**Marine Information for Safety and Law Enforcement (MISLE)**

**Marine Casualty and Pollution Database**

**July 6, 2015**

**Please refer to the record layout for changes in the second quarter’s data extract. Field sizes and attributes have changed from the last database extract. New fields have been added to the MisleActivity.**

The Marine Casualty and Pollution Database contain data related to marine casualty investigations reportable under 46 C.F.R. 4.03 and pollution investigations reportable under 33 C.F.R. 153.203. The data reflect information collected by U.S. Coast Guard personnel concerning vessel and waterfront facility accidents and marine pollution incidents throughout the United States and its territories.

In December 2001, the U.S. Coast Guard transitioned from the Marine Safety Information System (MSIS) to the Marine Information for Safety and Law Enforcement (MISLE) information system. The redesigned system better supports the collection and analysis of data.

The current Casualty and Pollution database has little resemblance to the Casualty and Pollution database derived from MSIS tables. New records layouts are provided in this instruction.

**Beginning in January 2009, considerable changes were made to the MISLE extract. Please read the guide and record layouts before uploading the data. Some changes include the reformatting of the latitude and longitude coordinates to decimal notation. The MisleActivity table now contains total damages to vessels, facilities, cargo, and other property in the marine casualty. Tables involving vessels, facilities and other subjects now include descriptions of the subjects reducing the need to join these tables to the MisleVessel and MisleFacility tables. The addition of a new table to the MISLE extract provides details on other subject events in a marine casualty.**

Some 1,300 casualty and pollution investigations were omitted from the 2001 Casualty and Pollution database. These investigations were open during the last 2001 data pull and were subsequently pushed into the redesigned system for completion. By and large these activities reflect marine investigations from 2000 and 2001.

The database redesign with its ten tables provides as much detail on marine casualty investigations as the 40-table database structure used in MSIS. The data period for the redesigned system is **December 2001** to **December 2009**. The database is updated quarterly and is obtainable through the National Technical Information Service (NTIS). For product ordering information, please click on <http://www.ntis.gov/products/marinecas.aspx>.

The redesign database includes new vessel and facility tables. These tables consist of legacy records from the MSIS vessel and facility tables as well as new entries from the MISLE information system. New vessel and facility identifiers were created and should be used in place of the older vessel and facility key fields (vkey/fkey).

Several changes have been made in the way we identify a marine investigation case. Beginning in 2002, Casualty and Pollution investigations are no longer identified by marine casualty case numbers (MC########). MC Case Numbers have been replaced with activity Ids. Activities may be bundled into cases. A case represents an association with other activities. For instance, a marine pollution incident activity may have a follow up incident management activity (response activity). Together, these activities comprise a case.

Your CD-ROM has an activity table that contains common data for casualty and pollution activities. The table contains the incident date, the unit that conducted the investigation, activity identifier and case number. All activities in the database are closed investigations. Below are the number of open Pollution and Injury/Death Investigations not included in your CD-ROM.

Year Pollution Investigations

CY 2002 0

CY 2003 7

CY 2004 12

CY 2005 38

CY 2006 6

CY 2007 1

CY 2008 3

CY 2009 7

CY 2010 9

CY 2011 12

CY 2012 309

CY 2013 1,767

CY 2014 2,988

CY 2015 1,298

Year Injury/Death Cases

CY 2002 0

CY 2003 1

CY 2004 0

CY 2005 1

CY 2006 5

CY 2007 13

CY 2008 9

CY 2009 36

CY 2010 47

CY 2011 71

CY 2012 106

CY 2013 97

CY 2014 464

CY 2015 217

Year Facility Events

CY 2002 0

CY 2003 7

CY 2004 3

CY 2005 17

CY 2006 4

CY 2007 2

CY 2008 3

CY 2009 3

CY 2010 3

CY 2011 22

CY 2012 65

CY 2013 779

CY 2014 1,160

CY 2015 453

Year Vessel Events

CY 2002 0

CY 2003 6

CY 2004 16

CY 2005 20

CY 2006 16

CY 2007 25

CY 2008 49

CY 2009 56

CY 2010 161

CY 2011 275

CY 2012 421

CY 2013 1,406

CY 2014 9,400

CY 2015 3,588

Year Other Events

CY 2002 0

CY 2003 0

CY 2004 0

CY 2005 10

CY 2006 3

CY 2007 2

CY 2008 16

CY 2009 2

CY 2010 4

CY 2011 21

CY 2012 32

CY 2013 68

CY 2014 361

CY 2015 117

The information in these activities is predecisional and is not releasable to the public. When these activities are closed, they will be included in future releases.

