

Blending ICOADS and WMO Publication 47

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1 Introduction

Information on the instruments used by ships participating in the voluntary observing program and on the characteristics of the ships themselves are contained in the WMO Publication No. 47 series “International List of Selected, Supplementary and Auxiliary Ships” (Pub. 47, e.g. WMO 1994). Pub. 47 has been published in various formats since 1955 and details on the different metadata formats and fields available can be found in Kent et al. (2007). Electronic versions of Pub. 47 are available for the editions from 1973 onwards. The earlier editions are currently being digitized at NOAA’s National Climate Data Center (NCDC) and the Climate Diagnostic Center (CDC).

This document describes the method used to blend a subset of the metadata contained in Pub. 47 series with the individual ship meteorological observations contained within ICOADS for the period 1973 – 2006. The blended metadata have been saved as IMMA formatted attachments (see Tables 1A – 1K and Woodruff 2005). Section 2 describes the blending process. Section 3 details how multiple entries for individual ships in the Pub. 47 editions have been handled. Section 4 gives information on corrections made to the metadata from Pub. 47 due to incorrectly coded data. Sections 5 and 6 give information on how the country of registry has been determined from the call signs and information on obsolete country codes respectively.

2 Observation Matching

Individual observations from ICOADS have been matched with the metadata records in the corresponding edition of Pub. 47 based on the call signs of the ships. For example, observations made during 1987 will be matched with the metadata records contained in the 1987 edition of Pub. 47. Due to a delay between ships being recruited to the voluntary observing program and the ships metadata appearing in Pub. 47 there may be a delay between observations from the ships being reported and metadata becoming available for the ship. Hence, if no match is found for an observation in the corresponding Pub. 47 edition the following edition is checked. For example, if no match is found for an observation made during 1987 the Pub. 47 edition for 1988 will be checked. From 1998 onwards Pub. 47 has been updated quarterly and the quarterly files used in the matching process. I.e. observations made in the first three months of a year have been matched with metadata records in the edition for the first quarter of that year. If no metadata record is found the edition for the second quarter is then checked.

Whilst metadata for the first quarter of 2005 are available a large number of errors, $O(1000)$, have been detected in the instrument heights with the instrument heights listed in centi- and deci- meters instead of meters. As an interim measure the Pub. 47 editions either side of this edition have been used. These values will be corrected and used in a future release. Additionally, metadata for the 1st quarter of 2007 is not available from the WMO47, hence only the last quarter of 2006 has been merged with ICOADS observations from the last quarter of 2006. Table 2 gives a summary of the Pub. 47 files and editions used to merge with ICOADS for the period 1973 – 2006.

3 Multiple Entries

Multiple entries for a number of individual ships exist in the different Pub. 47 editions due to the recruitment of the ships by different countries. As a result some of the entries may be ambiguous, with different codes entered, due to different voluntary observing program types and the preferences of the different recruiting countries. Where multiple entries exist the type of observing program (OPM: selected, supplementary or auxiliary) has been used to determine which entry to use. 'Selected ships' are used in preference to the other program types. 'Supplementary ships' are used in preference to 'Auxiliary ships'. Where the program types are the same for multiple entries the different metadata elements have been compared. If the metadata element is ambiguous it has been set to missing. The exception to this is the Type of Barometer (TOB) element.

Where multiple entries exist and the type of barometer is listed as aneroid (AN) and ships aneroid (SAN) the barometer type is set to aneroid (AN). Aneroid barometers are issued to the ship by the recruiting country. Ships aneroid barometers are instruments provided by the ships themselves and may be less reliable than an instrument issued to the ship. It therefore follows that if a ship is recruited by two different countries and one has issued an aneroid barometer the ship is likely to use this in preference to its own barometer. However, if the ship is recruited by a second country the aneroid barometer issued by the first country is likely to be recorded as a possibly less accurate ships aneroid barometer as it has not been issued by the second country. The instrument will still be the same, more accurate aneroid barometer issued by the first country. Hence the barometer type is set to aneroid barometer (AN).

For multiple entries where the observing programs are the same the recruiting country has been set to XX. This is to differentiate from the observations for which no match has been found.

Table 3 provides a list of the multiple entries found in the Pub. 47 files where there is some ambiguity of the instruments in use by the ship. Column 1 gives the call sign of the ship for which multiple entries exist. Column 2 provides the source metadata file (SMF) the multiple entries have been found in. Columns 3 and 4 provide the record number (SME) of the different entries in the metadata file. Column 5 gives the field for which different entries exist. Columns 6 and 7 give the entries for the two different entries respectively. Column 8 gives the new entry.

