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GLOSSARY OF NPIC TERMINOLOGY

NPIC/R-126/67
AUGUST 1967

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NPIC/R-126/67

GLOSSARY OF NPIC TERMINOLOGY

AUGUST 1967

NATIONAL PHOTOGRAPHIC INTERPRETATION CENTER

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EXPLANATORY NOTE

This glossary contains standardized definitions of terms frequently used in NPIC publications, a list of abbreviations approved for use in NPIC reports and briefing aids, and a list of symbols which have proven serviceable for use in graphics appearing in NPIC publications. It is intended to serve as a guide for NPIC personnel and as an explanation for consumers of NPIC publications.

In the first part of this glossary the entries are presented in alphabetical order. In the second part, the entries are presented in separate lists according to several general categories of application. The third part consists of an alphabetical list of abbreviations; those approved for use on briefing aids are indicated by asterisks. The fourth and final part contains illustrations of symbols frequently used in graphics of NPIC publications.

In the first two parts of this glossary the term being defined is followed, where applicable, by parentheses containing the appropriate abbreviation or, when appropriate, by brackets containing the part of speech to which the definition applies. Parentheses which appear after a definition contain explanatory notes, such as a cross reference or an indication of the general field in which the term is used. When a term has more than one meaning, the different definitions appear in numbered sequence. In cases where a definition consists only of a reference to another term, the referenced term is either the preferred usage or is a more comprehensive term.

Definitions provided in this glossary are those which have specific or specialized applications in the field of imagery interpretation, and no attempt is made to present other established meanings. Terms which are adequately defined in standard dictionaries have not been included. The present listing, however, should not be considered complete since work is continuing on the selection and definition of additional terms which will be included in future editions. The list of symbols is also far from complete, and future additions to this part of this publication are contemplated.

Users of this glossary are invited to suggest the addition of terms and symbols or to comment on the definitions and symbols provided.

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ALPHABETICAL
LISTING

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ALPHABETICAL LISTING

A

abandoned -- Status of an unidentified target or component thereof determined from photography to be not in use and unoccupied and not in a condition to be of immediate use.

absorber -- An object which readily "soaks up" radiation; a good absorber reflects poorly and is a good emitter. (infrared)

absorption coefficient -- A number characterizing the ability of a given material to absorb or attenuate radiations of a specified energy. The linear absorption coefficient expresses this ability per unit thickness and is stated in units of reciprocal length or thickness. The mass absorption coefficient is equal to the linear absorption coefficient divided by the density of the absorbing material; it is a measure of the absorption ability per unit mass. (infrared)

access road -- A road branching from the complex main road to provide access to a launch area and/or group. (missile installations)

active -- Status of an identified target or component thereof determined to be currently operating or in use.

activity -- Physical manifestation of change indicating a state of action. Frequently used with changes which cannot be given a clear and concise identification such as unidentified military activity, track activity, or construction activity.

aerial bomb -- An unpowered, usually free-falling device intended for delivery by aircraft for the purpose of causing damage and/or casualties.

air base -- The distance between two exposure stations (points in space occupied by the camera lens at the moment of exposure). (photogrammetry)

aircraft classification -- Aircraft and helicopters are classified as small, light, medium, and heavy according to wing span or rotor diameter as follows:

	Small (feet)	Light (feet)	Medium (feet)	Heavy (feet)
Straight wing	Up to 70	71-100	111-150	Over 150
Swept wing	Up to 40	41- 70	71-130	Over 130
Delta wing	Up to 35	36- 50	51- 70	Over 70
Helicopter	Up to 40	41- 60	61-100	Over 100

all-weather road -- An improved road trafficable by motor vehicles during all seasons of the year.

Altitude Correction Graph (ACG) -- A graph depicting basic mission parameters for the determination of the scale of certain types of photography.

ammunition storage area -- A storage area for ammunition. Such a facility may be 1 of 3 types depending on its location with respect to the area of operations or combat zone:

depot -- A military storage area where ammunition is stockpiled to provide the reserve and potential which are required to insure an uninterrupted flow into the combat zone or area of operations. Such a storage area is a rear echelon operation and may be fixed or semimobile.

dump -- A temporary field storage facility to provide initial supply and replenishment of ammunition to various points. Such dumps usually are behind the combat zone and can be moved easily.

point -- An advanced position in a combat zone or area of operations where ammunition is available for distribution to using units or for distribution by a unit to subordinate units or to individuals. Such points are maintained by a combat unit; therefore, they are in or very near the combat zone.

annotation -- Words, phrases, figures, or symbols placed on photographs or drawings for explanatory purposes. Annotations are used to indicate items or areas of special importance.

antiaircraft artillery (AAA), categories of --

Category	Caliber
Automatic Weapons/Antiaircraft	Less than 21 mm
Light AAA	21-75 mm
Medium AAA	76-100 mm
Heavy AAA	larger than 100 mm

antiballistic-missile (ABM) -- An adjective pertaining to objects or activities for countering ballistic missiles.

antimissile missile (AMM) -- A missile designed to intercept and destroy another missile in flight.

antisatellite (ASAT) -- [adj] Pertaining to a device or facility used to monitor, track, inspect, neutralize, or destroy satellites.

apparent radiance -- The radiant power per unit solid angle from a source as witnessed by an airborne de-

lector. The apparent radiance is directly related to tone on infrared imagery. (infrared)

area -- 1. A particular space or surface, e.g. an area of unidentified construction, an unidentified area. 2. A facility serving a special function and one that may be composed of 2 or more subordinate units called sections or sites, and usually 1 element of a larger facility which may be designated as a complex or center. See launch area.

armor-piercing bomb -- A bomb designated for maximum penetration before exploding. It is designed with a strong steel case, reinforced at the nose end, and cleanly streamlined. The explosive charge is small compared with the entire weight.

assault gun -- An armored vehicle mounting a gun with little or no traverse which is normally used in a direct fire role.

atmospheric window -- See window

attenuation -- The reduction in the intensity of radiation on passage through matter where the effect is usually due to absorption and scattering. Reduction of radiation intensity caused by the atmosphere is called atmospheric attenuation. (infrared)

autopositive -- Film or paper on which a positive image is made from a positive transparency by direct development. (photography)

azimuth resolution -- See radar resolution.

B

backlog -- An accumulation of unworked or uncompleted tasks.

barrel (BBL or bbl) -- 1. A unit of liquid measure; in the United States, by custom, 42 US gallons comprise a barrel of crude oil or petroleum products for statistical purposes. 2. A container used in the transport of petroleum products. See drum. (POL terminology)

basic intelligence support exploitation -- Imagery interpretation effort undertaken to maintain a flow of basic image-derived information on specific targets for more than one agency, department, or command. In practice, image-derived information on a specific target is collated in an authoritative basic report (data

base) in a form which meets user needs, and this report is updated, periodically or as required by appropriate authority, with image-derived information acquired from each successive reconnaissance mission.

berth -- A place for securing a vessel.

black body -- A hypothetical object which absorbs all, and reflects none, of the radiation incident on its surface. A black body is also the perfect emitter. As the name implies, a black body can usually be approximated by black, sooty surfaces. (infrared)

blast damage -- Damage caused by explosion, however initiated. (damage assessment)

blast wall -- A wall, usually of metal or concrete, which closely surrounds a storage tank to protect it from blasts, flying debris, or fire. Blast walls are common in areas where bombing or secondary explosions are likely to occur. (POL terminology)

blip sheet -- NPIC nickname for target briefs.

bomb effects -- The phenomena resulting from a bomb detonation. There are 3 basic effects from a conventional bomb detonation: blast, heat, and fragmentation. (damage assessment)

bomb impact plot -- A graphic representation of the target area, usually a prestrike aerial photograph, on which prominent dots are plotted to mark the impact or detonation points of bombs dropped on a specific bombing attack. (damage assessment)

bomb release system -- One of several optional methods of releasing bombs from aircraft, each of which results in a different bomb fall pattern or interval and thus directly affects the degree and extent of damage in a target area. See also salvo, select, and train.

bonus target -- A target other than a programmed target which is being reported for the first time by NPIC.

branch line -- A secondary line of a rail system.

breakwater -- An artificial, protective barrier to break or deflect the force of the sea.

Brief Photographic Interpretation Report (BPIR) -- A second- or third-phase report, the scope of which is limited to a single sheet format. The second-phase brief reports a new target of significance which was not reported in an IPIR or it augments an IPIR about the new target; the second-phase brief may also report a target displaying significant change which was not reported in an IPIR or it augments an IPIR about the significant change. The third-phase brief is a report of limited length and content in answer to a re-

quirement levied on NPIC for new information on an established target or to a requirement initiated by NPIC for reporting targets of opportunity.

brightness -- A color dimension ranging from dark to light (e.g. dark orange, medium brown, light greenish blue).

bulk storage -- The storage of active agents which will be used to fill munitions. (chemical warfare)

bumper -- A barrier placed at the end of a rail line or spur.

bunker -- [noun] 1. A heavily reinforced structure for storage of sensitive or valuable materials, e.g. a storage bunker for high explosives. 2. A fortified structure, above or below ground, usually with embrasures, for protection of personnel, for a defended gun position, or for a defensive position.

bunker -- [verb] 1. To provide or protect with bunkers. 2. To provide with fuel, as to bunker a ship with coal or oil.

buoy -- A floating device anchored to the bed of a body of water serving as an aid to navigation or for mooring vessels.

bus -- A short powerline within a switching yard enabling the transfer of power from 1 switching position to another; pl, buses. (electric power)

BW agent -- A micro-organism which causes disease in man, plants, or animals, or causes the deterioration of material.

BW operations -- The employment of living organisms, toxic biological products, and/or plant growth regulators to produce death or casualties in men or animals and/or damage to plants or material.

C

canister -- A cylindrical shipping container. (Certain missiles are launched from their canisters.) See pod.

causation -- The cause of damage. The destructive force responsible for each observed incident of damage. (damage assessment)

CBR -- The abbreviation for chemical, biological, and radiological warfare.

center service road -- The road within the launch site between the pads that provides access from the rear of

the site to the forward loop road connecting the pads. (missile installations)

change target -- A previously reported target showing a major change or a target where analysis of current photography furnishes more precise information.

chromaticity -- The quality of light as determined by its dominant wavelength and purity.

circuit -- An electrical connection between 2 points. Circuit is not synonymous with powerline or conductor. (electric power)

classification yard -- A yard in which cars are classified or grouped in accordance with freight movement requirements.

clear (C) -- Target area is free of clouds and haze.

cloud cover (CC) -- Clouds completely obscure a target area.

cloud shadow (CS) -- All or portions of a target area are darkened by shadows from clouds.

cold target -- See emissivity.

collapse -- A type of structural damage. In this case, spanning members rest on the floor or on equipment within the building. Collapse may be "primary" (usually caused by a single bomb), or "secondary" or "spreading collapse." The latter covers a large area and is usually caused by the collapse of adjacent spanning members. (damage assessment)

color -- The sensation produced by light of different wavelengths throughout the visible portion of the electromagnetic spectrum.

color balance -- The relative degree to which a photographic emulsion can reproduce all colors approximately as the eye sees them.

color compensating filter -- An optical device which alters the chromaticity of the light it transmits. It is used to absorb undesired colors and to transmit desired colors.

color coupler -- A chemical compound which is capable of reacting during the photographic development process to produce a cyan, magenta, or yellow dye.

color description -- The naming of colors imaged on photography according to their principal colors, their subordinate colors, and their degrees of brightness. NPIC usage limits the number of principal and subordinate color describers to 10 each and the number of brightness describers to 3. These describers are listed in the following chart. A description of a color may consist of only a principal color or of any combination

of a principal color with a subordinate color and/or a brightness describer (e.g. olive, bluish green, dark brown, light brownish orange). The chart does not list the terms black, grey, and white, but these terms may be used as describers.

Brightness Describer	Subordinate Color	Principal Color
Dark	Violet	Violet
Medium	Purplish	Purple
Light	Bluish	Blue
	Greenish	Green
	Yellow	Yellow
	Orange	Orange
	Reddish	Red
	Brownish	Brown
	Olive	Olive
	Pinkish	Pink

colorimeter -- An instrument for measuring the luminous intensity of a color relative to a standard.

combat-ready storage -- The storage of ammunition in which the fill and fuse are in place ready for firing.

combat reconnaissance -- Reconnaissance programs conducted in direct support of forces engaged in combat. At the national level, such programs are tasked and managed by the JCS.

complex main road -- The road connecting the access roads to the complex support facility and rail-to-road transfer point with the launch areas and/or groups. (missile installations)

complex support facility -- The road- and rail-served installation constituting the logistic, construction, and maintenance support base of the launch complex. (missile installations)

composite propellant -- A propellant in which particles of high-energy fuel and particles of an oxidizer are carried in a plastic binder.

concealment -- Protection from observation.

conductor -- A wire or cable used to transmit electricity. (electric power)

confirm -- [verb] To classify as firm a function or target previously not so classified.

confirmed -- [adj] Denoting a function or target now classified as firm but not previously so classified.

cool target -- See emissivity.

corduroy road -- A road with a surface of logs laid side by side perpendicular to the flow of traffic.

corona static fogging -- See static.

cover -- Protection from flat-trajectory fire.

coverage index -- One of a series of overlays showing all photographic reconnaissance missions covering the map sheet to which the overlays refer.

cratology -- The technique used in attempting to identify an object by the size, shape, color, and other characteristics of its container, including the method by which it is stored or shipped.

crossover -- 1. A condition in which there is a loss of contrast between 2 adjacent objects on infrared imagery. The term is sometimes used to denote temperature crossovers but is more properly used to denote radiometric temperature crossover. (infrared) 2. A short length of track on which a train can cross from one track to an adjacent one. (railroads)

CW agent -- A solid, liquid, or gas which, through its chemical properties, produces lethal or damaging effects on man, animals, plants, or material, or produces a screening or signaling smoke.

CW rail car -- A specialized rail car used to transport a bulk quantity of CW agent.

cyan -- The term applied to the blue-green color which is complementary to the color red. Cyan absorbs red light and is therefore also referred to as a minus red. It is one of the subtractive primary colors, the others being yellow and magenta.

D

darkness (D) -- Lack of illumination completely obscures a target area.

data base -- An orderly accumulation of information on a subject which may serve as the basis for subsequent updating. In imagery interpretation, an orderly accumulation of image-derived information on a selected target or targets.

deadspace -- Space inside a storage tank occupied by tank accessories such as pipes, manholes, and internal structural supports which reduce storage capacity and also space left empty at the top of tank to preclude spillage. (POL terminology)

definition -- A subjective term indicating the fineness of detail observed on the imagery obtained from any

image collection system. The standards of definition are affected by the system resolutions and the range of image contrast.

demolition bomb -- A general purpose (GP) bomb designed to meet the greatest number of bombing situations. It has good blast effect, penetration, and some fragmentation. It is used primarily for the destructive effect caused by blast in above-surface explosions, and in earth shock or mining effects resulting from the detonation of buried bombs.

dendritic static fogging -- See static.

departure yard -- See forwarding yard.

depot (DPO) -- See ammunition storage area.

depth bomb -- See depth charge.

depth charge -- A bomb designed for underwater detonation and, like the light case bomb, designed for maximum blast effect.

depth of field -- The distance between points nearest and farthest from the camera which are acceptably sharp. (photogrammetry)

depth of focus -- The allowable error in lens-to-film distance within which an acceptably sharp image of the subject focused upon will still be obtained. (photography)

destroyed -- A type of structural damage. In the case of a building, all vertical supports and spanning members are damaged to such an extent that nothing is salvageable. To insure against misuse of this term, its use must be restricted to structures which are completely leveled. In the case of bridges, all spans must be dropped and all piers must require replacement. (damage assessment)

detailed photographic coverage plot -- A graphical plot overlay keyed to a WAC (1:1,000,000), depicting the geographic location of mission photography.

Detailed Photographic Interpretation Report (DPIR) -- A third-phase photographic interpretation report presenting the results of a thorough analysis and a considered interpretation of all pertinent photography of a specific target or targets.

detect -- To observe a natural or cultural feature on photography.

detector -- The sensitive element of the infrared sensor which responds to differences in energy incident upon it. (infrared)

diapositive -- See transparency.

diffusion -- The scattering of light rays reflected from

a rough surface or during the transmission of light through a translucent medium.

dike -- An artificial embankment to exclude water. When used along a river, it is also called a levee.

direct intelligence support exploitation -- Imagery interpretation effort undertaken in direct and timely support of the assigned mission of any agency, department, or command. This is a dynamic, on-demand process in which imagery interpretation resources are applied to meet changing intelligence needs which cannot be satisfied by basic intelligence support exploitation.

direct positive -- See autopositive.

dismantled -- Status of an identified target or a component thereof for which there is photographic evidence that the target is being taken down, removed, or otherwise being disposed of.

dispersion -- The separation of a single ray of white light into a group of colored rays by a prism or other optical means.

divided road -- A 2-way road separated by a median strip.

dock -- Water area between 2 piers. A pier is sometimes erroneously called a dock.

dolphin -- Usually consists of a cluster of piles fastened together at the top and used for protecting other structures and for mooring or warping a vessel. Dolphins may be in the water, on the beach, or, infrequently, on a wharf.

double-base propellant -- A propellant made of nitrocellulose granules bound together with a gelatinous binder of nitroglycerine.

drum -- A cylindrical container commonly used for the transportation of petroleum products and which may be one of three standard sizes and capacities. In the United States, drums most in use have a 55-gallon capacity. (See barrel.) Capacities (in US gallons) and dimensions (in inches) of the three standard drums are:

Capacity	Filled Capacity	Diameter	Length
30 gal	28.5 gal	14 in	27 in
55 gal	53 gal	25 in	35 in
110 gal	106 gal	31 in	45 in

(POL Terminology)

dump -- See ammunition storage area.

duplicate positive (DP) -- See positive.

duplicate positive color -- A copy of the original color positive record. The colors and tones may have been altered during the reproduction process to produce a corrected duplicate color positive in which the colors more closely resemble those of the original subject than does the original color positive.

E

earth banked -- To have earth piled against the sides.

earth covered -- To be covered completely with earth (except, for example, the entrances of an earth-covered building may be exposed); earth covered and earth mounded are nearly synonymous; however, the term earth mounded implies that the earth has been piled in a heap that obscures the configuration of the covered object, and the term earth covered usually implies a thinner covering. (In some instances a structure built in an excavation and then covered with a deep layer of earth may more aptly be described as being underground rather than earth covered or mounded.)

earth mounded -- To be covered with a heap of earth, e.g., an earth-mounded storage bunker, the fabrication building is earth mounded, the building is mounded with earth. See earth covered.

effective damage -- That damage necessary to render a target element inoperative, unserviceable, nonproductive, or uninhabitable. (damage assessment)

electromagnetic radiation -- Energy emitted or reflected in the form of electromagnetic waves which include, in order of increasing wavelength, cosmic rays, gamma rays, X-rays, ultraviolet radiation, visual light, infrared radiation, microwave radiation, and radio waves.

electromagnetic spectrum -- The total frequency range of electromagnetic radiation. See electromagnetic radiation.

emissivity -- The ratio of radiation emitted by a surface to the radiation emitted by a "black body" at the same temperature and under the same conditions. This may be expressed for the total radiation from all wavelengths or for restricted bands of wavelengths. Targets are described in relation to their apparent emissivity. The following categories are generalized

target descriptions (assuming a target and its background have the same emissivity factor):

warm target -- A target that is warmer than its background will image much brighter than its background.

hot target -- A target that is much warmer than its background will image much brighter than its background.

cool target -- A target that is cooler than its background will image darker than its background.

cold target -- A target that is much colder than its background will image much darker than its background. (infrared)

engine terminal -- 1. Terminus of a section of track along which an engine operates. 2. End of operating division of a rail line, to include at least engine turnaround facilities.

epicenter -- The area on the earth's surface directly above the place of origin, or focus, of an earthquake. The term is not used for manmade events. See ground zero.

exploitation -- Making use of imagery for purposes of obtaining information of value to producers of finished intelligence. This process includes converting latent images into forms from which useful information can be extracted by means of imagery interpretation. (imagery interpretation)

explosives storage area -- A storage area where blast protective measures are visible. The storage may be either military or civil. Civil storage areas do not have military aspects such as barracks, extra security measures, or military housekeeping facilities.

exposure -- The function of the duration of time and the intensity of illumination upon photographic material. (photography)

extent of damage -- The visible plan area of damage to a target element, usually expressed in units of 1,000 square feet in detailed damage analysis and in approximate percentages in immediate-type damage assessment reports (e.g., 50 percent structural damage). (damage assessment)

F

fair interpretability (F) -- See interpretability.

