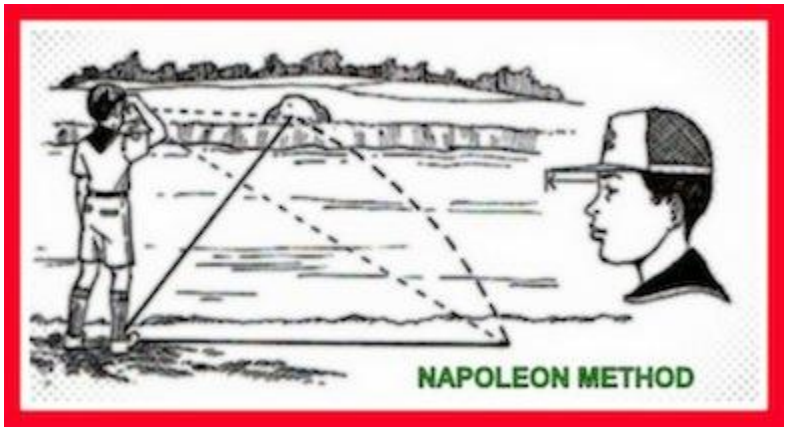
After determining the direction, you can now move toward the landmark and measure off its distance from your original position.

To do this, you must first know the length of your average step. Using a tape measure (or measured rope), lay off a distance of 100 meters over rough ground approximating a natural trail. Then walk the 100 meters and back to the starting point using your natural steps, for a total of 200 meters, and carefully counting your steps. Dividing 200 by the number of steps counted gives you the length of your average step in meters. Write it down; do not forget it and use it every time you estimate distance over solid ground.

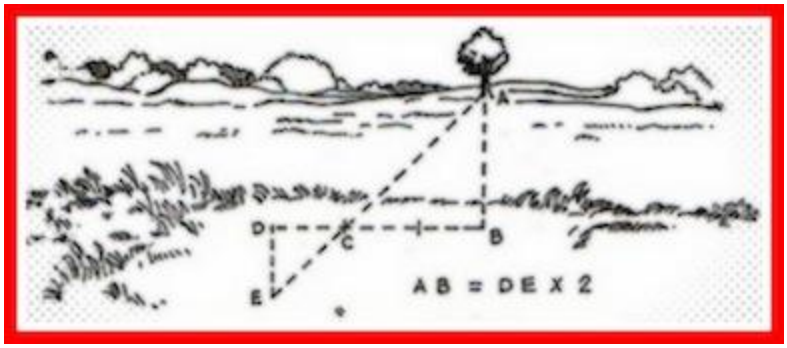
However, in a situation where the application of this technique is rendered useless by the presence of natural barriers such as river, wide stream, or deep canyon which can prevent you from walking towards your objective to measure its distance, a different technique is called for.

The Napoleon Method. Standing at the other side of the river bank. Bow your head until your chin touches your upper chest. Holding your right (or left) hand over your eyebrows like a visor cap brim, adjust your hand slowly until its edge brim front seems to touch the opposite bank of the river. Without changing the position of your hand, make a quarter turn toward your side of the river. Mark the point at which edge of your hand seems to touch the near shore. Pace off the distance from where you stand to that point, multiply it by your average step length and that is the width of the river.

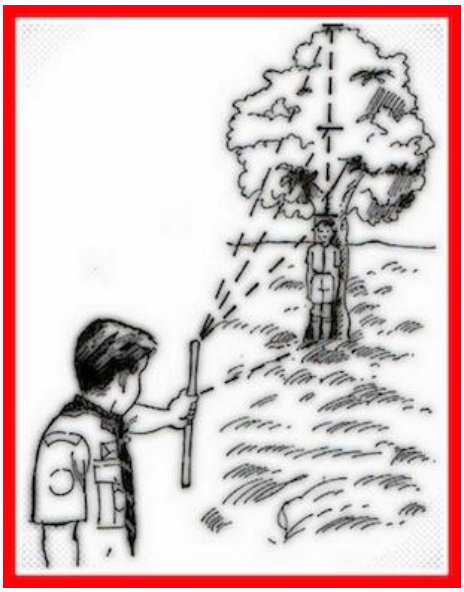
If you are wearing a Scout cap, use the visor instead of your hand.



The Stick Method. Locate a rock or any fixed object on the opposite shore of the river (A). Place a stick on the spot where you stand. Walk along your side of the river at right angles to AB for any number of paces (say, 40 paces) and place another stick there (C). Continue walking along the shore for the same number of steps (another 40 paces) and peg a stick there also (D). Then walk away from the river at right angles to BD, until you can sight a straight line over stick C to the rock on the opposite bank. Stop there and mark your spot (E). Measure DE with your pace to get the width of the river.



Pencil Method of Estimation



Other Estimation Techniques

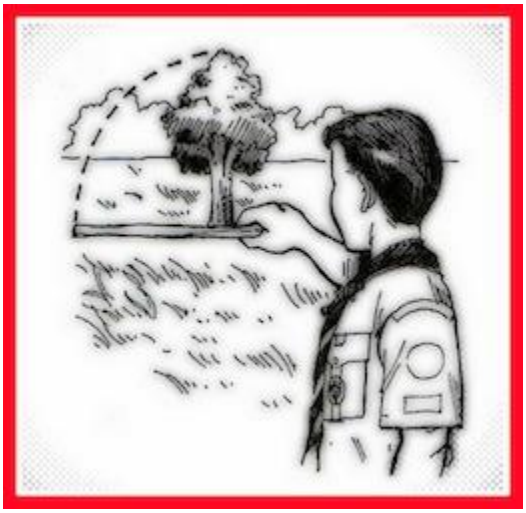
You can also estimate heights of objects you cannot reach (such as a tree or a building) by using either the Pencil Method or the Tree-felling Method.

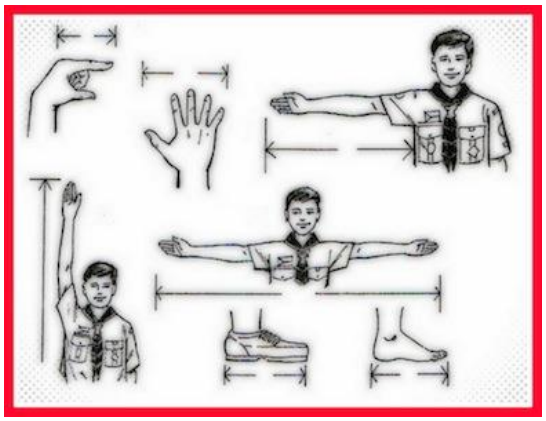
In the ***Pencil Method***, get a Scout friend whose height you know to stand beside a tree. Stand back and hold a pencil or stick at arm's length in front of you. With one eye closed, look over the pencil or stick so that the top of it appears to touch the head of your friend. Now move your thumb along the stick so it will appear to touch the base of the tree. Then move the stick up to see how many times this measurement goes, up to the height of the tree. Multiply that number by the height of your friend (in meters). That is the height of the tree. Use this method to measure also high walls, hills, or mountains.

In the ***Tree Felling Method***, stand away from a tree which you want to measure. Hold a stick upright at arm's length; sight over the stick so that its tip coincides with the top of the tree and your thumb is at its base. Now swing the stick parallel to the ground as if the tree is falling, keeping your thumb at the base of the tree. Where the tip of the pencil seems to touch the ground, let another Scout mark it.

Then pace off from this spot to the base of the tree and that is the height of the tree.

It is also advantageous for you to know some personal measurements, so that when you are outdoors or you have no foot-rule, you can still make emergency estimations.





Tree Felling Method of Estimation

For instance, you must know the following (in centimeters)

1. length of your shoe
2. length of your foot
3. your arm length
4. your height
5. your arm span
6. your vertical arm reach
7. length of your forefinger (from the knuckles to the tip)
8. your hand span (from thumb tip to tip of little finger)
9. length of your thumb

Following a Compass Course

The Senior Scout who can follow a compass course for at least one kilometer involving four changes in direction will have no trouble following or even making a map.

