

T-M

TRANSPORTATION-MARKINGS  
DATABASE:

COMPOSITE CATEGORIES  
CLASSIFICATION & INDEX

Brian Clearman

Mount Angel Abbey

2012

Saint Benedict, Oregon

**TRANSPORTATION-MARKINGS  
DATABASE:**

**COMPOSITE CATEGORIES  
CLASSIFICATION & INDEX**

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*International Traffic Control Devices*, 2nd ed., 2004 (Part E, Vol. II, Further Studies in T-M) (1st ed., 1984)

*International Railway Signals*, 1991 (Part F, Vol. II).

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## DEDICATED TO MY GRANDPARENTS:

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## PREFACE

The Transportation-Markings Database project (within the T-M Monograph Series) began in 1997 with the publishing of the initial component, *Transportation-Markings Database: Marine*. That study was joined by *T-M Database: Traffic Control Devices* (1998), *Railroad Signals* (2000), *Aero Nav Aids* (2001). Each book included a double index (T-M forms arranged in categories, and an alphabetical index), with descriptive entries for each T-M form. Each study, in turn, was divided into sub-components (e.g. Fixed Lights, Buoys, Radio Aids). A second edition has been published for the four studies (*Marine*, 2007; *TCD*, 2008; *Railroad*, 2009; *Aeronautical*, 2009). The first edition of *Composite Categories Classification & Index* (2006) is supplemented by this new edition (2012).

The several category indexes did not ignore the classifications from the earlier modal studies (Parts C/D, E, F, G; and the intermodal study, Part B). But neither did they fully incorporate those classifications. In some instances database category indexes and modal classifications were marked by a substantial correlation, but there are other case in which indexes and classifications displayed only limited correlation.

This study, Part Iv (2nd ed.) is a review and revision of the category indexes that are also a form of classification. It examines incorporates modal classifications of the Database indexes. The study thereby creates an integrated core for the entire T-M project -- and not only the Database -- by listing all T-M forms. The end result is a consolidated categories classification.

All T-M forms for each mode are grouped together in a single chapter. This contrasts with the modal titles format. Each chapter is divided into primary forms. In the 1st edition the index/classificatons were joined by notes that listed differences between the index and text of the Database. In this edition notes refer to differences between the second editions of modal studies and the CCCI first edition. Other notes refer to new sources and terms. The first edition included a bibliography of new sources. The 2nd bibliography includes sources new to 2nd editions of modal database studies and the 2nd edition of CCCI. A traditional back-of the-book index is also included.

## ABBREVIATIONS

Note: A variety of informal abbreviations (or acronyms) for monograph titles have been employed in this study. The following outline gives the source and meanings.

Transportation-Markings Database:

*CCI Composite Categories Classification & Index*

CCI '06      CCI 2006      CCI (2006)      CCI '12      CCI 2012

*DB-A '09 Aeronautical Navigation Aids*

DB-A-09      DB-Aero '09

*DB-M Marine Aids to Navigation*

DB-M 1997      DB-M 2007      DB

*DB-RR Railway Signals*

DB-RR '00      DB-RR '09      DB '08??

*DB-TCD Traffic Control Devices*

DB-TCD '08      DB-TCD '98      DB '08

*Part B A First Study in T-M: The U.S.*

*Parts C/D International Marine Aids to Navigation*

C/D      C/D 1998      C/D 2010

*Part H T-M General Classification with Index*

H 2003      H 2010

## CHAPTER ONE

### MARINE AIDS TO NAVIGATION

#### 1A Buoys & Other Floating Aids

##### 1A1 Physical Buoys

###### a) Overarching Terms

###### 1) Basic Overarching Terms

Aids to Navigation

Boye/Bwoy

Buoy

Buoyage

Buoyant Beacon

Floating Aid

Floating Beacon

Floating Mark

Marker/Marker Buoy

Navigation Buoy

Navigational Buoy

###### 2) Other Overarching Terms (Often partial; frequently informal)

Approach Buoy

Automatic Buoy

Deep-Sea Buoy

Harbor Buoy

Metal Float

Ocean Buoy/Ocean-Buoy/Oceanic Buoy

Seacoast Buoy

Signal

Unlighted Buoy

###### 3) General Overarching Terms for Marine Aids to Navigation

General Comments

Aids/Aids to Navigation

Beaconing

Coastal Aids/Coastal Marks

Fixed Marks & Floating Marks  
 Guiding Marks  
 Landmarks  
 Landfall Marks  
 Lighted Sea Aids  
 Major Aids  
 Marks  
 Marks & Signs for the Sea  
 Markers  
 Navigation Marks  
 Navigation Sign  
 Navigational Aids  
 Sea Marks/Sea-Marks/Seamarks  
 Shore-Based Lights  
 Short Range Aids to Navigation  
 Visual & Audible Aids to Navigation  
 Curious Terms:  
 Marine Signposts  
 Ocean Lamp-Posts  
 Wandering Buoys  
 b) Lighted Buoys  
   Acetylene Buoy/Acetylene Gas Buoy  
   Automatic Electric Buoy  
   Electric Buoy/Electric-Buoy  
   Electric Light Buoy/Electrical Light-Buoy/Electrically Lighted  
 Buoy  
   Float (with Light)  
   Floating Light Beacon  
   Foster's Gas-Lighted Buoy  
   Gas Buoy/Gas-Buoy  
   Gas Lighted Buoy/Gas-Lit Buoy  
   High Focal Plane Buoy/Lighted Buoy of High Focal Plane  
   Lantern-Buoy  
   Light Buoys/Light-Buoys/Lightbuoys

- Lighted Buoys
- Lighted Marks
- Luminous Buoy
- Mast Buoy
- Oil Gas Buoy/Oil-Gas Lighted Buoy
- Platform Buoy (Light)
- Spar Buoy Fitted with Electric Light
- c) Can & Conical Buoys
  - Can/Can Buoy/Can-Buoy
  - Cann Buoy
  - Cone Buoy/Conical/Conical Buoy
  - Convex Buoy
  - Cylinder Buoy/Cylindrical/Cylindrical Buoy
  - Nun/Nun Buoy
  - Can & Cone Buoy
  - Fast Water Buoy/Fast Water Can Buoy/Fast Water Nun Buoy
  - Light, Tall Type, Metal Cone Buoy
  - Special Can Buoy/Tall Can Buoy/Special Nun Buoy/Tall Nun Buoy
  - Buoy
    - Spindle-Shaped Nun Buoy
    - Spiral Buoy
- d) Spar Buoys
  - Spar/Spar Buoy/Spar-Buoy
  - Spar on Can/Spar on Can-Conical/Spar on Cone/Spar on Curved Can
  - Can
    - Spar: Spindle-Tapered Spar
    - Floating Beacon
    - Iron Spar/Iron Spar Buoy
    - Mast Buoy
    - Tubular Spar Buoy
    - Wooden Spar/Wooden Spar Buoy
- e) Barrel & Cask Buoys
  - Barrel/Barrel Buoys
  - Cask

- Drum Buoy
- Keg Buoy
- Oil Drum/Oil-Drum Buoy
- Seatonne/Ton/Tonne/Tun
- f) Standard & Former Standard Buoys
  - Cagework Buoy
  - Ogival Buoy
  - Pillar Buoy
  - Sphere Buoy/Spherical Buoy/Spindle
- g) Sound Buoys
  - 1) Overarching Terms
    - Sound Buoy
    - Automatic Sounding Buoy/Sounding Buoy
    - Sound Signal Buoy
  - 2) Bell Buoys
    - Bell Buoy/Bell-Buoy/Bellbuoy
    - Iron Bell Beacon Vessel
    - Unlighted Bell Buoy
    - Bell Boat/Bell-Boat/Bell Ship
    - Brown Bell Buoy/Brown's Bell Buoy
  - 3) Whistle Buoys
    - Automatic Buoy/Automatic Signal Buoy
    - Automatic Signal Buoy (Whistle)
    - Automatic Whistling Buoy
    - Courtenay Buoy/Courtenay's Whistling Buoy
    - Large Whistle Buoy
    - Unlighted Whistle Buoy
    - Whistle Buoy
    - Whistling Buoy/Whistling-Buoy
  - 4) Other Sound Buoys
    - Alarm Buoy
    - Carillon Buoy
    - Gong Buoy
    - Horn Buoy

## Siren Buoy

## h) Combination Buoys

Combination Buoy

Boat-Shaped Buoy (with Bell &amp; Light)

Gas &amp; Bell Buoy/Combination Gas &amp; Bell Buoy

Gas-Whistle Buoy/Gas &amp; Whistling Buoy/Gas &amp; Whistle Buoy

Gas, Whistling &amp; Submarine Bell Buoy

Lighted Bell Buoy

Lighted Bell Buoy (Can/Conical/Spherical)

Lighted &amp; Bell Buoy

Lighted Gong Buoy

Lighted Horn Buoy

Lighted Sound Buoy/Light-Sound Buoy

Lighted Whistle Buoy

Submarine Bell Buoy/Buoy Fitted with a Submarine Bell

## i) Other Physical Buoys

## 1) Materials of Construction: traditional forms

Iron Buoy

Metal Buoy

Oaken Buoy

Steel Buoy

Wood (-en) Buoy

## 2) Materials of Construction: newer forms

Foam-filled Buoy

Glass-fibre Buoy

GRP Buoy

Plastic Buoy

Reinforced Plastic Buoy

## 3) Special Names Referring to Physical Structure

Blind Buoy

Dan Buoy

Double Buoy/Relieving Buoy

Estuary Buoy

Ice Buoy/Ice-Buoy



Marker/Marker Buoy (Has several meanings including Overarching and possibly Morphological meanings)

Winter Buoy

4) Other Specialized Buoys

Beacon Buoy (Bake-Germany; Lighted & Unlighted Forms)

Beacon-Buoy/Beacon-Buoy II

Perch Buoy/Log Perch Buoy/Summer Perch Buoy/Winter Perch

Buoy

Radar Beacon Buoy/Radar Reflector Buoy/Radio Beacon Buoy/

Radiobeacon Buoy/Sonobuoy/Sono-Radio Buoy

Historic Forms:

Egg-Bottomed/Flat-Bottomed/Bottle-Shaped/Flat-Bottom &

Wrought Iron

Captain Harris's Floating Lighthouse/Captain Moody's Floating

Lighthouse/Herbert's Buoy/Iron (Herbert's) Buoy/Herbert or

Inverted Cone Buoy/Poulter's Buoy/Peacock's Life Buoy/

Lenox's Buoy

Other Forms:

Hollow-Bottom Buoy/Recognition Buoy/Refuge Buoy-Beacon/

Discrepancy (Temporary) Buoy/Wandering Buoys

1A2 Buoy Morphology Terms

a) Location

1) Approach

Approach Buoy

Bar Buoy

Farewell Buoy

Landfall Approach Buoy

Landfall Buoy/Land Fall Buoy

Recognition Buoy

Sea Buoy/Sea-Buoy

2) Channel Edge Buoys

Starboard Buoys

Starboard Hand Buoy/Starboard-Hand Buoy/Starboard-Side Buoy/

Righthand Buoy

- Port Buoy/Porthand Buoy/Port Hand Buoy/Port-Hand Buoy/  
Port-Side Buoy
- 3) In-Channel Buoys
  - Bifurcation Buoy
  - Centerline Buoy
  - Channel Buoy/Channel-Buoy
  - Fairway Buoy
  - Junction Buoy/Lighted Junction Buoy
  - Lateral Buoy
  - Mid Channel Buoy/Mid-Channel Buoy
  - Middle-Ground Buoy/Middle Ground Buoy/Middleground Buoy
  - “Preferred Channel Buoy”
  - Transition Buoy
  - Turning Buoy
- b) Hazard Buoys
  - Cable Buoy/Cable-Buoy/Telegraph Buoy/Telegraph Cable Buoy/  
Submarine Telegraph
  - Dan Buoy
  - Danger Buoy/Isolated Danger Buoy
  - Dredging Buoy
  - Fish Net Buoy/Fishnet Buoy/Fish-Net Buoy/Fish Trap Buoy
  - Obstruction Buoy
  - Outfall Buoy
  - Practice Area Buoy/Marking of Areas-Military/Military Practice  
Area Buoy
  - Spoil-Ground Buoy
  - Wreck Buoy/Wreck-Marking Buoy
- c) Buoy Names From Messages
  - Black Buoy/Green Buoy/Red Buoy/White Buoy/Yellow Buoy
  - Black/White Vertical Striped Buoy/Checkered Buoy/  
Checked Buoy/Parti-Colored Buoy/Red & Black Horizontal  
Banded Buoy/Red, Right Returning Buoy/Vari-colored  
Buoy/White & Black Horizontal Banded Buoy/ White &  
International Orange Buoy/Yellow & Black Vertically Striped

Buoy/Yellow (GreenTop) Buoy (or White Buoy w.Green Top)

Other Message-Based Names:

Intracoastal Waterway Buoy

Topmark Buoy

d) Names From Indirect Navigation Uses

1) Station Buoys

Station Buoys

Lightship Station Buoy/Light-Vessel Station Buoy

Position Buoy/Position Spar

Watch Buoy/Watch-Buoy

Marker Buoy (This term has several meanings)

2) Towing Buoys

Towing Buoy/Towing-Buoy/Towing Spar/Towing-Spar

Fog Buoy/Fog-Buoy/Fog Spar

3) Anchor, Anchorage & Mooring Buoys

Anchorage Buoy/Aero Anchorage Buoy/Explosive Anchorage

Buoy

Light-Vessel Mooring Buoy

Mooring Buoy

Hong Kong Mooring Buoy

Trunk/Trunk Mooring Buoy

Quarantine Buoy/Quarantine-Ground Buoy/ Quarantine (Ground)

Buoy

Kedge-Buoy

Warping Buoy

e) Special Purpose Buoys

Special Buoy/Special Purpose Buoy/Special-Purpose Buoy/

Special-Duty Buoy

f) Miscellaneous Buoys

Compass Adjustment Buoy

Hauling-Off Buoy

Mast Buoy

Measured Mile Buoy

Seadrome Buoy

Survey Operations Buoy  
Swinging Buoy  
1A3 Excerpts from Buoy Adjunct Terms  
Marks  
Bifurcation Marks  
Buoyage Marks  
Can Marks  
Channel Marks  
Conical Marks  
Floating Marks  
Junction Marks  
Landfall Marks  
Lateral Marks  
Outfall & Spoil-Ground Marks  
Porthand Marks/Port Hand Marks/Port-hand Aids  
Spar Marks  
Spherical Marks  
Starboard Hand Marks/Starboard-Hand Marks/Starboard Hand-  
Markers/Starboard-Hand Aids  
Cardinal Buoys  
Cardinal Marks/Cardinal Markers  
North, South, West, East Cardinal Marks  
Isolated Danger Marks  
Mid-Channel Marks  
Middle Ground Marks/Middle-Ground Marks  
Quarantine-Ground Marks  
Safe Water Marks  
Spare Marks  
Special Marks  
Transition Marks  
Undefined Marks  
Wreck Marks  
Ocean Data Acquisition Marks  
Traffic Separation Marks

Spoil Ground Marks  
 Military Exercise Zone Marks  
 Cable/Pipeline Marks  
 Recreation Zone Marks

#### 1A4 Major Floating Aids

##### a) Overarching Terms

Large Automatic Navigation Buoy  
 Large Floating Aids  
 Large Floating Navigational Aids  
 Major Floating Station

##### b) Lightships & Light Vessels

General Comments I, II  
 Lightship/Light Vessel (Core Term)  
 Lightship/Light-Ship  
 Human-Related Terms:  
 Lightvessel/Light Vessel/Light-Vessel/Light-Vessel Station  
 Relief Vessel/Relief Light Vessel/Relief Ship/Relief  
 Lightship/Relief Light-Ship/Spare Light-Vessel  
 Attended Lightvessel/“Manned” Lightvessel/Un“manned” Light  
 Vessel/Unattended Light-Vessel/“Manned” Light Vessel/  
 Automatic Lightship/”Manned”  
 Lightship/Un“manned” Lightship/Unattended Light Vessel/  
 Un“manned” Lightvessel/Unattended Lightship/Automatic  
 Un“manned” Lightship/Light-Vessel Unwatched  
 Floating Light/Floating-Light  
 Floating Lighthouse

##### c) Light Floats

Lightfloat/Light Float/Light-Float/Gas-Light Float  
 Automatic Lightfloat/Automatic Light-Float/Automatic Light  
 Float/Un“manned” Light Float/Un“manned” Light Float  
 Light-Boat/Lightboat/Boat Float/Unattended Lightfloat/Boat  
 Beacon/Gas Boat  
 GRP Catamarans & Catamarans/Lighted Catamarans  
 Nomad Weather Light-Float

- d) Large Navigational Buoys (LNB)
  - LNB/Large Navigational Buoy/LANBY/Large Automatic Navigation Buoy
  - Superbuoy
  - Large Buoy
  - Lighthouse Buoy

## Notes

### General Notes

First edition notes included a lengthy list of new terms. This edition contains fewer new terms. A variety of atypical terms in Part J were not included in the first edition though they are included now.

A major component of the 1st edition was a listing of differences between the category index and text of Database. This edition, by contrast, notes differences in specific terms between the 1st edition of CCI, and the 2nd edition of Database-Marine. Some terms omitted in 1st edition of CCI are added in the 2nd edition. The same pattern has occurred in the 2nd edition of DB-M 2007.

There is less batching of terms in the category index than in the text of DB. For example, materials of construction constitute a single entity in DB while different materials are listed separately in CCI. However, there are occasional examples of more merging in CCI and less in DB.

The first edition of CCI (2006) includes general remarks about other T-M monographs and terminology:

C/D differentiates Lighted Buoys by shape and by nation. This is not followed in the Database. Can and Conical Buoy are listed by nations in C/D. Sound Buoys and Combination Buoys include basic forms and national presence in C/D.

Part H reflects many of the practices of Part C/D. However, it also includes Electronic Aids not found in C/D as well as Major Lighted Aids (e.g. the Lighted Catamaran which is also not in the Database).

Part B incorporates the location of aid classes of the classification as well as materials of construction.

Specific Notes:

Physical Buoys:

Marker and Marker Buoy are brought together in DB-M in contrast to CCI 2006. The former term has the meaning of buoy in this context. CCI now follows that approach.

There are multiple instances in which hyphens are either added or subtracted. Terms include Deep Sea Buoy, Ocean Buoy and Sea Buoy. Terms have been reviewed for this edition and necessary changes have been made.

Beaconing appears in overarching terms for buoys instead of General Overarching terms (Marine Aids to Navigation, 1st edition). CCI 2nd edition moves the term to the correct segment.

Navigation Sign is a term of uncertain origins. The writer may have been influenced by somewhat similar terms in Hague & Christie 1975 (in DB-M 2007) thereby conflating or even coining the term.

Wandering Buoys is moved from the Other Forms segment to Curious terms segment.

Light, Tall Type, Metal Cone Buoy is added from DB-M 2007 to this CCI edition.

Boat-Shape Buoy is included with Bell Buoys and a nearly identical. Boat-

Shaped Buoy (with Light & Bell) with combination buoys. The former term is omitted.

Siren Buoys sub-category (containing Alarm, Horn, Siren buoys) is merged with Other Sound buoys that include Carillon Buoy and Gong Buoy. Trumpet Buoy from DB-M 2007 is also added.

Materials of Construction category employed a unitary format in CCI 2006. It is replaced with a two-part arrangement of new materials (e.g. plastic) and traditional materials (e.g. metals).

Estuary Buoy in CCI may give the appearance that it is not in DB-M. However, the latter source is listed under Standard Estuary Buoy. Both names require clarification. The source, Pharos Marine, arranges buoys according to the appropriate type of waterways. Their overall term is “Estuaries, Shallow and Fast Flowing.” Aids have descriptive names that omit the names of waterways but the buoys are further described by adding estuary to the basic term.

Discrepancy Buoy appeared in Other Forms for CCI 2006 while it appeared in Special Names (that refers to Physical Structure Subforms in DB-M 2007). The term is now located in the latter category for CCI 2012.

#### Morphology Buoy Terms:

Channel Edge, Channel Limit and In-Channel Buoys terms have generated confusion and contradictions in the monographs. Use of these terms has been simplified and clarified in this edition.

“Preferred Channel” Buoy includes quote marks in DB-M. There is seemingly no buoy by that name. The term was coined by adding the name of the buoy to the navigation channel term of preferred channel.

Color forms are divided into two groups for DB-B: single colors and



combination colors rather than separate entries. That pattern is now found in CCI.

#### Miscellaneous Buoys:

Hauling Off Buoy is not hyphenated. CCI 2006 was in error for adding a hyphen.

Mast Buoy was listed in Lighted Buoys in the earlier edition. It is not a clearly defined buoy and miscellaneous is a more adequate location.

Swing Buoy was included in the previous edition. The correct term is Swinging Buoy and it now appears in the current edition.

#### Lightships and Light Vessels:

Human-related terms: this term is altered to Human-operated terms in CCI 2012 in contrast to DB-M.

Nomad Weather Light-Float was included in DB-M but absent from CCI 2006; it is now added.

#### 1B Fixed Visual Aids

##### 1B1 Fixed Lights

###### a) Overarching Terms

###### 1) General Overarching Terms

Fixed Aids to Navigation

Fixed Lights

Lights

Lights on Fixed Structures

Light Aids

(Light) Beacon/Lighted Beacon/Light Beacon/Light-Beacon

- Lighted Marks
- Marine Light
- Maritime Lighting
- 2) Overarching Terms for Major Lights
  - Beacon-Fires
  - Beacon-Light
  - Beacon Tower
  - Blazing Beacons
  - Coast Light/Coastal Lights/Coastwise Lights
    - [See also: Morphological Lights]
  - Electric Light Station
  - Enclosed Tower
  - Fire-Tower
  - Freestanding Light/Light Attached to Keeper's Dwelling/
    - Roof-Mounted Light
  - Lake Light-House
  - Land Structure/Land Tower/Land Lighthouse/Land Light
  - Lighthouse/Light-House/Light House
  - Lighthouse Beacon
  - Lighthouse System
  - Light Station/Light-Station
  - Light-Tower/Light Tower
  - Lighted Tower
  - Lighted Coastal Beacon
  - Major Beacon
  - Major Light
  - Major Light Structure
  - Navigation Light/Navigational Light
  - Non-Towers
  - Offshore Light/Offshore Lighthouse
  - Oil Station
  - Open Tower
  - Openwork Structures
  - Phare/Faros/Pharus/Pharos

- Primary Seacoast Light [Term is also morphological]
- Rock Station
- Rock Lighthouse/Rock Lighthouse Tower/Rock Tower
- Seacoast Light
- Sea-Light/Sea Lights
- Sea Lighthouse
- Sea-Girt Lighthouse
- Sea-Navigational Light
- Sea-Swept Lighthouses
- Sea Tower
- Secondary Light/Secondary Coastal Light  
[Term is also morphological]
- Shore-Based Lights
- Shore Structures/Shore Lights
- Structures on Islands & Promontories
- Tall Coastal Towers
- Tower
- Tower Attached to House/Building
- Tower on Skeleton Structure
- Tower on Special Marine Foundation
- Tower on Rocks
- Wave-Exposed Tower
- Wave-Swept Structures/Wave Swept  
Lighthouses/Wave-Swept Tower
- 3) Overarching Terms for Minor Lights
  - Beacon/Beacon Light/Beacon-Light/Iron Beacon/Stone Beacon/  
Wooden Beacon
  - Harbor Light/Harbor-Light/Local Harbor Light
  - Light Beacon/(Light) Beacon/Lighted Beacon
  - Local Light
  - Minor Light
  - Other Lights
  - River Light/Riverine Light/River Beacon

- Shore & Harbor Lights
- Short-Range Aids
- Support/Iron Support/Wooden Support
- b) Major Lights
  - 1) Subdivisions
    - Note to Major Categories
    - Wave-exposed Lights/Wave-Swept Towers/Wave-Swept Structures/Wave-Swept Lighthouses/Sea Girt Lighthouses/Sea-Swept Lighthouses
    - General Comments
    - Land Towers/Land Structures
    - General Comments I, II
  - 2) Major Lights-Individual Entries
    - Cast Iron Lighthouse/Cast-Iron Lighthouse/Cast Iron Tower/Cast Iron Plate Tower
    - Iron Frame/Iron-Frame/Iron Framework Light-house/Iron Framework Lighthouse/Iron Framework Tower
    - Iron Lighthouse/Iron Light-House
    - Iron Pile Lighthouse/Iron Pile Lighthouse
    - Iron Pyramidal Framework Light-House
    - Iron-Skeleton Light-House/Skeleton Iron Light-House
    - Iron Tower
    - Open Iron Structure/Open Iron Tower
    - Pyramidal Iron Skeleton Tower
    - Skeleton Wrought-Iron Tower/Skeleton Wrought Iron Tower
    - Wrought-Iron Open Framework Structure
    - Brick Tower
    - Building/Wooden Building
    - Concrete Caisson Tower
    - Concrete Tower/Monolithic Concrete Tower
    - Cylinder
    - Dwelling
    - Enameled Panels on Steel Towers

- Frame Tower/Framework/Framework Tower
- Granite Tower
- House/Wooden House
- Masonry Tower
- Offshore Light/Offshore Lighthouse
- Pile Lighthouse/Pile Light-House
- Rock Tower/Rock Lighthouse/Rock Station/Rock Lighthouse Tower
- Screw-Pile Tower/Screw-Pile Lighthouse/Screw-Pile Foundation/Screw-Pile Structure/Screw-Pile System
- Sea Lighthouse
- Sea-Tower
- Shore-Based Light
- Skeleton Steel Structure
- Skeleton Steel Tower/Skeleton Tower/Skeleton Structural Tower/Lattice Steel Tower/Steel Tower
- Skeleton Structure
- Skeleton Wood Tower
- Stone Tower/Monolithic Stone Tower Structure
- Submergible Lighthouse
- Telescopic Lighthouse
- Tower on Marine Foundation
- Wooden Structure
- Wooden Tower
- Foundations:
  - Caisson Foundations
  - Crib Foundations
  - Stone Foundations
- c) Minor Lights
  - 1) Single-Member Structures
    - (a) Narrower Types
      - Articulated Light/Buoyant Light Beacon/Resilient Beacon/Resinex Beacon/Resinex Tension Beacon

Mast/Beacon Mast/Mast Beacon  
 Pedestal  
 Pillar/Metal Pillar  
 Pipe/Pipe Light  
 Pole/Single Pole/Pole Beacon/Pole Beacon/Pole Light  
 Post Light/River-Post Light/Steel Post Light/Post Light/  
     Post-Light/Iron Post  
 Pylon  
 Single Pile/Single-Pile Light/Single-Pile Beacon  
 Spar/Spar Light  
 Spindle/Spindle Light  
 Staff/Iron Staff  
 Stake Light/River Stake Light  
 Standard Structure on Special Foundation

(b) Wider Types

General Comments  
 Column  
 Concrete Beacon (Column)  
 Cylinder/Cylindrical/Cylindrical on Marine Foundation  
 GRP Beacon/GRP Beacon Tower  
 Obelisks  
 Pillar  
 Pylon

2) Multiple-Member Structures

Braced Pole Light  
 Cylindrical/Cylindrical on Marine Foundation  
 Dolphin/Dolphin Light/Dolphin Beacon  
 Framework  
 Guyed Tower/Semi-guyed Tower  
 Multiple Pile/Multiple Pile Light  
 Pile Structure/Pile Structure Light/Pile Structure on Marine  
     Foundation  
 Skeleton Steel Tower/Skeleton Tower/Lattice Steel Tower/  
     Structural Tower/Structural Tower on Marine Foundation

- Skeleton Structures
  - Tripod/Tripod Light/Tripodal Light/Tripodal Tower/Tripodal Tower Light/Tripod Beacon
  - Tubular Structures
- 3) Enclosed/Composite/Single Structures
  - Apparent Light
  - Arms
  - Cairn
  - Disc Beacon
  - Fanal
  - House
  - House/Hut on Structure/House/Hut on Pile Structure/House/Hut on Tripod
  - Hut
  - Iron Frame/Triangular Frame/Wooden Frame/Framework
  - Iron Turret
  - Lever Light/Swape Light/Popinjay
  - Lighted Bank
  - Pyramid/Pyramid Beacon/Stone Pyramid/Pyramidal
  - Small House/Small House on Marine Foundation
  - Stand/Iron Stand
  - Triangle Beacon
- d) Morphological Terms
  - 1) Major Lights
    - Coast Light/Coast Station
    - Coastal Beacon/Coastal Beacon Light/Coastal Light/Coastal Lighthouse/Coastal Navigational Aids/Coastal Beacon (Lighted)
    - Coastal Tower
    - Coastwise Beacon/Coastwise Beacon Light/Coastwise Light/Coastwise Guiding Light
    - Coasting Light
    - Feu de Jalonnement
    - First Class Light/First-Class Dioptric Light/First-Order Dioptric

Light-House/First-Class Fixed Light/Lights of the First Order/-  
Second/-Third/-Fourth/-Fifth/-Sixth

Guidance Light/Guiding Lighting/Guide Light

Hazard Light

Headland Light/Head Light

Landfall Light

Main Light

Major Coastwise Light

Making Light

Obstruction Light

Warning Light/Warning Beacon Light

2) Minor Lights

Bar Beacon

Bridge Light/Bridge Navigation Light

Channel Light/Channel Markers/Channel Navigation Light

Direction Light/Directional Light/Direction Beacon

Dock Light

Fishing Light/Fishing-Light

Feu De Rive

Fog Detector Light

Isolated Danger Light

Jetty End Light

Leading Light

Marine Traffic Light

Pier Light/Pierhead Light/Pier-Beacon

Port Light

Range Light/Range Beacon/Electric Range Light

Sector Light/Light Sector/Sector Light/Sector Navigation Light/

Port Entry Light Sector

Single Station Leading Light/Single Station Direction Light/Single

Station Range Light

Tide Light/Tide-Light/Tide Signal/Tidal Light

Traffic Signal/Port Traffic Signal

e) Character of Operation Terms



- 1) Nature of Operations
  - Attended Light/Nonattended Light/Unattended Light
  - Automatic Light/Automated Light
  - “Manned” Light/“Unmanned” Light/“Manned” Lighthouse
  - Robot Light
  - Semi-Watched Light
  - Watched Light/Unwatched Light/Unwatched Navigation Light
- 2) Specific Character of Light Operations
  - Auxiliary Light
  - Emergency Light
  - Main Light
  - Occasional Light
  - Permanent Light
  - Seasonal Light
  - Standby Light
  - Subsidiary Light
  - Temporary Light
  - Vertical Light
  - Weak Light
  - Winter Light
- f) Miscellaney
  - Aeromarine Light
  - Aeronautical Light
  - Chapel Lighthouse
  - Cottage Lighthouse
  - Fire Beacon/Fire Tower
  - First Class Light
  - High & Low Lights
  - Lamp-Post
  - Lantern Light
  - Lighthouse-Ornee
  - Major Harbor Light/Minor Coastal Light
  - Private Light
  - Standing Beacon

## Notes

## General Notes:

Fixed Lights is a component of Fixed Visual Lights. It includes Major and Minor Lights. Daybeacons is also part of Fixed Visual Lights but considered separately.

Terms are frequently merged in DB-M though in some instances terms are considered separately. As is the case with other T-M segments, DB-M and CCI not infrequently configure terms differently.

CCI divides Overarching terms into General, Major and Minor Lights. DB-M 2007 altered Major into Marine. It should conform to CCI practice.

A note in CCI 2006 regarding other T-M studies can have relevance here as well: The classifications in C/D 1988 [and 2010] and H 2003 [and 2010] employed slightly different terms for categories than those of the Database. This is also true for formulations of the categories. Nonetheless, the terms are not essentially different from those of the Database and CCI 2006.

## Specific Notes:

Several major terms listed in DB-M 2007 are missing in CCI 2006. These include Oil Station, Sea Coast Light, Tower Attached to House/Building, Tower on Skeleton Structure, Tower on Special Marine Foundation, Tower on Rocks. They are added in this edition.

## Physical Terms-Minor:

Several terms listed in DB-M 2007 are missing in CCI 2006. They are included in this edition. These include Pole Light (added to Pole forms) and

Tripodal Lights (added to Tripod forms) in CCI. Spindle/Spindle Lights are duplicated in CCI 2006. The second entry is now deleted.

DB-M 2007 includes Disc Beacon in Enclosed/Composite/Single Structure though it may suggest a morphological form. It is now added to CCI.

House/Hut in Structures in DB-M is followed by Hut on Pile Structure and Hut on Tripod. Neither term includes house as part of the title. CCI 2006 added house. It is now deleted.

Frame is added to specific forms of Frame (e.g. Iron Frame) in DB-M. Frame now added to CCI.

#### Morphological Terms:

Coastal terms in CCI are somewhat at variance with DB-M 2007. As a result of those variations Coastal Lighthouse is deleted while Coastal Beacon is followed by (Lighted) rather than preceded. Coastal Navigation Aid should include Navigational rather than Navigation.

The term Coastwise is incomplete. Guiding Light is required in order to complete the term.

The orders of lights have split asunder in CCI 2006: Lights of the First to Sixth order are now added to First Class and First Order Lights in order to correct the error.

Obstruction Light lacks "Light". That is now added.

Cottage Lighthouse is hyphenated in DB-M; that form is now added to CCI.

## 1B2 Daybeacons

## a) Overarching Terms

## 1) Basic Terms

- Beacon
- Beaconage/Beaconage Systems
- Daybeacon/Day Beacon/Day-Beacon
- Daymark/Day Mark/Day-Mark
- Fixed Beacon
- Shoreside Marker
- Stationary Beacon
- Unlighted Beacon/(Unlighted) Beacon

## 2) Foreign Language Terms

- Bake (Germany)
- Bake (Norway)
- Bak (Sweden)
- Balise
- Balise Fixe
- Stehende Bake

## b) Morphological Daybeacons

## 1) Leading/Range Marks

- Clearing Marks
- Day-Beacon Range
- Leading Marks/Leading-Marks
- Crossing Marks
- Crossing Transit Marks
- Range Beacons
- Range Marks/Rangemarks
- Range Target Marks/Range Target Markers
- Transit Marks

## 2) Signals

- Dock Signals
- Harbor Signals
- Lock Signals

- Port Signals
- Tide Signals
- Traffic Signals
- 3) Other Morphology Types
  - Buoy Range Markers
  - Cable Marks
  - Diamond Beacon
  - Landfall Beacon
  - Mark Indicating Bank to Hug
  - Mark Indicating Prohibited Entrance or “Danger”
  - Regulatory Beacon
  - Regulatory Mark
  - Shore Marks
  - Warning Regulatory Marker
  - Winter Marker
- c) Physical Daybeacons
  - 1) Unidimensional
    - (a) Established Names
      - Perch
      - Pile
      - Pile Beacon/Pile-Beacon
      - Pillar
      - Pole
      - Pole Beacon
      - Post/Post Beacon/Post Beacon Structure
      - Post-Mark
      - Spar
      - Spindle/Spindle Structure
    - (b) Local Names
      - Beacon Pole
      - Board
      - Braced Pole
      - Channel Stake
      - Column

- Concrete Pile
  - Edgemark
  - I-Beam/I-Beam Mast
  - Iron Pile
  - Iron Pillar
  - Iron Post
  - Iron Spindle
  - Mast
  - Pipe Spindle
  - Post-Mark
  - Sandbank Beacon
  - Single Pile
  - Single Pile-Concrete/-Wood/-Steel
  - Single-Pile Beacon
  - Single Pile Structure
  - Single Pole
  - Single Wooden Beacon Structure/-Steel Beacon Structure/-  
Concrete Beacon Structure
  - Single Pile Wooden Structure/-Steel Structure/-Concrete Structure
  - Shaft/Iron-Shaft/Stone Shaft
  - Spindle Structure
  - Staff
  - Stake
  - Steel Pile/Single-Steel Pile
  - Stump
  - Wrought Iron Mast
  - Wrought-Iron Pole
  - Wooden Post
- 2) Structural Daybeacons
- (a) Structural Daybeacons Employing Overarching Terms
    - Bak (Sweden)
    - Bake (German)
    - Bake (Norway)
    - Beacon

## (b) Established Names

Dolphin

Tripod/Tripod Beacon

## (c) Local/Descriptive Names

Cylinders

Cylindrical Structures

Enclosed Structures

Frame/Framework/Framework Structure/Iron Framework/

Wooden Framework

Iron Beacon/Stone Beacon/Wooden Beacon

Iron Cone/Pointed Cone

Iron Tripod

Kapen/Caapen

Lattice-work Structure/Latticework

Masonry Structure

Multiple Pile

Multiple Pile Structure/Multiple Structure/Multiple Pile Cluster

Dolphin/Multiple Pile Cluster Dolphin Structure/Multiple

Pile Battered Dolphin/Multiple Pile-Battered Dolphin

Structure/Multiple Pile Platform Structure

Obelisks

Pile Structure

Pile Tripod

Pipe Frame

Pyramid/Pyramidal Structure/Pyramidal Stone Structure

Skeleton Structure

Skeleton Tower

Slatted Structure

Slatted Tower

Small House

Square Frame

Stone Monument

Structure

Timber Structure

- Timbered Beacon
- Tower Beacon/Beacon Tower
- Triangular Structure
- Varde
- 3) Natural Marks
  - Birch Tree Beacon
  - Cairn
  - Landmarks
  - Petit Arbre/Small Tree
  - Pricken
  - Stone Construction
  - Tree Branch (Natural Form, Tied-down Branch)
  - Twig
  - Withy

### Notes

#### General Notes:

Explanations of practices and special terms for CCI (2006) are included here:

Morphological Daybeacons: Character aid is not fully known. Some may be partially or entirely lighted in character.

Physical Daybeacons ( b) Local names): Some terms are both physical and morphological. These include: Channel stake, Edgemark, Sandbank beacons.

Structural Daybeacons: Database merged two groups together (Open Structures, and Enclosed & Solid Structures) and this study continues that unitary approach.

Terms not in English: “Trans-national” terms (e.g. Bake) are retained. But more restricted terms are not included (e.g. Swedish “Ros” for cairn).

Terms of uncertain character are retained if specific nature is not easily ascertained or if they spill over into other forms (e.g. signals which can also be lighted at least in part).

Variant forms in Physical Daybeacons should be kept together unless there is a reason for separation is present (e.g. posts and wrought-iron post).



#### Differences Between Parts C/D and H and Database:

The original classification of Part C/D lacked main and variant forms. Part H added main and variant subdivisions with many specific forms in the variant classification only. Two terms in the Classification proved to be questionable: Lattice-work Structure/Latticework were employed in C/D and H but are not fully accurate; they were replaced by Slatted Structure in the Database. The term Artificial Marks was employed in H for built-forms; constructed forms would have been preferable.

#### Specific Notes:

#### Overarching Terms:

One term, Shore Beacons, is listed in New Terms for CCI 2006 but is not assigned to a category. It is presumably an overarching term. The source of the term suggests an uncertain origin. Rogers 1985 is given as the source. However, only Shoreside Marker appears in that publication. A second term, beacon encompasses that term. Shore Beacon is a possible construction of Shore and Beacon.

Overarching Terms are divided into Basic, and Shared & Foreign Language terms. Three terms, Beacon, Day Mark/Day-Mark were listed in the second group. They are now moved to the Basic segment. While they are not fully basic there is a tendency in that direction.

#### Morphological Daybeacons:

Rangemarks appear in CCI 2006 though it does not appear elsewhere. It therefore remains a questionable term.

Terms from DB-M that are added to this edition include Leading-Marks, Range Target Markers, Buoy Range Markers, Recognition Beacons, Regulatory Marks.

### Physical Daybeacons:

Single Pole is moved to Local names though the difference from Established names is less precise. Beacon Pole remains in the second category though DB-M places it in the first segment. Spindle and Spindle Structure are together in Established names. The second term is less fitted for that category but, nonetheless, is retained with the core term of Spindle. A second variant term of Multiple Pile Battered Dolphin (with hyphen) is absent from DB-M and therefore omitted in this edition of CCI.

### Structural Daybeacons:

Bak and Bake terms refer to national usage. Bake is designated by numerical symbols in DB-M though a simpler coverage is found here. Iron Framework is attached to other terms in DB-M but remains a free-standing term in CCI.

Wooden Framework is added to this category of CCI.