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false parallax -- The apparent vertical displacement of an object from its true position when viewed stereoscopically, due to movement of the object itself as well as to change in the point of observation.

fascine road -- A road with a surface of bundles of sticks and branches laid crosswise to the flow of traffic.

feet per side -- See ground resolution.

fiducial mark -- A standard geometrical reference point imaged at the margin of a photograph. The intersection of the primary fiducial marks usually defines the principal point.

fire damage -- Damage caused by combustion, however ignited. (damage assessment)

firm -- Evidence is sufficient to permit a definite identification of a function or target.

first-phase imagery exploitation -- Those actions which are expeditiously accomplished by NPIC upon receiving film and within approximately 24 to 72 hours from receipt. These actions are related to those highest priority targets which are imaged on a specific mission as well as new, significant, perishable and/or similar highest priority data.

flame bucket -- The structure, often water cooled, used to deflect the engine exhaust gases in liquid rocket engine test stands.

flame deflector -- A device for deflecting the exhaust flame of a rocket motor away from structural areas the flame might damage.

flare -- A fogged or dense area on a photographic negative caused by nonfocused light reaching the photosensitive emulsion; this results either from internal camera reflections or from such external media as the atmosphere, water, or highly reflective objects.

flat yard -- A yard in which the sorting is done by an engine pushing freight cars into place.

floating dock -- A type of drydock composed of 1 or more sections which can be submerged to receive a vessel, then resurfaced so as to expose the bottom of the vessel.

forwarding yard -- A holding yard in which trains are held temporarily after classification but before entering the running tracks. Also, a departure yard.

fragmentation bomb -- A bomb designed so that the bomb case and/or special filling of the bomb shatters into a large number of fragments which are sprayed destructively in all directions. It is designed for maximum effect against personnel, aircraft on the ground, lightly armored equipment, and materiel.

frame -- One of a series of full-format photographs comprising a roll of film.

G

generation -- The number of reproductive steps by which a negative or positive photographic copy is separated from the original. Thus the original negative would be the first generation; any positive made from the original negative would be a second generation copy; any duplicate negative made from a second generation positive would be a third generation copy, and any positive made from the third generation duplicate negative would be a fourth generation copy.

good interpretability (G) -- See interpretability.

grade crossing -- The intersection of a rail line and a road at the same level.

ground cover (GC) -- The natural terrain or vegetational cover which obscures or creates a defilade for the target in question as imaged on an aerial photograph.

ground resolution -- The ground size equivalent of the smallest still resolved image and its associated space, usually expressed in feet per side.

ground zero (GZ) -- The point on the surface of land or water at, or vertically above or below, the center of the burst of a nuclear device or weapon. See epicenter.

guttled -- See structural damage and superficial damage.

H

halation -- A spreading of light beyond its true boundaries from bright parts of a photographic image into adjacent darker parts as a result of reflection from the back surface of the film or plate. (photograph)

hard-surfaced road -- See paved road.

haze (H) -- All or portions of a target area are obscured by a thin vapor of suspended fog, smoke, dust, etc., in the air.

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heat capacity -- The ratio of the heat supplied to an object to the corresponding temperature rise of that object which, in turn, affects the amount of infrared radiation. (infrared)

heavy aircraft -- See aircraft classification.

heavy cloud cover (HC) -- Clouds cover most of a target area.

heterostereoscopy -- Stereo viewing of a target in a stereogram composed of images photographed with a different time element to portray the following aspects: snow and nonsnow, foliage and nonfoliage, displacement caused by movement, change in buildings status, camouflage, etc.

holding yard -- A yard for the temporary retention of cars. (transportation, rail)

hold revetment -- An on-site prepared position(s) used for parking spare missiles.

holiday -- A gap in the photographic coverage of a surface.

hot target -- See emissivity.

hump yard -- A yard in which cars are pushed over a hump beyond which they roll into sidings by gravity. Also called summit yard.

hyperstereoscopy -- Stereoscopic viewing in which the scale along the line of sight is exaggerated in comparison with scale perpendicular to line of sight.

I

identification only (IDO) -- Target can be identified on photography, but limiting conditions preclude interpretations. See limiting conditions and interpretability.

identify -- To establish the descriptive and/or functional name of some object or pattern detected on photography.

image intelligence -- See photographic intelligence.

image interpretation -- See photographic interpretation.

imagery -- A recorded representation of an object either visual or convertible to a medium suitable for interpretation.

Immediate Photographic Interpretation Report (IPIR) -- A first-phase photographic interpretation report presenting the results of the initial scan and analysis of new photography in answer to specific requirements on the highest priority targets.

improved road -- A route made better than cleared ground by the addition of a base course, surfacing material, or other stabilizing agent, with provision for drainage. Improvement is usually associated with good alignment and vertical control.

inactive -- Status of an identified target or component thereof determined from photography to be currently not in use, although the capability for immediate use may exist.

incendiary bomb -- A bomb designed to start fires which will destroy the usefulness of a target area. In size, they can range from 4 to 500 pounds, with the smaller bombs usually carried in bomb clusters.

indicator -- Any feature or pattern of features which suggests the presence of a target or activity or which may suggest the function of a target or activity. A single indicator does not permit positive identification of a target, activity, or function, but a combination of indicators may constitute a signature. See signature. (imagery interpretation)

infrared (IR) -- Electromagnetic radiations of wavelength between 0.72 microns (7,200 angstroms) and about 1,000 microns (1 millimeter).

infrared film -- Film which is chemically sensitized so as to respond to both infrared radiations and visible light in that portion of the electromagnetic spectrum where visible light and infrared overlap (approximately 0.72 microns). The resolution of this film is basically dependent on visible light.

infrared imagery -- That imagery produced as a result of sensing electromagnetic radiations emitted from a given target surface in the infrared portion of the electromagnetic spectrum (approximately 0.72 to 1,000 microns).

infrared radiation -- Energy emitted or reflected in the form of electromagnetic waves in the infrared portion of the electromagnetic spectrum. Wavelengths of infrared radiation range from 0.72 microns to about 1,000 microns (1 millimeter) and are frequently divided, in order of increasing wavelength, into near, middle, and far infrared. See electromagnetic radiation.

infrared resolution -- The size of the smallest element that can be resolved which is approximately

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equal to the dimensions of the instantaneous field of view (IFV). The IFV is determined by the detector size, the focal length of the optical system, and the altitude of the aircraft. The IFV varies with obliquity.

installation (INSTLN) -- A facility in a fixed or relatively fixed location, together with its buildings, building equipment and subsidiary facilities, such as piers, spurs, access roads, beacons, etc.

instantaneous field of view (IFV) -- The smallest solid angle resolvable by a scanner when expressed in degrees. When expressed in feet, it is the projected area of the detector image on the ground and is a measure of the resolution of a scanner. (infrared)

intercontinental ballistic missile (ICBM) -- An arbitrary designation for missiles having a range in excess of 3,000 nm.

interface -- 1. The mating surfaces at which two interdependent components join. 2. The point at which two independent systems meet and act upon or communicate with each other. (data processing)

intermediate range ballistic missile (IRBM) -- An arbitrary designation for missiles having ranges from 1,101 to 3,000 nm.

interpretability -- Suitability of the imagery with respect to answering requirements on a given type of target. Various factors affect interpretability such as halation, uncompensated image motion, poor contrast, incorrect focus, vacuum plate failure, improper film processing, atmospheric conditions (both natural and manmade), ground resolution, and insufficient natural or artificial lighting of the target. The 3 levels of interpretability are:

poor interpretability (P) -- Unsuitable for adequately answering requirements on a given type of target.

fair interpretability (F) -- Suitable for answering requirements on a given type of target but with only average detail.

good interpretability (G) -- Suitable for answering requirements on a given type of target in considerable detail.

interpretation -- Extraction from imagery of information contributing to the synthesized body of knowledge which constitutes intelligence. (imagery interpretation)

inverted stereo -- Three-dimensional impression of relief which is the reverse of that actually existing.

inverter substation -- An installation where direct current is changed (inverted) to alternating current.

J

jetty -- An artificial barrier at river mouths and harbor entrances to deflect and regulate water currents. A jetty which breaks the force of the sea is called a breakwater.

junction -- A place where 2 or more rail lines or roads physically join.

L

laser -- An acronym formed from the initial letters of words in the phrase: light amplification by stimulated emission of radiation.

launch area -- 1. (SSM) The component of a surface-to-surface missile (MRBM, IRBM, ICBM) complex which may include the launch site with its launch positions, road network, missile-ready buildings, nuclear warhead/nosecone handling facility, and the site support facility. 2. (SAM) Any designated location having the necessary equipment to launch surface-to-air missiles. 3. (AMM) The component of an antimissile-missile complex which includes the launch sites and the facilities within the immediate vicinity of the launch sites.

launch complex -- An integrated association of launch areas and/or groups and logistic support elements which may include a complex support facility, rail-to-road transfer point, and nuclear weapons handling facilities. (missile installations)

launch group -- A group of single silo sites interconnected by cable(s) and containing 1 or more control facilities.

launch pad -- A permanent or semipermanent load-bearing surface on which a missile launcher can be placed.

launch position -- A prepared place from which a missile can be launched (specifically, a silo, revetment, pad, platform, emplacement, etc.).

launch silo -- A vertical underground missile shelter designed to contain a missile and the necessary equipment to launch it or to lift it to a launch attitude.

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launch site -- 1. A facility consisting of 1 or more launch positions and the related buildings and/or equipment necessary to effect the launching of surface-to-surface or antimissile missiles. (missile installations) 2. A facility for the launching of surface-to-air missiles which may include a launch area consisting of 1 or more launch positions, a guidance area, 1 or more missile-hold positions, and a support area. (missile installations)

launch window -- See window.

liaison/way station -- See way station. (insurgent/infiltration activity)

light aircraft -- See aircraft classification.

light case bomb -- A bomb which differs from the demolition bomb in having a thin case and no penetrating power. It carries a maximum charge and is designated to create maximum blast effect.

limiting conditions -- Time, weather, and/or man-made factors hindering interpretability of a given target. Conditions affecting interpretability are described by the following terms, each of which (except snow and camouflage which are self explanatory) is defined separately in this glossary:

clear (C)	darkness (D)
cloud cover (CC)	ground cover (GC)
scattered cloud cover (SC)	camouflage (CF)
heavy cloud cover (HC)	snow (S)
cloud shadow (CS)	ground resolution (GR)
haze (H)	obliquity (O)
semidarkness (SD)	small scale (SS)

lines of communication (LOC) -- All the routes (land, water, and air) which connect an operating military force with a base of operations, and along which supplies and reinforcements move.

lines per millimeter -- See photographic resolution.

liquid propellant -- A propellant in liquid form usually composed of 2 parts, the oxidizer and the fuel, which are piped separately to the combustion chamber.

locate -- 1. To find or establish the site of a known installation on the actual aerial photograph. 2. To find or show the position on a map of an installation or site seen on a photograph; after the installation or site has been seen, the photographic interpreter may locate it with regard to geographic coordinates.

loop track -- A more or less circular rail alignment used to reverse direction of locomotives and rolling stock.

M

magenta -- The blue-red color which is complementary to the color green. Magenta absorbs green light and is therefore also referred to as a minus green. It is one of the subtractive primary colors, the others being yellow and cyan.

marshalling yard (British terminology) -- See classification yard.

medium aircraft -- See aircraft classification.

medium range ballistic missile (MRBM) -- An arbitrary designation for missiles having ranges from 501 to 1,100 nm.

milliradian -- One thousandth of a radian. It is approximately the angle subtended by an arc 1 foot in length at 1,000 feet and is the basic factor in determining ground resolution of a given system. (infrared)

missile assembly and checkout facility -- The component(s) of a missile support facility at a test center used for assembly and checkout of a missile prior to its movement to a launch site or in recycling.

missile launch site construction (single-silo sites) -- Identifiable stages of construction are:

early stage -- Evidence of clearing and grading, or open-cut excavation, or of silo coring.

midstage -- Evidence that silo is under construction, that silo appears finished to surface level, or that backfilling of silo is under way.

late stage -- Evidence that silo door(s) is (are) installed, that final backfilling is complete, and that grading is under way

complete -- Evidence that elements are complete and roads are paved.

missile-ready building -- A road-served drive-in or drive-through building at deployed soft surface-to-surface or antimissile-missile launch sites providing facilities for the preparation, storage, and maintenance of a missile in a ready-to-launch condition.

missile RIM facility or building -- The place at a deployed hard missile launch complex where a missile is received, inspected, and/or maintained.

mission (MSN or M) -- The completed photographic flight of 1 or more vehicles.

Mission Coverage Index (MCI) -- An obsolete title for a second-phase photographic interpretation report consisting of an organized list containing references and brief descriptions of targets of intelligence interest

imaged on the photography of a given mission or missions. Publication of MCIs was discontinued in July 1965.

Mission Coverage Plots (MCP) -- A technical publication providing the photographic coverage plots of an entire mission of photography.

Mission Coverage Plot Summary (MCPS) -- A graphic plot overlay, keyed to a 1:15,000,000 map, depicting the plottable photographic coverage of an entire mission of photography.

Mission Index Photographic Interpretation Report (MIPIR) -- A first-phase photographic interpretation report presenting an organized list of all targets of intelligence interest imaged on the photography of a given mission or missions. Targets are identified by name with notations of photo reference, photo quality, and atmospheric conditions. This type of report is no longer published.

modification -- The physical alteration of a vehicle, a piece of equipment, or an installation so as to change its capabilities or characteristics but not its basic design. See new generation.

mole -- A massive structure projected from the shore which deflects water currents and provides berthing space.

monoscopic coverage -- That photography in which the entire frame must be viewed in 2-dimensional perspective, lacking the capability of being viewed stereoscopically in combination with adjacent frames.

mound -- [noun] A pile or heap, e.g., a mound of earth.

mound -- [verb] To cover with a raised heap, e.g. an earth-mounded storage bunker.

multisensor -- A term pertaining to an integrated system designed to record imagery from different portions of the electromagnetic spectrum in support of all-weather data acquisition roles.

multispectral imagery -- That imagery which is produced as a result of combining 2 or more types of sensings on a single image format, thus producing a compound target image, i.e. infrared (camouflage detection) film.

N

napalm bomb -- A special type of incendiary, shaped like a fuel droptank, carried externally, and dropped

from low altitude to increase accuracy and area coverage.

negate -- To ascertain that a target previously suspected or reported as existing does not exist or cannot be so identified.

negation -- The act of negating.

negation date -- Date of the most recent photography on which there is no evidence of the target.

negation list -- A list of negated targets.

negative -- A sensitized plate or film which has been exposed in a camera and which has the lights and shades in inverse order to those of the original subject. The plate or film does not become a negative until it is exposed and processed.

neutral density filter -- An optical device which does not alter the chromaticity of the light it transmits. (color)

New and Change PI Report -- See Summary Photographic Interpretation Report.

new generation -- A vehicle, a piece of equipment, or an installation of a markedly new design created to fulfill a new requirement or to incorporate a new concept. See modification.

new target -- A previously known or newly identified target reported for the first time by NPIC.

nitrocellulose section -- That part of an explosives plant where wood or cotton pulp is nitrated with nitric acid to form nitrocellulose.

nitroglycerine section -- That part of an explosives plant in which glycerine compounds are nitrated to form nitroglycerine.

no apparent change (NAC) -- The physical aspects of a target, as imaged on the photography in question, appear to be essentially the same as on prior coverage of the target.

nonpersistent agent -- A volatile chemical agent which forms a cloud and dissipates rapidly into the atmosphere. (chemical warfare)

nonstereo (NS) -- Pertains to that mode of coverage for a given target or area in which only one photographic image exists, precluding the condition for stereoscopic viewing.

nuclear event -- Any detonation of a nuclear device or weapon.

O

obliquity (O) -- That condition in which the optical axis of the camera is tilted appreciably from the vertical, often limiting detailed analysis.

occupied -- A target inhabited or containing adequate equipment to accomplish its purpose.

offshore wharf -- A structure built parallel to the shore and connected to it by 1 or more narrow approaches or gangways. Vessels berth along its face.

on-line -- Descriptive of a production function connected directly to the central data processing unit for automatic response to requirements. (data processing)

operational -- A target capable of accomplishing a destined function.

order of battle (OB) -- The identification, strength, command structure, and disposition of the personnel, units, and equipment of any military force, or any part thereof.

Order of Battle Summary PI Report -- See Summary Photographic Interpretation Report.

order-of-battle target -- A target where order of battle can be determined.

original positive color -- The original photographic color record which has been exposed in the camera and processed and whose colors approximate those of the original subject.

orthostereoscopy -- A condition wherein the horizontal and vertical distances in a stereoscopic model appear to be at the same scale.

outage -- A period of time during which there is a disruption in the supply of electric power. (electrical)

overload (override) -- A situation in which radiometric temperatures of targets are beyond set limits of an infrared system resulting in shadow-like effects ruining contrast and obscuring detail; also referred to as detector saturation.

P

packaging plant -- A facility consisting of one or more buildings where petroleum products are barrelled, canned, or packaged. (POL terminology)

parallax -- The apparent displacement of the position of an object in relation to reference point, due to a change in the point of observation.

partially underground (PUG) -- Descriptive term applied to structures or objects, including POL storage tanks, which are placed partially above and partially below the surrounding surface of the ground or semi-buried; the portion of the structure or object above ground may be banked or covered with earth. This term is not normally applied to a building with a basement as the lowest floor.

partial target coverage -- See target coverage.

paved road -- An improved road having a durable surface of gravel, stone, concrete, asphalt, or similar material.

persistent agent -- A nonvolatile chemical agent which remains on the terrain or on clothing and equipment in the form of droplets. (chemical warfare)

photo base -- 1. The length of the airbase as defined on the photograph. (photogrammetry) 2. The accumulation of photocoverage over a target area for the express purpose of creating a comparative file in relation to prospective coverage.

photographic coverage -- The extent to which an area is covered by photography from one mission or a series of missions or in a period of time. Coverage in this sense conveys the idea of the availability of photography and is not a synonym of the word photography.

Photographic Evaluation Report (PER) -- A technical publication expressing the photo quality results of a mission of photography. Emphasis is placed on the negative aspects of the results to guide those concerned in applying appropriate corrections.

photographic intelligence -- The collected products of photographic interpretation, classified and evaluated for intelligence use.

Photographic Intelligence Listing -- A list of photographic reports produced or received by the National Photographic Interpretation Center; it is in 3 parts and lists the reports by originator, by general subject, and alphabetically.

photographic interpretation -- The use of systems, techniques, or processes of analyzing imagery in order to produce significant, reliable, and detailed information concerning the natural or cultural features of the area photographed and to determine or infer the factors which the observable presence, condition, or use of these features imply.

photographic quality -- A result of the camera system, processing, and film handling. Good photographic quality encompasses all the criteria for good image quality with the exception of unavoidable degradations not associated with the taking system, i.e., atmospherics, snow cover, etc.

photographic reading -- The simple recognition of natural or cultural features from photography without evaluation.

photographic resolution -- A measure of the smallest array of point objects distinguishable as independent point images, frequently expressed in lines per millimeter, where "line" refers to the distance between centers of 2 distinguishable point images.

pier -- A wharf extending perpendicularly or obliquely into the water with accommodations for ships on both sides; it may be straight, T-shaped, or L-shaped.

pilot's trace -- An annotated overlay or map compiled with the assistance of the pilot of a photographic mission. It may contain the following information: ground track of the reconnaissance aircraft; camera designation; location of camera operation; indicated altitudes at specified check points; recorded times at specified checkpoints; and estimated cloud cover observed along the flight line.

plot -- An overlay or map depicting the geographic coverage of a photographic mission.

plottable imagery -- That cultural and geographical imagery which can be related to corresponding map detail. The coverage may include the limiting aspects to image interpretation such as cloud cover, cloud shadow, haze, obliquity, semidarkness, ground cover, snow, camouflage, ground resolution, etc. See limiting conditions.

pod -- A streamlined, usually detachable, functional component used as a housing or as an environmental shelter for weapons, cargo, or engines (e.g. rocket pod, missile pod, fuel pod, jet pod). See canister.

point -- See ammunition storage area.

poor interpretability (P) -- See interpretability.

positive -- A photograph having the same approximate rendition of light and shade as the original subject.

possible (POSS) -- Evidence indicates that the designated function is reasonable and more likely than other functions considered.

powerline -- A succession of supports carrying conductors for transmitting electric power overhead, underground, or underwater. A powerline is not termed a transmission line.

powerline trace -- A related narrow strip cleared of trees and high shrubbery which may contain 1 or more powerlines.

Preliminary Mission Coverage Plot Summary (Pre MCPS) -- A composite graphic depicting the predicted areas of photographic coverage as determined from preliminary information.

print -- A photographic copy made by projection or contact printing from a photographic negative or from a transparent drawing.

primary route -- A transportation route or series of routes (commonly called a network) providing for through traffic and normally connecting with secondary routes.

probable (PROB) -- Evidence for the designated function is strong and other functions appear quite doubtful.

pseudostereoscopy -- An impression of 3-dimensional relief derived by means of binocular vision and the use of identical images.

psychochemical agent -- A chemical agent which affects the brain or nerve centers and by disorienting the human or animal mind prevents the mind temporarily from performing its usual functions. (chemical warfare)

Q

quay -- A wharf accommodating ships on 1 side only. Usually of solid construction, a quay is built against and parallel to shore, moles, or breakwaters.