Let us suppose that your compass course states, as follows:

Starting Point to Point 1 = 100 degrees azimuth for 35 meters

Point 1 to 2 = 190 degrees azimuth for 24.4 meters

Point 2 to 3 = 285 degrees azimuth for 31.25 meters

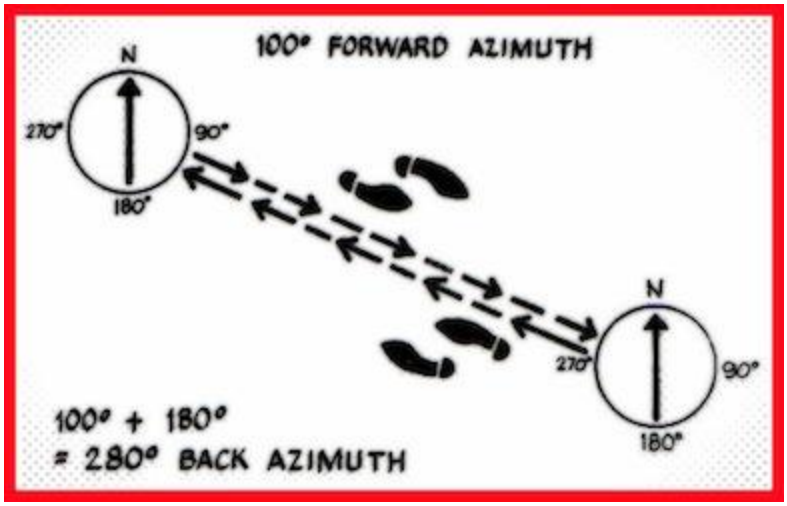
Point 3 Starting point =415 degrees azimuth

First of all, find out how many steps it will take to walk 35 meters using your average pace (say your average pace is .80 meters). Divide 35 meters by .80, you will get 43.75. This means that you will need to walk 43-75 steps to reach the distance of 35 meters.

Now with your compass, find the 100 degrees azimuth. This is called your "forward azimuth." Sight through this azimuth and pick out a landmark, such as a tree, grass clump, or rock. Then walk toward the landmark until you cover 43.75 steps or 35 meters.

If there are no prominent landmarks, mark your starting point and walk along the azimuth as nearly as you can estimate, without losing sight of the starting point. Then take a “back azimuth” reading from your point 1 to the starting point.

The general rule for finding the back azimuth is: “If the forward azimuth is less than 180 degrees, add 180 degrees to it; if greater than 180 degrees, subtract 180 degrees.”

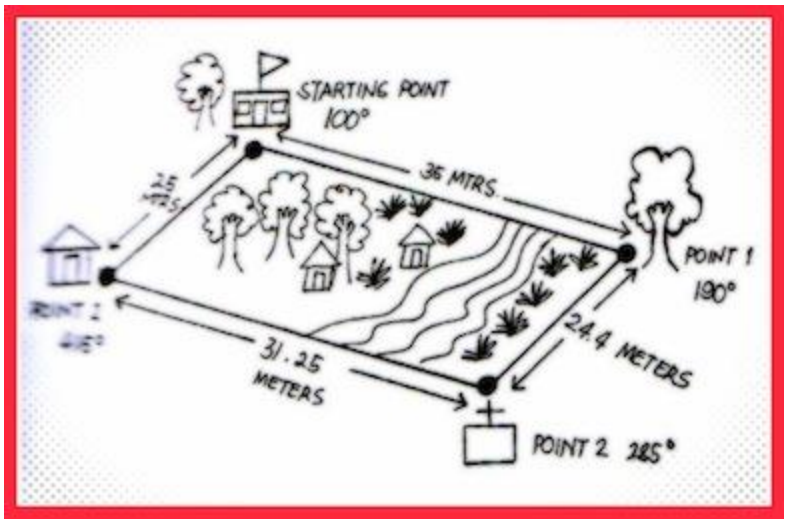


In our example, the forward azimuth of 100 degrees is less than 180 degrees; therefore, add 180 degrees to it to obtain a back azimuth of 280 degrees. Take a back azimuth reading of 280 degrees to your starting point; if it is correct, then you are on the right path. If not, move a little to the right or left, until you see the starting point on the 280 degrees azimuth.

Do the same with the other readings until you cover your compass course and you are back to the starting point.

MAP SKETCHING

In order to make a map of this compass course, you will need simple field notes using ordinary ruled paper. Each line across the page represents a different azimuth direction on the compass course. Any landmark – house, stream, hill, etc. – on your left as you walk along the azimuth is drawn by the corresponding symbol above the ruled line. Those on your right are indicated below the ruled line.



While you are walking along the compass course, count your steps so that when you come to a landmark you can draw the appropriate symbol and write the number of steps from the starting point. When you have finished going through the compass course, you will have a field note similar to the one below.

Sketching the Map

The first step in sketching a map is to determine a map scale; that is, knowing the number of meters on land re-presented by one centimeter on the map. The technique is to select a scale that adjusts the size of the area being mapped to the size desired for the finished map. For our example, we will use a map scale of 50 meters to 1 centimeter, properly written as Scale 1:50 M.

Next, you go over your field notes and convert steps into meters. For example, if the first azimuth in your field note is 35 meters or 43.75 steps. At Scale 1:50 M., 35 meters equals 0.70 meters or 7 centimeters (35 ÷ 50).

Now suppose at 20 steps from the starting point ' you saw a big tree. Since your step is 0.80 meters long, the distance to the tree is 16 meters. By scale, 16 meters is about 3.2 centimeters.

In map sketching, the top of the paper is always assumed to be North. If you are using ruled paper, place it so that the lines run vertically and you can use these lines as guide for your protractor. If you can get a 360 degree protractor, it will certainly serve your purpose; otherwise your compass can serve as one.

On your paper, put a dot to serve as your starting point. Exactly over this dot, put your protractor center with the protractor line from O to 180 degrees running parallel to the ruled lines and with the "0" indicator toward the North side of the paper.

In your field notes, find the first azimuth, which in our example is 100 degrees. Opposite the 100-degree mark on the protractor, place a dot. Through this dot and the starting point, draw a light straight line. Along this line, measure with your scale or foot rule your scaled distance of 35 meters (which is 7 centimeters on your map). Place another dot at the end of the 7 centimeters of your line. This is your Point 1.

In order to plot the second azimuth, place your protractor again exactly on the dot representing Point 1. Keep the 0-180 degree protractor line parallel to the ruled lines on the paper. Find the second azimuth on the protractor and mark it with a dot, just like what you did on the first line. This is Point 2 of your map. From this point, draw a straight light line going to Point 1. Again from your field notes, get the number of steps in the second azimuth and convert it into a scaled distance in centimeters. Using your foot rule, measure again this distance, and draw a dot at the end of the measurement to represent Point 3.

Continue making the rest of the map this way until the sketch of the compass course is completed. Then check with your field notes again and draw on the sketch map the symbols representing the landmarks along the way. Always use your foot rule to measure the distances of the landmarks in relation to the beginning of each azimuth.

Maps for longer-distance trips or expeditions are also sketched the same way. Use these maps as records of your trips in the out-of-doors.

Chapter 2: Weather Lore

A Senior Scout who is continuously advancing through the Scouting ranks acquires basic education for many life experiences – emergency, recreational opportunities, campcraft, weather prediction, and

many others. These skills in the long run would be a source of pleasure to himself and to others. In developing into a full-grown man he becomes a master of his ENVIRONMENT.

Any Scout, young or old, should be weather-wise. One of the factors to be considered in planning and conducting any outdoor activity is the weather. A little knowledge of weather lore and a bit of common sense will make a Senior Scout *"LAGING HANDA."* This is far better than taking risks.

THE NATURE OF WEATHER

The science of the atmosphere or simply the study of weather is known as meteorology.

Weather is the condition of the atmosphere at any particular time and place. It is always changing since it comprised the elements of air temperature, air pressure, humidity, clouds, precipitation, visibility, and wind. It should be noted that the source of all weather is the heat that is contained in the air. If we were to measure and observe these elements over a specified interval of time, we would obtain the "average weather" or the climate of a particular region. Climate, therefore, represent the accumulation of daily and seasonal weather events over a long period of time.

Causes of Weather

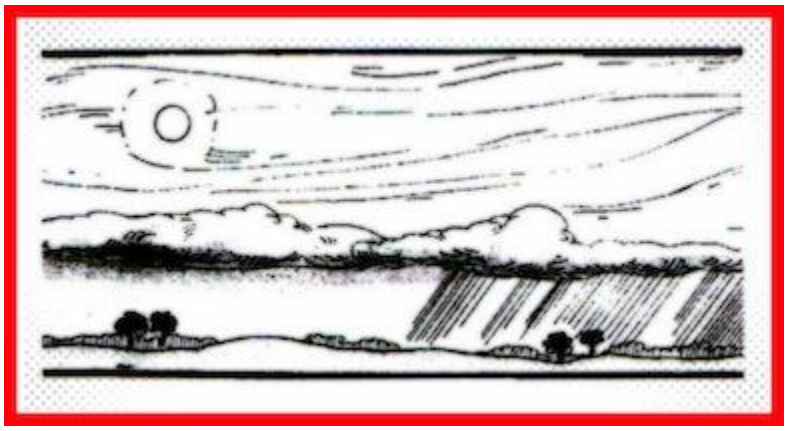
The greatest contributor to modern weather analysis is probably Wilhelm Djerknes (1882-1951), a Norwegian meteorologist. He developed the system of air mass analysis which makes it possible to follow the movement of large masses of air as they travel over the earth's surface. On the other hand, Francis Bacon, an English nobleman, started the study of weather cycle.