**A new table involving other subject events, e.g., vehicles, buoys, piers, pipelines is included on the CD-ROM. This table identifies subjects other than vessels and facilities that were involved in a marine casualty.** The purpose of the vessel, facility and other event tables is to provide the entire sequence of mishaps that occurred in a marine casualty. Some casualties have multiple events and can involve vessels, facilities and other subjects. The activity id is the common key for these tables. To view all the events and subjects in a marine casualty, combine these event records on activity id.

A separate table with details on personnel injuries is included on the CD-ROM. This table contains details on injuries to crewmembers, passengers and other parties. Personnel casualties events do not show up in the vessel, facility and other subject event tables so to complete the entire event chain combine the injury table with the above tables on activity id.

**New to the MisleInjury table are columns with particulars on vessels and facilities. More details on the vessels and facilities can be found in the MisleVessel and MisleFacility tables. The join field to the MisleVessel table is fk\_d\_vessel to gk\_d\_vessel and msn\_non\_vessel\_id to msn\_non\_vessel\_id in the MisleFacility table.**

There are three pollution tables included on the CD-ROM. These tables provide details on marine pollution events involving vessels, facilities and other pollution sources. These pollution tables have similar data structures and provide particulars on the substance and the amount of the discharge. To view information on a vessel pollution event, go to the MisleVslPoll table. Details on facility pollution events are located in the MisleFacPoll table. Information on other pollution sources is contained in the MisleOtherPoll table (e.g., automobiles, pipelines)

**New to the pollution tables is detail information on the source of the spill. Even more information on the pollution source can be found in the vessel and facility tables. The join field for these tables is fk\_d\_vessel to gk\_d\_vessel and fk\_d\_facility to gk\_d\_facility, respectively. We do not have a central storehouse for other subjects; however, embedded in the MisleOtherPoll table is the subject of the spill**.

Information on mystery spills and ticket cases is included in the pollution tables. Mystery spills are defined as waterway observations. The source of the spill is unknown and may appear in any of the three pollution tables. Ticket cases are included in the database. These cases are assigned activity numbers and replace the old MSIS ticket numbers (TK########).

A new vessel and facility table is provided on the CD-ROM that provides details on over **1,100,000** vessels and **54,000** facilities. Many of the records were created in MSIS and migrated over to MISLE. A new vessel\_id/msn\_non\_vessel\_id replaces the VKEY/FKEY used in MSIS. These tables contain many of the same data elements found in MSIS vessel and facility tables. As the U.S. Coast Guard conducts new activities on vessels and facilities, field personnel update these records regularly.

The MisleFacility table contains details on facilities past and present. The table is updated each time the U.S. Coast Guard conducts an activity on the facility. Some of the facilities are not active and are indicated by a ‘0’ in the current\_ind column. The MisleVessel table similarly contains some vessels that are no longer in service; however, there is only one record for each vessel and the information in that record reflects the last known information on that vessel.

Tips for joining tables. The activity identifiers are computer-generated numbers identifying a marine investigation activity. Each activity has subcategories to further define the activity. Each table in the database contains an activity identifier that can be joined across tables. The more tables are joined, the more details about the marine investigation case are known.

A facility and vessel table is included on the CD-ROM to provide you with details on vessels and facilities involved in a marine casualty. To join the vessel and facility tables to other database tables, link the gk\_d\_vessel or gk\_d\_facility columns to the fk\_d\_vessel or fk\_d\_facility columns in the other tables. The exception to this rule is the MisleInjury table where the link is between msn\_non\_vessel\_id in the MisleInjury table to the msn\_non\_vessel\_id in the MisleFacility table.

Not included on the CD-ROM is a table that lists other sources of pollution. Other sources include aircraft, vehicles, pipelines and other sources not classified as a facility.

Questions concerning the data should be directed to Ms. Ternia Pipkins at (202)372-1283.