### Natural Marks:

Marker Rocks appears in DB-M but was omitted in CCI 2006. It is now added to CCI 2012 edition.

## 1C Acoustical & Radio Aids

### 1C1 Acoustical Aids

#### a) Fog Signal Overarching Terms

Acoustic Aids

Acoustical Signal

Aerial Fog Signal

Air Signal

Alarm Signal

- Automatic Foghorn
- Audible Aid/Audible Signal
- Coast Fog Signal/Coastal Fog Signal
- First Class Fog Signal
- Fog Horn/Fog-Horn/Foghorn
- Fog Signal/Fog-Signal/Fogsignal
- Fog Signal Apparatus/Fog-Signal Apparatus
- Fog Signal Emitter
- Fog Signal Station/Fog-Signal Station
- Fog Signalling Device
- Fog Warning Signal
- Fog Whistle (Misnomer)
- Guiding Signal
- Hooter
- Horn
- Long-Range Signal
- Major Fog Signal
- Marine Fog Signal
- Minor Fog Signal
- Obstruction Signal
- Occasional Fog Signal
- Secondary Fog Signal
- Short Range Signal/Short Range Electric Signal
- Sound Buoy
- Sound Emitter
- Sound Signal/Sound-Signal
- Sound Signal Buoy
- Sound Signalling Device
- Steam Fog Alarm/Steam Fog Alarm Station
- Steam Fog Signal/Steam Fog-Signal
- b) Diaphone, Diaphragm, Reed, & Siren Signals
  - 1) Diaphone Signals
    - Air Diaphone
    - A-Type/B-Type/C-Type/C-Type Diaphone/F-Type/F Type

Diaphone/Triple-F Signal/Two-Tone F-Type, F2T/G-Type

Diaphone/K-Type/Twin K Type Diaphone

Diaphone

Diaphone Horn/Diaphone Fog Horn/Diaphone Fog Signal/

Diaphone Signal

Diaphone Two-Tone/Two-Tone Diaphone

Double-Toned Fog Horn

Steam Diaphone

Vertical Diaphone

2) Diaphragm Signals

(a) Overarching Terms

Diaphragm

Diaphragm Horn/Diaphragm Fog Signal

Horn

Horn, Diaphragm

Misnomers: Air Whistle, Steam Whistle

(b) Diaphragm Signals-Compressed Air

Air Horn

Air Diaphragm Horn/Air-Operated Diaphragm Horn

Chime/Chime Signal/Air Chime Diaphragm

Compressed-Air (Diaphragm) Horn

Diaphragm Air Horn

Horn, Chime, Diaphragm/Horn, Diaphragm, Chime

Horn, Compressed-Air

Horn Diaphragm

Supertyfon/Supertyfon Air Horn/Supertyfon Air Signal/Super-

tyfon Fog Signal/Super-tyfon Signal/Supertyfon Horn/Two-note

Supertyfon/Leslie-Supertyfon Air Whistle/Tyfon/Tyfon Air

Air Horn/Tyfon Horn/Tyfon Signal Apparatus/Typhon

(c) Diaphragm Signals-Oscillators

Diaphragm Horn, Electric

Diaphragm Horn, Electric Oscillator Type

Diaphragm, Oscillator/Diaphragm (Oscillator)

Electric Air Oscillator/Air Oscillator  
 Electric Fog-Horn/Electric Fog Horn  
 Electric Fog Signal  
 Electric Fog Signal Apparatus  
 Electric Fog Horn  
 Electric Horns  
 Electric Diaphragm Emitter  
 Electric Diaphragm Horn  
 Electric Emitter/Electric Sound Emitter  
 Electromagnetic Horn (Electromagnetic Air) Oscillator  
 Electric Fog Signal  
 Electric Signal  
 ELU 500 Pure Tone Electric Emitter/ELU 800 Electric Emitter/  
 Honeywell 800 Hz Signal/LIE 300 Signal/LIE 300/Electric  
 LIE 300  
 Emitter  
 High Fidelity Electric Fog Signal  
 Horn, Electromagnetic Oscillator  
 Horn, Oscillator  
 Lighted Horn Buoy  
 Low Power Electric Sound Signal  
 Low Power HF Electric Emitter  
 Nautophone  
 Oscillator  
 Pure Tone Signal/Pure Tone Electric Emitter  
 Short Range Electric Signal  
 72-Tannoy-Speaker Electric FS  
 Triple Frequency Emitter Stack/Triple Frequency Fog Signal/  
 Triple Frequency Electric Fog Horn/Triple-Frequency Fog  
 Signal/Triple-Frequency Fog Horn  
 3) Reed Horns  
 Air Trumpet  
 Barker Horn/Barker Reed  
 Chance Brothers Hand Horn

Daboll Trumpet/Daboll's Rotating Trumpet/Daboll Reed/Daboll's  
 Reed Signal/Daboll's Fog Horn/Daboll Reed Fog Signal  
 Equine Trumpet  
 Fog Trumpet  
 Hand Fog Reed Horn/Hand-Horn/Hand Horn  
 Hand-pumped Reed Signal  
 High Pressure Reed  
 Holmes Hand Horn  
 Holmes Reed  
 Holmes Reed & Trumpet  
 Manual Reed/Manual Reed Horn  
 Norwegian Horn/Norwegian Portable Reed Horn  
 Reed  
 Reed Fog Signal  
 Reed Horn/Reed-Horn/Reed Horn Fog Signal  
 Reed Signal  
 Reed Trumpet  
 Service Reed  
 "Standard Reed"  
 Steam Trumpet/Trumpet  
 Stentor Reed/Stentor Horn

#### 4) Sirens

Air Siren  
 Automatic Siren  
 Brown Siren  
 Brown Syren Trumpet  
 Compressed Air Siren  
 Cylindrical Siren  
 Disc Siren  
 Double-Siren  
 Double-Toned Signal  
 Electric Motor Siren  
 Electric Siren  
 Five-inch Sirens: Automatic 5-inch Siren/5-inch Automatic Siren/

5-inch Siren/5-inch Disc Siren/5-inch Service Siren/Service 5-inch  
 Siren/Twin 5-inch Siren  
 Fog Siren/Fog-Siren  
 Fog Trumpet  
 High & Low Siren  
 Lighthouse Fog Siren  
 Automatic Two-Note Siren/High- & Low-Note Siren/7-Inch  
 Single-Note Siren/Two-Note Siren/Single-Note Siren/Double-  
 Note Siren/2-Note, 7-Inch Siren  
 “Police Type” Siren  
 Port Siren  
 Rayleigh Siren  
 Rayleigh Trumpet  
 Secomark Siren  
 Service Siren  
 Single Automatic Siren  
 Siren  
 Siren Fog Signal/Siren Fog-Siren/Steam-Powered Signal  
 Siren Buoy  
 Sireno/Siren-o/Electric Sireno  
 Steam Siren/Steam-Siren/Steam Siren  
 Syren

c) Explosives, Percussion, Submarine & Whistle Signals

1) Explosive Signals

Acetylene Fog Gun/Acetylene Fog-Gun/Acetylene Gun/Automatic  
 Acetylene Gun  
 Acetylene Gas Gun/Acetylene Gas-Gun  
 Automatic Fog Gun  
 Breech-Loading Gun  
 Cannon  
 Carronade  
 Clockwork Explosive Signal  
 Eighteen-Pounder Gun  
 Explosions

- Explosives
  - Explosive Charge
  - Explosive Coast Fog-Signal
  - Explosive Emitter
  - Explosive Fog Signal/Fog Explosive/Fog Explosive Signal
  - Explosive Signal
  - Explosive Sound Signal
  - Fog Cannon
  - Fog Gun/Fog-Gun
  - Fog-Signal Gun
  - Gas Explosive Signal
  - Gun/Gun Signal
  - Gas Gun/Gas Gun Fog Signal
  - Howitzer
  - Moyes Gun
  - Muzzle-Loaded Gun
  - Radio-Controlled Acetylene Gun
  - Rocket
  - Sound Rocket/Sound-Rocket
  - Special Gun/Experimental Gun
  - Tonite Explosive Signal
- 2) Percussion Signals
- Percussion Aids/Percussion Devices
  - Aerial Bell
  - Automatic Bell
  - Automatically-Operated Fog Bell
  - Bell
  - Bell Boat/Bell-Boat/Bell-Ship
  - Bell Buoy/Bell-Buoy
  - Brown's Bell Buoy
  - Carillon Buoy
  - Clockwork-Operated Fog Buoy
  - Compressed-Gas Bell Buoy
  - Drum



- Electric Bell
- Fog Bell/Fog-Bell/Fogbell
- Fog Gong
- Gong
- Gong Buoy
- Hand-Operated Bell
- Lighted Bell Buoy
- Lighted Gong Buoy
- Mechanically Operated Fog Bell
- Perpetual Fog-Bell
- Steam Gong
- Unlighted Bell Buoy/Unlighted Bell-Buoy
- Wave-Actuated Bell
- Wave-Actuated Buoy (Bell)
- d) Submarine Signals
  - Air Oscillator
  - Automatic Submarine Signal
  - Electric Oscillator
  - Submarine Bell/Submarine-Bell
  - Submarine Fog-Bell
  - Submarine Fog Signal
  - Submarine Oscillator/Oscillator
  - Submarine Signal
  - Submarine Signalling/Submarine Signalling System
  - Submarine Sound Signal
  - Submerged Bell
  - Underwater Bell
  - Underwater Oscillator
  - Underwater-Signal
- e) Whistles
  - Air Fog Whistle/Air Whistle
  - Automatic Buoy/Automatic Signal Buoy
  - Courtenay's Whistling Buoy
  - Crosby Automatic Fog Signal

- Fog Whistle/Fog-Whistle
- Leslie-Tyfon Steam Whistle
- Lighted Whistle Buoy
- Locomotive Whistle
- Self-Acting Fog-Horn
- Ship's Whistle
- Six-inch Whistle/Twelve-inch Whistle
- Sound Signal Buoy
- Steam Fog Alarm/Steam-Whistle Fog Alarm
- Steam Fog Signal
- Steam-Powered Whistle
- Steam Whistle/Steam-Whistle/Steam Fog-Whistle/Steam Whistle  
Fog Signal
- Vernon-Smith Whistle
- Wave-Actuated Buoy Whistle
- Wave-Actuated Whistle
- Whistle
- "Whistle" (Secomark)
- Whistle (Misnomer)
- Whistle Buoy
- Whistling Buoy/Whistling-Buoy
- Unlighted Whistle Buoy
- f) Miscellaneous Signals
  - "Bird Fog Signal"
  - Echo Boards
  - Natural Fog Signal/Natural Fog-Signal
  - Natural Signal
  - Natural Sound-Warnings
  - Piston Horn/Electric Piston Horn
  - Talking Beacons

## General Notes

Some general notes from the first edition are reprinted here:

Most additions to Fog Signals terms are generated by two groups of major sources: terms appearing in Part J from several sources (though not found in Part Ii), and many terms from Renton's *Lost Sounds* (2001). There are also a few terms from USCG 1953 and one term from Parts C/D and H.

Some terms in Part J are either misnomers or they were coined to meet the context of a monograph encompassing all forms of Transportation-Markings. Underwater Diaphragm Fog Horn seemingly is a descriptive term for the Fessenden Oscillator. Bell Float has not been located in any source. Mechanical Bells was possibly coined to distinguish a basic marine aid from other forms of bells. Acoustic Aids and Marine Fog Signals are retained though possibly not of official standing. Daboll's Trumpet lacks an apostrophe in known sources.

## Specific Notes

## Overarching Terms:

Fog Whistle is a misnomer since it is in all likelihood a diaphragm signal. It is listed in overarching since it can refer to two or more signal forms even if -- to some degree -- errors are present. DB-M 2007 lists it under whistles though noting it is a misnomer. Admittedly, placement in overarching terms is not a fully adequate response.

Hooter. A term from IHB 2004. Content of the term is unclear. It is included in overarching terms because of that uncertainty.

Horn was also listed in CCI 2006. Term often refers to diaphragm horns though it can encompass other types.

Short Range Electric Signal omitted in CCI 2006 though a shorter form was included. It is now included.

Steam Fog Alarm Station was also omitted in CCI 2006 though, once again, a shorter term was included. It is now included.

#### Diaphones:

Types of diaphones (often prefixed by a letter) are included in CCI 2006 and this edition. DB-M includes types within the general diaphone entry.

#### Diaphragms:

Misnomer: Fog Whistle included here as well in general overarching category.

Air-Operated Diaphragm Horn was added in DB-M 2007 but omitted in CCI 2006. It is now added.

The segment known as Oscillator Signals in CCI now adopts the DB-M 2007 title of Diaphragm Fog Signals-Oscillator.

Air Oscillator is listed only in DB-M 2007. It is now added to CCI 2012.

ELU includes a variety of forms in DB-M 2000 but listings in CCI 2006 was truncated. The additional signals are now added to CCI 2012.

Horn, Electric Magnetic is altered to Electromagnetic in the new edition of CCI 2012.

Pure Tone Electric Emitter listed in DB-M but omitted in CCI. It is now added. Shorter term was included previously.

Triple Frequency signals was incomplete in CCI 2006. That omission is corrected.

## Reeds:

Daboll's Reed Signal and Daboll Reed Fog Signal were included in DB-M 2007 but omitted in CCI 2006 though other Daboll forms from Renton were added. Omissions are now added.

A similar situation is found with other terms: Holmes Reed and Trumpet, Chance Brothers Hand Horn, High Pressure Reed, Service, Norwegian Portable Reed Fog Horn. They are now added,

## Siren:

The Cylindrical Siren from Renton is to be found in DB-M though missing from CCI. On occasion the reverse situation is found in the monographs: terms listed in CCI were unintentionally omitted in DB-M 2007.

Double-Tone Signal listed in categories index of DB-M though not in the alphabetical index. There is no entry. The term, nonetheless, is included in CCI 2012.

7-Inch Cylinder Siren omitted from CCI as well as 12-inch sirens also omitted from CCI. The terms are now added.

## Explosive Signals:

A variety of terms were omitted in CCI 2006 but are now added. These include:

Automatic Acetylene Gun

Automatic Fog.

Experimental Gun

Gas Gun Fog Signals/Gas Gun/Acetylene Gas Gun/Acetylene Gas-Gun

One term included was misspelled:

Cannonade should read Carronade.

Two other omitted terms are:

Clockwork-Operated Fog Bells

Wave-actuated buoy whistle

## 1C2 Radio Aids

### a) General Overarching Radio Aids Terms

Ground-Based Navigation Aids

Electronic Aids to Navigation

Electronic Navigation Aids

Electronic Navigation Systems

Marine Navigation Systems

Navigation Aids

Navigational Aids

Position Fixing Systems

Radio Aids

Radio Aids to Marine Navigation

Radio Aids to Maritime Navigation

Radio Aids to Navigation

Radio Nav aids

Radio Navigation Aids/Radionavigation Aids

Radio Navigational Aids

Radionavigation Systems/Radio Navigation Systems

### b) Radiobeacon Overarching Terms

Beacon

Fixed Non-Directive Marine Beacon

Invisible Lighthouse

Marine Radiobeacons

- Maritime Radio Beacon/Marine Radiobeacons
- Omnirange/Omnidirectional Range
- Radiobeacon/Radio Beacon/Radio-Beacon/Radio Beacon Station/  
Radiobeacon Station
- Radio Beacon Fog Signal
- Radio Fog Signal/Radio Fog-Signal
- Radiophare
- Wireless Beacon
- Wireless Fog Signal
- Wireless Lighthouse
- c) Radiobeacons-Main
  - 1) Directional
    - Course Beacon
    - Directional Beacon/Directional Radiobeacon/Directional Beacon  
(Radio Ranges)/Directional Radio Beacon
    - Directional Finding Beacon/DF Beacon
  - 2) Nondirectional
    - Marine Nondirectional Beacon
    - Non-directional Radiobeacon/(Nondirectional) Radiobeacon
    - Circular Radiobeacon/Circular Beacon
  - 3) Rotating
    - Revolving Radiobeacon
    - Rotating Loop Radiobeacon
    - Rotating Radiobeacon/Rotating Beacon
    - Rotational Pattern Radiobeacon
  - 4) Composite
    - Omni-Radio Beacon
    - Omnidirectional Beacon
- d) Radiobeacons-Other
  - Aero Radio Beacon
  - Aeromarine Radio Beacon
  - Automatic Radiobeacon
  - Calibration Station
  - Class A, B, C Radionbeacons

- Coastal Beacon
- Equisignal Beacon
- Marker Radio Beacon/Marker Beacon/Marker/Radio-Marker Beacon
- QTG Service/Radio Station with QTG
- Radiobeacon Buoy
- Radio Compass Station/Radiocompass Station
- Radio Direction Finder (RDF) Station/Radio Direction-Finding Station
- Secondary Radio Aids to Navigation
- Short-Range Radiobeacon
- VHF Radio Lighthouse Beacon
- e) Radiobeacons-Character of Operations
  - Continuous Carrier Radio Beacon
  - Continuous Radiobeacon
  - Dual Carrier Radiobeacon
  - Group Sequence Station
  - Sequenced Radiobeacon
- f) Hyperbolic Aids-Overarching Terms, Loran & Decca
  - 1) Overarching Terms
    - Hyperbolic Aids
    - Hyperbolic Navigation Systems/Hyperbolic Systems
    - Hyperbolic Radio-Navigation Systems/Hyperbolic Radionavigation Systems
  - 2) Decca
    - Decca
    - Decca Chain
    - Decca Navigator/Decca Navigator System/Decca Navigator Chain
    - Decca Lambda
    - Delrac
    - Dectra
    - Dectra Chain
    - Hi-Fix
    - Lambda



- Mini-Fix
- QM
- Sea-Fix
- Trunk Route Decca
- Two-Range Decca
- 3) Loran
  - Chaika/Chayka
  - Cyclan
  - Cytac
  - Differential Loran-C/DLoran
  - Electronic Position Indicator (EPI)
  - Gee
  - HF Loran/H.F. Loran
  - Hyperbol
  - Loran
  - Loran-A, -B, -C, -D, -E
  - Loran Chain
  - Loran GNSS (Logic)
  - Loran System
  - LF Loran/L.F. Loran/Low Frequency Loran/Low-Frequency Loran
  - Standard Loran
  - SS Loran/S.S. Loran/Skywave Synchronized Loran
- g) Hyperbolic Aids-Single & Quasi-Single
  - Differential Omega
  - Hi-Fix
  - Omega
  - POPI
  - Radux
  - Radux-Omega
  - Rana
  - Toran
- h) Partially Hyperbolic Aids
  - 1) Consol
    - BPM-5

- Consol
- Consolan
- Elektra/Electra
- Sonne
- Two-Aerial Consol
- 2) Raydist
  - Lorac
  - Hyperbolic Raydist
  - Pure-Range Raydist
  - Raydist
  - Raydist, Type DM, DR, E, M, N
- i) Radar Aids-Reflectors
  - 1) Overarching Terms & Corner Reflectors
    - Radar Reflectors
    - Reflectors
    - Corner Reflectors
    - Octahedral Cluster
    - Pentagonal Cluster
    - Radar Corner Reflector
    - Trihedral Reflector
  - 2) Other Radar Reflectors
    - Dielectric Reflectors
    - Dihedral Reflectors
    - Luneberg Lens/Luneberg Reflectors
    - Parabolic Reflectors
    - Radar Buoy
    - Radar Reflector Buoy
    - Right Angle Reflector
- j) Radar Aids-Secondary & Primary Radar
  - 1) Overarching Terms & Primary Aids
    - Microwave Position Fixing Systems
    - Primary Radar
    - Radar Aids
    - Radar Aids to Navigation

- Radar Navaids
- Ratan
- 2) Shoran
  - Electronic Position Indicator
  - Hiran
  - Oboe
  - Shiran
  - Shoran
- 3) Transponder Beacons
  - Cross-Band Ramark
  - Derveux
  - In-Band Racon/Cross-Band Racon
  - In-Band Ramark
  - Racon
  - Racon Responder Enhancer
  - Radar Beacon
  - Radar Marker
  - Radar Marker Beacon
  - Radar Marker Buoy
  - Radar Navaids
  - Radar Responder Buoy
  - Radar Transponder Beacon
  - Ramark
  - Responder Beacon
  - Secondary Beacon
  - Transponder/Transponder Beacon
- k) Satellite Navigation Aids
  - 1) Overarching & Other Terms
    - Marine Satellite Systems
    - Navigational Satellite
    - Satellite
    - Satnav/Satellite Navigation/Satellite Navigation System
    - Satellite-Based Navigation/Satellite-Based System
    - Satellite-Based Radionavigation System

- Aerosat
- Starfix
- 2) GPS
  - Differential GPS
  - Global Positioning System (GPS)
  - Glossnas
  - Maritime Differential GPS (DGPS)/Maritime DGPS
  - Maritime GPS
  - Navstar/Navstar-GPS/Navstar GPS
  - NGPS
  - Omnistar
  - WAAS & LAAS in Marine Navigation
- 3) Navy Transit Satellite Navigation Systems
  - Cicada/Tskada
  - Navsat i and Navsat ii
  - Navy Transit Satellite Navigation System
  - NNSS/Navy Navigation Satellite System
  - Transit/Transit Navigation Satellite System
  - US Navy Satellite System/US Navy System
- 4) Other Satellite Systems
  - DGNSS, Differential DGNSS/Differential GNSS, DGNSS
  - Conventional DGNSS
  - Differential Loran-C/DLoran-C
  - Precise DGNSS
  - Galileo
  - GNSS, Global Navigation Satellite System/Global Navigation Satellite System (GNSS)
  - US Air Force System
- 1) Other Radio Aids
  - 1) Radio/Sound Aids
    - Distance Finding Systems
    - Radio Sonobuoy
    - Rafos
    - Sofar

- Sonobuoy
- Sono-Radio Buoy
- Synchronized Radiobeacon & Air Fog Signal
- “Talking Beacon:
- 2) Miscellaneous Aids
  - A-N Radio Range
  - Benito/Benito Condor
  - Fixed Non-Directive Marine Beacon
  - Hydrodist
  - Navaglobe & Navaho
  - Omnidirectional Range
  - Omnirange

### Notes

#### Radio Aids: General

Notes in the first edition noted differences between adjoining monographs and the Database. Since then a new edition of Parts C/D (2010) has replaced the 1988 edition. A revised classification is included in that edition. Only limited changes have taken place in a new edition of the classification (also in 2010). While there is more coherence between the monographs there remain differences because of the focus of different studies. This is especially the case with overarching terms for the Classification which are notably different from those of the Database.

“Home-grown” terms were at work in various past monographs. These are reduced and more recognizable terms are present. One of the atypical terms, “Ground and Space-Based Hyperbolic Systems” is retained.

#### Radio Aids: Specific

#### Overarching-Radiobeacon:

Fixed Non-Directive Marine Beacon is listed under Radiobeacons Non-

Directional in CCI 2006. However, it refers to marine radio beacons and therefore is moved to this category. DB-M had placed it in the correction segment.

Invisible Lighthouse was included in DB-M but omitted in CCI 2006. It is now added in the 2nd edition.

#### Radiobeacons-Other:

Class A Radiobeacons included in CCI 2006 as well as in DB-M 2007. However, there are additional classes: Class B and Class C are now added to CCI.

#### Hyperbolic Aids-Overarching Terms:

Hyperbolic Systems omitted in CCI 2006 but now added. Hyperbolic Radionavigation Systems are added as well.

#### Transponder Beacons:

Cross-Band Racon omitted in CCI 2006 but now added.

Radar Marker Buoy included in CCI 2006. However, it does not appear in other T-M studies nor has a source been located. It is retained on an interim basis.

#### Satellite Navigation Aids:

A variety of terms were omitted in the first edition of CCI. They include: Maritime DGPS, Navstar Global Positioning Systems, Differential GNSS, DGNSS, and Differential Loran-C/DLoran-C. A reverse situation occurs in DB-M 2007. New terms in CCI 2006 occasionally were overlooked and thereby missing from that edition.



## CHAPTER TWO

### TRAFFIC CONTROL DEVICES

#### 2A Light & Sound Signals

##### 2A1 Traffic Control Signals

###### a) Overarching Terms & General Notes

General Note

Electric Traffic Signals

Highway Traffic Signals

Lights

Light Signals

Lighted Traffic Signals

Road Signals

Road Signalling

Signals

Signal Lights

Signals for Vehicular Traffic

Street Traffic Signals

Traffic Lights/Traffic-Lights

Traffic Light Signals

Traffic Signals

###### b) Specific Entries

General Note

Traffic Control Signals

Street Traffic Signals

Signals for Vehicular Traffic [two entries: see also OA]

###### c) Traffic Signal Operations

General Note

Automatic Signal

Fixed-Time Signal/Fixed Time Signal

Manual Signals

Pretimed Signal

Traffic-Actuated Signal



Traffic-Adjusted Signal

Vehicle-Actuated Signal

2A2 Pedestrian Signals

Accessible Pedestrian Signals

Audible Pedestrian Signals

Pedestrian Signals

Pedestrian Crossing Signals

Signals for Pedestrians Only

Pedestrian Hybrid Beacon System

Pedestrian-Operated Signals

Pedestrian Traffic Lights

Vibrotactile Pedestrian Devices

2A3 Traffic Signals-Other Types

Cyclist Signals

Freeway Entrance Ramp Control Signals/Traffic [Control] Signals for

Freeway Entrance Ramps/Traffic Signals at Freeway Entrance

Ramps/Ramp Control Signals

Emergency Signals/Emergency-Traffic Signals/Emergency Vehicle

Hybrid Beacon System/Emergency-Vehicle Traffic Control

Control Signals/Traffic Control Signals for Emergency Vehicles

Ferry-Boat Landing Signals

In-Roadway Lights

Low-Flying Aircraft Signals

Lane-Use Control Signals/Lane Control Signals/Lane Direction

Signals/Lane-Direction Control Signals/Lane Direction Control

Signals

Miscellaneous Signals

Movable Bridges Signals/Drawbridge Signals/Traffic Signals at

Drawbridges/Traffic Control Signals for Movable Bridges/

Swing Bridges Signals

Portable Traffic Control Signals

Robots

School Area Traffic Signals/School Crossing Signals/School Signals

Temporary Traffic Control Signals

Traffic Signals for One-Lane, Two-Way Facilities

Traffic Lights for Special Vehicles

Traffic Light Signs

Transit Priority Signals

#### 2A4 Flashing Beacons

##### a) Overarching Terms

Flashing Beacons

Beacons

Traffic Beacons

##### b) Specific Entries

Flash Lights

Flashing Yellow Beacon/Flashing Red & Yellow Beacon

Flashing Warning Beacon [Also listed in c)]

Hazard Identification Beacon

Speed Limit Sign Beacon

Stop Sign Beacon/Stop Beacon

Warning Beacon

##### c) Lighting Devices

General Note

Lighting Devices

Floodlights

Hazard Identification Beacon

Steady Burning Electric Lamps/Steady-Burning Electric Lamps/

Steady-Burn Electric Lamps

Warning Lights

Type A, Low Intensity Flashing Warning Lights

Type B, High Intensity Flashing Warning Lights

Type C, Steady-Burning Lights/Type C, Steady-Burn

Warning Lights

Type D, 360-degree Steady Burn Warning Lights

Special Lighting Units

Advance Warning Arrow Panels/Arrow Panels, Types A, B, C

#### 2A5 Grade Crossing/Level Crossing Signals

Active Grade Crossing Warning System

Active Traffic Control System/Active Traffic Control Devices for  
Highway-Rail Grade Crossings

Autoflag

Automatic Flagman

Flashing Lights Signals/Flashing-Light Signals

Highway Grade Crossing Warning Devices

Magnetic Flags

No Right [Left] Turn Signals

Passive Traffic Control Systems

Railroad Grade-Crossing Signal

Train Approach Signals/Train-Approach Signal

Traffic Control Signals at or Near Highway-Rail Grade Crossing/

Traffic Lights at Level Railroad Crossing

Wavelight

Wig Wag Signal/Wigwag Crossing Signals

#### 2A6 Sound Traffic Signals

Audible Pedestrian Signals

Grade/Level Crossing Signals [Visual/Sound]

Movable Bridge Signals [Visual/Sound]

Audible Pedestrian Signals

Grade/Level Crossing Signals [Visual/Sound]

Road Sound Signals

### Notes

#### General Notes:

First edition notes included a lengthy list of new terms. This edition contains only limited new terms. Some of these are from US MUTCD 2009. A review of internet resources add additional terms.

A major component of the 1st edition was a listing of differences between the

category index and text of Database. This edition, by contrast, notes differences in specific terms between the 1st edition of CCI, and the 2nd edition of DB-TCD. Some terms omitted in the 1st ed of CCI are added in the 2nd ed. The same pattern has occurred in the 2nd edition of DB-M 2007.

The first edition of CCI (2006) includes general remarks about other T-M monographs and terminology including Parts E 2004; H 2010; B 1992).

Specific Notes:

Treatment of Traffic Control Signals is very similar in CCI 2006 and DB: TCD 2008. CCI includes one signal, Light, that was omitted in DB '08. That was a Wikipedia term.

Specific Entries and Traffic Signal Operations Entries for Traffic Control Signals are the same for CCI 2006 and DB: 2008.

Pedestrian Signals include a single difference: Audible Pedestrian Signals is omitted in CCI 2006. One recent signal, Pedestrian Hybrid Beacon, will be added in CCI 2012.

Traffic Signals-Other Types is very complex in types and groups of signals. There is substantial agreement between CCI 2006 and DB: 2008.

Flash Light included in DB: 2008 though in Flashing Beacons.

In-Roadway Light included in CCI '06 though in a different category (Lighting Devices). Road Sound Signals included in Sound Signal category for CCI 2006.

School Signals: Two forms omitted in CCI 2006: School Crossing Signals and School Signals.

Traffic Light Signs and Transit Priority Signals included in DB: TCD 2008 though not in CCI 2006. This is also true of Miscellaneous Signals.

Traffic [Control] is found only in DB: TCD 2008. That formulation is due to alternate forms in MUTCD editions; adding Control is from MUTCD 2003.

A new term is to be added for CCI 2012: Emergency-Vehicle Hybrid Beacons.

Flashing Beacon coverage is very similar with both documents save limited differences. One more notable difference is attaching Types A, B, C to Advance Warning Arrow Panels rather than Arrow Panels. This pertains to CCI 2006 only. The error has been corrected.

Steady Burning Lamp is not in DB '08 but two other forms were listed. Type C, Steady-Burning Electric Lamps is not in DB '08 but a similar form is present.

Flashing Warning Beacon is listed with Lighting Devices rather than Flashing Beacons in Specific Entries.

Grade Crossing/Level Crossing Signal coverage is similar save limited differences. DB: TCD 2008 includes Passive Traffic Control System though this is lacking in CCI 2006. CCI includes Traffic Control Signals Near Highway-Rail Grade Crossing as well as Traffic Control Signals at or Near Highway-Rail Grade Crossing. The former difference is probably superfluous. Wigwag Crossing Signal is included only in DB:TCD 2008. Both documents include Wig Wag Signal.

CCI 2006 draws together signals with a sound dimension. That is not replicated in DB '08. That feature will be included in CCI 202.

## 2A7 General Traffic Control Devices

### a) Overarching & Category Terms

- Traffic Control Devices

- Road Devices

- Road Signs & Signals [includes Road Markings]

- Road Signals, Signs, Pavement Markings

& Signs for Road Works

Road Signals [ Overarching & or Signs]

Road Signalling [Overarching & or Signs]

Signs, Signals, Markings

Traffic Devices

[Transportation Control Devices]

b) Major Terms for the Categories of Traffic Control Devices

Traffic Markings:

Carriageway Markings

Marking Devices

Marking Systems

Pavement Markings

Road Markings

Road Surface Markings

Surface Markings

Traffic Markings

Traffic Signs:

Highway Signs

Road Signs

Road Traffic Signs

Roadside Traffic Signs

Traffic Signs

Traffic Signals:

Highway Traffic Signals

Lights

Light Signals

Road Signals [League of Nation usage: Signs more than Signals]

Road Signalling [LN usage: Signs more than Signals]

Signals

Signals for Vehicular Traffic

Signal Lights

Traffic Control Signals

- Traffic Lights
- Traffic Light Signals
- Traffic Signals
- UN 1968:
  - Regulatory Signs Other Than Standing & Parking Signs
- c) Cross-Category Terms: UN 1968
  - Informative Signs Other Than Standing & Parking Signs
  - Regulatory Signs Other Than Priority, Standing & Parking Signs
  - Standing & Parking Signs
  - Signs for Road Works
  - Level-Crossings
  - Signs Regulating Priority at Intersections, Danger Warning Signs at Approaches to Intersections & Signs Regulating Priorities on Narrow Sections of Road

### Notes

Overarching and Category terms were included in an Appendix for DB:TCD 2008. However, that material was omitted in CCI 2006. Selections of two Appendices are added in a segment following Traffic Signals. The TCD information is too small to generate a sub-chapter.

Overarching terms encompass the range of TCD forms. Category forms include Traffic Signals and Traffic Markings which are also found in the appropriate sub-chapter. Traffic Signs coverage is divided between the three sub-chapters on Signs. Hence, the material here is unique to the study.

Cross-Category terms are found in a variety of international, regional, national systems. Only UN 1968 is included since it is a primary foundation of modern TCD forms globally.

## Traffic Signs

## 2B Warning Signs

## 2B1 Categories &amp; Overarching Terms

## a) Categories

- Overarching Terms
- Roadway Alignment Signs
- Roadway Conditions Signs
- Interaction of Vehicles with Other Moving Object Signs
- Intersection Signs
- Intermittent Moving Hazards Signs
- Construction & Maintenance Signs
- Non-Vehicular-Related Hazards Signs
- Prevention Signs
- Roadway & Environs Signs
- Roadway-Related Hazard Signs
- Temporary Traffic Control Devices
- Traffic-Related Hazards Signs
- Other Dangers
- Other Hazards Signs
- Warning Signs at Approaches to Intersection Signs

## b) Overarching Terms

- Introductory Note
- Advance Warning Signs
- Caution Signs
- Danger Signs/Danger Warning Signs
- Giving Warning of Danger Signs
- Warning Signs
- Warning Signposts

## 2B2 Roadway Alignment Signs

## a) Introductory Note &amp; Overarching Terms

- Curve Signs
- Dangerous Curve Signs
- Dangerous Bends/Bends
- Horizontal Alinement Changes/Changes in Horizontal Alignments



## Signs/Roadway Alignments Signs

## Turn Signs

## b) Specific Signs

Bad Corners Signs

Bend, L, R, Bend Signs

Double Bend, L, R/Double Bend to R, L Signs

Left Bend/Right Bend Signs

Single Bend to the R, L Signs

Dangerous Corner Signs

Chevron/Chevron Alignment Signs

Combination Horizontal Alignment/Advisory Speed Signs

Combination Horizontal Alignment/Intersection Signs

Curves, L, R/Single Curve, L, R Signs

Curve Speed Signs

Hairpin Curve Signs

Limited Sight Distance Signs

Sharp Curve Signs

270 Degree Curve Signs

Reverse Curve, L, R Signs

Reverse Turn, L, R Signs

Sharp Turn/Bend Signs

Turn, L, R/Single Turn, L, R Signs

Winding Road/Winding Road to L, R/Right Winding Road/Left Winding  
Road SignsLarge Arrow/Directional Arrow/Bi-Directional Arrow/One-  
Direction Large Arrow/Two-Direction Large Arrow Signs

Dangerous Sharp Turning to L, R Signs

Dangerous Bend Winding to L, R Signs

Truck Rollover Signs

## 2B3 Roadway Conditions Signs

## a) Introductory Note &amp; Overall Terms

Roadway Conditions Signs

Roadway &amp; Environs Signs

Roadway Surface Conditions Signs

Roadway Surface Physical Conditions Signs

Special Roadway Features Signs

b) Specific Terms

Added Lane Signs

Bike Hill Signs

Hill/Hill\_In\_ Signs

Hill Blocks View Signs

Dangerous Hill Signs

Dangerous Descent Signs

Dangerous Ascent Signs

Dangerous Steep Descent to R, L Signs

Steep Ascent Signs

Bump/Dip Signs

Cross Drain or Dip Signs

Dead End/Dead End Plaque/No Outlet/No Outlet Plaque/Divided

Highway Ahead/Divided Highway/Divided Highway Ends/

Divided Highway (Road) Ends Signs

No Centerline Signs

Rough Road Signs

Speed Hump Signs

Uneven Road Signs

Gutter Signs

Clearance Signs

%Grade\_Miles Signs/%Grade Sign

Next\_Miles Signs

Bikeway Narrows Signs

Bicycle Surface Condition Warning Signs

Carriageway Narrows Signs

Lane Reduction Transition Signs

Limited Width Signs

Narrow Clearance Signs

Narrow Road Signs

Narrow Structure Signs

Road Narrows Signs

Draw Bridge/Hump Bridge/Narrow Bridge Signs  
 Bridges Ices Before Road Signs  
 One Lane Bridge Signs  
 Opening Bridge Signs  
 Overhead Bridge Signs  
 One-Direction Large Arrow Signs  
 Two-Direction Large Arrow Signs  
 Supplemental Arrow Plaques Signs  
 Supplemental Plaques Signs  
 Pavement Drop-Off Signs  
 Pavement Ends Signs  
 Pavement Narrows Signs  
 Pavement-Width Transition Signs  
 Dangerous Shoulder Signs  
 Loose Gravel Signs  
 Shoulder Signs  
 Shoulder Drop-Off Signs  
 Soft Shoulder Signs  
 Low Clearance Signs  
 Lower Shoulder Sign  
 Lane Ends Signs  
 Lane End Merges, L, R. Signs  
 Lane Reduction Signs/Lane Reduction Transition Signs  
 L, R Lane Ends Signs  
 Uneven Lanes Signs  
 Road Leads Onto Quay or River Bank Signs  
 Runway Truck Ramp/Runaway Truck Ramp\_\_Miles Signs  
 Truck Escape Ramp Signs  
 Sand/Gravel/Paved Supplement Plates Signs

#### 2B4 Intersection Signs

- a) Introductory Note & General Terms
- b) Specific Signs
  - Concealed Roads/Hidden Signs, Plaque
  - Cross Road/Cross-Road/Crossroad Signs

- Cross Street Signs
- Cross Traffic Does Not Stop Plaque Signs
- Crossing Signs
- Dangerous Fork Signs
- Dangerous T-Junction Signs
- Delta Signs
- Interaction of Vehicles with Other Moving Objects Signs
- Intersection Signs
- Intersection Warning Signs
- Oncoming Extended Green Signs
- Oncoming Traffic Has Extended Green/Oncoming Traffic May Have Extended Green Signs
- Road in Which Another Road Ends at a Junction Signs
- Road Intersection Signs
- Road Junction/Road Junctions Signs
- Side Road Signs
- Successive Tees Signs
- T Sign/T Intersection/T-Symbol Sign/T-Intersection Signs
- Traffic Circle/Roundabout Signs
- Two-Direction Arrow Sign
- Y Sign/Y Intersection/Y-Symbol Sign/Y-Intersection Symbol Signs
- Merge/Merging Traffic Signs
- Signal Ahead/Signals Ahead Signs
- Stop Sign Ahead/Stop Ahead Signs
- Warning Signs at Approaches to Intersections Signs
- Yield Ahead Signs
- Double Arrow Signs
- 2B5 Intermittent Moving Hazards Signs
  - Advance Crossing/Crossing Signs
  - Beware of Animals Signs
  - Bicycle Crossing/Bicycle Crossing Warning/Bicyclist/Cycling Entering or Crossing/Cyclists Signs
  - Bicycle Surface Condition Warning Signs
  - Cattle or Other Animal Crossing Signs

Children Signs  
Congestion Signs  
Cross Walks Signs  
Deer Crossing Signs  
Fallen Rock/Falling Rock or Landslides Signs  
Farm Machinery Signs  
Golf Cart Sign  
Grade Crossing Signs  
Hazardous Conditions Signs  
High Water Signs  
Horse-Drawn Vehicles Signs  
Low Ground Clearance Signs  
Moose Crossing Signs  
Motorized Traffic Sign Signs  
Pedestrian Crossing Ahead/Pedestrian Crossing/Pedestrian Crosswalk  
Signs  
Playground Ahead/Playground Signs  
Range Cattle Signs  
School/School Ahead/School Crossing/School Zone/School  
Crosswalk Signs  
School Crosswalk Warning Sign/School Crosswalk Warning  
Assembly Signs  
School Bus Stop Ahead Signs  
School Speed Limit Signs  
School Advance Warning Sign  
School Warning Sign  
Slippery When Wet/Slippery Road Signs  
Slippery When Wet Bicycle Path Signs  
Snowmobile Signs  
Truck Crossing/Truck Entrance, R, L Signs  
Crossing No Gates/Gates or Level Crossing Barrier/Level Crossing  
with Barrier/Level Crossing Unguarded/Level Crossing/Guarded  
Level Crossing/Level Crossing Guarded by Gates/Level Crossing  
Warning Cross/Level Crossing Stop Sign/Unguarded Level Crossing/

Unguarded Level-Crossing/Level-Crossing with Gates/Level-Crossing Without Gates/Railway Cross-Buck [Sign]/Unprotected Railroad-Crossing/Protected Railroad Crossing.

