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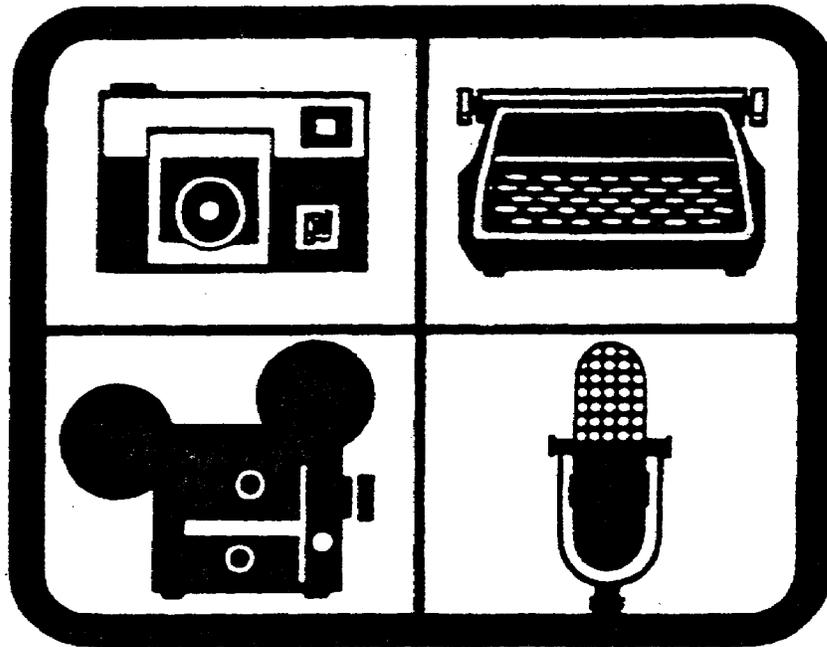
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PHOTOJOURNALISM I

PUBLIC AFFAIRS



THE ARMY INSTITUTE FOR PROFESSIONAL DEVELOPMENT
ARMY CORRESPONDENCE COURSE PROGRAM

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**READINESS/
PROFESSIONALISM**



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PHOTOJOURNALISM I

Subcourse number DI0251

EDITION 9

Army Public Affairs Center
Fort George G. Meade, Maryland ity

5 Credit hours

Edition Date: July 1989

SUBCOURSE OVERVIEW

This subcourse contains five lessons, giving the trained photojournalist advanced information in photojournalism.

These lessons will provide an understanding of photojournalism, a knowledge of obtaining, recording and writing a photograph cutline, cropping a photograph for publication and establishing a field photographic darkroom.

There are no prerequisites for this subcourse; however, you may want to take Basic Photography for Journalists, D10250, and TEC Lesson 570-214-1098-A, Develop Black and White Film.

This Subcourse reflects the doctrine which was current at the time the subcourse was prepared. In your own work situation, always refer to the latest publications.

The words "he," "him," "his," and "men," when used in this publication, represent both the masculine and feminine genders unless otherwise stated.

TERMINAL LEARNING OBJECTIVE

Task: In this subcourse you will learn how to obtain and record cutline information, how to write a photograph cutline, how to crop and scale a photograph, and how to establish a field photographic darkroom.

Conditions: You are given the material presented in this lesson.

Standards: You will demonstrate a basic understanding of obtaining, recording and writing cutlines, cropping and scaling a photograph, and establishing a field photographic darkroom.

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LESSON ONE
UNDERSTANDING PHOTOJOURNALISM

46Q Soldiers' Manual Task: None.

OVERVIEW

TASK DESCRIPTION:

In this lesson you will learn basic precepts of photojournalism, how to isolate a subject, how to use lenses, and photographic composition.

LEARNING OBJECTIVE:

ACTIONS: Isolate a subject, use lenses and compose photographs for publication.

CONDITIONS: You are given the material presented in this lesson.

STANDARDS: You will be able to perform all the duties described in this lesson.

REFERENCES: The material contained in this lesson was derived from the following publications:

STP 46-46Q14-SM-TG
DINFOS Journalism Handbook
AR 360-81
ACCP SS0193
ACCP SS0516

UNDERSTANDING PHOTOJOURNALISM

INTRODUCTION

Photojournalism is a form of journalism in which a story or news item is communicated largely by means of pictures.

A well-written news story, containing all the facts, will suffice for telling the reader what happened, where it happened, who was involved, etc. But, this is only if the reader reads the story. Display elements must be offered to attract the reader's attention to the story, such as headlines, artwork and photographs. By sheer impact, a good photograph will attract a reader's attention faster than most headlines or art work. In addition, it reinforces the information contained in the written account or presents new information that is not written. Headlines are seldom remembered from day to day. News stories, too, fade from memory rapidly, but the "you are there" aspect of a good news photograph may live in one's memory for years to come. Remember the photograph of Jack Ruby shooting Lee Harvey Oswald? How about the headlines or even one sentence of the lead? The military photojournalist fulfills his mission as a vital member of the military establishment either as a photographer or as a photo editor. As a military photojournalist, his mission is to take, process and print photographs for publication.

The military picture editor has a mission which includes planning, selecting, editing and releasing photographs that tell the story of his service. It may also include the taking, processing, and printing of these photographs by himself or by working as a team with the photographer in the field.

TAKING PHOTOGRAPHS FOR PUBLICATION

If you are taking this subcourse you should already be familiar with the basics of photography. In addition to these fundamentals, three requirements are necessary before you can take a photograph for publication. You must:

- o know your subject.
- o know your publication.
- o know your target audience.

Know Your Subject

Millions of photographs are taken every year by amateur and professional photographers alike. Most photographers use people as their prime subject. Photojournalism is a form of communication that portrays people and their environment; therefore, your subject choice is relatively simple. Or is it?

Think of people you have known and select some of the differences between them. The obvious fact is that "all people are different." To photograph people, you must understand their individual differences and explore "in depth" the world in which they live and work. Not the world, but their world.

Some questions you will have to ask yourself and your subject are:

- o What does this man, woman or child do?
- o Where does he live?
- o Why do I want to photograph this subject?
- o What do I wish to show?

In people photography the list of questions is endless.

Know the Publication

Every publication is designed for a particular group of people. Just as we have individuals in life, we have individuals in publishing. Each publication has its own method of reaching viewers with the information that it is putting out.

Consider the possibility of getting the editor of "Good Housekeeping" magazine to use your photograph of tanks on an FTX...not a good idea. But the same photograph sent to "Army Times" might be published because you have chosen the correct outlet for your work. The best way of getting your photograph and text published is to submit them to the publication that can use them.

Know Your Target Audience

Each article in a publication is designed for an individual audience. Not only feature photographs and stories, but even advertising is slanted toward a particular reader. The photographer must know who is going to be reading or viewing his work (Target Audience).

Army subjects will be more interesting to soldiers if-the subject matter lends itself to their particular "world." Farmers read the almanac and "Farmer's Weekly." Soldiers read "Army Times" and the post newspaper (among other things). Generally, people look for newspapers, magazines, and articles that affect their lives or is related to their work.

With this in mind you must know the many different outlets for your work and slant each shooting session toward that "target audience." Armed with this information, you can communicate with viewers concerning timely subjects of interest to them.

Leafing through a magazine, do you stop and examine some photographs more closely than others? What makes us stop and look at a photograph more closely? It might be the subject matter, the composition, the color or lack of color that attracts us.

TWO VISUAL CONSIDERATIONS

Effective storytelling photographs will almost always share one quality -- simplicity. Large images, uncluttered backgrounds, dramatic action and the human element are a few of the devices available to the creative photographer. The application of these devices and the ability to speak clearly with the visual image should be the objective of all serious photographers.

Skilled photographers, when shooting photographs for publication, must know and use two visual considerations --stopping power and impact.

Stopping Power

Stopping power is the quality in a photograph that forces the observer leafing through a magazine to consciously notice a picture. When a photograph makes the reader stop and look it over, it has stopping power.

The majority of photographs depict ordinary people and events, subjects that are all too familiar. Without stopping power, photographs of such subjects would go unnoticed in a mass of pictures --and "unnoticed" in photography is a wasted effort, a worthless product.

Stopping power is one of the essential qualities of any good photograph. It is the device which a photographer uses to ensure that his pictures attract attention. Stopping power can be achieved by:

- o using an unusual treatment that makes commonplace subject matter graphically exciting.
- o recording only unusual subjects.
- o photographing unusual subjects in a graphically exciting form.

Commonplace subjects can be rendered interesting through the use of wide angle lenses, telephoto lenses, filters, screens and other devices. Distortion is one of a number of mechanical means of giving a photograph the "unusual" touch.

Unusual subjects make good photographs and are simple to produce due to their attraction, but unusual subjects are difficult to find.

A photographer must make commonplace subjects interesting to attract a viewer's attention. Simplicity is the key to success. The simpler and more direct, the clearer and stronger the stopping power. Try to isolate the subject as much as possible and eliminate all else. One of the few universally accepted principles for effective presentation of any subject matter is simplicity. For instance, imagine an all-black, large page. Within the page is a one-inch pure white square. In leafing through a magazine, would this get your attention? It should. It makes you stop, look, and wonder, and thus has "stopping power." Posters have surprising stopping power if the composition is simple and the lines and forms are clear, bold and strong.

When shooting for publication, you must try for "stopping power" in your photographs to cause the viewer to look at your work.

Impact in Photographs

Stopping power has gotten the attention of the viewer. Now you must give him something to view with interest and emotion, something to hold his attention.

"Impact" can be defined as holding power, stopping power that affects the observer visually and emotionally. Impact depends upon the content --the visual meaning --of the photograph. When a photograph has emotional stopping power or impact, it commands a deeper kind of attention. A photograph of a child crying, sitting in trash and rubble has stopping power, but when you stop, look, and begin to get a small measure of life in the ghetto, you are experiencing impact in photography. Stopping power makes you look, but "impact" gives you the emotional feeling.

Before you can create photographs with impact, you must first have a genuine interest in the subject. If you do not have a reaction to your subject, you won't produce work that contains any emotional quality. An observer seeing such work will remain unaffected.

To hold the viewer's attention, a photograph must have something to give. It must have meaning. It must be informative, educational, exciting, amusing, or inspiring. The meaning may constitute an appeal to the viewer's heart (like a March of Dimes poster), or it may have sex appeal. It may be the intent to deliberately shock the viewer into an awareness of some condition or situation by calling attention to it. A meaningful photograph is one of the most powerful instruments for arousing public reaction.

In photography, the cardinal sin is the meaningless photograph. Look for "stopping power" and "impact" in your photographs. Your job will be to portray people, Army people. Let your camera become an extension of yourself and consciously strive for meaningful photographs.

DEPTH OF FIELD

Depth of field is the instance from the nearest point of acceptable sharpness to the furthest point of acceptable sharpness.

When a lens is focused on a nearby object, the depth of field is short. If the distance setting is increased, the depth of field increases. This is why it is important to focus more accurately for nearby objects than for distant objects. When focusing a lens so several objects are at different distances, best results are obtained by focusing on a point one third into the distance between the nearest and farthest point. Depth of field always ranges from one-third before to two-thirds after the point of focus (see Figure 1-1).

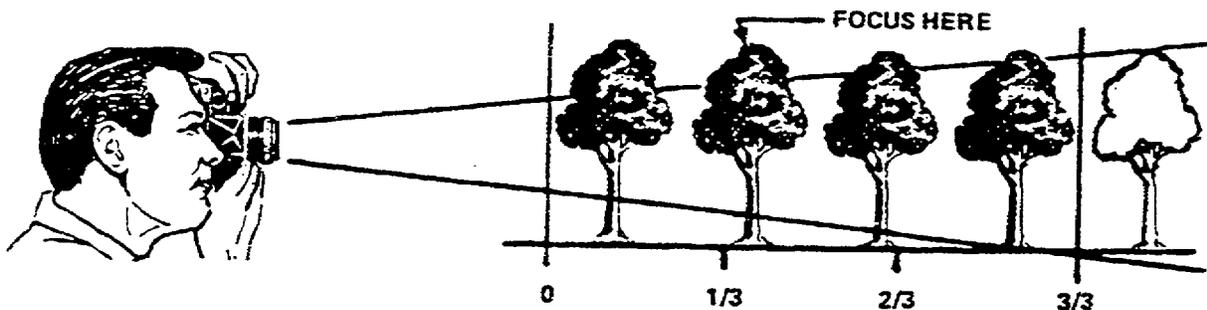


Figure 1-1. Depth of Field

You can tell what will be included in the depth of field by using the depth-of-field scale on your camera lens. In Figure 1-2 the aperture is set at f/8. The depth of field ranges from less than 10 feet to about 20 feet. At f/16 the depth of field would range from a little over seven feet to a little over 30 feet. Of course if the focus ring were moved then these minimum and maximum distances would change.

This scale is useful in presetting your camera for anticipated shots. When the action starts happening fast and furious you may not have time to focus.

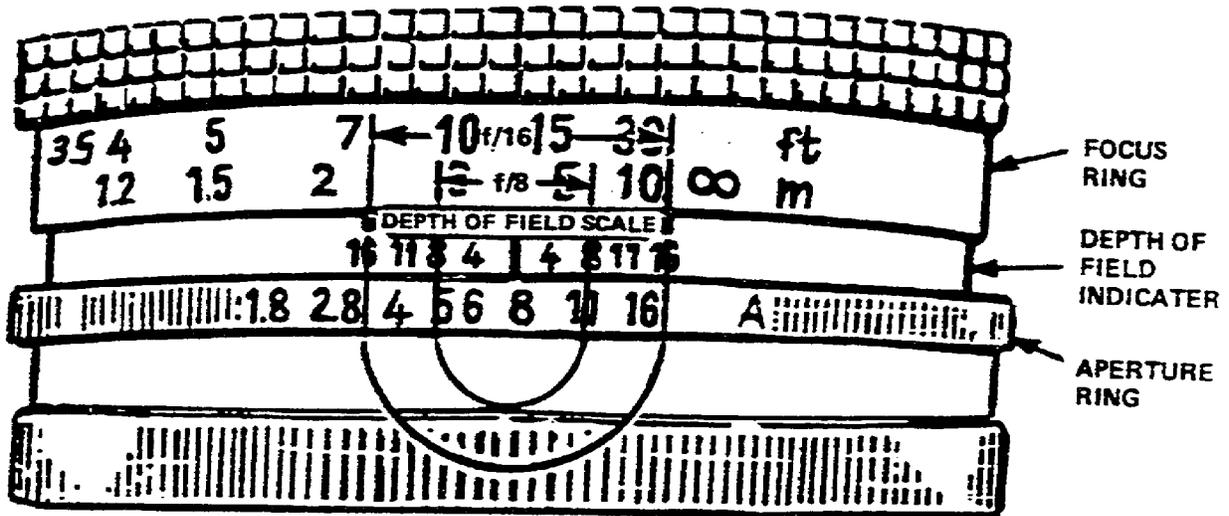


Figure 1-2. Depth of Field Scale

If you know that all of the action will happen between 10 and 20 feet than the camera should be set as in Figure 1-2. For more depth-of-field you would use a smaller aperture.

