

ASCII FORMAT for NCEI/ESRL ISPD Data Transfer v1.1

(All fields are to be right justified, unless otherwise noted)

Field 1, Pos: 1-13, Len: 13

Observation (Station) ID

Missing: 9999999999999

This field is designated for an identifier that represents a fixed station for land data. It represents a marine call sign or other marine identifier when present.
(NOTE: THIS FIELD IS TO BE LEFT JUSTIFIED)

Field 2, Pos: 14-15, Len: 2

Observation ID Type

Missing: 99

This field shows the type of station ID in Field 1.

- 01 WMO
- 02 WBAN
- 03 Air Force
- 04 COOP
- 05 Call Signs
- 06 Unknown or other – IDs assigned by source, which have the appearance of above
- 07 Ship, Ocean Station Vessel (OSV), or ice station call sign
- 08 Generic ID (e.g., SHIP, BUOY, RIGG, PLAT)
- 09 WMO 5-digit buoy number
- 10 Other buoy number (e.g., Argos or national buoy number)
- 11 Coastal-Marine Automated Network (C-MAN) ID (US NDBC operated)
- 12 Station name or number
- 13 Oceanographic platform/cruise number
- 14 Fishing vessel pseudo-ID
- 15 National ship number
- 16 Composite information from early ship data
- 17 Australia Bureau of Meteorology
- 32 Air Force – WBAN
- 33 Source Station ID – WMO

Field 3, Pos: 16-18, Len: 3

NCEP Observation Type Code

Missing: 999

This field is designated for NCEP observation type code.

- 120 Radiosonde Observation Data
- 132 Dropsonde Observation
- 180 Marine Observation Data
- 181 Station Observation Data
- 183 Station Observation only reporting sea level pressure
Or when SLP is corrected with better quality (Field 17 = 1)
- 193 Digitized Mean Sea Level Pressure Bogus

Field 4, Pos: 19-22, Len: 4

Year

Missing: 9999

Year (GMT) of the observation record

Field 5, Pos: 23-24, Len: 2

Month

Missing: 99

Month (GMT) of the observation record

Field 6, Pos: 25-26, Len: 2

Day

Missing: 99

Day (GMT) of the observation record

Field 7, Pos: 27-28, Len: 2

Hour

Missing: 99

Hour (GMT) of the observation record

Field 8, Pos: 29-30, Len: 2

Minute

Missing: 99

Minute (GMT) of the observation record

Field 9, Pos: 31-37, Len: 7

Unique Observation Number Code

Missing: 9999999

A unique number assigned to each observation at the same observation time (year, month, day, hour, minute). Combining with Year, month, day, hour, minute forms a unique ID of each observation. E.g., the second observation in the Data Bank for February 2 1895 1201 GMT has field 9 = 0000002, and a unique observation code of 1895020212010000002.

Note: this value is assigned by ISPD. Sources providing data in this format should set the value to missing.

Field 10, Pos: 38-40, Len: 3

Time Code

Missing: 999

3-digit code describing how the time was determined

001 From source

005 Converted to GMT using time zones

006 Time may be 2100 or 1900 Central European Time (Swiss)

007 Converted to GMT using longitude

Field 11, Pos: 41-46, Len: 6

Latitude

Missing: 999.99

Latitude coordinate of a geophysical observation (-90.00 to 90.00)

Field 12, Pos: 47-52, Len: 6

Longitude

Missing: 999.99

The longitude coordinate of a geophysical observation (000.00 – 359.99)

Field 13, Pos: 53-56, Len: 4

Elevation

Missing: 9999

The elevation of a geophysical observation in meters relative to Mean Sea Level

Field 14, Pos: 57-63, Len: 7

Observed Sea Level Pressure

Missing: 9999.99

The atmospheric sea level pressure observation (hectopascals)
 Note: all corrections for gravity and temperature have been applied.