Railroad Level/Grade Crossing

Level/Grade Signs

Level/Grade Crossing Sign

Level (Railway) Crossing Sign

Low Ground Clearance Highway-Rail Grade Crossing

No Train Horn Sign

No Signal Sign

Railway Advance Warning Sign

Railroad Crossing Signs

Storage Space Sign

Train May Exceed\_\_(km/h or miles)/Train May Exceed 130km (80 mph) Signs

XX Feet/Meters Signs [4]

XX Feet/Meters Between Track & Highway Sign

XX Feet/Meters Between Highway & Tracks Behind You

Vehicular Traffic Signs

Golf Cart Sign

Bicyclist Sign

Farm Vehicles Sign

Emergency Vehicle Sign

Horse-Drawn Sign

Truck Crossing Sign

## 2B6 Construction & Maintenance

Road Repairs Ahead Signs

Road Work/Road Works Signs

Road Work Ahead Signs/Road Works\_\_Sign

Road Construction ... Feet/Detour Ahead/Road [Street] Closed ... Feet/

One Lane Road ... Feet/Men Working/Fresh Oil/Road Machinery

Ahead/Shoulder Work Ahead/Survey [Crew] Party Ahead/Flagman

... Feet/Flagger/Left [Right] Lane Closed [Ahead]/Single Lane Feet

.../Blasting Zone\_\_Feet/End Blasting Zone/Turn Off Two-Way

Radio/Pilot Car Follow Me/End Construction/Road Diversion/  
Detour/Flagman/Survey Crew/Truck Entrance Signs

Advance Flagger Sign

Worker Sign/Workers Sign

Advance Road (Street) Construction Sign/Advance Street Construction  
Sign

Advance Detour Sign

Advance Road Closed Sign/Advance Closed Sign

Advance Lane Closed Sign

Advance Warning Sign

Construction Approach Warning Signs

Signs for Blasting Areas Sign

Temporary Traffic Control Devices Sign/Temporary Traffic Control  
Zone Devices

#### 2B7 Other Hazards Signs

##### a) General or Alternate Danger Signs

Alternate Sign

Alternate General Dangers Sign

Dangers Other Than Those Indicated by Signs 1-6 Bis

General Danger Sign

Other Dangers Sign

Peligro Sign

##### b) Specific Signs [Alterate: Miscellaneous Signs]

Additional Panels

Advance Ramp Control Signals Signs

Advance Traffic Control Sign

Signal Ahead Sign/Stop Ahead Sign/Yield Ahead Sign

Advisory Exit Speed

Airfield/Airplane

Be Prepared to Stop Sign

Bridle Path

Cross-Wind

Crossing Sign

Emergency Signal Ahead Sign

- Emergency Vehicle Sign
- Exit
- Exit Speed Sign
- Factory Entrance
- Hazardous Condition
- Motorized Traffic Sign
- No Passing Zone
- No Traffic Sign
- Notice Boards
- Low Shoulder
- Peligro
- Ramp Speed Sign
- Road Diversion
- Road Leads Onto Quay or River Bank
- Rough Road
- Rules of Road
- Snowflakes
- Speed Reduction Sign
- Temporary Two-Way Ahead
- Trucks Use Lower Gear/Use Lower Gear/Use Second Gear/Use Low
- Two-Way Traffic Sign
- Uneven Track
- Warning Signs & Plaques
- Weather Conditions Signs
- c) Supplemental Plates/Plaques
  - Advance Street Name Plaque
  - Advisory Speed Plate/Advisory Speed Plaque
  - Cross Traffic Does Not Stop Plaque
  - Dead End Plaque/No Outlet Plaque
  - Diagonal Arrow Plaque
  - Diagonal Lanes Plaque
  - Distance Ahead Plaque
  - Distance Plaque
  - Emergency Vehicle Sign/Emergency Signal Ahead Plaque



High-Occupancy Vehicle Plaque  
 Hill-Related Plaque  
 Low Ground Clearance Plaque  
 Next Distance Plaque  
 No Outlet Plaque  
 Photo Enforced Plaque  
 Share the Road Plaque  
 Supplemental Arrow Plaques  
     Advance Arrow Plaque/Diagonal Arrow Plaque/Directional Arrow  
     Plaque  
 Supplemental Plaque  
 Traffic Circle Plaque  
 Truck Use Lower Gear Plaque

#### Notes for Warning Signs

#### General Notes

CCI 2006 begins with Categories & Overarching Terms while DB 2008 has a more complex configuration of introduction, messages, configurations and overarching terms. DB, however, does not include all category terms though those terms are present within the separate categories. CCI 2012 will follow DB though CCI 2006 remains a valid alternate. DB has several more Overarching terms: Interactions of Vehicles with Other Moving Objects, Prevention, Roadway & Environs, Warning Signs at Approaches to Intersections.

#### Specific Terms:

Other Dangers, Other Hazards, Temporary TCD are retained in CCI 2012.  
 Temporary Traffic Control Signs is seemingly an error. Devices replace Signs.

#### Roadway Alignment:

Changes in Horizontal Alignment listed in CCI 2006 as a new term but no source is given. Horizontal Alinement Change is in DB 2008 but not CCI. That term may replace the previous term.

The core term of Bend is included in DB 2008 but not in CCI. It is now added.

Chevron/Chevron Alignment is included in DB in one location (OH) while a second entry has the second term only (RA). The full entry is found in CCI.

Hairpin Curve is not a term in DB though it is included in an entry of Bend signs.

Winding Road to Left, Right. CCI '06 included Winding Road to Right until term could be clarified. That has not been accomplished to date. Neither term is in DB '08.

One-Direction Large Arrow Sign/Two-Direction Large Arrow Sign not in category index of DB though in alphabetical index. There is no entry. Term present in CCI.

Dangerous Sharp Turning to L, R. DB alphabetical index has both. Text and category index have R only.

Roadway Conditions:

Speed Hump Sign is listed in Miscellaneous for DB 2008

% Grade\_\_Miles is in CCI '06. DB has \_\_% Grade sign only. DB has \_\_%Grade [&] \_\_Miles Supplemental Plaque.

Hill Blocks View sign not in DB '08 though MUTCD '03 includes it.

No Centerline Sign is from MUTCD 2009.

Overhead Bridge sign is listed under Drawbridge in DB '98 but there is no entry.

Lane Reduction Sign is in MUTCD; added to Lane Reduction Transition Sign.

Runway Truck Ramp\_\_Miles in CCI while DB has ... One Mile.

Intersection Signs:

DB-TCD 2008 has an OA section but CCI lacks one.

Intersection Sign included in DB-TCD 2008 as a specific sign term.

Intersection Warning Sign (Specific Signs in CCI 2006)

Crossing Sign (Specific Signs in CCI '06)

Concealed Road Sign/Hidden Signs, Plaque) in DB but not CCI; it is now added.

Two-Direction Arrows omitted in CCI '06 but included in DB-TCD 2008.

Warning Signs at Approaches to Intersections are not in category index of DB-TCD 2008 but they are present in alphabetical index and it includes an entry.

Signal Ahead/Signals Ahead: former term is US practice and later is Canadian usage.

Intermittent Moving Hazards Sign:

Crossing in DB but omitted in CCI; it is now included.

Vehicular Traffic Signs is in DB-TCD 2008 but not in CCI 2006. It includes a variety of signs of which some are listed separately in CCI (marked by astericks):

Golf Cart Sign\*

Bicyclist Sign

Farm Vehicles Signs

Emergency Vehicles Signs

Horse-Drawn Vehicles Sign\*

Truck Crossing Signs\*

DB-TCD 2008 does not list the following terms though they are listed in MUTCD 2003:

School Crosswalk Warnings

School Advance Warning Sign

School Warning Sign

Extensive Crossing terms presents a complex appearance. Nonetheless, CCI and DB are very similar. Guarded Level-Crossing lacks a hyphen in DB. Railway Advance Warning Sign is listed separately in CCI.

Railroad Level/Grade Crossing is not in DB-TCD 2008. Is it an incomplete listing?

Three Level/Grade terms are not in DB-TCD 2008: Level/Grade Signs, Level/Level (Railway)

Crossing Signs

DB has RR Signs/Railway/Level Crossing Signs instead. A second version in the alphabetical index and text has: Railroad Sign/Railway Sign/Level Crossing Sign

Low Ground Clearance Plaque in DB '08 and also listed in previous page.

Railway Advance Warning Sign not in DB '08 category index but is listed in alphabetical index and in text entry.

Railway Crossing Sign- and Level Crossing Sign refer to above arrangement.

The XXX Feet ... Signs are not in DB '08. They are least partially in MUTCDalso

Construction & Maintenance Signs:

General Notes:

The two formulations (CCI '06 and DB '08): have very different appearances: CCI begins with words that start with road while DB follows alphabetical pattern.

Road construction terms are batched in both versions. However, DB divides terms into US C & M and Canadian C & M segments. This is in contrast with CCI which has a single group of terms.

CCI includes a variety of terms that frequently begin with "Advance". Most of these are from older editions of MUTCD. They are missing from DB-TCD 2008.

Specific terms are subsumed into General terms since the later dominates.

#### Other Hazard Signs:

General or Alternative Dangers: DB: TCD 2008 adds Alt General Danger Sign which is an amalgam of most of the signs in the group. DB also includes Peligro. Both are now added to CCI 2012.

#### Specific Signs:

DB and CCI include Advance Traffic Control Signs but DB adds 3 subdivisions which CCI omits (Stop Ahead Signs/Yield Ahead Signs/Signal Ahead Signs). MUTCD adds Advance Ramp Control Signals in 2009 edition.

A variety of terms in CC 2006 are also found in DB: TCD 2008. However, DB has a variety of terms in other locations. These include: Crossing Signs: Intermittent Moving Hazards. Emergency Signal Ahead Signs and, Emergency Vehicles Signs are in the form of Supplementary Plaques. Other signs include Hazardous Condition and Use Low Gear: Intermittent Motor Vehicle; No Traffic Sign, Low Shoulder: Roadway Condition; Peligro: General or Alternate; Road Leads Onto ... and Rough Road Signs: Roadway Condition. Two final terms from MUTCD 2009 are Warning Signs & Plaque, and Weather Conditions signs.

A final term missing from DB: TCD 2008 is that of the Exit Speed Sign. That is found in older editions of MUTCD.

DB has substantially more entries in Supplementary Plates/Plaques than does CCI.

Terms found only in DB include:

Cross Traffic Does Not Stop Plaque

Dead End Plaque/No Outlet Plaque

Emergency Vehicle Sign [Plaque omitted]

Emergency Signal Ahead Plaque

Supplemental Arrow Plaque (Advance Arrow Plaque, Diagonal Arrow, Directional Arrow Plaque)

Supplemental Plaque

Truck Use Lower Gear Plaque

New Plaque is added from MUTCD 2009

Diagonal Arrow is included as separate entry for CCI 2012

Diagonal Lanes Plaque is included in CCI but not DB: TCD 2006

Plaque segment was added in newer MUTCD edition. It is included in CCI 2006

2C Informative Signs

2C1 Categories & Overarching Terms

a) Categories

Overarching & Sub-Overarching Terms

Destination & Distance Signs

Route Markers

Signs Giving General Information

b) Overarching Terms

General Note

Advance Direction & Direction Signs

Destination & Distance Signs

Directive Signs

General Services Signs

Guide Signs

Guide & Information Signs

Indication Signs

Information Signs

Information & Direction Signs

Informational Signs

Informative Signs

Place & Route Information Signs

Road Identification Signs

Route Markers/Route Marker Signs/Route Signs

Signs Giving Indications Only

Signs Giving General Information

2C2 Destination & Distance Signs

Advance Direction Signs

Advance Signs/Advance Guide/1-Mile/2-Mile Signs

Approach Direction Signs

City Names Signs

Color-Code Destination Signs

Community Interchange Signs

Confirmatory Signs

- Descriptive Signs
- Destination Signs
- Destination & Direction Signs
- Diagrammatic Signs
- Direction Signs
- Direction Indicator Signs
- Directive Signs
- Distance/Confirmation-Distance Signs
- Exit Direction Signs
- Exit Number Signs
- Expressway Directional Signs
- Expressway Interchange Signs
- Fingerboard Signs
- Fingerpost/Direction Post/Guide Posts/Signpost
- Gore Signs
- Interchange Sequence Signs
- Intersection Signs/At-Grade Intersection Signs
- Mileage Signs
- Next Exit Supplemental Signs
- Next (X) Area Sign/Next X Exit Signs
- Place Sign/Place Names Signs/Place Identification Signs
- Pull Thru Signs
- Street Names Signs/Street Names Plaques
- Supplemental Advance Guide Signs

### 2C3 Route Markers

- a) Introductory Notes & Overarching Terms
  - Road Identification Signs
  - Route Markers/Route Signs
  - Route-Indicators
- b) Specialized Route Markers
  - Auxiliary Markers/Auxiliary Signs
  - Bicycle Route Markers
  - Business Route Markers/Business Auxiliary Signs/Business Markers
  - Combination Junction Signs



- Confirming or Reassurance Assemblies/Confirming Route Assembly/  
Reassurance Assembly/Reassurance Route Markers
- Confirming Route Markers
- County Route Markers/County Route Signs
- Forest Route Markers
- Interamerican Highway Route Markers
- Interstate Route Markers/Interstate Route Signs
- Markers for Alternate Routes
- Off-Interstate Business Loop Markers/Off-Interstate Business Spur
- Off-Interstate Business Signs
- Pan-American Road Route Markers
- Provincial Route Markers
- Road Markers
- State Route Marker/State Route Signs
- Trailblazers
- Trans-Canada Route Markers
- Trunk Route Marker/Truck Auxiliary Signs
- US Route Markers/US Route Signs
- c) Route-Marker Tabs
  - General Note
  - Advance Turn Arrows Tab/Advance Turn Auxiliary Sign/Advance  
Turn Arrow Markers
  - Alternate Tabs/Alternate Auxiliary Signs/Alternate Markers/Alternates
  - Business Tabs/Business Markers/Business Auxiliary Signs
  - By-Pass Tabs/By-Pass Auxiliary Signs/By-Pass Markers
  - Cardinal Direction Tabs/Cardinal Direction Auxiliary Signs/Cardinal  
Auxiliary Markers/Cardinal Direction Markers  
North, East, South, West
  - Detour Tabs/Detour Markers/Detour Auxiliary Marker Signs
  - Detour Signs/Detour Markers/Detour Auxiliary Marker Signs/Detour  
Signs
  - Directional Arrow Tabs/Directional Arrow Markers/Direction  
Arrows Auxiliary Signs/Junction Auxiliary Signs
  - Ends/End Auxiliary Signs/End Markers/End of Route Tabs

Junction Tab Signs/Junction Auxiliary Signs  
Markers for Alternate Routes/Auxiliary Signs for Alternate Routes  
    To Auxiliary Signs  
Route Marker Assembly/Route Sign Assembly  
Temporary Marker Tabs/Temporary Auxiliary Signs  
    Relief Tabs/Relief Markers

#### 2C4 Mileposts

General Note  
Direction Stones  
Kilometre Stones  
Landmarks/Guide  
Marks/Markers  
Mark Stones  
Milliaries  
Mileposts/Mile Posts/Mile Markers [2 Forms]  
Milestones  
Road Markers  
Stone Markers  
Reference Location Signs/Intermediate Reference Location Signs

#### 2C5 Signs Giving General Information

Introductory Note

##### a) Overarching & Sub-Overarching Terms

Acknowledgement Signs  
Auto Tour Route Signs  
Civil Defense Signs  
Directions, Position, or Indication Signs  
Emergency Management Signs  
Enhanced Reference Signs  
General Interest Signs  
Signs of General Interest (misnomer)/General Interest Signs  
Other Signs Providing Useful Information for Drivers of Vehicles/  
    Signs Giving Notice of Facilities Which May Be Useful to Road  
    Users  
General Information Signs

- General Information & Auxiliary Signs
- General Motorist Signs
- General Services Signs
- Indicative Signs
- Indication Signs/Signs Giving Indications Only
- Information Signs
- Information, Facilities or Service Signs
- Miscellaneous Signs
- Off-Road Facilities Signs
  - Recreation & Accommodations
  - Essential Services
  - Food & Fuel
- Parking Area Guide Signs
- Reference Location Sign
- Routing to Specific Destination
- Miscellaneous Information
- Parking Areas Signs
- Parking Areas Guide Signs
- Recreation & Cultural Signs
- Accommodation Services R & C
- General Information R & C
- Motorist Services R & C
- Land R & C
- Water R & C
- Winter R & C
- Recreation Areas Signs
- Recreational & Cultural Interest Area
- Rest & Information Area
- Rest & Scenic Area
- Rest & Information Area
- Rest Area Signs
- Service Signs/Specific Service Signs
- Tourist Information & Welcome Center Signs
- Tourist-Orientated Directional Signs (TODS)

## b) Services Signs

- Accessibility for the Handicapped Sign
- Accommodations/Hotel/Motel/Lodging
- Airport
- Ambulance Station Sign
- Brake Check Area Signs
- Breakdown Service/Mechanical Help/Mechanical Services/Service Station
- Carpool Information Sign
- Chain-up Area Sign
- Channel 9 Monitored Sign
- Emergency Dial XX Sign
- Emergency Medical Services Sign
- Emergency Medical Care Sign
- Ferry Boat Sign
- First Aid/First-Aid/First Aid Station
- Filling Station/Fuel/Gas/Gas Station/Fuel (Diesel)
- Food/Restaurant/Refreshment or Cafeteria
- Hospital
- Intersection Oasis Signing
- Litter Container Sign
- National Scenic Byways Sign
- Next Services ... Miles
- Pharmacy Sign
- Phone/Telephone
- Radio Information Signs
  - Radio-Weather Signs
  - Radio-Traffic Information Signs
- Recreational Vehicle Sanitary Signs
- Recycling Collection Signs
- Travel Information Call XX Signs
- Trail Marker/Trail Signs

## c) Parking Signs

- Authorized Parking Place Signs/Authorized Parking-Place Signs

- Park & Ride Signs
- Park & Ride Next Right Signs
- Parking Signs
- Parking Area Signs
- Parking Allowed Signs
- Parking w/o Lights Signs
- d) Recreation Signs
  - Boat Launch Ramp Signs
  - Camping Signs
  - Camping or Caravan Site Signs
  - Caravan Site Signs
  - Information Center Signs/Information Center Sites Signs
  - Picnic Site/Picnic Table/Picnic Tables ... Miles/Picnic Area Km  
(X miles) Signs
  - Rest Area Signs
  - Roadside Parking Area ... Miles Signs/Roadside Rest ... Feet Signs
  - Scenic Area Signs
  - Scenic Overlook Signs
  - Tent Camp Signs
  - Tourist Information Center Signs
  - Trailer Camp Signs
  - Travel Information Signs
  - Trolley Park Signs
  - Viewpoint Signs
  - Welcome Center Signs
  - Youth Hostel Signs
  - Additional R & C Signs:
    - Winter Recreation Area/Marina/Viewing Area/Rest Rooms/Food  
Service/Post Office/Mechanic/Ferry/Swimming/Canoeing/Motor  
Boating/Boat Launching Ramp/Sail Boating/Ice Skating/Water Skiing/  
Snow Skiing/Fishing/Ranger Station/Amphitheater/No Smoking/  
Picnic Area/Camp Fire
- e) Miscellaneous Signs [Other Signs, DB]
  - Access for Handicapped Signs

Acknowledgement Signs  
Advance Signs-Exit Motorway  
Advised Itinerary for Heavy Vehicles Signs  
Advisory Speed Signs  
All Trucks Commercial Vehicles Next Right Signs  
Auto Tour Route Signs  
Beginning of Built Up Area/End of ... Signs  
Bicycle Route Signs  
Bus Stop Signs  
Bus Stop/Tramway Stop Signs  
Changeable Message Signs  
County Signs  
Crossover Signs/Advance Crossover Signs  
Cul-de-Sac Signs  
Do Not Throw Litter Signs  
Emergency & Authorized Vehicles Only Signs  
End of Road for Motor Vehicles Signs  
Enhanced Reference Signs  
Escape Lane Signs  
Exit Direction Signs  
General Speed Limit Signs  
Gore Signs  
Information Signs  
Keep Off Wet Paint Signs  
Miscellaneous Signs  
Motorway/End of Motorway Signs  
No Dumping Allowed Signs  
No Fishing From Bridge Signs  
No Through Road Signs  
Pedestrian Activated Signals Signs  
Pedestrian Overpass/Pedestrian Underpass Signs  
Preferential & Managed Lane Signs  
Police Signs  
Protected Pedestrian Walk Signs

Radio Information Sign  
    Radio-Weather Signs  
    Radio-Traffic Information Signs  
Reference Location Signs  
River & Lake Signs  
Road for Motor Vehicles Signs  
Sanitary Facility Signs  
Second Stage Signs  
Signs Indicating Closure of a Traffic Lane Signs  
Signs Indicating Number & Direction of Traffic Lanes  
Slow Vehicle Turn-Out Signs  
Toll Road Signs  
Traffic Signals Speed Signs  
Tram Stop No\_\_Signs  
Turn Markers  
Weigh Station Signs:  
    Advance Symbol Signs  
    All Trucks Commercial Vehicle Next Right Signs  
Exit Direction Signs  
Gore Signs  
Civil Defense Signs/Emergency Management Signs;  
Evacuation Route Signs  
Area Closed Signs  
Traffic Regulation Post Signs  
Maintain Top Safe Speed Signs  
Road Use Permit Required for Thru Traffic Signs  
Emergency Aid Centers:  
    Decontamination Center Signs  
    Registration Center Signs  
    Welfare Center Signs  
    Medical Center Signs  
    Shelter Directional Signs  
    Fallout Shelter\_\_Miles Signs

## Notes for Informative Signs

## General Notes:

Informative Signs presents a complex situation. Terms cover many topics. And they terms are often added to, altered and sometimes deleted. Terms often undergo name changes and even categories are marked by changes. While it is not possible to create a tightly organized and cohesive structure for this group of signs it is, nonetheless, often possible to achieve a coherence of the subject matter. This is also true of the differences between the composite classification and index, and modal database constructs.

Categories exist here as in other parts of CCI. DB: TCD 2008 lacks the categories as is the case with other parts of the database system. The Miles Post category was omitted in CCI 2006 but is added for CCI 2012.

## Specific Notes:

Overarching Terms: These terms bear substantial consensus in CCI and DB though some differences are to found. Signs Giving General Information in CCI 2006 deleted "Giving." That is now corrected. DB:TCD '08 adds three additional terms: Guide & Information Signs, Information Signs, Route Sign. These are included in CCI 2012. Information Signs are enhanced by Information I and II originally present in DB: TCD 2008. General Services Signs are added to OA terms for CCI 2012. Two other added terms in CCI are General Services Sign, and Information & Direction Signs.

Destination & Distance Signs: CCI and DB have largely identical listings. CCI adds Intersection Signs/At-Grade Intersection Signs. These are not found in DB:TCD.

Route Markers: Terms of various markers/signs create diversity and confusion. Route markers became Route Signs (2000). Canada adds signs to Route Marker, and various accoutrements and additions to basic markers in Canada employ Tabs. US employs auxiliary as a term qualifying basic aids. Route remains the basic terms in T-M though



other terms are included. The three segments of Route Markers are marked by considerable complexity.

Mileposts: There is a high level of consensus between DB: TCD 2008 and CCI 2006. However, Milliaries are not listed in DB though included within Mile Posts for CCI. The term Mile Posts is divided into Mile Posts I, II for in DB '08.

Signs Giving General Information: Signs of General Information (SOGI Signs) is a misnomer. The correct term is Sign Giving General Information. The name is an individual name as well as an OA. It is in DB: TCD 2008 and now added to CCI 2012. Some OA terms are listed in individual segments. Are OA additions needed? These include Parking Area Signs.

CCI includes Recreation & Cultural signs accompanied by R & C designations for a variety of signs. This practice is largely omitted in DB: TCD 2008.

Civil Defense/Emergency Management Systems are in Informative Signs in CCI 2006 but in Regulatory for DB: TCD 2008.

Service Signs: Accessibility for the Handicapped Sign has a similar sign, Access for the Handicapped in Miscellaneous Signs. A review of the location of signs is needed.

Emergency Medical Care Sign exists in a form lacking "Care."

National Scenic Byways Sign is found in alphabetical index and the text of DB but it is absent from a category of terms.

Radio Information Signs (and sub-divisions) are in two locations. One group needs to be eliminated.

Travel Information Sign is in Recreation Sign for DB as well as Travel Information Call XX Sign.

Parking Signs: Coverage manifest a complete correlation.

Recreation Signs: Information Center Sign is in CCI 2006 but Information Center Sites Sign is in DB: TCD 2008.

Roadside Signs include more forms in DB than in CCI.

Welcome Center Signs is missing in DB. It is an older sign from MUTCD '78

Additional R & C signs: a category in DB but member signs are listed in text.

Miscellaneous Signs in CCI = Other Signs in DB: TCD.

All Trucks ... and Truck Route signs should be in Regulatory signs.

End of Road for Motor Vehicle signs: omitted in DB: TCD.

DB: TCD has a second "Other Signs" segment that includes signs from Miscellaneous/Other Signs.

MUTCD 2009 includes additional signs: Brake Check Area Sign, Chain-up Area Signs, Intersection Oasis Signing. Others include Slow Vehicle Turn-Out Signs, and Changeable Message signs.

Toll Road Signs is a category of signs within Informative (Guide Signs: US). MUTCD increases subdivisions of signs and some of these are very complex. T-M requires full range of forms yet not a highly technical coverage. That results in groups rather than highly detailed information. Toll Roads is one example. Preferential & Managed Lanes is another addition from MUTC 2009.

2D Regulatory Signs

2D1 Categories

Priority Signs

Prohibitory & Restrictive of Entry Signs:

Prohibitory & Restrictive of Turns/U-Turns Signs

Prohibitory & Restrictive of Overtaking Signs

Speed Limit Signs

Miscellaneous, Single Forms & End of Prohibition or Restriction Signs

Mandatory Signs

Parking & Standing Signs (Standing & Parking)

2D2 Priority Signs Terms

Give Way/Yield Sign

Yield Here to Pedestrian Signs/Unsignalized Pedestrian Crosswalk

Signs/In-Street Pedestrian Crossing Signs

Stop Signs/Supplemental Plaque: 4-Way/All-Way

Priority Road Sign/End of Priority Sign

Stop, Children Crossing Sign

Additional Panels

Slow-Major Road Ahead Sign

Halt at Major Road Ahead

To Oncoming Traffic Signs

2D3 Prohibitory & Restrictive Signs Terms

a) Prohibitory & Restrictive of Entry Signs

1) One-Way & Both Direction Signs

No Entry Sign

Do Not Enter Sign

Direction Prohibited Sign

Closed to All Vehicles in Both Directions/Closed to All Vehicles Signs

Wrong Way Sign

Except Buses & Cyclist Plaques

2) Categories of Exclusion Signs

No Entry for any Power Driven Vehicle Except Two-Wheeled Motor

Motor Cycles Without Side Car Sign/No Entry Motor Cycles/

No Entry Mopeds

No Entry Goods Vehicles/No Entry Any Power Driven Vehicle

Drawing a Trailer Other Than a Semi-Trailer or a Single Axle Trailer

No Entry for Pedestrians/No Entry for Animal-Drawn Vehicles/No

Entry for Handcarts/No Entry for Power-Driven Agricultural Vehicles.

No Entry for Vehicles Carrying Dangerous Goods for Which Special Sign Plating is Prescribed

No Entry for Goods-Carrying Vehicles/No Entry for Motor Vehicles/

No Entry for Motor Vehicles/No Entry for Bicycles

Motor Traffic Prohibited/Motor Lorries Prohibited/Motorcycling

Prohibited/Cycling Prohibited/Riding [Horses] Prohibited.

No Trucks/No Passenger Cars/No Animal-Drawn Carts/No Bicycles/

No Farm Machinery

No Motor Vehicles/No Trucks/Trucks Prohibited/Commercial

Vehicles Excluded/Pedestrians Excluded/Commercial Vehicles with

Lugs Prohibited/Pedestrians, Bicycles, Motor Driven Cycles

Prohibited/Pedestrians & Bicycles Prohibited/No Bicycles/Cycling

Prohibited/Bikes, Trucks, Motor Cycles Prohibited

Play Street: Prohibited All Vehicles\_\_To\_\_Unless Calling at Premises in the Street

Selective Exclusion Signs

Traffic Prohibition Signs

### 3) Vehicular Exclusion: Weight, Height, & Length Signs

No Entry for Vehicles Having An Over-all Width Exceeding ... Metres

(...Feet) Sign/No Entry for Vehicles Having an Height Exceeding ...

Metres (...Feet) Sign/No Entry for Vehicles Exceeding ... Tons

Laden Weight Sign/No Entry for Vehicles ... Tons on One Axle Sign/

No Entry for Vehicles or Combination of Vehicles Exceeding ...

Metres (... Feet) in Length Sign.

Weight Limit Sign (LN 191 & 1939) Maximum Width of Vehicle

Signs/Maximum Height of Vehicles (1939) Signs/No Entry for

Vehicles Having an Axle Weight Exceeding ... Tons (UN 1949)/Axle

Weight Limit ... Tons Signs/Axle Weight ... Tons Signs/No Trucks

- Over ... Lbs Empty Weight Sign/Weight Limits ... Tons Per Axle ...  
Tons Gross Sign
- Maximum Load Sign/Maximum Height Sign/Maximum Width Sign/  
Maximum Load Per Axle Sign/Maximum Length Permissible Sign
- 4) Miscellaneous & Single Category Signs
  - Driving of Vehicles Less Than ... Metres (... Yard) Apart Prohibited Sign
  - b) Prohibitory & Restrictive of Turns & U-Turns (About-Turns) Signs
    - No Left Turn/No Right Turn/Turning to the Left Prohibited/  
Turning to the Right Prohibited/Turn Left (R)/No Turns/No Turn on  
Right/Right Turn on Red After Stop/No Right Turn on Red Traffic  
Signal/No U-Turn Signals/No About-Turns (U-Turns/No Turns  
Turn Prohibition Signs
    - Do Not Block Crossroads
  - c) Prohibitive & Restrictive of Overtaking (Passing) Signs
    - Overtaking Prohibited Sign/Overtaking By Goods Vehicle  
Prohibited Sign
    - Do Not Pass Sign
    - No Overtaking Sign
    - Stopping Prohibited
  - d) Prohibitive & Restrictive Signs: Speed Limits
    - Maximum Speed Limited to the Figure Indicated Sign/Maximum  
Speed Zone Sign/Speed-Limit Sign/Speed Limit Sign/Speed  
Limit 30 MPH/30 MPH Speed Limit Signs/Truck Speed Limit  
Sign/Truck Maximum Sign/Minimum Speed Limit Sign/Night  
Speed Limit Sign/Speed Zone Ahead Sign/Reduced Speed Ahead  
Sign/Reduced\_\_Speed MPH Sign/Speed\_\_Limit & Minimum  
Speed Limit Sign
  - e) Miscellaneous, Single Forms, & End of Prohibitive or Restrictive Signs
    - Additional Panels
    - Dangerous Goods Prohibited
    - Fines Higher Plaque
    - Inspection Passing Without Stopping Prohibited
    - Stop (Customs) Sign/Customs Sign/Stop Near Customs

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Use of Audible Warning Devices Prohibited Sign/Horn Blowing  
Prohibited Sign/Silence Sign  
End of all Local Prohibitions Imposed on Moving Vehicles Sign/  
End of Prohibition of Overtaking Sign/End of Speed Limit Sign  
Speed Limit De-Restriction Sign  
End\_\_Mile Speed Sign  
Traffic Prohibition Sign

2D4 Mandatory Signs

Direction to be Followed Sign  
Compulsory Circulation Sign (I)  
Compulsory Circulation Sign (II)  
Pass This Side Sign  
Keep Your Right/Turn Left Only/Turn Right Only/Keep Straight  
Ahead/Trucks to Right-Lane/Two Way Traffic Ahead/Pedestrians  
to the Left Signs/Center Lane-Left Turn Only Sign  
Left (R) Turn Only Lane/Straight Through or Left (R) Turn Only  
Lane/Right or Left Turn Lane Only/All Movements Permitted  
Lane/Straight Through Lane Only Sign/Double Right (L) Turn Only  
Sign/Straight Through & Double Left (R) Turn Only Sign/Two Way  
Left Turn Lane Only/Three Lane Turn Movement Sign  
Compulsory Roundabout Sign/Traffic Circle  
Compulsory Cycle Track/Compulsory Foot-Path/Compulsory Track  
for Riders on Horseback/Compulsory Minimum Speed/End of  
Compulsory Minimum Speed/Snow Chain Compulsory Signs  
Divided Highway Crossing Signs  
Do Not Block Crossing Signs  
Do Not Drive on Shoulder Signs  
Do Not Pass on Shoulder Signs  
Intersection Lane Control Signs  
Advanced Intersection Movement Lane Control Signs  
Reversible Lane Control Signs  
Lane-Use Control Signs  
Mandatory Movement Lane Control Signs  
Mandatory Movement Signs/Options Movement Signs/Mandatory  
Turn Signs/Double Turn Signs

Movement Prohibition Signs  
Optional Movement Lane Control Signs  
Optional Movement Signs  
Passing Lane Ahead Sign  
Plaques: Bus Lane/Center Lane/HOV+2/Left Lane/Left 2 Lanes/Right Lane/Taxi Lane  
Preferential Lane Sign  
Preferential Only Lane Sign/Preferential Only Lane for High Occupancy Vehicle (HOV)  
Begin Right Turn Lane Yield to Bikes  
Right (Left) Lane Must Exit  
Right (Left) Lane Must Turn Right (Left) Sign  
Signs Indicating a Regulation or Danger Warning Applying to One Or More Traffic Lanes  
    Compulsory Minimum Speed Applying to Different Lanes  
    Compulsory Minimum Speed Applying to One Lane  
    Speed Applying to Different Lanes  
Signs Indicating Lanes Reserved for Buses  
Slower Traffic Keep Right Signs/Trucks Use Right Lane/Truck Lane\_\_\_ Feet Signs/Keep Right (L) Signs  
Snowmobile Route Signs/Snowmobile Prohibition Signs  
Truck Route Signs/All Trucks Commercial Vehicles Next Right Signs  
Two Way Left Turn Only Signs/Center Lane-Left Turn Only Signs  
Lane Use Restriction Signs  
One Way Signs/One-Ways Signs  
Keep Left (R) Dual Carriageway/Turn Left (R) One Way Only Signs  
Two Way Left Turn Only/Center Lane-Left Turn Only  
Yield Centre Lane to Opposing Traffic Signs  
Tunnel Signs  
Keep Left/Turn Left/Keep Left of Island Signs  
Keep Right (Left) Sign  
Keep Right Except to Pass  
Left Lane for Passing Only  
Entry Only-One Way Street

One-Way Sign (II)  
 Signs for Uphill Traffic Lanes  
 Slow Moving Traffic Lane Signs  
 Road (Street) Closed/Road Closed\_\_Miles Ahead-Local Traffic Only/  
 Road-Closed/Road Closed to Thru Traffic  
 Slower Traffic Use Right Lane/Slower Traffic Keep to Right  
 Travelpath Restriction Sign

2D5 Standing & Parking Signs

Parking Prohibited Signs/Parking Prohibited Zone Signs/Standing &  
 Parking Prohibited Sign/Alternate Parking Signs/Limited Duration  
 Parking Zone Signs/Parking Zone Signs/Parking Signs  
 Handicapped Parking Signs  
 Limited Direction Parking Zone Exit Signs  
 Restricted Stopping or Waiting Signs  
 Waiting on Alternate Sides Signs  
 Parking Signs  
 No Parking Signs/Restricted Parking Signs/No Parking & No Stopping  
 Signs  
 No Parking Signs/No Waiting Signs/Parking Signs/Prohibition of  
 Parking Signs  
 Waiting Prohibited Signs/Stopping Prohibited Signs  
 Parking Prohibited Zone/Parking Prohibited at Certain Time Zones  
 Signs/Parking Zone Signs/End of Parking Prohibited Zone Signs/  
 End of Parking Zone Signs  
 No Parking Signs/No Parking\_\_to\_\_Sign/No Parking Except Sundays &  
 Holiday Signs/No Stopping or Standing Sign/One Hour Parking  
 Signs/No Parking Loading Zone Signs/No Stopping Signs/No  
 Standing Anytime Signs/No Parking Bus Stop Signs  
 No Parking on Pavement Signs/No Stopping on Pavement Signs/No  
 Parking Except on Shoulder Signs/No Parking Signs/Emergency  
 Parking Sign/Emergency Stopping Signs/Emergency Restriction  
 Signs/Emergency Parking Only Signs/No Stopping Except on  
 Shoulder Signs  
 No Waiting This Side Today Sign/Waiting Limited\_\_In Any Hour



## Signs

- No Parking Signs/Parking Signs
- No Parking/Bike Lane Signs
- Multiple Parking Control Signs
- Parking, Standing & Stopping Signs
- Reserved Parking for Persons with Disabilities Signs
- Parking Prohibition Signs in Rural Districts Signs
- Rural Parking Control Signs
  - Rural Parking Control Signs
  - Rural Stopping Control Signs
- Stopping is Prohibited Signs
- Urban Parking & Stopping Signs
- Urban No Stopping Signs
  - Stopping Control Signs
  - Rush Period Stopping Control Sign
  - Part Time Stopping Control Sign
- Urban Parking Control
  - Parking Control Sign
  - Part-Time Sign
  - Parking Limited Sign/Parking Sign

## 2D6 Pedestrian Crossing Signs

- Cross Only at Cross Walks Signs
- In-Street Pedestrian Crossing Signs
- No Pedestrian Crossing Signs
- Pedestrian Crossing Signs
- Pedestrian Crosswalk/Playground Crossing Signs/School Crossing Signs
- Use Ped Signals Sign
- Yield Here to Pedestrian Sign
- Yield to Peds Signs
- Use Cross Walk
- Unsignalized Pedestrian Crossing Signs
- Cross on Green Light Only Signs/Cross on Walk Signals Only Sign/
  - Push Button for Green Light Signs/Push Button for Walk Signal Signs

2D7 Miscellaneous Regulatory Signs

- Begin & End Signs
- Bicycle Lane Signs
  - Bicycle Lane Ahead Signs
  - Bicycle Lane Ends Signs
  - Right Lane Bicycle Only Signs
- Do Not Stop on Track Signs
- Fender Bender Signs
- Hazardous Cargo Signs
- Hazardous Material Signs
- Head Light Network Signs
- Jughandle Signs
- Local Traffic Only Signs
- No Hitchhiking Signs
- No Parking Bicycle Lane Signs//No Parking Bike Lane Sign
- No Right (Left) Turn Across Tracks Signs
- Photo Enforced Signs
- Roundabout Circle Plaque
- Roundabout Directional Arrows Sign
- Runaway Signs
- Shared-Use Path Restriction Signs
- Sidewalk Closed Signs
- Slow Vehicle Turnout Signs
- Stay in Lane Signs
- Stop Here on Red Signs
- Tracks Out of Service Signs
- Traffic Laws Photo Enforced Signs

## Notes for Regulatory Signs

## General Notes:

Regulatory Signs are very complex. In large part they because of large groups of signs displaying diverse variety of signs. Notes on changes for those groups proves to be difficult and possibly confusing. Categories group of signs are present in CCI 2006 as it is in other T-M forms. However, DB: TCD 2008 lacks the categories in most instances.