ISOLATING A SUBJECT

Consider an IG inspection with the company personnel in a neat formation. Everybody is in Class A uniform. SFC G.I.

Jones is the subject of your photograph. Using a standard 1/125 of a second and f/16, you photograph SFC Jones in formation. Does SFC Jones stand out from all the other people in formation? In looking at your photograph, can the viewer isolate SFC Jones from the rest? Probably not. You need to isolate him. Two popular methods for isolating subjects are "framing" and "selective focus."

Framing the Subject

Framing the subject gives the viewer "tunnel vision." His eyes automatically go to the subject in a photograph because

you have channeled his vision. Go to an old building and look through the windows. Do you look at the wood or at the scenic view outside? Let's hope you look at the scenic view. You can use this technique to direct a viewer's attention to your subject.

Frames can be made of anything in the area. The standard frame, at least in landscape photography, is the branches and leaves of a tree. Old as this technique is, it still works, and your prime reason for "being" is to get viewers to look at your work. Door frames, pipes, shelves and windows are common frames you can use to do your job (see Figure 1-3).

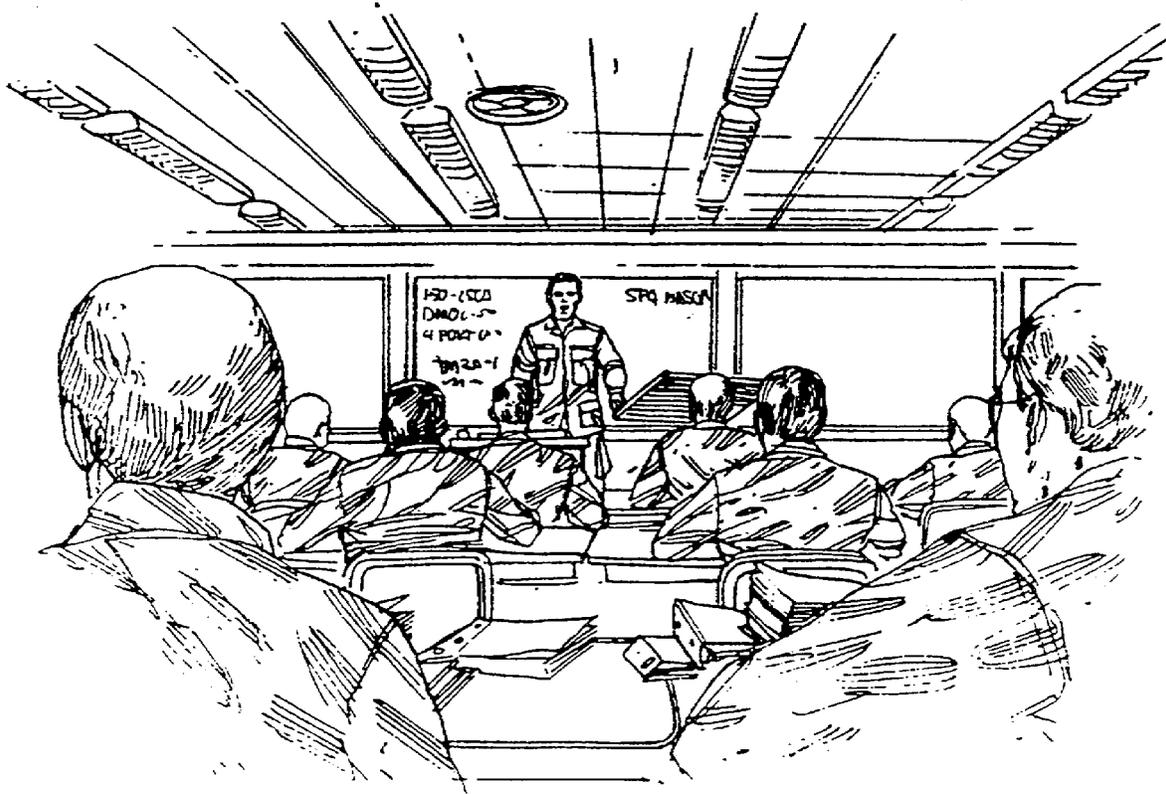


Figure 1-3. Framing

Use the frame technique when appropriate. It will work effectively to allow you to communicate with your viewers.

Selective Focus

Remember SFC Jones standing inspection? Under the circumstances you can't very well frame him. Probably the best method of isolating him is to use selective focus. Here's how:

SFC Jones is still in the formation, and you wish to reshoot him using selective focus. You focus sharply on SFC Jones and from your light meter reading choose a faster shutter speed which will allow you to open up the lens diaphragm, decreasing the depth of field. Again, you focus on SFC Jones. This time SFC Jones is in sharp focus, but the foreground people and background are fuzzy. Everything is still in the photograph but you have successfully isolated your subject. Now the eyes of the viewer will not wander, but will stay on the subject of your photograph.

Using another example, you shoot a photograph of a classroom. The instructor and all students are in sharp focus. But when looking at the photograph, the viewer is left to wonder what the subject of the photograph is. Using the selective focus technique you could isolate the instructor or an individual student, focusing the viewer's attention where you want it.

Framing and selective focus are tools for helping photographers direct viewer's attention to the subject matter.

LENSES AND PERSPECTIVES

When working with an interchangeable-lens camera, one of the photographer's variables is perspective. The photojournalist must be aware of the mechanics of so-called "wide-angle distortion" or "telephoto compression," which are distortions of perspective. He must understand how they influence his message.

Wide-Angle Lens

Some photographers select a lens focal length just for image size, without much thought given to perspective. There are times in photography when you will want to use a lens which will exaggerate perspective. Consider a low-angle photograph taken with a wide-angle (35mm and wider) lens of the front view of a 155mm Howitzer. The Howitzer muzzle looks awesome and the viewer gets the impression of strength and power, the exact message the photographer wished to give the viewer. Combined with the extreme depth of field of a wide-angle lens, the subject leaps from the realm of the usual to an interesting portrayal of the photographer's vision. A wide-angle lens is said to give apparent "wide-angle distortion" to a photograph.

Normal Angle Lens

The normal angle lens (50-55mm) is the "working lens" of the photographer. In retrospect, some photographers neglect the normal angle lens because they prefer the distortion and compression effect of other lenses. The normal angle lens is used effectively when the subject matter is not confined to limited areas. If there is room to move around the subject and placement is all that is required, a normal angle lens works effectively.

Telephoto Lens

Telephoto lenses (75mm and longer) are used effectively in "selective focus" situations because they give a more shallow depth of field than shorter focal length lenses. A telephoto lens creates "compressed perspective" which, when used properly, gives a viewer the impression of closeness.

A photograph of a line of traffic taken with a telephoto lens shows automobiles close to each other, and thus lets the viewer see the congestion of our highways. Telephoto lenses are used by the photographer to give compressed

Lenses are tools. Use them to portray your subject in an interesting way. Whether "wide-angle distortion" or "telephoto compression" is used, it is simply another method of holding the viewer's attention and interpreting a subject.

Use the lens that portrays your subject in the manner in which you wish to show it. Never use a lens because it is normal to do so. Let the lens enhance your story-telling capability. Rule your lens; do not let the lens selection rule you.

COMPOSITION

Every now and then you see a photograph that does not communicate, even though it is technically perfect. This is usually because it lacks a creative touch. You may also see a photograph which is creative but not effective because it lacks technical expertise.

The Nature of Composition

Photographic composition is the orderly or pleasing arrangement of the elements within the pictured area. The difference between a snapshot and a strong photograph is how

well the photographer applies the elements and principles of composition.

Learning the art of good composition is similar in many respects to learning any other skill or profession. A good photographer does not just record whatever he sees; he puts together or composes the picture. To do this the photographer either waits until all objects are properly related, or select a camera angle, or he places the objects in their proper relationship.

Good composition serves a purpose, sets a mood, and tells a story. Your camera will record whatever it sees, exactly as it sees it, without any consideration or feeling for what is happening, or why. It is up to you to capture the location, excitement, and attitude of the event. If you properly place objects in the picture, you will give the photograph more meaning by clearly showing the situation and reflecting the feeling of the occasion.

Composition is an elusive concept which involves such factors as camera position, selective focus, perspective, angle of view and proportion. The important thing to remember is that each is an element of choice, to be used the right way at the right time. If the correct elements are not included in a photograph, or if they are included but used incorrectly, the photograph will appear disorganized. When used correctly, however, the elements provide organization, the key to effective photography. Thus, the nature of composition is organization. It depends on you, the photojournalist, to organize your photograph by making a conscious decision to include certain elements or leave them out. Your success in applying the correct elements of composition will determine how effective and how well organized your pictures are.

The Purpose of Composition

The purpose of composition is to emphasize the subject of the photograph, present it in the most effective form and heighten the total effect of the picture. Knowing and applying the elements of composition will play an important role in your photojournalism efforts. Knowing the elements also will give you a set of general standards by which you can critique your work as well as the work of others.

THE PRINCIPLES OF COMPOSITION

Although there are no rigid rules to govern the correct composition of a photograph there are certain principles. You can make sure a photograph is both dynamic and

communicates what you intend if you follow these three principles: explore, isolate and organize.

Explore

Think about the word "explore." Exploring your subject is a comprehensive approach involving much more than a mere glance at the scene before snapping a picture. It is an in-depth approach, involving analysis of the light, awareness of the physical surroundings and knowledge of the particular requirements of the job.

Light

Light is one of the most important considerations in any photograph. You must always be aware of the nature and direction of what is called "incident light." This is the light that strikes the surface of the subject.

There are two types of incident light: direct light and diffused light.

- o Direct light. This light can come from the sun on a cloudless day, a flash, a lightbulb, or spotlights. It is almost always harsh and contrasty, casting strong shadows. Generally, it is not a photojournalist's favorite light because detail is frequently lost in the shadow areas.
- o Diffused light. This light is considered "soft" light because the contrast between highlights and shadows is relatively low and there is detail in the shadow areas. You will find diffused light outdoors on overcast days or in open shade, and from reflected light, such as bounce flash or light bouncing off the walls from the normal light fixtures.

The direction of the light can also affect the composition of the photograph. The basic directions are:

- o Frontlight. This comes from behind the photographer when he faces the subject and casts very few shadows. Because of the lack of shadows, the subject lacks dimension and appears flat.
- o Sidelight. This casts shadows and gives depth. In terms of direction, it is usually the preferred type of light.
- o Backlight. This comes from behind the subject and is the most contrasty. The side of the subject facing the camera is almost totally in the shadow area, but is surrounded by strong light.

- o Light from above. This is usually the least desirable because of the harsh unnatural shadows formed. For example, a photograph taken of a person outdoors in direct light at high noon would show the light striking the top of the head but leaving unwanted shadows in the eye sockets, under the nose and below the chin.

Physical Surroundings

A second area you must explore is the physical surroundings. As you look at the area around your subject, you must remember that, usually, neither the camera nor the subject must be fixed. Generally either or both can be moved, or at least the views changed.

In those instances when the camera is mobile and the subject stationary, such as a ship at dock or a statue, you can change the composition of your photography by shifting your position until the angle of view eliminates or de-emphasizes an unwanted area. You can change to a wide-angle or telephoto lens to alter the perspective, or you can use selective focus. That is, opening up your lens to decrease the depth of field until only the subject is in sharp focus.

When the camera is stationary and the subject mobile as when you are shooting an aerial show or field maneuvers, you can produce the best results by having enough advance information to know what to expect and taking more film than you think you will need. Remember, film is cheap. Don't miss a "million dollar shot" for want of "one roll of film." In a situation such as this you will also want a variety of lenses so you can better control the distance and space between you and your subjects.

When you find yourself in a situation where both you and the subject are mobile, your best bet is to be aware, as the opportunities for excellent shots come and go quickly.

Job Requirement

The third area you must explore is the actual job requirement. How will your photographs be used and when? These will often dictate where you should be during the event, how much coverage you should plan for and what type of photographs you will be expected to produce. For example, you are to prepare a feature picture story for the base newspaper on the military police assigned to your command. Here are some requirements that could influence your coverage:

- o The public affairs officer wants a "positive" image of the military police.

- o The provost marshal would like you to do some night shooting to show the military police are on the job around the clock.
- o The base newspaper editor says he can use "about six" good photographs.

As you can see from just these requirements, you know the approach you will take, the number of "good photographs" you want, and even the type of film you will use.

As you "explore" each shooting assignment, remember there are three areas to keep in mind: how the light can affect your subject, whether the camera and/or the subject are mobile and the actual requirements of the job. If you fully explore these areas, you will be following one of the three basic principles of good composition.

Isolation

Now that you have learned the first principle --how to explore your subject from the standpoint of light, physical surroundings and job requirements -- we come to the second principle: isolation. For your purpose, isolation is that means which the photojournalist applies to de-emphasize or eliminate those objectionable objects discovered while exploring the subject. There are many ways you can do this; the following is a partial list.

- o Relocate the subject. This is surely the easiest and most obvious solution if the subject is one that can be moved.
- o Change the surroundings. If the subject cannot be moved, then perhaps objectionable things around it can.
- o Fill your viewfinder. This simply means, step in close so that the subject will fill or nearly fill the negative, a very simple way to remove unwanted objects.
- o Use selective focus. Open up your lens to decrease the depth of field until only the subject is in sharp focus.
- o Alter the perspective. Take the photo from a different point of view.
- o Frame the subject. Use items such as branches of trees, door frames, windows or pipes to surround the focus of the photograph.
- o Use light. You can emphasize the subject and minimize other areas by lighting the subject only.

Keep in mind that these seven techniques for isolating the subject may-be used individually or in combination. In fact, you will often find it necessary to use more than one to lift your subject from a confusing setting. Also, you may find unique solutions to unique problems. The key is to keep in mind that your subject must not be lost in the other elements of the photograph. This is why isolation is one of the basic principles of composition.

Organization

At the beginning of this lesson, you will remember that the nature of composition was defined as organization, the orderly arrangement of elements within a photograph. Organization is the third principle which, if followed, can greatly aid in the composition of your photographs.

There are many ways to organize a photograph. Usually it depends on the creativity of the photojournalist and the effect he is trying to achieve. For example, a photograph which reflects speed or violence is not organized in the same way as one showing a peaceful or tranquil situation. The elements would be arranged in a different manner, and if you are not aware of the impact of the organization of these elements, you can confuse your viewer or create an impact that is the opposite of what you saw or planned.

There are no rigid rules governing the organization of elements in a photograph. Anyone who goes beyond the snapshot stage of photography learns that working with organization is almost like putting together a puzzle designed to go together in many ways. The following discussion of the organization elements and the impact they create will help you to understand why organization is one of the three basic principles of composition.