Another influence on the weather is the *coriolous force*, which tends to whirlpool the atmosphere in the arctic, temperate, and semi-tropical zones. The coriolous force is strongest at the North and South poles and becomes weaker as distance away from the poles increases.

THE UPPER ATMOSPHERE –

Is cold.
Freezes water vapor.

Is lighter than the air below.
Has low air pressure.
Allows sun's radiation to pass through.
Is not heated by the sun's radiation.



THE LOWER ATMOSPHERE –

Is warm or cold.
Is affected by land and water.
Is heavier than the air above.
Has high and low air pressures.

Has air masses meeting at fronts.
Absorbs the sun's radiation.
Contains pollutants and dust.
Lags behind the earth's rotation.

The movement of air influences weather changes.

Understanding the characteristics of the air in our atmosphere can help us to predict the weather.

CLASSIFICATION OF CLOUDS

Clouds are aesthetically appealing and they add excitement to the atmosphere Without them there would be no rain thunder or lightning, rainbows or halos. A cloud is a visible aggregate of tiny water droplets or rice crystals suspended in the air. Some clouds are found only at high elevations while others nearly touch the ground. They exist in a seemingly endless variety of forms-thick or thin, big or little and divided into 10 basic types.

The first system for classifying clouds was proposed in 1820 by a French naturalist named Lamarck (1744-1892). A year later, Luke Howard, an English naturalist, developed a cloud classification system the basis of which is still in use today. He employed Latin words to describe clouds as they appear to a ground observer.

The four basic cloud forms in Howard's system are:

Stratus (layer) – a sheetlike cloud

Cumulus (heap) – a puffy cloud

Cirrus (curl of hair) – a wispy cloud

Nimbus (violent rain) – a rain cloud

Other clouds cloud be described by combining the basic types. Modern cloud classification expands Howard's original system. The most convenient method is based on their altitude: high clouds, middle clouds, low clouds, and clouds with vertical development

1. HIGH CLOUDS. The base of these clouds is at an altitude of 3.8 kilometers (1,247 feet) or more. They are composed of ice crystals and are generally thin. The outline of the sun or moon may be seen through them. The principal forms are:

a. *Cirrus*. Thin, featherlike clouds with a delicate appearance, frequently arranged in bands across the sky; sometimes called mare's tails.

b. *Cirrocumulus*. Clouds like patches of cotton or a mass of small flakes, frequently in groups or lines; sometimes called mackerel sky.

c. *Cirrostratus*. Whitish layers, like a sheet or veil, giving the sky a milky appearance. They often produce a halo around the sun or moon.

2. MIDDLE CLOUDS. These clouds range from 1.6 to 3.7 kilometers. The principal forms are:

a. *Altocumulus*. White or gray patches or layers of clouds having a rounded appearance.

b. *Altostratus*. Gray to bluish layers of clouds often with a streaked appearance.

3. LOW CLOUDS. The bases of these clouds range from near the surface to about 1.2 kilometers above the earth.

a. *Stratus*. Low, uniform, sheetlike clouds similar to fog but not resting on the ground.

b. *Stratocumulus*. Large rounded clouds with a soft appearance usually arranged in some pattern with spaces between.

c. *Nimbostratus*. Low, shapeless, thick layers, dark gray in color. They are usually accompanied by rain or snow.

4. CLOUDS WITH VERTICAL DEVELOPMENT. These are clouds which extend from a lower level of 0.3 kilometers to a maximum of more than 6.6 kilometers.

a. *Cumulus*. Thick, dome-shaped clouds, usually with flat bases and many round projections from the upper areas. Cumulus clouds are often widely separated from one another.

b. *Cumulonimbus*. Thick, towering clouds of large dimensions with cauliflower-like tops. They are often crowned with veils of thick cirrus giving the entire cloud a flat top. These are the thunderhead clouds which frequently are associated with thunderstorms.

WEATHER INSTRUMENTS

Prediction of the weather is dependent upon instruments which can show the changes that take place in the atmosphere. A single reading of any instrument can tell you something about what weather is, but a second reading must be made in order to tell what the weather is going to be.

The most obvious weather instrument to measure heat is the ***Thermometer***, the expansion and contraction of which indicate changes in temperature. Mercury is most often used because it is a liquid metal which readily expands and contracts with changes in temperature. The temperature scale used on weather Thermometer may be either the Fahrenheit (F) or Centigrade (C) scale (also called the Celsius scale). The difference between the two can be illustrated by a comparison of the boiling point and the freezing point of water on both scales. Temperatures given in one scale can be easily converted to the other by the following formulas:

Fahrenheit to Centigrade:

C = 5/9 (F - 32)

Centigrade to Fahrenheit:

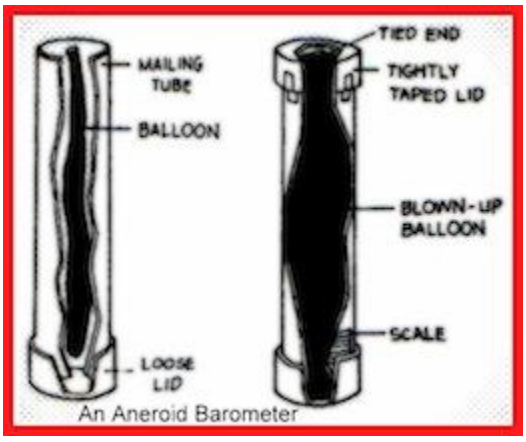
F = 9/5 (C + 32)

However, these may be combined mathematically in a single formula:

C/ (F - 32) =5/9

Maximum and minimum temperatures during a period of weather observations may be recorded by a ***Thermograph***, which makes a written record. This instrument employs a heat-sensitive bimetallic strip instead of a liquid-filled tube to indicate temperature changes. It is less accurate than a liquid-filled thermometer but it has the advantage of providing a continuous record of the temperature variations over a period of time. The instrument must be protected from exposure to sunlight if temperature readings of the air are to be compared.

The most important meteorological instrument is the ***Barometer***. This instrument measures the changes in atmospheric pressure. There are two kinds of barometers: Mercurial and Aneroid. Normally, the atmosphere holds up a column of mercury 30 inches high. As the pressure increases, the column moves up; and as it decreases, it moves down.



An Aneroid Barometer

To improvise an aneroid barometer, you will need a mailing tube, two mailing-tube lids (the type that slides over the tube), a rubber balloon, string, and tape. Place the lid over the end of the tube and make sure that it slides freely and easily up and down. With the lid about three-quarters on, insert the deflated balloon into the tube from the other end. Blow the balloon up, making sure that the lid does not move as you move it. Tie the balloon when it just completely fills the tube. Slide the other lid over this end and tape it down securely. As the weather changes, observe the movement of the loose lid of the tube. With the help of the Weather Bureau, you can mark the tube with the correct barometric pressure.

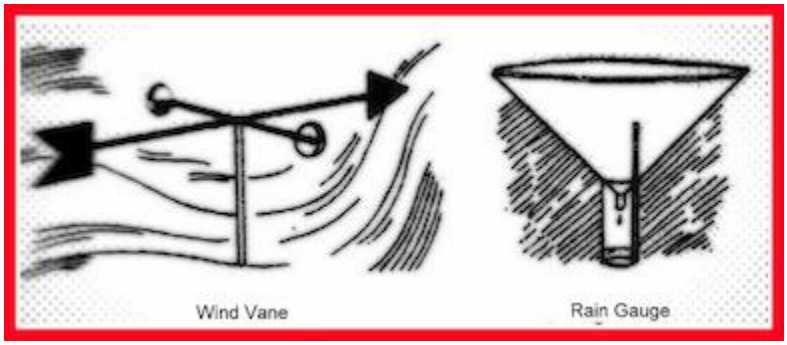
To measure wind speed, an instrument called ***Anemometer*** is used. The most common type of anemometer consists of small cups attached by spokes to a shaft that is free to rotate. The instrument is mounted on 2 pole so that the cups will catch the wind and spin the wheel at a rate proportional to the wind speed. The rotation of the wheel is usually converted into an electrical signal which registers the wind speed on a dial in some convenient location. Wind speed may be recorded in miles per hour, although official weather reports use knots (1.85 kilometers per hour).