R

radar imagery -- That imagery produced as a result of sensing radar waves reflected from a given target

surface in the radar portion of the electromagnetic spectrum (approximately 300 - 70,000 megacycles).

radar resolution -- 1. range resolution -- The minimum size of objects and the space between them that will show as separate returns on the radarscope when 1 object is farther than the other in range. 2. track resolution (azimuth) -- The minimum size of objects and the space between them that will show when the targets are aligned parallel to the flight path.

radiance resolution -- The smallest detectable difference between the radiance of 2 regions of the object being imaged. Radiance resolution is sometimes incorrectly called temperature resolution. (infrared)

railhead -- A place or point along a railroad line where supplies are unloaded for distribution or storage. Also, the farthest point to which track has been laid in railroad construction.

rail-to-road transfer point -- A facility for the transfer of material from rail to road.

range resolution -- See radar resolution.

real time -- 1. Time in which reporting on events or recording of events is simultaneous with the events. 2. That time during which information or data is processed in a sufficiently rapid manner so that the results of the processing are available to influence the process being monitored or controlled. (data processing)

receiving yard -- A holding yard for incoming trains prior to their classification.

recognize -- To establish that an object, pattern, or installation under study on a photograph was known before.

recovery window -- See window.

rectification -- The mathematical, optical-mechanical, or graphical procedure by which a tilted aerial photograph is converted into one having no tilt. (photography)

rectifier substation -- See substation.

rest and refuel facility -- An area, sometimes referred to as a truck park, used for support of vehicular movement, including rest for personnel and refuel, maintenance, and concealment for vehicles. It is usually located near or adjacent to a main road. Its access road, usually well defined, leads to a turnaround or a dead end; small support buildings are usually present; trucks may be visible, and POL is present but usually not visible; sometimes present are individual vehicle parking slots cut into the vegetation. (insurgent/infiltration activity)

restitution -- The process of determining the true

planimetric position of objects whose images appear on aerial photographs. (photogrammetry)

reversed stereo -- See inverted stereo.

revet -- [verb] 1. To provide with a revetment, i.e., a wall or free embankment. 2. To face a wall, dike, river bank, etc., with stone, brick, concrete, sandbags, or other material for purposes of preventing erosion or to hold earth slopes at steeper angles that could normally be maintained without caving or sliding.

revetment (RVT) -- 1. A wall, free embankment, or similar device, usually made of earth, designed to protect buildings, storage facilities, planes, vehicles, or weapons emplacements from the effects of blast, fire, bombs, strafing, or shellfire. 2. A facing or retaining wall.

right of way -- A strip of land authorized for use by a transportation route, by a communication line, or by a powerline.

road -- In general, a route that is capable of supporting vehicular movement by width, alignment, and use.

roadbed -- Any prepared surface which ultimately will be used for supporting a rail line.

roadway -- Usable portion of road structure which normally lies between the construction limits of grading and drainage but does not include shoulders.

rocket engine test facility -- An installation where the engine of a solid or liquid propulsion rocket system is test fired.

roof disturbance -- Minor damage to the roof without roof stripping in excess of 40 square feet. This is a minor type of damage which does not qualify as superficial damage; however, it may be important where large areas are involved in damage to highly vulnerable contents such as precision instruments. (Roof disturbance does not mean roof distortion which is a clue to structural damage and which is more serious.) (damage assessment)

roof stripping -- See superficial damage.

route -- The course or way of a transportation or communication system, along which traffic moves.

S

safe capacity -- The volume of POL, usually 95 percent of gross volume, that can be safely held by a storage tank because of the need to provide for vapor expansion and other factors. (POL terminology)

salvo -- The bombing system which involves the re-

lease of the entire bomb load or remaining bomb load of more than 1 bomb as instantaneously as possible. This system results in the minimum bomb impact interval in a target area.

scale -- The ratio of a distance measured on a map, photograph, mosaic, etc., to the corresponding distance on the ground. Scales of air photography are classified as follows:

Very large	1:6,000 and larger
Large	1:6,000 to 1:12,000
Medium	1:12,000 to 1:30,000
Small	1:30,000 to 1:70,000
Very small	1:70,000 and smaller

scan -- A careful viewing of the photography (imagery) from a mission in order to report information on known targets and on new targets of significance. See scan rate.

scan line -- An image line corresponding to 1 revolution of a single plane mirror. A 4-sided mirror system will create 4 scan lines on the resultant imagery during a single revolution. (infrared)

scan rate -- 1. The speed of travel across the focal plane by the exposure slit; measurement is usually given in radians per second. (photography) 2. One complete rotation of a radar antenna and, therefore, the time base. (radar)

scattered cloud cover (SC) -- Clouds cover some portions of a target area.

search -- A comprehensive examination of all photography (imagery) covering a specific type of target(s) within a designated geographic area and time frame.

seasonal road -- A road, the trafficability of which is dependent upon climatic conditions.

sea wall -- A wall or embankment built alongshore to resist the sea.

secondary explosion -- An explosion caused by a bomb detonation producing a pronounced, usually larger explosion of explosive material on the surface. Examples of such material are stores of ammunition, fuel, chemicals, and pressure-operated equipment.

secondary route -- A transportation route specifically supporting local needs. Access to secondary routes is normally provided by primary routes, although a secondary route network could also serve in this capacity.

second-phase imagery exploitation -- Those actions which are accomplished by NPIC upon receipt of film but are subsequent to commencement of first-phase actions on that film.

section -- A distinct part of an area that accomplishes

a part of the area's functions or serves the area in some other way, e.g. industrial section of Area A, or in missiles terminology the technical section of a site support facility.

select -- The bombing system which involves the release of only a single bomb on a given bomb run from an aircraft loaded with more than 1 bomb. The British equivalent of this term is "single."

self-propelled gun -- A lightly armored vehicle with a traversing gun which is normally used as an indirect fire artillery piece.

semidarkness (SD) -- Insufficient illumination limits interpretation of a target.

sensor -- 1. A technical device extending man's natural senses which is designed to respond to physical stimulus (e.g. light, heat, cold, motion) and transmit a resulting impulse for interpretation, measurement, or operating a control. 2. A device or equipment which responds to energy reflected or emitted by both natural and cultural phenomena and records this energy in the form of imagery. (imagery)

separating yard -- See classification yard.

serviceable -- A target capable of being used.

service tank -- A tank for storage of POL which is usually mounted horizontally and which, in most cases, is smaller than typical aboveground POL storage tanks. A service tank normally contains petroleum for immediate consumption. (POL terminology)

severity of damage -- A classification of damage related to the degree a structure is made inoperative, unserviceable, nonproductive, or uninhabitable, but established primarily through consideration of the comparative case of repair. (damage assessment)

short range ballistic missile (SRBM) -- An arbitrary designation for missiles having ranges up to 500 nm.

siding -- A short track connected at one or more places with the main track by switches and used for general purposes, such as unloading, meeting and/or passing, etc. Also called a sidetrack, loop siding or passing siding, and dead end or stub.

signature -- The unique combination of imagery-derived characteristics by which a particular target can be identified. See indicator. (imagery interpretation)

site -- The place actually occupied, previously occupied, or to be occupied by a target. See launch site.

small aircraft -- See aircraft classification.

small scale (SS) -- A restricting term used to indicate that the scale of the photography is smaller than the minimum which is acceptable for interpretation of a

given target to the degree needed in the context of the intelligence requirement.

solid propellant -- A propellant consisting of a solid casting, also called a "grain," usually made of 2 elements, a granular material and a plastic medium in which the granular material is suspended.

solid rocket test facility -- A test facility where rocket motors using a solid propellant are test fired. By common usage the word "propellant" is omitted from the term.

sorting yard -- See classification yard.

spatial resolution -- The ability of a system to separate the images of 2 lines at a given distance. (infrared)

specific heat -- Actually is "specific heat capacity" but is abbreviated specific heat. It is a figure characteristic of a specific material and is defined as the heat capacity per unit mass of an object composed of the material. (infrared)

spectrophotometer -- An instrument for comparing the intensities at the corresponding wavelengths of two spectra.

spoil -- Unprocessed waste, such as refuse earth or rock debris resulting from excavating or dredging.

spur -- Normally a short track diverging from a main or branch line; connects a specific installation with a main or branch line.

staging area -- A place used for assembly of troops, material, and/or vehicles for movement to another destination. A staging area may contain an open storage area, storage buildings, supplies, troops, and/or vehicles, and prominent track and trail activity. If in a location vulnerable to attack or surveillance, maximum use is made of camouflage and concealment. (insurgent/infiltration activity)

static -- Static electricity discharges that produce a developable image on film. The results from 2 types of discharges produced are:

dendritic static fogging -- Branching, treelike fog patterns produced on film by a sparklike static discharge.

corona static fogging -- Irregularly shaped fogged areas produced on film by a flickering, glowing static discharge.

static test stand -- See rocket engine test facility or solid rocket test facility as applicable.

stereoscopy -- The binocular examination of photography in 3-dimensional perspective by the simultaneous viewing of the same images on 2 photographs exposed at different camera stations.

storage building -- A structure used for storage purposes and normally associated with barracks areas, transshipment areas, and other small installations. Though usually smaller than a warehouse, size alone is not the distinguishing factor, other differences being less elaborate design, semipermanent as opposed to permanent-type construction, and less complex cargo-handling facilities. See warehouse. Size classification of storage buildings according to floorspace is:

Small -- less than 2,000 sq ft

Medium -- 2,000 to 4,000 sq ft

Large -- more than 4,000 sq ft

storage yard -- A yard in which idle equipment is held awaiting disposition.

strip map -- A photographic map presentation displayed on long strips of film, normally associated with radar and infrared mapping system outputs.

structural damage -- Destruction, displacement, severance, or distortion of structural members (trusses, beams, and columns) to such a degree of severity that the damaged members cannot be repaired but must be removed and replaced. The later condition is considered to exist if the above types of damage to structural members can be identified by the photo interpreter. Structural damage includes the following:

Severed trusses.

Sagging structural members.

Framework distortion.

Wall damage to wall-bearing structures.

Purlin damage where truss spacing is over 30 feet. Holes in roofing material greater than 30 feet along the length of a framed building where no truss is visible.

Internal floor damage in industrial buildings or multistory, wall-bearing buildings, with the exception of "slab on grade" (i.e., basement floor or floor resting on the ground).

Holes in reinforced or prestressed concrete structures where the holes exceed 20 feet in minimum measurement.

Gutted multistory, wall-bearing buildings. (damage assessment)

substation -- An electrical installation, not associated with a powerplant (see switching yard), where electric power is controlled, compensated, transformed (alternating current only), rectified, or inverted, or combinations of these. A substation is not termed a transformer yard. Four types of substations are:

switching substation -- An installation without transformers where redistribution of power at the

same voltage is controlled by switches and buses. If transformers are present, it is termed a transformer substation.

transformer substation -- An installation in which 1 or more step-down or step-up transformers are installed to raise or lower alternating current voltage; it usually contains a switching yard and/or equipment for each voltage handled.

rectifier substation -- An installation where alternating current is changed (rectified) to direct current; usually a rectifier substation includes alternating current transformers and, if so, is termed a transformer/rectifier substation.

inverter substation -- An installation where direct current is changed (inverted) to alternating current.

Summary Photographic Interpretation Report (SPIR) -- Normally a second-phase photographic interpretation report compiling and summarizing intelligence information on selected targets imaged on a mission or a series of missions and published on a periodic basis. The Summary PI Report series includes the following:

New and Change PI Report -- Provides a brief description of all significant targets covered on a mission and of all installations where a major change is observed or where more information is determinable than previously reported.

Order of Battle Summary PI Report -- Provides, as appropriate, air, naval, ground, electronics, and certain missile order of battle information on significant targets covered by one or more missions or located in a specific geographic area.

summit yard -- See hump yard.

superficial damage -- Damage which can be repaired without affecting the main structure and without necessitating replacement of main frame members. By elimination, it includes all damage other than structural damage, with the exception of roof disturbance. The following specific types of damage are classified as superficial:

Roof stripping (the most common type of superficial damage -- designated where roofing material is stripped over an area of approximately 40 square feet or more).

Roof damage to wall-bearing buildings.

Most purlin damage.

Partition (parti-wall) damage (if not load-bearing).

Curtain-wall or panel-wall damage (e.g., the sheet metal wall of a steel frame building).

Broken windows.

Gutted (burned-out) single-story, wall-bearing buildings.

Monitor distortion (since monitors are supported by roof trusses, a careful search should be made for structural damage). (damage assessment)

superhighway -- A limited access, hard-surfaced, all-weather divided highway having 2 or more lanes for each direction. Other terms used for specific types of highway include freeway, parkway, turnpike, and (in Germany) autobahn.

suspect (SUSP) -- Evidence is insufficient to permit designation of a function with any degree of certainty, but photography or other information provides some indications of what the function may be.

switching substation -- See substation.

switching yard -- An installation containing step-up transformers and switching equipment associated with and normally adjacent to the generator hall of a powerplant. (electric power)

synergism -- The simultaneous use of individual sensors, or multisensor exploitation, which provides more complete information than that which is derived from each of the individual sensors.

T

tailings -- Processed waste refuse material separated as residue in the preparation of various products, as in milling of ore.

tank -- A container usually used for the storage of petroleum products; such containers are of various capacities and shapes (e.g. cylindrical, spherical, elliptical). (POL terminology)

target (TGT) -- A specified installation, object, activity, or geographic area of intelligence interest.

target area -- The environs of a target which might reasonably encompass associated activity.

target brief -- Consolidated reference, including photo, map, and collateral materials, machine processed on a given target for use by the photo interpreter preparing a description of that target as seen on a particular mission for a first- or second-phase report.

target coverage -- Indication as to the partial or complete portrayal of a target on photography.

partial target coverage -- A target in question

being less than totally portrayed in the photographic image.

total target coverage -- A target in question being fully portrayed in the photographic image.

tasking -- Direction to perform, or assignment of responsibility for the performance of, a specific operation or to fulfill a related support function.

terminal -- An assemblage of facilities provided by a railway at a terminus or at an intermediate point for the handling of passengers or freight, and the receiving, classifying, assembling, or dispatching of trains.

thermal conduction -- The transfer of thermal energy from 1 part of an object to another. The transfer mechanism is molecular motion. (infrared)

thermal convection -- The transfer of thermal energy from 1 place to another by actual motion of materials. The material motion is caused by differences in densities. (infrared)

thermal radiation -- The continual radiation of energy from the surface of all objects above absolute zero. This energy is called radiant energy and is in the form of electromagnetic waves. These waves travel with the velocity of light and are transmitted through a vacuum as well as through air. (infrared)

third-phase imagery exploitation -- Those actions which are accomplished by NPIC during the course of day-to-day activities. These actions, which can have short- or long-term deadlines, normally result from subject category or specific target intelligence needs rather than the receipt of a new film package.

through track -- A track reserved for moving through or past a yard or terminal.

total target coverage (T) -- See target coverage.

toxic agent -- A chemical, biological, or radiological material which causes disability, either temporary or permanent, in humans, animals, or plants.

track -- A route or trace wide enough for use by light wheeled vehicles, such as animal-drawn carts and ¼-ton trucks, as may be evidenced by parallel wheel marks.

track resolution -- See radar resolution.

trail -- The poorest class of land route used only by persons on foot or by animals.

train -- The bombing system which involves the release of more than 1 bomb at predetermined and selected intervals, the latter being based on damage radius of the bomb against a particular target. The British equivalent of this term is "stick."

transfer table -- A movable platform for transferring

locomotives and rolling stock between parallel tracks; also known as a traverser.

transformer substation -- See substation.

transloading -- The transfer of freight or passengers between units of the same mode of transportation. Term is most commonly used in connection with a change of rail gauge but is also applicable in other circumstances.

transmission -- Passage through an object of that part of radiant energy which is not reflected from or absorbed by the object. The part which passes through is said to be transmitted. (infrared)

transmission coefficient -- The ratio in a transmission medium of the sum of the incident and reflected waves to the corresponding quality in the incident wave, at a given frequency, at a given point, and for a given mode of transmission. (infrared)

transparency -- A positive image on a clear base which must be viewed by transmitted light. (photography)-

transshipment -- The transfer of freight and passengers between units of different media of transportation such as between railroad cars and ships or trucks.

tread road -- A road consisting of 2 strips per lane of surfacing material, laid parallel so as to support the tread of vehicles. The tread material can be logs, planks, sticks and branches, concrete, or stone.

truck park -- See rest and refuel facility. (insurgent/infiltration activity)

truck stop -- An area used briefly by trucks as an emergency stop and for rest or for regrouping of convoys. A truck stop is characterized by an absence of support facilities and usually depends on heavy tree cover for concealment. It may consist of a wide shoulder of a main road, a short parallel road, or individual vehicle parking slots cut into the vegetation. (insurgent/infiltration activity)

type -- [verb] To determine differences between pieces of equipment such as trucks, vans, tanks, artillery pieces, mortars, and classes of aircraft but not necessarily to identify specific models.

U

unidentified (UI) -- Evidence is insufficient to permit designation of the function, type, or name of a

target to the degree needed in the context of the intelligence requirement.

ultraviolet imagery -- That imagery produced as a result of sensing ultraviolet radiations emitted from a given target surface in the ultraviolet portion of the electromagnetic spectrum (approximately 10-380 millimicrons).

unimproved road -- A traveled way over cleared ground without special provision for drainage or emphasis on good alignment. The surface may be smoothed periodically.

unoccupied -- A target which is void of equipment or personnel.

V

vapor vent -- An opening, valve, or automatic device on a tank which releases excess gases when limiting pressures are exceeded and thereby maintains a safe pressure in a tank.

visual imagery -- That imagery produced as a result of sensing visible light reflected from a given target surface in the visual portion of the electromagnetic spectrum (approximately 380-760 millimicrons).

W

warehouse (WHSE) -- A structure used for storage purposes and normally found in large military installations, industrial complexes, supply depots, port areas, and similar establishments. Though normally larger than a storage building, size alone is not the determining factor in distinguishing a warehouse from a storage building. A warehouse is usually more complex, is of permanent-type construction, and may have overhead cranes or other cargo-handling equipment, lighting fixtures on the building or on poles, a hard-surfaced road network, and loading ramps or docks. See storage building. Size classification of warehouses according to floorspace is:

- Small - less than 6,000 sq ft
- Medium - 6,000 to 12,000 sq ft
- Large - more than 12,000 sq ft

warm target -- See emissivity.

washout -- See crossover.

waste -- A general term, including spoil, tailings, refuse, garbage, ashes, rubbish, sewage, and material discarded from any industrial process. In nuclear terminology, this may be the refuse byproduct of a chemical separation or reactor process.

way station -- A facility, sometimes referred to as a liaison/way station, used for support of personnel moving by foot along an infiltration route. It usually contains 1 or 2 camouflaged or well concealed structures and is near a road, stream, or well used trail. Small plots of row crops may be present. (insurgent/infiltration activity)

wharf -- A general term for a structure serving as a berthing place for vessels.

window -- Any gap in a linear continuum. Certain specific kinds of windows are:

launch window -- An interval of time within which a rocket or spacecraft must be launched to accomplish a particular mission.

recovery window -- An area at the limits of the earth's sensible atmosphere through which a spacecraft must pass for successful reentry.

atmospheric window -- Those spectral regions located between the principal absorption bands of the atmospheric gases which are regions of maximum infrared energy transmission.

window shadow -- Shadows, light or dark, trailing in the lee of objects in infrared imagery.

wye -- A track arrangement shaped like the letter Y and used to reverse the direction of locomotives.

X

X-ray imagery -- That imagery produced as a result of sensing radiations transmitted through a given target area in the X-ray portion of the electromagnetic spectrum (approximately 0.1-10 millimicrons).

Y

yellow -- The color which is complementary to the color blue. Yellow absorbs blue light and is therefore also referred to as a minus blue. It is one of the subtractive primary colors, the others being cyan and magenta. (color photography)

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CATEGORICAL
LISTINGS

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CATEGORICAL LISTINGS

IMAGERY

General

color -- The sensation produced by light of different wavelengths throughout the visible portion of the electromagnetic spectrum.

electromagnetic radiation -- Energy emitted or reflected in the form of electromagnetic waves which include, in order of increasing wavelength, cosmic rays, gamma rays, X rays, ultraviolet radiation, visual light, infrared radiation, microwave radiation, and radio waves.

electromagnetic spectrum -- The total frequency range of electromagnetic radiation. See electromagnetic radiation.

imagery -- A recorded representation of an object either visual or convertible to a medium suitable for interpretation.

laser -- An acronym formed from the initial letters of words in the phrase: light amplification by stimulated emission of radiation.

multisensor -- A term pertaining to an integrated system designed to record imagery from different portions of the electromagnetic spectrum in support of all-weather data acquisition roles.

multispectral imagery -- That imagery which is produced as a result of combining 2 or more types of sensings on a single image format, thus producing a compound target image, i.e. infrared (camouflage detection) film.

plottable imagery -- That cultural and geographical imagery which can be related to corresponding map detail. The coverage may include the limiting aspects to image interpretation such as cloud cover, cloud shadow, haze, obliquity, semidarkness, ground cover, snow, camouflage, ground resolution, etc. See limiting conditions.

sensor -- 1. A technical device extending man's natural senses which is designed to respond to physical stimulus (e.g. light, heat, cold, motion) and transmit a resulting impulse for interpretation, measurement, or operating a control. 2. A device or equipment which responds to energy reflected or emitted by both natural and cultural phenomena and records this energy in the form of imagery.

synergism -- The simultaneous use of individual sensors, or multisensor exploitation, which provides more complete information than that which is derived

from each of the individual sensors.

ultraviolet imagery -- That imagery produced as a result of sensing ultraviolet radiations emitted from a given target surface in the ultraviolet portion of the electromagnetic spectrum (approximately 10 - 380 millimicrons).

visual imagery -- That imagery produced as a result of sensing visible light reflected from a given target surface in the visual portion of the electromagnetic spectrum (approximately 380 - 760 millimicrons).

X-ray imagery -- That imagery produced as a result of sensing radiations transmitted through a given target area in the X-ray portion of the electromagnetic spectrum (approximately 0.1 - 10 millimicrons).

