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JESSE H JONES, *Secretary*

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CHARLES I STANTON, *Administrator*

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AERONAUTICAL LIGHT NOMENCLATURE

By H J CORY PEARSON

Airport Development Section

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Aeronautical Light Nomenclature

FOREWORD

This report is designed to supersede Civil Aeronautics Administration Planning and Development Report No 3, entitled "Aeronautical Light Nomenclature" In it are listed and defined those terms commonly applied to aeronautical lighting

These definitions have been drawn up in collaboration with a subcommittee of the Aviation Lighting Committee of the Illuminating Engineering Society

An earnest attempt has been made to make the definitions basic, following the form and employing terms consistent with the usage of the Committee on Nomenclature and Standards, of the Illuminating Engineering Society, and the International Committee on Illumination Definitions marked by an asterisk have been published by the former committee in section 50 of their definitions

Explanatory notes have been added where necessary but these do not form part of the basic definitions

The definitions include a number of basic terms These terms as commonly used have such broad meanings that the definitions are necessary to restrict the sense in which they are employed in these definitions

Where two or more terms are in general use, the preferred term is defined and reference to the preferred term is made under the other headings

The list is arranged in sections according to the class of usage, and a general alphabetical index is included

It is urged that the usage of terms indicated herein be adopted as general practice, in order that there may be agreement as to the meanings, and uniformity of application of terms to specific lights

(II)

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GENERAL LIGHTING TERMS

*1 *Light*—A light for the purpose of these definitions, is a luminous signal

NOTE—The term "light", in combination with other terms, is sometimes used to denote a device used as a source of luminous energy

*2 *Aeronautical Light*—An aeronautical light is any light which has been established or recognized by a competent Governmental authority, as an aid to air navigation

*3 *Fixed Light*—A fixed light is a light which is constant in intensity when viewed from a fixed point

*4 *Intermittent Light*—An intermittent light is a light which has alternate dark and light intervals, when viewed from a fixed point

*5 *Flashing Light*—A flashing light is an intermittent light in which the light interval is shorter than the dark interval

*6 *Occulting Light*—An occulting light is an intermittent light in which the light interval is equal to or longer than the dark interval

*7 *Blinker Light*—A blinker light is an intermittent light having more than 60 flashes per minute

*8 *Code Light*—A code light is an intermittent light having characteristic groups of flashes by which it can be identified

*9 *Undulating Light*—An undulating light is a light which, when viewed from a fixed location varies rhythmically in intensity without being completely occulted

10 *Bearing Light*—A bearing light is a beam of light, used in conjunction with a beacon, to indicate a specific direction

11 *Lighting*—Lighting is the application of illumination or lights

*12 *Lighted*—A body is lighted when it is illuminated, or marked by means of lights

13 *Emergency Lighting*—Emergency lighting is lighting from alternate light or power sources in case of failure of the normal sources

14 *Aircraft Lighting*—Aircraft lighting is the application of lighting on board aircraft

15 *Airport Lighting*—Airport lighting is the application of lights or floodlighting as air navigation facilities at airports

NOTE—Airport lighting includes airport beacons, boundary lighting range lighting, approach lighting contact lighting, obstruction lighting, traffic control lighting, and floodlighting

16 *Airway Lighting*—Airway lighting is the application of lights or floodlighting as air navigation facilities along an airway at locations other than airports

NOTE—Airway lighting includes airway beacons, landmark beacons, course lights, and obstruction lighting

17 *Instrument Lighting*—Instrument lighting is the application of radiant flux to illuminate instruments to the exclusion of neighboring surfaces

NOTE—Instrument lighting may be direct, with illumination on the face of the instrument, or indirect, where the light source is concealed, and the luminous flux conducted through translucent members to illuminate the face of the instrument, or it may be transmitted through a translucent dial, or the instrument may be made self-luminous by means of nonluminous radiant flux, such as ultra violet with fluorescent dials or markings

18 *Floodlighting*—Floodlighting is the application of luminous flux to a surface by means of projectors (See Landing Area Floodlighting System)

*19 *Illuminated*—A surface is illuminated when luminous flux is distributed over it

*Definitions marked by an asterisk have been published by the Committee on Nomenclature and Standards, Illuminating Engineering Society in sec 50 of their definitions

GENERAL APPLIANCE TERMS

20 *Vapor-Proof Fixture*—A vapor-proof fixture is a device enclosing a lamp, which is designed to be so sealed as to prevent the ingress of dust or vapor

21 *Explosion-Proof Fixture*—An explosion-proof fixture is a device enclosing a lamp, which is designed to have sufficient mechanical strength and adequate sealing to restrict an explosion resulting from the ignition of inflammable gases, dust, and so forth, to the interior of the device