A ***Wind Vane*** is used to determine wind direction. Usually it consists of free-moving arrow-shaped pointer mounted on top of a pole. The wind catches the tail of the arrow and swings the point to the direction from which the wind blows. Both the wind vane and anemometer may be combined in a small device that resembles a wingless airplane.

The ***Psychromete***r is an instrument used to measure the humidity of the air. Two thermometers set side by side are used to indicate humidity. One of the thermometers has a water-soaked wick over its bulb. As the air evaporates the water on the wick, it indicates the dryness or wetness of the air by how much the temperature is lowered on the wet-bulb thermometer, as compared with the dry-bulb thermometer.

The weather man uses other instruments called ***Rain Gauge*** which measures the amount of-rain that falls usually over a 24-hour period in a particular area. The common Rain Gauge consists of a wide-mouthed funnel which catches the rain and empties it into a cylindrical container below. The mouth of the funnel is exactly ten times larger in diameter than the container underneath Thus, 0.25 centimeters of rain will fill the container to a depth of 2.54 centimeters or 1 inch. This magnification of the actual rainfall makes it possible to measure the fall accurately with a marked stick which is dipped into the container.-

The weather at upper levels of the atmosphere must also be known. The usual means of investigating the weather at the upper atmosphere is by a ***Radiosonde***. This instrument consists of a small set -of devices which record temperature, pressure, and humidity. The instruments are coupled with a miniature radio transmitter and mounted in a small box. This is, carried aloft by a helium-filled balloon, Special receiving sets record the information as it is automatically sent out by the Transmitter.



The Radiosonde may rise to an altitude of 100,000 feet before the balloon bursts. The instrument then falls back to earth by means of a small parachute.

Another valuable weather instrument is the ***Radar***. Particles of water in the form of cloud droplets or precipitation reflect radar waves. In this case, weather disturbances can be seen on a radar screen. Radar gives the precise location and extent of storms. The reflected echoes indicate distance and direction of the storm from the transmitter. On a radarscope, an observer can watch the origin and growth of a storm system and track it as it moves across the land. Radar also can be used to measure the speed of high altitude winds; and it is particularly useful in tracking typhoons.

Recent advances in space science have given meteorologists still another electronic device to use in weather observations. ***Space Satellites***, of a type called *Tiros*, relay photographs of the earth taken from altitudes of 463 to 804 kilometers by means of television cameras. By superimposing a sequence of such photographs, weathermen are able to get a picture of atmospheric conditions over a wide area.

WEATHER MAP

Through coded weather information, weather maps are prepared. The messages are decoded and the reported conditions are translated into figures and symbols. These are grouped around a small circle drawn on a map at the position of the station reporting the information. The circle on the map, with the figures and symbols describing the weather conditions at that location is called a **Station Model**.

A simplified weather map usually shows isobars, highs and lows, and fronts. It may also indicate other conditions such as wind directions, temperatures, and precipitation.

WEATHER FORECASTING

The atmosphere contains 5 billion cubic miles of air flowing in constantly changing patterns. It is then the job of the meteorologist to apply scientific knowledge of the physical law known to control air movements. His basic tool to predict the weather is the weather map.

Probably the easiest weather forecast to make is a *persistence forecast*, which is simply a prediction that weather will be the same as present weather. This is most accurate for time periods of several and become less and less accurate after that. Another method of weather forecasting is *climatological forecast* which is based on the climatology (average weather) of a particular region. Climatological forecasts can also be used to predict other weather elements such as the maximum temperature. The third method is *probability forecast* which is a forecast of the probability of occurrence one or more of a mutually exclusive weather conditions.

Forecasting tomorrow's weather entails a variety of techniques and methods with the aid of the computer, a huge number of charts, satellite data, intuition, experience, and a little luck. Actually, with the ever changing state of the atmosphere, some forecast turn out correct, while others do not. These bits of information are not intended to make you an expert Scout forecaster but to provide you with an understanding of the problems confronting anyone who attempts to predict the behavior of this churning mass of air we call our Atmosphere.

TYPHOONS

A typhoon is an intense storm of tropical origin, with winds exceeding 64 knots (74 kph) which forms over the warm northern Pacific Ocean and Southeastern China Sea.

This same type of storm is given different names in different regions of the world. In the United States, it is called a hurricane; in Australia, a *willy willy*, and in India, a cyclone.

In the Philippine version, a typhoon is an intense tropical disturbance characterized by a low pressure area at the center. In the Northern Hemisphere, as a result of the earth's rotation about its axis, the wind blows counter clockwise around the center of a low pressure area and in the Southern Hemisphere, the wind blows clockwise. The typhoon is the strongest of a class of weather disturbances called tropical cyclones.

There are certain regions where cyclones are favorably formed. These regions are large and warm oceanic areas. It has been observed that the lowest temperature of the ocean at the time of cyclone formation is 26 to 28 degrees Centigrade.

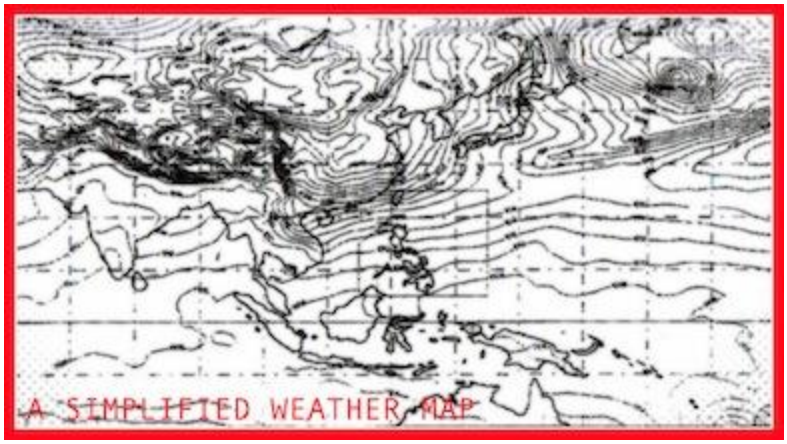
Tropical cyclones are classified according to the strength of the accompanying winds:

a. Depression – maximum wind speed is less than 63 kilometers per hour.

b. Tropical storm – maximum wind speed ranges from 63 kph to 118 kph.

c. Typhoon – wind is 118 kilometers per hour or more.

The choice of giving women's names for typhoons instead of boy's names is purely arbitrary. In the Northern Hemisphere, the typhoons are named after girls; in the Southern Hemisphere, they are named after boys. The practice was started by the U.S. Navy and Air Force meteorologists during World War II.



The Philippine Weather Bureau (now named Philippine Atmospheric, Geophysical, and Astronomical-Services Administration or PAGASA), however, adopted. 8 set of Filipino feminine nicknames because these names are more familiar to the Filipinos especially those who reside in the rural areas.

A typhoon consists of an "eye" which is a small central area of some 10-50 kms in diameter. It is characterized by relative calm or light winds, clear to partly cloudy skies, high humidity, warm temperature, and usually fine weather. The causes have not been established yet. Its source of energy is the warm most air at the ocean surface. As this moist air converges toward the center of the typhoon, it rises. Continued rising of the moist air results in cooling and subsequent condensation of the water vapor. The condensation of the water vapor releases large amounts of latent heat. It is estimated that three percent of this tremendous energy is used in maintaining the energy of the winds. The energy released in a single day by a typhoon is equivalent to about 400 super hydrogen bombs.

In the course of a typhoon, it is necessary that one should know its most dangerous part. If you are facing in the direction toward which the typhoon is moving, the side to your right -is called the "right side of the typhoon". This is the. "dangerous half" of the typhoon because the winds are strongest on this side:

STORM SIGNALS

Everyone should take all the necessary precautions during the approach and passage of a typhoon. Senior Scouts should be familiar with the following storm signal which are broadcast over the radio.

During storms or typhoons, all Senior Scouts are expected to assist in emergency service at the disaster areas. When such a calamity occurs in your place or area of concern, you should do your part together with your Crew or Outfit.

ALPHABETICAL LIST OF NAMES
FOR TROPICAL CYCLONES

The first tropical cyclone of the year starts with the name beginning in letter A as in ATRING under column 1 for 1997 and so on down the list as one disturbance succeeds another. The 5th year (2001) will bring us back to column 1 of ATRING. In the event that the number of tropical cyclones within the

year exceeds 19, an auxiliary lists is used, the first six of which are listed under each column.