Infrared

absorber -- An object which readily "soaks up" radiation; a good absorber reflects poorly and is a good emitter.

absorption coefficient -- A number characterizing the ability of a given material to absorb or attenuate radiations of a specified energy. The linear absorption coefficient expresses this ability per unit thickness and is stated in units of reciprocal length or thickness. The mass absorption coefficient is equal to the linear absorption coefficient divided by the density of the absorbing material; it is a measure of the absorption ability per unit mass.

apparent radiance -- The radiant power per unit solid angle from a source as witnessed by an airborne detector. The apparent radiance is directly related to tone on infrared imagery.

atmospheric window -- Those spectral regions located between the principal absorption bands of the atmospheric gases which are regions of maximum infrared energy transmission.

attenuation -- The reduction in the intensity of radiation on passage through matter where the effect is usually due to absorption and scattering. Reduction of radiation intensity caused by the atmosphere is called atmospheric attenuation.

black body -- A hypothetical object which absorbs all, and reflects none, of the radiation incident on its surface. A black body is also the perfect emitter. As the name implies, a black body can usually be approximated by black, sooty surfaces.

cold target -- See emissivity.

cool target -- See emissivity.

crossover -- A condition in which there is a loss of contrast between 2 adjacent objects on infrared imagery. The term is sometimes used to denote temperature crossovers but is more properly used to denote radiometric temperature crossover.

detector -- The sensitive element of the infrared sensor which responds to differences in energy incident upon it.

emissivity -- The ratio of radiation emitted by a surface to the radiation emitted by a "black body" at the same temperature and under the same conditions. This may be expressed for the total radiation from all wavelengths or for restricted bands of wavelengths. Targets are described in relation to their apparent emissivity. The following categories are generalized target descriptions (assuming a target and its background have the same emissivity factor):

warm target -- A target that is warmer than its background will image much brighter than its background.

hot target -- A target that is much warmer than its background will image much brighter than its background.

cool target -- A target that is cooler than its background will image darker than its background.

cold target -- A target that is much colder than its background will image much darker than its background.

heat capacity -- The ratio of the heat supplied to an object to the corresponding temperature rise of that object which, in turn, affects the amount of infrared radiation.

hot target -- See emissivity.

infrared (IR) -- Electromagnetic radiations of wavelength between 0.72 microns (7,200 angstroms) and about 1,000 microns (1 millimeter).

infrared film -- Film which is chemically sensitized so as to respond to both infrared radiations and visible light in that portion of the electromagnetic spectrum where visible light and infrared overlap (approximately 0.72 microns). The resolution of this film is basically dependent on visible light.

infrared imagery -- That imagery produced as a result of sensing electromagnetic radiations emitted from a given target surface in the infrared portion of the electromagnetic spectrum (approximately 0.72 to 1,000 microns).

infrared radiation -- Energy emitted or reflected in the form of electromagnetic waves in the infrared

portion of the electromagnetic spectrum. Wavelengths of infrared radiation range from 0.72 microns to about 1,000 microns (1 millimeter) and are frequently divided, in order of increasing wavelength, into near, middle, and far infrared. See electromagnetic radiation.

infrared resolution -- The size of the smallest element that can be resolved which is approximately equal to the dimensions of the instantaneous field of view (IFV). The IFV is determined by the detector size, the focal length of the optical system, and the altitude of the aircraft. The IFV varies with obliquity.

instantaneous field of view (IFV) -- The smallest solid angle resolvable by a scanner when expressed in degrees. When expressed in feet, it is the projected area of the detector image on the ground and is a measure of the resolution of a scanner.

milliradian -- One thousandth of a radian. It is approximately the angle subtended by an arc 1 foot in length at 1,000 feet and is the basic factor in determining ground resolution of a given system.

overload (override) -- A situation in which radiometric temperatures of targets are beyond set limits of an infrared system resulting in shadow-like effects ruining contrast and obscuring detail; also referred to as detector saturation.

radiance resolution -- The smallest detectable difference between the radiance of 2 regions of the object being imaged. Radiance resolution is sometimes incorrectly called temperature resolution.

scan line -- An image line corresponding to 1 revolution of a single plane mirror. A 4-sided mirror system will create 4 scan lines on the resultant imagery during a single revolution.

spatial resolution -- The ability of a system to separate the images of 2 lines at a given distance.

specific heat -- Actually is "specific heat capacity" but is abbreviated specific heat. It is a figure characteristic of a specific material and is defined as the heat capacity per unit mass of an object composed of the material.

thermal conduction -- The transfer of thermal energy from 1 part of an object to another. The transfer mechanism is molecular motion.

thermal convection -- The transfer of thermal energy from 1 place to another by actual motion of materials. The material motion is caused by differences in densities.

thermal radiation -- The continual radiation of energy from the surface of all objects above absolute zero.

This energy is called radiant energy and is in the form of electromagnetic waves. These waves travel with the velocity of light and are transmitted through a vacuum as well as through air.

transmission -- Passage through an object of that part of radiant energy which is not reflected from or absorbed by the object. The part which passes through is said to be transmitted.

transmission coefficient -- The ratio in a transmission medium of the sum of the incident and reflected waves to the corresponding quantity in the incident wave, at a given frequency, at a given point, and for a given mode of transmission.

warm target -- See emissivity.

washout -- See crossover.

wind shadow -- Shadows, light or dark, trailing in the lee of objects in infrared imagery.

Radar

azimuth resolution -- See radar resolution.

radar imagery -- That imagery produced as a result of sensing radar waves reflected from a given target surface in the radar portion of the electromagnetic spectrum (approximately 300 - 70,000 megacycles).

radar resolution:

range resolution -- The minimum size of objects and the space between them that will show as separate returns on the radarscope when 1 object is farther than the other in range.

track resolution (azimuth) -- The minimum size of objects and the space between them that will show when the targets are aligned parallel to the flight path.

range resolution -- See radar resolution.

scan rate -- One complete rotation of a radar antenna and, therefore, the time base.

track resolution -- See radar resolution.

Photography and Photogrammetry

air base -- The distance between 2 exposure stations (points in space occupied by the camera lens at the moment of exposure).

Altitude Correction Graph (ACG) -- A graph depicting basic mission parameters for the determination of the scale of certain types of photography.

autopositive -- Film or paper on which a positive

image is made from a positive transparency by direct development.

color photography terms:

brightness -- A color dimension ranging from dark to light (e.g. dark orange, medium brown, light greenish blue).

chromaticity -- The quality of light as determined by its dominant wavelength and purity.

color balance -- The relative degree to which a photographic emulsion can reproduce all colors approximately as the eye sees them.

color compensating filter -- An optical device which alters the chromaticity of the light it transmits. It is used to absorb undesired colors and to transmit desired colors.

color coupler -- A chemical compound which is capable of reacting during the photographic development process to produce a cyan, magenta, or yellow dye.

color description -- The naming of colors imaged on photography according to their principal colors, their subordinate colors, and their degrees of brightness. NPIC usage limits the number of principal and subordinate color describers to 10 each and the number of brightness describers to 3. These describers are listed in the following chart. A description of a color may consist of only a principal color or of any combination of a principal color with a subordinate color and/or a brightness describer (e.g. olive, bluish green, dark brown, light brownish orange). The chart does not list the terms black, grey, and white, but these terms may be used as describers.

Brightness Describer	Subordinate Color	Principal Color
Dark	Violet	Violet
Medium	Purplish	Purple
Light	Bluish	Blue
	Greenish	Green
	Yellow	Yellow
	Orange	Orange
	Reddish	Red
	Brownish	Brown
	Olive	Olive
	Pinkish	Pink

colorimeter -- An instrument for measuring the luminous intensity of a color relative to a standard.

- cyan** -- The term applied to the blue-green color which is complementary to the color red. Cyan absorbs red light and is therefore also referred to as a minus red. It is one of the subtractive primary colors, the others being yellow and magenta.
- duplicate positive color** -- A copy of the original color positive record. The colors and tones may have been altered during the reproduction process to produce a corrected duplicate color positive in which the colors more closely resemble those of the original subject than does the original color positive.
- magenta** -- The blue-red color which is complementary to the color green. Magenta absorbs green light and is therefore also referred to as a minus green. It is one of the subtractive primary colors, the others being yellow and cyan.
- neutral density filter** -- An optical device which does not alter the chromaticity of the light it transmits.
- original positive color** -- The original photographic color record which has been exposed in the camera and processed and whose colors approximate those of the original subject.
- spectrophotometer** -- An instrument for comparing the intensities at the corresponding wavelengths of 2 spectra.
- yellow** -- The color which is complementary to the color blue. Yellow absorbs blue light and is therefore also referred to as a minus blue. It is one of the subtractive primary colors, the others being cyan and magenta.
- corona static fogging** -- See static.
- definition** -- A subjective term indicating the fineness of detail observed on the imagery obtained from any image collection system. The standards of definition are affected by the system resolutions and the range of image contrast.
- dendritic static fogging** -- See static.
- depth of field** -- The distance between points nearest and farthest from the camera which are acceptably sharp.
- depth of focus** -- The allowable error in lens-to-film distance within which an acceptably sharp image of the subject focused upon will still be obtained.
- diapositive** -- See transparency.
- diffusion** -- The scattering of light rays reflected from a rough surface or during the transmission of light through a translucent medium.
- direct positive** -- See autopositive.
- dispersion** -- The separation of a single ray of white light into a group of colored rays by a prism or other optical means.
- duplicate positive (DP)** -- See positive.
- exposure** -- The function of the duration of time and the intensity of illumination upon photographic material.
- false parallax** -- The apparent vertical displacement of an object from its true position when viewed stereoscopically, due to movement of the object itself as well as to change in the point of observation.
- feet per side** -- See ground resolution.
- fiducial mark** -- A standard geometrical reference point imaged at the margin of a photograph. The intersection of the primary fiducial marks usually defines the principal point.
- flare** -- A fogged or dense area on a photographic negative caused by nonfocused light reaching the photosensitive emulsion; this results either from internal camera reflections or from such external media as the atmosphere, water, or highly reflective objects.
- frame** -- One of a series of full-format photographs comprising a roll of film.
- generation** -- The number of reproductive steps by which a negative or positive photographic copy is separated from the original. Thus the original negative would be the first generation; any positive made from the original negative would be a second generation copy; any duplicate negative made from a second generation positive would be a third generation copy, and any positive made from the third generation duplicate negative would be a fourth generation copy.
- ground resolution** -- The ground size equivalent of the smallest still resolved image and its associated space, usually expressed in feet per side.
- halation** -- A spreading of light beyond its true boundaries from bright parts of a photographic image into adjacent darker parts as a result of reflection from the back surface of the film or plate.
- heterostereoscopy** -- See stereoscopy.
- holiday** -- A gap in the photographic coverage of a surface.
- hyperstereoscopy** -- See stereoscopy.

inverted stereo -- See stereoscopy.

lines per millimeter -- See photographic resolution.

monoscopic coverage -- That photography in which the entire frame must be viewed in 2-dimensional perspective, lacking the capability of being viewed stereoscopically in combination with adjacent frames.

negative -- A sensitized plate or film which has been exposed in a camera and which has the lights and shades in inverse order to those of the original subject. The plate or film does not become a negative until it is exposed and processed.

nonstereo (NS) -- Pertains to that mode of coverage for a given target or area in which only 1 photographic image exists, precluding the condition for stereoscopic viewing.

obliquity (O) -- That condition in which the optical axis of the camera is tilted appreciably from the vertical, often limiting detailed analysis.

orthostereoscopy -- See stereoscopy.

parallax -- The apparent displacement of the position of an object in relation to a reference point, due to a change in the point of observation.

photo base -- 1. The length of the air base as defined on the photograph. (mensuration) 2. The accumulation of photocoverage over a target area for the express purpose of creating a comparative file in relation to prospective coverage.

photographic quality -- A result of the camera system, processing, and film handling. Good photographic quality encompasses all the criteria for good image quality with the exception of unavoidable degradations not associated with the taking system, i.e. atmospherics, snow cover, etc.

photographic resolution -- A measure of the smallest array of point objects distinguishable as independent point images, frequently expressed in lines per millimeter, where "line" refers to the distance between centers of 2 distinguishable point images.

positive -- A photograph having the same approximate rendition of light and shade as the original subject.

print -- A photographic copy made by projection or contact printing from a photographic negative or from a transparent drawing.

pseudostereoscopy -- See stereoscopy.

rectification -- The mathematical, optical-mechanical, or graphical procedure by which a tilted aerial photograph is converted into one having no tilt.

restitution -- The process of determining the true planimetric position of objects whose images appear on aerial photographs.

reversed stereo -- See stereoscopy.

scale -- The ratio of a distance measured on a map, photograph, mosaic, etc., to the corresponding distance on the ground. Scales of air photography are classified as follows:

Very large	1:6,000 and larger
Large	1:6,000 to 1:12,000
Medium	1:12,000 to 1:30,000
Small	1:30,000 to 1:70,000
Very small	1:70,000 and smaller

scan rate -- The speed of travel across the focal plane by the exposure slit; measurement is usually given in radians per second.

static -- Static electricity discharges that produce a developable image on film. The results from 2 types of discharges produced are:

dendritic static fogging -- Branching, treelike fog patterns produced on film by a sparklike static discharge.

corona static fogging -- Irregularly shaped fogged areas produced on film by a flickering, glowing static discharge.

stereoscopy -- The binocular examination of photography in 3-dimensional perspective by the simultaneous viewing of the same images on 2 photographs exposed at different camera stations. Definitions of various types of stereoscopy follow:

heterostereoscopy -- Stereo viewing of a target in a stereogram composed of images photographed with a different time element to portray the following aspects: snow and nonsnow, foliage and non-foliage, displacement caused by movement, change in buildings status, camouflage, etc.

hyperstereoscopy -- Stereoscopic viewing in which the scale along the line of sight is exaggerated in comparison with scale perpendicular to line of sight.

inverted stereo -- Three-dimensional impression of relief which is the reverse of that actually existing.

orthostereoscopy -- A condition wherein the horizontal and vertical distances in a stereoscopic model appear to be at the same scale.

pseudostereoscopy -- An impression of 3-dimensional relief derived by means of binocular vision and the use of identical images.

reversed stereo -- See inverted stereo.

transparency -- A positive image on a clear base which must be viewed by transmitted light.

EXPLOITATION

General

backlog -- An accumulation of unworked or uncompleted tasks.

combat reconnaissance -- Reconnaissance programs conducted in direct support of forces engaged in combat. At the national level, such programs are tasked and managed by the JCS.

data base -- An orderly accumulation of information on a subject which may serve as the basis for subsequent updating. In imagery interpretation, an orderly accumulation of image-derived information on a selected target or targets.

exploitation -- Making use of imagery for purposes of obtaining information of value to producers of finished intelligence. This process includes converting latent images into forms from which useful information can be extracted by means of imagery interpretation. Two types of exploitation are:

basic intelligence support exploitation -- Imagery interpretation effort undertaken to maintain a flow of basic image-derived information on specific targets for more than 1 agency, department, or command. In practice, image-derived information on a specific target is collated in an authoritative basic report (data base) in a form which meets user needs, and this report is updated, periodically or as required by appropriate authority, with image-derived information acquired from each successive reconnaissance mission.

direct intelligence support exploitation -- Imagery interpretation effort undertaken in direct and timely support of the assigned mission of any agency, department, or command. This is a dynamic, on-demand process in which imagery interpretation resources are applied to meet changing intelligence needs which cannot be satisfied by basic intelligence support exploitation.

imagery exploitation, phases of:

first-phase imagery exploitation -- Those actions which are expeditiously accomplished by NPIC upon receiving film and within approximately 24 to 72 hours from receipt. These actions are related to those highest priority targets which are imaged on a specific mission as well as new, significant,

perishable and/or similar highest priority data.
second-phase imagery exploitation -- Those actions which are accomplished by NPIC upon receipt of film but are subsequent to commencement of first-phase actions on that film.

third-phase imagery exploitation -- Those actions which are accomplished by NPIC during the course of day-to-day activities. These actions, which can have short- or long-term deadlines, normally result from subject category or specific target intelligence needs rather than the receipt of a new film package.

image intelligence -- See photographic intelligence.

image interpretation -- See photographic interpretation.

interpretation -- Extraction from imagery of information contributing to the synthesized body of knowledge which constitutes intelligence.

mission (MSN or M) -- The completed photographic flight of 1 or more vehicles.

photo base -- 1. The length of the air base as defined on the photograph. (mensuration) 2. The accumulation of photocoverage over a target area for the express purpose of creating a comparative file in relation to prospective coverage.

photographic coverage -- The extent to which an area is covered by photography from 1 mission or a series of missions or in a period of time. Coverage in this sense conveys the idea of the availability of photography and is not a synonym of the word, photography.

photographic intelligence -- The collected products of photographic interpretation, classified and evaluated for intelligence use.

photographic interpretation -- The use of systems, techniques, or processes of analyzing imagery in order to produce significant, reliable, and detailed information concerning the natural or cultural features of the area photographed and to determine or infer the factors which the observable presence, condition, or use of these features imply.

photographic reading -- The simple recognition of natural or cultural features from photography without evaluation.

scan -- A careful viewing of the photography (imagery) from a mission in order to report information on known targets and on new targets of significance. See scan rate.

search -- A comprehensive examination of all photography (imagery) covering a specific type of target(s) within a designated geographic area and time frame.

target (TGT) -- A specified installation, object, activity, or geographic area of intelligence interest. Certain specific types of targets are as follows:

bonus target -- A target other than a programmed target which is being reported for the first time by NPIC.

change target -- A previously reported target showing a major change or a target where analysis of current photography furnishes more precise information.

new target -- A previously known or newly identified target reported for the first time by NPIC.

order-of-battle target -- A target where order of battle can be determined.

target area -- The environs of a target which might reasonably encompass associated activity.

target coverage -- Indication as to the partial or complete portrayal of a target on photography.

partial target coverage -- A target in question being less than totally portrayed in the photographic image.

total target coverage -- A target in question being fully portrayed in the photographic image.

tasking -- Direction to perform, or assignment of responsibility for the performance of, a specific operation or to fulfill a related support function.

Interpretation

activity -- Physical manifestation of change indicating a state of action. Frequently used with changes which cannot be given a clear and concise identification such as unidentified military activity, track activity, or construction activity.

confirm -- [verb] To classify as firm a function or target previously not so classified.

confirmed -- [adj] Denoting a function or target now classified as firm but not previously so classified.

cratology -- The technique used in attempting to identify an object by the size, shape, color, and other characteristics of its container, including the method by which it is stored or shipped.

credence qualifiers -- Terms designating varying degrees of credence in the identification of targets and their functions are as follows:

firm -- Evidence is sufficient to permit a definite identification of a function or target.

probable (PROB) -- Evidence for the designated function is strong, and other functions appear quite doubtful.

possible (POSS) -- Evidence indicates that the designated function is reasonable and more likely than other functions considered.

suspect (SUSP) -- Evidence is insufficient to permit designation of a function with any degree of certainty, but photography or other information provides some indications of what the function may be.

detect -- To observe a natural or cultural feature on photography.

identification only (IDO) -- Target can be identified on photography, but limiting conditions preclude interpretation. See limiting conditions and interpretability.

identify -- To establish the descriptive and/or functional name of some object or pattern detected on photography.

indicator -- Any feature or pattern of features which suggests the presence of a target or activity or which may suggest the function of a target or activity. A single indicator does not permit positive identification of a target, activity, or function, but a combination of indicators may constitute a signature. See signature.

interpretability -- Suitability of the imagery with respect to answering requirements on a given type of target. Various factors affect interpretability such as halation, uncompensated image motion, poor contrast, incorrect focus, vacuum plate failure, improper film processing, atmospheric conditions (both natural and manmade), ground resolution, and insufficient natural or artificial lighting of the target. The 3 levels of interpretability are:

poor interpretability (P) -- Unsuitable for adequately answering requirements on a given type of target.

fair interpretability (F) -- Suitable for answering requirements on a given type of target but with only average detail.

good interpretability (G) -- Suitable for answering requirements on a given type of target in considerable detail.