Field 15, Pos: 64-64, Len: 1

Quality Flag for Observed Sea Level Pressure

- 0 Use this value
- 1 Don't use this value
- 9 Not evaluated
- M Missing

*For ISD values, choice was made based on element quality flag:

ISPD Summary	Original Value	Meaning
0	0	Passed gross limits checks
0	1	Passed all quality control checks
1	2	Suspect
1	3	Erroneous
0	4	Passed gross limits check, from TD3280 or NCEI ASOS/AWOS
0	5	Passed all quality control checks, from TD3280 or NCEI ASOS/AWOS
1	6	Suspect, from TD3280 or NCEI ASOS/AWOS
1	7	Erroneous, from TD3280 or NCEI ASOS/AWOS
0	9	Passed gross limits check if element is present

*For Russian data, two tests were performed using the Flag 1 (Data Measurement Flag) and Flag 3 (Confidence level/status flag). If the Flag 1 test passed, Flag 3 was then evaluated:

Flag 1: Data measurement flag

ISPD Summary	Original Value	Meaning
0	Blank	Measured value
1	D	Derived value
1	U	Suspect

Flag 3: Confidence level/status flag

ISPD Summary	Original Value	Meaning
0	0	Observed value has passed all original system checks
0	Blank	Unknown
1	B	Value failed QC checks
0	C	Scale corrected
1	D	Derived value
0	E	Edited value passed all original checks
0	H	Homologous value, rigorously tested
1	I	Interpolated value, not verified
1	M	Missing value
0	N	Not tested but within observed climatological boundaries
1	Q	Questionable (actually wrong)
0	R	Record breaking value
1	S	Suspect value (outside climatological boundaries, not verified)
0	T	Tested value, manually checked but not perfectly

		homologous
1	U	Value suspect

Field 16, Pos: 65-71, Len: 7

Observed Surface Pressure

Missing: 9999.99

The atmospheric surface pressure observation at the indicated elevation (hectopascals)

Note: all corrections for gravity and temperature have been applied.

Field 17, Pos: 72-72, Len: 1

Quality Flag for Observed Surface Pressure

Missing: M

0 Use this value

1 Don't use this value

9 Not evaluated

(See tables for Field 15)

----- ORIGINAL DATA SECTION -----

Field 18, Pos: 73-81, Len: 9

Original Observed Sea Level Pressure

Missing: 999999999

The original atmospheric sea level pressure in original units indicated in field 19.

Field 19, Pos: 82-89, Len: 8

Units of Original Observed Sea Level Pressure

Missing: 99999999

Units of original observed sea level pressure. UDUNITS compliant.

Field 20, Pos: 90-98, Len: 9

Original Observed Surface Pressure

Missing: 999999999

The original atmospheric surface pressure in original units indicated in field 21.

Field 21, Pos: 99-106, Len: 8

Units of Original Observed Surface Pressure

Missing: 99999999

Units of original observed surface level pressure. UDUNITS compliant.

Field 22, Pos: 107-108, Len: 2

Pressure Instrument Identifier

Missing: 99

This field shows a type of instrument used for a given observation from source record or station library table.

01 aneroid

02 mercury

Field 23, Pos: 109-116, Len: 8

Original Latitude

Missing: 99999999

The original latitude coordinate of a geophysical observation from the source data

Field 24, Pos: 117-124, Len: 8

Original Longitude

Missing: 99999999
The original longitude coordinate of a geophysical observation from the source data

Field 25, Pos: 125-130, Len: 6
Original Elevation
Missing: 999999
The original elevation above mean sea level reported from the source data

Field 26, Pos: 131-138, Len: 8
Units of Original Elevation
Missing: 99999999
The units of the original elevation. UDUNITS Compliant.

----- ADJUSTMENTS SECTION -----

Field 27, Pos: 139-139, Len: 1
Gravity Correction Made by Source
Missing: 9
0 No
1 Yes

Field 28, Pos: 140-169, Len: 30
Description of Gravity Correction Made By Source
Missing: 99999999999999999999999999999999
Description of the method used for the gravity correction made by source

Field 29, Pos 170-170, Len: 1
Gravity Correction Made by ISPD
Missing: 9
0 No
1 Yes

Field 30, Pos: 171-200, Len: 30
Description of Gravity Correction Made By ISPD
Missing: 99999999999999999999999999999999
Description of the method used for the gravity correction made by ISPD

Field 31, Pos: 201-206, Len: 6
Observed Temperature of Attached Thermometer in K
Missing: 999999
Observed temperature of the attached thermometer in K.

