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# GLOSSARY OF NPIC TERMINOLOGY

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## GLOSSARY OF NPIC TERMINOLOGY

This glossary contains standardized definitions for terms frequently used in NPIC publications. It is intended as a guide for NPIC personnel and as an explanation for the consumer of NPIC publications.

Entries in this glossary are arranged alphabetically and, where applicable, are followed by parentheses containing the appropriate abbreviation or by brackets containing the part of speech to which the definition applies. Parentheses which appear after definitions contain explanatory notes, such as a cross reference or an indication of the general field in which the term is used. When the same term has more than one meaning, the different definitions will appear in numbered sequence under the general term.

Definitions provided in this glossary are those which have a specific or specialized application in the field of photographic interpretation, and 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. Users of this glossary are invited to suggest the addition of terms which need defining or to comment on the definitions provided.

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## GLOSSARY OF NPIC TERMINOLOGY

- abandoned -- Status of an identified target or component thereof determined from photog-raphy 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 character-izing the ability of a given material to ab-sorb 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 ma-terial; it is a measure of the absorption abil-ity per unit mass. (infrared)
- access road -- A road branching from the com-plex main road to provide access to a launch area and/or group. (missile)
- active -- Status of an identified target or com-ponent thereof determined to be currently operating or in use.
- activity -- Physical manifestation of change in-dicating a state of action. Frequently used with changes which cannot be given a clear and concise identification such as unidenti-fied military activity, track activity, or con-struction activity.
- aerial bomb -- An unpowered, usually free-falling device intended for delivery by air-craft for the purpose of causing damage and/or casualties.
- 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.
- annotation -- Words, phrases, figures, or sym-bols placed on photographs or drawings for explanatory purposes. Annotations are used to indicate items or areas of special impor-tance.
- antiballistic-missile (ABM) -- An adjective pertaining to objects or activities for coun-tering ballistic missiles.
- antimissile missile (AMM) -- A missile de-signed to intercept and destroy another mis-sile in flight.
- apparent radiance -- The radiant power per unit solid angle from a source as witnessed by an airborne detector. The apparent radi-ance is directly related to tone on infrared imagery. (infrared)
- area -- 1. A particular space or surface, e.g., an area of unidentified construction, an uni-identified area.  
2. A facility serving a special function and one that may be composed of 2 or more subordi-nate 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 designed for maximum penetration before exploding. It is designed with a strong steel case, rein-forced at the nose end, and cleanly stream-lined. The explosive charge is small com-pared with the entire weight. (damage as-sessment)
- 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 atmos-pheric attenuation. (infrared)
- autopositive -- Film or paper on which a positive image is made from a positive transparency by direct development.
- azimuth resolution -- See radar resolution
- berth -- A place for securing a vessel.
- black body -- A hypothetical object which ab-

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- sorbs 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)
- 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.
- breakwater -- An artificial, protective barrier to break or deflect the force of the sea.
- Brief PIR -- A photographic interpretation report of limited scope. A second-phase report used for reporting new targets or targets displaying significant change which were not reported in an OAK or IPIR.
- bulk storage -- The storage of active agents which will be used to fill munitions. (chemical warfare)
- 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. (military)
- 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 bottom serving as an aid to navigation or for mooring vessels.
- 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)
- clear (C) -- Target area is free of clouds and haze.
- 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.
- 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)
- 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)
- complex support facility -- The road- and rail-served installation constituting the logistic, construction, and maintenance support base of the launch complex. (missile)
- composite propellant -- A propellant in which

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- particles of high-energy fuel and particles of an oxidizer are carried in a plastic binder.
- 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.
- coverage index -- One or a series of overlays showing all photographic reconnaissance missions covering the map sheet to which the overlays refer.
- 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. (infrared)
- CW rail car -- A specialized rail car used to transport bulk quantities of CW agents.
- darkness (D) -- Lack of illumination completely obscures a target area.
- 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. (damage assessment)
- depth bomb -- See depth charge.
- depth charge -- A bomb designed for underwater detonation and, like the light case bomb, designed for maximum blast effect. (damage assessment)
- 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.
- 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 PIR -- 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.
- detailed photographic coverage plot -- A graphical plot overlay keyed to a WAC (1:1,000,000), depicting the geographic location of mission photography.
- 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 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.