Levels of activity:

abandoned -- Status of an identified target or component thereof determined from photography to be not in use and unoccupied and not in a condition to be of immediate use.

levels of activity (continued):

active -- Status of an identified target or component thereof determined to be currently operating or in use.

dismantled -- Status of an identified target or a component thereof for which there is photographic evidence that the target is being taken down, removed, or otherwise being disposed of.

inactive -- Status of an identified target or component thereof determined from photography to be currently not in use, although the capability for immediate use may exist.

occupied -- A target inhabited or containing adequate equipment to accomplish its purpose.

operational -- A target capable of accomplishing a destined function.

serviceable -- A target capable of being used.

unoccupied -- A target which is void of equipment or personnel.

locate -- 1. To find or establish the site of a known installation on the actual aerial photograph. 2. To find or show the position on a map of an installation or site seen on a photograph; after the installation or site has been seen, the photographic interpreter may locate it with regard to geographic coordinates.

limiting conditions -- Time, weather, and/or man-made factors hindering interpretability of a given target. Conditions affecting interpretability (except snow and camouflage which are self explanatory) are as follows:

clear (C) -- Target area is free of clouds and haze.

scattered cloud cover (SC) -- Clouds cover some portions of a target area.

heavy cloud cover (HC) -- Clouds cover most of a target area.

cloud covered (CC) -- Clouds completely obscure a target area.

cloud shadow (CS) -- All or portions of a target area are darkened by shadows from clouds.

haze (H) -- All or portions of a target area are obscured by a thin vapor of suspended fog, smoke, dust, etc., in the air.

semidarkness (SD) -- Insufficient illumination limits interpretation of a target.

darkness (D) -- Lack of illumination completely obscures a target area.

ground cover (GC) -- The natural terrain or vegetational cover which obscures or creates a defilade for the target in question as imaged on

limiting conditions (continued):

an aerial photograph.

small scale (SS) -- A restricting term used to indicate that the scale of the photography is smaller than the minimum which is acceptable for interpretation of a given target to the degree needed in the context of the intelligence requirement.

ground resolution -- The ground size equivalent of the smallest still resolved image and its associated space, usually expressed in feet per side.

obliquity (O) -- That condition in which the optical axis of the camera is tilted appreciably from the vertical, often limiting detailed analysis.

modification -- The physical alteration of a vehicle, a piece of equipment, or an installation so as to change its capabilities or characteristics but not its basic design. See new generation.

negate -- To ascertain that a target previously suspected or reported as existing does not exist or cannot be so identified.

negation -- The act of negating.

negation date -- Date of the most recent photography on which there is no evidence of the target.

negation list -- A list of negated targets.

new generation -- A vehicle, a piece of equipment, or an installation of a markedly new design created to fulfill a new requirement or to incorporate a new concept. See modification.

no apparent change (NAC) -- The physical aspects of a target, as imaged on the photography in question, appear to be essentially the same as on prior coverage of the target.

order of battle (OB) -- The identification, strength, command structure, and disposition of the personnel, units, and equipment of any military force, or any part thereof.

recognize -- To establish that an object, pattern, or installation under study on a photograph was known before.

signature -- The unique combination of imagery-derived characteristics by which a particular target can be identified. See indicator.

type -- [verb] To determine differences between pieces of equipment such as trucks, vans, tanks, artillery pieces, mortars, and classes of aircraft but not necessarily to identify specific models.

unidentified (UI) -- Evidence is insufficient to permit designation of the function, type, or name of a target to the degree needed in the context of the intelligence requirement.

Reporting

Altitude Correction Graph (ACG) -- A graph depicting basic mission parameters for the determination of the scale of certain types of photography.

annotation -- Words, phrases, figures, or symbols placed on photographs or drawings for explanatory purposes. Annotations are used to indicate items or areas of special importance.

blip sheet -- NPIC nickname for target briefs.

Brief Photographic Interpretation Report (BPIR) -- A second- or third-phase report, the scope of which is limited to a single sheet format. The second-phase brief reports a new target of significance which was not reported in an IPIR or it augments an IPIR about the new target; the second-phase brief may also report a target displaying significant change which was not reported in an IPIR or it augments an IPIR about the significant change. The third-phase brief is a report of limited length and content in answer to a requirement levied on NPIC for new information on an established target or to a requirement initiated by NPIC for reporting targets of opportunity.

coverage index -- One of a series of overlays showing all photographic reconnaissance missions covering the map sheet to which the overlays refer.

detailed photographic coverage plot -- A graphical plot overlay keyed to a WAC (1:1,000,000), depicting the geographic location of mission photography.

Detailed Photographic Interpretation Report (DPIR) -- A third-phase photographic interpretation report presenting the results of a thorough analysis and a considered interpretation of all pertinent photography of a specific target or targets.

Immediate Photographic Interpretation Report (IPIR) -- A first-phase photographic interpretation report presenting the results of the initial scan and analysis of new photography in answer to specific requirements on the highest priority targets.

Mission Coverage Index (MCI) -- An obsolete title for a second-phase photographic interpretation report consisting of an organized list containing references and brief descriptions of targets of intelligence interest imaged on the photography of a given mission or missions. Publication of MCIs was discontinued in July 1965.

Mission Coverage Plots (MCP) -- A technical publication providing the photographic coverage plots of an entire mission of photography.

Mission Coverage Plot Summary (MCPS) -- A graphic plot overlay, keyed to a 1:15,000,000 map, depicting the plottable photographic coverage of an entire mission of photography.

Mission Index Photographic Interpretation Report (MIPIR) -- A first-phase photographic interpretation report presenting an organized list of all targets of intelligence interest imaged on the photography of a given mission or missions. Targets are identified by name with notations of photo reference, photo quality, and atmospheric conditions. This type of report is no longer published.

Photographic Evaluation Report (PER) -- A technical publication expressing the photo quality results of a mission of photography. Emphasis is placed on the negative aspects of the results to guide those concerned in applying appropriate corrections.

Photographic Intelligence Listing -- A list of photographic reports produced or received by the National Photographic Interpretation Center; it is in 3 parts and lists the reports by originator, by general subject, and alphabetically.

pilot's trace -- An annotated overlay or map compiled with the assistance of the pilot of a photographic mission. It may contain the following information: ground track of the reconnaissance aircraft; camera designation; location of camera operation; indicated altitudes at specified check points; recorded times at specified check points; and estimated cloud cover observed along the flight line.

plot -- An overlay or map depicting the geographic coverage of a photographic mission.

Preliminary Mission Coverage Plot Summary (Pre MCPS) -- A composite graphic depicting the predicted areas of photographic coverage as determined from preliminary information.

strip map -- A photographic map presentation displayed on long strips of film, normally associated with radar and infrared mapping system outputs.

Summary Photographic Interpretation Report (SPIR) -- Normally a second-phase photographic interpretation report compiling and summarizing intelligence information on selected targets imaged on a mission or a series of missions and published on a periodic basis. The Summary PI Report series include the following:

**Summary Photographic Interpretation Report
(continued):**

New and Change PI Report -- Provides a brief description of all significant targets covered on a mission and of all installations where a major change is observed or where more information is determinable than previously reported.

Order of Battle Summary PI Report -- Provides, as appropriate, air, naval, ground, electronics, and certain missile order-of-battle information on significant targets covered by 1 or more missions or located in a specific geographic area.

target brief -- Consolidated reference, including photo, map, and collateral materials, machine processed on a given target for use by the photo interpreter preparing a description of that target as seen on a particular mission for a first- or second-phase report.

Data Processing

interface -- 1. The mating surfaces at which 2 interdependent components join. 2. The point at which 2 independent systems meet and act upon or communicate with each other.

on-line -- Descriptive of a production function connected directly to the central data processing unit for automatic response to requirements.

real time -- 1. Time in which reporting on events or recording of events is simultaneous with the events. 2. That time during which information on data is processed in a sufficiently rapid manner so that the results of the processing are available to influence the process being monitored or controlled.

INSTALLATIONS

General

installation components:

area -- 1. A particular space or surface, e.g. an area of unidentified construction, an unidentified area. 2. A facility serving a special function and one that may be composed of 2 or more subordinate units called sections or sites, and usually 1 element of a larger facility which may be designated as a complex or center. See launch area.
installation (INSTLN) -- A facility in a fixed or relatively fixed location, together with its buildings, building equipment, and subsidiary facilities

installation components (continued):

such as piers, spurs, access roads, beacons, etc.

section -- A distinct part of an area that accomplishes a part of the area's functions or serves the area in some other way, e.g. industrial section of Area A or, in missiles terminology, the technical section of a site support facility.

site -- The place actually occupied, previously occupied, or to be occupied by a target. See launch site.

Missile Installations

access road -- A road branching from the complex main road to provide access to a launch area and/or group.

center service road -- The road within the launch site between the pads that provides access from the rear of the site to the forward loop road connecting the pads.

complex main road -- The road connecting the access roads to the complex support facility and rail-to-road transfer point with the launch areas and/or groups.

complex support facility -- The road- and rail-served installation constituting the logistic, construction, and maintenance support base of the launch complex.

hold revetment -- An on-site prepared position(s) used for parking spare missiles.

launch area -- 1. (SSM) The component of a surface-to-surface missile (MRBM, IRBM, ICBM) complex which may include the launch site with its launch positions, road network, missile-ready buildings, nuclear warhead/nosecone handling facility, and the site support facility. 2. (SAM) Any designated location having the necessary equipment to launch surface-to-air missiles. 3. (AMM) The component of an antimissile-missile complex which includes the launch sites and the facilities within the immediate vicinity of the launch sites.

launch complex -- An integrated association of launch areas and/or groups and logistic support elements which may include a complex support facility, rail-to-road transfer point, and nuclear weapons handling facilities.

launch group -- A group of single silo sites interconnected by cable(s) and containing 1 or more control facilities.

launch pad -- A permanent or semipermanent load-bearing surface on which a missile launcher can be placed.

launch position -- A prepared place from which a missile can be launched (specifically, a silo, revetment, pad, platform, emplacement, etc).

launch silo -- A vertical underground missile shelter designed to contain a missile and the necessary equipment to launch it or to lift it to a launch attitude.

launch site -- 1. A facility consisting of 1 or more launch positions and the related buildings and/or equipment necessary to effect the launch of surface-to-surface or antimissile missiles. 2. A facility for the launching of surface-to-air missiles which may include a launch area consisting of 1 or more launch positions, a guidance area, 1 or more missile-hold positions, and a support area.

missile assembly and checkout facility -- The component(s) of a missile support facility at a test center used for assembly and checkout of a missile prior to its movement to a launch site or in recycling.

missile launch site construction (single-silo sites) -- Identifiable stages of construction are:

early stage -- Evidence of clearing and grading, or open-cut excavation, or of silo coring.

midstage -- Evidence that silo is under construction, that silo appears finished to surface level, or that backfilling of silo is under way.

late stage -- Evidence that silo door(s) is (are) installed, that final backfilling is complete, and that grading is under way.

complete -- Evidence that elements are complete and roads are paved.

missile-ready building -- A road-served drive-in or drive-through building at deployed soft surface-to-surface or antimissile-missile launch sites providing facilities for the preparation, storage, and maintenance of a missile in a ready-to-launch condition.

missile RIM facility or building -- The place at a deployed hard missile launch complex where a missile is received, inspected, and/or maintained.

Storage & POL

ammunition storage area -- A storage area for ammunition. Such a facility may be 1 of 3 types depending on its location with respect to the area of operations or combat zone:

depot -- A military storage area where ammunition is stockpiled to provide the reserve and potential which are required to insure an uninterrupted flow into the combat zone or area of operations. Such a storage area is a rear echelon

operation and may be fixed or semimobile.

dump -- A temporary field storage facility to provide initial supply and replenishment of ammunition to various points. Such dumps usually are behind the combat zone and can be moved easily.

point -- An advanced position in a combat zone or area of operations where ammunition is available for distribution to using units or for distribution by a unit to subordinate units or to individuals. Such points are maintained by a combat unit; therefore, they are in or very near the combat zone.

barrel (BBL or bbl) -- 1. A unit of liquid measure; in the United States, by custom, 42 US gallons comprise a barrel of crude oil or petroleum products for statistical purposes. 2. A container used in the transport of petroleum products. See drum.

blast wall -- A wall, usually of metal or concrete, which closely surrounds a storage tank to protect it from blasts, flying debris, or fire. Blast walls are common in areas where bombing or secondary explosions are likely to occur.

bulk storage -- The storage of active agents which will be used to fill munitions.

combat-ready storage -- The storage of ammunition in which the fill and fuse are in place ready for firing.

deadspace -- Space inside a storage tank occupied by tank accessories such as pipes, manholes, and internal structural supports which reduce storage capacity and also space left empty at the top of tank to preclude spillage.

depot (DPO) -- See ammunition storage area.

drum -- A cylindrical container commonly used for the transportation of petroleum products and which may be 1 of 3 standard sizes and capacities. In the United States, drums most in use have a 55-gallon capacity. (See barrel.) Capacities (in US gallons) and dimensions (in inches) of the 3 standard drums are:

Capacity	Filled Capacity	Diameter	Length
30 gal	28.5 gal	14 in	27 in
55 gal	53 gal	25 in	35 in
110 gal	106 gal	31 in	45 in

dump -- See ammunition storage area.

explosives storage area -- A storage area where blast

protective measures are visible. The storage may be either military or civil. Civil storage areas do not have military aspects such as barracks, extra security measures, or military housekeeping facilities.

packaging plant -- A facility consisting of 1 or more buildings where petroleum products are barreled, canned, or packaged.

partially underground (PUG) -- Descriptive term applied to structures or objects, including POL storage tanks, which are placed partially above and partially below the surrounding surface of the ground or semi-buried; the portion of the structure or object above ground may be banked or covered with earth. This term is not normally applied to a building with a basement as the lowest floor.

point -- See ammunition storage area.

safe capacity -- The volume of POL, usually 95 percent of gross volume, that can be safely held by a storage tank because of the need to provide for vapor expansion and other factors.

service tank -- A tank for storage of POL which is usually mounted horizontally and which, in most cases, is smaller than typical aboveground POL storage tanks. A service tank normally contains petroleum for immediate consumption.

storage building -- A structure used for storage purposes and normally associated with barracks areas, transshipment areas, and other small installations. Though usually smaller than a warehouse, size alone is not the distinguishing factor, other differences being less elaborate design, semipermanent as opposed to permanent-type construction, and less complex cargo-handling facilities. See warehouse. Size classification of storage buildings according to floorspace is:

- Small -- less than 2,000 sq ft
- Medium -- 2,000 to 4,000 sq ft
- Large -- more than 4,000 sq ft

tank -- A container usually used for the storage of petroleum products; such containers are of various capacities and shapes (e.g. cylindrical, spherical, elliptical).

vapor vent -- An opening, valve, or automatic device on a tank which releases excess gases when limiting pressures are exceeded and thereby maintains a safe pressure in a tank.

warehouse (WHSE) -- A structure used for storage purposes and normally found in large military installations, industrial complexes, supply depots, port areas,

and similar establishments. Though normally larger than a storage building, size alone is not the determining factor in distinguishing a warehouse from a storage building. A warehouse is usually more complex, is of permanent-type construction, and may have overhead cranes or other cargo-handling equipment, lighting fixtures on the building or on poles, a hard-surfaced road network, and loading ramps or docks. See storage building. Size classification of warehouses according to floorspace is:

- Small -- less than 6,000 sq ft
- Medium -- 6,000 to 12,000 sq ft
- Large -- more than 12,000 sq ft

Industrial Features

nitrocellulose section -- That part of an explosives plant where wood or cotton pulp is nitrated with nitric acid to form nitrocellulose.

nitroglycerine section -- That part of an explosives plant in which glycerine compounds are nitrated to form nitroglycerine.

spoil -- Unprocessed waste, such as refuse earth or rock debris resulting from excavating or dredging.

tailings -- Processed waste refuse material separated as residue in the preparation of various products, as in milling of ore.

waste -- A general term, including spoil, tailings, refuse, garbage, ashes, rubbish, sewage, and material discarded from any industrial process. In nuclear terminology, this may be the refuse byproduct of a chemical separation or reactor process.

Protective Features

blast wall -- A wall, usually of metal or concrete, which closely surrounds a storage tank to protect it from blasts, flying debris, or fire. Blast walls are common in areas where bombing or secondary explosions are likely to occur.

bunker -- [noun] 1. A heavily reinforced structure for storage of sensitive or valuable materials, e.g. a storage bunker for high explosives. 2. A fortified structure, above or below ground, usually with embrasures, for protection of personnel, for a defended gun position, or for a defensive position.

bunker -- [verb] 1. To provide or protect with bunkers. 2. To provide with fuel, as to bunker a ship with coal or oil.

concealment -- Protection from observation.

cover -- Protection from flat-trajectory fire.

earth banked -- To have earth piled against the sides.

earth covered -- To be covered completely with earth (except, for example, the entrances of an earth-covered building may be exposed); earth covered and earth mounded are nearly synonymous; however, the term earth mounded implies that the earth has been piled in a heap that obscures the configuration of the covered object, and the term earth covered usually implies a thinner covering. (In some instances a structure built in an excavation and then covered with a deep layer of earth may more aptly be described as being underground rather than earth covered or mounded.)

earth mounded -- To be covered with a heap of earth, e.g. an earth-mounded storage bunker, the fabrication building is earth mounded, the building is mounded with earth. See earth covered.

ground cover (GC) -- The natural terrain or vegetational cover which obscures or creates a defilade for the target in question as imaged on an aerial photograph.

hold revetment -- See under Missile Installations.

mound -- [noun] A pile or heap, e.g. a mound of earth.

mound -- [verb] To cover with a raised heap, e.g. an earth-mounded storage bunker.

revet -- [verb] 1. To provide with a revetment, i.e. a wall or free embankment. 2. To face a wall, dike, river bank, etc., with stone, brick, concrete, sandbags, or other material for purposes of preventing erosion or to hold earth slopes at steeper angles than could normally be maintained without caving or sliding.

revetment (RVT) -- 1. A wall, free embankment, or similar device, usually made of earth, designed to protect buildings, storage facilities, planes, vehicles, or weapons emplacements from the effects of blast, fire, bombs, strafing, or shellfire. 2. A facing or retaining wall.

TRANSPORTATION & POWER

General

lines of communication (LOC) -- All the routes (land, water, and air) which connect an operating military force with a base of operations, and along which supplies and reinforcements move.

rail-to-road transfer point -- A facility for the transfer

of material from rail to road.

right of way -- A strip of land authorized for use by a transportation route, by a communication line, or by a powerline.

route -- The course or way of a transportation or communication system, along which traffic moves.

transloading -- The transfer of freight or passengers between units of the same mode of transportation. The term is most commonly used in connection with a change of rail gauge but is also applicable in other circumstances.

transshipment -- The transfer of freight and passengers between units of different media of transportation, such as between railroad cars and ships or trucks.

Roads

access road -- See under Missile Installations.

all-weather road -- An improved road trafficable by motor vehicles during all seasons of the year.

center service road -- See under Missile Installations.

complex main road -- See under Missile Installations.

corduroy road -- A road with a surface of logs laid side by side perpendicular to the flow of traffic.

divided road -- A 2-way road separated by a median strip.

fascine road -- A road with a surface of bundles of sticks and branches laid crosswise to the flow of traffic.

grade crossing -- The intersection of a rail line and a road at the same level.

hard-surfaced road -- See paved road.

improved road -- A route made better than cleared ground by the addition of a base course, surfacing material, or other stabilizing agent, with provision for drainage. Improvement is usually associated with good alignment and vertical control.

paved road -- An improved road having a durable surface of gravel, stone, concrete, asphalt, or similar material.

primary route -- A transportation route or series of routes (commonly called a network) providing for through traffic and normally connecting with secondary routes.

road -- In general, a route that is capable of supporting vehicular movement by width, alignment, and use.

roadway -- Usable portion of road structure which normally lies between the construction limits of grading and drainage but does not include shoulders.

seasonal road -- A road, the trafficability of which is dependent upon climatic conditions.

secondary route -- A transportation route specifically supporting local needs. Access to secondary routes is normally provided by primary routes, although a secondary route network could also serve in this capacity.

superhighway -- A limited access, hard-surfaced, all-weather divided highway having 2 or more lanes for each direction. Other terms used for specific types of highway include freeway, parkway, turnpike, and (in Germany) autobahn.

track -- A route or trace wide enough for use by light, wheeled vehicles, such as animal-drawn carts and 1/4-ton trucks, as may be evidenced by parallel wheel marks.

trail -- The poorest class of land route used only by persons on foot or by animals.

tread road -- A road consisting of 2 strips per lane of surfacing material, laid parallel so as to support the tread of vehicles. The tread material can be logs, planks, sticks and branches, concrete, or stone.

unimproved road -- A traveled way over cleared ground without special provision for drainage or emphasis on good alignment. The surface may be smoothed periodically.

Railroads

branch line -- A secondary line of a rail system.

bumper -- A barrier placed at the end of a rail line or spur.

classification yard -- A yard in which cars are classified or grouped in accordance with freight movement requirements.

crossover -- A short length of track on which a train can cross from one track to an adjacent one.

CW rail car -- See under Biological/Chemical Warfare.

departure yard -- See forwarding yard.

engine terminal -- 1. Terminus of a section of track along which an engine operates. 2. End of operating division of a rail line, to include at least engine turn-around facilities.

flat yard -- A yard in which the sorting is done by

an engine pushing freight cars into place.

forwarding yard -- A holding yard in which trains are held temporarily after classification but before entering the running tracks. Also called departure yard.

holding yard -- A yard for the temporary retention of cars.

hump yard -- A yard in which cars are pushed over a hump beyond which they roll onto sidings by gravity. Also called summit yard.

junction -- A place where 2 or more rail lines or roads physically join.

loop track -- A more or less circular rail alignment used to reverse direction of locomotives and rolling stock.

marshalling yard (British terminology) -- See classification yard.

railhead -- A place or point along a railroad line where supplies are unloaded for distribution or storage. Also, the farthest point to which track has been laid in railroad construction.

receiving yard -- A holding yard for incoming trains prior to their classification.

roadbed -- Any prepared surface which ultimately will be used for supporting a rail line.

separating yard -- See classification yard.

siding -- A short track connected at 1 or more places with the main track by switches and used for general purposes, such as unloading, meeting and/or passing, etc. Also called a sidetrack, loop siding or passing siding, and dead end or stub.

sorting yard -- See classification yard.

spur -- Normally a short track diverging from a main or branch line; connects a specific installation with a main or branch line.

storage yard -- A yard in which idle equipment is held awaiting disposition.

summit yard -- See hump yard.

terminal -- An assemblage of facilities provided by a railway at a terminus or at an intermediate point for the handling of passengers or freight, and the receiving, classifying, assembling, or dispatching of trains.

through track -- A track reserved for moving through or past a yard or terminal.

transfer table -- A movable platform for transferring locomotives and rolling stock between parallel tracks;

also known as a traverser.

wye -- A track arrangement shaped like the letter Y and used to reverse the direction of locomotives.