4 Incorrect entries

A number of entries in the Pub. 47 files contain data which are miscoded or invalid. Where an invalid code has been entered for a metadata element the element is set to missing. Miscoded elements have been corrected where possible. Table 4 gives a list of the metadata elements which have been changed to correct invalid and miscoded data. The first column gives the call sign of the ship. Column 2 gives the source metadata file (SMF) containing the bad entry. Column 3 gives the record number in the Pub. 47 file (SME) of the bad element. Column 4 lists the element which is wrong. Columns 5 and 6 give the old and new values for the metadata element.

5 Derivation of country of registry (COR)

The values for the country of registry have been derived based on the first two or three letters of the call sign and on the International Telecommunications Union

(ITU) call sign prefix. Table 5 lists the various countries, their 2 character ISO3166-2 country code and the range of values for the call sign prefix. This information is based on data available from websites of the International Organization for Standardization¹ and the International Telecommunication Union².

It should be noted that this information changes with time due to changing political situations and is based on data available at the time of writing. As a result it will contain inaccuracies, especially in the earlier data, and should be used with caution.

6 Obsolete Country Codes

A number of country codes have become obsolete due to the unification or separation of various countries. Table 6 lists the codes we have used where the recruitment country (C1M) field in the Pub. 47 files specifies a country which no longer exists.

7 References

- Kent, E. C., S. D. Woodruff and D. I. Berry, 2007: WMO Publication No. 47 metadata and an assessment of observation heights in ICOADS. *Journal of Atmospheric and Oceanic Technology*, 24, 214 - 234.
- WMO, 1994: International List of Selected, Supplementary and Auxiliary Ships, WMO Report No. 47, WMO, Geneva, Various pagination.
- Woodruff, S. D., 2005: Archival of Data Other than in IMMT Format: the International Maritime Meteorological Archive (IMMA) format. Report submitted to the first session of the JCOMM Expert Team on Marine Climatology (ETMC-I) Gdynia, Poland (7 – 10 July 2004) (update of JCOMM-SGMC-VIII/Doc. 17, Asheville, NC, USA (10 – 14 April 2000)). [Available online at: <http://www.cdc.noaa.gov/coads/e-doc/imma/>]

¹ <http://www.iso.ch/iso/en/prods-services/iso3166ma/02iso-3166-code-lists/list-en1.html>

² http://www.itu.int/cgi-bin/htsh/glad/cga_callsign.sh?lng-E&sort_by=0

8 Tables

Table 1A. File format for IMMA ship metadata attachment (after Table C4, Woodruff 2005). Column 1 gives the abbreviation of the different fields. Column 2 gives a description of the fields. Column 3 gives the length (number of characters / bytes) of the fields. Columns 4 and 5 give the numeric ranges of the fields. An ‘a’ indicates the field is alphabetic and ‘c’ indicates that the field is alphanumeric plus other characters. Column 6 gives the units for the different fields. Pub. 47 indicates a coded field and that the codes can be found in the relevant WMO Publication 47 (e.g. WMO 1994).

Abbr.	Description	Length	Min	Max	Units
ATTI	Attachment ID	2			Note: set ATTI = 4
ATTL	Attachment Length	2			Note: set ATTL = 57
CIM	Recruiting country*	2	a	a	Pub. 47
OPM	type of ship (programme)	2	0	99	Pub. 47
KOV	Kind of vessel	2	c	c	Pub. 47
COR	country of registry*	2	a	a	Pub. 47
TOB	type of barometer	3	c	c	Pub. 47
TOT	type of thermometer	3	c	c	Pub. 47
EOT	exposure of thermometer	2	c	c	Pub. 47
LOT	screen location	2	0	99 (15)	Pub. 47
TOH	type of hygrometer	1	c	c	Pub. 47
EOH	exposure of hygrometer	2	c	c	Pub. 47
SIM	SST measurement method	3	c	c	Pub. 47
LOV	length of vessel	3	0	999	m
DOS	depth of SST measurement	2	0	99	m
HOP	height of visual observation platform	3	0	999	m
HOT	height of AT sensor	3	0	999	m
HOB	height of barometer	3	0	999	m
HOA	height of anemometer	3	0	999	m
SMF	source metadata file	5	0	99999	e.g. “19991” 1st quarter 1999
SME	source metadata element	5	0	99999	line number in file
SMV	source format version	2	0	99	to be defined

* See Table 5 for Country Codes

Table 1B. Decode table for type of ship (programme) (OPM)