One locational problem is that of Civil Defense/Emergency Management signs which are outside the basic groups of traffic signs. Though they usually follow after Guide (Informative) Signs. They are located in Information while DB: TCD uses regulatory. Location of these forms needs to be reviewed. CCI 2006 added a Specialized Regulatory Signs category; DB:TCD lacks that category. That category may not be needed; it also needs to be reviewed. MUTCD 2009 includes several new signs which are added to the text and notes.

## Specific Notes:

CCI list of category terms reflects sections and segments within Regulatory Signs. However categories lack a full title or they were omitted. Parking and Standing employs Standing and Parking while Pedestrian Crossings, Miscellaneous Regulatory, and Specialized Regulatory terms are omitted. DB: TCD, by contrast, includes Overarching terms. However, only Regulatory and Priority are included but not other terms. Remaining terms include primary terms in League of Nations and United Nations usage. It may be necessary to include both CCI 2006 and DB approaches to basic terms.

Priority Terms. CCI and DB display a high level of correlation. DB has one additional term: To Oncoming Traffic Signs.

Prohibitory & Restrictive Signs Terms. All segments contain diverse and numerous

entries. Terms are often batched. A summary of differences between CCI and DB include these differences:

a) Prohibitory & Restrictive of Entry Signs: 1) DB has one additional sign: Except Buses and Cyclists plaques. 2) DB adds Vehicles with Lugs Prohibited, and Traffic Prohibition. Pedestrians, Bicycles, Motor Driven Cycles, and Cycling Prohibited are omitted in CCI. 3) Entries may require review: Axle Weight Limits ... Tons Signs and Axle Weight ... Tons Signs in CCI. Maximum Length Permissible Signs added in DB.

b) There is substantial consensus on Turns and U-Turns though some variations are present. No Right Turn on Red Traffic Signal ends in Sign for DB '08. Sign is probably incorrect. No U-Turn Signals for CCI should probably be Signs as is the case with DB. Turn Prohibition Sign is found only in CCI. U-Turn Sign is found in DB '98 though not other monographs. U-Turn Prohibition Sign is found only in DB '08.

c) P & R Overtaking: CCI and DB have the same entries.

d) P & R Speed Limits are nearly identical save for Night Speed Limit Sign in DB. CCI employs a batch entry for these signs while DB divides the material in several components.

e) Miscellaneous and related sign contain identical content except for Inspection Passing Without Stopping Prohibited found only in CCI.

Mandatory Signs constitutes a major subdivision with only limited differences. Center Lane-Left Turn Only Sign is present in DB '08. Advance Intersection Movement Lane Control Signs are in CCI but not DB. Lane-Use Control Signs is the heading for a sub-category of Mandatory signs. It is a single entry for CCI. Other signs are also separate units. Preferential Signs are found in alphabetical index and text in DB but missing in the basic category index. One Way One Signs should be Only Signs in CCI. Two Way signs are a separate entry and not within Keep Left signs. Keep Right (Left) Sign not in DB. Road Closed includes (Street) in DB. Slower Traffic signs have a variant configuration in CCI and DB. MUTCD 2009 includes Do Not Drive on Shoulder, Do Not Pass on Shoulders, Movement Prohibition Signs, and Right (L) Lane Must Turn.

Standing & Parking Signs: Limited Duration Parking Signs and Parking Zone Signs should read: Limited Duration Parking Zone Signs in CCI. Two signs in the category were misplaced in DB '08: Emergency Restriction Signs and Reserved Parking for

Persons with Disabilities Signs. No Stopping Except on Shoulder Signs omitted in DB: TCD 2008.

Parking Limited Sign omits Limited in DB.

Pedestrian Crossing Signs: DB: TCD includes Unsignalized Pedestrian Crossing Sign, and Yield Here to Pedestrian Sign.

Miscellaney Regulatory Signs and Specialized Regulatory Signs: Temporary Traffic Control Railroad Crossing/Schools/Bicycles: CCI 2012 has reclaimed the Miscellaney Signs of DB '08. Four terms are new to CCI 2012: Bicycle Regulatory Signs, Local Traffic Only, No Right (Left) Turn Across Tracks Signs, Sidewalk Closed Signs. Other terms were returned to original location. MUTCD 2009 adds Jughandle Signs, Begin & Ends Signs.

2E Traffic Markings

2E1 Overarching & Sub-Overarching Terms

a) Overarching Terms with General Notes

- General Notes, I, II, III
- Carriageway Markings
- Highway Markings
- Markings
- Marking & Delineation Devices
- Marking Devices
- Marking Systems
- On-The-Roadway Markings
- Road Markings
- Road Marking System
- Road/Traffic Markings
- Roadway Markings
- Road Markings & Delineation
- Traffic Markings

b) Sub-Overarching Terms

1) More General Terms [Broader Terms in DB]

- Alphanumeric Markings
- Graphic Markings
- Horizontal Markings: Longitudinal
- Horizontal Pavement Markings
- Horizontal Signings
- Pavement Markings
- Pavement Surface Markings
- Road Surface Markings
- Pavement Markings for Obstructions
- Roadway Delineation/Traffic Delineation Markings
- Surface Markings

2) More Restricted Terms

- Barricades & Channelizing Devices
- Hazard Markings

Longitudinal Markings/Longitudinal Pavement Markings  
Marked Surfaces  
Multiple-Directions Markings  
Object Markings  
Obstruction Markings  
Vertical Markings  
Transverse Markings

## 2E2 Pavement & Curb Markings

### a) Longitudinal Markings

#### 1) Center Line Markings

Center Lines/Centerlines/Center-Line Markings/Centerline Markings/  
Center Markings/Centerline Stripes/Pavement Centerlines/  
Centerline Pavement Markings  
Centerline Markings for Shared-Use Paths  
Directional Dividing Lines  
Double Centerlines

#### 2) Edges Lines

Border Lines Indicating the Limits of the Carriageway Limits  
Carriageway Edgelines  
Carriageway Limit Lines  
Edge Lines/Edge Line Pavement Markings/Edge Line Markings/Edge  
Markings/Edge of Carriageway Markings  
Edge of Carriageway Markings  
Edge Line Lane Markings for Preferential Markings  
Edge Markings/Edge-Markings/Edgeline Raised Markers  
Left-Hand Edge Lines/Right-Hand Edge Lines  
Limits of Travelled Roadway Pavement Markings  
Pavement Edge Lines  
Pavement Edge Lines Markings  
Pavement Edge Markings

#### 3) Lane Markings

Channelizing Lines  
Centerline & Left Edge Line Pavement Markings  
Continuous Lines for “Particular Situations”

- Highway Traffic Lines
- Lane Lines
- Lane Lines at Controlled Intersections
- Lane Markings
- Lane Reduction Transition Markings/Lane-Reduction Transition Markings
- Lane-Use Arrow Pavement Markings
- Lane Use Control Word & Symbol Markings
- Lane Use Markings
- Pavement-width Transition Markings
- Reserved Lane Markings
- Road Markings for a Lane Reserved for Certain Categories of Vehicles
- Solid Long Lines
- Temporary Lane Markings
- Traffic Lane Markings
- Traffic Lines
- White Lane Pavement Markings
- White Lane Line Pavement Markings
- White Lines
- White Line Markings
- White Line Road Markings
- 4) Other Longitudinal Markings
  - Centerline & Left Edge Line Pavement Markings
  - Chevron & Diagonal Crosshatch Markings
  - Continuous Lines for “Particular Situations”
  - Do Not Block Intersection Markings
  - Edge Lines & Lane Markings for Preferential Lanes [Subdivisions]
  - Guide Lines for Turning Vehicles/Turn Markings/Turning Movements of Vehicles
  - Lane Drop Markings/Lane-Drop Markings
  - Lane Lines & Right Edge Line Pavement Markings
  - Lane Lines Pavement Markings



- Lane-Use Arrow Pavement Markings
- Lane-Use Markings
- Markings at Particular Locations
- Marking Extensions Through Intersections or Interchanges/
  - Pavement Marking Extensions Through Intersections
- Markings for Bicycle Lanes
- Markings for Other Circular Intersections
- Markings for Particular Situations
- Markings for Roundabout Intersections
  - Crosswalk Markings at Roundabouts
  - Edge Line Pavement Markings for Roundabouts
  - White Lane Line Pavement Markings for Roundabouts
  - Words, Symbols & Arrows for Roundabouts
  - Yield Line Pavement Markings for Roundabouts
- Markings of [for] Obstructions (Dual Category)
- Markings of [for] Obstructions in the Roadway
- Markings for Toll Plaza
- No-Passing Zone Markings/No-Passing-Zone Markings
- Paved-Shoulder Markings
- Streetcar Clearance & Transit Vehicle Guide Lines
- Yellow Longitudinal Pavement Markings
- White Longitudinal Pavement Markings
- b) Transverse Markings
  - Crosswalk Lines/Cross-walk/Crosswalk/Crosswalk Markings/
    - Pedestrian Crossings
  - Cyclist Crossing Markings
  - Intersection Markings
  - Intersection Pavement Markings
  - Limit Lines/Stop Bar/Stop Lines
  - Lines Indicating Points at Which Drivers Must Give Way
  - Oblique Parallel Lines
  - Pedestrian Lines
  - Railroad Crossing Markings/Railroad Crossing Advance Markings/
    - Railroad-Highway Grade Crossing Pavement Markings/

Approaches to Railroad Crossing Markings/Approaches to  
Railway Crossing Markings/Highway-Rail Grade Crossing  
Pavement Markings

Transverse Lines at Controlled Intersections/Transverse Lines at  
Uncontrolled Intersections

c) Other Pavement & Curb Markings

Advanced Speed Hump Markings

Advanced Warning Markings for Speed Humps

Approach Markings for Obstructions in Roadway/Marking of  
Obstructions/Marking of Obstructions in Roadways

Arrows/Arrow Markings/Legends & Symbols/Word Markings/  
Word Messages/Word Pavement Markings/Word & Symbol  
Markings

Arrows:

Lane-Reduction Arrow

Through Lane-Use Arrows

Turn & Through Lane-Use Arrow

Turn Lane-Use Arrows

Wrong-Way Arrow

Wrong-Way Arrow Using Retroreflective Raised Pavement  
Markers

Channelizing Devices Used for Emphasis of Pavement Markings

Curb Markings/Curb Markings for Parking Restrictions

Directional Markings

Dynamic Envelope Delineation

Dynamic Envelope Markings

Dynamic Envelope Pavement Markings

Entrance Markings

Exit & Entrance Interchange Ramp Markings

Exit Ramp Markings

Marking Patterns & Colors on Shared-Used Paths

Median Islands Formed by Pavement Markings

Pavement Markings/Parking Space Markings/Paving Space Limits/  
Parking Space Lines

- Pavement Word, Symbols & Arrow Markings
- Pavement Word & Symbol Markings
- Preferential Lane Longitudinal Marking for Motor Vehicles
- Preferential Lane Longitudinal Markings for Motorized Markings
- Preferential Lane Word & Symbol Markings
- Preferential Lane Word & Symbol Markings for Motor Vehicles
- Reflective Pavement Legends
- Speed Hump Markings
- Speed Measurement Markings
- Speed Reduction Markings for Preferential Markings
- Standing & Parking Regulations
- Stop & Yield Lines
- Stop & Yield Markings
- Surface Dressing Markings
- Train Dynamic Envelope Pavement Markings
- Yield Lines
- Yield Ahead Triangle Symbols
- d) Physical Pavement Marking Forms
  - General Note
    - 1) Raised Pavement Markers
      - Raised Pavement Markers
      - Bi-Convex Reflectors
      - Cats-Eyes/Cats Eye-Retro Reflectors
      - Corner-Cube Reflectors
      - Lens-Type Reflector
      - Luminous Mark
      - Non-Reflective Markers
      - Non-Reflective-Retro-Reflective Markers/Non-Retro-Reflective  
Ceramic Markers/Non-Retro-Reflective Buttons/Non-Retro-  
Reflective Raised Pavement Markers/Nonretro-Reflective  
Buttons
      - Protuding Markers
      - Raised Markings/Raised Horizontal Markings
      - Raised Marking Systems

- Raised Pavement Markers (RPMs)
  - Raised Reflective Pavement Markers/Raised Reflective Markers/  
Reflective Pavement Markers/Markers
  - Snowplowable Reflective Markers/Recessed Reflective Marker
  - Raised Pavement Markers Substituting for Pavement Markings
  - Raised Pavement Markers as Vehicle Positioning Guide with Other  
Longitudinal Markings
  - Raised Pavement Markers Supplementing Other Markings
  - Raised Retro-Reflective Markers
  - Reflector Studs/Reflecting Road Stud Catseyes
  - Reflective Buttons
  - Reflective Markers
  - Retro-Reflection
  - Retro-Reflectorized Buttons
  - Retro-Reflective Markers
  - Retro-Reflective Marks
  - Retro-Reflective Units
  - Reflex Reflectors
  - Rumble Strips/Rumble Stripes/Audible Roadway Delineation
  - Rumble Strip Markings
    - Longitudinal Rumble Strip Markings
    - Transfer Rumble Strip Markings
  - Self-Luminous Reflectors
- 2) Traffic Marking Physical Terms-Morphological/Physical
  - General Note
  - Amber Markers/Green Markers/Red Marker
  - Bi-Directional Red & White Retro-Reflective Markers
  - Bi-Directional Edgeline Markers
  - Cats Eye Centerline Markings
  - Channelization Markers
  - Edgeline Raised Markers
  - Painted Lines
  - Raised Reflective Lane Markers
- 3) Other Horizontal Markings

- Ceramic Marker
- Collimating System
- Coloured Cement Concrete Marking
- Electrically Powered Emissive Markings
- Expendable Markers
- Formed-in-Place Markers
- Hot-Applied Surface Markings
- Magnetic Markers
- Paint Markings
- Pavement Surface Markings
- Radioactive Emissive Markings
- Snap-over Markers
- Surface Dressing Markings
- Traffic Paint Markings

## 2E3 Hazard, Obstruction, & Delineation Markings

### a) Hazard & Obstruction Markings

- General Note
- Clearance Markers
- End of Road Markers/End-of-Roadway Markers/End-of-Roadway Markings
- High-Level Warning Devices (Flag Tree)
- Markers Adjacent to the Roadway
- Markers for Object in the Roadway
- Marking of Obstructions
- Hazard Markers
- Object Markers on Shared-Use Paths
- Object Marker Types I, II, III
- Reflective Markers

### b) Delineators

- Bidirectional Reflective Delineators/Monodirectional Markers
- Guide Markers/Guide Posts
- Delineation Devices/Delineators/Delineators-Curb/Delineators-Upright/Post Mounted Delineators/Post-Mounted Markers/Road Delineators/Road-Edge Delineators/Roadway Delineator/Roadside Delineator/Delineators/Road-Delineation Markers/

Curb Markings for Roadway Delineation

Lateral Delineators

Lateral Signs

c) Barricades & Channelizing Devices

General Note

Barricades, Types I, II, III

Barricades-Portable

Barricades-Permanent

Channelizing Devices

Channelizing Devices-Traffic Cones

Direction Indicator Barricade

Drums

Heavy Barricades

Light Barricades

Portable Barrier

Portable Flasher Support

Traffic Cones

Tubular Markers

Vertical Panels

Cones

## Traffic Markings: Notes

## General Note:

CCI '06 was patterned after DB-TCD 1998. DB-TCD 2008 rebuilt and expanded the system of the first edition. CCI 2012, in turn, is adjusting its earlier formulation thereby aligning it with DB-TCD 2008. Many or most of CCI '06 is found in the new edition. But there are notable movement of terms within the edition. Specific Notes will indicate changes whether pertaining to moving terms or adding new terms.

## Specific Notes:

## Overarching Terms (2E1):

General OA terms are more extensive in DB than in CCI. However, T-M Studies Category Terms is omitted in DB: TCD 2008 though the terms are relocated. Some terms are shared terms though in variant locations. CCI 2012 follows DB: TCD 2008 pattern.

Horizontal Pavement Markings in DB: TCD 2008 though not in CCI 2006 until this edition.

Horizontal Pavement Markings: Longitudinal in CCI 2006 but not in DB:TCD 2008  
Longitudinal Pavement Markings in DB:TCD 2008 (Other Longitudinal Markings)  
Marking & Delineation Systems in CCI 2006 is absent in DB: TCD 2008 though the later has Marking & Delineation Devices. OECD employs the second term which indicates use of system was an error and it is omitted here.

Road/Traffic Markings in DB: TCD 2008 but not in CCI 2006. It is added now.

These terms were formerly in Overarching but are moved to locations employed in DB:  
TCD 2008:

Paint Markings in DB: TCD 2008 (Other Horizontal Markings)

Painted Lines in DB: 2008 (Traffic Marking Physical Terms)

Pavement Markings is relocated in DB: TCD 2008 (Hazard & Delineation Markings)

Raised Horizontal Markings in DB: 2008 (Raised Pavement Markers)

Raised Markings in DB: TCD 2008 (Raised Pavement Markers)  
Road/Traffic Markings in DB: TCD 2008 but not in CCI 2006  
Traffic Paintings in DB: TCD 2008 (Traffic Markings Physical Terms)

Pavement & Curb Markings Terms: Longitudinal (2E2 a )

General Note:

Longitudinal is divided into Center Line Markings, Edge Lines, Lane Markings and Other Longitudinal Markings. The first two segments include limited differences between CCI '06 and DB '08.

Specific Notes:

Centerline Markings in CCI 2006 omitted in DB: TCD 2008 though similar terms are included. It is now added.

Yellow Centerline Pavement Markings included in DB: 2008 (Other Longitudinal Markings). It is relocated to that location.

Edgeline Raised Markings are in DB: 2008 (Traffic Markings Physical Terms)  
Left-hand Edge Lines and Right-hand Edge Lines are omitted in DB: TCD 2008.

Lane Markings, the third segment, displays considerable coherence for CCI 2006 and DB: TCD 2008. There are, however some differences.

Several terms are relocated in DB: TCD 2008 To Other Longitudinal:

- Centerline & Left Edge Pavement Markings
- Continuous Lines for "Particular Situations
- Lane Lines Pavement Markings
- Lane Lines & Right Edge Lines Pavement Markings
- White Lane Line Pavement Markings

Oblique Parallel Lines in DB: 2008 is in Transverse Markings; they had been in Lane Lines.



Solid Long Lines, Traffic Lines, White Lines, White Lines Markings, White Line Road

Markings are not in DB: TCD 2008. The terms are from OECD 1975 and are listed in CCI '06. Some terms from the OECD publication are listed in DB: TCD 2008 yet these were omitted.

The final segment is that of Other Longitudinal Markings. DB: TCD 2008 coverage is much shorter than that of CCI 2006 and that of the DB: TCD 1998 edition. DB:TCD 2008 has moved many terms into a physical markings category. The coverage and location of terms varies considerably between DB: TCD 2008 and CCI 2006. CCI 2012 will resemble DB: TCD 2008 coverage.

Lane Lines & Right Edge Lines Pavement Markings is in Other Longitudinal Marking for DB: TCD 2008; but in CCI 2006 terms were located in Lane Markings. A problem in the arrangement terms stems from overlapping terms and terms that cover two or more categories.

Centerlines & Left Edge Lines Pavement Markings follows the above pattern.

Yellow Centerline Pavement Markings is found under Centerline in CCI 2006 while it is under Other Longitudinal Markings in DB:TCD 2008. This is also true for White Lane Pavement Markings. Lane Line is placed in Other Longitudinal for DB but Lane Markings for CCI.

Longitudinal Markings is both an overarching term and a specific term for DB: TCD 2008. CCI 2006 did not follow that practice. Both forms are included in this CCI edition of CCI 2012.

Markings for Bicycles is listed in Other Longitudinal for DB: TCD 2008 but Other Pavement and Curbs for CCI 2006.

Paved-Shoulder Markings are in Other Longitudinal for DB; omitted in CCI.

Pedestrian Lines are in Other Longitudinal for DB: TCD but Other Pavement and Curbs in CCI 2006.

Markings for Other Circular Intersections and in Other Longitudinals for DB: TCD. This is also the case for Roundabout Intersections. CCI 2006 omits both.

The remaining terms in Other Longitudinal are shared by DB and CCI.

DB: TCD 2008 adds a Physical Pavement Markings Forms within Pavement & Curb Markings. That segment has three components: Raised Pavement Markers, Traffic Marking Physical Terms--Morphological/Physical, and Other Horizontal Markings.

Transverse Markings is the second segment of Pavement & Curb Markings (2E2 b) ). This segment displays a significant coherence between CCI 2006 and DB: 2008. The core term is a specific term as well as a general term for DB '08; CCI omitted that arrangement.

Intersection Pavement Markings is included in DB Other Pavement and Curb Markings rather than this segment. The term refers to bicycle markings though it suggested a general purpose aid. Intersection Markings (crosswalks) is in this segment. Highway-Rail Grade Crossing Pavement Markings is included in DB but omitted in CCI. Approaches to Railroad Crossing Markings is omitted in category index for DB but is included in alphabetical index and in text.

The third and final segment of Pavement & Curb Markings is that of Other Pavement and Curb Markings (2E2 c) ). This segment displays a complex appearance: Parts of the list show strong similarity between CCI and DB while other portions are markedly at odds.

Coloured Cement Concrete Markings is located in a new segment of DB: Physical Pavement Markings: Other Horizontal Markings.

DB: TCD 2008 includes Highway-Rail Grade Crossings Pavement Markings within Transverse Markings. This is also true of Oblique Parallel Lines.

Markings for Bicycle Lanes and Markings for Other Circular Markings are located in Other Longitudinal Markings for DB: TCD 2008.

Marking Patterns & Colors on Shared-Used Paths are missing in DB: TCD 2008. Object Markers on Shared-Use Path are included but in Horizontal & Obstruction Markings.

Pedestrian Lines are in Other Longitudinal Markings for DB: TCD 2008.

Train Dynamic Envelope Pavement Markings should be joined to other Dynamic Envelope entries in CCI 2012.

Physical Pavement Marking Forms 2E2 d):

- 1) Raised-Pavement Markers

General Note:

This category was added to DB-TCD 2008. Formerly the entries focussed on the morphological dimension with little focus on the physical. The new category included physical and, when needed, morphological-physical constructs. That material is now added to CCI 2012 (projected). Many of the components exist in CCI but in scattered locations. Specific notes indicate the original location of the terms.

Specific Notes: Many of the relocated terms are from Pavement & Curb Markings: Other Longitudinal Markings. Locations for the remaining terms are also enclosed as well as new terms for CCI 2012.

Audible Roadway Delineation

Raised Pavement Markers  
Bi-Convex Reflectors  
Button (Not in DB: TCD 2008)  
Cats-Eyes/Catseyes/Cats Eyes-Retro-Reflectors (3rd term in DB but not in CCI 2006.  
Corner-Cube Reflectors  
Lens-Type Reflector  
Luminous Mark  
Non-Reflective Markers  
Non-Retro-Reflective Markers/Non-Retro Reflective Markers  
Non-Retro-Reflective Pavement Markers  
Non-Retro-Reflective Ceramic Markers  
Nonretro-Reflective Button/Non-Retro-Reflective Button  
Protruding Marker  
Raised Horizontal Markings (Overarching: More Restricted)  
Raised Markings (Overarching: More Restricted)  
Raised Marking System (DB: TCD 2008 but omitted in CCI 2006)  
Raised Reflective Lane Markers (Omitted from CCI 2006)  
Raised Pavement Markers (RPM)  
Raised Reflective Pavement Markings/Markers (DB: TCD 2008 has several terms  
beginning with Raised Reflective and ending with Marker)  
Raised Reflective Markers  
Raised Retro-Reflective Marker (New to CCI 2012)  
Recessed Reflective Marker  
Reflecting Button  
Reflecting Road Studs  
Reflective Pavement Markers  
Reflective Markers  
Reflex Reflectors (New to CCI)  
Retro-Reflection (New to CCI)  
Retro-Reflectorized Button (New to CCI)  
Retro-Reflective Markers

Retro-Reflective Marks

Retro-Reflective Units (From Pavement & Curb Markings: Longitudinal: Other Longitudinal)

Rumble Strips/Rumble Stripes

Self-Luminous Reflectors

Snowplowable Reflective Markers

Studs (New to CCI)

2) Traffic Marking Physical Terms-Morphological/Physical

Specific Notes:

Amber Markers/Green Markers/Red Markers. The term appears in New Terms (OECD) of CCI 2006 but was omitted from the text. It is included in DB: TCD 2008 and in CCI 2012.

Bi-Directional Red & White Retro-Reflective Markers. R & W was omitted from CCI 2006.

Three other terms from OCED that were omitted are:

Bi-Directional Edgeline Markers.

Cats Eye Centerline Markings.

Raised Reflective Lane Markers.

Channelization Devices is listed in CCI 2006. It may be a misnomer that requires replacement by Channelization Markers which is listed in DB: TCD 2008.

These terms were located in other locations:

Painted Lines (Overarching: More Restricted Terms)

Pavement & Curb Markings (Pavement & Curb Markings: Longitudinal Markings:

Edge Lines:

Edgeline Raised Markers (Pavement & Curb Markings: Longitudinal: Edge Lines)

### 3) Other Horizontal Markings

Pavement & Curb Markings: Other Longitudinal Markings is the former location of many of the terms in the new Other Horizontal Markings category:

Ceramic Marker

Collimating System

Electrically Powered Emissive Markings [instead of Electronic, Markers]

Formed-in Place Markers

Hot-Applied Surface Marking

Magnetic Markers

Radioactive Emissive Markers

Snap-over Markers

Other categories:

Coloured Cement Concrete (Other Pavement & Curb Markings)

Surface Dressing Markings (Other Pavement & Curb Markings)

Paint Markings (Overarching: More Restricted)

Traffic Painting (Overarching: More Restricted)

Pavement Surface Markings (Overarching: More General)

Expendable Markers: Omitted from CCI 2006 (OECD)

Hazard and Delineation Markings: Notes

CCI 2006 alters the term to Hazard, Obstruction and Delineation Pavement Markings.

DB: TCD 2008 gives the first subdivision as Hazard/Obstruction Markings while CCI has Hazard & Obstruction.

Specific terms for Hazard & Obstruction include:

Approach Markings for Obstructions is located in Other Pavement and Curb Markings in CCI

High-Level Warning Devices (Flag Trees) is located in Barricades & Channelizing Devices for CCI 2006.

Markings for Objects in the Roadway/Markings Adjacent to the Roadway omitted in CCI 2006.

Markings of Obstructions in Other Pavement and Curb Markings for CCI as well as here. It is a dual category.

Object Markers on Shared-Used Path in CCI 2006 under Other Pavement & Curb Markings.

Obstruction Pavement Markings/Pavement Markings for Obstructions are listed in Overarching terms for CCI 2006.

Specific terms for Delineators:

There is a high degree of coherence between CCI and DB for delineators with only limited changes: DB includes Road-side Delineators and Shoulder Delineation Markers while those terms are omitted in CCI. DB includes Road-Delineation without Marker; marker should possibly be added.

Specific terms for Barricades & Channelizing Devices:

CCI 2006 includes Channelization Devices. That may be a misnomer. Channelization Markers may be the correct term. This note also appears earlier in these notes.

Direction Indicator Barricade in CCI 2006 but is omitted in DB: TCD 2008.

Numerous terms in the category are in batches while CCI 2006 focusses on single terms.

## CHAPTER THREE

### RAILWAY SIGNALS, SIGNS, MARKS, & MARKERS

#### 3A General Railway Signal Terms

##### 3A1 Overarching Terms

###### a) Signal Terms

Signaling/Signalling

General Notes I, II

Signal

Signal Apparatus

Signal Appliance

Signal Device/Signalling Device

Signal System/Signaling System/Signalling System

Signal System, Device, or Appliance

Signal Implement

###### b) Fixed/Lineside/Railway-Railroad/Wayside Signal Terms

Fixed Signal

Fixed Railroad Signal

Fixed Signal Systems/Fixed-Signal System

Fixed Signaling

Fixed Trackside Signal

Fixed Wayside Signal/Fixed Wayside System

Line Signalling System

Lineside Equipment/Lineside Signal/Lineside Signalling/Lineside Visual  
Signal/Lineside Fixed Signals

Line-side Signal/Line-side Signaling

Railway Signal/Railroad Signal

General Note

Railway Signaling/Railway Signalling/Railroad Signaling

Railway Signaling & Control Systems/Railway Signaling & Control

Railway Signaling, Control & Communication Systems

Railroad Signaling System/Railway Signal System/Railroad Signal



System/Railway-Signal System/Railway Signalling System  
 Wayside Signal/Wayside Signal System/Wayside Signals & Controls/  
 Wayside Signalling

c) Other Overarching Terms

Automatic or Remote Operated Signals  
 Electric Light Signals  
 Fixed Trackside Signal/Fixed Trackside Color Light Signal  
 Immovable Signal  
 Light Signal  
 Night Signals/Night Signaling  
 Optical Signals/Optical Signs & Signals  
 Rail Aids  
 Rail Signals  
 Railway Visual Signals  
 Roadway Signals  
 Safety Aids  
 Safety Signals  
 Stationary & Fixed Signals  
 Trackside Devices  
 Trackside Railroad Signaling/Track Side Signalling System  
 Trackside Railway Visual Signalling Systems  
 Trackside Signalling/Trackside Signals/Track-Side Signals/Track Side  
 Signals/Trackside Railroad Signals  
 Trackside Visual Signalling  
 Train Light Signals  
 Visual Lineside Signal  
 Visual/Visual Signalling/Visual Signalling System  
 Warning System  
 Wayside Devices

d) Possible/Partial Overarching Terms

1) Energy & Technology-Related Terms

General Note  
 A.C. Signaling  
 All-Electric Power Signalling

- Electric Light Signal
- Electric Signal/Electric Signal System/Electric Signaling/Electric Signalling/Electrically-Operated Signals/Electrically Operated Signals
- Electro-Gas Signal
- Electro-Mechanical Ground Signal/Electro-Mechanical Signal
- Electro-Mechanical System
- Electro-Pneumatic Signal/Electro-Pneumatic Signalling
- Low-Pressure Electro-Pneumatic Signalling
- Manually Operated Fixed Wayside Signals/Manually Operated Signals/Manual Signals/Manual Signalling
- Mechanical Signals/Mechanical Signalling
- Motor-Operated Distant Signals
- Power Operated Signals/Power-Operated Signals/Power Signalling/Power-Worked Signals
- 2) Physical-Morphological Overarching Terms
  - General Note
  - Main Route Signals
  - Main Signals/Main Line Signals/Mainline Signal/Mainline Signaling Control
  - Primary Signal
  - “Universal” Signal
  - Symbol Information Processing
- 3) Possible Overarching Terms-Miscellaneous
  - Functional Signal System
  - Rail Aids
  - Railroad Traffic Control Devices
  - Safe Working/Safeworking/Safe-Working/Safeworking Appliances
  - Safety Aids
  - Safety Signals
  - Signal-&-Control Systems/Signal & Control Systems
  - Signal & Switch Systems
  - Signalling Devices
  - Trackside Warning Signals
  - Trackside Railway Visual Signalling Systems/Trackside Visual

## Signalling

Train Signals & Controls

Visual & Audible Signals

### 3A2 Message, Morphology & System Terms

#### a) Messages: Aspects & Indications

##### 1) Color

Double Yellow Signal

Flashing Signal Yellow Aspect

Lunar White Marker Lamp

Signal Blue

##### 2) Aspects

Two-Aspect & Related-Forms: 26 with Signal, Signalling or Indicator

Three-Aspect: 20

Four-Aspect: 13

Other Forms: 14

##### 3) Indications

Clear Signal

Proceed Signal

Caution Signal

Approach Signal

Stop Signal

Danger Signal

Preliminary Caution Signal

Limited Clear Signal/Medium Clear Signal/Slow Clear Signal

Limited Approach Signal/Medium Approach Signal/Medium

Advance Approach Signal

Medium Approach Slow Signal/Slow Approach Signal/Restricting  
Signal

Approach Limited Signal/Approach Medium Signal/Approach

Slow Signal/Advance Approach Medium Signal/Advanced Approach  
Signal

Stop & Proceed Signal/Grade Signal

Medium Signal

Caution, Low-Speed Signal/Caution, Medium-Speed Signal

- Caution Normal Speed Signal
- Clear, Medium-Speed Signal
- Normal Speed Signal
- Clear, Normal-Speed Signal
- Aspect, Phantom Signal/Phantom Signal
- False-Clear Signal
- b) Morphology
  - 1) Overarching Terms
    - Running Signals
    - Primary Signals
    - Running Line Signals
    - Color Light Running Signals
    - Main Signals
    - Main Line Signals/Main-Line Signals/Mainline Speed
    - Main Line Running Signals
    - Main Running Stop Signals
  - 2) Stop Signals
    - Advance Signals
    - Advanced Signals
    - Buffer Stop Signal
    - Coleigny-Welch Signal Lamp
    - Dead Signal
    - Fixed Stop Signal
    - Home Signal/Home-Signal/Rear Home Signal/Signal, Home/Outer Home  
Signal/Inner Home Signal/Intermediate Home Signal/Second Home  
Signal/Third Home Signal
    - Splitting Home Signal
    - Splitting Signal
    - Stop Signal
    - Color Light Stop Signal/Automatic Stop Signal/Semaphore Stop Signal/  
A.P. Permissive Stop Signal
  - 3) Starting Signals
    - Starting Signal
    - Starter Signal

- Advanced Starting Signal/Advance Starting Signal
- Section Signal
- 4) Distant Signals
  - Auxiliary Signal
  - Distant Signal/Distant Semaphore Signal/Distant (Warning) Signal/Hall Distant Signal/Distant-Signal/Signal, Distant
  - Warner Signal
  - Warning Signal
  - Outer Distant Signal/Inner Distant Signal/Intermediate Distant Signal/Second Distant Signal
  - Power-Operated Distant Signals/Distant Signal Color Light/Color Light Distant Signal
  - Advance Signal
  - Approach Signal
  - Unworked Distant Signal/Signal, Distant/Splitting Distant Signal
- 5) Systems
  - Absolute Signal
  - Advanced Section Signal
  - Automatic Block Signals
  - Automatic Signals
  - Block Signals
  - Block & Interlocking Signals
  - Controlled Signals
  - Holding Signals
  - Interlocking Dwarf Signals
  - Intermediate Block Signals
  - Intermediate Signals
  - Interlocking Signals/Signals, Interlocking
  - Permissive Signal
  - Semi-Automatic Interlocking Signals
  - Semi-Automatic Signals
- 6) Route & Junction Signals
  - 'Arbour Lights/Harbour Lights
  - Banjo

- Directing Signal
- Direction Indicator
- Directonal Route Indicator
- Entry (Route) Signal/Entry (Route) Light Signal
- Feathers/Horn
- Five-Light Junction Indicator
- Junction Indicator/Junction Signal
- Lunar Lights
- Multi-Lamp Route-Indicator/Multi Lamp Route Indicator
- Position Light Junction Indicator
- Right-Hand Junction Indicator
- Route Indicator
- Route Signal
- Route & Junction Signals
- Routing Signal
- Shunt Route Indicator
- Stencil Indicator/Stencil Route Indicator/Route Indicator Stencil Light
- Theatre-Type Route Indicator/Theatre Type Route Indicator/  
Theatre Multi-Lamp/Route Indicator
- Toton Route Indicator
- Turnout Signal
- Two-Way Junction Indicator
- Two-Way Stencil Indicator
- Four-Way Shunting Signal
- 7) Other Signals-Running Operations
  - AB Entry Signal
  - Backing Signal
  - Non-Stop Permissive Automatic Signal
  - Wrong Road Signal/Wrong-Road Signal
  - Station Signal
  - Station Protection Signal
  - Platform Signals
  - Precaution Signals
  - Protecting Signals

- Repeating Signal
- Repeater Signal
- Repeat Signal
- Banner Repeater Signal
- Electric Repeater Signal
- Fog Signal Repeater
- Semaphore Repeater
- Tunnel Signal
- Tunnel Junction Signal/Tunnel Repeater Signal
- Tonnage Signal
- Grade Signal
- Co-Acting Signal
- Protection Signal
- Warner & Home
- Warner Home & Starter
- Warner Home Starter & Advance Starter
- Outer Home & Starter
- Outer Home Warner Starter & Advanced Starter
- Yellow Ground Disc
- 8) Subsidiary Signals
  - Subsidiary Signals
  - Switch Signals/Points Signals
  - Catchpoint Indicators/Runway Catchpoint Indicators/Indicators for Runway Catchpoints/Catchpoint Discs
  - Colour Light Points Indicator
  - Electric Catchpoints Indicator
  - Electric Points Indicator
  - Facing Points Indicator
  - Mechanical Points Indicator
  - Points & Indicators
  - Points Indicator
  - Points Signals/Signal Point Indicators
  - Points Indicator--Chevron Type/Points Indicator--Arrow Type
  - Switch Indicator

- Trap Points Indicator
- Shunt Indicator
- 9) Physical Shunting Signals
  - Shunt Signal
  - Shunting Signal
  - Signal for Shunting/Signals for Shunting Movement
  - Switching Signal
  - Disc Shunting Signal
  - Shunting Disc Signal
  - Ground Shunt Signal
  - Mechanical Shunting Signal
  - Position Light Shunt Signal
  - Shunt Signal (Position-Light)
  - Power-Operated Shunt Signal
  - Shunt Light/Shunt Lighting
- 10) Function-Related Shunting Signals
  - Backing Signal
  - Calling-on Signal
  - Close-up Signal
  - Draw-Ahead Signal
  - Draw-Ahead Position-Light Subsidiary Signal
  - Elevated Shunting Signals
  - Facing Shunt Signals
  - High Shunting Signals
  - Humping Signal/Hump Shunt Signal
  - Independent Shunt Signal
  - Limits of Shunt Signal
  - Main/Shunt Signal
  - Miniature Arm Shunting Signal/Miniature Arm Shunt Signal
  - Running Shunt Signal
  - Running Subsidiary Shunt Signal
  - Set-Back Signal
  - Shot Shunting Signal
  - Shunt Ahead Signal/Shunt-Ahead Signal



- Shunt Route Indicator
- Sub-Shunting Signal
- Subsidiary Shunting Signal
- Siding Shunt Signal
- Warning Signal
- 11) Siding, Train Yard & Other Signals
  - Goods or Siding Signal
  - Hump Signal/Humping Signal
  - Leave Siding Indicator
  - Marshalling Yard Signal
  - Outlet Signal
  - Siding Signal
  - Take Siding Signal/Take Siding Indicator
  - Terminal Signal
  - Yard Exit Signal
  - Dead-End Signal
  - Directing Signal
- 12) Message-Related Signal Terms
  - Absolute Signal
  - All Right Signal
  - Caution Signal
  - Cautionary Signal
  - Deceleration Signal
  - Permissive Signal
  - Permissive Stop Signal
  - Proceed Signal
- 13) Miscellaneous Signals
  - Accept Signal/Accepting Signal
  - Appendant Signal
  - Arrival Signal
  - Deceleration Signal
  - Dragging Equipment Signal
  - Intermediate Signal
  - Merry Go Round Signal

- Outer Signalling
  - Platform Line Signal
  - Snow Shed Territory with Color Light Signals
  - Station Departure Color-Light Signal
  - Subsidiary Signal
  - Temporary Signal
  - Track Occupancy or Departure Signal
  - Trolley Line Signal
  - Yard Track Signal
- c) Systems
- 1) Overarching Terms
    - Block Signal System
    - Block Signaling/Block Signalling
    - Block System of Signals
    - System, Block Signal
    - Fixed Block Signal System
    - Electro-Pneumatic Block Signal System
    - Blocking Signals
  - 2) Manual Block Signal System
    - Manual Block Signal System
    - Manual Block Signaling/Manual Block Signalling
    - Manual Block Signal System-Space Interval
    - Manual Signalling
  - 3) Controlled Manual Block Signal Systems
    - Controlled Manual Block Signal System
    - Controlled-Manual Block-Signalling
  - 4) Automatic Block Signal System Terms
    - Automatic Block Signalling on Double Track/Automatic Block Signalling on Single Track
    - Automatic Signalling
    - Control System for Single-Track Signaling
    - Double-Track Block Signalling
    - Multiple-Block Signalling
    - Roadway Automatic Block Signal System

- Semi-Automatic Block Signalling
- Three-Block Signalling
- Two-Block Automatic Signalling
- Three-Block Automatic Signalling
- Single-Track Automatic System
- Single-Track Automatic Signalling
- Single-Track Automatic Signal System
- 5) Absolute/Permissive Terms
  - APB Single-Track Signaling
  - Absolute Permissive Block Signaling
  - A.P.B. Scheme of Signaling/Absolute-Permissive-Block Scheme of Signaling
- 6) Other Block Signals
  - Moving Block Signalling
  - Moving Block Signal
  - Nachod Signal System
  - Overlap Block Signal System
  - Overlap Scheme of Signaling
- 7) Interlocking Signalling Terms
  - Interlocking Signalling
  - Electrical Signal Interlockings
  - Key Interlocking Signalling
  - Mechanically-Interlocked Points & Signals
  - Signal/Point Interlocking
- 8) Train Control Terms
  - Overarching Terms: Signal & Control System
  - CTC: CTC Railway Signalling System
- 9) Specific Named Terms
  - SNCF Signalling System for VHS/VHS System of Signalling & Signalling System for High Speed
  - Micro Processor-Based Signalling System
  - TBS, Transmission-Based Signalling

**General Notes:**

The 1st edition of CCI 2006 included terms with signal. But other terms (e.g., indicator) were omitted. Those omitted terms are included in this edition.