22 *Projector*—A projector is a device designed to direct luminous flux in a restricted direction

*23 *Flare*—A flare is a pyrotechnic device designed to produce either a luminous signal or illumination

24 *Bombshell Torch*—A bombshell torch is a device for producing a signal by means of combustion

BEACONAGE TERMS

*25 *Beacon*—A beacon is a light used to indicate a geographical location

NOTE—This term is also applied to a device used for this purpose. Beacons as used in American aeronautical practice produce high power beams directed slightly above the horizontal, and rotated to produce flashing lights to an observer

*26 *Flashing Beacon*—A flashing beacon is a beacon having the characteristics of a flashing light

*27 *Occluding Beacon*—An occluding beacon is a beacon having the characteristics of an occluding light

*28 *Code Beacon*—A code beacon is a beacon having the characteristics of a code light

29 *Oscillating Beacon*—An oscillating beacon is a beacon having a beam visible throughout a horizontal angle of 360 degrees, and producing variations in intensity by means of oscillating the axis of maximum intensity through a vertical angle

*30 *Rotating Beacon*—A rotating beacon is a beacon having variations in light intensity, when viewed from a fixed point which are produced by rotating a projector about a vertical axis

*31 *Airport Beacon*—An airport beacon is a beacon located at or near an airport for the purpose of indicating the location of the airport

NOTE—An airport beacon in American practice, produces alternate clear and green beams

32 *Auxiliary Airport Beacon*—An auxiliary airport beacon is a beacon located at an airport to indicate the specific location, where

the general location of the airport is indicated by a separate beacon, located off the airport, and visible from greater distances

*33 *Airway Beacon*—An airway beacon is a beacon, other than an airport beacon, located on or near an airway and used for the purpose of indicating the location of the airway

NOTE—An airway beacon, in American practice, produces alternate clear and red beams

*34 *Course Light*—A course light is a light directed along the course of an airway so as to be chiefly visible from points on or near that airway

NOTE—In American practice a course light is generally used as part of a beacon

*35 *Landmark Beacon*—A landmark beacon is a beacon other than an airport beacon or an airway beacon

*36 *Bearing Projector*—A bearing projector is a device designed to be used to produce a bearing light

37 *Identification Light*—An identification light is a light associated with a beacon, having a characteristic different from that of a beacon, and serving to identify the beacon

*38 *Marker Light*—“Marker Light” is a general term, which includes boundary lights, contact lights, obstruction lights, range lights, and approach lights

*39 *Boundary Light*—A boundary light is one of a series of lights used to indicate the limits of the landing area of a landing field

*40 *Contact Light*—A contact light is one of a series of marker lights, set substantially

flush in the ground along a runway, for the purpose of indicating the location of the runway, and assisting aircraft to land or take off

NOTE—In American practice, contact lights are clear along the entire length of a runway except the final fifteen hundred feet, which are yellow

***41 Obstruction Lights**—An obstruction light is a light which indicates the presence of a fixed object which is dangerous to aircraft in motion

NOTE—In American practice, obstruction lights are red

42 Range Light—A range light is a marker light having a distinctive characteristic to indicate the ends of a landing strip or runway

NOTE—In American practice range lights are green lights, located in groups at the ends of runways or landing strips. Range lights are generally coded by varying the number on different runways,

for the purpose of identifying the runways or landing strips

43 Auxiliary Range Light—An auxiliary range light is a marker light having a distinctive characteristic, designed to be located in the line of the boundary circuit to mark the projection of the landing strip, where the range lights are located within the limits of the landing area

NOTE—Auxiliary range lights, in American practice, are yellow, and are generally coded to correspond to the coding of the corresponding range lights

***44 Runway Lights**—“Contact Lights” is the recommended term

***45 Obstacle Light**—“Obstruction Light” is the recommended term

***46 Approach Light**—An approach light is one of a group of lights located outside of a landing area to indicate the projection of a runway or landing stretch

TERMS REFERRING TO LIGHTS FOR TRAFFIC CONTROL

***47 Traffic Light**—An airport traffic light is a light located at a landing area, having a controllable color or characteristic, and used to direct the operation of aircraft

***48 Traffic Control Projector**—A traffic control projector is a device designed to produce from the ground a controllable distinctive signal, directed at an individual aircraft for the purpose of directing its operation

***49 Pistol Light**—A pistol light is a traffic control projector designed to be operated in the hands

***50 Landing-Direction Light**—A landing-direction light is a light designed to indicate, either by itself or in conjunction with other lights, the favored direction for landings

TERMS RELATING TO FLOODLIGHTING

51 Floodlight—A floodlight is a projector designed to be arranged to illuminate a surface

***52 Landing-Area Floodlighting System**—A landing-area floodlighting system is an assembly of landing-area floodlights together with the necessary conductors and controls designed to illuminate a landing area

