

# CPC COOPERATIVE PATENT CLASSIFICATION

## G PHYSICS (NOTES omitted)

### INSTRUMENTS

#### G08 SIGNALLING

**G08G TRAFFIC CONTROL SYSTEMS** (guiding railway traffic, ensuring the safety of railway traffic [B61L](#); arrangement of road signs or traffic signals [E01F 9/00](#); radar or analogous systems, sonar systems, lidar systems specially adapted for traffic control [G01S 13/91](#), [G01S 15/88](#), [G01S 17/88](#); {radar or analogous systems, sonar systems, lidar systems specially adapted for anti-collision purposes [G01S 13/93](#), [G01S 15/93](#), [G01S 17/93](#)})

#### NOTES

- This subclass covers:
  - identification of traffic offenders;
  - indicating the position of vehicles for traffic control purposes;
  - navigation systems for traffic control purposes, i.e. systems in which the navigation is not performed autonomously by or in the vehicles, but where the vehicles are guided by instructions transmitted to them;
  - indication of free spaces in parking areas.
- This subclass does not cover:
  - arrangements for measuring levels and bearings for surveillance and navigation, which are covered by [G01C](#);
  - radio navigation systems, e.g. for locating, measuring distances or velocity, which are covered by [G01S](#);
  - details of display instrumentation, which are covered by [G09F](#), [G09G](#)

#### WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

<b>1/00</b>	<b>Traffic control systems for road vehicles</b> (arrangement of road signs or traffic signals <a href="#">E01F 9/00</a> {; automatic vehicle control <a href="#">B62D</a> })	1/0175	. . . {by photographing vehicles, e.g. when violating traffic rules}
1/005	. including pedestrian guidance indicator	1/02	. . using treadles built into the road (pads or other sensitive devices responsive to passage of vehicles <a href="#">E01F 11/00</a> )
1/01	. Detecting movement of traffic to be counted or controlled ( <a href="#">G08G 1/07</a> - <a href="#">G08G 1/14</a> take precedence)	1/04	. . using optical or ultrasonic detectors
1/0104	. . {Measuring and analyzing of parameters relative to traffic conditions}	1/042	. . using inductive or magnetic detectors
1/0108	. . . {based on the source of data}	1/048	. . with provision for compensation of environmental or other condition, e.g. snow, vehicle stopped at detector
1/0112	. . . . {from the vehicle, e.g. floating car data [FCD]}	1/052	. . with provision for determining speed or overspeed {(speed measuring in general <a href="#">G01P</a> )}
1/0116	. . . . {from roadside infrastructure, e.g. beacons}	1/054	. . . photographing overspeeding vehicles
1/012	. . . . {from other sources than vehicle or roadside beacons, e.g. mobile networks}	1/056	. . with provision for distinguishing direction of travel
1/0125	. . . {Traffic data processing}	1/065	. by counting the vehicles in a section of the road or in a parking area, i.e. comparing incoming count with outgoing count
1/0129	. . . . {for creating historical data or processing based on historical data}	1/07	. Controlling traffic signals
1/0133	. . . . {for classifying traffic situation}	1/075	. . {Ramp control}
1/0137	. . . {for specific applications}	1/08	. . according to detected number or speed of vehicles
1/0141	. . . . {for traffic information dissemination}	1/081	. . Plural intersections under common control
1/0145	. . . . {for active traffic flow control}	1/082	. . . Controlling the time between beginning of the same phase of a cycle at adjacent intersections
1/015	. . with provision for distinguishing between two or more types of vehicles, e.g. between motor-cars and cycles	1/083	. . . Controlling the allocation of time between phases of a cycle
1/017	. . identifying vehicles ( <a href="#">G08G 1/015</a> , <a href="#">G08G 1/054</a> take precedence)	1/085	. . using a free-running cyclic timer