Illumination

Without light there can be no photographs. With light there can be both good and bad photographs. Amateurs, the snapshot shooters, consider light only as something that illuminates the scene. Their main concern is to have enough light to take a picture.

As a photojournalist, you must think of light in terms of quality and quantity.

Of course you must have enough light to expose the film. But you must attempt to control and use that light to accomplish other things. Light can be used to give a three-dimensional look to your photograph. It can also be used to de-emphasize unimportant aspects --like the background.

Cropping

There are a few problems with this element of composition, cropping. The main problem seems to be where to draw the line, and the experts do not agree on this. Some say "Crop severely and purposefully; do not make it look like an accident." Others say, "Approach this gently and with trepidation."

No matter what approach you take, you will soon find that cropping can have a dramatic effect on a photograph. As you progress, you will develop your sense of where to draw the line. Apply your own standards and develop your own style.

There are actually two methods of cropping: in the camera, and when enlarging the negative.

- o Crop in the camera. This is usually the best approach, as you will find it is difficult to make major corrections when enlarging the negative. No amount of cropping in the darkroom can save a part of the subject omitted in shooting, or shift light and shadows, or change a background.
- o Crop in the darkroom. The darkroom is a convenient place to "tighten up" a photograph by cropping minor extraneous detail when enlarging the negative. You can also enlarge a portion of the negative when the subject is too small in the negative.

Proportion

Certain scenes frequently dictate the best format. Almost without thinking you use a vertical format for tall things and a horizontal format for a panoramic scene. Other scenes, however, are more subtle and call for more thought on your part. It is then up to you to decide when to use a horizontal and when to use a vertical. There are a couple of things to remember about the impact that each format creates:

- o Horizontal format emphasizes the "right and left" in a picture, the horizon and horizontal lines within the scene.
- o Vertical format strengthens the impression of height and emphasizes the "up and down" and vertical lines in the scene (see Figure 1-4).

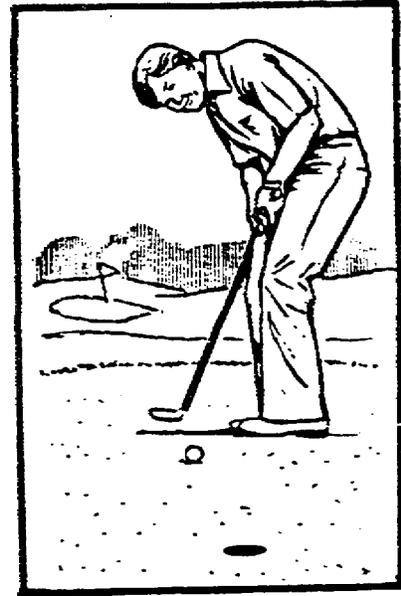
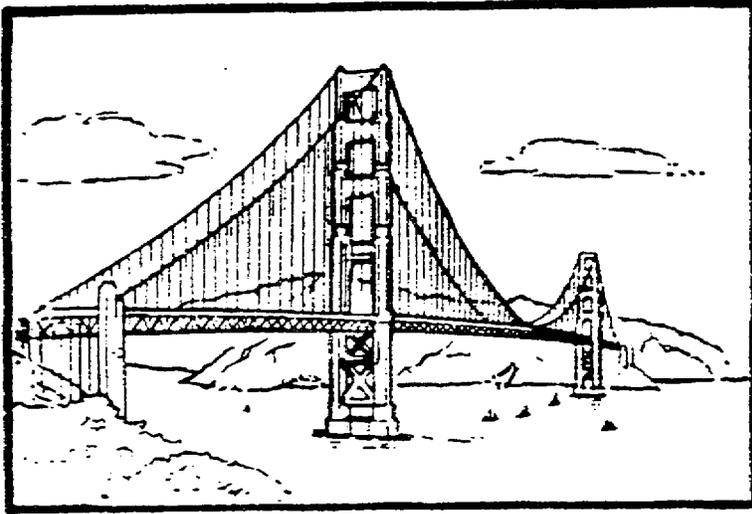


Figure 1-4. Horizontal and Vertical Formats

This is very basic, of course, but the point is you must decide the proportions of the final product at the time you take the photograph. You cannot wait till you reach the darkroom only to discover that you have to create a vertical print from a horizontal negative.

Angle of View

The angle of view from which you choose to take your photograph can make or break your photograph. It can add impact or destroy the message you want to communicate. One of the military's top photojournalists once declared part of his success was due to the fact that "I know my knees bend." He was referring to his willingness to get into just about any position to obtain the best angle of view. This sort of person does not hesitate to climb up on a desk (with permission, of course), stretch out on the floor, or even hang by his toes to compose his picture from the best angle.

You too, must remember that your knees bend. Do not settle for the flat-footed, camera-at-eye-level position that is the hallmark of the snapshot shooter. Search for and get into the position that provides the angle of view you need to communicate your message.

A word of warning: don't fall into the trap of believing that an unusual angle of view will automatically assure you of an award-winning photo. Remember, this is just one of many elements of composition that you must use to your best advantage.

Lines

Regardless of the content, most photographs consist of only two elements: shade and lines. In black and white photography, the shades are tones of gray including black and white, and the lines give form to these tones.

The strength, position and direction of lines in a photograph cause certain feelings in the viewer. Here are five types which you should be familiar with:

- o Horizontal Lines. These suggest stability and tranquility. These lines are static, motionless and can become boring if used excessively.
- o Vertical Lines. These lines evoke feelings of height, power, strength, and extend in a vertical direction. There is a certain amount of stability in a vertical line, but it is not usually considered an "active" line suggesting motion or action. However, it is not as static as the horizontal line.
- o Diagonal Lines. These run more or less from one corner to the opposite one and are considered the most dynamic of all lines. They serve as the most graphic symbol of movement and action.
- o Curving Lines. These lines suggest grace and motion, though it is a quiet, frequently rhythmic motion, Lacking the forcefulness of the diagonal line.
- o Motion and Force Lines. Lines of motion and force are actually lines placed in a photograph by the viewer. They occur, for instance, in a picture of a speeding car when the viewer's eyes travel ahead to determine the car's direction. They also occur in photographs when two people are looking at each other. The line of motion is created by the viewer following the "line of sight" from one person to the other. Although technically lines of motion and force are not graphic lines and are actually created by the viewer, they must be considered by the photographer as an integral part of the composition of the photograph (see Figure 1-5).

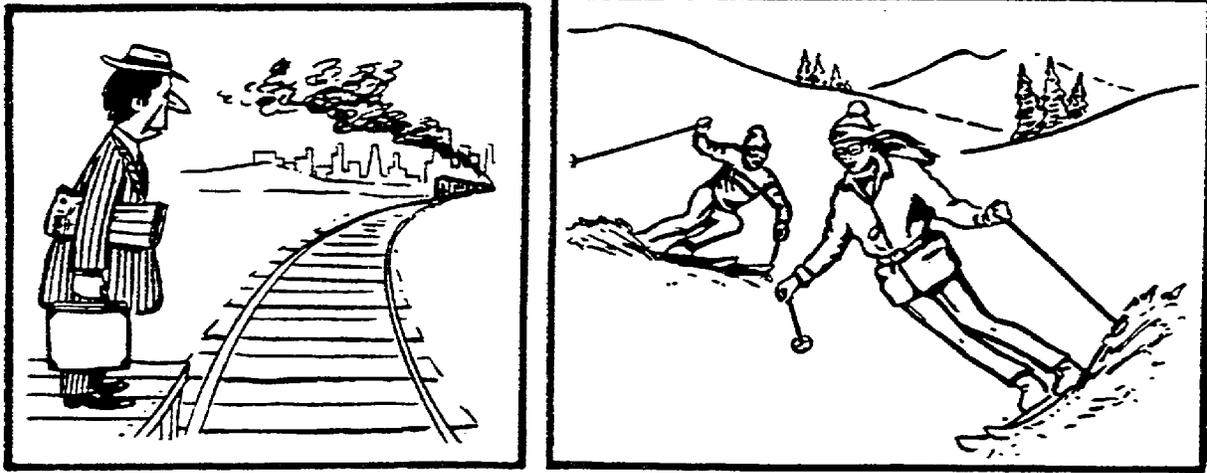


Figure 1-5. Lines of Force

Forms

There are four basic forms the composition of photography may take-If you are aware of these forms, then you will have more control over the message your photograph gives the viewer. These are:

- o Static. In this form, the graphic elements seem to be at rest. Through this form, the photojournalist can convey tranquil feelings such as restfulness, peace and dignity (see Figure 1-6).
- o Symmetry. You probably know that symmetry is a similarity of form or arrangement on either side of a dividing line or plane. The human body, a butterfly and a leaf are only a few of the many examples of symmetry. In photographic composition, symmetry can suggest perfection or harmony, or even boredom (see Figure 1-6).
- o Central. This form of composition gives a bull's eye impact since it draws the eye of the viewer to the center of the photograph. It is most effective when the major lines in the picture converge at or near the center.
- o Dynamic. This is the most active of the forms. It gives the impression of motion. Photojournalists use it to convey a feeling of action, speed, excitement, drama, violence, strong emotions or struggle. A photograph which is dynamically composed usually has few or no vertical or horizontal lines, and the subject will be made of primarily diagonal or tilting lines in an asymmetrical arrangement.

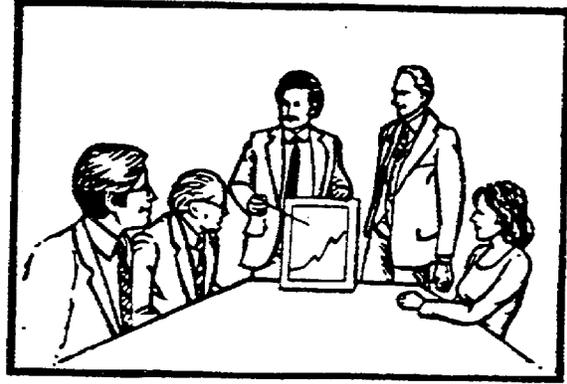
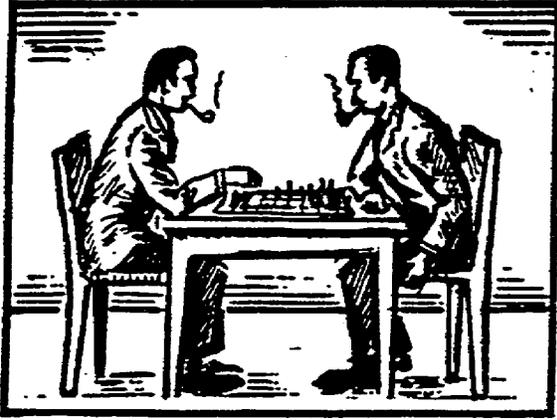


Figure 1-6. Forms

ACTION IN STILL PHOTOGRAPHY

Composition for Action

You can show motion in still photographs, motion that is real or posed. To get the feeling of motion in a still picture, the viewer must know what occurred the second before the exposure or what will occur in the next second. Place your subjects in positions that suggest motion is about to happen, is happening, or has just finished. A complete action can be divided into three parts --preaction, when the subject is getting ready; midaction, when the subject is in motion and cannot turn back; and postaction, when the subject has completed the motion and is regaining equilibrium.

Time of Change

The best action photographs are taken at the time of change from preaction to midaction to postaction. The first change, the point of tension, is the beginning of the motion. It is the time when the greatest stress and strain is applied. The effort of putting things in motion is evident in the tension of the subject's muscles and his facial expressions.

The time of the change from midaction to postaction is the point of release. At the point of release the effort is reversed. While momentum is carrying the motion forward, the stress and strain is being applied as a break. The effort by the subject at the point of tension or release provides the greatest expression of motion for a still photograph.

Midaction

Midaction is also a good time for photographing if the motion is obvious. Catch the subject in a position that would be impossible without motion. Example: When the subject is in midair or is leaning over so far he would surely fall down if it were not for his motion, or even when he is falling down.

Posed action

The subject need not stand still for posed action pictures. Re can rehearse and then move through the actions as you photograph.

Although posed action provides time for planning and composition, you record the truest expression by photographing the real thing at the scene while it's happening.

Adding Action

You can also add action to your photocomposition by using diagonal lines (leaning bodies), blurring part of the subject (hands or feet) as though they were moving too fast for the camera and blurring or placing the background out of focus as though you're moving with the subject.

Panning for Action

The technique used to blur the background while getting a sharp image of a moving object is called panning. To pan, you move the camera in step with the moving object so that the object is standing still with respect to the camera and the background or other stationary objects are in apparent motion.

Use the following procedure when panning:

- o Get a firm grip on the camera.
- o Plant your feet about 18 inches apart for a firm foundation.
- o Begin your motion before the exposure.
- o Swing the camera with the object so that the object remains centered in your viewfinder.

- o Move the entire top of your body in swinging the camera.
- o Use a smooth, steady motion.
- o Make the exposure during your motion.
- o Keep moving for a short time after the exposure.

The reason you start moving the camera before the exposure, and keep it moving until after the exposure, is to assure a smooth steady motion during the exposure.

STOPPING ACTION

Stop Action Photographs

Panning allows you to get a clear, sharp picture of a moving object; however, the background is blurred. To get both the moving and stationary objects in sharp detail on the same still picture you have to stop the action.

Photographically, you stop the action by using an exposure time so short that the moving object hardly moves at all during the exposure. Usually 1/125 is the slowest speed needed to stop normal human movements.

To take a good stop action photograph, you must have knowledge of the subject and the action so that you can visualize what will happen and plan ahead. You must be alert to follow the action and make the exposure at exactly the right moment, and you must quickly and automatically adjust and operate your camera.

Bright Light for Stop Action

You take stop action photographs with very fast shutter speeds so there is almost no time for motion during the exposure. Usually you increase the lens opening to compensate for an increase in shutter speed, but with stop action you often need the depth of field of small apertures. So opening up the lens is not always the best way to get the proper stop action exposure. When you operate with fast shutter speeds and large f-numbers, you must use fast film and bright lights to get sufficient exposure. For stop action, you need artificial lights, flood or flash, except in brilliant sunlight.

You can use electronic flash to stop action for a scene too dark to record on film without additional illumination. Use the proper speed to synch with the flash, and the exposure time will be the duration of the flash. Speed lamps or

electronic flash units have very high intensity illumination and the flash may be as short as 1/10,000 of a second or faster. You can also use flash units to get the effect of high shutter speeds when the scene is moderately illuminated.

PRACTICE EXERCISE

LESSON 1

SUBCOURSE NO. DI0251

PHOTOJOURNALISM I

INSTRUCTIONS:

Review the material in this lesson. Answer the questions below by circling the "T" or "F" next to each question. Compare your answers with the answer key on the next page.