**Marine Information for Safety and Law Enforcement (MISLE)**

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**July 6, 2015**

## Entity Attributes

## Table Name: MisleActivity

Column No. Type Column Name Length

1 int activity\_id 4

2 int case\_id 4

3 varchar incident\_dt 10

4 varchar dept\_name 80

5 varchar activity\_type 60

6 varchar activity\_status 60

7 varchar activity\_status\_subtype 60

**\*8 numeric vessel\_property\_damage 12**

**\*9 numeric cargo\_property\_damage 12 \*10 numeric facility\_property\_damage 12**

**\*11 numeric other\_property\_damage 12**

**\* New fields - added July 2009**

## Table Name: MisleFacEvents

Column No. Type Column Name Length

1 int activity\_id 4

2 int case\_id 4

**\*\*3 datetime timeline\_dt 8**

**\*4 int fk\_d\_facility 4**

5 int msn\_non\_vessel\_id 4

**\*6 varchar facility\_name 50**

**\*7 varchar facility\_type 40**

8 varchar facility\_activity\_role\_desc 50

9 varchar waterway\_name 50

10 varchar event\_type 60

11 varchar event\_class 60

12 varchar event\_subclass 60

13 varchar damage\_status 50

14 numeric latitude 18

15 numeric longitude 18

**\* New fields - added January 2009**

**\*\* New field – added July 2009**

## Table Name: MisleVslEvents

Column No. Type Column Name Length

1 int activity\_id 4

2 int case\_id 4

**\*3 datetime timeline\_dt 8**

**\*\*4 int fk\_d\_vessel 4**

5 int vessel\_id 4

**\*\*6 varchar vin 30**

**\*\*7 varchar vessel\_name 50**

**\*\*8 varchar vessel\_service 30**

**\*\*9 varchar vessel\_class 50**

**\*\*10 varchar vessel\_type 50**

**\*\*11 varchar vessel\_subtype 50**

**\*\*12 varchar flag\_desc 30**

13 varchar vessel\_activity\_role\_desc 50

14 varchar waterway\_name 50

15 varchar event\_type 60

16 varchar event\_class 60

17 varchar event\_subclass 60

18 varchar damage\_status 50

19 numeric latitude 18

20 numeric longitude 18

**\* New field the actual date/time of the event - added May 2008**

**\*\* New fields - added January 2009**

**Table Name: \*MisleOtherEvents**

Column No. Type Column Name Length

**1 int activity\_id 4**

**2 int case\_id 4**

**3 datetime timeline\_dt 8**

**4 int fk\_d\_other\_subject 4**

**5 varchar subject\_name 255**

**6 varchar waterway\_name 50**

**7 varchar event\_type 60**

**8 varchar event\_class 60**

**9 varchar event\_subclass 60**

**10 numeric latitude 18**

**11 numeric longitude 18**

**\*New table – added January 2009**

## Table Name: MisleInjury

Column No. Type Column Name Length

1 int activity\_id 4

**\*2 int fk\_d\_vessel 4**

3 int vessel\_id 4

**\*4 varchar vin 30**

**\*5 varchar vessel\_name 50**

**\*6 varchar vessel\_service 30**

**\*7 varchar vessel\_class 50**

**\*8 varchar vessel\_type 50**

**\*9 varchar vessel\_subtype 50**

**\*10 varchar flag\_desc 30**

**\*11 varchar vessel\_activity\_role\_desc 50**

**\*12 int facility\_id 4**

**\*13 varchar facility\_name 50**

**\*14 varchar facility\_type\_desc 40**

\*15 varchar facility\_activity\_role\_desc 50

16 varchar relationship\_type 80

17 varchar waterway\_name 50

18 varchar accident\_type 60

19 varchar casualty\_type\_desc 30

20 numeric latitude 18

21 numeric longitude 18

**\* New fields - added January 2009**

## Table Name: MisleFacPoll

Column No. Type Column Name Length

1 int activity\_id 4

2 int case\_id 4

**\*3 int fk\_d\_facility 4**

4 int facility\_id 4

\***5 varchar facility\_name 50**

**\*6 varchar facility\_type 40**

7 varchar facility\_activity\_role\_desc 50

