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Table 1: Application area

	Value	Description
prediction (HRNWP)  Nowcasting and very short range forecasting (NVSRF)  Seasonal and inter-annual forecasting (SIAF)  General weather forecasting  Aeronautical meteorology  Ocean applications  Agricultural meteorology  Hydrology  Climate monitoring (as undertaken through the Global Climate Observing System, GCOS)  Climate applications  Space weather  Cryosphere applications  Energy sector  Transportation sector  Health sector  Terrestrial ecology  Atmospheric composition forecasting  Atmospheric composition monitoring and analysis	1	Global numerical weather prediction (GNWP)
Nowcasting and very short range forecasting (NVSRF)  Seasonal and inter-annual forecasting (SIAF)  General weather forecasting  Aeronautical meteorology  Ocean applications  Agricultural meteorology  Hydrology  Climate monitoring (as undertaken through the Global Climate Observing System, GCOS)  Climate applications  Space weather  Cryosphere applications  Energy sector  Transportation sector  Health sector  Terrestrial ecology  Atmospheric composition forecasting  Atmospheric composition monitoring and analysis	2	High-resolution numerical weather
forecasting (NVSRF)  4 Seasonal and inter-annual forecasting (SIAF)  5 General weather forecasting  6 Aeronautical meteorology  7 Ocean applications  8 Agricultural meteorology  9 Hydrology  10 Climate monitoring (as undertaken through the Global Climate Observing System, GCOS)  11 Climate applications  12 Space weather  13 Cryosphere applications  14 Energy sector  15 Transportation sector  16 Health sector  17 Terrestrial ecology  18 Operational air quality forecasting  19 Atmospheric composition monitoring and analysis		prediction (HRNWP)
4 Seasonal and inter-annual forecasting (SIAF) 5 General weather forecasting 6 Aeronautical meteorology 7 Ocean applications 8 Agricultural meteorology 9 Hydrology 10 Climate monitoring (as undertaken through the Global Climate Observing System, GCOS) 11 Climate applications 12 Space weather 13 Cryosphere applications 14 Energy sector 15 Transportation sector 16 Health sector 17 Terrestrial ecology 18 Operational air quality forecasting 19 Atmospheric composition monitoring and analysis	3	
5 General weather forecasting 6 Aeronautical meteorology 7 Ocean applications 8 Agricultural meteorology 9 Hydrology 10 Climate monitoring (as undertaken through the Global Climate Observing System, GCOS) 11 Climate applications 12 Space weather 13 Cryosphere applications 14 Energy sector 15 Transportation sector 16 Health sector 17 Terrestrial ecology 18 Operational air quality forecasting 19 Atmospheric composition monitoring and analysis		forecasting (NVSRF)
6 Aeronautical meteorology 7 Ocean applications 8 Agricultural meteorology 9 Hydrology 10 Climate monitoring (as undertaken through the Global Climate Observing System, GCOS) 11 Climate applications 12 Space weather 13 Cryosphere applications 14 Energy sector 15 Transportation sector 16 Health sector 17 Terrestrial ecology 18 Operational air quality forecasting 19 Atmospheric composition monitoring and analysis	4	Seasonal and inter-annual forecasting (SIAF)
7 Ocean applications 8 Agricultural meteorology 9 Hydrology 10 Climate monitoring (as undertaken through the Global Climate Observing System, GCOS) 11 Climate applications 12 Space weather 13 Cryosphere applications 14 Energy sector 15 Transportation sector 16 Health sector 17 Terrestrial ecology 18 Operational air quality forecasting 19 Atmospheric composition monitoring and analysis	5	General weather forecasting
8 Agricultural meteorology 9 Hydrology 10 Climate monitoring (as undertaken through the Global Climate Observing System, GCOS) 11 Climate applications 12 Space weather 13 Cryosphere applications 14 Energy sector 15 Transportation sector 16 Health sector 17 Terrestrial ecology 18 Operational air quality forecasting 19 Atmospheric composition monitoring and analysis	6	Aeronautical meteorology
9 Hydrology 10 Climate monitoring (as undertaken through the Global Climate Observing System, GCOS) 11 Climate applications 12 Space weather 13 Cryosphere applications 14 Energy sector 15 Transportation sector 16 Health sector 17 Terrestrial ecology 18 Operational air quality forecasting 19 Atmospheric composition monitoring and analysis	7	Ocean applications
Climate monitoring (as undertaken through the Global Climate Observing System, GCOS)  Climate applications  Space weather  Cryosphere applications  Energy sector  Transportation sector  Health sector  Terrestrial ecology  Atmospheric composition forecasting  Atmospheric composition monitoring and analysis	8	Agricultural meteorology
Global Climate Observing System, GCOS)  Climate applications Space weather Gryosphere applications  Energy sector Transportation sector Health sector Terrestrial ecology Operational air quality forecasting Atmospheric composition forecasting Atmospheric composition monitoring and analysis	9	Hydrology
11 Climate applications 12 Space weather 13 Cryosphere applications 14 Energy sector 15 Transportation sector 16 Health sector 17 Terrestrial ecology 18 Operational air quality forecasting 19 Atmospheric composition forecasting 20 Atmospheric composition monitoring and analysis	10	Climate monitoring (as undertaken through the
12 Space weather 13 Cryosphere applications 14 Energy sector 15 Transportation sector 16 Health sector 17 Terrestrial ecology 18 Operational air quality forecasting 19 Atmospheric composition forecasting 20 Atmospheric composition monitoring and analysis		Global Climate Observing System, GCOS)
Cryosphere applications  Energy sector  Transportation sector  Health sector  Terrestrial ecology  Operational air quality forecasting  Atmospheric composition forecasting  Atmospheric composition monitoring and analysis	11	Climate applications
14 Energy sector 15 Transportation sector 16 Health sector 17 Terrestrial ecology 18 Operational air quality forecasting 19 Atmospheric composition forecasting 20 Atmospheric composition monitoring and analysis	12	Space weather
15 Transportation sector 16 Health sector 17 Terrestrial ecology 18 Operational air quality forecasting 19 Atmospheric composition forecasting 20 Atmospheric composition monitoring and analysis	13	Cryosphere applications
16 Health sector 17 Terrestrial ecology 18 Operational air quality forecasting 19 Atmospheric composition forecasting 20 Atmospheric composition monitoring and analysis	14	Energy sector
17 Terrestrial ecology 18 Operational air quality forecasting 19 Atmospheric composition forecasting 20 Atmospheric composition monitoring and analysis	15	
18 Operational air quality forecasting 19 Atmospheric composition forecasting 20 Atmospheric composition monitoring and analysis	16	Health sector
19 Atmospheric composition forecasting 20 Atmospheric composition monitoring and analysis	17	Terrestrial ecology
20 Atmospheric composition monitoring and analysis	18	Operational air quality forecasting
	19	Atmospheric composition forecasting
21 Large urban complexes	20	Atmospheric composition monitoring and analysis
	21	Large urban complexes