- 1/087 . . . Override of traffic control, e.g. by signal transmitted by an emergency vehicle
- 1/09 . . . Arrangements for giving variable traffic instructions ([railroad crossing signals B61L](#); [reflectors E01F, G08B](#)); indicating arrangements for variable information by selection or combination of individual elements [G09F 9/00](#))
- 1/091 . . . {Traffic information broadcasting ([broadcasting communication H04H](#))}
- 1/092 . . . {Coding or decoding of the information}
- 1/093 . . . {Data selection, e.g. prioritizing information, managing message queues, selecting the information to be output}
- 1/094 . . . {Hardware aspects; Signal processing or signal properties, e.g. frequency bands}
- 1/095 . . . Traffic lights
- 1/0955 . . . transportable
- 1/096 . . . provided with indicators in which a mark progresses showing the time elapsed, e.g. of green phase
- 1/0962 . . . having an indicator mounted inside the vehicle, e.g. giving voice messages
- 1/09623 . . . {Systems involving the acquisition of information from passive traffic signs by means mounted on the vehicle ([G08G 1/0967 takes precedence](#))}
- 1/09626 . . . {where the origin of the information is within the own vehicle, e.g. a local storage device, digital map}
- 1/0965 . . . responding to signals from another vehicle, e.g. emergency vehicle
- 1/0967 . . . Systems involving transmission of highway information, e.g. weather, speed limits ([transmission of navigation instructions to the vehicle G08G 1/0968](#))
- 1/096708 . . . . {where the received information might be used to generate an automatic action on the vehicle control}
- 1/096716 . . . . {where the received information does not generate an automatic action on the vehicle control}
- 1/096725 . . . . {where the received information generates an automatic action on the vehicle control}
- 1/096733 . . . . {where a selection of the information might take place}
- 1/096741 . . . . {where the source of the transmitted information selects which information to transmit to each vehicle}
- 1/09675 . . . . {where a selection from the received information takes place in the vehicle}
- 1/096758 . . . . {where no selection takes place on the transmitted or the received information}
- 1/096766 . . . . {where the system is characterised by the origin of the information transmission}
- 1/096775 . . . . {where the origin of the information is a central station}
- 1/096783 . . . . {where the origin of the information is a roadside individual element}
- 1/096791 . . . . {where the origin of the information is another vehicle}
- 1/0968 . . . Systems involving transmission of navigation instructions to the vehicle
- 1/096805 . . . . {where the transmitted instructions are used to compute a route}
- 1/096811 . . . . {where the route is computed offboard}
- 1/096816 . . . . {where the complete route is transmitted to the vehicle at once}
- 1/096822 . . . . {where the segments of the route are transmitted to the vehicle at different locations and times}
- 1/096827 . . . . {where the route is computed onboard}
- 1/096833 . . . . {where different aspects are considered when computing the route}
- 1/096838 . . . . {where the user preferences are taken into account or the user selects one route out of a plurality}
- 1/096844 . . . . {where the complete route is dynamically recomputed based on new data}
- 1/09685 . . . . {where the complete route is computed only once and not updated}
- 1/096855 . . . . {where the output is provided in a suitable form to the driver ([details on I/O arrangements for onboard navigation computers G01C 21/36](#))}
- 1/096861 . . . . {where the immediate route instructions are output to the driver, e.g. arrow signs for next turn}
- 1/096866 . . . . {where the complete route is shown to the driver}
- 1/096872 . . . . {where instructions are given per voice}
- 1/096877 . . . . {where the input to the navigation device is provided by a suitable I/O arrangement ([details of I/O arrangements for onboard navigation computers G01C 21/36](#); [I/O arrangements for general purpose computers G06F 3/00](#))}
- 1/096883 . . . . {where input information is obtained using a mobile device, e.g. a mobile phone, a PDA}
- 1/096888 . . . . {where input information is obtained using learning systems, e.g. history databases}
- 1/096894 . . . . {where input is assisted by the navigation device, i.e. the user does not type the complete name of the destination, e.g. using zip codes, telephone numbers, progressively selecting from initial letters}
- 1/0969 . . . . having a display in the form of a map
- 1/097 . . . Supervising of traffic control systems, e.g. by giving an alarm if two crossing streets have green light simultaneously
- 1/123 . . . indicating the position of vehicles, e.g. scheduled vehicles; {Managing passenger vehicles circulating according to a fixed timetable, e.g. buses, trains, trams} ([transmission of navigation instructions to vehicles G08G 1/0968](#))
- 1/127 . . . to a central station {; Indicators in a central station}
- 1/13 . . . the indicator being in the form of a map
- 1/133 . . . within the vehicle {; Indicators inside the vehicles or at stops}
- 1/137 . . . the indicator being in the form of a map
- 1/14 . . . indicating individual free spaces in parking areas
- 1/141 . . . {with means giving the indication of available parking spaces}
- 1/142 . . . {external to the vehicles}
- 1/143 . . . {inside the vehicles}
- 1/144 . . . {on portable or mobile units, e.g. personal digital assistant [PDA]}