Code	Type of ship (programme)
10	Selected ships
20	Selected ships (special)
21	Selected ships (merchant)
22	Selected ships (trawlers)
31	Selected (merchant)*
32	Selected (trawler)*
40	Supplementary ships
45	Supplementary (trawler)*
60	Supplementary ships (merchant)
61	Supplementary ships (trawlers)
70	Auxiliary ships
80	Auxiliary ships (occasional)
81	Auxiliary ships (trawlers)
	(88 – 90) Additional codes for ships recruited by USA but not registered in the USA
88	Selected ships (not USA registry)
89	Supplementary ships (not USA registry)
90	Auxiliary ships (not USA registry)
99	Unknown

* These codes are present in the electronic files for 1970s Pub. 47 editions. In the next release these codes will be replaced with 21, 22 and 81 for consistency

Table 1C. Decode table for kind of vessel (KOV)

Code	Vessel Type
B	Barge
BC	Bulk Carrier
BS	Banana Ship
CC	Closed Container
CG	Coast Guard Ship
CS	Container Ship
DR	Dredger
F	Ferry
FV	Other Fishing Vessel
GC	General Cargo
GT	Gas Tanker
IF	Inshore Fishing Vessel
LT	Liquid Tanker
LV	Light Vessel
MS	Military Ship
O	Other
OT	Other
OW	Ocean Weather Ship
PL	Passenger Liner
PV	Passenger Vessel
RF	Ro/Ro Ferry
RR	Ro/Ro Container
RV	Research Vessel
SV	Support Vessel
T	Trawler
TU	Tug
Y	Yacht / Pleasure Craft

Table 1D. Decode table for type of barometer (TOB)

Code	Type of Barometer
AN	Aneroid barometer (issued by Port Meteorological Officer or Meteorological Agency)
DA	Digital Aneroid Barometer
MER	Mercury Barometer
SAN	Ship's Aneroid Barometer

Table 1E. Decode table for type of thermometer (TOT)

Code	Type of Thermometer
ALC	Alcohol Thermometer
ELE	Electric (resistance) Thermometer
MER	Dry Bulb Mercury Thermometer

Table 1F. Decode table for exposure of thermometer (EOT) and exposure of hygrometer (EOH)

Code	Exposure of Thermometer / Hygrometer
A	Aspirated (Assmann type)
S	Screen (not ventilated)
SG	Ship's Sling
SL	Sling
SN	Ship's screen
US	Unscreened
VS	Screen (ventilated)
W	Whirling

Table 1G. Decode table for screen location (LOT)

Code	Location of Thermometer
1	Bridge wing port
2	Bridge wing starboard
3	Bridge wing both sides
4	Bridge wing windward side
5	Wheelhouse top port
6	Wheelhouse top starboard
7	Wheelhouse top both
8	Wheelhouse top centre
9	Wheelhouse top windward side
10	Mainmast
11	Foremast
12	Mast on Wheelhouse top
13	Main deck port side
14	Main deck starboard side
15	Main deck both sides
OT	Other (specify in footnote)

Table 1H. Decode table for type of hygrometer (TOH)

Code	Type of hygrometer
1	Hygristor
2	Chilled Mirror
3	Other
C	Capacitance
E	Electric
H	Hair hygrometer
P	Psychrometer
T	Torsion

Table 1J. Decode table for SST measurement method (SIM)

Code	SST Measurement Method
BTT	Bait tanks thermometer
BU	Bucket thermometer
C	Thermometer in condenser intake on steam ships, or inlet engine cooling system on motor ships
HC	Hull contact sensor
HT	“Through hull” sensor
OT	Other
RAD	Radiation thermometer
TT	Trailing thermistor

Table 1K. Decode table for source format version (SMV). See Kent et al. (2006) for version information.

Code	Source format version
1	Fixed format (1973 – 1994)
2	Semicolon delimited format (1995 – 2001)
3	Semicolon delimited format (2002 – present)

Table 2. The WMO Publication No. 47 files merged with ICOADS for the period 1973 - 2006.

Year	Period	Format
1973	Annual	Fixed format
1974	Annual	Fixed format
1975	Annual	Fixed format
1976	Annual	Fixed format
1977	Annual	Fixed format
1978	Annual	Fixed format
1979	Annual	Fixed format
1980	Annual	Fixed format
1981	Annual	Fixed format
1982	Annual	Fixed format
1983	Annual	Fixed format
1984	Annual	Fixed format
1985	Annual	Fixed format
1985	Annual	Fixed format
1987	Annual	Fixed format
1988	Annual	Fixed format
1989	Annual	Fixed format
1990	Annual	Fixed format
1991	Annual	Fixed format
1992	Annual	Fixed format
1993	Annual	Fixed format
1994	Annual	Fixed format
1995	Annual	Semi colon delimited
1996	Annual	Semi colon delimited
1997	Annual	Semi colon delimited
1998	Quarters 1 – 4	Semi colon delimited
1999	Quarters 1 – 4	Semi colon delimited
2000	Quarters 1 – 4	Semi colon delimited
2001	Quarters 1 – 4	Semi colon delimited
2002	Quarters 1 – 4	Semi colon delimited
2003	Quarters 1 – 4	Semi colon delimited
2004	Quarters 1 – 4	Semi colon delimited
2005*	Quarters 2 – 4	Semi colon delimited
2006	Quarters 1 - 4	Semi colon delimited