Table 2: Automation status

Value	Description
0	Automatic observation.
1	Automatic, always supplemented
	by manual input.
2	Automatic, occasionally supple-
	mented by manual input.
3	Automatic, supplemented by man-
	ual observations.
4	Manual observation.
5	Unknown.
6	Visual observation.

Table 3: Calibration status

Value	Description
0	No changes - in calibration.
1	No changes - out of calibration.
2	No changes - calibration unknown.
3	Recalibrated - in calibration.

Table 4: Communication method

Value	Description
0	Cellular (unspecified)
1	Meteosat DCP
2	Iridium (unspecified)
3	GOES DCP
4	VSAT (unspecified)
5	Landline telephone
6	Radio modem
7	E-mail (unspecified)
8	Voice (ship). The observation is sent to a NMS
O	through the telephone network. The communi-
	cation may use Inmarsat, Iridium, Vsat, VHF
9	Email (ship). The observation is sent to a NMS
9	
	through an email. The WMO message is attached to this email. The satellite communication
10	provider may be Inmarsat, Iridium, Vsat
10	Web (ship). The observation is sent
	through the Web (example: TurboWeb). The satellite communication provider
	<del>_</del>
11	may be Inmarsat, Iridium, Vsat
11	Inmarsat-C (FM13, SAC41). Standard procedure
	used to report observations (FM13 messages)
	from conventional VOS for many years. Collect
	call system: the NMS which receives the
10	observations pays the communication costs
12	Inmarsat-C (FM13, other SAC). FM13
	messages are sent to a dedicated SAC (other
	than SAC41) established at one, or more
	LES. In general, communications are paid
13	by the country who recruited the ship
10	Inmarsat-C (EUHC). Text messages containing compressed data (E-SURFMAR format) are
	sent ashore through Inmarsat-C to a dedicated
	SAC and LES. Communications are paid
14	by the country who recruited the ship
14	Inmarsat-C (SEAS). SEAS binary messages
	sent through Inmarsat-C Data Mode to a dedicated SAC and LES. Communi-
15	cations are paid by NOAA/NWS Automated Identification System (di-
10	rect or through satellite)
16	
16 17	Argos system  Callular (Dialum) Dialum communication using
17	Cellular (Dial-up). Dial-up communication using terrestrial wireless networks (GSM, GPRS)
18	Cellular (SMS). SMS sent through terrestrial
10	wireless networks (GSM, GPRS)
10	Globalstar communication system
19 20	GMS (DCP). Data Collecting Platform of
20	• • •
91	Geostationary Meteorological Satellites
21	Iridium (SBD). Short Burst Data service
00	of Iridium communication system
22	Iridium (Email). Email sent through
00	Iridium (e.g. Easymail)
23	Iridium (Dial-up). Dial-up com-
	munication using Iridium
	Continued on next page

Continued on next page

Table 4 Communication method (cont.)