	1 1997 2001 2005 2009 2013	2 1998 2002 2006 2010 2014	3 1999 2003 2007 2011 2015	4 2000 2004 2008 2012 2016
1	ATRING	AKANG	AURING	ASIANG
2	BINING	BISING	BEBENG	BIRING
3	KURING	KLARING	KARING	KONSING
4	DALING	DELING	DIDING	DITANG
5	ELANG	EMANG	ETANG	EDENG
6	GORING	GADING	GENING	GLORING
7	HULING	HELING	HELMING	HUANING
8	IBIANG	ILIANG	ISING	ISANG
9	LUMING	LOLENG	LUDING	LUSING
10	MILING	MIDING	MAMENG	MARING
11	NARSING	NORMING	NENENG	NINGNING
12	OPENG	OYANG	ONIANG	OSANG
13	PINING	PASING	PEPANG	PARING
14	RUBING	RITANG	RENING	REMING
15	SALING	SUSANG	SENDANG	SENIANG
16	TASING	TERING	TRINING	TOYANG
17	UNDING	UDING	ULDING	ULPIANG
18	WALDING	WELING	WARLING	WELPRING
19	YEYENG	YANING	YAYANG	YERLING
AUXILIARY LISTS				
20	ANDING	ANING	ADING	APIANG
21	BINANG	BIDANG	BARANG	BASIANG
22	KADIANG	KATRING	KRISING	KAYANG
23	DINANG	DELANG	DADANG	DORANG
24	EPANG	ESANG	ERLING	ENANG
25	GUNDANG	GARDING	GOYING	GRASING

Public Storm Signal No. 1

Meteorological Conditions:
– A tropical cyclone will affect the locality
– Winds of 30-60 kph may be expected in at least 36 hours

Impact of the winds:
– Twigs and branches of small trees may be broken
– Some banana plants may tilt or land flat on the ground
– Some houses of very light materials may be partially unroofed.
– Very light or no damage at all may be sustained by the exposed communities.
– Rice in flowering stage may suffer significant damage.

Precautionary Measures:
– People are advised to listen to the latest Severe Weather Bulletin issued by PAGASA every six hours.

General Note:
– Business may be carried out as usual. When the tropical cyclone is strong, intensifying of is moving close, this signal may be gradually increased. Disaster preparedness is activated to alert status.

Public Storm Signal No. 2

Meteorological Conditions:
– A moderate tropical cyclone will affect the locality.
– Winds of 60-100 kph may be expected in at least 24 hours.

Impact of the winds:
– Some coconut trees may be tilted with few others broken.
– Few big trees may be uprooted.
– Many banana plants may be destroyed.
– Rice and corn may be adversely affected.
– Large number of light houses may be partially or totally unroofed.
– Some old galvanized iron roofings may roll off.
– Light to moderate damage to *palay* in flowering stages.

Precautionary Measures:
– The sea and coastal waters are dangerous to smaller seacrafts. Fishermen are advised not to go out to sea.
– Avoid unnecessary risks. Traveling by sea or air is risky.
– Stay indoors.
– Secure properties.

General Note:
– Special attention should be given to the latest position, direction, and speed of movement and intesity of the tropical cyclone as it may intensify and move towards the locality.
– Disaster preparedness agencies and other organizations are alerted.

Public Storm Signal No. 3

Meteorological Conditions:
– A strong tropical cyclone will affect the locality.
– Winds of 100-185 kph may be expected in at least 18 hours.

Impact of the winds:
– Almost all banana plants may be destroyed and a large number of trees may be uprooted.
– Rice and corn crops may suffer heavy damage.
– Majority of light houses may be unroofed or destroyed and there may be considerable damage to structures of light to medium construction.
– There may be widespread disruption of electrical power and communication services.
– In general, moderate to heavy damage may be expected in both the agricultural and industrial sectors.
– Travel by sea and air is very risky.
– Sea and coastal waters will be dangerous to all seacrafts.

Precautionary Measures:
– People are advised to evacuate and stay in strong buildings.
– Evacuate low-lying areas.
– Stay away from coastal areas and river banks.
– Watch out for the passage of the "eye." Do not venture away from the safety of the shelter.
– Suspend classes in all levels and make sure children stay in the safety of strong buildings.

General Note:
– The disturbance is dangerous to threatened or affected communities.
– The passage of the "eye" of the typhoon is indicated by a sudden change from bad to fair weather. Fair weather may last from 1-2 hours after which the worst weather will resume with very strong winds generally coming from the opposite direction.
– Disaster preparedness and response agencies/organizations are activated to respond appropriately.

Public Storm Signal No. 4

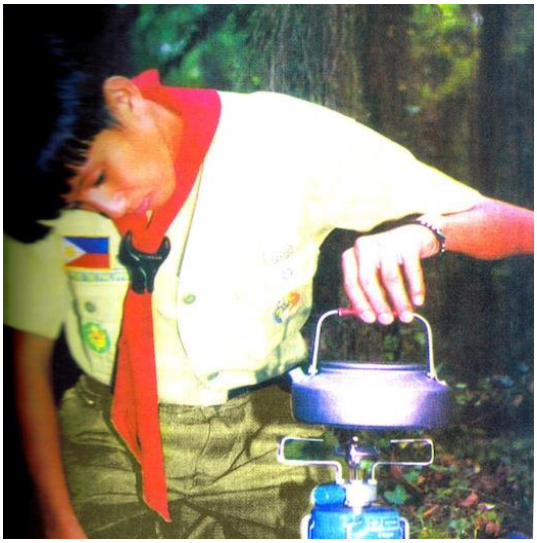
Meteorological Conditions:
– A very intense typhoon will affect the locality.
– Very strong winds of more than 185 kph may be expected in at least 12 hours.

Impact of the winds:
– Coconut plantations may suffer extensive damage.
– Many large trees may be uprooted.
– Rice and corn plantation may suffer severe damage.
– Most residential and institutional buildings of mixed construction may be severely damaged.
– Electric power distribution and communication services may be disrupted.
– Damage to affected communities can be very heavy.

Precautionary Measures:
– Cancel all travel and other outdoor activities.

General Note:
– The situation is potentially very destructive to the community. EVACUATION TO SAFER SHELTERS SHOULD HAVE BEEN DONE DURING PSS NO. 3 NOT NOW. IT IS TOO LATE TO EVACUATE NOW!
– Disaster coordinating councils concerned and other disaster response organizations must respond to emergencies.

Chapter 3: Cooking Out



Whether on a hike or in camp, people know a Senior Scout from a non-Scout by the kind and nature of fires that he builds and the kind of food that he cooks and serves.

FIRE

To primitive hunters and trappers, fire is a welcome sight in camp, after a long day's work. One sees movies of adventure where fishermen and outdoorsmen sat down around a cooking fire or a campfire and tell stories of glory while meat or fish is being roasted on the fire.

A true Senior Scout knows that the kind of fire he builds must suit the purpose for building it, the fire material available in the locality, and the terrain of the land.

Generally, fires can be classified into the following:

1. **Hunter's Fire** – is suitable in windy areas where cooking has to be done. Two large hardwood logs about 10-15 centimeters in diameter and a meter long, preferably green or wet wood, is laid side by side about 30 centimeters apart at one end and 15 centimeters at the other end. A layer of small dry sticks is placed across the middle of the logs and tinder is placed on top. Around the dry tinder, a criss-cross of small splits or fuzz sticks forming a square is built.

The square is filled with kindling and tinder and is lighted on top. The upper layers soon burn through and the embers drop down between the logs. Larger split wood is gradually added.

When cooking is finished, larger nightwood is piled between the large logs.

2. **Reflector Fire** – is excellent during cold nights. A reflector of mud-chinked green logs or a wall of

non-explosive rocks, or a natural cliff face or embankment is used as the fire reflector. The fire is built between you and the reflector for cooking. Afterwards, a bed of coals created by the cooking can serve as an all-night heater.

3. **Star Fire** – is often used when wood is scarce in the area. Long dry downwood and saplings are gathered and laid in a wheel-spoke pattern, with ends placed on top of each other. In and around the center, a small hot fire is built. The fire is "stoked" by sliding the long spokes of wood into the center flame. Additional spokes of wood are added as needed.

4. **Trench Fire** – is built by digging a small trench on the ground downwind. Fire is built in the trench for cooking and green wood (or metal) grilles are placed across the trench to hold pots and kettles.

5. **Stone Range Fire** – is a substitute for home stoves when you are in areas where flat stones are available. Stone range is built around the fire area to shield the fire.

6. **Council Fire** – so-called because it is more of a campfire than a cooking fire. Large dry logs are crisscrossed in a one-meter square area (approximately 3 feet square) and the logs getting smaller and smaller until small twigs are on top.

Tinder is placed inside the square on the ground and lit. As the flames leap upwards, the wood above is gradually heated and sparks into flames until finally the wood on top starts burning.

An alternative method which will last for 2 or more hours is to build the fire on top of the altar rather than below. As the embers fall, they fall on the sticks criss-crossed on the next layer and causes the sticks to burn, and so on. In this way, the fire gradually burns downwards layer by layer.