**Specific Terms:****Overarching Terms:**

Numerous terms in Other Overarching terms are relocated in DB-RR 2009. However, the pattern of terms in CCI is retained in CCI 2012.

Railway Signaling System appears in CCI 2006 but not DB-RR 2008. The term is not a new term and may therefore be an error. It is removed in the new edition.

**Message, Morphology & System Terms:**

Messages: Aspects & Indicators: Only a few colors are included since they are not linked terms such as signal and indicator. Two additional colors were included for CCI 2012: Signal Blue, and Flashing Signal Yellow Aspect.

Morphology: CCI 2006 structure is simpler than that of DB-RR 2009. Various subdivisions and at least two layers are eliminated.

A variety of signals are added in DB-RR 2009. They include two Home Signals, and Splitting Semaphore. Several Starting and Starter Signals are also added. Other signals include Outer Advance Signal, Fishtail, Fixed Distant/Fixed Signals, Semaphore Distant, and Splitting Distant.

Other Signals-Running Operations: DB-RR 2009 included several terms that need to be added to CCI: Platform Starting Signals, Banner-Repeating Signal, Fog Signal Repeater, Co-Acting Arms and Yellow Ground Disc.

The final segment is that of Systems. CCI 2006 and DB-RR 2009 are identical. Questions about the use of one “L” or two “L” have been reviewed and adjusted.

Subsidiary rail aid terms omitted those with Indicator. That omission has been corrected. See also Route & Junction terms.

Some divergencies are found in Physical Shunting Signals. DB-RR 2009 assigns some terms to an OA segment while CCI follows a more unitary form.

Function-Related Shunting Signals: DB-RR 2009 adds Route Indicating Signals, Ground Signals, Yellow Shunt Signal. These forms are now added to CCI.

DB-RR includes Close-up Signals for Siding, Train Yard & Other Signals. CCI 2012 includes that signal.

Miscellaneous Signals are nearly identical for DB-RR 2009 and CCI 2012 save the Merry Go Round Signal in CCI 2006.



## 3B Fully &amp; Partially-Lighted Signals

## 3B1 Overarching Terms

Illuminated Signals  
 Light Signals  
 Railway Signal Lights  
 Signal, Light  
 Signal Light  
 Visual Signal Light

## 3B2 Color Light Signal Terms

## a) Principal Signal Types

## 1) Basic Forms

Color Light Signals/Color-Light Signals/Colour Light Signals/Colour-  
 Light Signals/Colourlight Signals  
 Color-Light Type/Color Light Types/Color-Light Type Signal/  
 Colour-Light Type of Signals  
 Colorlight/Color Lights/Color-Light Signaling

## 2) Limited-Variant Forms

Signal, Color Light  
 Colour Light/Colourlight/Colour-Light  
 Color Signal/Colour Signal  
 Coloured Lights

## 3) Variant Forms

Automatic Colour-Light Signal  
 Colour Light Running Signals/Colour-Light Running Signals  
 Multiple-Lens Colour Light Signals/Multiple-Lens Colour-Light  
 Signals/Multiple-Lens Four-Aspect Colour-Light Signal/Colour-  
 Light Signal/Colour-Light Signals Multi-Aspect Vertical  
 Multi-Colored Light Signals  
 Multi-Unit Color Light Signals  
 Multiple-Head Color-Light Signals  
 Single-Head Color Lights  
 Spreadlight Colour Light Signals/Long Range Spread Light Colour  
 Light Signal/Spreadlite Colour Light Signal

- Three-Head Color-Light Signal
- 4) Signaling Terms
  - Automatic Colour-Light Signaling
  - Color Light Signaling/Colour Light Signalling/Colour-Light Signalling/Color-Light Signalling (Taiwan)
  - Colour Signalling
  - Electric Automatic Colour-Light Signalling
- b) Other Color Light Signals
  - 1) Distance Terms
    - Color-Light Type Signals, SR/Short Range Signals
    - Medium Range Color Light Signals/Medium Range Color Signals
    - Long Range Colored Light Signals
    - Long-Range Color-Light Signals
    - Long Range Colour Light Signals
    - Long Range Daylight Signals
    - Long Range Signals
    - Long Range Type
    - Long Range Daylight Type Color Light Signals
    - Short Range Color Light Signals/Short-Range Color Lights/Short Range Colour Light Signals
    - Short-Range Color-Light Signals [Vertical Type, Subway Type]
  - 2) Lens Arrangement Terms
    - Long Range Color Light Signals, Vertically Arranged/Type D Long Range Color Light Signals, Vertically Arranged/Type D (Vertical) Color-Light Signals/Type D Color Light
    - Horizontally Arranged Long Range Color Light Signals/Long Range Color Light Signals, Horizontally Arranged/Type E (Horizontal) Color Light Signals/Horizontal Color-Light Signal/ Horizontally Orientated Color-Light Signals
    - Triangular Arrangement Color Light Automatic Block Signals/Color Light Signals Arranged in a Triangle/Type G (Triangular) Color-Light Signals/Triangular Light Pattern/Triangular-Pattern Color-Light/Triangular-Pattern Color-Light Signal/Triangular Color-Light Cluster Type Signals/Cluster Type Four-Aspect Signals/Cluster



Colour-Light Signals

Colour-Light Signals Multi-Aspect Cluster

3) Morphology & Other Terms

Approach-Lit Color-Light System/Approach-Lit Mechanical Colour-Light Signals

Christmas Trees

Color-Light Automatic Block Signals/Color-Light Block Signals/  
Color Light Interlocking & ABS Signals

Colour-Light Route Indicator

Colourlight Signal-Underground Style

Colour Light Signal (Humping)

Colour Light Shunt Signal

Day Colour-Light Signal

Double Light Signal

Fairyland

Mechanical Color-Light Signals

Miniature Colour-Light Signals/Miniature Colour Light Signals

Three-Aspect Day-Time Colour-Light Signals

Type-D Color Light

US&S Color-Lights/Safetran (3-Light) Color-Light Signals/GRS

Color-Light/Raco Color-Light/GRS Triangular Color-Light/

GRS Triangular-Pattern Color-Light Signals

3B3 Searchlight Signals

General Note

Searchlight

Searchlight Signal

Search-Light Signal

Searchlight Type

Searchlight Type Signal

Search Light Signal

Search Light Type Signal

Searchlight Color Light Signal

Searchlight Type of Colorlight Signal/Searchlight Type Colorlight  
Signal

Searchlight Type Colour-Light Signals/Searchlight Type Colour Light  
Signal

Searchlight-Type of Color-Light Signal

Searchlight Type of Single-Lens Colour-Light

Colour Searchlight Signal

Color-Light Signal, Searchlight Type

Dwarf Searchlight Type/Dwarf Searchlight Signal

Color Light High Signal, Searchlight Type/Color Light Dwarf Signal,  
Searchlight Type

GRS Searchlight

Hall Searchlight

Hall-Type Colour-Light Signal

LEDS Searchlight Signal

Right-Hand Searchlight

Short-Range Signal

Single-Head US&S

Single Lens Searchlight Signal

Single Light Signal

Twin-Head Searchlight Signal/Twin Head Searchlight Signal

Two-Head Searchlight Signal

#### 3B4 Other All-Lighted Signal Terms

##### a) Single Lens Units: Morphological Dimension Frequently Present

##### 1) Terms Slightly More Morphological Than Physical

Marker

Marker Lamp

Marker Light

##### 2) Terms Somewhat More Morphological Than Physical

Automatic "A" Signal/ "A" Light/Illuminated "A" Light

"L" Light

Multiple-Aspect Light Signal

##### b) Dwarf Signals [Frequently Multiple Lens]

Dwarf Signals

Signal, Dwarf

Colour Light Dwarf Signal/Color Light Dwarf Signal

Dwarf Type Signal  
 Dwarf Signal-Electrical  
 Dwarf Searchlight Signal/Dwarf Colourlight Signal  
 Dwarf Colourlight Shunting Signal/Dwarf Colourlight Shunt Signal

c) Undifferentiated Physical Signal Terms

Auxiliary Signals  
 Back Light I  
 Back Light II  
 Back-Light/Backlight  
 Side Light  
 Flasher Lights  
 Flashing Lights (Signal)/Flashing Light Signal/Flashing Lights  
 Flashing Signals  
 Signal, Flashing Light  
 Revolving Light Signal  
 Fixed-Focus Signals  
 High Signal  
 Light Strip  
 Modular Unit  
 Multiple Unit Signal  
 Multiunit  
 Signal Lamps  
 LED Signals, Dorman (8 Forms)

3B5 Position Light, Color-Position Light, & Alphanumeric, Graphic & Geometric Signals

a) Position Light Signal Terms

General Notes I, II, III  
 Position Light/Position-Light  
 Position Light Signal/Position-Light Signal  
 Position-Light Type Wayside Signal  
 Beam-Light Signal/Beam Light Signal  
 Signal, Position Light  
 Daylight Position Light Signal  
 Position Light Signal (LR)

- Position Light Dwarf Signal
- Position Light Shunt/Position-Light Shunt Signal
- Position Light Humping Signal/Position Light Humping Speed Signal
- Ground Position Light Shunt Signal
- Hump Shunting Signal
- Position Light Junction Indicator
- Position Light Automatic Type
- Position Light Speed Signal/Toton Position Light Speed Signal
- Position Light Subsidiary Signal
- Position-Light System
- Pattern Indicator
- Pedestal Signal
- Subsidiary Signal
- Dwarf Light
- Dwarf Position Light
- Dwarf Position Signal
- Wing Lights
- b) Color Position Light Signals
  - General Note
  - Color Position Light Signal
  - Color-Position Signal
  - Color-Position-Light Signal
  - Signal, Color Position
  - Colour Position Light Signal
  - Color-Position-Light High Signal/Color-Position-Light Dwarf Signal
  - Color Position Light Dwarf Signal
  - Position-Color Light Signal
  - Color & Position Signal.
- c) Symbolic Signal Terms
  - General Note
  - 1) Multi-Lamp/Theatre Indicator
    - Multilamp Route Indicators/Multi-Lamp Route Indicator/Multi-Lamp/  
Multi-Lamp Seven-Way Route Indicator/Three-Way Theatre Route  
Indicator

Theatre Multi Lamp Route Indicator

Theatre-Type Route Indicator/Theatre Type Route Indicator

2) Stencil Indicators

Stencil Indicators/Stencil Type Indicators/Stencil Type-Indicator/

Stencil Route Indicator/Stencil Type Route Indicator/Stencil,

Number or Letter Type/Stencil [Type]

3) Other Indicators

Alphanumeric Route Indicator

Arrow Indicators/Single Arrow Indicator/Double Arrow Indicator

Fibre-Optic Route Indicator

Indicator/Indicator [Stencil] (Stencil)

Linear Indicator

Moving Slide Type Route Indicator

Preliminary Routing Indicator

Projector Type Route Indicator/Projector Type

3B6 Cab Signals Terms

a) Major Cab Signal Types

Cab Signal

General Note I, II, III

Cab-Signal

Automatic Cab Signal/Automatic Cab Signal System/Automatic

Cab Signal System (ACS)/System, Automatic Cab Signal

Automatic Cab-Signal System Continuously Controlled

Signal, Cab

Cab Signal System

Cab Signaling/Cab Signalling/Cab-Signaling/Cab Signalling System

General Note I, II

Cab-only Signals

b) Operational Terms-Cab Signals

Cabmatic

A-C./D-C Cab Signals//A-C./D.C. Coded Cab Signal System

CATC Cab Signals

Coded Continuous Cab Signal System/Coded Continuous Cab  
Signaling

- Continuous Cab Signal System
- Continuous Cab Signal/Continuous Cab Signaling/Continuous Cab/  
Continuous Cab Signalling
- Continuous Inductive Cab Signal/[Conductive Inductive Cab Signal]
- Continuous System of Cab Signalling/Continuously Controlled Cab  
Signals/Continuously Cab Signal System
- Continuous Controlled Cab Signal System
- Four-Aspect Coded 100Hz Cab Signal System/Four-Indication  
Code Continuous Inductive Cab Signaling/Four-Indication Code  
Continuous Cab Signal System
- Intermittent Cab Signaling/Intermittent Cab Signal System
- Multiple-Indication Coded Cab Signal
- Three-Speed Train Control Cab Signal
- Two-Indication Non-Code System [Cab Signal]/Three-Indication  
Non-Code Track & Loop System [Cab Signal]
- TVM 430 Cab Signalling System
- c) Partly Morphological Terms
  - General Note
  - Four-Aspect Cab Signal
  - Four-Aspect Cab Signal System
  - Four-Aspect System [Cab]
  - Four-Indication Cab Signal
  - Four-Indication Cab Signal System
  - Five-Aspect Cab Signal
  - Five-Aspect Cab Signaling
  - Multiple Aspect Cab Signal
  - Three-Indication Cab Signal
  - Two-Aspect Continuous Inductive Cab Signal
  - Two-Aspect, Three-Aspect Cab Signal System
  - Two-Indication Cab Signal
- d) Other Cab Signals
  - ACSES Cab Signal
  - Advance Cab Signal
  - Cab Light

- Cab Signal Indicator
- Cab Signal Subsystem
- Domestic Cab Signal Indicator
- Enforced Cab Signaling
- System of Cab Indicators
- Visual Cab Signals
- Wayside Cab Signal Equipment
- On-Board Cab Signal Equipment
- Visualizer

- e) Cab Signals with Sound Dimension [Primarily Acoustical Signal segment]
  - Indicator, Cab, Audible
  - Cab Indicators [Audible, Visual]
  - Cab Signal with Whistle & Acknowledger/Code Continuous Cab Signals with Whistle & Acknowledger

### 3B7 Partially-Lighted Signals: Semaphore

- a) Overarching Terms
  - Semaphore Signals/Semaphores
    - General Notes, I, II, III
  - Ancient Lights
  - Railway Semaphore Signals/Semaphore Railway Signals
  - Dwarf Semaphores/Dwarf Signals/Dwarf Type Signals
  - Fixed Semaphores/Fixed Semaphore Signals
  - Mechanical Signalling/Semaphore Mechanical Signalling
  - Mechanical Lower Quadrant
  - Non-visible Signals
  - Semaphore Lights
  - Semaphore Types
  - Signals, Semaphore
  - Visual Semaphore Signals
- b) Types of Semaphore
  - 1) Lower Quadrant & Upper Quadrant Signals
    - General Note
    - Lower Quadrant/Upper Quadrant/Lower Quadrant Semaphore/Upper Quadrant Semaphore/Lower Quadrant Signal/Upper

Quadrant Signal/Lower Quadrant Semaphore Signal/Upper  
 Quadrant Semaphore Signal/Upper-Quadrant Signal  
 Lower-Quadrant Signal/L-Q Semaphore  
 UQ Type Semaphore/U-Q Semaphore Type Signal  
 Left-Hand, L-Q Semaphore Signal/Left-Handed Upper-Quadrant  
 Semaphore/Left-Handed Semaphore  
 Modified LQ Signalling

2) Somersault Signals

Balance Arm Signal/Self-Balancing Somersault  
 Signal/Somersault/Somersault Pattern, Semaphore/Somersault  
 LQ Semaphore/Somersault Type Signal/Tumbler/Tumble Arm  
 Signal/Tumble-Arm Semaphore/Semaphore Somersault Signal/  
 U-Q Somersault/Somersault Home Signal/Centrally Balanced  
 Semaphore/Centre-Balance Signal/LQ Somersault Semaphore

c) Semaphores: Methods of Operation

General Note

All-Electric Semaphore/All-Electric Semaphore Signal  
 Electric Motor Semaphore Signals/Electric Motor Signal/Electric-  
 Motor-Driven Semaphore Signal/Electrically-Operated Semaphore  
 Motor-Driven Semaphore  
 Motor-Operated Semaphore  
 Motor Semaphore Signal  
 Lower-Quadrant All-Electric Semaphore/LQ Signal Electric Operated  
 Electro-Gas Semaphore/Electro-gas Signal/Electro-Gas Signal  
 Electropneumatic Lower-Quadrant Semaphore/Electro-pneumatic  
 Lower-Quadrant Semaphore/Electropneumatic Semaphore/Electro-  
 Pneumatic Semaphore/LQ E-P Semaphore/Electro-Pneumatically-  
 Semaphore/Pneumatic Power Signal  
 Oil-Lit Semaphore Signal/Oil-Lit LQ Stop & Distant Signal  
 Power-Operated Signal  
 Mechanical Dwarf Signal  
 Mechanical Ground Signal  
 Mechanical Lower-Quadrant Semaphore  
 Mechanical Operated Semaphore Signal



Mechanical Semaphore  
 Mechanical Signal  
 Mechanical UQ Signals  
 Manually-Operated L-Q Semaphore Stop Signal  
 Manually-Operated Semaphore  
 Base-of-Mast Mechanism/Base-of-Mast Mechanism Semaphore/  
     Base-of-Mast Semaphore/Top-of-Mast Semaphore/Top-of-Mast  
     Mechanism Semaphore  
 Pneumatic Semaphore  
 Semaphore-Left of Mast/Semaphore-Right of Mast  
 d) Semaphores: Morphologically-Related Terms  
     General Note  
     Automatic Block Semaphores/Automatic Block Semaphore Signals  
     Two-Arm, Two-Position Mechanism  
     One-Arm, Three Position Mechanism  
     Three-Position Electro-Pneumatic Semaphore  
     Home Electro-Pneumatic Semaphore Signal  
     Distant E-P Semaphore Signal  
     Distant Semaphore  
     Five-Arm Lower-Quadrant Semaphore  
     Home Semaphore  
     Limited Clear U-Q Signal  
     Lower Quadrant Block Semaphore  
     L-Q Distant Signal  
     L-Q Stop Signal  
     One-Arm Two-Position Signal  
     One-Arm Two-Position-LQ-Signal  
     One-Arm Two-Position UQ Dwarf Signal  
     One-Arm Signal  
     One-Arm Mechanical Ground Signal  
     One-Blade Lower-Quadrant Signal  
     Pneumatic Block Semaphore  
     Semaphore Distant Signal  
     Semaphore Manual Block

Semaphore Running Signal  
Semaphore Shunt Signal  
Semaphore Stop Signal  
Semaphore-Type Automatic Block Signal  
Single-Arm Upper-Quadrant Semaphore  
Stop Semaphore  
Two-Arm Mechanical Ground Signal  
Three-Position Lower-Quadrant Semaphore  
Three-Position Slotted-Mast Semaphore  
Three-Position Upper Quadrant  
Three-Position Upper Quadrant Signal  
Three-Position Upper-Quadrant Semaphore/Three-Position Upper  
    Quadrant Signal/Three-Position Upper Quadrant Type  
Three-Position Semaphore Signal  
Two-Position Lower-Quadrant Semaphore  
Two-Position Semaphore  
UQ Splitting Signal  
Upper Quadrant Two-Position  
US&S Style-B Lower-Quadrant Block Signal  
Three-Arm Signal  
Three-Aspect Semaphore  
Three-Blade Semaphore/Three-Blade Upper-Quadrant Semaphore  
Three-Position Semaphore Block Signal  
Two-Position Semaphore Upper Quadrant  
Three-Position Semaphore Upper Quadrant  
Three-Position U-Q Semaphore Signal  
Twin-Arm Lower-Quadrant Semaphore  
Two-Arm E-P Dwarf Signal  
Two-Arm Signal  
Two-Arm Two-Position Signal/Two-Arm Two Position Signal  
Two-Arm Two Position LQ Signal  
Two-Aspect Upper Quadrant  
Semaphore Distant  
Semaphore Running Signal  
Semaphore Shunt Signal

- Multi-Aspect Upper Quadrant/Multiple-Aspect Upper Quadrant
- e) Semaphores: System-Related Terms
  - General Note
  - Automatic Block Semaphore/Automatic Block Semaphore Signal
  - Automatic Motor-Operated Semaphore
  - Automatic Semaphore
  - Automatic Semaphore Signal
  - Automatic Three-Position Upper Left-Hand Semaphore Signalling
  - Semaphore Automatic Block
  - Semi-Automatic Electro-Pneumatic Distant Semaphore
  - Upper Quadrant Automatic Signal
- f) Other Semaphore Terms [DB-RR 2009: Other Forms]
  - Back Light
  - Backing Signal
  - Banner Repeater
  - Co-Actors
  - Day Signal
  - Display Board
  - Double Arm Semaphore/Double Arm Station Semaphore
  - Electric Semaphore
  - Equal Balanced Bracket Signal/Balanced Bracket Signal/Three Doll  
Balanced Bracket Signal/Two-Doll Balanced Bracket Signal
  - GRS Model 2A Semaphore/GRS Model 2A Upper-Quadrant/  
Model 2A Upper-Quadrant Signal/GRS Model 2A Lower-  
Quadrant/GRS Model 2A Dwarf Semaphore
  - Hall Style-K Upper Quadrant Semaphore/Hall Lower-Quadrant  
Semaphore
  - Hudson Type of Semaphore
  - Illuminated Semaphore
  - Lartigue Signal
  - Left-Handed Semaphore
  - Miniature Semaphore Signal
  - Miniature Repeater Semaphore (Co-Acting)
  - Miniature Arm Signal/Miniature Semaphore Signal

Model 2A Upper Quadrant Semaphore  
 Parabolic Semaphore Signal  
 Upper Left-Hand Quadrant Semaphore Signal  
 Repeater  
 Semaphore Position-Type Signal  
 Single Arm Semaphore  
 Slotted-Post Semaphore  
 Slotted Post  
 Smash Board  
 Station Semaphore/Station Semaphore Signal  
 Style-B Signal  
 UQ Pipe-Operated Dwarf Signal  
 US&S Style-B Semaphore/US&S Style-B Lower-Quadrant Semaphore/  
   US&S Style-B Lower-Quadrant/US&S Style-B Lower-Quadrant  
   US&S Semaphore/US&S Style-B Signal/US&S Style-B Lower-  
   Quadrant  
 US&S Style-S Semaphore/US&S Style-S Upper-Quadrant Semaphore  
   Signal/US&S Style-S Upper-Quadrant/US&S Style-S Upper-  
   Quadrant  
 US&S Style-T Semaphore/US&S Style-T-2/US&S Style-T Upper  
   Quadrant/US&S Style-T Upper Quadrant Signal  
 US&S Lower-Quadrant Semaphore/US&S Lower-Quadrant Signal

### 3B8 Partially-Lighted Signals: Signal Boards, Disc Signals & Other Signals

#### a) Signal Boards

##### 1) Overarching Terms & Terms in Other Languages

General Note

Signal Board

Board

Board Signal

Form Signal

Klapbord

Pantella

Rotating Vane

Target Signal

Vane Signal

2) Specific Board Terms

Mechanical Signal Board  
 Perforated Board Signal/Perforated Board  
 Pivoted Board/Pivoting Board Signal  
 Quarter-Rotating Chequer-Board/Chessboard  
 Revolving Board  
 Revolving Board & Lamps

b) Disc Signals

General Notes

Disc I, II, III, IV, V

1) Disc Signals Containing the Word Disc

Automatic Enclosed Disc Signal/Enclosed Disc Signal  
 Banjo  
 Banjo Signal  
 Bracketed Disc  
 C.I. Pillar Disc  
 Compound Ground Disc  
 Disc/Disc Signal  
 Disc & Crossbar/Disc & Crossbar Signal/Disc-&-Crossbar Signal  
 Disk Signal  
 Double Disc/Double Disc Signal/Double-Disc Signal  
 Double Disc & Crossbar Signal  
 Dwarf Signal/Three-Position Dwarf/Two-Position Dwarf Signal  
 Enclosed Disc/Enclosed Disc Signal  
 Exposed Disc Clockwork Type Signal  
 Floodlit Ground Disc/Flood Lit Disc/Flood-Lit Disc/Floodlit Disc  
 Signal/Floodlit Disc  
 Gallows Type of Signal (Disc)  
 Ground-Level Dwarf Signal  
 Ground Disc/Ground Disc Signal  
 Half-Open Disc Signal  
 Hall's  
 Hall Disc/Hall Disc Signal/Hall's Enclosed Disc

- Hall Signal
- Independent Disc
- Martin Disc Signal
- Mechanical Disc
- Mechanical Revolving Disc Signal
- Pattern Ground Disc
- Power-Operated Disc
- Revolving Disc Signal/Revolving Disc
- Tommy/Tommy Dodd
- U.Q. Power Worked Dwarf Signal
- 2) Banner Signals [Exposed Disc Forms Under the Banner Name]
  - Banner
  - Banner Clockwork Signal
  - Banner Signals
  - Banner Box Signals
  - Banner Box Type (Ireland Signal)
  - Banner Box Type Signal
  - Banner Clockwork Type
  - Banner Repeater Signal
  - Banner Type Signal/Banner-Type Signal
  - Banner Type Train Order Signal
  - Box Type Train Order Signal
  - Clockwork Exposed Disc Signal
  - Clockwork Signal
  - Exposed Banner Clockwork Type Signal
  - Ireland Banner Box Type Signal
  - Revolving Banner Signal/Rotating Banner Signal
  - Top-of-Mast Exposed Banner Signal
- c) Morphological-Related Terms
  - General Note
  - 1) Switch Signals
    - Dodson Switch & Signal/Dodson Switch & Signal Lamp
    - Electric Switch Lamp/Electric-Light Switch Light
    - Electric Switch

- Kerosene Switch Lamp
- Lamp, Switch; Electric
- Oil-Burning Switch Lamp
- Oil-Lamp
- Oil-Lighted Switch Lamp
- Oil Switch Lamp
- Reflecting Switch Lamp/Reflex Switch Lamp/Reflex Lens Switch Lamp
- Switch Dwarf Signal
- Switch Indicator
- Switch Lamp
- Switch Light
- Switch Signal
- Switch Stands
- 2) Points Indicators
  - Catch Point Disc/Point Disc
  - Catch Point Indicator
  - Ground Indicator
  - Mechanical Indicator
  - Mechanical Points: Arrow Type; Disc Type Arrow Type;
  - Points Indicator
  - Points Indicator - Arrow Type
- 3) Route Indicators
  - Mechanical Route Indicator
  - Morse & Berry Type Route Indicator
  - Moving Slide Type - Route Indicator
- 4) Other Morphological Signal Terms
  - Clockwork Automatic Block Signal
  - Clockwork Enclosed Disc Type Electric Automatic Signal
  - Clockwork Signal Exposed Disc Form & Automatic Block Signal
  - Gasset & Fisher Clockwork Exposed Banner Type of Automatic Block Signal
  - Disc Shunt
  - Disc Shunting/Disc Shunting Signal
  - Floodlit Disc Shunting Signal

- Home & Distant Banjo Type of Disc Signal
- d) Other Signals [Other Forms]
  - 1) Crossbar Signals
    - Cross Bar & Lamp
    - Crossbar Signal
    - Double Discs & Cross Bar
    - Flap Signal
    - Tilting Crossbar Signal/Tilting (Crossbar) Signal
  - 2) Flag Signals
    - Automatic Flagman
    - Fantail Signal
    - Flag
    - Kite Signal
    - Flag Signal
    - General Note
    - Pivoted Flag
  - 3) Lighted Signs & Boards
    - General Note
    - Caution Board
    - End of Shunt Sign
    - Indication Board
    - Lineside Board
    - Marks & Markers for Japan [Selected Entries]
    - Shunting Limits Board
    - Temporary Speed-Reduction Board
    - Train-Order Board
  - 4) Track Indicators
    - General Note
    - Block Indicator
    - Motor Car Indicator
    - Switch Indicator
    - Track Car Indicator
    - Track Occupancy Indicators
    - Track Indicators



- Track Side Warning Indicator
- Train Approach Indicator
- 5) Miscellaneous Signals
  - Ball
  - Ball Signal
  - Basket Signal: Station Signal/Junction Signal Crossing Signal/  
Drawbridge Signal
  - Bezer Rotating Signal
  - Gate Signal
  - Ground Signal
  - Highball Signal/High-Ball Signal
  - Indicator Lantern
  - Lamp
  - Multiple-Ball Signal
  - Pot Signal
  - Railroad Grade Crossing Targets
  - Smash/Smashboard Signal
  - Tiltboard Signal
  - Trip's Improved Railway Signal
  - Two-Colour Oil Lamp

## General Notes:

The Sub-chapter of 3B includes an extensive range of signals both fully-lighted and partially-lighted. Other segments included within Railway Signals, Signs, Marks are reviewed separately.

## Specific Remarks:

There are divergencies between CCI 2006 and DB-RR 2009 for Overarching terms. Color Lights (multiple lenses) include a variety of changes between CCI and DB-RR. Color Light is found in CCI but not in DB-RR. It is uncertain whether Multi-head or Multiple is the correct term.

Lens arrangements are similar in most instances though limited differences can be found. Confusion is present when terms of a limited differences are in use.

Morphological and other terms are nearly identical except that terms employing brand-names are not in DB-RR.

Searchlight Signal terms under basic designations are similar. More specialized terms include divergencies. DB-RR includes terms that are lacking in CCI.

DB-RR includes LED signals and Dorman forms (8) in alphabetical index and text but not in category index.

Position and Color-Position Signals are very similar save two Dwarf Position forms that are not in Position-Light. Symbolic Signal terms and other Indicators include several changes. Multi-Lamp and Multilamp terms require review.

Cab Signal terms include many terms with a high level of consensus. Differences include Continuous Cab Signal or Signaling. The term Conductive Inductive Cab Signal is an error that is found in DB-RR. DB-RR adds one additional four-aspect signal, term and "Domestic Cab Signal Indicator."

3C Unlighted Visual Devices

3C1 Unlighted Fixed Devices with Constant Messages

General Note

a) Overarching Terms

- Fixed Indicators
- Fixed Signs
- Instructional Signs
- Line Sides
- Signs
- Signs & Markers
- Signposts
- Trackside Indicators
- Trackside Signs
- Track-Signs

b) Location Signs

- Location Signs
- Corporation or Other Political Subdivision Signs
- Mile Post Signs
- Standard Right of Way Signs
- Subdivision Signs
- Tresspass Signs
- Tresspass-Right of Way Sign/Tresspass Bridge/Tresspass-Crossing Signs
  - Railroad Property - Trespassing Forbidden Under Penalty
  - Danger Do Not Tresspass on the Railroad
- Valuation Section Sign

c) Transportation Signs

1) Speed Control Signs

(a) Speed Control & Restriction Signs

- General Note I, II
- Advance-Warning Sign/Advance Warning Sign
- Reduce Speed Sign
- Resume Speed Sign

- Retro-Reflective (Road Traffic Type) PSR Sign
- Speed Control Signs - Temporary & Permanent
- Speed Limit - Permanent Sign/Speed Limit - Temporary Sign
  - Speed
  - Slow
  - Resume
- Temporary Reduce, Slow & Resume Speed Signs
  - Reduce Speed Sign
  - Slow Sign
  - Resume Speed Sign
- (b) UAR Speed Signals (=Signs)
  - General Note
  - Speed Restriction Signals
    - Start of Speed Restriction Signal
    - End of Speed Restriction Signal
- (c) Speed Zone Signs
  - Speed Zone Sign
  - Speed Restriction Warning Signal
  - Restricting Sign
  - Resume Speed Sign
  - Indicator
    - Fixed Indicator
    - Sign for Day Running
    - Warning Sign/Commencement Sign/Termination
  - Arrows
  - Line Indicator
  - Line Speed Indicator
  - Speed Indicator
  - Temporary Speed Restriction Indicator
    - Commencement Indicator
    - Speed Restriction Board
    - Speed Indicator
    - Termination Indicator
  - “Z” Board/“R” Board

- Speed Restriction Signs - Temporary
- Speed Restriction Sign
- Senal Indicadora de Velocidad Limitada/De Fin Senal Indicadaro de Velocidad
- (d) Other Speed Signs
  - Curve Speed Signs
  - Permanent Slow Speed Sign
  - Temporary Slow & Release
  - Proceed Prepared to Stop Sign
  - Zone Speed Sign
- 2) Location Signs
  - (a) Advance Location Signs
    - General Note
    - Railway Grade Crossing Signs
    - Drawbridge Signs
    - Tunnel Signs
    - Junction Signs
    - Rock Slide Signs
    - Snow Slide Signs
    - Station Signs
    - Station Name Signs (UAR)
  - (b) Limit & Location Signs
    - General Note
    - Yard Limit Signs
    - Switching Limit Signs
    - Signal Territory Limit Signs
    - Station Location Signs
    - Derail Location Signs
    - Track Capacities Signs
    - Water Station Limit Signs
    - Fuel Station Limit Signs
    - Cinder Station Limit Signs
    - Blind Siding Signs
    - Cut Section Signs

## (c) Territory Limits Sign

General Note

Territory Limit Signs

Begin CTC Sign/End CTC Sign

CTC

Begin

End

Begin Cab Signal/Territory/End Cab Signal Territory

Begin TCS Sign/End TCS Sign

End of Signal Territory Sign

End of Block Sign/Block-Limit Term Sign

End of Track Circuit Sign

Automatic Block Signs

Start Automatic Block Signs

End Automatic Block Signs

Remote Control Signs

Begin Remote Control Signs

End Remote Control Signs

Double Track:

Beginning of Double Track Sign/End of Double Track Sign/

Double Track

Begin Rules 400-406/End Rules 450-453

Begin Rules 450-453/End Rules 450-453

Approach Block Limit Sign/ABL Signs

## c) Maintenance of Way Signs

General Note

Alinement Signs or Markers

Bridge Sign/Bridge Number Signs

Curve &amp; Elevation Signs

Elevation Markers

End of Shunt Signs

Flanger Signs

Maintenance Limits Signs

Roadway Structures Signs

- Snowplow Sign
  - Raise Snowplow Signs
  - Lower Snowplow Signs
- Token Block Working Signs
- Way Marker
- d) Safety Signs
  - General Note
  - Electrical Hazard Signs
  - Fire Hazard Signs
  - Highway Grade Crossing Signs
  - Barricade Signs
  - Highway & Barricade Signs
  - Power-Operated Switch Signs
  - Restricted Clearance Signs
  - Warning No Clearance for Man on Side or Top of Car Signs
  - No Clearance Signs
- e) Marks & Markers
  - Markers
    - Marker (Board)
    - Alinement Markers
    - Auxiliary Markers
    - “C” Markers/“S” Markers
      - General Note
      - “C” Markers
      - “S” Markers
  - Clearance Marks
  - Diamond Shaped Markers
  - Distance Markers
  - Elevation Markers
  - Fixed Markers
  - Landmarks
  - Lineside Markers
  - Marks & Markers for Japan:
    - General Note

- Repeater Signals
- Train Stop Sign Markers/Car Stop Markers
- Shunting Signal Markers & Shunting Sign Markers
- Switch Target
- Sudden Release Shunting Sign Marks
- Trolley Wire Dead Section Indicators
- Trolley Wire Electric Source Sign Markers
- Route Electric Source Sign Markers
- One Stop Sign Markers
- Clearance Posts
- Whistle Sign Markers
- Buffer Stop Indicator
- Marks:
  - Route Identification Marks
  - Slow Speed Release Marks
  - Signal Aspect Confirmation Position Marks
  - Power Drive Marks
  - Coasting Marks -- AC & DC
  - Signal Alarm Marks
  - Station Approach Marks
  - Tablet Carrying Marks
  - Train Stop Position Marks
  - Electric Train Section Marks
  - Monument Markers
  - Reflective Marker Boards
  - High Speed Marker Boards
  - Selection Entrance Markers
  - Signal Marker Boards
  - Spring Switch Markers/Spring Switch Signs
  - Wayside Markers
  - Wing Markers
- f) Boards & Posts
  - General Note
  - Advance Warning Boards



Baak  
Board  
Boundary Marker/Boundary Post/Boundary Stone  
Caution Boards  
Countdown Marker Boards/Countdown Board  
Distant Warning Board  
Fixed Signal Board  
Flag Board/Metal Flags  
Indicating Boards  
Indication Boards  
Lineside Boards  
Marker Boards  
Mechanical Signal Boards  
Mile Boards  
Name Boards/Nameboards  
Notice-Boards  
Number Boards  
Order Boards  
Permanent Speed Restriction Boards/Permanent Speed-Restriction  
Boards  
Permanent Warning Boards  
“R” Board/“Z” Boards  
Radio Channel Change Boards/Radio Channel Indicator  
Reflectorized Distant Boards/Distant Board/Fixed Boards  
Resume-Speed Board (Temporary)/Resume-Speed Boards  
(Permanent)/Advance Warning Board  
Shunting Limits Boards  
Signal Boards  
Slow Boards  
Speed Boards  
Start of Section Boards/End of Section Boards  
End of Section Marker Boards  
Sighting Boards  
Signal Warning Boards

Starting Signal Notice Boards  
Station Limit Boards  
Station-Name Boards  
Train Clear of Passing Loop Indicator/Advanced Starting Loop Clear  
Signal  
AWS Cancelling Indicator  
End of Token Section Proceed if Platform Clear Board  
Temporary Warning Board  
Temporary Outer Speed Board/Temporary Inner Speed Board/All  
Trains Stop Board  
Train Order Board  
Terminating Board  
Stop Board  
Stop Indicator  
Temporary Speed-Reduction Board  
Warning Board  
Watering Board  
Whistle Board  
Yard Limit Board  
“Y” Board  
Block Posts  
Clearance Post  
Curve & Elevation (Posts)  
Elevation Posts/Full Elevation Posts/Zero Elevation Posts  
Gradient Boards  
Gradient Posts  
Marker Posts  
Mile Posts  
Permanent Whistle Post/Temporary Whistle Posts  
Property Line Posts/Property Posts  
Section Posts/Sub-section Posts  
Signposts  
Whistle Posts

g) Plates & Flags

- “A” Plate
- Alias Plate
- Car Stop Plate
- “F” Plate/Nf Plate
- Identification Plate
- Identifying Plate
  - Track Circuits
  - Fireman’s Call Plunger Plate
  - Telephone Plate
- Identify Plate
- Letter Plate
- Marker Plate
- Name Plate/Plate, Name
- Plate, Number/Number Plate
- Rule 55, Exempt Indicator Plate
- Signal Background Plate
- Signal Identification Plate
- Signal Mounted Plate
- Signal Number Plate
- Station Nameplate
- “T” Plate
- Flags:
  - General Note
  - Flags
  - Flagboards
  - Metal Flags
  - Flag Signals
  - Blue Flag Devices
  - Portable Blue Flag
  - Power Blue Flag
  - Derail Blue Flag
  - Chock Flag
- h) Other Devices (Other Forms in DB)
  - 1) Overarching Terms

- General Note
- Trackside Signs
- Lineside Signs
- Fixed Signs
- Roadway Signs
- Signs
- Signpost
- 2) Blue Flags
  - General Notes
  - Derail
  - Stop
  - Stop (Portable)
  - Camp Cars
  - Alto
  - Danger Men Working on This Track
  - Danger Tank Car Connected
  - Stop Tank Car Connected
- 3) Electric Traction Signs
  - General Note
- 4) Miscellaneous Signs
  - Approach Signs
  - Checquered Signs
  - Number Plate
  - Signal-Not-In-Use Sign
  - Revolving Stop Sign
  - Stop Sign
- 3C2 Targets
  - General Notes I, II, III, Iv
  - a) Overarching Terms
    - Target
    - Switch Stand Target
    - Switch Target
    - Illuminated Switch Target
  - b) Morphological-related Terms

## General Note

## 1) Shape Targets

## General Note

Arrow-shaped Vanes (9 forms)

Obround-shaped Vanes (3 forms)

Rectangle-shaped Vanes (4 forms)

Obround Vanes (4 forms)

Other Shapes (6 forms)

## 2) Color &amp; Position Targets

## General Note

## 3) Terms Relating to Railroad Functions

Blind Target

Main Track Switch Target

Siding Yard Switch Target

Siding Derail Target/Siding Derail Target

Yard Switch

## c) Other Targets

Day Targets

Main Line Switch Signal

Target Stands

Switch Target Reflector Type/Reflectorized Target/Reflector Target

Targets Whose Titles Refer to Height:

Low Target

Low Revolving Target

Intermediate Target

High Switch Target

High Target

## d) Switch Stands

## General Note

Automatic Safety Lock Switch Stand

Automatic Safety Switch Stand

Automatic Stand

Automatic Switch Stands

Column-Throw Stand

Derail Switch Stand/Derail Stand  
Double Stand  
Dwarf Stand  
Enclosed Geared Type Parallel Throw Switch Stand  
Gearless Switch Stand  
Ground Throw Stand  
Ground-Throw Switch Stand/Ground Throw Switch Stand  
Hasty Triple Stand  
High Banner Two Tie Switch Stand/Low Banner Two Tie Switch  
Stand  
High Switch Stand  
Hub Safety Automatic Switch Stand/Hub Switch Stand  
Intermediate Stand  
Low Stand  
Low Switch Stand  
Main Line Safety Switch Stand/Mainline Safety Switch Stand  
Main Line Switch Stand  
Parallel-Throw Switch Stand  
Stone Drum Switch Stand  
Pony Stand  
Positive-Action Switch Stand  
Steelton Switch  
Switch Stand, Parallel Throw  
Three-In-One Automatic Switch  
Yard Switch Stand

## General Notes:

Unlighted Fixed Devices with Constant Messages (3A1) is a lengthy segment with a high level of consensus. Most divergencies are in Boards and Posts.