Field 32, Pos: 207-215, Len: 9
Original Temperature of Attached Thermometer
Missing: 999999999
The original temperature of the attached thermometer in the original units

Field 33, Pos: 216-223, Len: 8
Units of the Original Temperature of Attached Thermometer
Missing: 99999999
The units of the original temperature of the attached thermometer. UDUNITS Compliant

Field 34, Pos: 224-224, Len: 1
Temperature Correction Made by Source
Missing: 9

0 No
1 Yes

Field 35, Pos: 225-254, Len: 30

Description of Temperature Correction Made By Source

Missing: 99999999999999999999999999999999

Description of the method used for the temperature correction made by source

Field 36, Pos 255-255, Len: 1

Temperature Correction Made by ISPD

Missing: 9

0 No
1 Yes

Field 37, Pos: 256-285, Len: 30

Description of Temperature Correction Made By ISPD

Missing: 99999999999999999999999999999999

Description of the method used for the temperature correction made by ISPD

Field 38, Pos: 286-286, Len: 1

Homogenization Correction Made by Source

Missing: 9

0 No
1 Yes

Field 39, Pos: 287-316, Len: 30

Description of Homogenization Correction Made By Source

Missing: 99999999999999999999999999999999

Description of the method used for the homogenization correction made by source

Field 40, Pos 317-317, Len: 1

Homogenization Correction Made by ISPD

Missing: 9

0 No
1 Yes

Field 41, Pos: 318-347, Len: 30

Description of Homogenization Correction Made By ISPD

Missing: 99999999999999999999999999999999

Description of the method used for the homogenization correction made by ISPD

----- SOURCE ARCHIVE TRACKING SECTION -----

Field 42, Pos: 348-353, Len: 6

International Surface Pressure Data Bank Collection ID

Missing: 999999

ISPD ID	Name	Description	PERIOD	Contact
000100	ICOADS Release 2.1	Global Marine Surface Observations	1784-2005	Scott.Woodruff@noaa.gov
000104	ICOADS Release 2.4	Global Marine Surface Observations	1784-2007	Scott.Woodruff@noaa.gov
000105	ICOADS Release 2.5	Global Marine Surface Observations	1784-2007	Scott.Woodruff@noaa.gov
000200	ICOADS Auxiliary Kobe	Global Marine Surface Observations	1889-1943	worley@ucar.edu
000300	ICOADS Auxiliary Whaling	Global Marine Surface Observations	1950-1984	worley@ucar.edu
000400	ICOADS Auxiliary Russian	Global Marine Surface Observations	1950-2000	worley@ucar.edu
000500	ICOADS Auxiliary Russian	Global Marine Surface Observations	1950-2000	worley@ucar.edu
000700	ICOADS Auxiliary Challenger	Global Marine Surface Observations	1872-1876	worley@ucar.edu
001000	Federal Climate Complex Integrated Surface Data	Global Land Surface Observations	1892-2013	Neal.Lott@noaa.gov
001002	CDMP SAO/1001 Forms	US Land Surface Observations	1893-1945	Neal.Lott@noaa.gov
001003	Russian Empire Stations	Russian Land Surface Observations	1871-2000	Pasha.Groisman@noaa.gov