Marine Facilities

berth -- A place for securing a vessel.

breakwater -- An artificial, protective barrier to break or deflect the force of the sea.

bunker -- [verb] To provide with fuel, as to bunker a ship with coal or oil.

buoy -- A floating device anchored to the bed of a body of water serving as an aid to navigation or for mooring vessels.

dike -- An artificial embankment to exclude water. When used along a river, it is also called a levee.

dock -- Water area between 2 piers. A pier is sometimes erroneously called a dock.

dolphin -- Usually consists of a cluster of piles fastened together at the top and used for protecting other structures and for mooring or warping a vessel. Dolphins may be in the water, on the beach, or, infrequently, on a wharf.

floating dock -- A type of drydock composed of 1 or more sections which can be submerged to receive a vessel, then resurfaced so as to expose the bottom of the vessel.

jetty -- An artificial barrier at river mouths and harbor entrances to deflect and regulate water currents. A jetty which breaks the force of the sea is called a breakwater.

mole -- A massive structure projected from the shore which deflects water currents and provides berthing space.

offshore wharf -- A structure built parallel to the shore and connected to it by 1 or more narrow approaches or gangways. Vessels berth along its face.

pier -- A wharf extending perpendicularly or obliquely into the water with accommodations for ships on both sides; it may be straight, T-shaped, or L-shaped.

quay -- A wharf accommodating ships on 1 side only. Usually of solid construction, a quay is built against and parallel to shore, moles, or breakwaters.

sea wall -- A wall or embankment built alongshore to resist the sea.

wharf -- A general term for a structure serving as a berthing place for vessels.

Electric Power

bus -- A short powerline within a switching yard enabling the transfer of power from 1 switching position to another; pl, buses.

circuit -- An electrical connection between 2 points. Circuit is not synonymous with powerline or conductor.

conductor -- A wire or cable used to transmit electricity.

outage -- A period of time during which there is a disruption in the supply of electric power.

powerline -- A succession of supports carrying conductors for transmitting electric power overhead, underground, or underwater. A powerline is not termed a transmission line.

powerline trace -- A relatively narrow strip cleared of trees and high shrubbery which may contain 1 or more powerlines.

substation -- An electrical installation, not associated with a powerplant (see switching yard) where electric power is controlled, compensated, transformed (alternating current only), rectified, or inverted, or combinations of these. A substation is not termed a transformer yard. Four types of substations are:

switching substation -- An installation without transformers where redistribution of power at the same voltage is controlled by switches and buses. If transformers are present, it is termed a transformer substation.

transformer substation -- An installation in which 1 or more step-down or step-up transformers are installed to raise or lower alternating current voltage; it usually contains a switching yard and/or equipment for each voltage handled.

rectifier substation -- An installation where alternating current is changed (rectified) to direct current; usually a rectifier substation includes alternating current transformers and, if so, is termed a transformer/rectifier substation.

inverter substation -- An installation where direct current is changed (inverted) to alternating current.

switching yard -- An installation containing step-up transformers and switching equipment associated with and normally adjacent to the generator hall of a powerplant.

Insurgency/Infiltration Activity

liaison/way station -- See way station.

rest and refuel facility -- An area, sometimes referred to as a truck park, used for support of vehicular movement, including rest for personnel and refuel, maintenance, and concealment for vehicles. It is usually located near or adjacent to a main road. Its access road, usually well defined, leads to a turnaround or a dead end; small support buildings are usually present; trucks may be visible, and POL is present but usually not visible; sometimes present are individual vehicle parking slots cut into the vegetation.

staging area -- A place used for assembly of troops, material, and/or vehicles for movement to another destination. A staging area may contain an open storage area, storage buildings, supplies, troops, and/or vehicles, and prominent track and trail activity. If in a location vulnerable to attack or surveillance, maximum use is made of camouflage and concealment.

truck park -- See rest and refuel facility.

truck stop -- An area used briefly by trucks as an emergency stop and for rest or for regrouping of convoys. A truck stop is characterized by an absence of support facilities and usually depends on heavy tree cover for concealment. It may consist of a wide shoulder of a main road, a short parallel road, or individual vehicle parking slots cut into the vegetation.

way station -- A facility, sometimes referred to as a liaison/way station, used for support of personnel moving by foot along an infiltration route. It usually contains 1 or 2 camouflaged or well concealed structures and is near a road, stream, or well used trail. Small plots of row crops may be present.

WEAPONRY

Weapons & Aircraft

aircraft classification -- Aircraft and helicopters are classified as small, light, medium, and heavy according to wing span or rotor diameter as follows:

	Small (feet)	Light (feet)	Medium (feet)	Heavy (feet)
Straight wing	Up to 70	71-100	111-150	Over 150
Swept wing	Up to 40	41- 70	71-130	Over 130
Delta wing	Up to 35	36- 50	51- 70	Over 70
Helicopter	Up to 40	41- 60	61-100	Over 100

antiaircraft artillery (AAA), categories of --

Category	Caliber
Automatic Weapons/Antiaircraft	Less than 21 mm
Light AAA	21-75 mm
Medium AAA	76-100 mm
Heavy AAA	larger than 100 mm

assault gun -- An armored vehicle mounting a gun with little or no traverse which is normally used in a direct fire role.

bombs, categories of:

aerial bomb -- An unpowered, usually free-falling device intended for delivery by aircraft for the purpose of causing damage and/or casualties.

armor-piercing bomb -- A bomb designed for maximum penetration before exploding. It is designed with a strong steel case, reinforced at the nose end, and cleanly streamlined. The explosive charge is small compared with the entire weight.

demolition bomb -- A general purpose (GP) bomb designed to meet the greatest number of bombing situations. It has good blast effect, penetration, and some fragmentation. It is used primarily for the destructive effect caused by blast in above-surface explosions and in earth shock or mining effects resulting from the detonation of buried bombs.

depth bomb -- See depth charge.

depth charge -- A bomb designed for underwater detonation and, like the light case bomb, designed for maximum blast effect.

fragmentation bomb -- A bomb designed so that the bomb case and/or special filling of the bomb shatters into a large number of fragments which are sprayed destructively in all directions. It is designed for maximum effect against personnel, aircraft on the ground, lightly armored equipment, and materiel.

incendiary bomb -- A bomb designed to start fires which will destroy the usefulness of a target area. In size, they can range from 4 to 500 pounds, with the smaller bombs usually carried in bomb clusters.

light case bomb -- A bomb which differs from the demolition bomb in having a thin case and no

penetrating power. It carries a maximum charge and is designed to create maximum blast effect.

napalm bomb -- A special type of incendiary, shaped like a fuel droptank, carried externally, and dropped from low altitude to increase accuracy and area coverage.

bomb release system -- One of several optional methods of releasing bombs from aircraft, each of which results in a different bomb fall pattern or interval and thus directly affects the degree and extent of damage in a target area. Three types of bomb release systems are defined as follows:

salvo -- The bombing system which involves the release of the entire bomb load or remaining bomb load of more than 1 bomb as instantaneously as possible. This system results in the minimum bomb impact interval in a target area.

select -- The bombing system which involves the release of only a single bomb on a given bomb run from an aircraft loaded with more than 1 bomb. The British equivalent of this term is "single."

train -- The bombing system which involves the release of more than 1 bomb at predetermined and selected intervals, the latter being based on damage radius of the bomb against a particular target. The British equivalent of this term is "stick."

cannister -- A cylindrical shipping container. (Certain missiles are launched from their cannisters.) See pod.

pod -- A streamlined, usually detachable, functional component used as a housing or as an environmental shelter for weapons, cargo, or engines (e.g. rocket pod, missile pod, fuel pod, jet pod). See cannister.

self-propelled gun -- A lightly armored vehicle with a traversing gun which is normally used as an indirect fire artillery piece.

Missilery

antisatellite (ASAT) -- [adj] Pertaining to a device or facility used to monitor, track, inspect, neutralize, or destroy satellites.

missiles, categories of:

antiballistic-missile (ABM) -- An adjective pertaining to objects or activities for countering ballistic missiles.

antimissile missile (AMM) -- A missile designed to intercept and destroy another missile in flight.

intercontinental ballistic missile (ICBM) -- An arbitrary designation for missiles having a range in excess of 3,000 nm.

intermediate range ballistic missile (IRBM) -- An arbitrary designation for missiles having ranges from 1,101 to 3,000 nm.

medium range ballistic missile (MRBM) -- An arbitrary designation for missiles having ranges from 501 to 1,100 nm.

short range ballistic missile (SRBM) -- An arbitrary designation for missiles having ranges up to 500 nm.

missile test facilities:

flame bucket -- The structure, often water cooled, used to deflect the engine exhaust gases in liquid rocket engine test stands.

flame deflector -- A device for deflecting the exhaust flame of a rocket motor away from structural areas the flame might damage.

rocket engine test facility -- An installation where the engine of a solid or liquid propulsion rocket system is test fired.

solid rocket test facility -- A test facility where rocket motors using a solid propellant are test fired. By common usage the word "propellant" is omitted from the term.

static test stand -- See rocket engine test facility or solid rocket test facility as applicable.

propellants:

composite propellant -- A propellant in which particles of high-energy fuel and particles of an oxidizer are carried in a plastic binder.

double-base propellant -- A propellant made of nitrocellulose granules bound together with a gelatinous binder of nitroglycerine.

liquid propellant -- A propellant in liquid form usually composed of 2 parts, the oxidizer and the fuel, which are piped separately to the combustion chamber.

solid propellant -- A propellant consisting of a solid casting, also called a "grain", usually made of 2 elements, a granular material and a plastic medium in which the granular material is suspended.

window -- Any gap in a linear continuum. Certain specific kinds of windows are:

launch window -- An interval of time within which a rocket or spacecraft must be launched to accomplish a particular mission.

recovery window -- An area at the limits of the earth's sensible atmosphere through which a spacecraft must pass for successful reentry.

atmospheric window -- Those spectral regions

window (continued):

located between the principal absorption bands of the atmospheric gases which are regions of maximum infrared energy transmission.

Biological/Chemical Warfare

bulk storage -- The storage of active agents which will be used to fill munitions.

BW agent -- A micro-organism which causes disease in man, plants, or animals, or causes the deterioration of material.

BW operations -- The employment of living organisms, toxic biological products, and/or plant growth regulators to produce death or casualties in men or animals and/or damage to plants or material.

CBR -- The abbreviation for chemical, biological, and radiological warfare.

CW agent -- A solid, liquid, or gas which, through its chemical properties, produces lethal or damaging effects on man, animals, plants, or material or produces a screening or signaling smoke.

CW rail car -- A specialized rail car used to transport a bulk quantity of a CW agent.

nonpersistent agent -- A volatile chemical agent which forms a cloud and dissipates rapidly into the atmosphere.

persistent agent -- A nonvolatile chemical agent which remains on the terrain or on clothing and equipment in the form of droplets.

psychochemical agent -- A chemical agent which affects the brain or nerve centers and by disorienting the human or animal mind prevents the mind temporarily from performing its usual functions.

toxic agent -- A chemical, biological, or radiological material which causes disability, either temporary or permanent, in humans, animals, or plants.

Nuclear Testing

epicenter -- The area on the earth's surface directly above the place of origin, or focus, of an earthquake. The term is not used for manmade events. See ground zero.

ground zero (GZ) -- The point on the surface of land or water at, or vertically above or below, the center of the burst of a nuclear device or weapon. See epicenter.

nuclear event -- Any detonation of a nuclear device or weapon.

Damage Assessment

blast damage -- Damage caused by explosion, however initiated.

bomb effects -- The phenomena resulting from a bomb detonation. There are 3 basic effects from a conventional bomb detonation: blast, heat, and fragmentation.

bomb impact plot -- A graphic representation of the target area, usually a prestrike aerial photograph, on which prominent dots are plotted to mark the impact or detonation points of bombs dropped on a specific bombing attack.

causation -- The cause of damage. The destructive force responsible for each observed incident of damage.

collapse -- A type of structural damage. In this case, spanning members rest on the floor or on equipment within the building. Collapse may be "primary" (usually caused by a single bomb), or "secondary" or "spreading collapse." The latter covers a large area and is usually caused by the collapse of adjacent spanning members.

destroyed -- A type of structural damage. In the case of a building, all vertical supports and spanning members are damaged to such an extent that nothing is salvageable. To insure against misuse of this term, its use must be restricted to structures which are completely leveled. In the case of bridges, all spans must be dropped and all piers must require replacement.

effective damage -- That damage necessary to render a target element inoperative, unserviceable, nonproductive, or uninhabitable.

extent of damage -- The visible plan area of damage to a target element, usually expressed in units of 1,000 square feet in detailed damage analysis and in approximate percentages in immediate-type damage assessment reports (e.g. 50 percent structural damage).

fire damage -- Damage caused by combustion, however ignited.

guttled -- See structural damage and superficial damage.

roof disturbance -- Minor damage to the roof without roof stripping in excess of 40 square feet. This is a minor type of damage which does not qualify as superficial damage; however, it may be important

where large areas are involved in damage to highly vulnerable contents such as precision instruments. (Roof disturbance does not mean roof distortion which is a clue to structural damage and which is more serious.)

roof stripping -- See superficial damage.

secondary explosion -- An explosion caused by a bomb detonation producing a pronounced, usually larger explosion of explosive material on the surface. Examples of such material are stores of ammunition, fuel, chemicals, and pressure-operated equipment.

severity of damage -- A classification of damage related to the degree a structure is made inoperative, unserviceable, nonproductive, or uninhabitable, but established primarily through consideration of the comparative ease of repair.

structural damage -- Destruction, displacement, severance, or distortion of structural members (trusses, beams, and columns) to such a degree of severity that the damaged members cannot be repaired but must be removed and replaced. The latter condition is considered to exist if the above types of damage to structural members can be identified by the photo interpreter. Structural damage includes the following:

Severed trusses.

Sagging structural members.

Framework distortion.

Wall damage to wall bearing structures.

Purlin damage where truss spacing is over 30 feet.

Holes in roofing material greater than 30 feet along the length of a framed building where no truss is visible.

Internal floor damage in industrial buildings or multistory, wall-bearing buildings, with the exception of "slab on grade" (i.e. basement floor or floor resting on the ground).

Holes in reinforced or prestressed concrete structures where the holes exceed 20 feet in minimum measurement.

Gutted multistory, wall-bearing buildings.

superficial damage -- Damage which can be repaired without affecting the main structure and without necessitating replacement of main frame members. By elimination, it includes all damage other than structural damage, with the exception of roof disturbance. The following specific types of damage are classed as superficial:

Roof stripping (the most common type of superficial damage--designated where roofing material is stripped over an area of approximately 40 square feet or more).

Roof damage to wall-bearing buildings.

Most purlin damage.

Partition (parti-wall) damage (if not load-bearing).

Curtain-wall or panel-wall damage (e.g. the sheet metal wall of a steel frame building).

Broken windows.

Gutted (burned-out) single-story, wall-bearing buildings.

Monitor distortion (since monitors are supported by roof trusses, a careful search should be made for structural damage).

ABBREVIATIONS

Note: Only items marked by an asterisk are used on NPIC briefing aids.

A

A or AFT -- aft-looking camera
AA* -- anti-aircraft
AAA* -- anti-aircraft artillery
AAAOB -- anti-aircraft artillery order of battle
AAM* -- air-to-air missile
ABM* -- antiballistic missile
ACFT* -- aircraft
ACG -- altitude correction graph
AD* -- air defense
ADJ -- adjacent
ADMIN* -- administration(tive)
ADMIN/HOUSING* -- administration/housing
AE* -- atomic energy
AEM* -- missile support ship
AFLD* -- airfield
AG* -- miscellaneous auxiliary (ship)
AGB* -- icebreaker (ship)
AGI* -- intelligence collector (ship)
AGT* -- target service ship
AIF -- automated intelligence file
AK* -- cargo ship
AKL* -- cargo ship light
ALT -- altitude
ALTN -- alternate
AM* -- amplitude modulation
AMM* -- antimissile missile
AMMO* -- ammunition
AN* -- net-laying ship
ANOT* -- annotated
ANT* -- antenna

AO* -- oiler (ship)
AOB -- air order of battle
APRX* -- approximately
AR* -- repair ship
ARTY -- artillery
AS* -- submarine tender
ASAT -- antisatellite
ASBLY -- assembly
ASL* -- small submarine tender
ASM* -- air-to-surface missile
ASSOTW -- Airfield and Seaplane Stations of the World
AT* -- tug (ship)
ATC -- air target chart
ATK* -- attack
ATM -- air target materials
ATTN -- attention
AUTO -- automatic
AUTO WPN(S) -- automatic weapon(s) (CINCPAC cable use only)
AUX -- auxiliary
AVG -- average
AW* -- automatic weapon(s)
AW* -- air warning

B

BBL or bbl -- barrel(s)
BDA -- bomb damage assessment
BDCST(G) -- broadcast(ing)
BE -- Basic Encyclopedia (Bombing Encyclopedia)
BEV* -- billion electron volts
BKR* -- bunker
BKS -- barracks
BLDG(S)* -- building(s)
BMEWS* -- Ballistic Missile Early Warning System

BPIR -- Brief Photographic Interpretation Report
BR* -- bridge
BTRY -- battery
BW* -- biological warfare

C

C -- clear weather (on photography)
CA -- coastal artillery
CA* -- heavy cruiser
CAM* -- camera
CAP -- capacity
CAT -- category
CBR* -- chemical, biological, radiological
CBU* -- cluster bomb unit
CC -- cloud cover (on photography)
CEP -- circular error of probability
CF* -- camouflage
CFC -- central fire control
CG TRK* -- cargo truck
CHEM -- chemical
CIA* -- Central Intelligence Agency
CL* -- light cruiser
CLF -- classification
CLG* -- guided missile cruiser
CMCI -- Computed Mission Coverage Index
CMR -- code metrics reader
COMM(S)* -- communication(s)
CONSTR -- construction
COORD(S) -- coordinate(s)
CPLX* -- complex
CR MSL* -- cruise missile
CS -- cloud shadow (on photography)
CTR* -- center
CW* -- chemical warfare

D

D -- darkness (on photography)

DD* -- destroyer
DDG* -- guided missile destroyer
DDGS* -- guided missile destroyer, surface-to-surface missiles
DE* -- destroyer escort
DEF* -- defense
DEPT -- department
DF* -- direction finder (or finding)
DGZ -- designated ground zero
DIA* -- Defense Intelligence Agency
DIAM* -- diameter
DIST* -- district
DIV -- division
DLG* -- guided missile frigate, surface-to-air missiles
DLGM* -- guided missile frigate, surface-to-surface and surface-to-air missiles
DMAX -- maximum density
DME -- distance-measuring equipment
DMG* -- damage
DMIN -- minimum density
DMZ -- demilitarized zone
DN* -- duplicate negative
DP* -- duplicate positive
DPIR -- Detailed Photographic Interpretation Report
DPO* -- depot
DTD -- dated
DTG -- date time group
DZ* -- drop zone

E

ECM* -- electronic countermeasure
EI -- Essential Elements of Information
ELEC -- electricity
ENGR -- engineer
ENLARG* -- enlargement
EQUIP* -- equipment
EST* -- estimated
EW* -- early warning
EXCAV* -- excavation
EXPLO(S) -- explosive(s)

CONFIDENTIAL

F

F -- fair interpretability
F or **FWD** -- forward-looking camera
FA -- field artillery
FCLTY(S)* -- facility(ies)
FIG* -- figure
FM* -- frequency modulation
FRTR* -- freighter
FT or **ft*** -- foot or feet
FTR -- fighter

G

G -- good interpretability
GAL -- gallon(s)
GAS -- gasoline
GC -- ground cover (on photography)
GCA* -- ground-controlled approach
GCI* -- ground control intercept
GENR* -- generator
GM* -- guided missile
GMT -- Greenwich Mean Time
GOB -- ground order of battle
GOVT* -- government
GP -- general purpose
GR -- ground resolution
GZ* -- ground zero

H

H -- haze (on photography)
HC -- heavy cloud cover (on photography)
HE -- high explosive(s)
HELI -- helicopter
HF* -- high frequency
HGT* -- height
HMG* -- heavy machinegun
HPP* -- hydroelectric powerplant
HQ* -- headquarters

HQ/ADMIN* -- headquarters/administration
HVY -- heavy
HWY* -- highway

I

ICBM* -- intercontinental ballistic missile
IDO -- identification only
IDT -- isodensitracer
IFV -- instantaneous field of view
ILS* -- instrument landing system
INAC* -- inactive
INDRY* -- industry or industrial
INFO -- information
INSTLN -- installation
INTEL -- intelligence
INTPR -- interpretation
IOC -- initial operating capability
IPIR -- Immediate Photographic Interpretation Report
IR* -- infrared
IRBM* -- intermediate range ballistic missile

J

JNC -- Jet Navigational Chart

K

K -- constant (numerical)
KM or **km** -- kilometer(s)
KV* -- kilovolt(s)
KW* -- kilowatt(s)

L

LAB* -- laboratory
LAT* -- latitude
LCH* -- launch
LCHR* -- launcher
LCI* -- landing craft infantry
LCM* -- landing craft mechanized

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LCU* -- landing craft utility
LDG* -- landing
LF* -- low frequency
LGTH* -- length
LMG* -- light machinegun
LNМ* -- linear nautical mile
LOA* -- length overall
LOC* -- line(s) of communication
LOCO -- locomotive
LONG* -- longitude
LOX* -- liquid oxygen
LRG* -- large
LSC* -- landing ship cargo
LSF -- line spread function
LSI* -- landing ship infantry
LSIL* -- landing ship infantry light
LSS* -- landing ship support
LST* -- landing ship tank
LT* -- light