## Specific Notes:

Overarching segment was not in CCI 2006 nor in DB-RR 2000. The ten terms of OA include several terms (one from Speed Control, and three from Other Terms). The most frequent sources for the 10 terms are ERS-H 1995, and RONT 2001.

Location signs are identical in CCI 2006 and DB-RR 2009.

Most segments in Transportation terms are marked by a high level of consensus. Two differences are found in Speed Control: Speed Restriction Warning Sign (found in DB-RR 2009) and Speed Indicator (not in DB-RR).

Maintenance of Way Signs, Safety Signs, Marks & Markers segment are the same in CCI 2006 and DB-RR 2009

Boards & Posts: DB-RR includes Name Boards but not Nameboards. DB-RR includes Advance Warning Boards; CCI omits it. Mechanical Signal Boards, Station-Name Boards, Marker Posts are not in DB-RR

Gradient Posts are in CCI and DB-RR. However, Gradient Boards are lacking in CCI. It is now included.

Plates & Flags: Power Blue Flags not in DB-RR. Alias Plates are in DB-RR but not CCI. It is now added for CCI '12. Other Devices (miscellaneous): Revolving Stop Sign, and Stop Sign are not in DB-RR.

Targets (3C2) manifest a strong consensus. Only two differences are present: Derail Stand and Hub Safety Automatic Switch Stand. Neither is in DB-RR.

## 3D Acoustical &amp; Radio Signals

## 3D1 Acoustical Signals

## a) General Note &amp; Overarching Terms

- Acoustic or Audible Signals
- Audible Danger Signals
- Audible Signalling Devices
- Audible Warning Systems
- Railway Sound Signals/Rail Sound Signals

## b) Explosive Signals

- All-Weather Fuzees
- Audible Signal [=Explosive; possible OA terms]
- Banger/Cracker
- Clayton's Automatic Detonator Placer
- Clayton Fogging Machine
- Detonating Fog Signal
- Detonating Signal
- Detonator
- Detonator Container/Detonator Box/Detonator Case/Detonator Holder/Detonator Tin
- Detonator Machine
- Detonator Placer
- Detonator Signal
- Duplex Fog Signal
- Fog
- Fog Detonator
- Fog Repeater
- Fog Signal [Also possible OA]
- Fogger
- Fogging Lever Frames
- Fogging Machine
- Fusees
- Non-Optical Signal
- Torpedo



- Torpedo Signal
- Tube Detonator/Open Section Detonator
- c) Level/Grade Crossing Sound Signals
  - Audible Automatic Warning Devices
  - Audible Warning Devices
  - Audible-Pedestrian Devices
  - Automatic Bell
  - Bell
  - Bell, Gong
  - Bell, Single Stroke
  - Bell, Vibrating
  - Crossing Alarms
  - Crossing Bells
  - Double Gong Highway Crossing Bell
  - Electrically Actuated Bell
  - Electronic Bell/Electronic Warning Bell
  - Enclosed Crossing Bell
    - Iron Case, Enclosed Crossing Bell
    - Enclosed Water Tight, Low & High Voltage Highway Crossing Bell
  - Enclosed Type Gong
  - Grade Crossing Alarm
  - Highway Crossing Bell/Bell, Highway Crossing
  - Highway Crossing Bell-Electronic/Highway Crossing Bell-Electro-Mechanical
  - Highway Crossing Signal
  - Hoeschen Crossing Signal/Hoeschen Bell System
  - Locomotive Type Crossing Bell
  - Motor Driven Locomotive Type Bell
  - Pedestrian Crossing Bell
  - Railway Crossing Bells
  - Road Crossing Signal
  - Skeleton Bell
  - Sound-Bell/Sound Bell
  - Vibrating Bell/Bell Vibrating

- Warning Bell
- Whistle Signal
- d) Cab & Train Control Sound Signals
  - General Note
  - Cab Signal, Audible
  - Cab Signal-Sound
  - Audible Cab Signal/Audible Cab-Signal
  - Audible Cab Signalling/Audible-Cab Signalling
  - Audible Cab Indicator/Indicator, Cab; Audible
  - Audible Frequency Cab Signal
  - Audible Indicator
  - Audible Signal
  - Bell & Siren Unit
  - Cab Alarm
  - Cab Indicator
  - Cab Whistle
  - Code Continuous Cab Signal with Whistle & Acknowledger
  - Indicator, Cab; Audible
  - Klaxon
  - Reliostop
  - Warning Hooter
  - Warning Whistle/Whistle
  - Whistle Signals
- e) Other Sound Signals [Other Forms]
  - Bell [Switch Indicator]
  - Fog Gong
  - Rail Sound Signals
  - Siding Bell Box
  - Staff Warning System
    - Inductive Loop Warning Systems (ILSW)
    - Movable Automatic Warning Devices
    - Non-optical Signals [Sound dimensions]
  - Track Crew Warning [Sound dimension]
  - Track Indicators [Sound dimension present]

## Train Operation Warning System (TOWS)

## 3D2 Radio Signals

## a) Overarching Terms

- Electronic Signalling
- Radio Signalling
- Radio/Electronic Token
- Electronic Token
- Electronic Token System
- Radio-Based Token System
- Radio Block
- Radio Block System
- Radio Electronic Token Block (RETB)
- Radio Electronic Token System
- Radio Token Block
- Radio Token Block System
- Radio Token Equipment
- Radio Token System
- Radio Tokenless Block
- RETB System
- Token Block

## b) Satellite Systems

- GPS/NAVSTAR GPS/GPS Technology
- Sat-Guidance System/Sat-Based Guidance System

## c) Other Radio Signals

- Beacon/Euro-Balise Beacon
- Euro-Radio
- Radio-Shunting
- Raliophone
- Transponder
- Wireless Signal System

**General Note:**

3D encompasses a wide range of sound devices as well as a limited range of radio aids. Differences between CCI 2006 and DB-RR 2009 are relatively limited though this is less the case with radio aids.

Overarching terms are identical.

**Explosive Signals:** All-weather Fuzees and Fusees are found in DB-RR but located in Other Sound Signals for CCI. DB-BB adds Cracker to Banger though omitted in CCI.

**Level/Grade Crossing Sound Signals:** A variety of signals are absent in DB-RR: Audible Warning Devices, Electrically Actuated Bell, Motor Driven Locomotive Type Bell, Pedestrian Crossing Bells, Railway Crossing Bells, Warning Bell, Whistle. DB-RR also contains entries lacking in CCI: Bell, Vibrating, Hoeschen Crossing Signal/Hoeschen Bell System, Road Crossing Signal

**Cab & Train Control Sound Signals:** Audible Cab Signal, Audible Cab-Signal, and Audible Frequency Cab Signal are not in DB-RR. However, Audible Signal is included in DB-RR but omitted in CCI. Indicator, Cab: Audible is given as Indicator Cab; Audible in CCI.

**Other Sound Signals:** DB-RR lacks three terms found in CCI: Non-optical Signals, Rail Sound Signals, and Siding Bell Box. Staff Warning System has become fragmented in CCI 2006. DB-RR has organized the elements according to this pattern: Inductive Loop Warning Systems (ILSW), Movable Automatic Warning Devices, Train Operation Warning System (TOWS).

**Radio Signals** follows a unitary configuration for the three segments found in CCI. Radio/Electronic Token is not in DB-RR. System is omitted with Radio Electronic Token. DB-RR includes several terms not found in CCI: Transponder, Radio Token Equipment, Radio Token Block System, Radio Token System.

## 3E Level/Grade Crossing Signs, Signals, Markers &amp; Other Forms

General Note

## 3E1 Integrative LC/GC Terms

Active Warning Devices

Automatic Safety Installations for Level Crossings

Automatic Controlled Level-Crossing Protection/Automatically  
Controlled Level-Crossing (Grade Crossing) Protection

Bells

Flashing Lights

Automatic Devices

Automatic Level Crossing Protection

Automatic Protection

Automatic Signal Devices

Automatic Warning System/Automatic Warning Devices

Conventional Track Circuit-Operated Level Crossing Approach

Warning System

Crossing Device

Crossing Protection

Crossing Warning Device

Crossing Warning System

Electric Flagman

Four-Quadrant Grade-Crossing Gates

Grade Crossing Warning Systems

Highway Crossing Alarm

Highway Crossing Protection/Highway-Railroad Crossing Protection

Automatic Bells

Flashlight

Gates

Wig-wag

Highway Crossing Signal

Highway Crossing Warnings &amp; Controls

Cantilever

Gates

- Lamps
- Highway Grade Crossing
  - Signs
  - Signals
  - System
  - Warning Devices
- Highway Grade Crossing Protection
- Highway Grade Crossing Warning Devices
- Level Crossing
- MWL Crossing
- Power-Worked MCB
  - Audible Warning Devices
  - Barriers
    - “Manned” Barriers
  - Traffic Lights
- Railway Crossing Safety Aids
- Seismic Based Train Actuated Approach Warning at Level Crossing
- The Orion - 300 Level Crossing Approach Warning System
- 3E2 Lighted LC/GC Signals
  - Advance Warning Signals (Highway Crossing)
  - AGA Highway Danger Signal/AGA Two-color Highway Danger Signals
  - Automatic Flashing Lights
  - Automatic Signal Devices
  - Barrow Crossing Warning Indicator
  - Cantilever Signal
  - Color-Light Highway Signal
  - Crossing Signal
  - Crossing System
  - Flashlights/Flash Light Signals/Flashlight Signals
  - Flashing-Lights/Flashing Lights
  - Flashing Lights, Automatic Gates & Ringing Bells
  - Flashing-Light Crossing/Flashing-Light Crossing Signal
  - Flashing Light Highway Crossing Signals

Flashing Light Signals/Flashing-Light Signal  
Flashing Light Type  
Flashing Signals & Crossing Gates  
Grade-Crossing Flashers & Crossbucks  
Grade Crossing Signal/Grade Crossing Signaling  
Grade-Crossing Protection  
Grade-Crossing Warning  
Highway Approach Signal  
Highway Crossing Signal/Signal, Highway Crossing  
Highway Grade-Crossing Protective Signals  
Highway Grade Crossing Warning Devices  
Hoeschon Crossing Signal  
Miniature Warning Lights (MWL)  
Miniature R/G Warning Lights  
Railroad/Highway Grade-Crossing Protection/Railroad-Highway  
Grade-Crossing Protection  
Railroad-Railroad Grade Crossing Signals  
Railway Grade-Crossing Signals  
Highway Signals  
LED Highway Crossing Lamp  
LEX-C Highway Grade Crossing Flashing Light Units  
Level Crossing-Flashing Light Signals  
Level Crossing Signals  
Level Crossing with Flashing Light Signals  
Level Crossing with a Signal System to Give Warning of the Approach  
of Trains  
Luminous Signals  
Passive Warning Devices  
Protective Crossing  
Protective Devices  
Signals for Tramway Level Crossing  
Signal, Flashing Light  
Signal, Highway Crossing  
Pre-Warning Signals

- Train-Activated Warning Devices
- Tram Crossing Signals
- Visible Warning Signals
- Visual Grade-Crossing Warning
- Warning Devices
- Warning Systems
- Wig Wag
- Wig Wag Crossing Signal
- Wig Wag Grade-Crossing Protection
- Wig-Wag Signals
- Wig Wag Systems
- Wig Wag Type

### 3E3 Barriers & Gates

#### a) Barriers, Full Gates, & Gates

- Automatic Barrier Crossing Locally Monitored
- Automatic Gates
- Automatic Lifting Barrier
- Barriers
- Barriers Type Protection
- Boom Gates
- CCTV Monitored Remote Barrier Crossing
- Crossing Gates
- Electrically Operated Lifting Barrier
- Electro-Hydraulic Pedestrian Barrier
- Full Barrier
- Grade-Crossing Gates
- Level Automatic Barriers
- Level Automatic Open Crossing
- Level Crossing Barrier
- Level Crossing Gates
- Level Crossing with Automatic Barrier
- Level Crossing with Full Barrier
- Lifting Barrier
- Manned Gate Crossing



MCB/Local/MCB/Remote//MCB/CCTV/TOB  
 Manually Controlled Barriers (MCB)  
 MCB/CCTV  
 On Call Barrier Crossing  
 Short-Arm Gates  
 TMO (Trainman Operated [Barrier])  
 Trainman-Operated Barrier (TOB)  
 Wicket Gate

b) Half Barriers & Gates

AHB Crossings  
 Automatic Half Arm Barrier Installation  
 Automatic Half Barrier  
 Automatic Half Barrier Crossing (AHB)  
 Automatic Half-Barrier Crossing  
 Automatic Half Barrier Locally Monitored (ABCL)  
 Automatic Level Crossing & Half Gate  
 Crossing with Automatically Operated Half-Barrier  
 Double Half Barrier & Full Barrier Crossing  
 Electric Level Crossing with Half Barrier & Signal  
 Gates & Automatic Half-Barrier  
 Half Barrier: Double Half Barrier & Single Half Barrier  
 Level Automatic Half Barriers/Level Automatic: Half Barriers  
 Level Crossing Half Barriers/Level Crossing: Half Barriers

3E4 Sound Signals

Audible-Pedestrian Crossings  
 Audible Warning Devices  
 Bell  
 Bell, Gong, Audible Warning  
 Bell, Vibrating  
 Crossing Alarms  
 Crossing Bells  
 Double Gong Highway Crossing Bell  
 Electrically Actuated Bell  
 Electronic Warning Bell/Electronic Bells

Enclosed Crossing Bells  
Enclosed Type Gong  
Grade Crossing Alarm  
Locomotive Type of Crossing Bell  
Highway Crossing Alarm  
Highway Crossing Bell  
Highway Crossing Bell-Electronic/Highway Crossing Bell-Mechanical  
Highway Grade Crossing Warning Device  
Hoeschen Bell System/Hoeschen Crossing Signal  
Rail Sound Signals  
Railway Crossing Bells  
Road Crossing Signal  
Skeleton Bell  
Sound-Bell/Sound Bell  
Vibrating Bell  
Warning Bell

## 3E5 Signs

Auxiliary Sign  
Barricade Sign  
Close Up Road Warning Sign [& with Flashinglight]  
Crossing Signs  
Crossbucks  
Crossbucks [Crossbones]  
Crossbuck Signs  
Distant Road Warning Signs  
Distant Warning Signs  
Gates Not Working Signs  
Grade-Crossing Signs/Grade Crossing Signs  
Highway & Barricades Signs  
Highway Crossing Signs/Highway Grade Crossing Signs  
Illuminated Signs  
Level Crossing Halt Board  
Level Crossing - Sign Board  
Railroad Crossing Sign: Highway, At the Crossing, Advance Warning

- Sign (& with Flashing Light)
- Railroad Grade Crossing Targets
- Road Signs at Level Crossing
- Road Signs & Signals at Level Crossing
- Reflector Buttons
- Revolving Stop Sign/Revolving-Stop Sign
- St Andrew's Cross
- St George's Advance Warning Board
- Second Train Coming Sign
- Signs (Crossing)
- Warning Signs for Level Crossing

3E6 Open Crossing

- General Note
- Automatic Open Crossing
- Automatic Open Crossing Locally Monitored (AOCL)
- Automatic Open Crossing Remotely Monitored (AOCR)
- Automatic Open Level Crossing
- Level Automatic Open Crossing
- Open Crossing (OC)
- Open Level Crossing
- Uncontrolled Open Crossing/Open Crossing with No Controls
- Ungated Barrier Level Crossing

3E7 Other Forms

- General Note
- Accommodation Crossing/Accommodation Level Crossing
- Barrier Type Protection
- Occupation Level Crossing
- Pedestrian Crossing
- Public Roadway Level Crossing
- Road User Operated Level Crossing
- Seismic Based Train Actuated Approach Warning at Level Crossing
- The Orion - 300 Level Crossing Approach Warning System
- Train Crew Operated Level Crossing
- User-Worked Crossings

User-Worked Crossing Protected by Miniature Warning Lights  
 User-Worked Crossing with Telephone  
 Footpath Crossing  
 Bridle Path

### Notes

#### General Notes

Many divergencies are to be found between CCI 2006 and DB-RR 2009. Reasons for these multiple problems are not entirely clear. One problem are the numerous new terms in CCI that were not added to DB RR. A further review of terms and differences is in order.

Integrative LC/GC problems include: Four-Quadrant Grade-Crossing Gates, Highway-Railroad Crossing Protection, Level Crossing, MWL Crossing which are absent. Two other signals are partially at variance with CCI. DB-RR includes a variety of terms not found in CCI: Crossing Device, Highway Crossing Signal, Highway Grade Crossing. Subdivision terms are lacking for several terms.

Lighted LC/GC Signals: Automatic Flashing Lights, Crossing System, Flashing Lights, Automatic Gates & Ringing Bells, Flashing-Light Crossing/Flashing-Light Crossing Signal, Flashing Signals & Crossing Gates, Grade-Crossing Flashers & Crossbucks, Grade Crossing Protection, Grade-Crossing Warning, Highway Grade Crossing Warning Devices, Hoeschon Crossing Signal, Railroad/Highway Grade-Crossing Protection/Railroad-Highway Grade-Crossing Protection, Railway Grade-Crossing Signals, Highway Signals, Signal, Highway Crossing, Visual Grade-Crossing Warning, Wig Wag Grade-Crossing Protection, Wig Wag System.

CCI has Flashing-Lights while DB-RR has Flashing Lights.

DB-RR includes Luminous Signals, Passive Warning Devices, Protective Crossing, Protective Devices, Train-Actuated Warning Devices, Warning Devices, Warning Systems. Other signals include LED Highway Crossing Lamp, LEX-C Highway Grade

## Crossing Flashing Light Units, Signal, Flashing Light, Highway Crossing Signal

Barriers & Gates: CCI divides the material into Barriers, Full Gates, & Gates and Half Barriers & Gates while DB-RR adds an overarching segment and divides the second segment into two sub-sections. Barriers Type Protection, Grade-Crossing Gate, Level Automatic Open Crossing are absent in DB-RR. Several other terms are partially convergent.

Sound Signals: DB-RR does not include: Audible Warning Devices, Electrically Actuated Bell, Rail Sound Signal, Railway Crossing Bells, Warning Bells. Bell is listed as a solo aid in DB-RR. A group of terms including Bell is found in both in DB-RR and CCI. Bell Vibrating/Vibrating Bell are found in RR while CCI separates the terms.

Signs: Cross [Crossbones], Grade-Crossing Signs/Grade Crossing Signs, Level Crossing - Sign Board, Railroad Grade Crossing Targets, Road Signs at Level Crossing, Revolving Stop Sign/Revolving-Stop Sign. Barricade Signs are missing in CCI. Several terms are partially altered in one or other source.

Open Crossing is marked by many divergencies especially for CCI. DB-RR has a more substantial listing of terms.

Other Forms is a segment established in DB-RR. The terms are drawn primarily from existing segments.

## 3F Staff &amp; Ticket, Tablet, Token, Train Order &amp; Time Interval Signals

## 3F1 Staff

Absolute Staff System/Absolute Staff Instrument  
Annett's Key  
Automatic Electric Staff Instrument  
Automatic Staff Exchanging Apparatus/Automatic Exchange  
Equipment/Automatic Tablet Exchange Equipment  
Electric Staff  
Electric Train Staff  
Electric Staff Instrument  
Electric Staff Block System  
Electric Staff System  
Electric Staff Working  
Electric Train Staff & Ticket System  
Electric Train Staff System  
Intermediate Siding Junction Instrument  
Large Electric Staff  
O.E.S. Staff  
One Train Working  
Permissive Staff/Permissive Attachment  
Pusher Attachment  
Single Line Staff  
Single Line Staff Box  
Single Line Ticket  
Single Staff System Equipment  
Staff  
Staff & Ticket Working  
Staff Catcher  
Staff Crane/Crane, Staff  
Staff Manual Block System  
Staff Pouches  
Staff System  
Staff Working

- Subsidiary Electric Staff Working
- Train Staff/Train-Staff
- Train Staff System/Train-Staff System
- W & T Electric Staff System
- Webb & Thompson Electric Staff
- Webb & Thompson Electric Staff Instrument
- Wooden Staff/Wooden Train Staff

### 3F2 Staff & Tickets

- Paper Ticket Method
- Staff & Ticket/Staff-&-Ticket
- Staff & Ticket System
- Ticket System
- Train Staff & Ticket System
- Train Staff System/Train-Staff System
- Train Staff Ticket
- Wooden Train Staff & Paper Ticket Method

### 3F3 Tokens

- Automatic Token Exchange
- Ball Token/Ball-Token
- Ball Token Type
- Block Token
  - Long Section Token
  - Section Token
- Electric Token
- Electronic Token Apparatus
- Electronic Token Block Equipment
- Electronic Token Instrument
- Electronic Token Methods
- Electronic Token System
- Electric Token System/Electric Token Block
- Key Token I, II
- Key Token Block System
- Key Token Transfer System
- Key Token Balancer

- Key Token Instrument
- Key Token System
- Neale's Ball Token Instrument
- Neale's Single Line Combined Ball Token & Block Instrument
- No Signalman Key Token
- No Signalman Remote Key Token Working/No-Signalman Remote Key  
Token Working
- No Signalman Token Block
- No Signalman Token System Equipment
- One Train Working
- Signalman-to-Signalman Token Working
- Signalman to Automatic Operated Token Working
- Single Line Token Instrument
- Token
- Token Block System
- Token Signalling
- Electric Single-Line Token System
- Token Type Block Instrument
- Token-Forms
- Token Forms-II
  - Main Section (Unidirectional) Token
  - Engineering Token
  - Test Token
  - Special Token
- Tyer's Key Token Instrument
- Van Schoor Train Token System
- 3F4 Tablet & Tablet & Token
  - Ball & Tablet Token Instrument
  - Electric Tablet/Electric Train Token
  - Electric Tablet Instrument
  - Electric Tablet System
  - Electric Train Tablet Method
  - Single Line Tablet
  - Tablet



- Tablet Block Systems
- Tablet Block Train Operation
- Tablet Catcher
- Tablet Instrument
- Tablet Machine
- Tablet Pouch
- Tablet System
- Tablet System of Working
- Tyer's Key Token Instrument/Tyer's Electric Train Tablet
- Tyer's Electric Train Tablet/Tyer's Electric Train Tablet System
- Tyer's #7 Tablet Instrument
- #6 Tyer's Tablet Machine
- Tyer's Tablet Instrument
- Tyer's Electric Tablet System/Tyer's Tablet System
- Tyer's No. 12B Key Token Instrument
- 3F5 Tokenless Block Working
  - General Note
  - Scottish Region Tokenless Block
  - Tokenless Block
  - Tokenless Block Equipment
  - Tokenless Block Working/Tokenless Block System
  - Tokenless Block Instrument
  - Tokenless Block Working (Paper Ticket)
- 3F6 Train Order
  - Balloon Train Order
  - Banner Type Train Order Signal
  - Boot-Jack Type Train Order Signal
  - Box Type Train Order
  - Center-Pivoted, 2-Position Train Order Signal
  - Double-Arm UQ Train Order Signal
  - Electric Enclosed Disc Train Order Signal
  - Electro-Mechanical Train Order Signal
  - Nineteen Order
  - Slow Order

- Telegraph Train-Order Signal
- Telephone Train Order Sign
- Thirty One Order
- Timetable & Train Order (T & O)/Time Table & Train Order System
- Train Order Boards
- Train Order/Train-Order
- Train-Order Lineside Signal
- Train Order Signal/Train-Order Signal
- Train Order Signals of the Color Light Type
- Train-Order System
- Train-Order Working
- Written Train Orders
- Yarrington Type of Train Order Signal

### 3F7 Time Interval

- Telegraph Block or Time-Interval System
- Time Interval System/Time Interval-System
- Time Interval Method
- Time Interval/Time-Interval
- Time Interval System of Working/Time-Interval System of Safeworking
- Time System

### 3F8 Other Devices

- Direct Traffic Control (DTC)
- Space Interval Method
- Telegraph & Ticket Method
- Telegraph Message System
- Telegraphic Order Method of Train Working
- Telegraphic Orders
- Ticket & Section Order System
- Time-Code System
- Timetables/Time-Tables
- Time-Table Operations/Timetable Operations
- Timetable System
- Train Warrant Control (TWC)

**General Notes:**

Sub-chapter 3F represents a diverse collection of specialized aids many of which are now historic or employed only to a limited extent. Differences in CCI 2006 and DB-RR 2009 are reviewed by units despite limited remarks.

**Specific Notes:**

Staff includes one limited change: CCI has Staff & Ticket Working while DB-RR has a shorter form of Staff Working.

Staff & Ticket: DB-RR lacks “System” for Train Staff & Ticket System. DB-RR also omits Train Staff Ticket.

Tokens: DB-RR adds No Signalman Token System Equipment.

Tablet & Tablet & Token: DB-RR adds Tablet Pouch to the terms.

Tokenless Block Working: (Paper Ticket) is missing from Tokenless Block Working in DB-RR.

Train Order and Time Interval segments are identical in CCI and DB-RR.

Other Devices: DB-RR lacks Timetable Operations, and Timetable Systems.

## CHAPTER FOUR

### AERO NAVAIDS

#### 4A Overarching Terms: General, Visual & Lighted Terms

##### 4A1 General Terms for All Aero Navigation Aids

###### a) Primary Terms

- General Note
- Aero Aids
- Aero Safety Aids
- Aero Visual Aids
- Aeronautical Navigation Aids
- Nav aids
- Navigation Aids
- Navigation Aids/Navigation Aids (Navaid)
- Navaid Systems
- Navigation Aids Systems
- Navigation Systems
- Aids
- Aids to Air Navigation
- Aids to Navigation
- Air Nav aids
- Air Navigation Aids
- Air Navigation Aids
- Visual Aero Aids

###### b) Specialized Terms

- Aeronautical Aids
- Aeronautical Lights
- Aerospace Navigation & Landing Aids
- Aids to Aerial Navigation
- Air Navigation Systems
- Air Navigation & Obstruction Lighting
- Aircraft Landing Aids

- Approach & Runway Light System
- Aviation Navigation Aids
- Electronic & Visual Air Navigational Aids (Nav aids)
- Ground Aids to a Contact Flight
- Ground-Based Navigation Aids
- Ground Systems
- Landing Aids
- Landing Aids to Air Navigation
- Landing & Navigation Aids
- Navigation Systems
- Navigation Airspace System (NAS) Ground-to-Air (G/A) Systems
  - [Landing sub-element]
- Portable Heliport Lighting Systems
- Radio & Navigation Aids Systems
- Temporary Airfield Lighting
- Visual Aids for Approach & Landing

#### 4A2 Visual Aids

- General Note
- Aero Visual Lights
- Aeronautical Lighting & Other Airport Visual Aids
- Airport Visual Aids/Airport Visual-Aids Systems
- Airport Visual Navigational Aids Systems
- All-Weather Visual Aids
- Aviation Lighting
- Ground Visual Aids
- Landing Aerodrome & Airway Lighting
- Visual Aero Aids
- Visual Aids
- Visual Aids for Airports
- Visual Aids to Air Navigation
- Visual Aids Systems
- Visual Air Navigational Aids
- Visual Ground Aids
- Visual Landing Aids

Visual Landmarks

Visual Navaids

Visual Signals

#### 4A3 Sub-Overarching Terms

General Note

AGA (Aerodrome Ground Aids)

Approach & Landing Systems

Approach & Navigation Lights

Approach & Runway Lighting/Approach & Runway Lighting Systems

Approach & Threshold High Intensity Unidirectional Sequence-  
Flashing Light

Approach, Threshold, & Runway Lights & Runway Markings

Approach, Threshold, Runway End Elevated High-Intensity Light

Approach/Threshold/Runway High Intensity Unidirectional Elevated  
Light

Approach/Threshold/Runway End Elevated Inset Light

Approach/Threshold/Runway End Elevated Light

Approach/Threshold/Runway End Inset Light

Medium Intensity Approach, Threshold, Runway Edge Lighting

Miscellaneous Visual Approach & Threshold Lights

Semi-Flush Approach for Lighted Aero Navigation aids

#### 4A4 Overarching Terms for Lighted Aero Navigation Aids

##### a) Light & Lighting Aids

General Note

Aero Lights

Light

Light System

Lighted Aids for Air Navigation

Lighted Aids

Lighting

Lighting Aids

Lighting Systems/Light System

##### b) Airfield & Airport Light/Lighting

Aerial Lighting

Aero Lights  
Aerodrome Light Systems/Aerodrome Lighting System  
Aeronautical Ground Lights  
Aeronautical Ground Lighting  
Air Lights  
Airfield Lights  
Airfield Ground Lighting  
Airfield Lighting  
Airfield Lighting System  
Airport & Air Navigation Lighting & Markings Aids  
Airport & Air Navigational Lighting & Marking Aids  
Airport Lights  
Airport Light Products  
Airport Lighting  
Airport Lighting Equipment  
Aviation Ground & Seadrome Lighting  
Aviation Ground Lighting  
Aviation Lighting  
Aviation Lighting Equipment  
Aviation Lighting Systems  
Field-Lighting for Airports  
Fixed Lights  
Ground Lighting  
Ground Lighting Aids  
Ground Lighting to Aid Navigation  
Ground-Positioned Lighting  
Ground-Positioning Lighting  
International Lighting Systems  
Landing Lights  
Lighting & Markings Systems  
Lighting/Markings/Marking & Light Systems  
Navigation Lighting  
Night Landing & Approach Aids  
Passive Airport Lighting

- Powered Lighting Systems
- Signal Lights
- Signal Light Equipment
- Systems of Lights
- Visual Traffic Control Aids
- 4B Beacons & Obstruction Lighting
  - General Note
- 4B1 Overarching Terms
  - Beacon
  - Beacon Aids
  - General Note I, II
  - Aerodrome Beacon
  - Aeronautical Beacon
  - Aeronautical Light Beacon
  - Air Beacon
  - Aviation Beacon
  - Beacon, High Intensity
  - Beacon Light
  - Light Beacon
- 4B2 Physical Apparatus
  - a) Method of Operation-Related Terms
    - Airport 26" Rotating Beacon
    - Flashing Beacon
    - Oscillating Beacon
    - Revolving Beacon
    - Rotating Beacon
    - Rotating Beacon for Small Airports
    - Rotating Electric Beacon
    - Rotating Light Beacon
    - Rotating Lights
  - b) Dimension-Related Terms
    - General Note
    - 10-Inch Rotating Beacon
    - 18-Inch Beacon



24-Inch Airway Beacon  
 24-Inch Beacon/Twenty-Four Inch Beacon/24-Inch-Diameter Beacon/  
 24-Inch Rotating Beacon  
 Twenty-Four-Inch Double-End Rotating Beacon  
 24-Inch Dome/24-Inch Double End/36-Inch Double End/24-Inch  
 Single End  
 Rotating 24-Inch Beacon  
 Beacon, 26-Inch, Double-End Type  
 Beacon, 36-Inch, Rotating Beacon  
 CAA-291 36-Inch Rotating Beacon  
 Four-Beam 24-Inch Beacon  
 36-Inch Beacon  
 36-Inch Double End, Rotating Beacon/36-Inch Double-End Rotating  
 Beacon  
 36" Rotating Beacon  
 36-Inch Revolving Beacon  
 Thirty-Six-Inch Spherical Rotating Beacon  
 Double-Ended 36-Inch Diameter Beacon  
 DCB 36-Inch Rotating Beacon/DCB Rotating Beacon/DCB  
 Rotating-10' Beacon

c) Energy Source-Related Terms

General Note  
 Acetylene Beacon  
 Acetylene Gas Beacon  
 Electric Beacon  
 Electric Beacon Light  
 Electric Light Beacon  
 Flashing Gas Beacon  
 Gas Beacon  
 Gas Flashing-Beacon/Gas-Flashing Beacon

4B3 Morphological Terms

a) Airport Beacons

1) Airfield & Airport Beacons

General Note

- Aerodrome Identification Beacon
- Aeronautical Beacon Light
- Airfield Beacon
- Airport/Heliport Beacon
- Airport Identification Beacon
- Airport (Land) Beacon/Airport (Water) Beacon
- Alternating Green/White Beacon/Alternating Yellow/White Beacon
- Civil Airport Light Beacon
- Medium Intensity Airport Beacon
- Military Airport Beacon
- Rotating Searchlight Beacon
- 2) Code Beacon
  - Code Beacon
  - Airport Code Beacon
  - Airport Rotating Beacon
  - Auxiliary Airport Beacon
  - Auxiliary Airport Code Beacon
  - Auxiliary Beacon
  - Auxiliary Code Beacon
  - Auxiliary Green Code Beacon
  - Electric Code Beacon
  - Flashing Code Beacon/Flashing-Code Beacon
  - Flashing Green Beacon
  - Identification Beacon
  - Identification (Code) Beacon/Identification Code Beacon
  - Long Range Beacon
  - Rotating Airport Beacon
  - Rotating Beacon for Small Airports/Airport Rotating Beacon  
for Small Airports
- b) Airway Beacons
  - Acetylene Gas Blinker
  - Airway Beacon
  - Air-Way Beacon
  - Airway Beacon Light

- Airway Light Beacon
- Air-Route Beacon
- Automatic Routing Beacon
- Auxiliary Blinker Light
- Aviation Routing Beacon
- Course Light/Course-Light
- Electric Routing Beacon
- En Route Beacon
- Fixed Course Light
- Gas Routing Beacon
- Lighted Airway
- Lighting Airway
- Route Beacon
- Routing Beacon
- Sperry Airways Beacon

c) Heliport & Other Beacons

- Heliport Beacon
- Heliport Identification Beacon
- Heliport Rotating Beacon
- High Intensity Heliport/Medium Intensity Heliport Beacon
- Identification Beacon for Heliport Use
- Revolving Projector Type of Beacon
- Rotating Heliport Beacon
- Seaplane Base Identification Beacon
- Seaplane Base Light Beacon
- High Intensity Seaplane Base Beacon/Medium Intensity Seaplane Base Beacon
- Stolport Beacon

4B4 Miscellaneous Beacon Forms & Support Structures

a) Miscellaneous Beacon Forms

- Approach Light Beacon
- B.B.T. Flashing Beacon
- Cluster Beacon
- Flickering Beacon

- Incandescent Beacon
- Landmark Beacon
- Solar Powered Beacon

b) Support Structures

- General Note
- 51' Airport Beacon Tower
- Beacon Tower
  - Prefab Tower Structure
  - Structural Steel Tower
  - Tubular Steel Tower
  - Double Wood Pole Tower
- Tubular Tower/Tubular Beacon Tower/Tubular Steel Airport Beacon Tower
- Airport Beacon Tower
- Tower, Aerial Navigation Beacon

485 Obstruction Lighting

- General Note I, II, III

a) Overarching Terms

- Airport Hazard Beacon
- Hazard Beacon
- Hazard Light
- Hazard Warning Beacon
- Obstacle Light
- Obstruction Identification
- Obstruction Lights
- Obstruction Lighting
- Obstruction Marker & Lighting
- Red Danger Light
- Tower & Obstruction Lighting/Tower Obstruction Light

b) Beacons

- Anticollision Beacon
- Beacon, 300mm Hazard/300mm Beacon (Obstruction)/300mm Beacon (Red)/300mm Beacon
- Red Beacon (Obstruction)

- Flashing Beacon
- Flashing Hazard Beacon/Flashing Red Hazard Beacon
- Flashing, Omnidirectional Beacon
- Light, Navigational, Beacon, Obstacle or Code
- Military Airport Beacon
- Obstacle Beacon
- Obstruction Strobe Beacon
- Rotating Beacon
- Rotating Lights
- Rotating 24-Inch Beacon
- 300mm Code Beacon/Flashing Code Beacon/300mm Code & Hazard Beacon
- 300mm-Milimeter Fresnel Lens, Obstacle or Code Beacon Navigational Light
- c) Obstruction Lights-Incandescent & Miscellaneous Types
  - Aviation Red Obstruction Light
  - Double & Single Obstruction Light
  - Double Obstruction Light
  - Field Obstruction Light
  - Low Intensity Obstruction Light
  - Neon Obstruction Lighting
  - Obstruction Marker Light
  - Red Obstruction Lighting
  - Single Obstruction Light
  - Steady-Burning Light/Steady Burning Red Obstruction Light
  - Suspension Type Obstruction Light
- d) Obstruction Lighting-Strobes & Composite Types
  - Catenary Lighting
  - Daytime Lighting for Tall Obstructions
  - Dual Lighting/Dual Lighting Systems
  - Dual Lighting with Red-Medium Intensity Flashing Systems/
    - Dual Lighting with Red-Medium Intensity Flashing White/
    - Dual Red-White Medium Intensity Obstruction Strobe Beacon
  - High Intensity Flashing White Lights

High Intensity Flashing White Obstruction Lights  
 High Intensity Obstruction Lighting Systems  
 High Intensity White Obstruction Light  
 Low-Power Consumption Strobe-Type/Strobe-Type Flashing Red  
     Obstruction Light  
 Medium Intensity Flashing White Obstruction Light  
 Medium Intensity Flashing White Obstruction Lights, 40 FPM/  
     Medium Intensity Flashing White Obstruction Light, 60 FPM  
 Medium Intensity Obstruction Strobe Beacon/Medium Intensity  
     Obstruction Strobe  
 Medium Intensity Omnidirectional Flashing White Light Systems  
 Medium Intensity Strobe  
 Obstacle Lights  
     Low-Intensity Lights  
         Medium-Intensity, Type A 60-90 fpm  
         Medium-Intensity, Type A 20-60 fpm  
         Medium-Intensity, Type B 20-60 fpm  
         High-Intensity Obstruction Light, Type B  
 Obstruction Strobe Light/Obstruction Warning Light

#### 4C Approach Lighting

##### 4C1 Overarching Terms

###### a) Major Terms

Approach Lighting Systems  
 Approach Lights  
 Approach Lighting

###### b) Secondary Terms

Airport Approach Lighting  
 Airport Approach Lighting System  
 Approach Light System/Approach Light System (ALS)  
 Approach-Light  
 Approach Lighting System  
 Approach Aids  
 Approach System

Civil Visual Approach Aids

Descent Aid

Descent Indicator Aid

c) Sub-Overarching Terms

Airfield Approach Systems

Alignment-Type Carrier Landing Systems

Approach Visual Guidance Systems

Final Approach & Take-Off Area (FATO)