001004	Air Weather Service TD13	Global Land Surface Observations	1928-1948	worley@ucar.edu
001005	Hadley Center	individual stations from Hadley Center	1796-1965	Rob Allan and Mark Rodwell
001006	CDMP-International collection	Chile, Mexico, Uruguay	1879-1982	Tom.Ross@noaa.gov
001007	READER Antarctic&Southern Hemisphere	British Antarctic Survey	1947-2007	www.antarctica.ac.uk
001011	KNMI	KNMI stations, Indonesia, Africa, Europe	1801-2009	Theo.Brandsma@knmi.nl
001012	US Army Signal Service and other 19th Century Voluntary Obs	CDMP digitized station data	1816-1932	Nancy Westcott nan@illinois.edu
001013	Atmospheric Circulation Reconstructions over the Earth (ACRE) initiative	international stations recovered by ACRE	1784-2011	Rob Allan
001014	Early Arctic observations	Arctic region observations	1848-1915	R.Przybylak & Z.Vizi @umk.pl
001015	EURO4M/MEDARE/C3 hourly SLP observations for North African stations	African stations	1852-1978	Manola Brunet manola.brunet@urv.cat
001016	International stations, University of South Carolina Historical Climate Lab	North and South America, 7 stations	1839-1914	Cary Mock MOCKCJ@mailbox.sc.edu
001017	Meteo-France	Tahiti	1957-1974	sylvie.jourdain@meteo.fr
001018	University of Giessen worldwide early data	Global observations	1822-1956	Juerg Luterbacher Juerg.Luterbacher@geogr.uni-giessen.de
002000	NCEP-NCAR BUFR Archive	Global Observations	1959-1980	Robert.Kistler@noaa.gov worley@ucar.edu
002001	NCEP Operational BUFR Archive	Global Observations	1951-1966	Jack.Woolen@noaa.gov
003002	WASA Stations Observations SLP	Northern Europe, Greenland	1868-1995	Torben Schmith ts@dmu.dk
003004	Environment Canada Pressure Obs	Canadian Stations	1848-2002	Xiaolan.Wang@ec.gc.ca
003005	West African Synoptic observations digitized by MeteoFrance	West African countries' Land Surface stations	1839-1980	Tom.Peterson@noaa.gov
003006	The Australian Bureau of Meteorology Station Pressure Dataset	Australian Land stations	1859-1951	David Jone D.Jones@bom.gov.au
003007	Northern Italian Pressure Observations	Italian stations	1803-1999	maurizio.maugeri@unimi.it
003008	Hourly Surface Observations for Brazil	Brazilian stations	1950-1960	dattore@ucar.edu
003009	Spanish Hourly Pressure Observations	4 Hourly Spanish Land Stations	1850-2003	manola.brunet@urv.net
003010	German climate observations from Deutscher Wetterdienst (German Weather Service)	DWD web archive	1781-2009	www.dwd.de Hermann.Maechel@dwd.de
003011	ZAMG Austrian station observations	EMULATE Austrian Stations	1874-2002	rob.allan@metoffice.gov.uk
003012	Meteoswiss station collection	Swiss stations	1864-2002	rob.allan@metoffice.gov.uk
003013	South African Weather Service Meteorological collection	South African Weather Service Stations	1899-1973	andries.kruger@weathersa.co.za
003014	National Norwegian meteorological	Norwegian stations	1902-2006	Øyvind Nordli