- 1/145 . . {where the indication depends on the parking areas}
- 1/146 . . . {where the parking area is a limited parking space, e.g. parking garage, restricted space}
- 1/147 . . . {where the parking area is within an open public zone, e.g. city centre}
- 1/148 . . . {Management of a network of parking areas}
- 1/149 . . {coupled to means for restricting the access to the parking space, e.g. authorization, access barriers, indicative lights}
- 1/16 . . Anti-collision systems (road vehicle drive control systems for predicting or avoiding probable or impending collision otherwise than by control of a particular sub-unit [B60W 30/08](#))
- 1/161 . . {Decentralised systems, e.g. inter-vehicle communication}
- 1/162 . . . {event-triggered}
- 1/163 . . . {involving continuous checking}
- 1/164 . . {Centralised systems, e.g. external to vehicles}
- 1/165 . . {for passive traffic, e.g. including static obstacles, trees}
- 1/166 . . {for active traffic, e.g. moving vehicles, pedestrians, bikes}
- 1/167 . . {Driving aids for lane monitoring, lane changing, e.g. blind spot detection}
- 1/168 . . {Driving aids for parking, e.g. acoustic or visual feedback on parking space}
- 1/20 . . {Monitoring the location of vehicles belonging to a group, e.g. fleet of vehicles, countable or determined number of vehicles}
- 1/202 . . {Dispatching vehicles on the basis of a location, e.g. taxi dispatching}
- 1/205 . . {Indicating the location of the monitored vehicles as destination, e.g. accidents, stolen, rental}
- 1/207 . . {with respect to certain areas, e.g. forbidden or allowed areas with possible alerting when inside or outside boundaries}
- 1/22 . . {Platooning, i.e. convoy of communicating vehicles}

**3/00 Traffic control systems for marine craft (marking of navigational route [B63B 22/16](#), [B63B 51/00](#))**

- 3/02 . . Anti-collision systems

**5/00 Traffic control systems for aircraft**

**NOTES**

1. This groups covers arrangements, located in the aircraft or on the ground, for controlling aircraft within a traffic environment.
2. This group does not cover arrangements for control of position, course, altitude or attitude of aircraft not specific to a traffic environment, e.g. automatic pilots, which are covered by group [G05D 1/00](#).
3. In this group the following term is used with the meaning indicated:
  - "traffic" includes traffic on the ground and in the air.
4. Attention is drawn to the following places which might be interesting for search:
  - mechanical aspects of equipment for fitting in or to aircraft [B64D](#)
  - combined instruments indicating more than one navigational value [G01C 23/00](#)

**WARNING**

Group [G08G 5/00](#) is impacted by reclassification into groups [G08G 5/50](#) and [G08G 5/90](#).

Groups [G08G 5/00](#), [G08G 5/50](#) and [G08G 5/90](#) should be considered in order to perform a complete search.

- 5/20 . . Arrangements for acquiring, generating, sharing or displaying traffic information (arrangements for monitoring traffic [G08G 5/72](#))

**WARNING**

Group [G08G 5/20](#) is impacted by reclassification into groups [G08G 5/23](#), [G08G 5/24](#) and [G08G 5/27](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 5/21 . . located onboard the aircraft
- 5/22 . . located on the ground
- 5/23 . . Details of user output interfaces, e.g. information presented

**WARNING**

Group [G08G 5/23](#) is incomplete pending reclassification of documents from group [G08G 5/20](#).