Ground Lights for Landing Guidance

Landing Aids

Lighting Systems

New Generation Runway Visual Range System

Night Landing Systems

Standard Approach Aid

Touchdown System

Visual Aid to Approach for Landing

Visual Approach Aids

Visual Landing Aids

4C2 Equipment Terms

a) Physical Terms

General Note

Flashing Light

High Intensity Unidirectional Lamp

Lamp Housing Assemblies

Low Intensity Omnidirectional Elevated Lamp

Medium Intensity Omnidirectional Elevated Lamp

Omnidirectional Flashing Lamp

Unidirectional Flashing Lamp

Further Terms:

Capacitor Discharge Light

Condenser Discharge Light

b) Physical/Morphological Terms

General Note

ALS Threshold Light Bar

Approach Direction Light  
Approach Flashers  
Approach High Intensity Unidirectional Light  
Approach, Inset  
Approach Light  
Approach Light Bar Assembly  
Approach Lights for Other Instrument Runways  
Approach Medium Intensity Omnidirectional Elevated Lights  
Approach Sequence Flashing Uni-Directional Direct Light Couple  
Flashing Light  
Approach Side Row  
Approach, Threshold  
Barrette/Centre Line Barrette  
Bartow D-1 Lights  
Electronic-Flashing-Approach Lighting  
Elevated Approach Light  
Flashers/Flashing Light  
Flashing Approach Light  
Flush Approach Light  
Ground Level Approach Searchlight, High Intensity  
Helipad Approach Light  
High Intensity Approach Lights  
High Intensity & Displaced Threshold Lights  
High Intensity Double-Skinned Unidirectional Elevated  
Approach Light  
High Intensity Uni-Directional Inset Approach Light  
Light Marker Airport Approach  
Lights, Flashing, Omni-Directional: ODALS, REILS  
PAR 56 Approach Light  
Q20A/PAR 56 Approach Light/PAR 56 Approach Light Lamp  
Semi-Flush Approach Light  
Sequence Flasher/Flasher  
Sequence Flashing Lights on Center Line Approach  
Sequence Flashing Lights



Sequence Flashing Lights-Unit

SFL

Side Row Barrettes

Steady Burning Lights

c) Support Structures

General Note

Low-Impact Resistant Structures

LIR

Frangible Safety Mast for Approach Systems

Frangible Safety Approach Mast

Safety Mast for Approach Lights

Safety Mast for Approach Systems

4C3 Approach Lighting Systems

General Note

a) Approach Lighting Systems

Approach Light/Approach-Light

Approach-Light Systems

Approach Lighting Systems

Approach Light Systems (ALS)

ALSF-1/ALSF-I

ALSF-2/ALSF-II

ALSF-2 System/ALSF-2 Approach-Light Systems

Alpha System

ALSF-II-SSALR Dual Mode High Intensity Approach Light System/

ALSF-II/SSALR Dual Mode System/Dual Mode High Intensity

Approach Lighting System

ALS/SFL Cat I & Cat II

Approach Light System for Cat II & III Runways

Approach Light System for Cat I Operations

Approach Strobes

Cat I ALS/Cat II ALS

Cat 2 Approach Lights

Circling Approach Lights

FAA High Intensity  
High Intensity Approach Light Systems/High-Intensity Approach-  
Light System/High-Intensity Approach Lights  
High Intensity Approach Light System with SF  
High-Intensity Approach Lighting  
High Intensity Lights  
MALS  
MALS, Medium Intensity Approach Light Systems  
Approach Light System, M.I., MALS  
MALS Steady Burning Light  
MALSF  
MAL/SF  
MALSR  
MALSR Approach-Light System  
MALSR System  
Medium Intensity Approach Lighting  
Medium Intensity Approach Lighting Bar Assembly  
Medium Intensity Approach Lighting Equipment  
Medium Intensity Lighting System  
Medium Intensity (MALSR, MALSF, MALS)  
Non-Instrument Approach System  
Non-Precision Approach Lighting System  
Precision Airport Category I Lighting System  
Precision Approach Category I Light System  
Precision Approach Cat II & III Lighting System  
SALS  
Simple Approach Lighting System  
Simple System  
Simplified Approach Lighting/Simplified Approach Lighting System  
“Simplified” Approach Light System  
SSALF  
SSALS  
SSALR  
Standard High Intensity Approach Lighting System

- Straight-In Approach
- System of Approach-Lights
- b) Special Approach Lighting Types
  - Airport Lead-In Lighting Systems (LIDN)
  - Circling Guidance Lights
  - Lead-In Lights
  - Lead-In Light System (LDIN)/Airport Lead-In Light System/  
Runway Lead-In Lighting System
  - Lead-in-Lighting
  - Long Lead-In Strobe Lighting System (LLDIN)
  - ODALS
  - Omnidirectional Approach Light System (ODALS)
  - Omnidirectional Approach Lighting Systems (ODALS)
  - Omnidirectional Flashing Lights
  - Omnidirectional Lead-in Approach Light System
  - Omnidirectional Lead-in Lights
  - Omnidirectional Lights
  - RAILS/Runway Alignment Indicator Lights/Runway Alignment  
Indicator Light System
  - REIL
  - RIL, Runway Identification Lights
  - Runway End Identifier Light (REIL)
  - Runway-End Indicator Light
  - Strobes
  - Visua Vector Omnidirectional Approach Lighting Systems
- c) Historic Terms
  - 1) Slopeline Systems
    - Double-Row Funnel-Shaped Slope Line Configuration/Dual-Row  
Funnel-Shaped Slope Line Configuration
    - Pearson Slope Line Approach Light System
    - H.I. Slopeline Approach Lights
    - Slope Line Approach Light System/Slope Line Approach Light  
System
    - Slope Line Lighting System

- Slope Line System
- Slopline Approach Light System
- Slope-Line Approach System
- Slopline System
- Slopline-Transverse-Bar Approach-Light System/Slopline Approach-Light/Slope Approach-Light System with Transverse Bars (SET)
- Slope Line High Intensity Approach Lighting System
- Slope Line System of High Intensity Approach Lights
- Slopline
- Slope Line Light
- Slope Line Approach Lights/Slope-Lights Approach Lights
- Slope & Approach Lights
- Slope Approach
- 2) Center Line Systems
  - General Note
  - Center-Line Approach Light System
  - Center Line Approach System
  - Centerline Approach Lighting System/Centerline Approach Light System
  - Center-Line Lights
  - Center Line System
  - Center-Line System
  - Centerline System
  - Center Line Approach System
  - Center Line Approach Lighting
  - Center-Line High Intensity Approach Light System
  - Center Row System
  - Center-Line "Configuration A" System
  - Single-Row Center-Line System
  - Centerline System with Strobeacon
  - Centerline-Crossbar Configuration
  - Centerline Crossbar System
- 3) Other Historic Approach Lighting Systems

AGA Funnel System  
All-Weather Approach Lights Approach System  
ALPA System  
Air Line Pilots Association (ALPA)  
ALPA ATA Approach Lighting System  
Angled Linear System  
Barrette Centreline Approach Lighting System  
Bartow Approach Lights  
Bartow Light System  
Bartow Multi-Row Approach-Light System  
Bartow System  
Calvert Bar System  
Calvert Centreline & Crossbar System  
Calvert International Systems  
    Chance Light  
    Money Flare  
Calvert System  
Civil Airfield Approach System  
Distance Coded Centerline Approach Lights  
Funnel-Shaped System/Funnel-Shaped Lights  
Funnel System  
Landing Approach Light System  
Left-Hand Row System/Double-Row System  
Modified Calvert System  
Calpa or Alpert System  
Calvert (English) System  
Calvert System of Approach Lights  
Calvert & RAE System  
Centerline Lighting  
Configuration A  
Drem I/Drem II/Drem System  
Drem Lighting System  
Dutch System  
EFAS, Electronic Flash Approach System

EFAS  
 Flare Path/Flare Path System  
 Glim Lamp Flare Path System  
 Glim Lamp System  
 High Intensity Incandescent Approach Lights (ALS)/  
     Medium Intensity Incandescent Approach Lights (ALS)  
 Incandescent-Lamp Approach System  
 International Light System  
 Interrupted-Sequence-Flashing Approach-Light System  
 Left-Hand, Single-Row, Ladder-Type, High Approach Light Lanes  
 Approach Light Lanes  
 Left-Hand-Row System/Left-Hand Row “Ladder System  
 Multi-Row Approach-Light System  
 National System  
 Neon Approach Light/Neon-Approach-Light/Neon Light System  
 Neon Approach Lighting System  
 Parallel-Row System/Parallel Row Approach Light System/Parallel  
     Row Approach-Light System  
 RAE Horizon-Bar System (RAE)  
 Row-Type Approach Light System  
 Standard Approach Light System  
 Surface Illumination System  
 System of Neon Approach Light  
 Touch-Down System  
 Two-Row Approach-Light System  
 U.S. National Standard Configuration “A”/U.S. Configuration  
     A (Alpha) System  
 Components of Approach Systems:  
     Steady-Burning Approach Light  
     Terminating Bar  
     Wing Bar

#### 4C4 Final Equipment

##### a) Overarching Terms

Approach Path Indicator/Approach Indicator

- Approach Path Slope Indicator
- Approach Visual Guidance System
- Bar-Type Aid
- Helicopter Approach Path Indicator (HAPI)
- Glide Path Light Indicator
- Ground-Based Visual Light Guidance System
- Medium-Intensity HAPI Unit
- Visual Approach Descent Indicator (VADI)
- Visual Approach Guidance Indicator Systems
- Visual Glide Path Aid
- Visual Glide Path Indicator
- Visual Guide Path Indicator (VGPI)
- Visual Guide Slope Indicator
- Visual Guide Slope Indicator System
- b) Precision Approach Path Indicators
  - Four Box Precision Path Indicator System
  - Precision Approach Path Indicators/Precision Approach Path Indicator (PAPI)
  - PAPI
  - Precision Approach Path Indicator (PAPI) System
  - Precision Approach Path Indication Lights
  - PAPI System
  - PAPI Approach System
  - PAPI Glide Path Lighting System/GPLS
  - PAPI Lights/Precision Approach Path Indicator (PAPI) Lights
  - PAPI-4/PAPI-2
  - PAPI Wing Bar
  - Abbreviated PAPI
  - Abbreviated Precision Approach Path Indicator (APAPI)
  - APAPI
  - Mini-PAPI
  - CHAPI/CHAPI System
  - Portable PAPI
  - Three Lamp PAPI

## c) VASI Systems

## 1) System

Visual Approach Slope Indicator (VASI)  
 Visual Approach Slope Indicator (VASI) System/Visual Approach  
 Slope Indicator System  
 Visual Approach Slope Indicator System (VASIS)  
 Visual Approach Slope Indicator System  
 VASI  
 VASI Approach Indicators  
 VASI System  
 VASI-Type Approach Aid  
 VASIS  
 A-VASIS  
 AVASIS  
 Abbreviated Visual Approach Slope Indicator  
 Abbreviated Visual Approach Slope Indicator System (AVASIS)  
 SAVASI  
 RT-VASIS  
 AT-VASIS  
 T-VASIS Light Units (Blade Type) T-VASIS Light Units (Projector  
 Type)  
 T-VASIS/Tee Visual Approach Slope Indicator

## 2) Operational Types

General Note  
 VASI-II/VASI-IV/VASI-VI [3 Bar]/VASI-XII [3 Bar]/VASI-XV [3-  
 Bar]  
 2-VASIS  
 12-Box VASI/12-BOX VASI System  
 4-Box VASI  
 2-Box VASI  
 2-Bar VASI/2-Bar VASIS/3-Bar VASI/3-Bar VASIS/2-Bar System/  
 3-Bar System  
 VASI-2nd Light Bar/VASI 1st Light Bar  
 2-Bar System (VASI-2, -4, -12)/3-Bar System (VASIS-6, -16)



- R-W VASIS
- Standard VASIS
- d) Other Final Approach Types
  - 1) Glide Path
    - Approach-Angle Lights
    - Glide Path Indicator
    - GPI
    - Glidepath Indicator
    - Precision Visual Glide Path (PVG)
    - Pulsating System
    - PVG System
    - TEE System
    - Tee Visual Glidepath (Tee or TVG)
    - TVG
  - 2) Tri-Color
    - Tri-Color Glide Path Indicator
    - Tri-Color Systems
    - Tri-Color Visual Approach Slope Indicator
  - 3) Fresnel
    - Navy Fresnel System/Navy Fresnel Lens Optical Landing System/  
Fresnel Optical Landing Systems, FLOLS/FLOLS, Fresnel Lens  
Optical Landing System
    - Fresnel System
    - MDLA, Mirror Deck Landing Aids
    - Mirror System
  - 4) PLASI
    - HAPI-PLASI
    - HELI-PLASI
    - PLASI
    - PLASI I, II
    - Portable PLASI
    - Pulsating Visual Approach Slope Indicator
    - Pulse Light Approach Slope Indicator (PLASI)
    - Pulsed Light Approach Slope Indicator

## 5) Miscellaneous Systems

- AAI Systems
- Alignment of Elements System
- Angle of Approach Indicator (AAI)
- Angle of Approach Light/Angle-of-Approach Light
- Descent Indicator
- Flashing Aids
- General Visual Approach Descent Indicator
- Generic Visual Glidescope Indicator (GVGI)
- Optical Projector Ground Aid
- Optical ILS
- Pulsating Systems
- Pulse Coded Optical
- SAGA (System of Azimuth Guidance for Approach)
- Standard Visual Approach Guidance Aid
- Visual Approach Descent Indicator (Rotary Wing)
- Visual Angle of Approach Indicator
- VGSI

## 4D Runway &amp; Taxiway Lighting

## 4D1 Runway Lighting

## a) Overarching Terms

- General Note
- Runway Lights
- Runway Lighting
- Runway Lighting System
- Runway Visual Aids
- In-Runway Lighting
- Primary Airfield Lights
- Runway/MOS Lighting

## b) Runway Edge Lights

- Runway Edge Lights
- Runway-Edge Lights
- Runway Edge Lights System

- Runway Edge Lighting/Runway Edge Lighting System
- Runway Outline Lights
- Standard Lights/Standard Edge Lights
- Edge Lights/Edge-Lights
- Edge Lighting
- Edge Lighting System
- Elevated Edge Lights
- Low Intensity Edge Lights
- c) Runway Centerline Lights
  - Airport Centerline Lights
  - Center Line Lights
  - Centerlights
  - Centerline Lights
  - Centerline Lighting System
  - Centerline Guidance Lights
  - Centerline Runway Lights
  - Centre Line Lights
  - RCLS
  - Runway Centreline Lights/Runway Centre Line Lights
  - Runway Centerline Lights
  - Runway Centerline Lighting (RCLS)
  - Runway Centerline Lighting System/Runway Centerline Lighting System
- d) Threshold, Touchdown Zone, Runway End & Other Lights
  - General Note
  - “Narrow Gauge” Pattern
  - Road-Holding Position Light for Vehicles
  - Runway Touchdown Zone Lights/Runway Touchdown Zone Lights (TDZ)
  - Touchdown Zone Lights/Touchdown Zone Lights (TDZL)
  - Touchdown Zone Light System
  - Touchdown Zone Lighting
  - TDZL
  - TDZL Light Bar

- Airport In-Runway Touchdown Zone Light
- Runway End Lights
- Runway Threshold Lights
- Runway Threshold & Wing Bars/Runway Threshold & Wing Bar Lights
- Threshold/End Lights/Threshold/End Lighting
- Threshold Lights
- Threshold Lighting
- End Light, End of Runway Lights
- Lights, Runway End
- Runway Remaining Lighting/Runway Distance Remaining Lighting
- Exit Taxiway Lighting
- Taxiway Turnoff Lights
- Taxiway Lead-Off Lights
- Taxiway Traffic Signals
- Stopway Light
- e) Runway Equipment Terms
  - General Note
  - 1) General Terms
    - Bidirectional
    - Elevated
    - Omnidirectional
    - Unidirectional
    - Flush
    - Flush-Flush/Semi-Flush
    - In-Pavement/Inpavement
    - In-Runway
    - Inset
    - Semi-Buried (“Semi-encrastic”)
    - Semiflush/Surface
  - 2) Physical Apparatus
    - Airport In-Runway Light
    - Airport In-Runway TDZ Light
    - Bidirectional Center Line Fixtures

Bidirectional High/Medium-Intensity Runway Light  
Bi-Directional Semiflush Inset Light Assembly  
Elevated Edge Lights  
Elevated Lights  
Elevated Runway Edge Light  
Elevated Runway Light  
Elevated Threshold Light  
Fixed Focus Bidirectional High Intensity Runway Light/Fixed Focus  
Unidirectional High Intensity Runway Light  
500 Watt High Intensity Runway Light with Automatic Beam Control  
Flash Lights  
Flush Centerline Lights  
Flush Light  
In-Runway Light Fixtures  
In-Runway Lights  
Inset Lights  
Light Assembly, Airport Runway Centerline & TDZ Light Assembly,  
Airport Runway, Centerline & TDZ Zone/Light Assembly,  
Airport Runway & Centerline  
Light Assembly, Airport Taxiway Centerline  
Lights, Portable Runway  
Lights, Runway Edge Low Intensity  
Lights, Runway, In-Pavement  
Multiple-Purpose Elevated Light  
Narrow Gauge Runway Lights/Narrow Gauge Lighting System  
(Runway)  
Omnidirectional Lights  
Portable Edge Lights  
Portable Runway End Identifier Light  
Radio-Controlled Runway Edge Light  
Rnwy/LGTS  
Runway In-Pavement Light/Runway Inpavement Light  
Semiflush Airport Light/Semiflush Airport Lighting  
Semiflush Inset Prismatic Light

- Semiflush Intersection Light
- Semiflush Light
- Semiflush Prismatic Airport Light/Semiflush Inset Prismatic Airport Light
- Standard High Intensity Runway Lighting
- Unidirectional Lights
- Unidirectional Semiflush Inset Light Assembly
- Unidirectional Threshold Light
- Unidirectional Touchdown Zone Light Fixture
- 3) Light Equipment Terms by Intensity
  - General Note
  - Elevated High Intensity Runway Light Fixtures
  - High-Intensity Bidirectional Inset Lights
  - High Intensity, Elevated Type D-1 Lights
  - High-Intensity Lights
  - High Intensity Lighting System
  - High Intensity Runway Lights
  - High Intensity Runway Lighting
  - HIRL
  - High Intensity Light System/High Intensity Runway Light System
  - High Intensity Runway Edge Lights/High-Intensity Runway Edge Lights/Runway High-Intensity Edge Lighting System
  - High Intensity Approach Runway Light
  - High Intensity Runway Edge Lights
  - HIRL/MIRL
  - Low Intensity Edge Lights
  - Low Intensity Lights
  - Low Intensity Runway Edge Lighting
  - Low Intensity Runway, Landing Strip & Taxiway Light
  - Low Intensity Runway Lights (LIRL)/Medium Intensity Lights (MIRL)/High Intensity Runway Lights (HIRL)/Low Intensity Runway Edge Light/Medium Intensity Runway Edge Lights/High Intensity Runway Lights
  - Medium Intensity Elevated Runway Edge Light Fittings

- Medium Intensity Lights
- Medium Intensity Lighting System
- Medium Intensity Type M-1 Runway Edge Lights/High Intensity  
Type M-1 Runway Edge Lights
- Medium Intensity Threshold Special Lights
- Medium/Low-Intensity Runway Light
- Medium Intensity Runway Edge Light
- Runway Edge Lights: LIRL, MIRL, HIRL

#### 4D2 Taxiway Lighting

##### a) Overarching Terms

- Low Visibility Taxiway Lighting Systems
- Systems of Taxiway Lights
- Taxiway Lead-Off Lights
- Taxi Light
- Taxiway Lights
- Taxiway Lighting
- Taxiway Lighting System
- Taxiway Marker Light
- Taxiway/Obstruction Lighting
- Taxiway Series Lighting System

##### b) Taxiway Edge Lighting

- Taxiway Edge Lights
- Taxiway Edge Lighting
- Taxiway Edge Lighting System

##### c) Taxiway Centerline Lighting

- Center-Line Lighting
- Centerline Guidance System
- Taxiway Centerline Lights
- Taxiway Centerline Lighting
- Taxiway Centerline Lighting Systems
- Taxiway Centre Lights
- Taxiway Centreline Lights
- Taxiway Centre Line Lights
- Taxiway Centre Line Lights on an Exit Taxiway

- Taxiway Center Line Lighting on Taxiway/Taxiway Center Line Lighting on Rapid Exit Taxiways/Taxiway Center Line Lighting on Other Exit Taxiways
- Taxiway Centreline Lighting
- d) Physical Apparatus & Other Terms
  - 1) Physical Apparatus
    - General Note
    - Bidirectional Lights
    - Blister Lights
    - Button Lights
    - Edge Lights
    - Elevated Taxiway Lights for Holding Position Markings
    - 45w Taxiway Edge Lamps
    - Fully-Flush Lighting Fixtures/Fully Flush Fixture
    - Holding Position Edge Lights
    - In-Pavement Taxiway Lights/Lights, Taxiway, In-Pavement
    - Inset-Type Runway & Taxiway Lights
    - Light Assembly, Airport Taxiway Center
    - Low Intensity Taxiway Light (LITL), Low Intensity Taxiway Edge Light
    - Medium Intensity Light (MITL)/Medium Intensity Runway Light
    - Medium-Intensity Light/High Intensity Light
    - Medium Intensity, Omnidirectional Elevated Light
    - Semi-Flush Fixtures
    - Semiflush Inset Lights
    - Taxiway Inpavement Light/Taxiway In-Pavement Lights
    - Unidirectional, Bidirectional, Light Assembly Airport Taxiway Centerline
  - 2) Other Taxiway Lights
    - Aircraft Arresting Marker Light
    - Automatic Block Signal Control
    - Barrette
    - Clearance Bars
    - Clearance Bar Lights



- Entrance-Exit Lights
- Runway Guard Light
- Snow Area Lights (Elevated Lights)
- Stop-and-Go Signals
- Stop Bars/Stop Bar System
- Stop Bar Light/Stop-Bar Light
- Taxiway Guidance Lights
- Taxi-Holding Position Lights
- Taxiway Intersection Lights
- Taxiway Traffic Control System

#### 4D3 Historic & Composite Terms

##### a) Historic Terms: Boundary, Contact & Range Lights

- Border Lights
- Boundary Lights
- Boundary Lights System
- Contact Lights
- Contact Lights of the Marker Type
- Contact-Light System/Contact Light System
- Distance-To-Go (DTG) Marker Lights/-Lighting
- Flush Marker
- Floating Seadrome Lights
- Land & Hold Short Lights
- Range Lights

##### b) Composite Terms

- General Note
- Centerline & or Touchdown Zone Lights
- Centerline & Touchdown Zone Lighting Systems
- End/Threshold Lights
- Lights, Runway & Taxiway Edge, Low Intensity Lights, Runway & Taxiway Edge, Medium Intensity
- Runway Center & TDZ Lights/Runway Centerline & TDZ Lighting Systems
- Runway & Strip Lights
- Runway & Taxiway Edge Lights

Runway & Taxiway Edge Lighting Systems  
Runway & Taxiway Lights  
Runway Threshold/End Lights  
Threshold & Runway End Light/Threshold Runway End Lights  
Touchdown & Centerline Lights

### Notes

#### General Notes:

Differences can be noted in portions of the new edition of CCI (2012) but not here. Chapter 4A, Overarching Terms is often marked by substantial consensus or nearly identical coverage between CCI 2006 and DB-Aero 2009. Limited differences are noted. Chapter 4B, Beacons & Obstruction Lighting are nearly so. Minor and limited differences are noted.

#### Specific Terms:

4A OA entries include a few changes including a new term, Aero Lights in DB: Aero 2009. Is Light System required along with Lighting System.

Specialized terms: Aero Lights moved to general terms for DB: Aero 2009. Airport Lighting not a specific term though it is an OA term. There are three alternative terms: Aerodrome Light Systems for DB in contrast to Aerodrome Lighting. "Al" omitted from Navigational within Airport & Air Navigational Lighting & Marking Aids. Ground-Positioning becomes Positioned Lighting in DB. DB adds Landing Aids to Air Navigation and Landing Aids. Runway End Elevated Light becomes Runway End Inset in DB. Overall, there is a high level of consensus not withstanding a variety of changes.

4B, Beacons & Obstructions changes include additions of Aeronautical Beacon, 24-inch Rotating Beacon, Medium Intensity Airport Beacon, Rotating Searchlight Beacon in DB. Nuanced differences include: slight variance with Twenty-Four Inch Beacon, Lighted Airway Beacons.

4C1 manifests some measure of cohesion. However, fairly substantial differences in CCI 2006 and DB: Aero 2009 are present. Approach Light System (ALS) is omitted from DB. Approach Lighting System is a major term for DB but not a specific term. Descent Aid in Sub-Overarching for DB and Indicator Aid is omitted. Touchdown System, and Visual Landing Aids not in DB. DB includes Flashing or Pulse Aids which are omitted from CCI.

4C2, Equipment Terms. DB lacks Flashing Light, and Lamp Housing Assemblies. Capacitor Discharge Light and Condenser Discharge Lights prefaced by “Further Terms” in CCI; that preface is omitted in DB.

4C3, Approach Lighting Systems is marked by considerable consensus. Changes include omission of Slope-Line Approach System in DB; Lighting is shortened to Light for Slope Line Approach Lighting System. Barrette Centreline Approach Lighting System lacks “systems” in DB. DB adds International Lighting System, Touch-down System, Drem Lighting System.

4C4, Final Approach Equipment. DB adds Approach Path Indicator/Approach Indicator. Precision Approach Path Indicator Lights omitted in DB. Precision Approach Path Indicator is a main term for DB but not a specific term. DB adds VASI-XVI [3-Bar] to VASI Systems. DB adds (Projector Type) to T-VASI Light units. Flashing Aids omitted in DB. DB adds Descent Indicator, & Generic Visual Approach Descent Indicator.

4D, Runway & Taxiway Lighting. There are only limited changes in this sub-chapter; some segments have no differences. Runway Lighting is cohesive except for limited changes in Equipment Terms. Semi-flush has been reworked to “Semi-Buried” with an alternative name, “Semi-encrastic”. New terms include semi-flush/surface and flush-flush/semi-flush forms. Light Equipment by intensity includes a slight term of adding “ing” to High Intensity Runway Light. DB adds High Intensity Runway Lights Historic & Composite Terms includes Flasher Marker Lights (DB). However, DB omits Border Lights, Contact Lights of the Marker type, Flush marker, Floating Seadrome, Land and Hod Short Lights, Range Lights.

4E Radio Aids

4E1 Overarching Terms

a) General Terms

Aero Electronic Navigation Aids  
Aeronautical Radio Navigation  
Aeronautical Radio Navigation Services  
Aeronautical Radionavigation Services  
Air Navigation Aids/Air-Navigation Aids

Air Navigation Radio Aids  
Air Navigation Facility (Nav aids)/Air Navigational Facility  
Air Navigational Radio Aids  
Air Nav aids  
Air Navigation Systems  
Electronic Aids  
Electronic Landing Aids  
Electronic Navigation Aids  
Electronic Navigational Aids  
Fixing System  
Ground Aids  
Ground-Based Radio Aids  
Ground-Based Navigation Aids  
Ground Aids to Instrument Flight  
    Landing Area Radio Navigation Aids  
    Route Radio Navigation Aids  
IMO Worldwide Radionavigation System  
Instrument Flight Aids  
Nav aid Systems  
Navigation Systems  
Primary Nav aids  
Radio Aids  
Radio Aids to Air Navigation  
Radio Aids to Navigation

Radio Location & Approach Aids  
 Radio-Based Navigation Service/Radio-Based Navigation Systems  
 Radio Navaids  
 Radio Navigation Aids  
 Radio Navigational Aids/Radio-Navigational Aids  
 Radio Navigation/Radionavigation  
 Radionavigation Aids/Radio-Aids  
 Radio Navigation System/Radionavigation Systems/Radio-Navigation  
 Systems  
 Radio Navigation Service  
 Radio-Navigational System

b) Sub-Overarching Terms

Long-Distance Aids  
 Long-Distance Aids to Navigation  
 Long-Distance Navigation Aids/Long-Distance Navigation Aids  
 Long-Distance Radionavigation Aids  
 Long-Range Navaids  
 Long Range Radio Navigation Aids/Long Range Navigational Aids  
 Short & Long Distance Radio Navigational Aids  
 Short Distance Aids to Air Navigational/Short-Distance Aids to Air  
 Navigation  
 Short Distance Aids/Short-Distance Aids  
 Short Distance Navigation Systems  
 Short-Distance Radio Aids/Short Distance Radio Aids  
 Short-Distance Radio Aids to Navigation/Short Distance Radio Aids  
 to Navigation  
 Short Range Navaids/Short-Range Navaids  
 Short-Range Navigational Aids  
 Systems of Approach & Landing  
 Wireless Aids

c) Special Terms

General Note  
 Area Navigation  
 Area Navigation (RNav)/Area Navigation (R-Nav)

- Area Navigation System
- Area-Based System
- Long Distance Rnav/Short Distance Rnav
- Nonprecision Rnav
- Rnav
- Rnav/FMS
- Rnav System
- Fan/Fans
- Future Aviation Navigation Systems
- Altitude Heading Reference System (AHRS)
- ATM
- ATM/CNI/ATM
- CNS
- Communication, Navigation, Surveillance
- Flight Management System/Flight Management System (FMS)
- INS
- Inertial Navigation System/Inertial Navigation System (INS)
- Inertial Systems/Inertial Systems (INS)
- Inertial Reference Unit (IRU)
- Integrated Global Surveillance & Guidance System (IGSAGS)
- Transponder Landing System (TLS)

#### 4E2 Terminal Nav aids/Aids to Final Approach & Landing

##### a) General Terms

- Aids to Final Approach
- Aids to Final Approach & Landing
- Landing Aids
- Landing Area Radio Navigational Aids
- Landing Area of System of Radio Navigation Aids
- Landing Systems
- Precision Landing Systems
- Standard Non-Visual Aids
- Standard Non-Visual Aids to Final Approach & Landing
- Terminal Navigational Aids (Nav aids)
- Terminal Nav aids

## b) Historic Terms

## 1) Overarching Terms

- Aircraft Approach & Landing Systems
- Instruments Method of Approach & Landing
- Landing-Beam
- Methods of Landing by Co-operation with the Airport D.F. Control
- Wireless Aids
- Wireless Beacon Landing System

## 2) Systems

- Air-Track System
- A-1 (Hegenberger System)
- Approach Aid
- Army Air Forces Instrument Approach System Signal Set 51
- Army Hegenberger System
- Automatic Coupler
- BABS (Blind Approach Beacon System)
- Baumann & Ettinger System of Blind Landing
- Beacon Method of Landing
- Bent-Beam-Type System/Lorenz "Bent Beam" System
- Blind Bombing Aid
- Blind Landing System
- Bowles-MIT-Sperry Gyroscope Continuous Wave System/Sperry  
Continuous Wave System
- Boundary Beacon/Boundary Marker
- Bureau of Standards System
- CAA System
- CAA-MIT Microwave Landing System
- Common Landing Aid
- Course Indicator
- D.F. Landing
- Dunmore Ultra-Short-Wave Landing Beacon
- Equi-Signal Approach System
- Equi-Signal Localizer
- Forty-Centimeter Blind Landing System

Hegenberger System  
Indianapolis System  
Landing-Aid Version  
Landing Beam  
Landing-Beam System  
Landing Safety Enlisted (LSE)  
Locator Station  
Lorenz System  
Lorenz Thick Weather Landing System/Lorenz System  
Loth System/Leader Cable System/Dingley Leader Cable System/  
Leader-Cable-Type System  
Low-Frequency Localizer  
Low-Tech VHF System  
Marconi Medium Wave Equi-Signal Approach Beacon  
Marconi Ultra-Short Wave Approach Beacon  
Microwave Localizer  
Microwave System/Micro-Based System

Microwave Glide Path Terms Before 1945:

Equi Signal Glide Path  
Microwave Glide Path Transmitter  
Penetration Method of Landing  
Pulsed Glide Path  
Straight-Line Glide Path/Straight-Line Glide Path System  
Ten-Centimeter Pulsed Glide Path  
Ten-Centimeter Glide Path  
330-MHZ Glide Path

National Bureau of Standards (NBS) Tripartite System  
NBS Landing System  
NBS Localizer System  
NBS System  
NBS-Type Systems  
NBS/YB



Penetration Method of Landing  
 Pilot Control Model/Pilot-Control Model  
 Raid-Forming Beacon  
 Short - And Medium-Range Air Navigation System  
 Standard Beam Approach (SBA) System/Standard Beam Approach  
     System/SBA Systems  
 Standard Systems  
 System of Approach & Landing  
 Talk-Down System  
 Three-Element System  
 UHF CAA System  
 UHF Localizer  
 US Department of Commerce System  
 U.S.W. Approach Beacon  
 U.S. Bureau of Standards Blind Landing System  
 U.S. Army Air Corps Blind Landing System/Hegenberger System  
 Warning Signals/Marker Signals  
 YB System  
 Zeppelin-Telefunken System  
 “ZZ” Method of Landing

### 3) Components

Boundary Beacon [BOS=Bureau of Standards]  
 Boundary Marker [BOS]  
 Landing Beam Transmitter [BOS]  
 Lorenz Beacon L=Lorenz  
 Lorenz Glide & Path & Marker Beacon L  
 Lorenz Main Beacon L  
 Lorenz Outer Beacon Transmitter L  
 Marconi Medium Wave Equi-Signal Approach Beacon  
 Marker “Beacon”  
 Marker Signal L/Warning Signal  
 Outer Marker [BOS]  
 Runway Localizing Beacon [BOS]  
 Ultra-Short Wave Approach & Landing Beacon L

- Ultra-Short Wave Marker
- U.S.W. Approach Beacons
- U.S.W. Glidepath
- c) Instrument Landing Systems, ILS
  - 1) Overarching Terms
    - General Note I, II
    - Instrument Landing Systems, ILS
    - ILS
    - Instrument Landing System (ILS)/Instrument Landing System/ILS,  
Instrument Landing System
    - Instrument-Landing System
    - I.L.S. (Instrument Landing System)
  - 2) Other Terms
    - Instrument Low-Approach (ILS)/Instrument Landing System/ILS  
Instrument Landing System
    - Fixed-Beam Low-Approach System
    - ILS 381
    - Cat I Instrument Landing System
    - ILS
      - Cat I, -II, -III
    - ILS Cat II/III
    - ILS Cat II
    - (ILS)/DME
    - ILS/DME
    - Category II ILS
    - Cat II/III ILS
    - Cat III, ILS
    - Cat III ILS
  - 3) ILS Components
    - Course Indicator
    - General Note
    - Glide Slope/Glideslope
    - Glide Slope Radio Course
    - Glide Slope/Glide Path

Glide Slope Facility  
Glide Slope (GS) Facility  
Glide Slope System/Glide-Slope System  
Glide Path  
Glide-Path (GP)  
ILS Glidepath Transmitter  
ILS Glideslope  
Landing Beam  
Null-Type Glide Slope [4 sub-terms]  
Straight-Line Glide Path  
ILS Glide Slope  
ILS Glide Slope Subsystem  
Two-Frequency Glide Path System  
UHF Glide Slope Transmitter/UHF Glide Slope  
ILS Glide Path Transmitter  
ILS Glide Path  
Localizer Unit (LO)  
Localizer Type Directional Aid (LDA)  
Localizer  
(LOC/DME)  
LOC/DME  
LDA/Glidescope  
Wide-Aperture Localizer  
ILS Localizer  
Offset Localizer  
Two-Frequency Localizer System  
Localizer Facility  
Marker Beacon  
Marker Beacon  
    Outer Marker, Middle Marker, Inner Marker [7 more terms]  
ILS Middle Marker Beacon/ILS Inner Marker Beacon  
NDB/Compass Locator  
Outer Marker Compass Locator/Middle Marker Compass Locator  
Instrument Landing System Marker

- ILS Markers
- ILS Marker Beacon
- ILS-Associated Fan Marker
- Simplified Directional Facility (SDF)
- Solid-State Markers
- Pole-Mounted Markers
- 75 MHz ILS Markers
- VHF Marker Beacon
- Back Course Markers
- Back Course Markers Beacons
- 4) Microwave Landing Systems, MLS
  - General Note
  - (a) Overarching Terms
    - Microwave Landing System (MLS)/Microwave Landing System, MLS/  
Microwave Landing System
    - Microwave System
    - MLS
    - MLS System
    - (Microwave Landing System) (MLS)
    - Standard MLS
  - (b) MLS Constituents & Other Terms
    - Departure System
    - Duplex MLS
    - Tactical MLS System
    - Interim Standard Microwave Landing System/Interim-Standard  
Microwave Landing System (ISMLS)/Interim Microwave  
Landing System (ILSMS)/ISMLS
    - MLS/RNAV
    - MLS Precision Distance Measuring Equipment
    - Doppler MLS
    - Time Reference Scanning-Beam System
    - Scanning Beam MLS
    - SCAMLS
    - Stol/MLS

Component of MLS include:

Azimuth Station

Elevation Station

MLS Azimuth/MLS Azimuth Station

MLS Azimuth Equipment

MLS Ground Station

MLS Elevation Equipment

DME/N

Cat I MLS

Cat II MLS

Cat III MLS

Cat II Mobile MLS (MMLS)

Cat I/II/III MLS

MLS Systems & Constituent Terms: 1930s/1940s:

CAA-MIT Microwave Landing System

Indianapolis System

Microwave Localizer/Microwave Glide Path

Microwave-Based Systems

Microwave Systems

Standard Systems

Ten-Centimeters Continuous Wave (CW) Microwave System/

Ten-Centimeter Pulse Glide Path (PG)

Three-Element System

#### 4E3 En-Route Aids

##### a) Historic Terms

##### 1) Early Terms

Beacon Transmitters for Fixed Course & Long-Range Navigation

Beacon Transmitting Station

Equi-Signal Beacon

Navigational Beacon

Telefunke Compass/Telefunken Rotating Beacon

The Course Setter/Equi-Signal Course Setter

Scheller's (Lorenz) Equi-Signal Course-Setter

The Wireless Lighthouse

Standard Beam Approach (SBA)  
 Lorenz Azimuth Guidance Beacon  
 Small Loop Aerial System  
 Bellini-Tosi Radiophare  
 Bellini Tosi System/Bellini-Tosi System/Bellini D/F System  
 Bellini-Tosi Closed Loop System/Bellini-Tosi Loop Aerial System  
 Marconi Eight Channel Bellini-Tosi System  
 Multi-Channel Marconi Bellini-Tosi (or Adcock) System  
 Radiobeacon Services  
 Two Course Beacon/Four Course Beacon

2) Intermediate Terms

Radio Range/Radio-Range [4 Subdivisions in '09]  
 Radio Range Equi-Signal Beacon System  
 Radio Range Beacon/Radio-Range Beacon/Radio Range Beacon System  
 Radio Marker/Radio Marker Beacon/Radio-Marker Beacon  
 Radio Range Station/Radio Station  
 Range  
 Aircardi System  
 Aural Radio Range/Aural Radio Range Beacon  
 Aural Range  
 Aural-Type Radio Range Beacon  
 Loop Type Range  
 Loth System of Rotating Beacon  
 Loth System of Twin Rotating Beacon  
 Low Power Range  
 MRA or MRL Range  
 U.S. Radio Range Beacon System

Radio Range by Frequency:

General Note  
 Low/Medium Frequency Radio Range (LLFR)  
 Low or Medium Frequency Radio Beacon  
 Low or Medium-Frequency Radio Range  
 Low and Medium Frequency Radio Range

- Low-Frequency Four-Course Range
- Low-Frequency Radio Range
- Low/Medium Frequency (L/MF) Radio Range
- Low Frequency Range
- Four-Course Radio Range
- Four-Course Radio Station
- Four-Course Range
- Four-Course Type
- Rotating Range
- Visual Range
- b) VOR/VORTAC/DME/TACAN Aids
  - General Note
  - 1) VOR, VHF Omnidirectional Radio Range
    - General Note
    - VOR
    - VHF Omnirange (VOR)
    - VHF Omnidirectional Radio Range
    - VHF Omni-directional Radio Range (VOR)
    - VHF Omni-Directional Radio Range
    - VHF Omnidirectional Range (VOR)
    - VHF Omnidirectional Range (VOR)
    - Very-High Frequency Omnirange (VOR)
    - VOR (VHF Omni-Range)
    - VOR (VHF Omnidirectional Radio Range)
    - Conventional VOR
    - Doppler VOR
      - General Note
    - Doppler VHF Omni-directional Range
    - Doppler VOR
    - Doppler VOR (DVOR)
    - DVOR
    - D-VOR
  - 2) Distance Measuring Equipment, DME
    - General Note