ISPD ID	Name	Description	PERIOD	Contact
	database			oyvind.nordli@met.no
003015	Croatian Meteorological and Hydrological Service land stations	Croatian stations	1858-2003	Lidija Srnec srnec@cirus.dhz.hr
003016	Signatures of environmental change in the observations of the Geophysical Institutes	Global observations	1860-2005	Maria Antónia Valente Ricardo Trigo @fc.ul.pt
003017	French hourly SLP from Meteo-France	French stations	1783-1973	sylvie.jourdain@meteo.fr
003018	Australia historical surface pressure	Australian stations	1788-1857	Linden Ashcroft L. Ashcroft @Univ Melbourne
003019	ACRE-Pacific: NIWA and NZMet Service	New Zealand stations	1851-1999	A. Lorrey @niwa.co.nz
003020	Spanish Met Office stations	Spanish stations	1920-1972	J. A Lopez jalopez@inm.es
003021	EMULATE Daily MSLP station data	Swiss stations	1755-1861	J. Luterbacher, PDella-Marta
003022	Mozambique station pressure	Mozambique stations	1951-2005	Chris.Reason@uct.ac.za
003023	Japan Agency for Marine-earth Science and Technology (JAMSTEC) archive	Philippines and Pacific islands	1913-1941	Hisayuki Kubota kubota@jamstec.go.jp
003024	African SLP from Meteo France	Tunisia and Morocco stations	1899-1962	olivier.mestre@meteo.fr
003025	Tanzania station pressure	Tanzania stations	1972-2005	Chris.Reason@uct.ac.za
003026	Hourly pressure from China	Chinese stations	1950-2004	l.alexander@unsw.edu.au
003027	All-Russia Research Institute of Hydrometeorological Information - World Data Centre (RIHMI-WDC)	Russian 3-hourly pressure observations	1935-2013	Olga N. Bulygina, bulygina@meteo.ru
003028	Data from Russian Hydrometcentre	Russian synoptic data (similar to 3028 but different source)	2004-2013	Mikhail Tolstykh tolstykh@inm.ras.ru mtolstykh@mail.ru
003029	Early Russian Empire Stations, digitized in LDEO from Kupffers Annales	6 stations OCR+postprocessing	1835-1841	Alexey Kaplan alexeyk@ideo.columbia.edu
003030	Australian Meteorological Association, Todd Project team	Australian stations	1837-1905	Mac Benoy m.benoy@bom.gov.au
003031	Canadian Volunteer Climate Data Rescue project	Canadian stations	1803-1873	Victoria Slonosky victoria.slonosky@mail.mcgill.ca
003032	University of Aberdeen historical pressure observations	UK stations	1867-2011	Alastair Dawson alastair.dawson@abdun.ac.uk
003033	Icelandic Meteorological Office (IMO) Sea Level Pressure	Icelandic stations	1845-1873	Trausti Jónsson trausti@vedur.is
003034	ERA-CLIM FFCUL (European Re-Analysis of Global CLimate Observations Fundação da Faculdade de Ciências da Universidade de Lisboa / Instituto Dom Luiz)	15 African and Asian stations	1915-1946	Maria Antónia Valente <mavalente@fc.ul.pt>
003035	Australian Bureau of Meteorology— Australian Baseline Sea Level Monitoring Project (ABSLMP) and South Pacific Sea level and Climate Monitoring Project (SPSLCMP)	South Pacific land and island stations	1991-2012	Clinton Rakich C.Rakich@bom.gov.au
003036	Project IMPROVE	European land stations	1722-1865	D.Camuffo@isac.cnr.it
003037	University of Barcelona	Barcelona, Paris Royal Observatory	1811-1820	mbarriendos@ub.edu
003038	University of Bern	US and European land stations	1815-1818	stefan.broennimann@giub.unibe.ch
003039	Stockholm University	Stockholm	1756-2012	Anders Moberg anders.moberg@natgeo.su.se
003040	University of East Anglia	London	1815-1817	R.Cornes@uea.ac.uk
003041	University of Gdansk	Gdansk	1815-1817	geoif@ug.edu.pl
003100	ACRE-Pacific: Cook Island Met Services	Pacific island stations	1929-2010	Andrew Lorrey a.lorrey@niwa.co.nz
003101	ACRE-Pacific: Pacific Island Met Services	Pacific island stations	1929-1950	Andrew Lorrey a.lorrey@niwa.co.nz
004000	Hong Kong Hourly Pressure Observations	Hong Kong Observatory	1884-2011	H Y Mok hymok@hko.gov.hk
004001	Jakarta/Batavia Pressure Observations	Dutch Royal Observatory	1865-1941	spangler@ucar.edu
004002	William Hutchinson pressure, Liverpool	Proudman Ocean. Laboratory stations	1768-1793	P. Woodworth plw@pol.ac.uk
004003	Jersey, Channel Island Pressure Obs	Jersey, Channel Island stations	1842-2006	leblancq.f@jerseymet.gov.je fwleb@hotmail.com
004004	CMDP-USNO	US Naval Observatory at Washington	1842-1881	tom.ross@noaa.gov
004005	Russian Sitka Sea Level Pressure, University of South Carolina Climate Lab	Sitka	1843-1867	Cary Mock MOCKCJ@mailbox.sc.edu
004006	University of Toronto British Everest Expedition meteorological observation	Mt Everest , May and June 1924	1924-1924	G.W.K. Moore gwk.moore@utoronto.ca