8 varchar waterway\_name 50

9 varchar chris\_cd 3

10 varchar substance\_name 255

11 varchar substance\_class 15

12 varchar substance\_subclass 32

13 varchar substance\_type 100

14 varchar substance\_subtype 180

15 numeric latitude 18

16 numeric longitude 18

17 numeric discharge\_amnt\_total 15

18 numeric discharge\_amnt\_water 15

19 numeric discharge\_amnt\_land 15

20 numeric discharge\_amnt\_air 15

21 numeric discharge\_amnt\_enclosed 15

22 numeric potential\_amnt\_total 15

23 numeric potential\_amnt\_water 15

24 numeric potential\_amnt\_land 15

25 numeric potential\_amnt\_air 15

26 numeric potential\_amnt\_enclosed 15

27 numeric contained\_amnt 15

28 varchar discharge\_potential\_type 20

29 varchar discharge\_situation\_type 50

30 varchar discharge\_estimated\_land 60

31 varchar discharge\_estimated\_air 60

32 varchar discharge\_estimated\_water 60

33 varchar discharge\_estimated\_encl 60

34 varchar potential\_case 60

35 varchar potential\_estimated 60

36 varchar contained\_estimated 60

37 varchar unit\_of\_measure 50

38 varchar damage\_status 50

**\* New fields - added January 2009**

## Table Name: MisleVslPoll

Column No. Type Column Name Length

1 int activity\_id 4

2 int case\_id 4

**\*3 int fk\_d\_vessel 4**

4 int vessel\_id 4

**\*5 varchar vin 30**

**\*6 varchar vessel\_name 50**

**\*7 varchar vessel\_service 30**

**\*8 varchar vessel\_class 50**

**\*9 varchar vessel\_type 50**

**\*10 varchar vessel\_subtype 50**

**\*11 varchar flag\_desc 30**

12 varchar vessel\_activity\_role\_desc 50

13 varchar waterway\_name 50

14 varchar chris\_cd 3

15 varchar substance\_name 255

16 varchar substance\_class 15

17 varchar substance\_subclass 32

18 varchar substance\_type 100

19 varchar substance\_subtype 180

20 numeric latitude 18

21 numeric longitude 18

22 numeric discharge\_amnt\_total 15

23 numeric discharge\_amnt\_water 15

24 numeric discharge\_amnt\_land 15

25 numeric discharge\_amnt\_air 15

26 numeric discharge\_amnt\_enclosed 15

27 numeric potential\_amnt\_total 15

28 numeric potential\_amnt\_water 15

29 numeric potential\_amnt\_land 15

30 numeric potential\_amnt\_air 15

31 numeric potential\_amnt\_enclosed 15

32 numeric contained\_amnt 15

33 varchar discharge\_potential\_type 20

34 varchar discharge\_situation\_type 50

35 varchar discharge\_estimated\_land 60

36 varchar discharge\_estimated\_air 60

37 varchar discharge\_estimated\_water 60

38 varchar discharge\_estimated\_encl 60

39 varchar potential\_case 60

40 varchar potential\_estimated 60

41 varchar contained\_estimated 60

42 varchar unit\_of\_measure 50

43 varchar damage\_status 50

## Table Name: MisleOtherPoll

Column No. Type Column Name Length

1 int activity\_id 4

2 int case\_id 4

3 int other\_id 4

4 varchar subject\_name 255

5 varchar waterway\_name 50

6 varchar chris\_cd 3

7 varchar substance\_name 255

8 varchar substance\_class 15

9 varchar substance\_subclass 32

10 varchar substance\_type 100

11 varchar substance\_subtype 180

12 numeric latitude 18

13 numeric longitude 18

14 numeric discharge\_amnt\_total 15

15 numeric discharge\_amnt\_water 15

16 numeric discharge\_amnt\_land 15

17 numeric discharge\_amnt\_air 15

18 numeric discharge\_amnt\_enclosed 15

19 numeric potential\_amnt\_total 15

20 numeric potential\_amnt\_water 15

21 numeric potential\_amnt\_land 15

22 numeric potential\_amnt\_air 15

23 numeric potential\_amnt\_enclosed 15