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

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.

duplicate positive -- See positive.

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 -- See infrared radiation.

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

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): a) warm target -- A target that is warmer than its background will image lighter than its background on the film. b) hot target -- A target that is much warmer than its background will image much brighter than its background. c) cool target -- A target that is cooler than its background will image darker than its background. d) cold target -- A target that is much colder than its background will image much darker than its background. (infrared)

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

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)

fair interpretability -- See interpretability.

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

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### ADDENDUM TO NPIC/R-282/65

This addendum contains definitions of terms which cannot be included in the basic document, The Glossary of NPIC Terminology (NPIC/R-282/65), because of their higher classification; therefore, this addendum should not be attached to the basic document.

### GLOSSARY OF NPIC TERMINOLOGY

- OAK report -- An NPIC designation for a first-phase photographic interpretation report presenting the results of the initial analysis of a new satellite photographic mission in answer to specific requirements of highest priority targets. OAK reports were superseded in July 1965 by the OAK, Parts I and II.
- OAK Part I - PIR -- A first-phase photographic interpretation report presenting the results of the initial analysis of the highest priority COMOR targets from a given satellite photographic mission.
- OAK Part II - PIR -- A first-phase photographic interpretation report presenting the results of the initial analysis of certain highest priority COMOR targets, other than those reported on in Part I, resulting from a given satellite photographic mission.
- Satellite Reconnaissance Coverage Statistics (SRCS) -- A publication presenting the amount of photographic coverage obtained, arranged by mission and by country.

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- 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 report -- One issued immediately after the receipt of new mission photography and giving information on the highest priority targets derived from rapid initial PI exploitation. (First-phase reports produced by NPIC are the OAK--Parts I and II, IPIR, MI, and SITSUM.)
- flame bucket -- The structure used to deflect the engine exhaust gases, often water cooled, 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.
- 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.
- 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. (damage assessment)
- 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.
- good interpretability -- See interpretability.
- ground resolution -- The ground size equivalent of the smallest still resolved image and its associated space, usually expressed in feet per side.
- guttled -- See structural damage and superficial damage.
- 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.
- haze (H) -- All or portions of a target area are obscured by a thin vapor of suspended fog, smoke, dust, etc., in the air.
- 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)
- 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 non-snow, foliage and nonfoliage, displacement caused by movement, change in building status, camouflage, etc.

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

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.

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

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

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.

immediate report -- See first-phase report.

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. (damage assessment)

infrared -- 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 -- Imagery which is sensed as an electromagnetic signal (radiation) by a detector, which is sensitive in a particular portion of the electromagnetic spectrum, and then electronically processed through either a cathode ray tube or a glow modulator tube which converts the signal to a visible image and projects it optically onto a recording film.

infrared radiation -- Energy emitted 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.

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. (infrared)

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

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

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 plat 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:

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- poor interpretability -- Unsuitable for adequately answering requirements on a given type of target.
- fair interpretability -- Suitable for answering requirements on a given type of target but with only average detail.
- good interpretability -- Suitable for answering requirements on a given type of target in considerable detail. (photographic interpretation)
- inverted stereo -- Three-dimensional impression of relief which is the reverse of that actually existing.
- 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.
- 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 a surface-to-air missile.
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)
- 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 launching of surface-to-surface or anti-missile missiles. (missile)
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)
- 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. (damage assessment)
- limiting conditions -- Time, weather, and/or manmade factors hindering interpretability of a given target. Conditions affecting interpretability include scattered cloud cover (SC), heavy cloud cover (HC), cloud shadow (CS), clear (C), haze (H), obliquity (O), semi-darkness (SD), ground cover (GC), snow (S), camouflage (CF), and ground resolution (GR). (photographic interpretation)
- 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.

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

milliradian -- One thousandth of a radian. It is approximately the angle subtended by an arc one foot in length at one thousand 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 area construction -- a. early stage -- Evidence of clearing and grading, of open-cut excavation, or of silo coring.  
b. midstage -- Evidence that silo is under construction, that silo appears finished to surface level, or that backfilling of silo is underway.

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

d. completed -- 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 -- 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 - PIR -- 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.

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

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.