***53 General Field Floodlighting**—General field floodlighting is a landing-area floodlighting system so operated that the entire area of landing is illuminated from one floodlight or bank of floodlights

***54 Distributed Floodlighting**—Distributed floodlighting is a landing-area floodlighting system so operated that the flux from floodlights located a material distance apart is combined to illuminate the area

***55 Directional Floodlighting**—Directional floodlighting is a landing-area floodlighting system so operated that aircraft land essentially parallel with the direction of the rays

***56 Runway Floodlighting**—Runway floodlighting is landing-area floodlighting so oper-

ated that the axis of the runway to be used lies within a narrow floodlighted area

*57 *Landing-Area Floodlight*—A landing-area floodlight is a device designed for location at a landing field to illuminate all or part of the surface of the landing area

*58 *Shadow Bar*—A shadow bar is a device designed to be used with a single floodlight operated as a general field floodlight to inject a shaded region which can be so directed as to envelop a moving aircraft

*59 *Apron Floodlight*—An apron floodlight is a floodlight designed to illuminate an apron or loading area

*60 *Building Floodlight*—A building floodlight is a floodlight designed to illuminate the exterior of a building

*61 *Floodlight Flare*—A floodlight flare is a flare designed to be used as a landing-area floodlight

METEOROLOGICAL LIGHTS

*62 *Lighted Wind Indicator*—A lighted wind indicator is a lighted device designed to indicate the direction and, in some cases, the velocity of the surface wind

*63 *Illuminated Wind Cone*—An illuminated wind cone is a flexible illuminated wind indicator having the form of a truncated cone and so supported as to be affected by the action of the wind so as to indicate the direction and the approximate velocity of the wind by its position

*64 *Lighted Wind Tee*—A lighted wind tee is a lighted wind indicator having the form of a tee in a horizontal or slightly tilted plane

NOTE.—In American practice, a wind tee is marked by green lights

*65 *Lighted Tetrahedron*—A lighted tetrahedron is a lighted wind indicator having the form of a horizontal elongated tetrahedron, and designed to indicate by its orientation the direction of the surface wind

NOTE.—In American practice a tetrahedron is marked by means of green lights on one side and red lights on the other

*66 *Ceiling Projector*—A ceiling projector is a device designed to produce a well defined illuminated spot on the lower portion of a cloud for the purpose of providing a reference mark for the determination of the height of that part of the cloud

AIRCRAFT LIGHTING TERMS

*67 *Position Light*—A position light is a light used aboard an aircraft to indicate its position and direction of motion

NOTE.—In American practice the starboard position light is green, the port position light is red, and the tail light is clear

*68 *Navigation Light*—“Position Light” is the recommended term

*69 *Running Light*—“Position Light” is the recommended term

*70 *Wingtip Light*—“Position Light” is the recommended term

*71 *Auxiliary Position Light*—An auxiliary position light is a light used to supplement normal position lights, in the forward direction

*72 *Passing Light*—“Auxiliary Position Light” is the recommended term

*73 *Courtesy Light*—“Auxiliary Position Light” is the recommended term

*74 *Warning Light*—“Auxiliary Position Light” is the recommended term

*75 *Toplight*—A toplight is a supplementary position light designed to be used on marine aircraft while on the water

*76 *Formation Light*—A formation light is a position light of modified characteristics and used to facilitate formation flying

*77 *Tail Light*—A tail light is a position light located at the rear of the aircraft, and designed to be seen primarily from the rear

*78 *Riding Light*—A riding light is a light designed for use on floating aircraft to indicate its position when anchored

*79 *Anchor Light*—“Riding Light” is the recommended term

*80 *Identification Light (Military)*—An identification light, for military purposes, is an auxiliary position light for the purpose of facilitating formation flying (See also same term under beaconage)

*81 *Recognition Light (Military)*—A recognition light is a device designed for use aboard an aircraft, by means of which a code can be flashed for the purpose of identifying the aircraft to observers on the ground or in other aircraft

*82 *Instrument Lamp*—An instrument lamp is a device designed to be used on board an

aircraft to illuminate or irradiate an instrument or instruments

*83 *Indicator Light*—An indicator light is a light used in association with a control which by means of position or color indicates the functioning of the control

*84 *Control Light*—“Indicator Light” is the recommended term

*85 *Pilot Light*—“Indicator Light” is the recommended term

*86 *Landing Light*—A landing light is a device designed for use aboard an aircraft to illuminate a ground area from the aircraft

*87 *Parachute Flare*—A parachute flare is a flare attached to a parachute and designed to illuminate an area from an altitude