FIREWOOD

The type of wood you use will determine how fast you can start a fire and how long it will last.

Woods are normally classified either as hardwood or softwood in the Philippines. Most wood will burn assuming it is dry. Never cut green limbs off a tree for firewood. Aside from the fact that it is difficult

to ignite a green wood and will only give off plenty of smoke, it is a violation under out present environmental laws. Collect and study various types of woods to determine which one is suitable for firewood.

If you can easily break a twig into two with your bare hands, it is softwood. It will easily catch fire and will also burn faster than hardwood. If you have to use an axe to split wood, then chances are the wood comes from a hardwood tree.

Ipil-ipil and the *Madre Cacao* or *Kakawati* trees are good materials in making charcoal. They abound in the Philippines and grow wild in the forests.

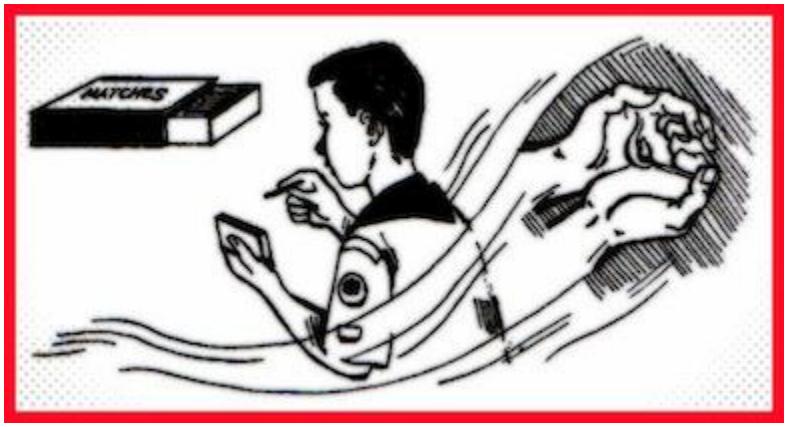
BUILDING A FIRE

Clear the forest ground of debris such as dead twigs, dried leaves, and stones. Do not build a fire near an old tree stump or a living tree. If the ground is wet, build a platform of flat stones or tree bark. The fire should be downwind of your camp (wind should blow smoke away from the camp).

The Pyramid fire-building technique is the most popular method of starting a fire. Place the kindling in the center of your cleared spot in the shape of a small pyramid. Use whittling sticks as kindling. A fuzz stick can be made by whittling the sides of the wood to make rugged flare-out from the split wood.

Fire Building with Matches

A veteran backwoodsman can start a fire using not more than two match sticks. Crouch by the wood with your back to the wind. Strike a match and let it burn into a real flame, cupping your hands around it for protection. Apply it close to your tinder (shavings made from dry wood and placed around the



kindlings).

After lighting the kindling, let it burn a moment, then slowly feed the fire with smaller, then gradually larger, pieces of firesticks. Continue feeding slowly until it has reached the fire size you want. Always bear in mind that a flame burns upward and away from the wind and needs lots of air.

The following tips may help you in fire-building:

1. Use the driest and softest tinder available to start a fire (either paper, wood shavings, etc.).
2. Select a dry sheltered spot for your fireplace.

3. Have a supply of kindling ready before you light the fire.

4. Have heavier wood available nearby for fire feeding.

5. Always start with a tiny fire and build from it.

6. Fire needs air. Too much fuel suffocates it.

7. Fire climbs. Add fuel from the top.

8. Fire burns downwind. Add fuel on the side away from the wind.

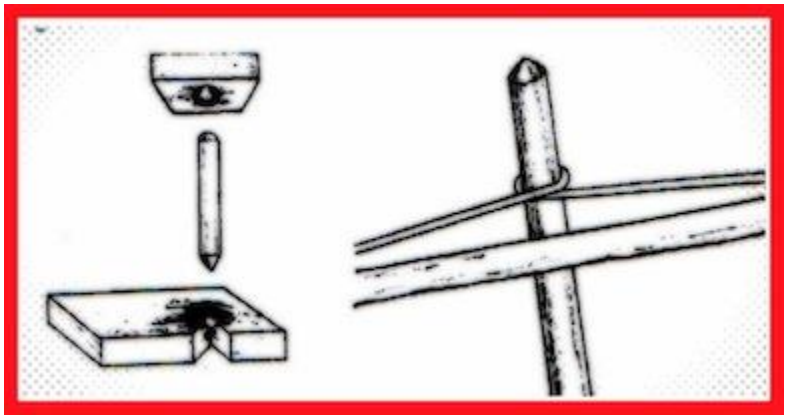
The ability to start a fire with materials available at hand is a very important skills in a survival situation. Among the techniques of making fire being taught in survival schools is the fireboard and drill. The fireboard and drill apparatus utilizes the same principle being employed in the bamboo apparatus used by the tribal minorities in the Philippines – they produce heat through friction. The fireboard and drill apparatus has been in used by Australian aborigines for thousand of years, to understand how they work let us examine each part closely.

Fireboard and drill parts:

a. The bearing or the handhold
b. Drill or spindle
c. Fireboard
d. Bow and cordage

The bearing or the handhold

The handhold is the part of the apparatus that pushes that spindle against the fireboard in upright position. It is held by the hand and protects it from friction, it is formed from the thick branch of a tree by scrapping or curving the top and bottom portion until it is flat like a lumber, care should be taken in cutting it to size, it must fit the hand snugly and not to become so small as to allow the fingers to wrap around it. Once cut to size, curve a small depression underneath.



The drill or spindle

The drill or spindle is the part of the apparatus that spins to and pro between the fireboard and the handhold. It is the easiest part to make, it is formed by cutting a small branch of a tree and scrapping it on all sides until it is perfectly cylindrical. The most suitable size for spindle is between 6 to 8 inches long and about 3/4 in diameter, in selecting the wood choose one that is straight and free of knuckle for easy curving.

The fireboard

The fireboard is the base of the whole apparatus, it is the part Where the fire is ignited. The fireboard should be at least twice as wide as the spindle, it is formed by cutting the thickest end of ‘the branch and curving it flat at the top and bottom until it resembles a piece of lumber. A few inches from one end of the fireboard and directly in the middle of the board carve a depression for the spindle.

Bow and cordage

The is the another part of the apparatus held by your other hand, it is made from a sturdy sapling and it is tied on both ends by a cordage. The cordage on the other hand can be made from any material that happens to be available, shoelace, fiber from your clothing, fiber from the inner bark of a tree etc.

To operate the apparatus

Now that we are familiar with the parts, let us now learn how to use it. As mentioned before, the apparatus operates by producing heat through friction. This is accomplished in the same way fire is made. First place the fireboard firmly on the ground, secure the board firmly by putting your feet across, care should be taken to avoid moisture from seeping into the fireboard by placing dry leaves, bark or rocks between the fireboard and the ground. To ensure smooth operation, lubricate the moving parts between the handhold and spindle by applying only substances, such as the sap from a trees or the natural oil around your nose. (improvise) now wrap the cordage around the spindle onto the bow. (see illustration on the next page) hold the spindle on the bow with your right hand and the handhold in your left. The bottom end of the spindle is placed in the cut depression of the fireboard and the top end is held in the cut depression of the handhold. The left hand and handhold are braced tight against the shin, so the drill is perpendicular to the fireboard. The bow should be on the outside of the spindle, away from the left shin, and the end of the bow should be grasped firmly in the right hand. (study the

illustration carefully and hold the exact same position.)

Pressing down slightly with left hand, draw the bow back and forth across the apparatus in a sawing motion, which also causes the spindle to spin back and forth. The speed and downward pressure are increased until the handhold and the fire board begins to smoke.

To burn in

The last piece of the puzzle to "burn in" a bow-drill is a tinder. Tinder is made from plant fibers that can be broken up and buffed into one fibrous ball. The inner bark of many trees and plants or some grasses can be a source of good tinder. Some plants will fiber up better when pounded with sticks or stone. The set up is exactly the same, the tinder is placed directly under the notch, again the spindle is spun in the fireboard until there is plenty of smoke.

TRAIL FOODS

For hiking or for camp, think nutrition and economy when buying food. When looking for food to be brought during a hike, keep an eye for lightweight, less bulky food but of good quality. Anything needing refrigeration is not suitable as a trail food.

Find out what your local store or supermarket is offering as possible trail food. You will find in your favorite store a surprisingly large number of "instant," that is, food which can be cooked and prepared in 10 minutes or less. There are naturally dry foods, dried foods and fruits, dehydrated foods (all water removed before packing), and concentrated foods and drinks (some of the water removed). There are also canned foods or processed foods like instant *mami* noodles, instant milk or chocolate.