M

MACH -- machine
MAINT -- maintenance
MAX -- maximum
MCI -- Mission Coverage Index (obsolete)
MCP -- Mission Coverage Plot
MCPS -- Mission Coverage Plot Summary
MCRWV* -- microwave
MD* -- military district
M/E -- multiengine
MED* -- medium
MERSHIP* -- merchant ship
MF* -- medium frequency
MFG -- manufacturing
MI -- mile
MIL* -- military
MILOB -- military order of battle
MIN -- minimum
MIP -- mission information potential

MIPIR -- Mission Index Photographic Interpretation Report
MISC -- miscellaneous
MM or mm* -- millimeter
MNG -- mining
MO -- month
MOB -- missile order of battle
MONO -- monoscopic
MRBM* -- medium range ballistic missile
MS* -- minesweeper
MSB* -- minesweeper boat
MSF* -- fleet minesweeper
MSG -- message
MSI* -- inshore minesweeper
MSL* -- missile
MSL* -- small minesweeper
MSL TRANSPR* -- missile transporter
MSN or M* -- mission
MSPIR -- Mission Summary Photographic Interpretation Report
MT -- metric ton
MTB* -- motor torpedo boat
MTN* -- mountain
MW* -- megawatt(s)

N

NA -- not applicable
NAC* -- no apparent change
NAV -- naval
NAV AID* -- navigational aid
NE* -- nuclear energy
NM or nm* -- nautical mile(s)
NOB -- naval order of battle
NON-SOV -- non-Soviet
NPIC* -- National Photographic Interpretation Center
NR* -- number
NS -- nonstereo (photography)
NUC WPN -- nuclear weapon(s)

CONFIDENTIAL

O

O -- obliquity
OB -- order of battle
OBL -- oblique
OCC* -- occupied
ON* -- original negative
ONC -- Operational Navigation Chart
OPC* -- old large submarine chaser
OPF* -- old patrol escort (ship)
OPS* -- operations
ORD* -- ordnance
ORG -- organization

P

P -- poor interpretability
PAR -- paragraph
PC* -- large submarine chaser
PCMCI -- Preliminary Coverage Mission Coverage Index
PER -- Photographic Evaluation Report
PERS -- personnel
PET -- petroleum
PF* -- patrol escort (ship)
PH -- phase
PHOTO -- photograph(ic)
PI* -- photographic interpreter
PLRS -- probable long-range surface-to-air missile
PLT* -- plant
POL* -- petroleum, oils, and lubricants
POSN -- position
POSS* -- possible
Pre MCPS -- Preliminary Mission Coverage Plot Summary
PRIM -- primary
PROB* -- probable
PS -- partial stereo (photography)
PSGR -- passenger

PSP* -- pierced steel plank
PT -- partial target coverage
PT* -- motor torpedo boat (see also MTB)
PTF* -- fast patrol boat
PTFG* -- large guided missile patrol boat
PTG* -- small guided missile patrol boat
PUG* -- partially underground
PWR* -- power

R

R* -- river
R&D* -- research and development
RDO* -- radio
RDR* -- radar
RECON -- reconnaissance
REF -- reference
RFY* -- refinery
RIM* -- receiving, inspection, maintenance
RNY* -- runway
ROB -- radar order of battle
RR* -- railroad
RV -- reentry vehicle
RVT* -- revetment(s)
RVTD* -- revetted

S

S -- snow cover (on photography)
SAM* -- surface-to-air missile
SAT* -- satellite
SC -- scattered cloud cover (on photography)
SC* -- submarine chaser
SCH* -- school
SD -- semidarkness (on photography)
S/E -- single engine
SECD -- secondary
SHF* -- superhigh frequency

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SHPG -- shipping
SHPYD -- shipyard(s)
SLAR or SLR* -- side-looking airborne radar
SM -- small
SM -- statute mile
SP* -- self-propelled
SPIR -- Summary Photographic Interpretation Report
SPT* -- support
SQ* -- square
SQ FT* -- square feet
SQ NM* -- square nautical mile(s)
SRBM* -- short range ballistic missile
SS -- small scale
SS* -- submarine
SSB* -- ballistic missile submarine
SSBN* -- nuclear powered ballistic missile submarine
SSG* -- cruise missile submarine
SSGN* -- nuclear powered cruise missile submarine
SSM* -- surface-to-surface missile
SSN* -- nuclear powered torpedo attack submarine
SSR* -- radar picket submarine, long range
ST or STEREO* -- stereoscopic photography
STN* -- station
STOR* -- storage
STOR BLDG(S) -- storage building(s)
STRAT -- strategic
SUB -- submarine (CINCPAC cable use only)
SUP -- supply
SUSP* -- suspect

T

T -- total target coverage
T* -- ton
TACAN* -- Tactical Air Navigation
TAS* -- traffic analysis survey
TDI -- target data inventory
TECH -- technical
TEL* -- transporter-erector-launcher
TEMPO* -- temporary

TGR -- telegraph
TGT* -- target
THERM -- thermal
THRU -- through
TKR -- tanker
TLR* -- trailer
TNG* -- training
TNK* -- tank(s)
TNK/SP* -- tank/self-propelled gun(s)
TNK TRK* -- tank truck
TNL* -- tunnel
TP -- technical publication
TPH -- telephone
TPP* -- thermal powerplant
TRAC-TLR TRK* -- tractor-trailer truck
TRANS PT* -- transfer point
TRIB -- tributary
TRK* -- truck(s)
TROPO SCATTER* -- tropospheric scatter
TWY -- taxiway

U

UC* -- under construction
UG* -- underground
UHF* -- ultrahigh frequency
UI* -- unidentified
UNDET* -- undetermined
UNK -- unknown
UNOCC* -- unoccupied
UN SVC -- unserviceable
USATC -- United States Air Target Chart
UTM -- Universal Transverse Mercator Grid

V

VEH(S)* -- vehicle(s)
VERT -- vertical
VES -- vessels
VHF* -- very high frequency

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VLF* -- very low frequency

VOL -- volume

VOR* -- very high frequency omnidirectional range

V/STOL -- vertical and/or short takeoff and landing
[aircraft]

W

WAC -- World Aeronautical Chart

WHSE(S)* -- warehouse(s)

WO* -- without

WPN* -- weapon(s)

WX -- weather

X

X or XL* -- enlargement

Y

YD or yd* -- yard(s)

YP -- patrol craft

YR -- year

Z

Z -- Zulu time

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SYMBOLS

SYMBOLS

The selected symbology presented here includes items which have proven serviceable for use in graphics appearing in NPIC publications. Many are standard international cartographic symbols. Others, particularly those offering a choice of treatment, represent preferred usages developed in response to widely divergent NPIC requirements. The size and shape of each symbol should in all cases be determined by scale and layout. It is emphasized that no attempt has been made to depict all possible symbology.

The order in which the symbols are presented is arbitrary and not in alphabetical sequence; therefore, the symbols are numbered and an index is provided to facilitate locating a specific item.

Users of this glossary are invited to suggest additional symbols or specialized applications which merit inclusion in future editions.

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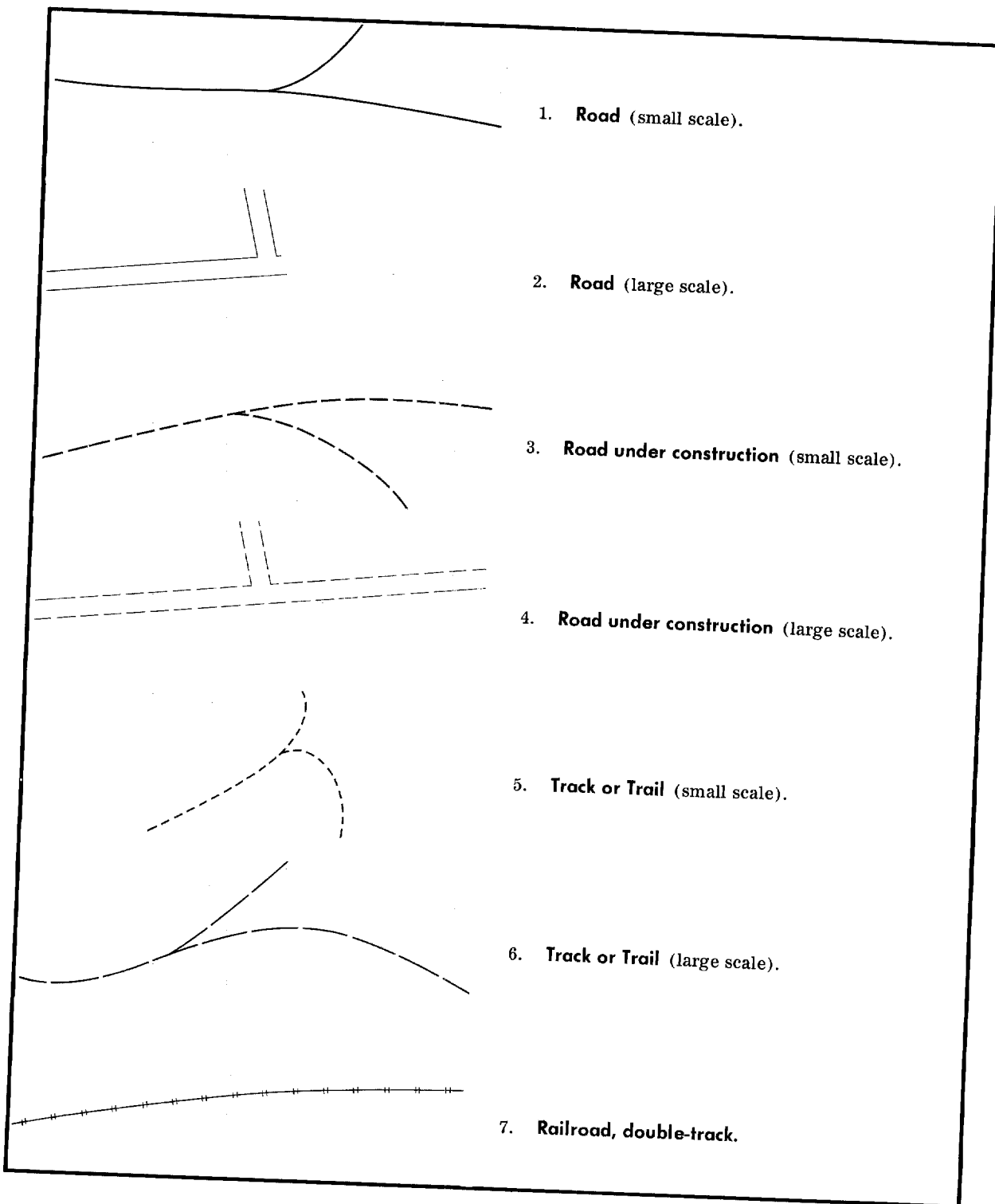
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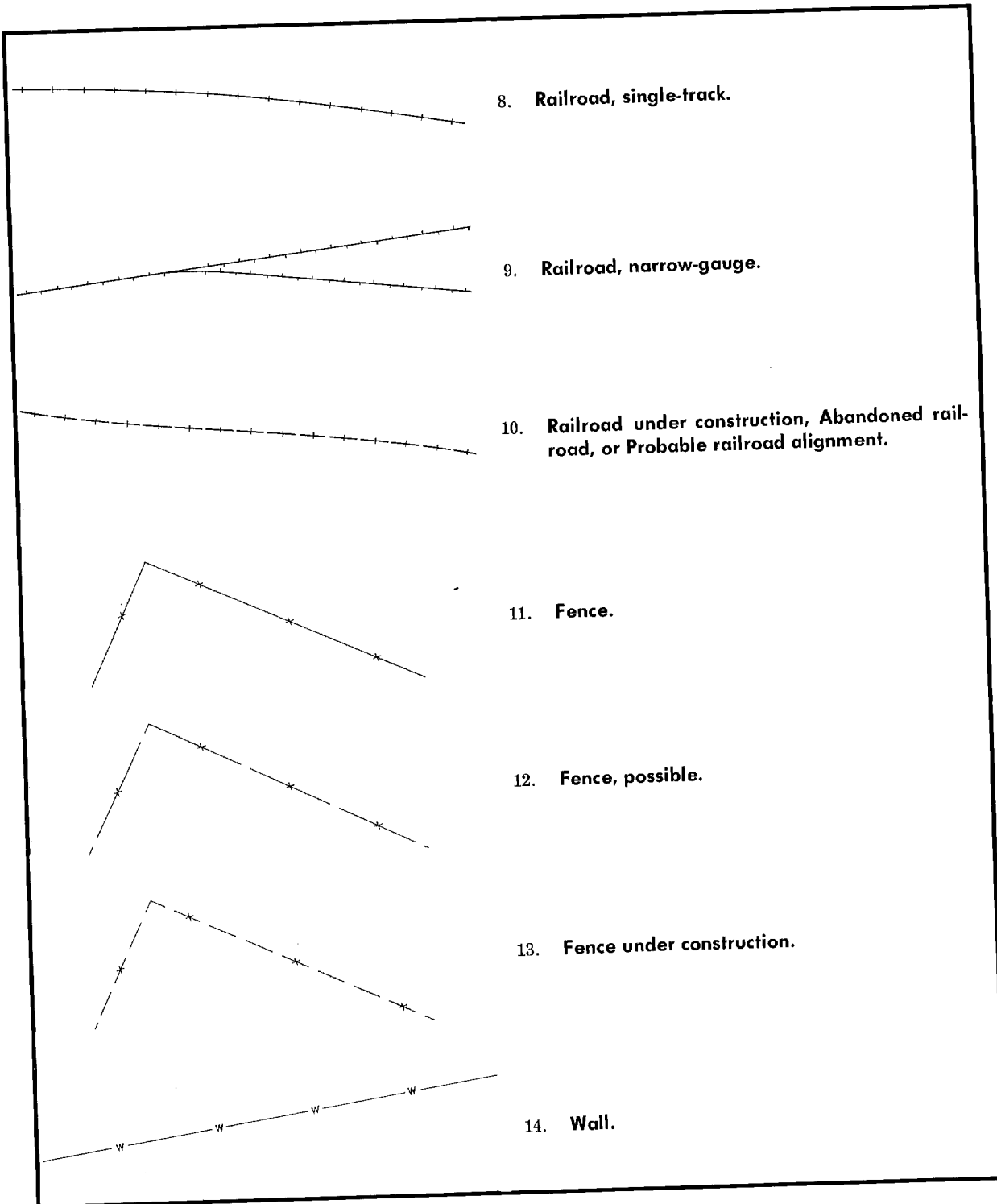
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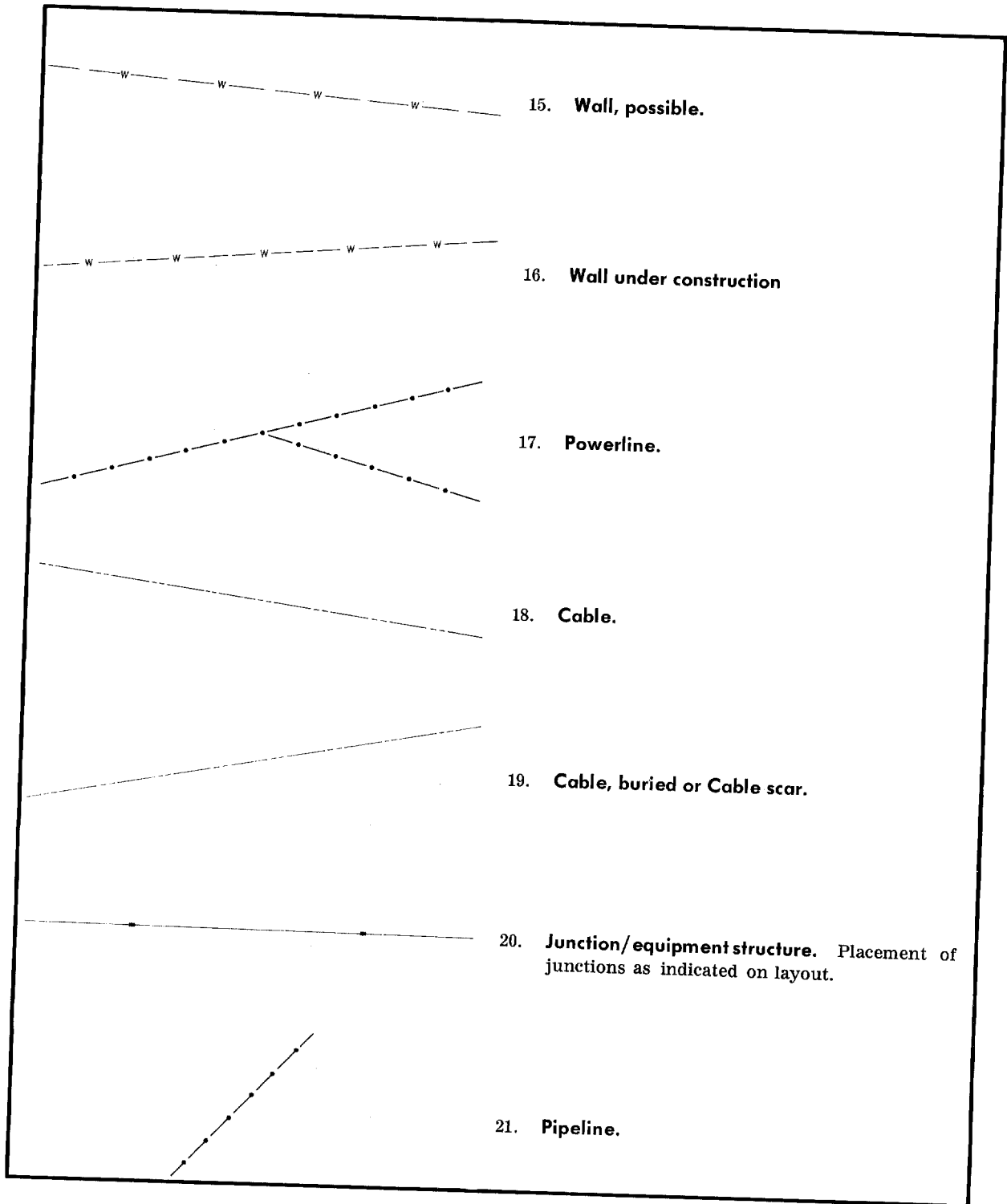
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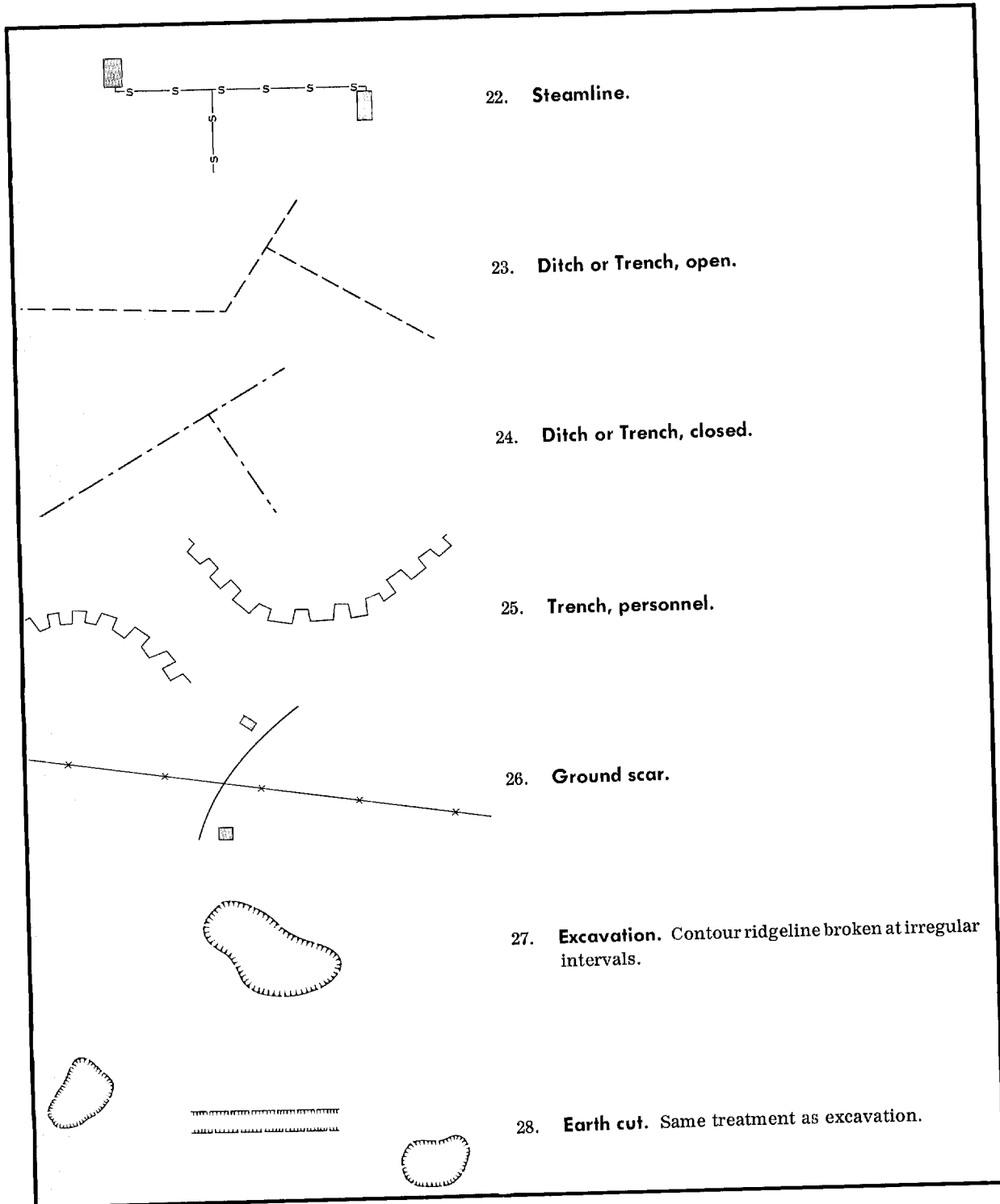
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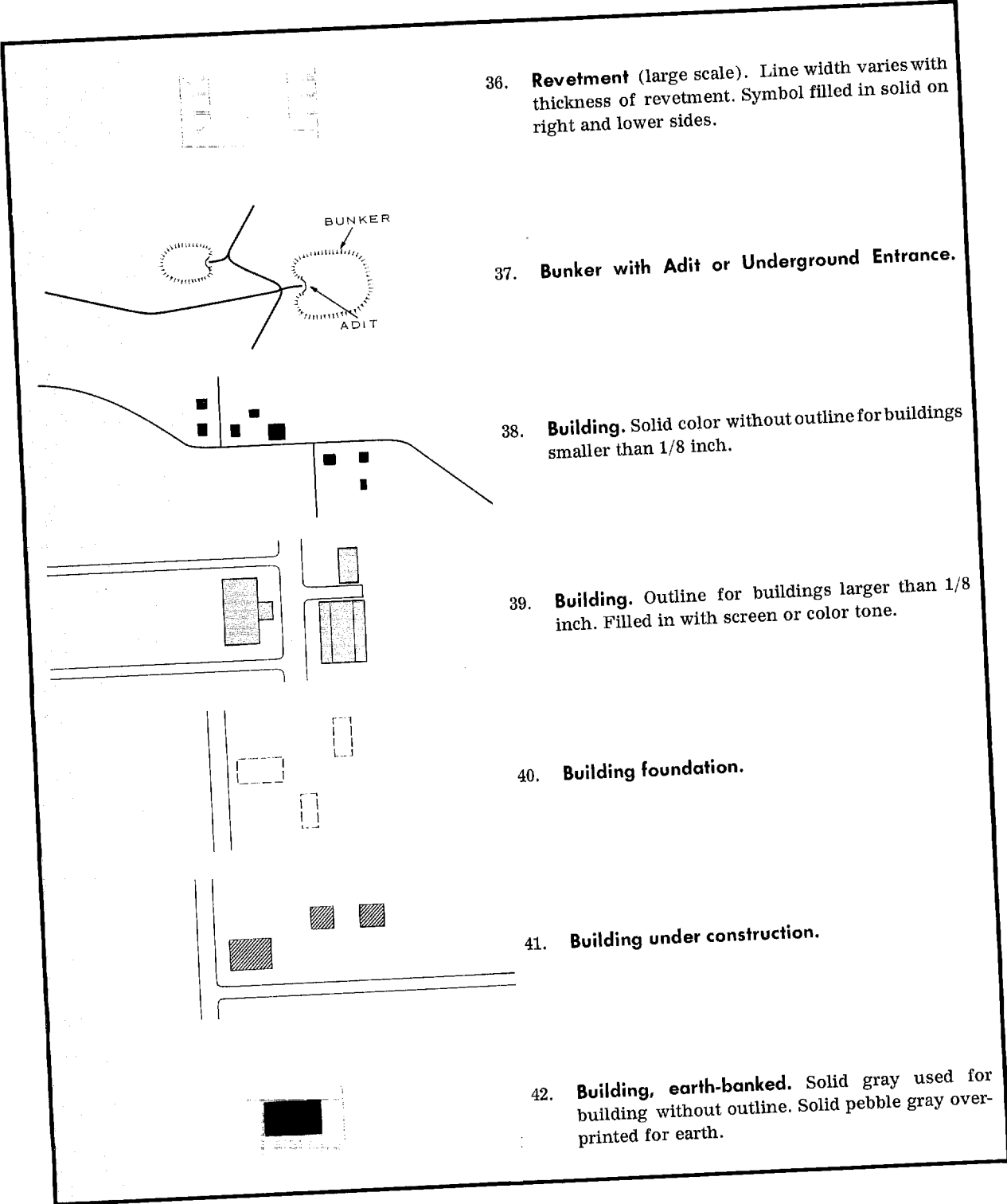