24 numeric contained\_amnt 15

25 varchar discharge\_potential\_type 20

26 varchar discharge\_situation\_type 50

27 varchar discharge\_estimated\_land 60

28 varchar discharge\_estimated\_air 60

29 varchar discharge\_estimated\_water 60

30 varchar discharge\_estimated\_encl 60

31 varchar potential\_case 60

32 varchar potential\_estimated 60

33 varchar contained\_estimated 60

34 varchar unit\_of\_measure 50

## Table Name: MisleVessel

Column No. Type Column Name Length

1 int gk\_d\_vessel 4

2 int vessel\_id 4

3 varchar vessel\_name 50

4 int managing\_owner\_id 4

5 varchar managing\_owner 120

6 varchar gross\_ton 40

7 varchar net\_ton 40

8 varchar length 40

9 varchar breadth 40

10 varchar depth 40

11 varchar itc\_breadth 40

12 varchar itc\_depth 40

13 varchar itc\_gross\_ton 40

14 varchar itc\_length 40

15 varchar itc\_net\_ton 40

16 varchar draft\_design 40

17 varchar draft\_design\_units 2

18 varchar dead\_weight\_ton 40

19 varchar deadweighttonnage\_units 2

20 char flag\_abbr 2

21 varchar hailing\_port 50

22 varchar hailing\_port\_state 2

23 varchar hailing\_port\_province 50

24 varchar route\_type 50

25 varchar classification\_society 80

26 varchar cargo\_authorization\_type 30

27 varchar documented\_ind 40

28 varchar documented\_status\_type 30

29 varchar inspected\_ind 40

30 varchar inspected\_desc 30

31 varchar state\_vessel\_ind 40

32 varchar state\_vessel\_desc 30

33 varchar lloyds\_ind 40

34 varchar lloyds\_desc 30

35 varchar solas\_ind 40

36 varchar solas\_desc 30

37 varchar insp\_subchapter\_type 255

38 varchar vessel\_class 50

39 varchar vessel\_type 50

40 varchar vessel\_subtype 50

41 varchar vessel\_service 30

42 varchar max\_passengers\_allowed 40

43 varchar max\_crew 40

44 varchar self\_propelled\_ind 40

45 varchar propulsion\_type 30

46 varchar hull\_material 30

47 varchar hull\_design\_type 30

48 varchar hull\_double\_bottom\_type 30

49 varchar hull\_double\_side\_type 30

50 varchar call\_sign 10

51 varchar official\_number 10

**52\* varchar primary\_vin 30**

53 varchar hull\_number 30

54 varchar rbs\_hull\_number 30

55 varchar imo\_number 30

56 varchar vessel\_age 40

57 varchar build\_shipyard 50

58 char build\_year 4

59 varchar hull\_build\_party\_name 80

60 varchar completed\_by\_party\_name 80

61 varchar horsepower\_ahead 40

62 varchar horsepower\_astern 40

63 varchar forebody\_type\_desc 30

64 varchar hull\_configuration 30

65 varchar hull\_shape 30

66 char filler 1

**\*new field added October 2007**

## Table Name: MisleFacility

Column No. Type Column Name Length

1 int gk\_d\_facility 4

2 int msn\_non\_vessel\_id 4

3 varchar facility\_name 60

4 varchar facility\_type\_desc 40

5 varchar facility\_subtype\_desc 80

6 varchar facility\_state\_abbr 2

7 varchar nav\_hazard\_desc 30

8 varchar pollution\_source\_desc 30

9 varchar public\_safety\_risk\_desc 30

10 varchar primary\_id\_type\_desc 30

11 varchar primary\_id 30

12 numeric latitude 18

13 numeric longitude 18

14 varchar manned\_platform\_desc 30

15 varchar helo\_deck\_desc 30

16 varchar inspected\_facility\_desc 30

17 numeric current\_ind 1

File Names Number of Records

MisleActivity.txt 106,642

MisleFacEvents.txt 18,116

MisleVslEvents.txt 132,717

MisleOtherEvents.txt 6,141

MisleInjury.txt 13,794

MisleFacPoll.txt 13,894

MisleVslPoll.txt 23,179

MisleOtherPoll.txt 11,219

MisleVessel.txt 1,346,643

MisleFacility.txt 62,671