- Distance Measuring Equipment (DME)
- DME
- Distance Measuring Devices
- Distance-Measuring Equipment (DME)
- DME System
- UHF Distance Measuring-Equipment (DME)
- DME/W
- DME/P
- Precision Distance Measuring Equipment (P-DME)/MLS Precision  
Distance Measurement Equipment (DME/P)
- DME/N
- 3) TACAN/Tactical Air Navigation
  - General Note
  - TACAN
  - Tactical Air Navigation (TACAN)
  - Tactical Air Navigational Aid
  - Tactical Air Navigation System
  - TACAN, Tactical Air Navigation
  - TACAN System
- 4) Composite Systems
  - DVOR/DME
  - DVORTAC
  - HVORTAC
  - SVOR/DVOR
  - VOR/DME//VORDME
  - Doppler VOR/DME
  - LDME
  - VOR/DME-Based RNAV//VOR/DME RNAV
  - VORTAC
  - VHF Omni-Directional Range/Tactical Air Navigation (VORTAC)
  - VHF Omni-Directional Range/Tactical Air Navigation
  - Associated VOR & TACAN (VORTAC)
  - VOR/DME (TACAN)
  - VOR/Distance Measuring Equipment (DME) System of Air



- Navigation
- Backfit VOR with TACAN Rho/Theta
- TVOR
- c) Hyperbolic Aids
  - General Note I, II
  - 1) Overarching Terms
    - Hyperbolic Aids
    - Hyperbolic Navigation Systems
    - Hyperbolic Radio Nav aids
    - Hyperbolic Radio Navigation
    - Hyperbolic Airborne Navigation Aids
    - Hyperbolic Systems
  - 2) Loran
    - General
    - Loran
    - Loran A/Loran-A/Loran-A System
    - Loran-C/Loran C/Loran-C System
    - Standard-Loran/Standard Loran/Loran, Standard
    - H.F. Loran
    - Low-Frequency Loran/L.F. Loran
    - SS-Loran (Synchronized Loran)S.S. Loran/Skyware Synchronized Loran  
(SS Loran)
    - Loran-B/Loran-D
    - Differential Loran
    - Chaika/Chaika (Seagull) System/Chayka
    - Cyclan
    - Cytac
    - Gee Hyperbolic System/Gee System
    - QH
  - 3) Decca
    - General Note
    - Decca
    - Deccsa Navigator/Decca System/Decca Navigation System
    - QM

- Decca Hi-Fix
- Delrac
- Dectra
- 4) Consol
  - Consol
  - Consol System
  - Consolan
  - Sonne
  - Consol (Sonne)
  - Sonne/Consol
  - Sonne (Sun)
  - Sonne (Consol)
  - Mond (Moon)/Stern (Star)
- 5) Omega
  - Omega
  - Omega/VLF//Omega/VLF Navigation System
  - Omega/NCS System
  - Omega System/Omega Navigation System
  - Differential-Omega
  - Omega/Loran C
  - Omega Global Navigation
- 6) Miscellaneous Hyperbolic Aids
  - Eureka/Rebecca-Eureka/Rebecca/Eureka/Rebecca-Eureka Distance Measuring System
  - Lorac
  - Navaglobe-Navarho
  - Navaglobe/Navaglobe System
  - Navarho System
  - Navarho-H, HH, RHO
  - Post Office Position Indicator (POPI)/POPI (Post Office Position Indicator)/P.O.P.I.
  - Raydist
  - Radio-Mailles System
  - Radio-Web/Radio-Mesh

- Radio Mesh System (Radio-Mailles)
- Radux
- Radux-Omega
- Rana
- Toran
- d) Satellite Nav aids
  - 1) GPS
    - (a) Overarching Terms
      - GPS, Global Positioning Systems
      - General Note, I, II
      - GPS
      - GPS System
      - Global Positioning System
      - Global Positioning System (GPS)
      - GPS, Global Positioning System
    - (b) Specialized & Composite Terms
      - Cat II/III GPS
      - Global Positioning Satellites
      - GPS/Glonass/GPS-Glonass
      - GPS (Global Positioning System) Satellite-Based Navigation System
      - Global Positioning System
      - GPS
        - General Global Positioning System
        - Standard Positioning Service (SPS)
        - Precise Positioning Service (PPS)
      - Maritime GPS
      - Nationwide DGPS (NDGPS)
      - RAIM
      - RAIM (RAIM)
      - GPS/LAAS
      - GPS/RAIM
      - GPS/WAAS
    - c) Navstar GPS
      - Navstar (Navigation System with Timing & Ranging)

- Navstar
- Navstar System
- Navstar Global Positioning System/Navstar Global Positioning System (GPS)
- Navstar GPS
- Navstar-GPS
- Navstar/GPS
- Navstar Satellites
- Global Positioning System (Navstar)
- d) Glonass
  - Glonass/Glonass (Global Navigation Satellite System)
  - Glonass, Global Orbiting Navigation Satellite System
  - Global Orbiting Navigation Satellite System (Glonass)
- 2) Augmentation GPS
  - (a) DGPS
    - Differential GPS
    - DGPS
      - Standard Positioning Service (SPS)
      - Precise Positioning Service (PPS)
    - Differential GPS (DGPS)
    - DGPS System
    - Differential Global Positioning System/Differential Global Positioning System (DGPS)
    - DGPS Landing System/Special Category I DGPS Landing System/  
DGPS Special Category Landing System
    - DGPS Ground Reference System
    - DGPS Ground Station
    - Aeronautical-DGPS
    - DGPS/INS
    - DLoran-C/Differential Loran-C
    - Helicopter-Borne DGPS System
    - Intelligent Small Area DGPS
    - Augmentation to GPS
    - Satellite-Based Augmentation System

- Special Category I Differential GPS (SCAT-I DGPS)
- Category I Ground Based Augmentation System (GBAS)
  - NGPS
  - National DGPS (NGPS)
  - Nationwide DGPS (NDGPS)
- (b) WAAS & LAAS Augmentation
  - LAAS
  - LAAS Cat I
  - Local Area Augmentation System (LAAS)
  - Local-Area Augmentation System (LAAS)
  - LADGPS
  - SADGPS
  - Satellite Navigation Project Wide Area Augmentation System
  - Wide Area Augmentation (WAAS)/Wide-Area Augmentation System (WAAS)
  - WADGNSS
  - WAD GNSS
  - Wide-Augmentation Differential GNSS
  - WADGPS
  - WAAS
  - WAAS
    - Functionalism Verification System
    - Phase 1, Phase 2
  - WAAS Geo Communication Satellite
  - W.A.A.S.
  - WAAS GEO
  - WAD
  - WAS
  - Wide-area Ground Reference Stations (WRS)
  - Wide-area Master Station (WMS)
- (c) GNSS
  - Global Navigation Satellite System (GNSS)
  - GLS (GNSS Landing System)
  - GNSS

- GNSS, Global Navigation Satellite System
- GNSS (Global Navigation Satellite System)
- GNSS Landing System (GLS)
- GNSS-1
- GNSS-2
- DGNSS
- DGNSS, Differential Global Navigation Satellite System
- Differential GNSS System/Differential GNSS (DGNSS)
- Cat II/III GNSS Approaches
- GNSS-Based Operating System
- Global Satellite System for Navigation
- Loran GNSS (LOGIC)
- Precise GNSS/Conventional GNSS
- Radiobeacon DGNSS
- (d) Other Satellite Navigational Systems
  - (1) Satellite Navigation Terms
    - ARGOS System (Advance Research & Global Observation Satellite)
    - Automatic Identification System
    - ECDIS
    - European Geostationary Navigation Overlay Systems (EGNOS)
    - Eurofix
    - EUTELTRACS
    - Geostationary Overlap System
    - GBAS
    - Navigation Satellite System
    - Navsat
    - Precision Approach System
    - Satcom//Satcom/Satnav
    - Satellite Navigation
    - Satellite-Assisted Navigation (GNSS/GPS)
    - Satellite-Based Navigation System/Satellite-Based System
    - Satellite Landing System
    - Satellite Navigation
    - Satellite Navigation System
    - Satellite Positioning System

- Satellite System
- Space-Based Navigation & Position System
- (2) Transit & US Navy System
  - General Note
  - US Navy Navigation Satellite System
  - US Navy System
  - NNSS (Navy Navigation Satellite System)/Navy Navigation Satellite System (NNSS)
  - Transit
  - Transit System
  - US Transit
  - US Transit System
- (3) Miscellaneous Systems
  - Cellular Communication Network
  - Cospos-Sarsat
  - Datatrack
  - Defense Navigation Satellite System (DNSS)
  - Digital TV Network
  - Galileo
  - Geostar/Locstar
  - Geostat
  - Geostationary Earth Orbit Station Navigation (GEO)
  - Granas
  - Integrated Global Surveillance & Guidance Systems (IGSAGS)
  - Starfix/Starfix Positioning System
  - Timation
  - Tsikada/Cicada
  - TSPI System
  - Inmarsat Satellite
  - Inmarsat-A Satellite
  - Inmarsat-1, -2, -3 Satellite
    - General Note
  - IOR, Inmarsat III Satellites
  - IOR Satellites

Artemis Satellites

General Note

MSAS

MSAS, Japan Multifunction Transportation Satellite (MTSAT)

MT Sat

MT Sat-1, -2

Mtsat System

General Note

Omnistar

Sar System

4E4 Intercategory Group: Beacon

a) Nondirectional Beacons

NDB Navigation

Non-Directional Beacon

Non-Directional Beacon (NDB)

NDB Ground-Based System

Nondirectional Radio Beacon (NDB)

Non-Directional Radio Beacon

NDB

NDB (L/MF Non-Directional Radio Beacon)

NDB, Non-Directional Radio Beacon

NDB, Non-Directional Beacon

Nondirectional Beacon (NDB)

Non-Directional Radio Beacon (NDB)

Non-Directive Marker

L-F Markers

Low-Frequency Nondirectional Beacon

Low Frequency Non-Directional Beacon

Low -& Medium-Frequency Nondirectional Radio Beacon

Low-Power Radio Marker Beacon

LF/MF/ NDB (Non-Directional Radio Beacon)

LF/MF NDB

L/MF Non-Directional Radio Beacon

Compass Locator



Homer  
Low & Medium Frequency Non-Directional Radio Beacon  
Aeronautical Nondirectional Beacon/Aeronautical Non-Directional  
Beacon  
Aeronautical Nondirectional Beacon (Non-ILS)  
Aeronautical Radiobeacons  
ILS Nondirectional Beacon (NDB)/ILS-Associated Nondirectional  
Beacon

b) Marks, Markers, Beacons

General Note  
Beacon  
Beacons for Navigation  
Beacon Station  
Beacon Transmitters for Fixed Course & Long-Range Navigation  
Beacon Transmitting Station  
Bellini-Tosi Radiobeacon  
Directional Radio Beacon  
Directive Beacon  
En-Route VHF Marker Beacons (75 MHz)  
Fan-Type Marker  
Fan Marker  
Fan Marker Beacon  
Fan Marker (FM)  
Fixed Non-Directive Marine Beacon/Non-Directive Marine Beacon  
Loth Systems of Rotating Beacon/Loth System of Twin Rotating  
Beacon  
Low-Frequency Nondirectional Homing Beacon  
Low-Powered Fan Marker/Low-Power Version of the Fan Marker  
“M” Marker  
Marconi Rotating Beam Transmitter  
Marconi Ultra-Short Wave Approach Beacon  
Marconi Ultra-Short Wave Rotating Beacon Transmitter  
Marine Radio Beacon  
Maritime Radio Beacon System

Marker  
Marker Beacon  
Marker Beacon (Mkr)  
Marker, Beacon, 75 MHz  
Marker Station  
Navigational Beacon  
Nondirectional Radio Marker Station  
Non-Directive Marine Beacon  
Radio Beacon  
Radio Beacon & Fog Signals  
Radio Beacon Station  
Radio Beacon System  
Radiobeacon Service  
Radio Marker  
Radio Marker Beacon/Radio-Marker Beacon  
Radio-Marker-Beacon Station  
R.A.F. Directive Transmitter/or Oxfordness Experimental Rotating  
Beacon  
Rotating Beacon  
Rotating Beacon Transmitter  
Rotating Beacon Wireless Transmitter  
Rotating Directive Beacon  
75-mc Fan Marker  
75-mc Marker Station  
Station Location Marker  
Ultra-High-Frequency Radio Fan Marker  
Ultra-Short Wave Rotating Beacon  
Vertical Marker Beacon  
Very-High-Frequency Course Marker  
Very-High-Frequency Marker  
VHF Marker Beacon  
V-H-F Markers  
Z-Beacons  
Z Marker/Z-Marker

## Z Marker Beacon

## c) Miscellaneous Terms [DB-A has D-F]

Adcock System

Aerodrome Direction Finding

Aerodrome D.F.

Aircardi System

Aircraft Ground D.F. Station

B-T Closed Loop System

Coastal D.F. Service

Closed Loop Coastal Direction-Finding

D.F. Stations

Direction &amp; Position Finding

Direction-Finding Beacons/Direction Finding Beacon/DF Beacon/

Omnidirectional DF Beacon

Direction-Finding Station

Double Modulation System

Fixed Spaced Frames

Four Course Beacon

Four-Course Double Modulation System

Ground-Based Doppler Direction Finding

Ground D/F Station

Ground Ray D.F.

Marconi-Adcock Direction Finder Type D.F.G. 12 (Shielded "U"

Type Aerial)

Marconi Ground Station Direction Finding Type D.F.G. 10

Marconi Portable Short-Wave D.F. Type D.F.G. 15

QTG Signals

Rotating Form Apparatus for Short-Wave Ground Ray D.F.

Rotating Loop Direction Finding

Rotating Space Frame Systems

Short D.F. Stations/Coastal D.F. Station

Short Ground Station/D.F. Aircraft Ground Station D.F.

Shore-Wave

Short D.F. Stations

Short Ground Station/Shore or Aircraft Ground Station  
 Short-Wave Direction Finding  
 Short-Wave Ground Direction Finding Stations  
 Spaced Frame Short-Wave Direction Finding (Eckersley-Marconi)  
 Standard Telephones & Cables, Ltd. Type R.S. Adcock Direction-  
 Finding  
 Telefunken Ground Ray Short-Wave Portable D.F. Type P 57N  
 Telefunken Long- & Medium-Wave Portable D.F. Type 393N  
 Triple Modulation 12-Course Equi-Signal Beacon  
 UHF/VHF Doppler Direction Finders  
 Wireless Direction Finding  
 Wireless Beacon Landing System  
 Wireless Beacon Transmitter  
 Wireless Position Finding  
 W/T Direction Finding Station  
 W/T Fog Signal Transmitter

#### Notes

General Notes. Subchapter 4E, Radio Aids, is marked by diversity. Portions display a high level of consensus though other segments include major differences. Historic sections in 4E2 and 4E3 have many differences between CCI 2006 and DB: Aero 2009. Augmentation GPS is a third area with many differences. Intercategory Group: Beacons also contains notable differences. OA, 4E1 has moderate degree of differences while En-Route Aids have only limited changes (other than historic and augmentation terms.

#### Specific Notes:

4E1, Overarching: Two terms in CCI 2006, Fixing System and IMO Worldwide Radionavigation Systems, are omitted in DB: Aero 2009. Two terms are slight variations in DB: Aero 2009: Area Electronic Navigation Aids, Aeronautical (Systems), Radionavigation

Services, Air Navigation and Control Aids. There are three terms in DB:Aero 2009 for Sub-overarching: Short-Range Navigational Aids, System of Approaches, and Land Wireless Aids. Two terms are only in CCI 2006: Short Distance Navigation Systems, and Short-Range Navaids. Four terms are absent from Special Terms for DB: Area-Based System, Rnav, FMS, Rnav Systems.

4E2, Terminal Navaids/Aids to Final Approach & Landing: General Terms are identical while Historic terms have many differences. There are three segments in CCI 2006 but a unitary format in DB: Aero 2009. CCI includes a wide range of terms (19) that come from Keen 1938 (although occasionally Keen is include in 'DB: TCD 2009). By contrast, DB includes a very broad range of terms from Conway 2006 that are omitted in CCI.

These additional terms are added to CCI 2012. ILS Overarching terms (termed Principal Terms in DB: Aero 2009) are identical. DB adds Instrument Landing Systems/ILS Instrument Landing Systems, and FAA Instrument Landing Systems. DB omits the acronym term ILS. ILS Components lack a variety of DB terms: Course Indicators, Landing Beam, Null-Type Glide Path (though 4 sub terms are included). Localizer Type Directional Aid (LDA), (LOC/DME), LOC/DME, LDA-Glidescope, Marker Beacons, NDB/Compass Locator, Instrument Landing System Markers, ILS Marker Beacon, Simplified Directional Facility. DB adds UHF Glide Slope and 7 terms in Markers.

4E3. En-Route Aids: Historic Terms, early: DB: Aero 2009 adds 7 terms while omitting 4 terms. DB: Aero 2009 adds 8 terms in Intermediate while omitting 2 terms. Additional terms are added to CCI 2012. VOR/ VORTAC/ DME/TACAN Aids coverage displays a high level of coherence. Limited changes are found in Composite System: LDME, VOR/Distance Measuring Equipment (DME) System of Air Navigation, TVOR are absent in DB. Some Loran terms are omitted in DB; that coverage requires review and revision. Omega Global Navigation is also omitted in DB. Satellite Navaids have few differences. These include one form of RAIM in DB as well as GPS/LAAS and GPS/WAAS. Augmentation GPS presents a remarkable differences in the two coverages: 42 terms are lacking in DB while 20 terms are found

in DB but not in CCI 2006.

4E4, Intercategory Group: Beacon. Non-Directive Marker omitted in DB: Aero 2009 09 as is Low-Power Radio Marker Beacon. Low-Power Radio Marker Beacon is also omitted. There are differences as well: Marine Radio Beacon, Maritime Radio Beacon System, Navigational Beacon, Non-Directive Marine Beacon, Radio Beacon Beacon & Fog Signals, Radio Beacon Service, Ultra-Short Wave Rotating Beacon are missing in DB. However, DB adds Non-Directive Marker and Oxfordness Experimental Rotating Beacon. The last segment is a matter of confusion. DB has a section for Directional Finding terms while CCI 2006 has Miscellaneous Terms. CCI terms match those of DB. However, CCI has 18 new terms. These are possibly all D-F terms. Additional terms are added to this edition of CCI (2012).

4F Signs, Markings, Markers & Marks

4F1 General Notes & Overarching Terms

General Notes, I, II, III, IV

Air Marking

Airmarking

Airport Marking Aids

Airport Marking Aids & Signs

Airport Pavement Markings & Signs

Day Markings

Day Marking Aids

Day Marking Devices

Daytime Markings

Marking Aids

Surface Markings & Aids

Uniform System of Ground Marks/Aeronautical Marks

Aids

Airport Visual Aids

Ground Aids

Visual Aids

Visual Ground Aids

Visual-Aids System/Visual Aids System

Airport Marking & Lighting

Air Navigation Lighting & Marking Aids

Lighting/Markings

Lighting & Marking Systems

Marking & Lighting

4F2 Marks & Markers

a) Overarching & Physical Marker Forms

Marks

Markers

- Above Ground Marker
- Bidirectional Reflective Markers
- Cone Markers
- Cylindrical Marker
- Cylindrical Raised Markers
- Elevated Markers
- Flush-Type Markers
- Limed Marker
- “Manmade” Markers
- Markers, Retroreflective
- Natural Above Ground Markers
- Non-Snowplowable Markers
- Plane Marker
- RBI Markers/RBI Retroreflective Markers
- Reflecting Markers
- Reflecting Distance Markers
- Reflective Marker
- Reflectorized Marker
- Retroreflective Airport Marker
- Retroreflective Markers
- Type I-VI Marker
  - General Note
  - Bidirectional Reflective Marker
  - Reflective Marker/Marker
- b) Morphological Marker Forms
  - Aiming Marker for Turbojet Operations
  - Air-Mark/Air Mark
  - Air Marker/Air-Marker/Airmarker
  - Air Taxiway Marker
  - Aircraft Arresting Marker
  - Approach Day Marker
  - Approach Day Marking System
  - Barrier Engagement Marker/Hook Cable Markers
  - Boundary Markers



Centerline Markers  
Circle Markers  
Corner Marker  
Day Marker  
Day Markers for Snow-Covered Runway  
Distance Marker  
Distance-to-Go Marker/Distance to Go Marker  
Edge Marker/Edgemarker  
Edge Markers for Snow-Covered Runways  
Elevated Taxiway Edge Markers  
FATO Edge Marker  
1500-Ft Marker/Runway 1500-Ft Marker  
Fixed Distance Marker  
Flag Marker  
Half Way Marker  
Helicopter Approach Marker  
Hold Line Markers  
Identification Markers  
Illuminated Day and Night Marker  
In Ground Corner Marker  
In-Ground Marker  
In-Ground Edge Marker/In-Ground Marker  
Landscape Marker  
Markers and Markings for Snow-Covered Runways  
Marker Circles  
Painted Highway Marker  
Power Line Obstruction Marker  
Raised Edge Marker  
Retroreflective Runway & Identification Markers  
Roof Town Marker  
Runway Distance Marker  
Runway Marker  
Runway Touchdown Zone Marker  
Safe Heading Marker Board

Segmented Circle Marker  
Segmented Circle Marker System:  
Segmented Circle  
Indicators  
Closed Field Signal  
System of Airport Marking  
Segmented Markers  
Semiflush Markers/Semiflush for Centerline Marking/Semiflush  
Retroreflective Marker  
Snowplowable Marker  
Spherical Marker  
Standard Air Marker  
Standard Boundary Marker  
Standard Marker  
Stopway Edge Marker  
Stopway Day Marker  
Supplemental Reflective Markers/Supplementary Markers  
Surface Painted Apron Entrance Point Signs  
Surface Painted Gate Identification Signs  
System of Approach Day Markers  
Taxiway Centre Line Markers/Taxiway Centerline Markers  
Taxiway Edge Markers  
Taxiway Ending Markers  
Taxiway Holding Post/Taxiway Holding Post Markers  
Taxiway Route Edge Marker  
Threshold Marker  
Unserviceability Boards  
Unserviceability Cones  
Unserviceability Flags  
Unserviceability Markers  
Unserviceability Markers Boards  
Unpaved Runaway Edge Markers  
Unpaved Taxiway Edge Markers  
VOR Check-Point Markers

## Vertical Runway Distance Marker

## 4F3 Other Aids

## a) Reflective Aids

General Note

Centerline Reflector

Edge Reflectors

Elevated Edge Reflectors

Elevated Reflectors

Elevated Taxiway Edge Reflectors

Marker, Retroreflective

On-Pavement Reflector

“Passive Lighting”:

General Note

Helicopter Approach Markers

Identification Markers

RBI Reflectors

Retroreflective Aids

Retroreflective Identification Markers

Retroreflective Markers

Retroreflective Runway &amp; Identification Markers

Runway Reflectors

Reflector, Taxiway, Strip &amp; Runway

Reflector

Retroreflective Pavement Marker

Retro-Reflective Marking/Retro-Reflective Aerodrome Markings

Retroreflectives

Runway &amp; Taxiway Reflective Markers/Runway &amp; Taxiway

Retroreflective Markers

Runway Centerline Reflectors

Runway/Taxiway Reflectors

Taxiway Centerline Reflectors

Taxiway Edge Reflectors

- Cross References:
- Bidirectional Reflective Marker
  - Markers, Retroreflective
  - RBI Retroreflective Markers
  - Reflective Distance Markers
  - Reflective Markers
  - Reflectorized Markers
  - Retroreflective Airport Markers
  - Retroreflective Markers
  - Retroreflective Pavement Markers
  - Retro-Reflective Markings/Retro-Reflective Aerodrome Markings
  - Retroreflective Identification Markers
  - Runway & Taxiway Reflective Markers/Runway & Taxiway Retro Reflective Markers
  - Semiflush Retroreflective Markers
  - Supplemental Reflective Markers
- b) Signal Panels, Signals Areas Indicators, Other Objects & Miscellaney
- Checkerboard Patterns
  - Checkerboard Markings
  - Compass Callibration Pad
  - Cone
  - Cone Marker
  - Flag
  - Ground Signal Panels
  - Ground Signal Panel & Signal Areas
  - Guidance Sign Boards
  - Half Drum
  - Indicator
  - Landing Directional Indicator
  - Signal Area Panel
  - Signal Panel
  - Taxiway Edge Reflector
  - Unserviceability Boards
  - Unserviceability Cone Marker/Unserviceability Cone

- Unserviceability Flags
- Unserviceability Marker Boards
- Vee Boards
- Wind Cones
- Wind Direction Indicator
- Windsock
- Wind Tees/Lighted Wind Tee

#### 4F4 Signs & Markings

##### General Note

##### a) Overarching Terms

- Airfield Markings
- Airport Markings
- Airport Pavement Markings
- Markings
- Markings for Paved Runways & Taxiway
- Markings for Surface
- Paint Markings
- Painted Markings
- Pavement Markings
- Runway & Taxiway Markings
- Standard Markings
- Surface Markings
- Surface Marking & Markers
- Surface Markings Colours

##### b) Runway Markings

- Aim Point Markings
- Aiming Point Markings
- All-Weather Runway Markings
- Basic Markings
- Centerline Markings
- Centre-Line Markings/Centre Line Markings
- Chevron/Chevron Markings
- Conflicting Runway Markings
- Day Marking of Snow-Covered Runways

Instrument Runway Markings  
Landing Zone Markings  
Longitudinal Runway Markings  
Markings for Unpaved Markings  
Markings for Displaced Thresholds/Displaced Threshold Markings  
Markings of Paved Areas  
Marking of Snow-Covered Runways  
Non-Precision Instrument Runway Markings/Nonprecision  
    Instrument Runways  
Nonprecision Runway & Visual Runway Markings  
Painted Numbers  
Painted Runway Markings  
Paved Runway Day Markings/Paved Runway Markings  
Precision Instrument Runway Markings  
Relocated Threshold Markings  
Runway - & Taxiway - Surface Markings  
Runway Central Circle Markings  
Runway Centerline Markings/Runway Centre Line Markings  
Runway Day Markings  
Runway Designation Markings/Designation Markings  
Runway Direction Numbers  
Runway Edge Markings  
Runway End Markings  
Runway End-Zone Markings  
Runway Markings  
Runway Mid-Point Markings  
Runway Numbers  
Runway Numerals & Letters/Runway Designation Numerals &  
    Letters  
Runway Shoulder Markings  
Runway Side Stripes Markings/Side Stripes Markings/Side Stripes  
Runway Surface Markings  
Runway Threshold Markings/Threshold Markings  
Runway Threshold Stripes

- Touchdown Zone Markings/Touchdown-Zone Markings
- Threshold Markings
- Unpaved Runway Markings
- Visual & Nonprecision Markings
- Visual Runway Markings
- c) Taxiway Markings
  - Aids to Taxying
  - Day Marking-Taxying Aids
  - Painted Hold Position Markings
  - Paved Taxiway Markings/Paved Taxiway Day Markings
  - Taxiway Centerline Markings/Taxiway Centre Line Markings
  - Taxiway Continuous Markings/Taxiway Dashed Markings
  - Taxiway Day Markings
  - Taxiway Edge Markings
  - Taxiway Holding Line Markings
  - Taxiway Holding Position Markings
  - Taxi-Holding Position Markings
  - Taxiway Identification Markings
  - Taxiway Intersection Holdline Markings
  - Taxiway Intersection Markings
  - Taxiway Markings
  - Taxiway Route Markings
  - Taxiway Side Stripe Markings
  - Taxiway Shoulder Markings
  - Unpaved Taxiway Markings
- d) Markings Other Than Overarching, Runway, Taxiway, Special Categories
  - Approach Day Marking System
  - Apron & Holding Pad Shoulder Markings
  - Blast Pad & Over-run or Stopway Marking
  - Closed Markings
  - Closed Runway & Taxiway Markings/Closed or Temporarily Closed
    - Runway & Taxiway Markings
  - Centerline & Edge Markers
  - Continuous Markings/Dashing Markings

Critical Area Hold Line Markings  
Fixed Distance Markings  
Geographic Position Markings  
Hanger Roof Marking/Roof Markings  
Holding Position Markings  
Holding Position Markings for Instrument Landing Systems (ILS)/  
Precision Obstacle Free Zone (PODZ)//ILS Critical Area/PDZ  
Holding Position Markings  
ILS Holding Position Markings  
Landing Direction Indicator  
Longitudinal Markings  
Markings & Lighting of Close or Hazardous Areas on Airports  
Markings for Arresting Gear/Pendent Cable Marking/Disc Warning  
Marker  
Marking for Blast Pad or Stopway or Taxiway Preceding a Displaced  
Threshold  
Marking Displaced Thresholds, Blast Pad & Stopways  
Marking for Large Aircraft Parking Positions  
Markings of Hazardous Areas  
Markings of Temporarily Relocated Thresholds  
Markings of Unserviceability Portions of the Movement Area  
Non-Movement Area Boundary Markings  
Off-Airport Markings/On-Airport Markings  
Painted Centerlines/Edge Markings  
Runway Transverse Stripes/Transverse Stripes  
Seaplane Base Markings  
Segmented Circle/Segmented Circle Marking System  
Striated Markings  
Stripes  
Roadway Edge Stripes/Zipper Markings  
Threshold Stripes  
Surface Movement Guidance Control System (SMGGS)  
Surface Painted Signs  
Surface Painted Location Signs



- Surface Painted Taxiway Direction Signs
- Taxiway/Runway Intersection Markings
- Temporary Markings
- Transverse Markings
- Undershoot & Overrun Areas Markings
- Unserviceability Markings
- Vehicle Roadway Markings
- VOR Aerodrome Check-Point Markings
- VOR Check Points/VOR Aerodrome Check-Points
- VOR Checkpoint Markings/VOR Checkpoint Receiver Markings/  
VOR Receiver Checkpoint Markings
- Ground Receiver Checkpoint Markings
- Check-Point Markings

e) Special Category

1) Heliport & Vertiport Markings

- Aiming Point Markings
- Apron Markings
- Boundary Markings
- Centerline Stripes
- Cylindrical Markers for Hover Taxi Route Edge Marker/Large  
Markers for Air Taxiway Centerline
- Dashed FATO Markings
- Double Line Edge Stripes
- Equipment/Object Markings
- FATO Markings
- Final Approach & Take-off Area Markings or Markers
- Final Approach & Take-Off Designation Markings
- Helideck Obstacle-Free Sector Markings
- Heliport "H" Markings
- Heliport Landing Aids
- Heliport Markings
- Heliport Markings & Lightings
- Heliport Lighting & Markings
- Heliport Visual Aids

Heliport Guidance, Position & Other Markings/Guidance or Position  
Markings/Guidance & Positioning Markings  
Heliport Identification Markings  
Heliport Name Markings  
Helipad & Helideck Markings  
Hospital Markings  
Hospital Heliport Markings  
Identification Markings  
    Standard Heliport Markings  
    Hospital Heliport Markings  
In-Ground FATO Corner/Edge Markings  
In-Ground Markings  
Landing Direction Arrow  
Large Marker for Air Taxing Centerline  
Marking of Closed Heliport  
Maximum Allowable Mass Marking  
Painted H Marking  
Painted Markings  
Park Position Markings  
Standard Heliport Markings Symbol  
    Heliport Markers & Markings  
    Heliport with Markers & Markers  
Taxi Route Edge Markers  
Taxi Route & Taxiway Markings  
Taxi Route Markings  
Taxiway Markings  
Touchdown & Landing Area Markings  
Touchdown Markings  
Touchdown Pad Boundary Markings  
Weight Limit Markings  
Winching Area Markings  
Wire Markings  
  
Vertiport Markings

In-Ground Edge Markers  
 Raised Markers  
 Painted Lines

Centerlines  
 Taxiway Markings  
 Raised Markers II  
 Symbols

2) Holding Position Markings

Holding Position Markings  
 Holding Position Markings for Instrument Landing System  
 (ILS)/Holding Position Markings for Instrument Landing Systems  
 Holding Position Markings for Instrument Landing System/  
 Microwave Landing System (ILS/MLS) Critical Areas/Holding  
 Position Markings for ILS (or MLS) Critical Area  
 Holding Position Markings for Instrument Landing Systems/  
 Precision Free Zone (POFZ)  
 Holding Position Markings for Taxiway/Taxiway Intersections/  
 Holding Position Markings: Taxiway/Taxiway Holding Position  
 Markings on Taxiway  
 Holding Position Markings on Runways  
 Holding Position for Runways/Runway Intersection Holding  
 Position Markings for Runway/Taxiway Intersections  
 Intermediate Holding Position Markings  
 Intermediate Holding Position Markings for Taxiway/Taxiway  
 Intersections  
 Road-Holding Position  
 Runway Holding Position Markings  
 Taxi-Holding Position Markings  
 Taxiways Located in Runway Approach Areas (Markings)

3) Obstruction Markings

Day Marking of Obstructions  
 Flags/Flag Marker  
 Markers [w/i context of Obstructions]

- Markings [w/i context of Obstructions Markings]
- Navigational Boundary & Obstruction Marker
- Obstruction Identification
- Obstruction Lighting & Marking
- Obstruction Markings
- Obstruction Markings & Lighting
- Obstacle Markings
- Painted Cones for Day Markings
- Patterns
  - Solid Patterns
  - Checkerboard Patterns
  - Alternate Bands
  - Teardrop Patterns
- Spherical Markers
- Visual Aids for Denoting Obstacles
- 4) Apron Markings
  - Apron Markings
  - Guide Lines:
    - Lead-Out Lines
    - Lead-In Lines:
      - Turning Lines
      - Simple Lead-In Lines
      - Straight-Lead-In Lines
      - Simple Nose-Wheel Lead-In Line
      - Simple Nose-Wheel Lead-Out Line
    - Wing Tip Clearance Lines
  - Towing Lines
  - Equipment Limit Lines
  - Passenger Path Lines
  - Reference Bars
  - Turn Bars
  - Stop Line
- 4F5 Signs
  - a) Overarching Terms

- Signs
- Sign System
- Airfield Sign System
- Airport Signs
- Airport Sign System
- Airside Sign System
- Airside Signage
- Airway Signs
- Signing Aids
- Sign Array
- b) Signs Other Than Runway & Taxiway Types
  - General Note
  - Aerodrome Identification Sign
  - Airfield Directional Signs/Runway & Taxiway Directional Signs
  - ALD Airport Signs [Lighted]
  - Cautionary Signs
  - Convenience Signs
  - Direction Signs
  - Direction Signs for Runway Exit
  - Direction Signs for Runway Exit/Direction Sign Array for Simple Intersections
  - Distance to go Signs
  - Dot Matrix Runway Distance Remaining Sign [Light]
  - Dot Matrix & Type L-858 Distance Matrix Signs
  - Entrance-Exit Signs
  - Exit Sign
  - Holding Position for ILS Critical Areas/Precision Obstruction Free Zone (PODZ)
  - ILS Critical Boundary Sign/ILS Critical Area Boundary Signs
  - ILS Critical Area/POFZ Boundary & Cat II/III Operation Sign
  - Internally Lighted Signs/Externally Lighted Sign
  - Intersection Sign
  - No Entry Signs
  - One-Half Distance Remaining Signs

- Signs Prohibiting Aircraft Entry Into An Area
- Special Purpose Sign
- Station Signs
- Unlighted Signs
- VOR Aerodrome Check-Point Sign
- c) Runway Signs
  - One-Half Remaining Distance Remaining Signs
  - Runway Approach Area Boundary Sign
  - Runway Approach Area Holding Position Sign
  - Runway Boundary Sign
  - Runway Distance Remaining Signs/Runway Distance-Remaining Signs
  - Runway Exit Signs
  - Runway Holding Position Sign
  - Runway Intersection Sign
  - Runway Location Sign
  - Runway Marking Sign
  - Runway Sign
  - Runway Safety Area/OFZ & Runway Approach Area Boundary Signs
- d) Taxiway Signs
  - Non-Illuminated Taxiway Guidance Signs
  - Signs, Taxiway Guidance/Signs, Guidance/Retroreflective Taxiway Guidance Signs
  - Taxiway Direction & Location Signs
  - Taxiway Direction Signs
  - Taxiway Ending Marker Signs
  - Taxiway Guidance Signs
  - Taxiway Identification Signs
  - Taxiway Guidance Sign Systems
  - Taxiway Location Signs
  - Taxiway/Runway Intersection Signs
  - Taxiway Sign
  - Taxiway Sign System

## e) Special Category: Holding Position Signs

- Category II Critical Areas Hold Line Sign/Category II Hold Line Sign

- Holding Position Sign

- Holding Position Sign at Beginning Takeoff Runway

- Holding Position Sign for Approach Area

- Holding Position Sign for ILS Critical Area/ILS Holding Position

- Sign/ILS Critical Area Boundary Sign

- Holding Position Sign for ILS Critical Area/POFZ Boundary

- Holding Position Sign for Taxiway/Runway Intersection/Holding

- Position Sign for Runway/Runway Intersection

- Holdline Sign

- Road-Holding Position Sign

- Runway-Holding Position Sign

- Cat I, II, III Holding Position Signs/Cat II Holding Position Sign/Cat II

- or III Holding Position Sign/Cat II and III Holding Position Signs

## f) Signs-Others

- Destination Signs:

- Outboard Destination Signs

- Inboard Destination Signs

- Surface Painted Signs:

- General Note

- Surface Painted Taxiway Direction Sign

- Surface Painted Location Sign

- Surface Painted Holding Position Sign

- Surface Painted Sign

- Surface Painted Gates ID Sign

- Surface Painted Apron Entrance Point Sign

- Surface Painted Direction Sign

- Guidance Sign

- Information Sign

- Informational Sign

- Informative Sign

- Location Sign

287           Mandatory Instruction Sign  
                  Mandatory Sign  
                  Roadway Sign

#### Note

#### General Notes:

Signs, Markings, Markers and Marks represent a category of high cohesion between CCI 2006 and DB: Aero 2009. Some categories are identical and others have relatively few differences.

Overarching, terms in 4F1 are nearly identical; DB: Aero 2009 adds Aeronautical Markings to the category.

Marks and Markers, 4F2, is replaced by a different configuration in DB. That publication employs Overarching & Physical Markers and Morphological Markers forms instead of Marks and Markers. Only 4 terms are not listed in DB: Surface Painted Apron Entrance Points Signs, Surface Painted Gate Identification Signs, Style A-D Markers, Unidirectional L-853 Type Iv Marker.

Other Aids, 4F3, lack a Cross References section in CCI 2006. 5 of 16 terms in CR are in Reflective Aids. CCI 2012 adds a Cross Reference section and the appropriate terms are located there. Signal Panels are identical in the two sources. However, the unserviceability terms lack an overarching heading in DB.

Signs and Markings, 4F4 are nearly identical in the OA segment. DB adds one term: Surface Marking Colours. Runway Markings are also all but identical. DB adds Site Numbers. Markings Other Than ... segment have a few differences: Landing Direction Indicator is not in DB. DB adds four terms: Holding Position Markings for Instrument Landing Systems (ILS)/Precision Obstacle Free Zone (PDFZ//ILS Critical Area/PDFZ Holding Position Markings; Surface Painted Signs; Surface Painted Taxiway Direction Signs; Surface Painted Location Signs.

Special Category segment is nearly identical for Heliport and Vertiport Markings. DB



adds Large Marker for Air Taxiing Centerline. Several questions arise regarding identity groups of terms. CCI 2006 omits Identification ... . Holding Position Markings lacks one term in DB: Holding Position Markings for Instrument Landing Systems/Precision Free Zone (POfZ). Obstruction terms lack Day Marking of, and Turning Lines in DB.

4F5, Signs: DB omits ILS Critical Area Boundary Sign, and One Half Distance Remaining Signs. DB adds Dot Matrix/ & Type L-858 Distance Matrix Sigs; Holding Position for ILS Critical Areas/Precision Obstruction Free Zone (PODZ). DB lacks TAXiway Ending Marking Sign in Taxiway Signs.

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