- T F 1. Effective storytelling photographs will almost always share one quality -- simplicity.
- T F 2. Stopping power is the quality in a photograph that forces the observer leafing through a magazine to consciously notice a picture.
- T F 3. Telephoto lenses are not very effective in "selective focus" situations.
- T F 4. The two types of incident light are direct light and diffused light.
- T F 5. The best action photographs are taken at the time of change from preaction to midaction to postaction.
- T F 6. In photography, the cardinal sin is the meaningless photograph.
- T F 7. Depth of field is the distance from the lens to the point of nearest focus.
- T F 8. The depth-of-field scale is useful in presetting your camera for anticipated shots.

ANSWER KEY

LESSON 1

SUBCOURSE NO- DI0251

PHOTOJOURNALISM I

1. True (Page 4)
2. True (Page 4)
3. False (Page 10)
4. True (Page 12)
5. True (Page 20)
6. True (Page 6)
7. False (Page 6)
8. True (Page 7)

LESSON TWO
OBTAIN AND RECORD OUTLINE INFORMATION

46Q Soldiers' Manual Task: 214-176-1308

OVERVIEW

TASK DESCRIPTION:

In this lesson you will learn to use a photo caption log while shooting a photo assignment.

LEARNING OBJECTIVE:

ACTIONS: Record the Who, What, Where, When and Why to explain the action in a photograph, at the same time the photo is taken.

CONDITIONS: You are given the material presented in this lesson.

STANDARDS: You will know the duties of a photojournalist when obtaining and recording information while shooting photos. You will be able to perform all the duties described in this lesson.

REFERENCES: The material contained in this lesson was derived from the following publications:

STP 46-46Q14-SM-TG
DINFOS Journalism Handbook
AR 360-81

OBTAIN AND RECORD CUTLINE INFORMATION

INTRODUCTION

Every photograph intended for publication needs a cutline to explain the action, and to identify the people, places or equipment shown. The cutline is written to help everyone see the same thing --the action, words and meaning presented in a picture. Otherwise, a photograph will fall short of explaining itself; each person viewing it will develop a different interpretation of it. Cutline writing is a specialized form of news, feature and sports writing. In most cases, you must tell the Who, What, When, Where and Why in a single paragraph.

WHO GATHERS CUTLINE INFORMATION

Because this information is sometimes impossible to gather later, it should be recorded at the same time the photo is taken. Recording this information is the photographer's responsibility. Even when a reporter is doing the story that will accompany the photos, the photographer is the one who should record the cutline information.

HOW TO RECORD THE INFORMATION

The information may be recorded in a notebook, on a locally designed "caption log" or on DA Form 3315 (Photographer's Caption) . The method is not important, but a log may serve as a handy reminder of what information should be recorded, especially for inexperienced photographers. The log's columns for frame numbers, dates and times, names, equipment nomenclature, action, and type of event would help inexperienced photographers remember to gather more than just names and ranks. An example of a locally designed log is at Fig. 2-1, with an example of a filled out log at Fig. 2-2.

PHOTOGRAPHER'S NAME DAVIS		DATE AND TIME 18 SEPT 89 1330
SUBJECT/SLUG FTX		LOCATION MARSHALL RANGE
POC NAME AND PHONE SFC GRASSO (GS)		ROLL # 1
FRAME #	ACTION	LD. (NAMES, EQUIP. LANDMARKS)
1-6	DRIVING 61-MED. STAKES	PFC STEVE CARROLL, HHC Co., 757 FA. SWINGING HAMMER.
7-9	POTTING CAMO NETS UP (M109A SP)	PFC KEVIN LANE, A 6TY., AND SGT ERNIE STONE (GLASSES), A 6TY.
10-14	HEATING MRE WGR STONE	SSG KELLY KIRSCH (LEFT) + SGT DAWN TAYLOR BOTH PRACT. NURSES WITH 117TH FIELD HOSP.
15-A	N/A	AERIAL VIEW OF TENT CITY

Figure 2-2. Example of a filled out caption log.

WHAT TO RECORD

Keep in mind when recording cutline data that someone else besides yourself may actually write the cutline. Your notes should allow anyone to match up the photos to the notes and write a good cutline. At a minimum, the information recorded during the photo assignment should answer the following:

Who

Identify people in the photo by rank, full name, title, hometown, etc. Also note relative positions of people in the photo when there are more than one and if it's not obvious who's who by action, age, gender or rank. Sometimes it's helpful to note the clothing or physical characteristics of the people being photographed. Keep in mind that when you are shooting black and white film it will do little good to note "yellow T-shirt" or "red dress." But notes such as "Yankees T-shirt," "sunglasses," or "curly blond hair" would help identify the subjects. If the photo is of a crowd or large group --the start of a Fun Run or a crowd scene at the community fair, for example -- individual ID isn't necessary.

What

The "What" can apply to two things:

- o What's happening in the photo. The "what's happening" refers to the action of the photo. In the log or notebook, it may be necessary to only jot down a word or two to describe the action --"slicing cake," "mixing concrete" or "removing oil filter," for example.
- o What equipment is in the photo. Often unusual equipment will be included in a photo. The equipment should be identified. An M-16 rifle might not require identification, but an M-16 with an M-203 grenade launcher might. Radios, tracked vehicles, aircraft and watercraft should always be identified. Never guess or suppose you know the proper nomenclature; ask an expert on the scene. Sometimes minor differences in equipment models result in different nomenclatures, and readers love to point out such things to editors.

Where

Be sure to record the location of the action. Write down the name or number of ranges, street names, building names or numbers, etc. If there are landmarks, either natural or man-made, identify them as well. These might include rivers, lakes, statues, bridges, mountains, etc.

When

Record the time and date the photo was taken. This is especially important for "wild" or "stand-alone" art that will not be accompanied by a story.

Why

Unless it's obvious, record why an action is taking place. Is it part of an annual FTX, a post basketball championship, or monthly awards ceremony? This is especially important for "wild" or "stand-alone" art that will not be accompanied by a story.

MATCH UP THE INFORMATION WITH THE PHOTO

The photographer should record the outline information for each frame he shoots by noting the number in the frame counter on the camera or by simply writing in his log or notebook "Frame 1, 2, 3," etc. Obviously, if several frames are shot of the same subjects and action, it is not necessary to record the information each time. For example, several shots of the same person taking a PT test would not require you to record "running," "doing push-ups," and "doing sit-ups."

WHEN TO RECORD THE INFORMATION

You should record the needed information immediately after each shot or series of shots. Don't let subjects get away without getting the information. They will be hard or impossible to track down later, and you may forget who you shot or who was doing what in the photo if you wait until later. The exception would be sports or other activities where it is impossible to interrupt the action. In such cases, you should let the subjects know in advance that you will be taking pictures and will need to get identification as soon as possible after the event. Note uniform numbers, clothing or physical characteristics when the photos are taken, then get names afterward. Or, record information during breaks in the action.

WHEN SHOOTING MORE THAN ONE ROLL OF FILM

When more than one roll of film is shot on the same assignment, the photographer should number the rolls and correspond his log or notebook to each roll. The rolls can be marked with a permanent felt-tip pen on masking tape attached to the film canister. You can also write "Roll 1," "Roll 2," etc. on a page in your notebook, then take a picture of the page after you load a new roll of film. When you develop the film, your first frame should be of the notebook page with the roll number written on it.

SPORTS PHOTOGRAPHY HINTS

Sometimes film can be identified as Roll 1 or Roll 2 by taking pictures of clocks or scoreboards during the shooting assignment. This technique is especially handy when shooting sports. After photographing a key play, the photographer can quickly-shoot a picture of the scoreboard to record the score and at what point in the game the play occurred. When shooting team sports, it is also a good idea to get a copy of rosters or lineups that match names with uniform numbers to submit with the photos to the editor or supervisor. Be sure to have a coach verify the numbers and names are correct, though. Often programs have misspelled names or incorrect uniform numbers.

FILING OUTLINE INFORMATION

After the photos are printed, the outline information should be filed permanently with the negatives or contact sheets.

PRACTICE EXERCISE

LESSON 2

SUBCOURSE NO. DI0251

OBTAIN AND RECORD OUTLINE INFORMATION

INSTRUCTIONS:

Review the material in this lesson. Answer the questions below by circling the "T" or "F" next to each question. Compare your answers with the answer key on the next page.

- T F 1. Outline information should be recorded on a caption log, notebook or DA Form 3315.
- T F 2. The photographer should record the outline information because he will always be the one to write the outline.
- T F 3. The "what" can apply to more than just what's happening in the photo.
- T F 4. The best source for verifying names and uniform numbers is the program guide.
- T F 5. When shooting more than one roll of film you should keep track of them by folding your notes and putting them in the film canister.

ANSWER KEY

LESSON 2

SUBCOURSE NO. DI0251

PHOTOJOURNALISM II

1. True (Page 28)
2. False (Page 30)
3. True (Page 31)
4. False (Page 33)
5. False (Page 32)

LESSON THREE

WRITE A PHOTO OUTLINE

46Q Soldiers' Manual Task: 214-176-1309

OVERVIEW

TASK DESCRIPTION:

In this lesson you will learn to write a cutline for a photograph.

LEARNING OBJECTIVE:

ACTIONS: Write a four-part formal or normal cutline that identifies the people, equipment and landmarks in the photograph.

CONDITIONS: You are given the material presented in this lesson.

STANDARDS: You will know the duties of a photojournalist when writing a cutline. You will be able to perform all the duties described in this lesson.

REFERENCES: The material contained in this lesson was derived from the following publications:

STP 46-46Q14-SM-TG
DINFOS Journalism Handbook
DINFOS Public Affairs Handbook
AR 360-5
AR 360-81
AP Stylebook and Libel Manual

WRITE A PHOTO OUTLINE

INTRODUCTION

In the previous lesson, you learned how to gather and record outline information as you took your photographs. In this lesson, you will learn how to use that information to write outlines.

Cutlines are the reader's anchors, the only sources of common information to tell all your readers what's happening in a photograph.

THE FOUR-PART OUTLINE

At times, the words "outline" and "caption" have been used interchangeably, but it's important to draw a distinction between them.

A outline has four distinct elements, all of which must be addressed: identification, action, background and credit. The caption usually deals only with the action taking place.

At times, the caption may be just a "mini" or "skeleton" headline, or short line of type beneath or near a picture, giving just enough information to describe what's going on in the shot. At other times the caption goes between the photo and the larger outline.

Here, we will dwell on the formal, four-part outline, its content, its placement and a bit of typography.

Identification

The first sentence in the outline, called the action sentence, should identify people, equipment, landmarks and location in a photograph.

- o Equipment. Identify equipment that is not familiar to most of your readers. Most readers know what an M-16 looks like, so you don't need to identify it. However, if the M-16 has a grenade launcher attached, you may need to identify it as an M-203 Grenade Launcher in the action sentence.
- o Landmarks. The identification of significant inanimate objects such as buildings, mountains or lakes in a photograph should be included in the action sentence. This is especially necessary if the landmark cannot be readily identified from the photograph. For instance,

most people know what the Statue of Liberty looks like if they see it from top to toe. However, a photograph of a soldier looking out of the observation deck in the statue's crown will require identification of the statue.

- o Location. If your cutline is not destined for an external publication (and therefore will not begin with the dateline), you should include the location of where the photograph is taking place in the action sentence. We will talk more of datelines later.
- o People. Identify people by rank or title and first and last name (the middle initial is usually not needed). Give enough identification to identify who's who in the sentence, describing those directly involved. Save long, detailed titles and descriptions for later sentences to avoid a cumbersome action sentence.

There are several ways of identifying more than one person in a photograph. They are as follows:

- o Position identification. Whenever a specific position identification is necessary, simple methods prove the most effective. Identify people with (left) or (right) or (center), or (from left). Give position identification when a person is first mentioned. Some publications will use (l.) or (r.) rather than spelling out the words left and right. Be consistent with your style throughout your publication.

EXAMPLE: Spec. David Smith (left) and Spec. Ralph Jones march across the finish line at the end of this year's annual Fort Jackson 25-Mile Road March.

- o Contrast. Common sense tells you that in a picture showing an Army male and Miss America, you don't need to say who is who. Similarly, in a picture showing a general pinning an award on a sergeant's uniform, when both ranks are clearly prominent, you don't have to say, "Gen. Myers (left) pins..." Clearly visible rank insignia, gender or age differences usually won't need a list of the positions of the people involved.

EXAMPLE: Julia Henderson, 3, daughter of Sgt. Henrietta Henderson, shakes the hand of post commander Maj. Gen. Sam Donaldson at the opening of the new Davis Child Development Center.

- o Obviousness. Obviousness takes contrast a step further. Portions of the photograph will make it unmistakably clear who is doing what.

EXAMPLE: Choo-Choo the Clown hands a balloon to disabled veteran Cliff Debuke during a recent visit to the VA hospital.

- o Action. This form of identification goes by the action being performed. A picture with one person throwing a football and another getting ready to catch it needs no position identification to tell who is doing what.

EXAMPLE: "Jumpin'" Joe Harris throws a 30-yard pass to Hogs teammate Willie "Hands" Wilkerson to win 17-14 and qualify for the playoffs in this season's Orange Bowl.

- o Elimination. Position identification will reach a point that allows identification by elimination. When three people are featured in a picture, and two have already been identified, the third's name can appear with no designation as to position. His identification will be obvious by elimination.

EXAMPLE: Sgt. Jim Carver (kneeling), Sgt. Andrew Anderson (sitting) and Sgt. Tony Guccione read a map in preparation for the upcoming Common Task Testing.

Pictures showing large groups must be handled on an individual basis. Impersonal identification may be necessary when discussing a "team" or "crew." Standard identification methods may prove adequate when writing a cutline for a picture in which only two or three people in the group are involved in the action. However, when the time comes to identify several people, the best method might be a simple (left to right) or (left to right, front row). Never cram a group listing of names into the action sentence.

There may also be situations when everyone in a picture need not be identified. They -may be far in the background, part of an audience, etc. The decision to identify someone will depend on involvement in the action, prominence in the photo, or a question you feel may arise in your reader's mind. In these cases, there is no all-inclusive rule. Just use your judgment, or ask your editor.

Action

Use the historical present tense to write the first sentence in a cutline, just as they are used in new headlines. Use verbs such as "runs," "walks," "plays," "presents," "shoots," etc. Do this because pictures, like paintings or sculptures, freeze a moment in time. Of course, the picture is now past tense, but the reader is viewing it for the

first time and the verb describes the action as if it's taking place now. The present tense adds immediacy. Compare the two following action sentences:

- o Army Pvt. 2 Alvin C. Klink swims through swirling flood waters to rescue six-year-old Wendy B. Flora.

- o Army Pvt. 2 Alvin C. Klink swam through swirling flood waters and rescued six-year-old Wendy B. Flora.

Which has the more drastic impact?