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The diagram illustrates various terrain symbols and their corresponding descriptions. It includes:

- 29. Earth fill.** Same treatment as excavation except that tick marks are reversed. (Symbol: A closed irregular shape with tick marks pointing inward.)
- 30. Graded area.** (Symbol: A shaded irregular area with diagonal hatching.)
- 31. Clearing.** Dots follow indicated contour outline on layout. Area shown by open tone. (Symbol: An irregular shape with a dotted outline and an open interior.)
- 32. Hardstand.** Open tone only when requested. (Symbol: A rectangular shape with two short lines extending from one side.)
- 33. Mound.** (Symbol: A small square with a central dot.)
- 34. Revetment (small scale).** (Symbol: A small square with a central dot.)
- 35. Revetment (medium scale).** Size of ticks determined by layout. (Symbol: A large irregular shape with a dotted outline and an open interior.)

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36. **Revetment** (large scale). Line width varies with thickness of revetment. Symbol filled in solid on right and lower sides.

37. **Bunker with Adit or Underground Entrance.**

38. **Building.** Solid color without outline for buildings smaller than 1/8 inch.

39. **Building.** Outline for buildings larger than 1/8 inch. Filled in with screen or color tone.

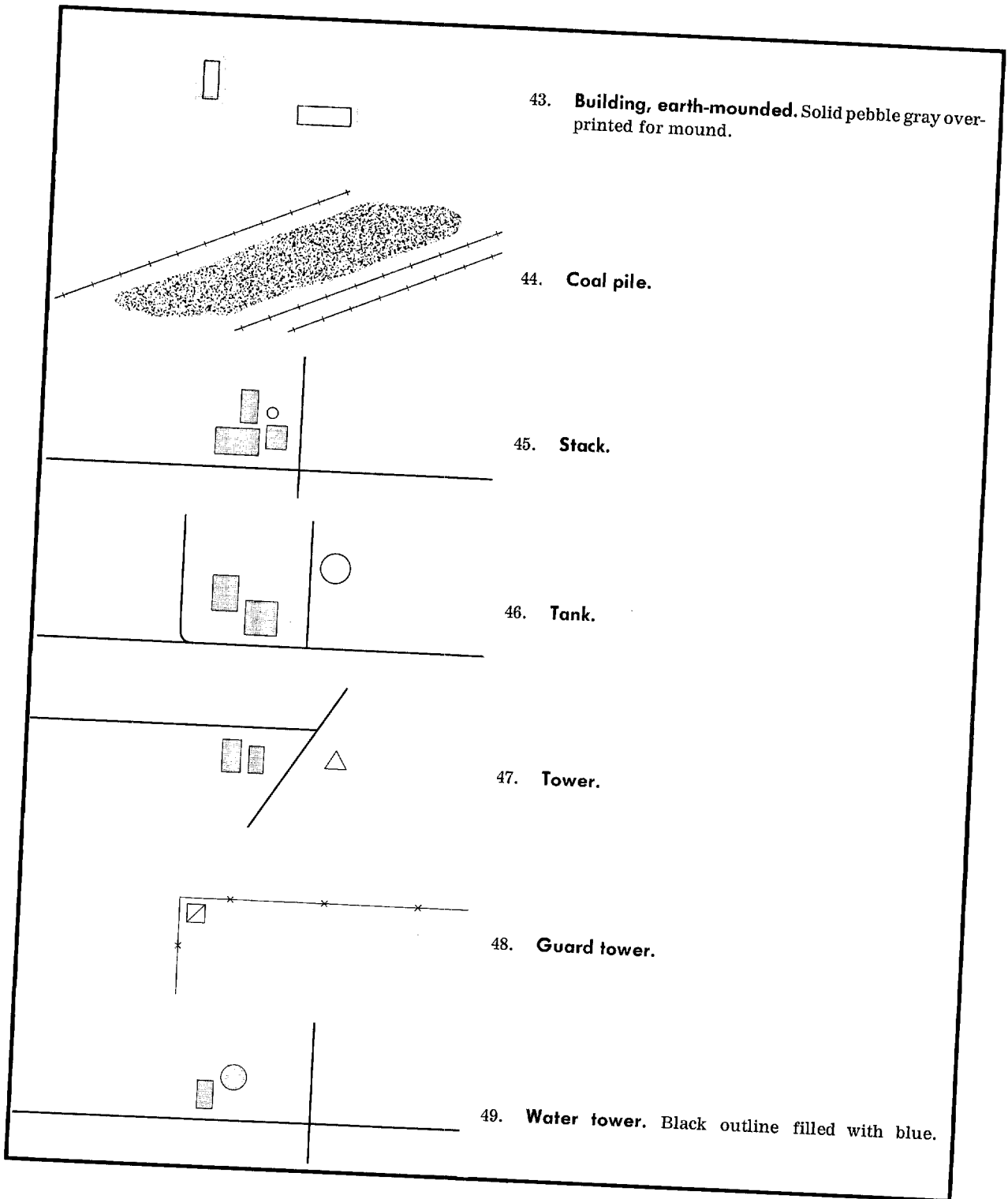
40. **Building foundation.**

41. **Building under construction.**

42. **Building, earth-banked.** Solid gray used for building without outline. Solid pebble gray overprinted for earth.

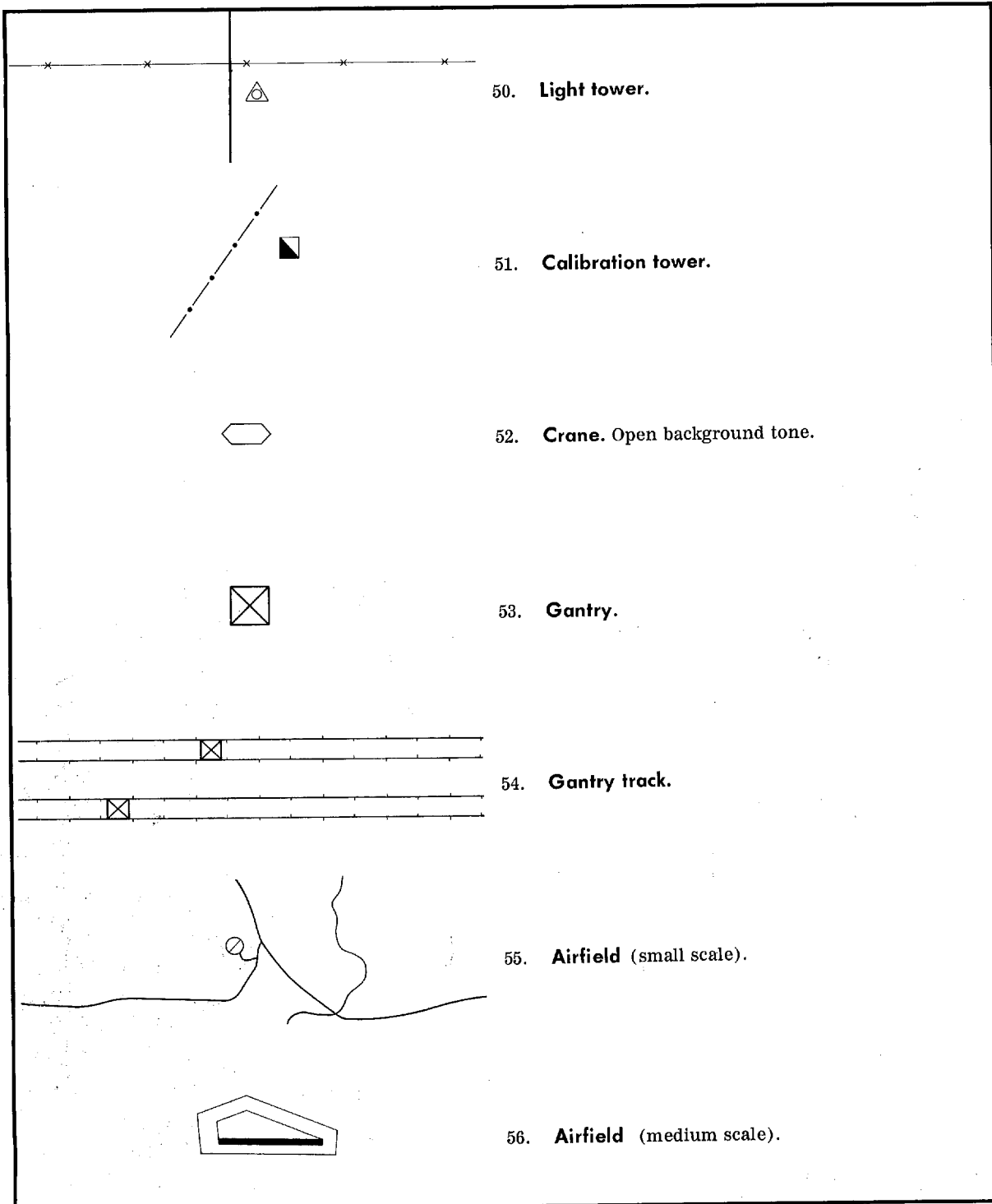
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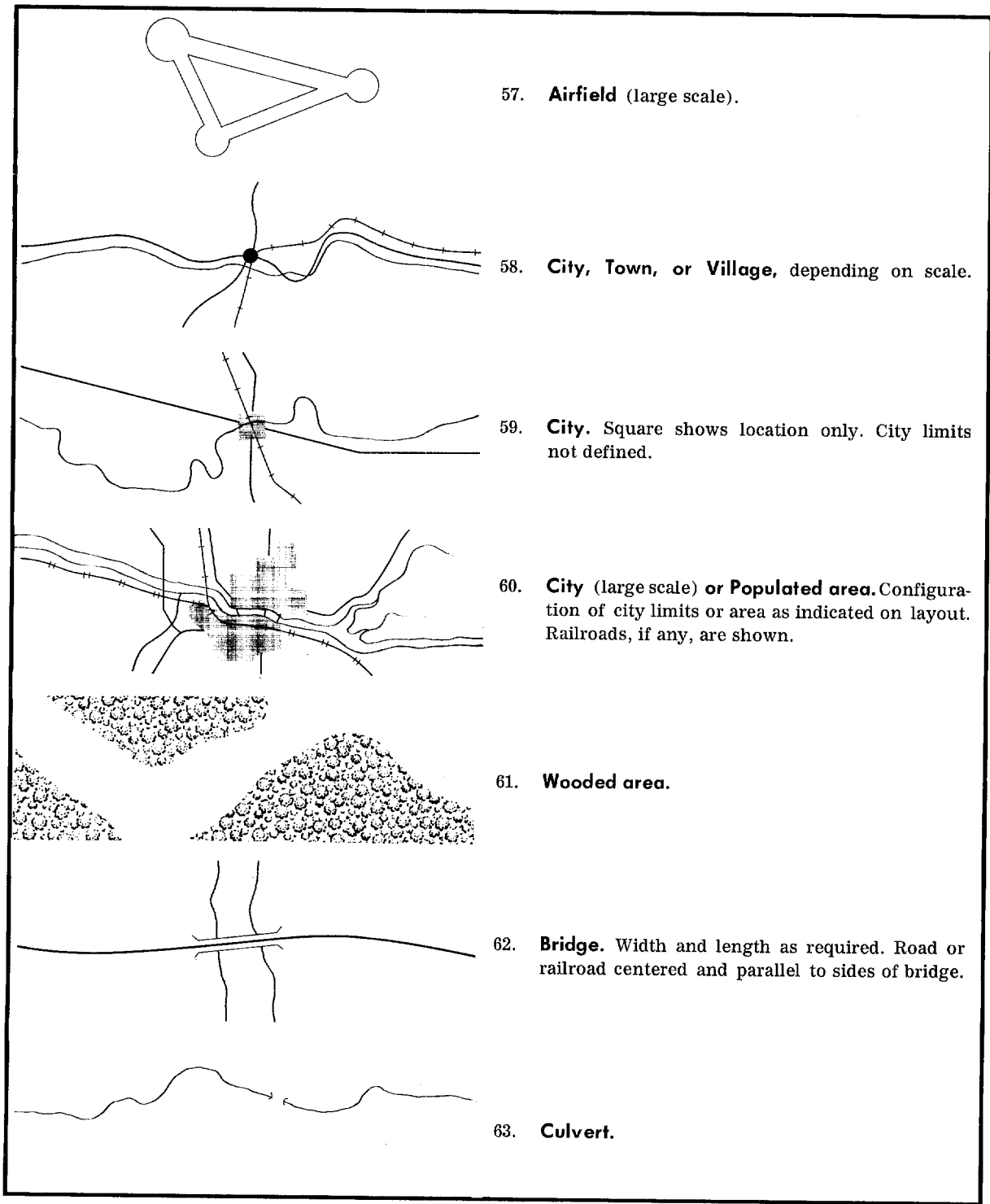
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57. **Airfield (large scale).**

58. **City, Town, or Village, depending on scale.**

59. **City.** Square shows location only. City limits not defined.

60. **City (large scale) or Populated area.** Configuration of city limits or area as indicated on layout. Railroads, if any, are shown.

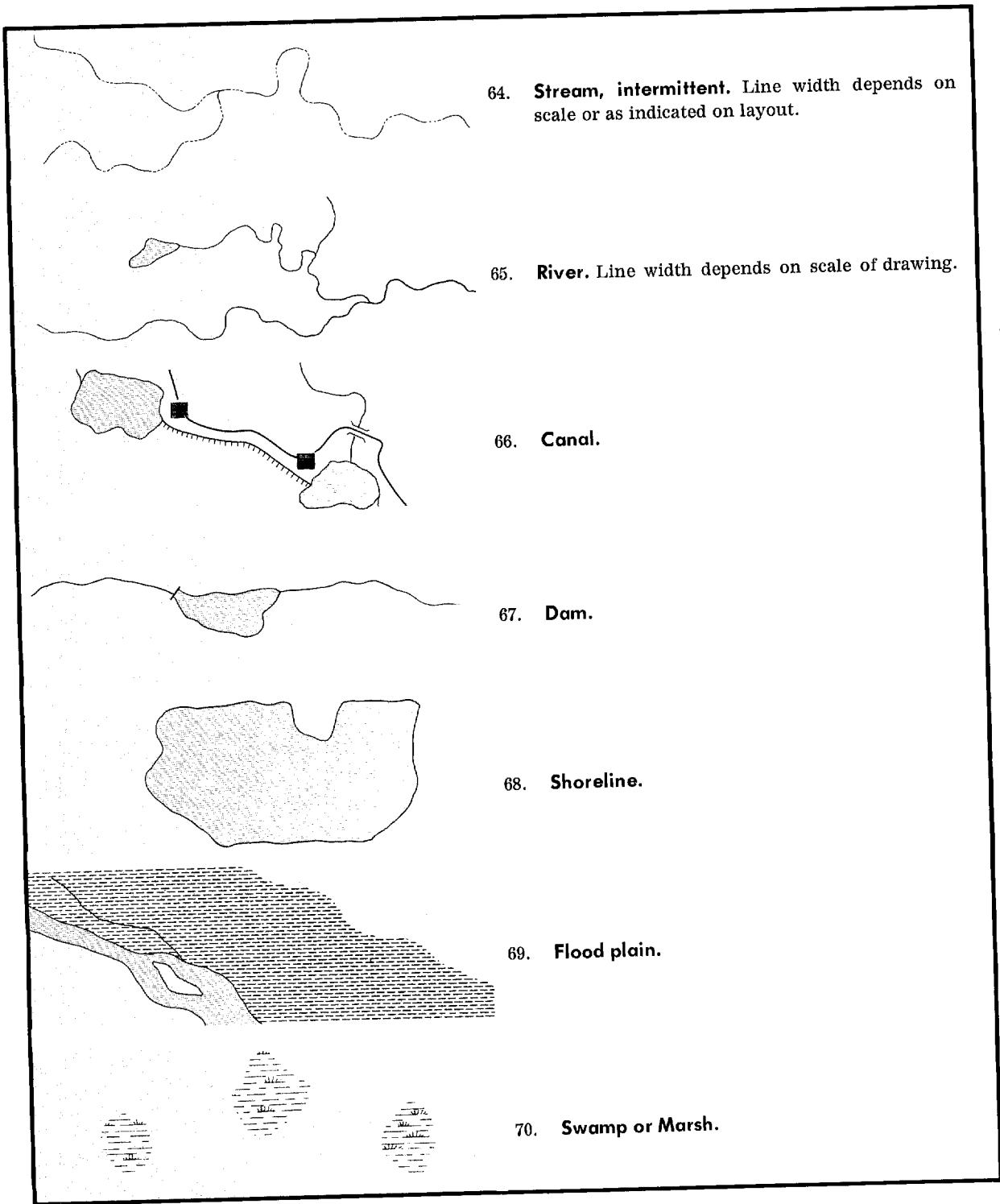
61. **Wooded area.**

62. **Bridge.** Width and length as required. Road or railroad centered and parallel to sides of bridge.

63. **Culvert.**

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