Groups [G08G 5/20](#) and [G08G 5/23](#) should be considered in order to perform a complete search.

- 5/24 . . Details of user input interfaces, e.g. use of speech recognition or specific text formats

**WARNING**

Group [G08G 5/24](#) is incomplete pending reclassification of documents from group [G08G 5/20](#).

Groups [G08G 5/20](#) and [G08G 5/24](#) should be considered in order to perform a complete search.

- 5/25 . . Transmission of traffic-related information between aircraft
- 5/26 . . Transmission of traffic-related information between aircraft and ground stations

**WARNING**

Group [G08G 5/26](#) is impacted by reclassification into group [G08G 5/265](#).

Groups [G08G 5/26](#) and [G08G 5/265](#) should be considered in order to perform a complete search.

- 5/265 . . . for managing air traffic control [ATC] clearance

**WARNING**

Group [G08G 5/265](#) is incomplete pending reclassification of documents from group [G08G 5/26](#).

Groups [G08G 5/26](#) and [G08G 5/265](#) should be considered in order to perform a complete search.

- 5/27 . . for managing network coverage, e.g. ensuring transmission connections for UAVs
- WARNING**
- Group [G08G 5/27](#) is incomplete pending reclassification of documents from group [G08G 5/20](#).
- Groups [G08G 5/20](#) and [G08G 5/27](#) should be considered in order to perform a complete search.
- 5/30 . Flight plan management
- WARNING**
- Group [G08G 5/30](#) is impacted by reclassification into groups [G08G 5/36](#) and [G08G 5/38](#).
- Groups [G08G 5/30](#), [G08G 5/36](#) and [G08G 5/38](#) should be considered in order to perform a complete search.
- 5/32 . . for flight plan preparation
- 5/34 . . for flight plan modification
- 5/36 . . for identification of authorised pilots
- WARNING**
- Group [G08G 5/36](#) is incomplete pending reclassification of documents from group [G08G 5/30](#).
- Groups [G08G 5/30](#) and [G08G 5/36](#) should be considered in order to perform a complete search.
- 5/38 . . for identification of landing sites, e.g. of diversion airports
- WARNING**
- Group [G08G 5/38](#) is incomplete pending reclassification of documents from group [G08G 5/30](#).
- Groups [G08G 5/30](#) and [G08G 5/38](#) should be considered in order to perform a complete search.
- 5/50 . Navigation or guidance aids
- NOTE**
- When classifying in this group, each aspect relating to flight phases should be classified in subgroups [G08G 5/51](#) - [G08G 5/54](#), whereas each aspect relating to the type of aircraft should be classified in subgroups [G08G 5/55](#) - [G08G 5/57](#).
- WARNING**
- Group [G08G 5/50](#) is incomplete pending reclassification of documents from groups [G08G 5/00](#) and [G08G 5/56](#).
- Groups [G08G 5/00](#), [G08G 5/56](#) and [G08G 5/50](#) should be considered in order to perform a complete search.
- 5/51 . . for control when on the ground, e.g. taxiing or rolling
- WARNING**
- Group [G08G 5/51](#) is incomplete pending reclassification of documents from group [G08G 5/56](#).
- Group [G08G 5/51](#) is also impacted by reclassification into groups [G08G 5/55](#), [G08G 5/56](#) and [G08G 5/57](#).
- All groups listed in this Warning should be considered in order to perform a complete search.
- 5/52 . . for take-off
- WARNING**
- Group [G08G 5/52](#) is incomplete pending reclassification of documents from group [G08G 5/56](#).
- Groups [G08G 5/56](#) and [G08G 5/52](#) should be considered in order to perform a complete search.
- 5/53 . . for cruising
- WARNING**
- Group [G08G 5/53](#) is incomplete pending reclassification of documents from group [G08G 5/56](#).
- Groups [G08G 5/56](#) and [G08G 5/53](#) should be considered in order to perform a complete search.
- 5/54 . . for approach or landing
- WARNING**
- Group [G08G 5/54](#) is incomplete pending reclassification of documents from group [G08G 5/56](#).
- Group [G08G 5/54](#) is also impacted by reclassification into groups [G08G 5/55](#), [G08G 5/56](#) and [G08G 5/57](#).
- All groups listed in this Warning should be considered in order to perform a complete search.
- 5/55 . . for a single aircraft
- WARNING**
- Group [G08G 5/55](#) is incomplete pending reclassification of documents from groups [G08G 5/51](#) and [G08G 5/54](#).
- Groups [G08G 5/51](#), [G08G 5/54](#) and [G08G 5/55](#) should be considered in order to perform a complete search.