One problem that arises in using this verb tense is dealing with the "when" element. Notice the contradiction in: "John Terry slams a home run over the center field fence in league action Friday." Mixing tenses is not only a grammatical error, it's jarring to the reader. So don't use the "when" of a picture in the first sentence. Shift to the past tense immediately after the action sentence (Example: "The game was held at the post baseball field Friday.") The rest of the cutline should be entirely in the past tense.

Background

The third element of cutline writing is background information. This is the additional data necessary for complete understanding or perspective of the photograph. This information could take up one or more additional sentences. The amount of information necessary will depend on the picture's use, subjects involved, whether it will appear with a related story or stand alone, and how and where the picture will appear.

This part of the cutline should explain any of the W's or H that was not explained in the action sentence. This is a good place to put the "when" element to avoid mixing tenses in the action sentence.

If a picture appears in a military publication keep short your explanation of common military terms and equipment. If the same picture is to appear as a public news release in a civilian publication, a more detailed explanation may be necessary. Background information may be omitted if the photo accompanies a story that explains the photo. In this case, the cutline will consist only of the first sentence, a "skeleton" cutline.

Credit

Photo credit is the fourth element of a cutline. You should give credit to the photographer or releasing agency in the

final sentence of a cutline. The sentence should be separated by parentheses from the rest of the cutline, like this: (U.S. Army Photo by Staff Sgt. Henry J. Moran). In some publications, the photographer gets credit only in the masthead, and photo credit only appears with a picture when taken by a photographer not working for the publication. For releasing agency credit without the photographer's name the credit would look like this: (U.S. Army Photo).

Most publications use a blanket statement for consistency. Credit for a picture story may appear as a tagline on the main cutline (Photos by...) or as a small headline in the layout. Whatever method is used, photo credit should be addressed, and the style used should be consistent. Proper credit for pictures can also go a long way in fostering good relations with photographers and local photo labs.

Datelines

Datelines are used on external releases, and precede the action sentence in the cutline. Datelines contain the city, town or installation name (in all capital letters) and the state, country or territory where it is located.

EXAMPLE: FORT WAINWRIGHT, Alaska -- Soldiers from the 6th Infantry Division dig into a snowbank during Brim Frost 89 (U.S. Army Photo by Pfc. John Everest).

Be sure that "Fort" is never abbreviated in the dateline, and that the state is abbreviated (or not) according to the AP Stylebook.

Datelines may also contain the source of the story. The source would follow the city name, in parentheses.

EXAMPLE: NEW YORK (AP) -- Snow falls on the Varrazano-Narrows Bridge entrance near Fort Hamilton, N.Y.

Typography

When writing cutlines for use in your publication, pay attention to typography. When cutlines are set in a larger or different type face than body copy, pictures will show up better. Boldface 10-or 12-point type would offer a decent contrast in a publication using standard 10-point body type. Or, consider setting the cutline in Italic type. Something should be done, in any case, to set off the cutline, so the reader cannot confuse it with standard body type.

Cutlines may also have a boldface or all-cap "lead-in" to draw a readers attention.

EXAMPLE: THREE TIME WINNER -- Capt. Elwood Houndsberger captures the Columbus Marathon for the third consecutive year with a time of 2:49.

Position

Cutlines may be moved around the picture for various effects or design requirements. They most commonly appear directly beneath the picture, set in the same column width as the photo. They may, however, appear alongside a picture, as a side cutline, for various design reasons.

The cutline should be set in block style, with left and right margins even with the sides of the picture.

PRACTICE EXERCISE

LESSON 3

SUBCOURSE NO. DI0251

WRITE A PHOTO OUTLINE

INSTRUCTIONS:

Review the material in this lesson. Answer the questions below by circling the "T" or "F" next to each question. Compare your answers with the answer key on the next page.

- T F 1. A cutline's four elements are identification, action, background and credit.
- T F 2. The first sentence in the cutline is called the "credit sentence."
- T F 3. You should use historical past tense when writing the first sentence of a cutline.
- T F 4. Datelines are used on external releases.
- T F 5. If a picture is to appear as a public news release in a civilian publication then you should keep short your explanation of common military terms and equipment.

ANSWER KEY

LESSON 3

SUBCOURSE NO. DI0251

WRITE A PHOTO OUTLINE

1. True (Page 38)
2. False (Page 38)
3. False (Page 40)
4. True (Page 42)
5. False (Page 41)

LESSON FOUR
CROP AND SCALE A PHOTOGRAPH

46Q Soldiers' Manual Task: 214-176-1'326

OVERVIEW

TASK DESCRIPTION:

In this lesson you will learn to crop and scale photographs to be printed in newspapers.

LEARNING OBJECTIVE:

ACTIONS: Crop a photograph to safeguard information or to eliminate unnecessary or distracting elements in the photograph using the Rule of Thirds and Cropping L's.

CONDITIONS: You are given the material presented in this lesson.

STANDARDS: Determine the cropped and reproduction dimensions of a photograph to within plus or minus .125. Scale a photograph using the diagonal method to within plus or minus .125. Scale a photograph using the proportional wheel method without error. Write a guideline for a scaled photograph to include, in order, the elements of column width, reproduction depth and percentage of enlargement or reproduction. You will be able to perform all the duties described in this lesson.

REFERENCES: The material contained in this lesson was derived from the following publications:

STP 46-46Q14-SM-TG
DINFOS Journalism Handbook
DINFOS Newspaper Production Techniques
AR 360-5
AR 360-81

CROP AND SCALE A PHOTOGRAPH

INTRODUCTION

Poorly cropped and improperly scaled photographs clearly point out a training weakness within a newspaper staff.

Cropping a photograph requires that you eliminate distractions, ensure the quality of composition within the photograph and that you properly frame the subject. When finished cropping, the center of interest should be clearly defined.

The cropped photograph then must be scaled to fit a hole in your newspaper design. Scaling a photograph is the act of enlarging or reducing a cropped photograph to fit a hole on a newspaper page. Scaling starts with at least three known dimensions: the cropped width and depth and either the reproduction width or depth. When a photograph is scaled, the depth is enlarged or reduced proportionately with the width, or vice versa. Scaling the photograph identifies an unknown dimension for the soldier, either the reproduction depth or width. A photograph is scaled before it is screened (the halftone dot pattern used for newspaper reproduction of artwork). Scaling is accomplished using either the diagonal method or the proportional wheel, or possibly an alternate method, the mathematical formula.

In this lesson, you'll learn to crop a photograph. You'll also learn to scale that photograph to fit a given space within a newspaper design.

CROPPING

Cropping a photograph is the act of eliminating unnecessary or distracting elements in the photograph, ensuring pleasing composition and the smart framing of the center of interest. This is done by trimming away parts of the photo from the right, left, top, bottom or all four sides. Photos are seldom used in publications just as they come out of the darkroom. There are many considerations involved in cropping a photograph.

SAFEGUARD INFORMATION

As a public affairs practitioner, your first responsibility is to ensure security, accuracy, propriety and policy are not violated. Army Regulation 360-5, Public Information, spells out the public affairs audiovisual policy.

The public information regulation reinforces the guidance that we must not compromise safeguarded information. Intelligence and counter-intelligence matters are a function of the G-2. Security matters are a function of the G-3. Seek guidance from the experts on questionable matters. If still in doubt about a subject matter, don't use the photograph. Ideally, journalists will have been trained to avoid secure or sensitive areas. If, however, there is a lapse of security and photos are taken in a secure area, that film should be turned in to G-2 for disposal.

Security

Some areas of concern in security include command post and field training exercises. During exercises, operations plans, maps and equipment can be easily compromised by a photographer. Access is usually limited and photographers are kept away from secure areas, but breaches of security may occur in the heat of battle. As the saying goes, operational security is everyone's business. When cropping a photograph for reproduction in the newspaper, be especially aware of the background areas that might reveal classified information. Remember, exercises test war plans, and those plans cannot be compromised.

Policy

Policy considerations are spelled out but are not limited to the provisions of AR 360-5. The Department of Defense and Department of the Army have release authority over certain types of information. Information on weapons systems, nuclear, biological and chemical warfare, controversial national and international subjects, and certain Army contracts will have to be approved for release. In overseas locations, local policies come into play. Photographs of antigovernment protests in your host country, for example, normally should not have been taken in the first place. If you allow the photograph to be published in your newspaper, no matter how good your cropping job, you may enrage the host country and your superiors. Policy considerations also include uniform violations, unsafe acts (e.g.--the soldier sleeping on a tracked-vehicle), and promotional activities favoring one organization over another (e.g. --Association of the United States Army publicity about the Non-Commissioned Officers Association).

The Privacy Act

Guidance regarding The Privacy Act is included in AR 360-5. The Act is designed to safeguard individual privacy. AR 340-41 implements The Privacy Act of 1974.

Propriety

Beauty pageant swimsuit competitions, a soldier in an embarrassing pose, and ethnic misrepresentations are but a few of the many propriety violations you might face. Although a photo editor should catch such violations during the process of photo selection, you also must check for violations in the cropping phase.

Accuracy

Make sure the photograph reflects reality. A photograph taken from the wrong angle or at the wrong time can, in fact, misrepresent the facts of the story. A road race taken at the finish line can show the second place finisher ahead of the winner, if taken from the wrong angle. A sneeze or facial twitch during a somber ceremony can make the subject look like a fool in addition to misrepresenting the story.

DISTRACTIONS

When cropping, narrow the cropped area to the center of interest as much as possible. Crop ruthlessly; enlarge generously.

Distractions come in the form of anything that takes the eye away from the center of interest and action taking place. It could be a spectator in the stands at a baseball game. It could be a student looking away from the teacher in a class. It could be anything that takes away from the purpose of the photograph. Eliminate everything that does not contribute to the photograph.

Try to limit the number of people in the photograph to three, or only those necessary to tell the story. When cropping people, do not crop them at the neck, waist, knees or other joints.

DEAD SPACE

The center of interest should be contained to avoid unnecessary dead space in the photograph. But in cropping out dead space, leave enough space to accommodate the action of the center of interest. If, for example, a car is traveling to the left in the photograph, leave room on the left for the vehicle to travel. Do not cut it off at the front bumper. The car needs dead space in which to travel. If the subject or center of interest is looking to the right in a photograph, you must allow enough dead space for him to

look into. However, many times too much dead space is left in a photograph. Too much background may make the center of interest get lost or not stand out.

Do not crop a photograph into a square shape. Square photographs are uninteresting and unappealing to the eye. Photographs should always be cropped into a rectangular shape, either vertical or horizontal.

The cropping marks are made at or near the corners of the photograph. A china marker normally works best when making your cropping marks in the borders of photographs. China markers allow you to make changes without difficulty and mess (see Figure 4-1)

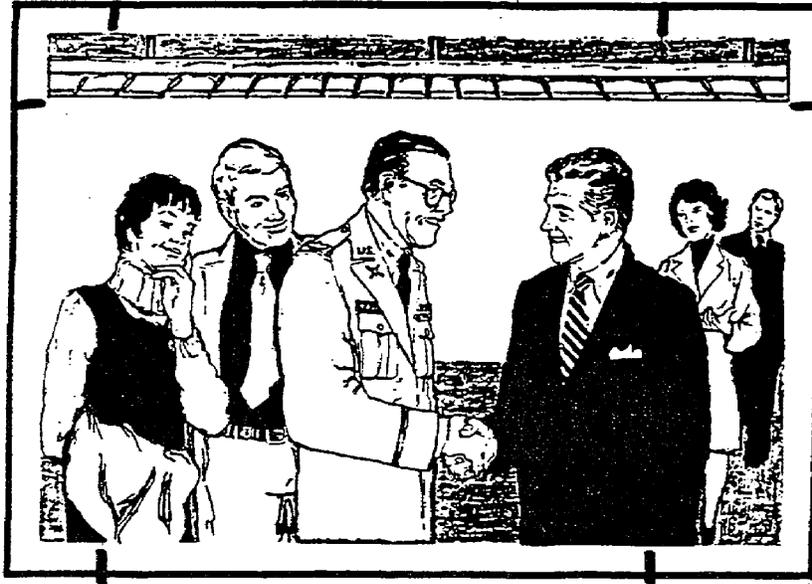


Figure 4-1. Cropping Marks on a Photograph

AESTHETICS

The aesthetics, or beauty, of the photograph should be improved by cropping. The Rule of Thirds, as shown in Fig. 4-2, suggests that the center of interest be roughly positioned at one of the four intersections created by equally spaced horizontal and vertical lines that divide the photo into horizontal and vertical thirds. If the subject is centered in the photograph, as is frequently done by amateur photographers, the photo is often static or boring.

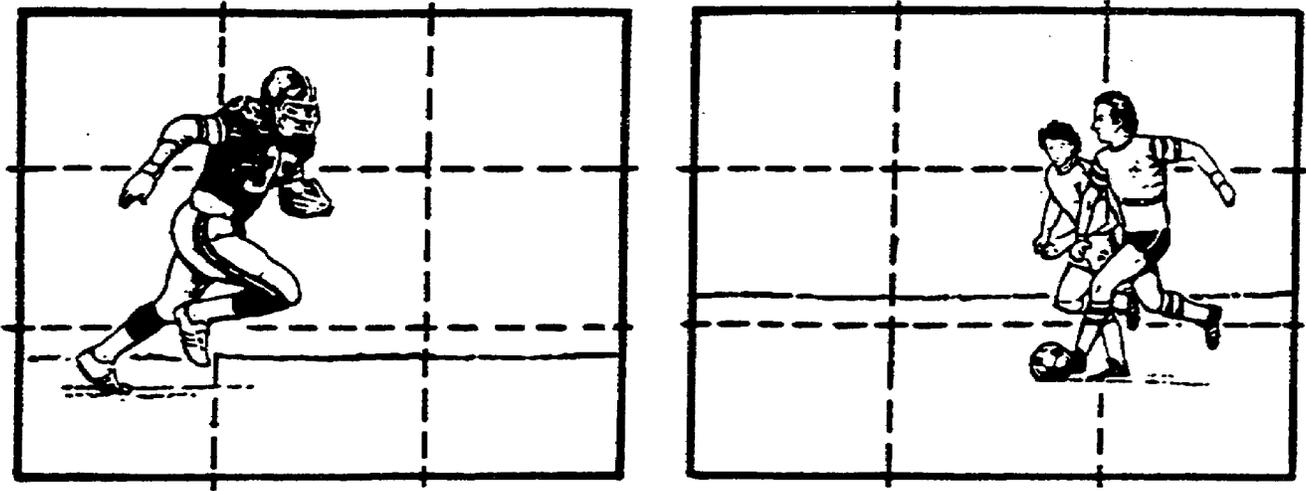


Figure 4-2. Rule of Thirds

Additionally, when considering the aesthetics, cropping should be based on movement of the subject, leading lines, lines of force, and other framing considerations. Leading lines draw the reader to the center of interest or action. Leading lines can be real, or implied or suggested. A tabletop, for instance, may lead to the center of interest.