	Table 1 communication method (cont.)
Value	Description
24	Inmarsat-C (Data Mode). Data Mode service of
	Inmarsat-C used by S-AWS. See above for SEAS
	which also uses this service for conventional VOS
25	Inmarsat-C (Email). Email sent
	through Inmarsat-C
26	Orbcomm communication system
27	Vsat (Email). Email sent through Vsat
28	Vsat (Dial-up). Dial-up commu-
	nication using Vsat
29	Delayed Mode only
30	Other (specify in footnote).

Table 5: Conversion factor

Value	description	Implementation
0	farenheit to degrees celsius	Teelsius = (TFarenheit - 32) / 1.8
		End of table

Table 6: Data policy licence

Value	name	Description
1	wmo essential	WMO Essential Data: free and unrestricted
		international exchange of basic data and products.
2	wmo additional	WMO Additional Data: free and unrestricted access to data and products exchanged under the auspices of WMO to the research and education communities for non-commercial activities. A more precise definition of the data policy may be additionally supplied within the metadata. In all cases it shall be the responsibility of the data consumer to ensure that they understand the data policy specified by the data provider which may necessitate dialogue with the data publisher
	.1	for confirmation of terms and conditions.
3	wmo other	Data identified for global distribution via WMO infrastructure (GTS / WIS) that is not covered by WMO Resolution 25 neither WMO Resolution 40 e.g. aviation OPMET data. Data marked with WMOOther data policy shall be treated like WMOAdditional where a more precise definition of the data policy may be additionally supplied within the metadata. In all cases it shall be the responsibility of the data consumer to ensure that they understand the data policy specified by the data provider which may necessitate dialogue with the data publisher for confirmation of terms and conditions.

Table 7: Duplicate status

Value	Description
0	Unique observation, no known duplicates
1	Best duplicate
2	Worst duplicate
3	Unchecked

Table 8: Events at station

Value	Description
1	Grass-cutting
2	Snow clearing
3	Tree removal
4	Construction activity
5	Road work
6	Biomass burning
7	Dust storm
8	Storm damage
9	Wind storm
10	Flood
11	Fire
12	Earthquake
13	Land slide
14	Storm surge or tsunami
15	Lightning
16	Vandalism

Table 9: Id scheme

Value	Description
0	ICOADS: ID present, but unknown type
1	ICOADS: ship, Ocean Station Vessel
	(OSV), or ice station callsign
2	ICOADS: generic ID (e.g., SHIP,
	BUOY, RIGG, PLAT)
3	ICOADS: WMO 5-digit buoy number
4	ICAODS: other buoy number (e.g., Ar-
	gos or national buoy number)
5	ICOADS: Coastal-Marine Automated
	Network (C-MAN) ID (assigned by US
	NDBC or other organizations)
6	ICOADS: station name or number
7	ICOADS: oceanographic platform/cruise number
8	ICOADS: fishing vessel psuedo-ID
9	ICOADS: national ship number
10	ICOADS: composite information
	from early ship data
11	ICOADS: 7-digit buoy ID (proposed)
12	WIGOS ID
13	GRUAN ID
14	IMO Number
	E 1 C 11

Table 10: Instrument exposure quality

Value	Description
1	Class 1 - Exposure of instrument allows
	reference level measurements
2	Class 2 - Exposure of instrument has small
	or infrequent influence on measurement
3	Class 3 - Exposure of instrument leads to increased
	uncertainty or occasional invalid measurements
4	Class 4 - Exposure of instruemnt leads to high
	uncertainty or regular invalid measurements
5	Class 5 - Exposure of instrument leads
	to invalid measurements

Table 11: Location method

Value	Description
0	Argos
1	ARGOS DOPPLER
2	ARGOS Kalman
3	Argos-3
4	Argos-4
5	From map
6	GALILEO
7	GOES DCP
8	GPS
9	INMARSAT
10	Iridium
11	Iridium and GPS
12	IRIDIUM DOPPLER
13	LORAN
14	Meteosat DCP
15	Orbcomm
16	Reserved
17	Surveyed