- 5/56 . . for two or more aircraft
- WARNING**
- Group [G08G 5/56](#) is incomplete pending reclassification of documents from groups [G08G 5/51](#) and [G08G 5/54](#).
- Group [G08G 5/56](#) is also impacted by reclassification into groups [G08G 5/50](#), [G08G 5/51](#), [G08G 5/52](#), [G08G 5/53](#), [G08G 5/54](#), [G08G 5/57](#), [G08G 5/58](#) and [G08G 5/59](#).
- All groups listed in this Warning should be considered in order to perform a complete search.
- 5/57 . . for unmanned aircraft
- WARNING**
- Group [G08G 5/57](#) is incomplete pending reclassification of documents from groups [G08G 5/51](#), [G08G 5/54](#) and [G08G 5/56](#).
- All groups listed in this Warning should be considered in order to perform a complete search.
- 5/58 . . for emergency situations, e.g. hijacking or bird strikes
- WARNING**
- Group [G08G 5/58](#) is incomplete pending reclassification of documents from group [G08G 5/56](#).
- Groups [G08G 5/56](#) and [G08G 5/58](#) should be considered in order to perform a complete search.
- 5/59 . . in accordance with predefined flight zones, e.g. to avoid prohibited zones
- WARNING**
- Group [G08G 5/59](#) is incomplete pending reclassification of documents from group [G08G 5/56](#).
- Groups [G08G 5/56](#) and [G08G 5/59](#) should be considered in order to perform a complete search.
- 5/70 . Arrangements for monitoring traffic-related situations or conditions
- WARNING**
- Group [G08G 5/70](#) is impacted by reclassification into groups [G08G 5/72](#) and [G08G 5/78](#).
- Groups [G08G 5/70](#), [G08G 5/72](#) and [G08G 5/78](#) should be considered in order to perform a complete search.
- 5/72 . . for monitoring traffic
- WARNING**
- Group [G08G 5/72](#) is incomplete pending reclassification of documents from group [G08G 5/70](#).
- Groups [G08G 5/70](#) and [G08G 5/72](#) should be considered in order to perform a complete search.
- 5/723 . . . {from the aircraft}
- 5/727 . . . {from a ground station}
- 5/74 . . for monitoring terrain
- 5/76 . . for monitoring atmospheric conditions
- WARNING**
- Group [G08G 5/76](#) is impacted by reclassification into group [G08G 5/78](#).
- Groups [G08G 5/76](#) and [G08G 5/78](#) should be considered in order to perform a complete search.
- 5/78 . . for monitoring wake turbulence
- WARNING**
- Group [G08G 5/78](#) is incomplete pending reclassification of documents from groups [G08G 5/70](#) and [G08G 5/76](#).
- Groups [G08G 5/70](#), [G08G 5/76](#) and [G08G 5/78](#) should be considered in order to perform a complete search.
- 5/80 . Anti-collision systems
- 5/90 . specially adapted for urban air mobility [UAM]
- WARNING**
- Group [G08G 5/90](#) is incomplete pending reclassification of documents from group [G08G 5/00](#).
- Groups [G08G 5/00](#) and [G08G 5/90](#) should be considered in order to perform a complete search.
- 7/00 Traffic control systems for simultaneous control of two or more different kinds of craft**
- 7/02 . Anti-collision systems
- 9/00 Traffic control systems for craft where the kind of craft is irrelevant or unspecified**
- 9/02 . Anti-collision systems
- 99/00 Subject matter not provided for in other groups of this subclass**