SHAPES

The shape of the photograph also must be considered when cropping it. Normally, a 3: 5 proportion is most pleasing to the eye. Proportions of 2: 3, 3: 4, 4: 5, 4: 7 and etc. are acceptable proportions. Simply cropping a photograph square, 3: 3 in this case, ultimately leaves a newspaper page dotted with square blocks putting up little fight for attention. Square shapes are boring.

When considering the shape of the photograph, there are times when a strong vertical or horizontal will improve the look of a newspaper. Obvious examples where extreme horizontals and verticals work well include tall buildings, parades, travel photo features and many sporting events.

PHOTO WITHIN A PHOTO

Careful examination of a print may allow you to extract two or more reproduction-quality photographs from a single print. There may be two centers of interest or separate actions taking place that separately qualify as photographs. In a football game, an offensive lineman may be holding the star defensive end while a wide receiver catches a short

pass across the middle of the playing field. Both actions could be stand-alone photographs.

CROPPING L's

A useful tool when narrowing the photograph to its center of interest is the "cropping L." Cropping L's are L-shaped cardboard devices, often black in color, used to eliminate dead space. Placed over the photograph in the form of a rectangle, they can be adjusted to see the effects of cropping before a crop is actually made. An editor uses them to frame the photograph prior to cropping. (See Figure 4-3.)

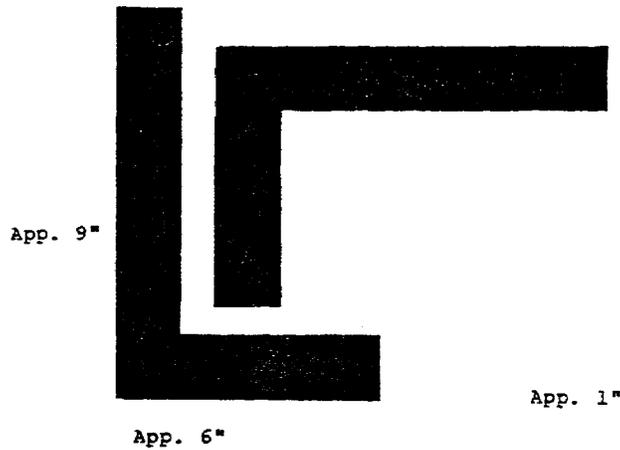


Figure 4-3. Cropping L's

PHOTO DIMENSIONS

Before you can scale a photograph, you normally will know three dimensions: cropped width, cropped depth, and reproduction width or reproduction depth.

Cropped Width (CW)

The width of the photograph in picas, columns or local unit of measurement after cropping has been completed. In scaling artwork, width is usually represented in picas, columns or the local unit of measurement. Width is not usually represented in inches. (This is because most other

horizontal measurements in newspaper design are in picas, columns or a local unit of measurement, such as cicerros.)

Cropped Depth (CD)

The depth of the photograph in inches after cropping has been completed. Depth is usually represented in inches, NOT picas or columns. (Again, this is because most other vertical measurements in newspaper design are in inches.)

Reproduction Width (RW)

The actual width of the photograph for reproduction. This is the predetermined space allotted for the photo before cropping or scaling takes place. The measurement usually is given by columns, 2 columns, 3 columns, etc. You must know the standard width of the column and alley, the space between the columns: one pica, one-eighth inch, etc. (See Figure 4-4.)

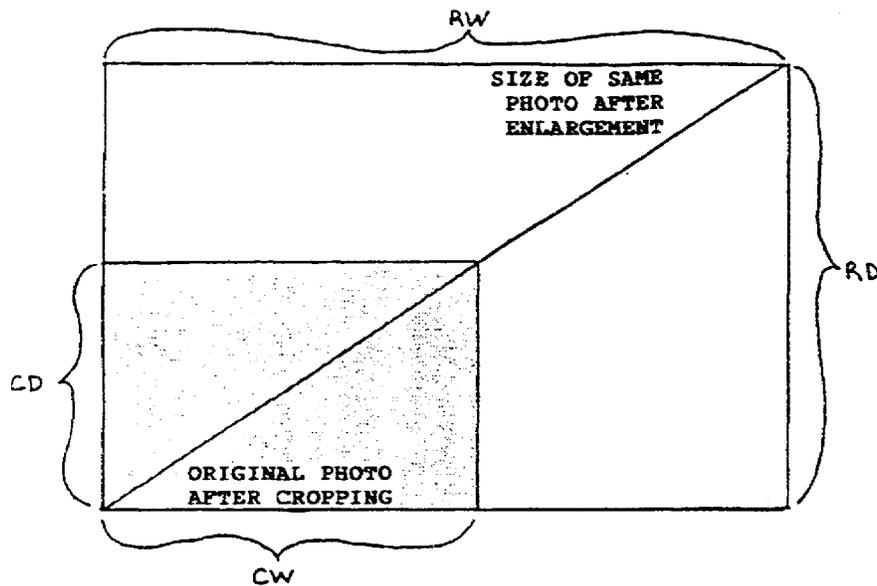


Figure 4-4. Photographic Dimensions

You will use the three known dimensions (CW, CD and RW) to determine the unknown dimension, usually the reproduction depth.

Reproduction Depth (RD)

The number of inches deep the photo will be after enlarging or reducing to fit in the space allotted for it on the newspaper page.

Many times you will have set aside a vertical space to fill on a newspaper page design. In such a case, you are using the cropped width, cropped depth and reproduction depth to establish the "unknown" reproduction width. This "backwards" procedure frequently is used in photo layouts where standard column widths may not apply.

SCALING

Scaling is the act of either enlarging or reducing cropped artwork to fit in a hole on a newspaper page. You cannot scale a photograph before you crop it, since you must first know the cropped dimensions. Once you know them, you can scale the photograph to snugly fit that hole. In scaling a photograph, you are trying to determine either the reproduction depth or the reproduction width. As you enlarge or reduce the photo to reproduction width, the reproduction depth will change proportionately. And vice versa. As you scale for reproduction depth, the reproduction width will change proportionately. There are two simple ways to scale the artwork to size:

- o The Diagonal Method
- o The Proportional Wheel

An alternate method of scaling is **The Mathematical Formula**, which will be briefly discussed later.

THE DIAGONAL METHOD

The diagonal method of scaling artwork is a mechanical procedure. This is the least accurate method of scaling. It does not require great mathematical skill or special tools. (Figure 4-5 is an example of diagonal scaling.)

To use this method, follow these steps:

1. On a separate sheet of paper, draw a rectangle which has the same dimensions as the cropped artwork.
2. Draw a diagonal line from the lower left corner through the upper right corner. Extend the line beyond the corner if you are enlarging the artwork.
3. Measure from the lower left corner, along the base line, to the width desired for the picture. Make the base line extend to that point.
4. Draw a vertical line up from the column width mark. Stop where it and the diagonal line intersect. Measure the vertical line. That measurement will be your reproduction depth.

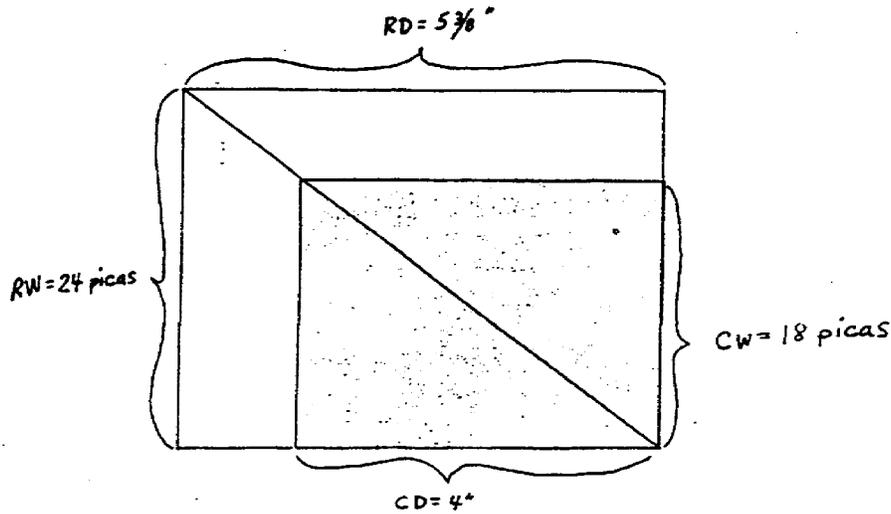


Figure 4-5. An example of diagonal scaling

THE PROPORTIONAL WHEEL

Perhaps the most common way of scaling is the proportional wheel method. The proportional wheel has a movable inner disc with a window mounted on an outer disc. Both discs have unit graduations from 1 to 100 (see Figure 4-6) Any unit of measurement can be used with the proportional wheel. To use the wheel, you will need to know three of the four measurements involved in scaling. You must know the cropped width, cropped depth and reproduction width, or the reproduction depth if establishing a reproduction width.

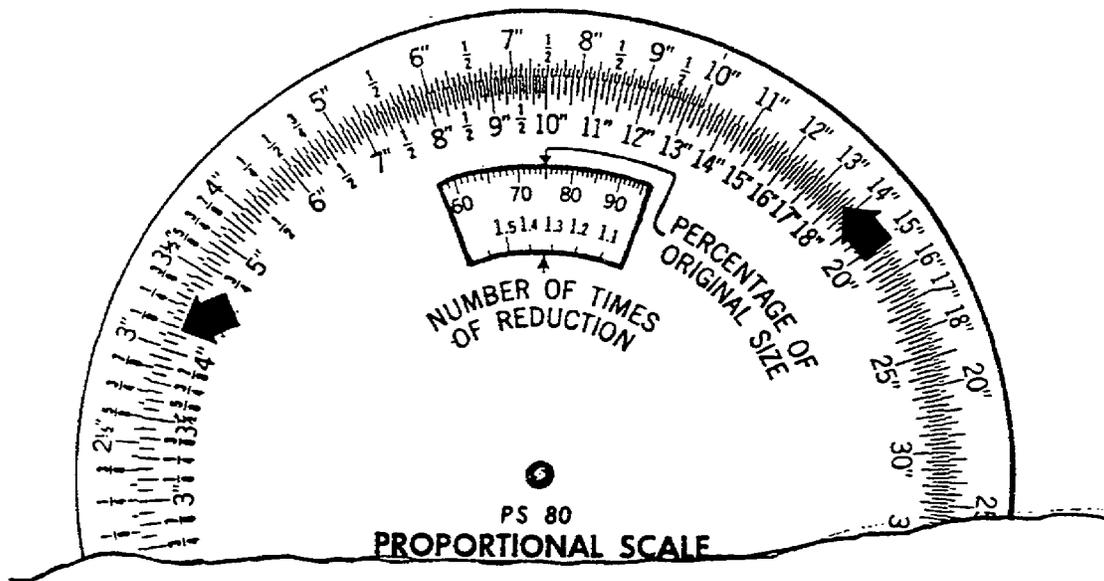


Figure 4-6. Finding inches

EXAMPLE:

The cropped width of a piece of artwork is 18 picas and the cropped depth is 4 inches. The artwork is to be used in a one-column, 13.5-pica wide space.

First, align the cropped width (18 picas) on the inner disc, with the reproduction width (13.5 picas) on the outer disc.

Next, find the cropped depth (4") on the inner disc and read the reproduction depth opposite it on the outer disc.

The reproduction depth is 3".

The window on the inner disc displays the "Percentage of Original Size." In this example, the artwork will be reduced to 75 percent of the cropped size. Figures less than 100 indicate a reduced size. Figures higher than 100 mean the artwork will be enlarged. Your printing contract may stipulate maximum reduction and enlargement percentages and sizes.

AN ALTERNATIVE: THE MATHEMATICAL FORMULA

An alternative to the previously described procedures is The Mathematical Formula. This is the simplest mathematical formula:

$$\text{Reproduction Depth} = \frac{\text{Reproduction Width} \times \text{Cropped Depth}}{\text{Cropped Width}}$$

$$RD = \frac{RW \times CD}{CW}$$

EXAMPLE: Cropped Width (CW) = 2 inches
Cropped Depth (CD) = 2 1/2 inches
Reproduction Width (RW) = 4 1/8 inches
(2 columns plus an alley)
Reproduction Depth (RD) = unknown

Fill in the known measurements:

$$RD = \frac{RW \times CD}{CW} \quad RD = \frac{4 \frac{1}{8} \times 2 \frac{1}{2}}{2} \quad RD = 5 \frac{1}{16}$$

ESTABLISHING PERCENTAGES

To establish a reduction of enlargement percentage, simply divide the reproduction width by the cropped width, or:

$$\frac{RW}{CW} = \frac{5}{3}$$

In the situation above, the reproduction width of 5" is divided by the cropped width of 3" to obtain an enlargement of 167%.

The same formula applies whether enlarging or reducing.

$$\frac{RW}{CW} = \frac{2.5}{4.5}$$

In the situation above, the reproduction width of 2 1/2" is divided by the cropped width of 4 1/2" to obtain a reduction of 56%. (Figure 4-7 shows how to determine percentages using a calculator.)

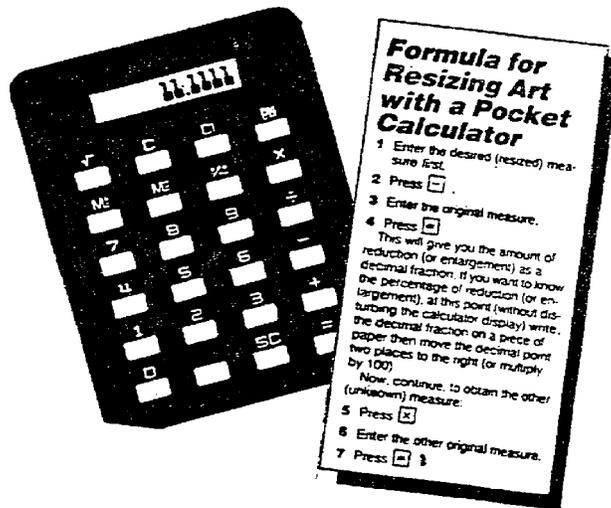


Figure 4-7. Measurements and percentages with a calculator

GUIDELINING ARTWORK

After scaling the artwork, you must guideline it to tell the printer what to do with it. The guideline is a notation that you write on the back of the artwork. It includes the photo/art slugline, the reproduction width and reproduction depth, and percentage of enlargement or reduction, in that order.

The formal method of writing artwork guidelines resembles the writing of a headline. When you write the artwork's guideline, the first number of the dimension identifies the number of columns or the reproduction width (in inches, picas, or local measurements). The second number identifies the reproduction depth.

EXAMPLE: 2 X 4". The first number (2) is the column width, or two columns. The second number (4) is the reproduction depth; in this case it is four inches.

Affix a piece of white paper to the back of the photograph.

Use a grease pencil or non-bleeding type of felt-tip pen to guideline artwork on the paper. Never use writing instruments which could leave an impression on the emulsion of photographic paper. Such impressions will likely be reproduced.