ISPD ID	Name	Description	PERIOD	Contact
	collection			
004007	University of Extremadura	Spanish land stations	1815-1817	f.dominguez@fis.ucm.es
004008	University of Helsinki	Finnish station Ylitornio	1800-1826	jari.a.holopainen@helsinki.fi
005000	Antarctic Expeditions	expedition bases	1899-1941	rob.allan@metoffice.gov.uk
006000	Canadian Arctic Fort Rae SLP	Fort Rae	1882-1883	Xiaolan.Wang@ec.gc.ca
010000-019999	NCAR upper air stations		1943-1998	Joey Comeaux joey@ucar.edu

0000-0999 marine collections

1000-1000 international station collections.

2000-2999 National Center for Environmental Prediction collections

3000-3999 regional collections

4000-4999 individual station collections

5000-5999 Antarctic expedition collections

6000-6999 Arctic expedition collections

10000-19999 National Center for Atmospheric Research upper-air station collections

Field 43, Pos: 354-354, Len: 1

Source Flag for Land Station Data

Missing: 9

For ISD Observations (ISPD ID 1000), this code corresponds to the Geophysical Point Observation Data

Source Flag (positions 28-28 of ISD record):

- 1 USAF SURFACE HOURLY observation, candidate for merge with NCEI SURFACE HOURLY (not yet merged, failed element cross-checks)
- 2 NCEI SURFACE HOURLY observation, candidate for merge with USAF SURFACE HOURLY (not yet merged, failed element cross-checks)
- 3 USAF SURFACE HOURLY/NCEI SURFACE HOURLY merged observation
- 4 USAF SURFACE HOURLY observation
- 5 NCEI SURFACE HOURLY observation
- 6 ASOS/AWOS observation from NCEI
- 7 ASOS/AWOS observation merged with USAF SURFACE HOURLY observation
- 8 MAPSO observation (NCEI)
- A USAF SURFACE HOURLY/NCEI HOURLY PRECIPITATION merged observation, candidate for merge with NCEI SURFACE HOURLY (not yet merged, failed element cross-checks)
- B NCEI SURFACE HOURLY/NCEI HOURLY PRECIPITATION merged observation, candidate for merge with USAF SURFACE HOURLY (not yet merged, failed element cross-checks)
- C USAF SURFACE HOURLY/NCEI SURFACE HOURLY/NCEI HOURLY PRECIPITATION merged observation
- D USAF SURFACE HOURLY/NCEI HOURLY PRECIPITATION merged observation
- E NCEI SURFACE HOURLY/NCEI HOURLY PRECIPITATION merged observation
- F Form OMR/1001 – Weather Bureau city office (keyed data)
- G SAO surface airways observation, pre-1949 (keyed data)
- H SAO surface airways observation, 1965-1981 format/period (keyed data)
- I Climate Reference Network observation
- J Cooperative Network observation
- K Radiation Network observation
- L Data from Climate Data Modernization Program (CDMP) data source
- M Data from National Renewable Energy Laboratory (NREL) data source
- N NCAR / NCEI cooperative effort (various national datasets)

Field 44, Pos: 355-359, Len: 5

Report Type Code

Missing: 99999

For ISD Observations (ISPD ID 1000), this code corresponds to the Geophysical Report Type Code

(positions 42-46 of ISD record):

FM-12	SYNOP Report of surface observation form a fixed land station
FM-13	SHIP Report of surface observation from a sea station
FM-14	SYNOP MOBIL Report of surface observation from a mobile land station
FM-15	METAR Aviation routine weather report
FM-16	SPECI Aviation selected special weather report
FM-18	BUOY Report of a buoy observation
AERO	Aerological report
AUST	Dataset from Australia
AUTO	Report from an automatic station
BOGUS	Bogus report
BRAZ	Dataset from Brazil
COOPD	US Cooperative Network summary of day report
COOPS	US Cooperative Network soil temperature report
CRB	Climate Reference Book data from CDMIP
CRN05	Climate Reference Network report, with 5-minute reporting interval
CRN15	Climate Reference Network report, with 15-minute reporting interval
GREEN	Dataset from Greenland
MESOS	MESONET operated civilian or government agency
MEXIC	Dataset from Mexico
NSRDB	National Solar Radiation Data Base
PCP15	US 15-minute precipitation network report
PCP60	US 60-minute precipitation network report
S-S-A	Synoptic, airways, and auto merged report
SA-AU	Airways and auto merged report
SAO	Airways report (includes record specials)
SAOSP	Airways special report (excluding record specials)
SHEF	Standard Hydrologic Exchange Format
SMARS	Supplementary airways station report
SOD	Summary of day report from U.S. ASOS or AWOS station
SOM	Summary of month report from U.S. ASOS or AWOS station
SURF	Surface Radiation Network report
SY-AE	Synoptic and aero merged report
SY-AU	Synoptic and auto merged report
SY-MT	Synoptic and METAR merged report
SY-SA	Synoptic and airways merged report
WBO	Weather Bureau Office
WNO	Washington Naval Observatory
KL	Positions XX-XX from source 003010 report

Field 45, Pos: 360-364, Len: 5

Quality Control Indicators for Sea Level Pressure Value (Field 18)

Missing: 99999

For ISD observations (ISPD ID 1000), this code corresponds to ISD data quality flag

For Russian Empire observations (ISPD 1003) this code corresponds to 4-character 9290c flags.

Field 46, Pos: 365-369, Len: 5

Quality Control Indicators for Surface Level Pressure Value (Field 20)

Missing: 99999

For ISD observations (ISPD ID 1000), this code corresponds to ISD data quality flag

For Russian Empire observations (ISPD 1003) this code corresponds to 4-character 9290c flags.
For DWD observations this code corresponds to the DWD QC indicator.

Field 47, Pos: 370-399, Len: 30

Name of Ships or Stations

Missing: 99999999999999999999999999999999

Name of Ships or Stations from source record or station library table

Field 48, Pos: 400-402, Len: 3

Name of Station Library

Missing: 999

000 From Source

001 Joey Comeaux Library

002 TD-13 library

003 NCEP Library 1

004 NCEP Library 2

005 NCEI Global Station List

006 For a given month, with observations that vary in location, the positions of all the month's observations were set to the mode of all of the monthly varying observation locations

007 NCEI

010 EMULATE