Keep in mind a balanced food diet when preparing your menus. Whether on a hike or in camp. To help you in menu planning with your Crew or Outfit, here are suggestions listed by food groups:

A. **Meat Group –** dehydrated eggs; dried or canned fish; concentrated or canned fish or clam chowders; dried shrimps; canned oysters; canned corned beef stew; canned roast beef; dried beef or pork; canned luncheon meat; dried mushroom; dehydrated bouillon; peanut butter; and others. Check, however, the labels on all canned foods, since some may contain large amount of nitrates. Nitrates are not good for the body.

B. **Milk Group** – Dried or evaporated whole milk; dehydrated skimmed milk; dry cheese, and others.

C. **Vegetables and Fruits Group** – Dried or canned whole-kernel corn; dried peppers; canned pickles; canned onions; dehydrated chopped onions; canned peas; canned green peas; canned or dehydrated soups; dried mangoes, prunes, raisins; canned fruit jams; concentrated dehydrated, or canned fruit drinks, concentrated fruit juices; dried durian; dried or canned strawberries; and others.

D. **Cereal and Bread Group** – dry oatmeal, cornmeal, white rice, brown rice; dry macaronis, spaghetti; dry egg noodles; canned or dried *chow mein* noodles *(mami)*; dry flour; dry pancake, biscuits, cake mixes; dry cookies; and others.

E. **Fats, Sweets, and Other Groups** – canned butter, margarine; cubed sugar; granulated brown sugar, packed com syrup; concentrated chocolates; repacked jellies; table salt, and others.

In planning camp menus, remember that each growing Scout needs these daily:

1. Meat Group – 2 or more servings of meat, eggs, poultry, fish, soup, dry beans, peanut butter, or cheese

2. Vegetable Group – 4 or more servings of fruits and dark green or yellow vegetables.

3. Milk Group – 4 or more cups of fluid.

4. Bread/Cereal Group – 4 or more servings of whole- grained or enriched breads, cereals, macaroni, pasta, rice, or corn.

Several Scout handbooks and Filipino menu books carry very appetizing recipe for camp meals. In the market are now sold "instant" flavors such as chicken, *sampalok* (tamarind), etc – all packed in airtight foils which can make camping truly enjoyable and healthful.

FRESH FOOD IN CAMP

On the other hand, you can try your hand at cooking fresh food and serving them to your Crew. If your camp is accessible to a wet market or a public market, you can purchase fresh meat (pork or beef), vegetables, fish, and fruits and bring them to camp for the traditional native delicacies.

If you have available standard pots and pans in camp, you can try cooking *sinigang, potsero,* fried fish, *escabeche, nilaga,* or prepare fresh salads and fruits.

Or, you can try a bit of "primitive cooking" without using standard kitchen utensils. Primitive men had

only two ways of cooking meat or fish – boiled or broiled. You can experiment with broiled meat on a stick (known in Scouting as kabob, but is locally referred to as barbecue, or cooking rice in a handkerchief, broiled fish on a stick, or simply *kilawin* (raw, cooked in vinegar), meat, vegetables, or fish. As you advance in Scouting, you can be more and more advanced in your cooking style. Advanced here means going from canned and preserved food to primitive cooking to equip you with some survival skills, including living off the land.

So try your hand in cooking for your Crew or Outfit. Several cookbooks are in the market for you to read and use.

The following are some sample recipes that you can cook in camp. But before trying it out with your Crew, practice first at home. Observe, ask, and help your mother as she prepares food for the family.

SAMPLE RECIPES

FRIED FISH FILLET

Ingredients:

Fish Fillet – 1&1/2 kilos
Salt – 5 tsp
Pepper powder – 1 tsp
Flour – 2 cups
Eggs (slightly beaten) – 6 pcs.
Oil – 2&3/4 cups
Mayonnaise – 1 cup

Procedure:

1. Sprinkle fillet of fish with salt and pepper. Let stand for 3 minutes.
2. Add 4 tsps. of salt to slightly beaten egg.
3. Heat cooking oil in a frying pan or sauce pan.
4. Roll fillet with flour and egg.
5. Dip on hot oil the coated fish fillet, one by one.
6. Fry until golden brown.
7. Serve hot using mayonnaise for dipping.

CHICKEN NILAGA

Ingredients:

Chicken, whole (cut into 10 pcs.) – 1 kilo
Onions, sliced (medium size) – 2 pcs.
Cabbage, quartered – 1/2 kilo
Potatoes, quartered – 1/4 kilo
Pepper, corn – 1 tsp
Patis – 4 Tbsp
Salt – 1 tsp
Chicken cubes – 3 pcs.
Rice water – 12 cups

Procedure:

1. Cut the chicken into ten serving pieces.
2. Boil water stock washing with onion, potatoes and chicken cubes.
3. Add meat. Season with salt and cook until tender.
4. Add potatoes and cabbage and cook for 5 minutes more.
5. Season with *patis*.

BUTTERED VEGETABLES

Ingredients:

Carrots – 1/4 kilo
Margarine – 1/4 cup
Green beans (*Habichuelas*) – 1/4 kilo

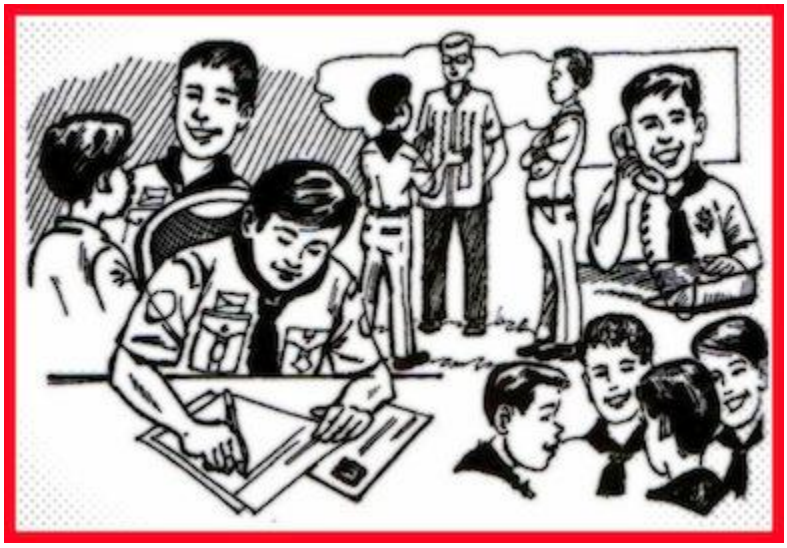
Procedure:

1. Wash all vegetables separately.
2. Remove strings of the green beans.
3. Boil the carrots with its skin in two cups of water until tender, then add the green beans in the boiling water and let it cook for 2 minutes.
4. Remove carrots and string beans from the liquid.
5. Peel and cut carrots into cubes.
6. Place in platter cubed carrots and green beans and pour melted butter on it.
7. Serve while hot.

Chapter 4: Communications

You communicate with other people everyday. You communicate with your family members, with your friends and neighbors, with your fellow Senior Scouts, with government officials, and with adult leaders. The better you communicate with others, the better is their impression about you. Thus, it is essential to master the art of communication.

The word "communication" came from the Latin root word *"communis,"* meaning something that is common to a group. Communication, therefore, is your ability to establish a common understanding about something between you and others.



Behind these descriptive phrases, what seems to capture the essence of communication? Communication is effective to the extent that the meaning is created. goals are achieved, and humans become satisfied as much as possible.

– Communication is the creation of meaning through the use of signals and symbols.

– Communication is not a static phenomenon. It is ongoing and continuous, so we view it as a process. It refers to a way of perceiving and responding to the world in which we live.

To understands communication, for it is always dynamic - variables and actions interplay fueled by human energy and force – and at the core is MEANING. We are part of this process; we are caught up in it; on our success, satisfaction, and growth depend to a great extent on how we function within it.

WHAT IS MEANING

When we speak of communication as a process for the creation of meaning, we view meaning as a RECOGNATION OF RELATIONSHIP; it is the perception the takes place when we capture the relationship between two statements or images. In order to understand or create such a relationship each person must draw upon his or her own frame-of-reference those feelings, attitudes, beliefs, and values that are part of each individual's understanding of self and social environment. Signal and symbols are assigned meaning by those who send and receive messages in any interaction.

When persons are able to communicate through the creation of meaning, they construct reality symbolically assigning signals, symbols and images.

Signal and Symbols

The construction of reality takes place within us because of the ways we engage in information processing.