Proper guidelines for a photograph would look like the following:

SLUGLINE 3 X 5" 135%

PRACTICE EXERCISE

LESSON 4

SUBCOURSE NO. D10251

CROP AND SCALE A PHOTOGRAPH

INSTRUCTIONS:

Review the material in this lesson. Answer the questions below by circling the "T" or "F" next to each question. Compare your answers with the answer key on the next page.

- T F 1. Policy considerations are spelled out but are not limited to the provisions of AR 360-5.
- T F 2. When cropping a picture of a person it is best to crop at the neck, waist, knee or other joints.
- T F 3. Normally, a 3:5 proportion is the most pleasing shape of photograph.
- T F 4. In newspaper design the cropped depth of a photograph is usually represented in picas.
- T F 5. Scaling is the act of either enlarging or reducing cropped artwork to fit in a hole on a newspaper page.
- T F 6. The diagonal method of scaling is the most accurate method of scaling.

ANSWER KEY

LESSON 4

SUBCOURSE NO. DI0251

PHOTOJOURNALISM I

1. True (Page 49)
2. False (Page 50)
3. True (Page 52)
4. False (Page 54)
5. True (Page 55)
6. False (Page 55)

LESSON FIVE
ESTABLISH A FIELD PHOTOGRAPHIC DARKROOM

46Q Soldiers' Manual Task: 214-176-2301

OVERVIEW

TASK DESCRIPTION:

In this lesson you will learn to supply, set up and operate a photographic darkroom under a variety of field conditions developing black and white photographic film and prints for publication.

LEARNING OBJECTIVE:

ACTIONS: Inventory and store photographic equipment and prepare a darkroom site.

CONDITIONS: You are given the material presented in this lesson.

STANDARDS: The photographic film, paper and equipment must be stored to prevent damage and the darkroom must be set up so that the photographic image taken will result in a photograph suitable for publication.

REFERENCES: The material contained in this lesson was derived from the following publications:

STP 46-46Q14-SM-TG

AR 360-5

AR 360-81

FM 46-1

TEC Lesson 570-214-1098-A Develop Black and White Film

ESTABLISH A FIELD PHOTOGRAPHIC DARKROOM

INTRODUCTION

Photographic facilities, or photo labs, are used for film loading, chemical mixing, film and paper processing, photographic printing and storage. Central to the photo lab is the darkroom. Because photographic materials are light sensitive, they must be handled in total darkness or in subdued or filtered light. Darkrooms must be designed to provide for efficient work in the dark and to ensure safety of the workers.

During exercises or operations, public affairs personnel will go to the field with their units. During deployment, they often send the exposed rolls of film back to garrison for processing. However, they may, as part of their mission in the OPLAN, be required to set up and operate a field photographic darkroom. The PA annex to the OPLAN should include instructions on what supplies should be brought, how materials will be resupplied, how the darkroom should be manned, how the darkroom should operate, and liaison procedures.

At the end of this lesson you will be able to pack photographic equipment and supplies, set up the darkroom at the field site and operate the darkroom.

PA ANNEX TO THE OPERATIONS PLAN

The peacetime Army of today is in a go-to-war posture. To support this mission, your public affairs office should be prepared for deployment at all times. There must be a PA annex published for every OPLAN. In the PA annex should be instructions for setting up and operating a photographic darkroom in the field to support the command. The photographs you develop and print in the field are used for publication release. There must be standards and procedures established to ensure you get a quality photographic product. The annex should include instructions for the following:

SUPPLIES PACKING LIST

Include in the list requirements for film, paper, chemicals, equipment and supplies, depending on the mission. The

supplies should be packed or stored prior to deployment so that they are available when you are ready to deploy. You may need to include a requirement to bring containers of water if you will travel by ground transportation (the water is too heavy to transport by air). Further in this lesson there is a section on packing, to include a recommended packing list.

FIELD DARKROOM SITE LOCATION

The PA annex should state that a fixed site with running water that can be made light-tight is the optimum site for the darkroom. Other options should be listed besides fixed sites (such as a scratch-built or tent darkroom). The annex should include instructions to the headquarters commandant (or whoever decides who gets what at an exercise site) to provide a tent, or part of a tent, for use as a facility in case no fixed site is available. By listing site requirements and the type of facility needed, the annex will assist a site survey team or advance party in locating a darkroom site. Remember, however, that PAO requirements are "low on the totem pole" and you may need to be aggressive in making your needs known.

MANNING REQUIREMENTS

Establish what personnel will be required to support the mission and man the darkroom. Plan for taskings, if needed.

ESTABLISH LIAISONS FOR SUPPORT OR RESUPPLY

The field darkroom may require support from other units or organizations, especially since it will need a source of water, and, in hot weather, refrigeration. If deploying with intelligence or signal units with photographic capabilities, plan to share facilities. The annex must address resupply actions.

STANDING OPERATING PROCEDURE (SOP)

In addition to a PA annex, you should write an SOP giving detailed instructions on how to operate the field darkroom. You can include the following in an SOP:

Establish Procedures for Setting Up the Darkroom

Include instructions on how the darkroom should be laid out for ease in operation. Instruct how to set up the enlarger

and safe lights so that they work properly. List the procedures for testing the darkroom.

Supply Storage Procedures

Include instruction on the storage of chemicals, film, paper and equipment to lessen the chance of damage. The SOP should include instruction on chemical disposal.

PRACTICE DARKROOM USE

It may be a good idea to practice setting up and using a field darkroom at the normal peacetime location once or twice a year. If the darkroom is used for a week, most problems would show up and could be worked out before deployment.

PACKING

The items you choose for packing should be chosen for the job. Because you may not know much about the site you will be deploying to, the items you bring should be versatile. Film that is versatile when used in different levels of light, lenses that will give you a variation of magnification and paper that develops an image quickly and with a short washing time will prove most useful when you must work in the field.

Once you pack for deployment, you cannot just leave the items lying in storage until you need them for a deployment. You should check the stored items at least monthly to be sure the items are in good condition. Make sure that film, paper, chemicals, batteries and other supplies are fresh, their original seals intact. Rotate after six months; put the stored items into daily use and replace with new supplies.

Some items, such as the enlarger, may or may not be kept stored for a deployment, based on whether they are needed for day-to-day operations. If this is the case, you should check the storage cases for the items and any spare parts the equipment may have. Film should be placed in a refrigerator or freezer so that it lasts well beyond its expiration date, and taken out when needed for deployment. Above all, soldiers that will be using this equipment in the field must be familiar with the equipment and know how to use it.

PACKING LIST

The following is a basic packing list of items you will need when you deploy. For containers you will need two footlockers, a case for the enlarger and at least one camera bag. This list is only a guideline because your mission and available equipment might require exceptions.

Inventory the items as you pack them, and clearly mark them as your office/unit's property. Tape a copy of the inventory list onto the inside of the lids of the footlockers. Wrap the film and photographic paper in waterproof bags, such as plastic garbage bags, to keep out moisture. If you are deploying to a desert environment, you may want to bring liquid chemicals that require only dilution. Remember that if they leak everything in the footlocker could be ruined.

Footlocker No. 1

- o One-month supply of basic darkroom supplies.
- o Film. 100 rolls of 400 ASA/ISO black and white film and 20 rolls of color slide film.
- o Photographic paper. 1,000 to 2,000 sheets of variable contrast photographic paper. Cut 8x10 inch paper to 5x7 inches before storing it for deployment use. You use 5x7 paper to conserve chemicals, paper and water.
- o Film development chemicals. Store enough developer, stop bath, fixer, hypo-clearing agent and wetting agent to develop the film.
- o Paper development chemicals. Store enough developer, stop bath, fixer and hypo-clearing agent to print the photographs you will take in the field.
- o Miscellaneous supplies.
 - Negative sleeves.
 - Dodging and burning tools.
 - Anti-static brush.
 - Grain magnifier or other focusing device.
 - Lens-cleaning tissue and fluid.
 - Blower brush.
 - Printing filter set.
 - String and clothespins.
 - Film/paper dryer and dryer bag.
 - Masking tape.
 - Black electrician's tape.
 - Duct tape.

- Film changing bag.
- Extra enlarger bulbs of 110 and 220 voltages.
- Multivoltage hotplate and immersion heater.

Footlocker No. 2

- Four trays. For developer, stop bath, fixer and wash, at a minimum. You should also pack a replacement tray and a tray for a water bath, if used.
- Four graduated beakers.
- Film-development tanks.
- Film-development reels or ribbons.
- Bottle opener.
- Scissors.
- Two or three thermometers.
- Film washer.
- Paper safe.
- Cans of compressed air (such as Dust-off).
- Contact print easel.
- Print easel.
- At least two safelights, matching the power source at the field site, with plug adapters, if required.
- Tongs.
- Sponges.
- Paper towels.
- Broom and mop.
- Tools. A hammer, nails, screwdriver, screws, regular pliers, needle-nose pliers and extension cords.
- Caulk.
- Clear plastic bags.

Enlarger

If you do not need the enlarger for day-to-day operations, you could pack it in its original container, a machine storage crate or have the post engineers build a shipping crate. Keep the enlarger in storage with the footlockers. You should periodically remove it from its container and check it for damage. Otherwise, you must prepare the enlarger for shipping when you are preparing to deploy. Check the crate or container to make sure it is not broken or damaged, and that it will close and lock. Make sure the container is marked with your office identification. If the container checks out, carefully disassemble the enlarger and pack it in the container. Be particularly cautious when packing the optical system of the enlarger. The optics can be easily scratched or broken by mishandling. When packing, include the manufacturer's instructions for assembling the enlarger.

Tables

Prepare two tables for transportation; one for use on the "dry side," the other for use on the "wet side" of the darkroom. The table for the dry side should be sturdy enough to support an enlarger. The table on the wet side will be used for the darkroom trays. The PA annex could include coordination instructions for the site survey team to locate, if possible, a field darkroom site with a sink or table already in place. You may eliminate the need for bringing the "wet" table if an adequate sink or table already is in place at the field site, but count on bringing the tables.

Camera Bag

If possible, store at least two camera bodies with short, medium and long lenses, an electric flash unit, filters, lens-cleaning tissue and fluid, a blower brush and split-beam card (an index card that can be used to split the beam of the flash) in a camera bag for use during deployments. You should periodically check the cameras, lenses and flash to make sure they operate properly. Keep a supply of freshly charged batteries in the camera bag, at least enough to last a month. If you cannot keep a full camera bag ready due to day-to-day operations, pack the camera bag with as much as you can spare, and just load it with the additional items prior to deployment. You may want to place a few rolls of film into the bag to take photographs of units as they travel with you to the field.

DEPLOY

The footlockers, tables and enlarger case are packed and locked, ready for loading to take to the field. Load the van, truck or pallet, securing the footlockers and enlarger case with tie-downs to reduce damage. If the items will be loaded onto an aircraft, you will probably be told to bring them to a central location for loading onto pallets. Soldiers or airmen trained in properly loading an aircraft will load your items; if the items will not be flying on the same aircraft as you, be sure to find out which aircraft they will be on. Make sure you can read the identifying marks on each item so that you can find them when they are off-loaded. Carry the camera bag with you; this will protect it from damage and secure it against theft or loss, and you can photograph the soldiers on their way with you to the field. Make sure to get a copy of the lading of/for shipment.

THE FIELD SITE

At the field site, unload the darkroom equipment and supplies and place them away from bright light and moisture while you prepare the field darkroom for operation. There are three types of darkrooms you can establish: scratch-built, tent and fixed site.

SCRATCH-BUILT DARKROOM

If there is no fixed site available and you do not have a tent, you could build your own darkroom. This must be identified before deployment so you could bring building materials, or get them issued to you once at the site. Locate the darkroom, if possible, near a source of water and electricity. The darkroom should be large enough to hold you and the two tables you brought, giving you room to work (Fig. 5-1). Separate the tables so that you have a "wet" and a "dry" side. Or, you may want to build shelves to place the trays on. Try to assemble the 2x4s and plywood so that they fit tightly and allow little light to leak in. Use caulk to fill in the cracks. You could either fashion a door out of wood, or you could use a blanket or shelter-half. Cover the roof with shelter halves or plastic bags; they will probably protect the darkroom from moisture during a light rain, but could be useless in a downpour.

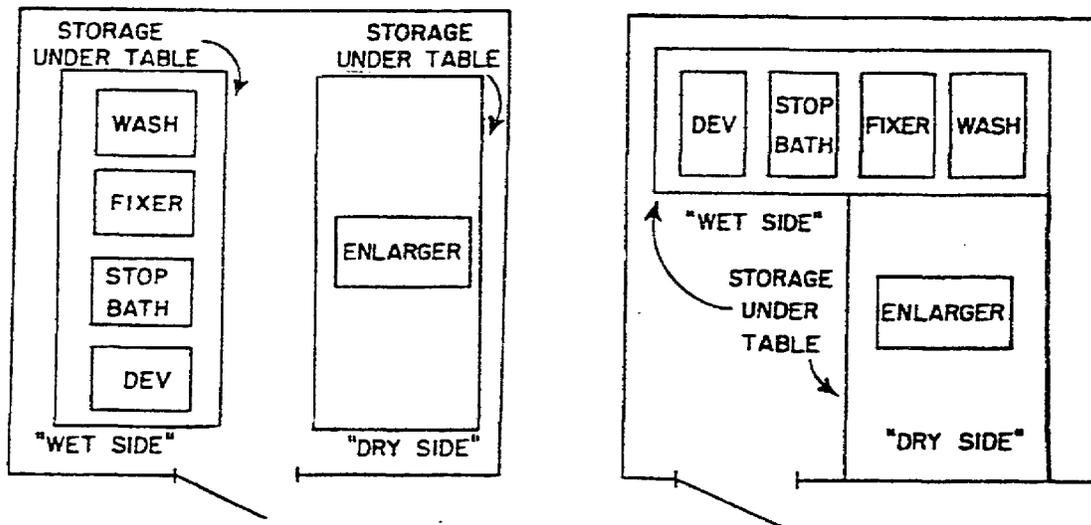


Figure 5-1. Two examples of laying out a darkroom.

Once the darkroom is built, go inside, wait for your eyes to adjust, and check for light leaks. You will probably have leaks where the wood meets; putting in a few extra nails

along an edge of plywood will tighten it down and cut down on the amount of light coming in. On the inside of the darkroom, use black electrical tape and the inside of film paper boxes to block out any last light leaks. If you still see leaks and feel that they will cause the film to fog, use a film changing bag to load the film onto reels and into the developing tank, or use the darkroom to develop film only at night. You can sweep and mop the scratch-built darkroom if you lay a plywood floor.