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

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- of the original subject. The plate or film does not become a negative until it is exposed.
- 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)
- obliquity (O) -- That condition in which the optical axis of the camera is tilted appreciably from the vertical, often limiting detailed analysis.
- 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.
- orthostereoscopy -- A condition wherein the horizontal and vertical distances in a stereoscopic model appear to be at the same scale.
- partial target coverage -- See target coverage.
- 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 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 cover.
- 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.
- 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., atmospheric, 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 two 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 checkpoints; 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.
- poor interpretability -- See interpretability.
- positive -- A photograph having the same ap-

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proximate 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.

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

Preliminary Photographic Evaluation Report (Pre PER) -- A cable-transmitted report conveying a preliminary estimate of the photo quality and success of a mission of photography, which is prepared at the processing site.

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

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)

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.

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

b. 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 two regions of the object being imaged. Radiance resolution is sometimes incorrectly called temperature resolution. (infrared)

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

range resolution -- See radar resolution.

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

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 than could normally be maintained without caving or sliding.

revetment -- 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.

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.

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- salvo -- The bombing system which involves the release of the entire bomb load or remaining bomb load of more than one 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 | 1:4,000 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.
- 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)
- 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.
- sea wall -- A wall or embankment built along-shore 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.
- second-phase report -- A report based on a scan of all the photography from a given mission or missions and providing an organized, comprehensive list and/or brief descriptions of intelligence targets imaged on the photography. (Second-phase reports produced by NPIC are the Brief and Summary PIRs.)
- section -- A distinct part of an area that accomplishes a part of the area's function or serves the area in some other way, e.g., industrial section of Area A, and 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."
- semidarkness (SD) -- Insufficient illumination limits interpretation of a target.
- 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. (damage assessment)
- short range ballistic missile (SRBM) -- An arbitrary designation for missiles having ranges up to 500 nautical miles.
- signature -- That physical feature or pattern of physical features by which a target can be recognized on photography.
- site -- The place actually occupied, previously occupied, or to be occupied by a target. See launch site.
- Situation Summary (SITSUM) -- 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 but containing no reference to photographic sources.
- small scale (SS) -- A restricting term used to indicate that the scale of the photography is smaller than the minimum which is accept-

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able for interpretation of a given target to the degree needed in the context of the intelligence requirement. (photo interpretation)

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.

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)

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

static -- Static electricity discharges that produce a developable image on film. The results from 2 types of discharges produced are: a. dendritic static fogging -- Branching, treelike fog patterns produced on film by a sparklike static discharge.

b. 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.

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 mem-

bers (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:

- a. severed trusses
- b. sagging structural members
- c. framework distortion
- d. wall damage to wall-bearing structures
- e. purlin damage where truss spacing is over 30 feet
- f. holes in roofing material greater than 30 feet along the length of a framed building where no truss is visible
- g. 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)
- h. Holes in reinforced or prestressed concrete structures where the holes exceed 20 feet in minimum measurement
- i. gutted multistory, wall-bearing buildings. (damage assessment)

Summary PIR -- A second-phase photographic interpretation report compiling and summarizing intelligence information of selected targets imaged on a mission or a series of missions and published on a periodic basis.

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:

- a. roof stripping -- this is the most

common type of superficial damage, and is specifically designated where roofing material is stripped over an area of approximately 40 square feet or more

b. roof damage to wall-bearing buildings

c. most purlin damage

d. partition (parti-wall) damage, if not load-bearing wall

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

f. broken windows

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

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

suspect -- 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.

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

target -- 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. (photographic interpretation)

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 term radiation refers to 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 report -- A comprehensive report based on and tailored to a specific requirement presenting the results of a thorough analysis and a considered interpretation of all pertinent photography. (Third-phase reports produced by NPIC are the Detailed PIRs.)

total target coverage -- See target coverage.

track resolution -- See radar resolution.

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

transmission -- Passage through an object of that part of radiant energy which is not reflected from or absorbed by the object.

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- 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 quantity in the incident wave, at a given frequency, at a given point, and for a given mode of transmission.
- transparency -- A positive image on a clear base which must be viewed by transmitted light.
- unidentified -- 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.
- 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.
- wharf -- A general term for a structure serving as a berthing place for vessels.

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