For instance, when we decide to communicate, we sort, select, and send signals or symbols as messages which EVOKE SOME MEANING in us and eventually to another person. The other person in turn, creates within herself or himself a response to these signals and symbols perceived.

Sorting and selecting symbols can be both conscious and unconscious for the communication. Signals and symbols provide the components of any message. By signals, we mean the messages "which the communicator feels are beaming from a source and they suggest a very limited but concise meaning." Symbols suggest broader and more complex meanings assigned to the verbal and non-verbal language of communication.

The business world is filled with verbal and non-verbal symbols which appear as corporate logos, e.g. Wendy's Hamburger International, Levi's, Armco Inc., Prudential, Coca-Cola, Bank of Tokyo, Mitsubishi, Hyundai, etc.

Communication is Transaction

The process of human communication, whether verbal or non-verbal, is transactional. When we speak of process communication, we know we are not speaking of a series of static entities.

As communicators, we "put together" what we think, feel, imagine into a word. In this process, the "Other" becomes part of us, and his or her messages are really what we create from signals and symbols, thus we have not just transmission in communication but transaction.

The transactional nature of communication is more than communicators constructing each other and the messages for meaning; it is also like business. Gerald Philips and Nancy Metzger speak of the communication transactions which may result from interaction. They see transaction as being involved with the individual goal-seeking in both private or public behavior. In a word, transaction is a question, "for the satisfaction of a very personal wants." As we work using communication as instrumental for the achievement of success or satisfaction, we do our own sense-making, and we make claims about what we think is or is not or might be or could be or should be; we set up for ourselves what we see,

hear, touch, taste and smell. We string words together into what seems to be a logical and meaningful order; and when we do this with other persons, we do so to satisfy a need, a desire – in a word, a goal. And because there is intent on the part of the communication, as well as some sort of relationship, no matter how fleeting, there is transaction.

Seven Basic Elements of Communication

1. The intentions, ideas and feelings of the sender and the way he decides to behave, all of which lead to his sending a message that carries the same content.

2. The encoding of the message by the sender – he translates his ideas, feelings and intentions into a message appropriate for sending.

3. Sending the message to the receiver.

4. The channel through which the message is translated.

5. The decoding of the message by the receiver. The receiver's interpretation depends on how well the receiver understands the content of the message and the intentions of the sender.

6. An internal response by the receiver to this interpretation of the message.

7. The amount of noise in the above steps. Noise is any element that interrupts with communication process. It can be physical or psychological. In the sender, noise refers to such things as attitudes, prejudices, frame of reference of the sender, and the appropriateness of his language of other expressions of the message. In the receiver, the noise includes his attitudes, background, experience that affect the decoding process. In the channel, noise refers to:

a. environmental sounds such as static or traffic;
b. speech problem;
c. annoying or destructing mechanisms such as tendency to mumble.

To a large extent, the success of communication is determined by the degree to which noise is overcome or controlled.

There are many ways of communicating with others. In the towns and cities you communicate by letter, by telephone, by radio, by telegram, or even fax machine. In the out-of-doors when these modern conveniences are absent, you can communicate by sight (using flags), by light (using heliograph), or by sound (using morse code/whistle). There are also special ways of communicating with special groups of people like the blind and the deaf. Let us look at each one of them.

COMMUNICATION IN THE URBAN AREAS

Talking to somebody when he /she is not in front of you requires some skills. Remember, you are interested in making sure that the other party will completely understand the meaning of what you want to say.

Communicating By Letter

As a Scout, you should always write letters in a friendly tone. Always address the other person by using the word "Dear," such as "Dear Brian," or "Dear Auntie Sally." If you are writing in a formal way to a person whom you are not so familiar with, say "Dear Mr. Francia" or "Dear Miss Fuentes."

There are very specific ways of saluting persons of superior rank than you in a letter, especially dignitaries. The following will guide you in knowing how to address other people in a business letter:

1. To a religious person:

His Eminence
Jaime Cardinal Sin
Archbishop of Manila
Intramuros, Manila

Your Eminence:

2. To the President of the Philippines:

The President of the Philippines
Malacañang Palace
Manila

Dear Mr. President:

3. To the Chief Justice of the Supreme Court:

The Chief Justice of the Supreme Court
Padre Faura, Manila

Sir:

4. To a Department Secretary:

The Honorable Secretary
Department of National Defense
Camp Emilio Aguinaldo
EDSA, Quezon City

Sir:

Equally important is the contents of your letter. If you are writing a friendly letter, spice it with some words of encouragement, of concern, and of support for his or her good plans. If you are writing a business letter, go direct to the point in a very courteous manner. Then close it with a statement of thanks or appreciation for his reading your letter.

In closing your letter, use acceptable phrases such as, "Best regards," "Good wishes," "Your friend." and similar endearments. In business letters, you may use "Sincerely yours," "Very truly yours," or "Very sincerely." Then sign it.

Business letter writing requires typing it either with all paragraphs aligned at the left (formal form), or the date and the complimentary ending plus signature at the right-hand side of the letter (semi-formal).

Put your letter in a letter envelope. On the outside portion, place your name and address on the upper left-hand corner (so that the postman can return the letter to you in case your letter cannot reach the right party), and the addressee's name and address at the center of the envelope. The postage stamp is ALWAYS placed at the upper right-hand corner of the envelope, right side up.

Communicating by Telephone

When calling another person within the town limits, always have the telephone number ready beside you plus paper and a pen in case you have to write something as you are phoning.

Then dial the number and wait for the party to answer. In case somebody other than the right person answers the phone, say *"Good morning (afternoon, or evening), Sir. This is _____. May I speak with my friend..."* When the right party answers, talk to him or her briefly (not more than 10 minutes) in a courteous manner (as if he or she is right in front of you), then say "Thank you" or "Good day," and hang up.

It is bad manners to stay on the phone with one person longer than 10 minutes (unless you are giving or receiving long instructions). You must be considerate of other people's time. Besides, other persons may also want to use the telephone. *"Tele-babad"* style of telephone conversation is not Scout-like.

Consider your timing when you call. Do not call too early in the day or too late at night or at mealtime.

When calling long distance, you can use several methods depending on your telephone facilities. If your city or town has direct-dialing capability, simply dial the telephone area code number, followed by the telephone number you are calling.

If your telephone system has no direct dialing system, you will have to go through the long-distance telephone operator. Lift the phone, dial 109 (for domestic call) or 108 (for overseas call), and when the operator answers, give the place you want to call to, the telephone number, the person you want to speak to, your full name, and the telephone number you are using IN THAT ORDER.

If you are going to charge your call to the person you are calling, tell the operator you are calling "COLLECT" to the person's number.

Since long-distance calls are expensive, go straight to the point in your message, after the usual hellos. Remember you are paying per minute plus the telephone charges, so be very brief. Don't argue over the telephone. It is not only expensive; it is also impolite.

Communicating by Cellular Phones

Cellular phones are wireless and battery-operated phones. It has a multi-faceted feature. It is licensed to operate a nationwide Cellular Mobile Telephone System (CMTS) and International Gateway Facility

(IGF), paging network and local exchange (LEC) operations and has a Personal Communications Services (PCS) license. World-class firms provide technical and financial support all over the world. It is committed to bring the benefits of world class telecommunication services and technology to support the country's quest for development.

Some of its Features:

• Personalized welcome Message
- Allows you to key-in a-personalized message that displays whenever you turn on your phone.
- Excellent visibility. Enhanced Alphanumeric dot matrix display show upper and lower case characters, while color indicator show operating status at a glance.
- Meters indicate the strength of the cellular signal, remaining battery charge and earpiece and ringer volumes.

• Talk Time
- Continuous talk time for ____ minutes without having to recharge it and with ___ hours standby time.

•High Security
- PIN-code protection, call restrictions, and a keypad lock to prevent accidental pressing of keys when phone is not in use.
- Automatic redial. Press one button and phone attempts to complete a system-busy call for 4 minutes after the first try.
- Call-in-absence indicator. Tells you a call was received while you were away from your phone.
- Monitor expenses. 5 call timers let you track airtime usage.
- Greater control. 7 levels of call restrictions to limit phone usage and increase security of phone numbers.
- No unauthorized phone calls. Easy-to-program electronic lock code limits access and discourages thefts.
- Auto answer. After two rings the phone automatically answer.

• User Friendly
- View, select or clear features from a user-friendly menu mode.
- Data Capability. Use your phone to send or receive faxes, download from a laptop computer, or transmit from a monitoring device.

Some of its Network Features:

- Faster, reliable connections
- Nationwide Coverage
- PIN Authentication Security
- Value-added Features such as:
- Teleconferencing
- Call Forwarding
- Transfer When No Answer
- Busy Transfer
- Call Waiting