TENT DARKROOM

A tent darkroom will probably be more weather-tight than the scratch-built darkroom, but may be just as difficult to make light-tight. It will help to place the tent where it is naturally shaded from the sun, by trees or in the shadow of a building or cliff. Camouflage covering will cut down on light reaching the tent, and will make it cooler and less dusty as well. A tent liner will trap light also. You may be able to make the tent dark enough to print during daylight, but most likely you will have to wait until it is dark. To develop film, either wait until it is dark, or use a film changing bag. If you do not have a film changing bag, you can fashion one from your field jacket. Snap and zip the jacket, tie off the bottom and neck and put your arms through the sleeves to work.

FIXED-SITE DARKROOM

A fixed-site darkroom is the optimum facility, especially if it has electricity and running hot and cold water. To set up a fixed-site darkroom for operation you would clean it, make it light-tight and turn on the electricity. Cleaning, power and darkness is easier to achieve than in the tent and scratch-built darkroom facilities because:

- o Cleanliness. Because a fixed-site is in a building, dust, moisture and dirt can be controlled.
- o Power. You can usually expect electricity at a fixed-site. In many instances, you may work in a vented washroom or bathroom (which will give you running water as well).
- o Light control. The fixed-site darkroom can be made quite light-tight. Although the room may appear absolutely dark at first, it may in fact be unsafe for handling unprocessed film. To check for light leaks, close the door, place a white piece of paper on the table in front of you and turn out the lights. If, after 30 seconds, you cannot discern the paper, your darkroom is light-tight.

Ventilation openings, windows, cracks around the door and even the ceiling could be a source of light leaks. Use black cardboard and duct tape to mold a vent cover that allows ventilation but eliminates the light (black cardboard is available from the empty boxes of photographic paper). Use duct tape to seal cracks around the door, windows, or anywhere else that light comes in.

SET UP ENLARGER

Set up the enlarger by the manufacturer's instructions. Check to make sure there has been no damage. Clean the optics, being careful not to scratch the glass. Ensure the darkroom's power source is compatible with the enlarger and timer, whether 110 or 220 volts and 50 or 60 kilohertz. Test the timer by setting it for several seconds and checking it against your watch. Make sure the light bulb works; if not, replace it with one of the extra bulbs you have brought. Check the aperture settings from lowest to highest, making sure the aperture moves easily without sticking or jamming. Once you are satisfied that the enlarger works properly, dust it and cover it. When not in use, always unplug the enlarger and keep it covered.

SET UP SAFELIGHTS

Check your safelights to make sure they work and have not been damaged. Place both safelights on the wet side of the darkroom within reach of an electrical outlet. The method of hanging them up will depend on how your darkroom is made. If you have built your darkroom out of wood, you could nail your lights up. If your darkroom is in a tent, the lights can be suspended from the tent poles. A fixed facility may already have nails in the walls for hanging your lights. When hanging the lights, make sure they are placed so that you can reach them in the dark and turn them on and off easily.

STORE SUPPLIES

Retrieve your supplies, unpack them and store them off the floor, away from dampness and light. Separate your storage into three areas: one for chemicals, one for film and paper, and one for cameras and accessories.

Chemical Storage

Chemicals should be stored in a cool, dark, dry place. They must be stored carefully both before and after mixing. The containers used for shipment of liquid chemicals should make excellent containers for storage. The containers should be arranged so that as little damage as possible occurs if any container is accidentally broken. Do not store dry chemicals on the floor; dampness, leaking liquid chemicals, overflowing sinks or rainwater could damage them. Store them on a shelf or a pallet. Liquid chemicals should be stored lower than dry chemicals, so that if a container leaks the contents will damage only the floor.

Film and Paper Storage

Proper storage should be maintained if you expect good photographic results. Photographic film and paper are perishable. Poor storage conditions can cause the photographic properties of sensitized materials to deteriorate. Adverse storage conditions may cause changes in color and tone reproduction, and the speed of films and papers. Color materials are more seriously affected by heat and moisture than black and white. You must protect them from the harmful effects of heat and moisture.

Temperature. Normal room or outdoor temperatures are easily withstood; storage at 65 degrees F is adequate for conventional materials when there is a reasonably rapid turnover of stock. A moderately high temperature for a short time is not particularly destructive, but extended storage at high temperature causes the film to fog. Do not store film or paper in hot, unventilated storage rooms or lockers, in the direct sun or under bright lights. If possible, freeze or refrigerate the film and paper.

Humidity. Humidity during storage becomes a problem once the package seal is broken. Hot, humid air may cause fog, fungus growth, condensation, mold and mildew. The enlarger could rust from humidity.

Ideally, storage during high temperature and humidity should be in an air-conditioned room with relative humidity between 40 and 60 percent. If an air conditioner is not available, seal film and paper into plastic bags to keep out moisture and place them in a refrigerator. Check with medical, mess or commo units in your area. They may have air-conditioned or refrigerated space where you may store your film and paper. Otherwise, seal the film and paper into plastic bags and do the best you can in the field to store them away from water, heat and light.

Camera Storage

The camera bodies and accessories should be stored in the camera bag. At the end of each day, or before each assignment, load the bag with enough film to accomplish the next day's assignments. Before using the film, if refrigerated, allow it to come to room temperature in its unopened package, which will prevent moisture condensation. Cameras should always be loaded with film, ready to go. Check each item for cleanliness, maintenance and serviceability before an assignment.

MIX CHEMICALS

If you must mix dry chemicals for stock, do so, following the manufacturer's instructions. Otherwise, dilute the liquid chemicals as needed.

OPERATE THE FACILITY

Your field darkroom is now established. Clean it, and make sure that you can secure it. Do not forget to use a sign indicating that the darkroom is "in use" if others are able to walk in on you as you work.

You are now ready to develop black and white film in your field photographic darkroom. The steps for the black and white process are contained in TEC Lesson 570-214-1098-A, Develop Black and White Film.

Run a test roll of unexposed film through the development process as a test of the darkroom. Do NOT use a roll of film that has been exposed. The film should come out clear, with frame numbers and film information along the bottom edge. If the film is fogged, you probably have a light leak. If the marking on the edges is missing, something is wrong with the chemicals, probably the developer.

Contact the liaison(s) established in the PA annex to the OPLAN. Should the deployment be lengthy, a liaison with higher headquarters, sister units or a depot for resupply of photographic materials will be very important. You may consider locating a local civilian photographic supply source if necessary.

ADVERSE WEATHER OPERATIONS

Most likely you will go to the field when the weather is less than perfect. You should be prepared to operate the field photographic darkroom in any type of weather. This chapter will cover operations in cold, heat and humidity.

COLD TEMPERATURES

Cold temperatures are found year-round in the polar regions, on high mountains, and during the winter in temperate areas of the world. Because the possibility exists that you will participate in exercises in cold temperatures, you must be aware of how cold weather affects your equipment.

Cold Weather Equipment Preparation

Cold weather can make your SLR camera malfunction if the temperature is low enough to cause the mirror to stick, the shutter to break and the aperture to freeze open or shut. The film could also break when being wound. Synchronization cords will be less flexible and may snap, damage that may not be noticed. Take the following precautions to protect your film and equipment in cold weather:

- o Prevent moisture condensation. Condensation is formed when cold objects are brought into contact with warm air, and the moisture can freeze when the objects are brought back into the cold. Although the moisture can be wiped off the outside, it can penetrate inside the equipment and cause permanent damage when it freezes.
 - Never place cold film in a warm camera, or warm film in a cold camera.
 - Carry the camera in a plastic bag to keep out moisture which might freeze when you go outdoors.
 - Do not breathe on cold lenses or eyepieces; it causes a fog that forms frost on cold glass and metal that is difficult to remove.
- o Keep the lenses and camera covered.
 - Use a UV haze filter as a protective cover at all times to prevent frost damage and to prevent the lens barrel from filling with snow.
 - Careless removal of snow or frost that does form can result in lens damage.
 - Keep the camera covered when not in use to prevent dustlike snow particles from entering the camera mechanism and causing damage.
- o Static electricity. Reduce static marks on your film by winding and rewinding the film in the camera very slowly, and onto the development reel as well.
- o Batteries.
 - Batteries lose power rapidly in cold weather.

- Use fresh batteries; they will hold a charge better than older ones.
 - Use body heat to keep batteries warm so they will work better and last longer.
 - Carry spare batteries in a warm pocket.
 - Carry batteries for your flash close to your body in a battery pack.
 - Store the batteries in a warm place when not in use.
- o Warm water before use. Cold temperatures slow down chemical processes. Use a field stove, hot plate or immersion heater to warm water before mixing the chemicals.
 - o Adjust film use to the cold. At low temperatures, film becomes brittle and stiff, and cracks occur in the emulsion.
 - Handle film gently when winding it on the take up reel or developing reel.
 - Adjust f/stops and exposure time because the reaction of film to the exposing process is slowed, reducing film speed.

HOT TEMPERATURES

Hot, humid weather is bad for photographic equipment, causing corrosion, fungus growth, insect damage, rust, mildew, mold and warping. Photographic film and paper, when stored under hot, humid conditions, will deteriorate. Some crystalline chemicals will absorb the moisture and dissolve in it, or give up their own moisture to the air and become powdery.

Hot Weather Equipment Preparation

Try to store your film, paper, chemicals and equipment in a cool, dry place. Use any of the following suggestions open to you to keep your equipment and materials in good shape:

- o Keep darkroom cool.
 - Locate in-shade, use fans or air conditioners when available.
 - Seal film and paper in a plastic bag and store in a refrigerator.
 - Freeze containers of water in the mess hall daily and place them in storage with film and paper.
 - Operate darkroom at night if daytime temperatures are too high.
- o Keep equipment, chemicals, film and paper dry.

- Store crystalline chemicals in brown glass or plastic bottles sealed with wax or tape at the neck.
 - Keep the film and paper, and especially color slide film, sealed in their original packaging as long as possible; open them just before use.
 - Once the packages are opened, seal film and paper in plastic bags.
 - Place a desiccating agent, such as silica gel, in the bags of film and paper to absorb moisture.
 - Clean and dry equipment before storage.
- o Process film quickly. Film, especially color slide film, should be processed as soon as possible after exposure. This will avoid shifts in color balance, fading of the image and fogging.
- o Inspect regularly.
 - Inspect photographic equipment and materials weekly for dust, corrosion, mildew, insect damage or fungus growth.
 - Keep the darkroom as clean as possible.
 - All exposed metal parts should be covered with a corrosion/rust preventative such as WD-40, or even the anti-corrosive oil used on weapons.
 - Leather should be treated with leather dressing.
- o Protect equipment.
 - Protect lenses from scratches caused by dust, sand or prop wash.
 - Protect a lens with a UV haze filter at all times, and with a lens cap when the camera is not in use.
 - Waterproof the camera by placing it in a clear plastic garbage bag, with holes cut for the lens and eyepiece. Seal the bag against the camera with electrical tape. The bag should be loose enough for you to operate the camera from the outside.
 - Avoid dropping the camera into water.
 - Keep the camera and the enlarger covered when not in use.
- o Use proper water temperature. When temperatures are high, it may be difficult to obtain water between 65 degrees and 75 degrees F for film and print development. At water temperatures above 75 degrees F, developer could fog or stain from rapid oxidation, and gelatin could swell, causing reticulation (wrinkling).

You can use the following to cool the water used for processing (not necessarily used as water for processing):

- Ice (from the dining facility or aid station).
- Melted ice.
- Air conditioner run-off
- Heat exchanger run-off
- Air compressor run-off
- Cool water from any other source.

Conserve Water

If in a desert environment, water may not be available except for consumption and hygiene. Because large quantities of water are essential for photographic processing, you should examine your operation for ways to economize your water usage. If possible, bring containers filled with water when you deploy. Use liquid chemicals versus dry. Use resin-coated paper, which requires a shorter washing time than fiber-based paper. Follow manufacturer's instructions for processing and washing film and paper, using the minimum time listed. Consider the following when water is scarce:

- o Sources of water. If there is a shortage of fresh water, you may need to reuse water. It is safe to assume that water is satisfactory for photographic washing if it is clear, colorless, and does not have a sulphur odor. Filter debris out of the water and bring it to the temperature needed for processing. You can use water from:
 - Air conditioners.
 - Heat exchangers.
 - Refrigerator units.
 - Ice or melted ice.
 - Mess facilities.
 - Shower facilities.
 - Seawater.
 - Any other water source, potable or non-potable.
- o Use hypo-clearing agent. Hypo-clearing agent is a fast and efficient means of removing residual hypo in black and white film. Seawater is also an efficient remover of hypo in film. If you use seawater for washing film, you must remove the salt with a final wash of at least five minutes in fresh water.
- o Reduce water use.

- When developing film, use the slowest rate of water flow and the smallest tank that will accommodate it.
- Develop enough rolls of film to fill a developing tank.
- Save water used from film washing and use for print washing.
- When printing, reduce unnecessary water depth in washing trays.
- Paper cut into one-inch strips can be used to test exposures; the strips will conserve both water and chemicals by reducing trial prints.
- Use replenishers rather than dumping exhausted chemistry and mixing fresh.
- Avoid making prints 8x10-inch and larger.
- Make contact sheets to avoid printing bad negatives.

Conserve Chemicals

Some chemicals can be reused many times before they become exhausted. Once chemicals are exhausted, dispose of them according to local SOP.

- o Developer. Most developers are for one-time use only and must be discarded. Some are reusable; follow manufacturer's instructions if reusing developer.
- o Stop bath. Stop bath is reusable. Most require keeping track of how many rolls of film have gone through. Kodak's Indicator stop bath turns purple under safelights when exhausted. It can be recycled as long as it remains yellow.
- o Fixer. Fixer can be used for a long time before it becomes exhausted. Pour the used fixer into a container separate from the unused fixer to use once the unused fixer is gone. Follow manufacturer's instructions to tell when fixer is exhausted.
- o Hypo-clearing agent. Hypo-clearing agent can be discarded after use.
- o Wetting agent. Wetting agent can be discarded after use.

PRACTICE EXERCISE

LESSON 5

SUBCOURSE NO. DI0251

ESTABLISH A FIELD PHOTOGRAPHIC DARKROOM

INSTRUCTIONS:

Review the material in this lesson. Answer the questions below by circling the "T" or "F" next to each question. Compare your answers with the answer key on the next page.

- T F 1. The camera bodies and accessories should be stored in the camera bag.
- T F 2. The enlarger should be packed without disassembling it.
- T F 3. Photographic film and paper are perishable.
- T F 4. Dry chemicals should be stored on the floor below the liquid chemicals.
- T F 5. Cleaning, power and light control is easier to achieve in a tent.
- T F 6. Seawater is an efficient remover of hypo in film.
- T F 7. In the field you should avoid making contact prints in order to save water.

ANSWER KEY

LESSON 5

SUBCOURSE NO. DI0251

PHOTOJOURNALISM I

1. True (Page 74)
2. False (Page 68)
3. True (Page 73)
4. False (Page 73)
5. False (Page 71)
6. True (Page 78)
7. False (Page 79)