* The Pub. 47 edition for the first quarter of 2005 is available, however a large number of errors exist in the instrument height fields due to the heights being encoded in centi- and deci- meters.

Table 3. Changes made to the Pub. 47 files due to multiple records. Column 1 gives the source metadata file (SMF), column 2 the ships call sign, columns 3 and 4 the record numbers (SME) of the multiple entries in the file, column 5 the field which is ambiguous (see Table 1 for abbreviations). Columns 6 and 7 give the values given in the file and column 8 the new value for the field.

Source metadata file (SMF)	Callsign	Source metadata element (SME) 1	Source metadata element (SME) 2	Field	value 1	value 2	new value
19730	HBDD	2292	3335	C1M	NL	CH	XX
19730	LQLP	26	1291	C1M	AR	HK	XX
19740	AQMX	2370	2907	C1M	NL	PK	XX
19740	GZZU	2383	5219	C1M	NL	GB	XX
19740	LQLP	27	1336	C1M	AR	HK	XX
19740	LQLP	27	1336	TOB	AN	MER	
19750	GBLU	2239	4771	C1M	KE	GB	XX
19750	JXDH	434	1559	C1M	CA	IN	XX
19750	LQLP	25	1400	C1M	AR	HK	XX
19750	LQLP	25	1400	EOH	SL	W	
19750	LQLP	25	1400	EOT	SL	W	
19760	GZZU	2383	5219	C1M	NL	GB	XX
19760	LQLP	27	1336	C1M	AR	HK	XX
19760	LQLP	27	1336	TOB	AN	MER	
19770	LQLP	32	1472	C1M	AR	HK	XX
19770	LQLP	32	1472	EOH	S	W	
19770	LQLP	32	1472	EOT	S	W	
19770	LQLS	33	1473	C1M	AR	HK	XX
19770	LQLS	33	1473	EOH	SL	W	
19770	LQLS	33	1473	EOT	SL	W	
19780	5ISN	2359	6875	C1M	KE	TZ	XX
19780	5XSG	2360	6877	C1M	KE	TZ	XX
19780	5ZUH	2363	6879	C1M	KE	TZ	XX
19780	DCZX	2345	6861	C1M	KE	TZ	XX
19780	GHRL	2350	6866	C1M	KE	TZ	XX
19780	HBDD	2473	3440	C1M	NL	CH	XX
19780	LQLP	26	1534	C1M	AR	HK	XX
19780	LQLP	26	1534	EOH	S	W	
19780	LQLP	26	1534	EOT	S	W	
19780	LQLP	26	1534	TOB	AN	SAN	AN
19780	LQLS	27	1535	C1M	AR	HK	XX
19780	LQLS	27	1535	EOH	SL	W	
19780	LQLS	27	1535	EOT	SL	W	
19780	LQLS	27	1535	TOB	AN	SAN	AN
19780	ZCUY	657	1548	C1M	CA	HK	XX
19780	ZCUY	657	1548	EOH	S	W	
19780	ZCUY	657	1548	EOT	S	W	
19780	ZCUY	657	1548	SIM	C	BU	
19780	ZCUY	657	1548	TOB	AN	DA	

Source metadata file (SMF)	Callsign	Source metadata element (SME) 1	Source metadata element (SME) 2	Field	value 1	value 2	new value
19790	5ISN	2359	6875	C1M	KE	TZ	XX
19790	5XSG	2360	6877	C1M	KE	TZ	XX
19790	9JZA	2366	6882	C1M	KE	TZ	XX
19790	GHKP	2348	6864	C1M	KE	TZ	XX
19790	HBDD	2473	3440	C1M	NL	CH	XX
19790	LQLP	26	1534	C1M	AR	HK	XX
19790	LQLP	26	1534	EOH	S	W	
19790	LQLP	26	1534	EOT	S	W	
19790	LQLP	26	1534	TOB	AN	SAN	AN
19790	LQLS	27	1535	C1M	AR	HK	XX
19790	LQLS	27	1535	EOH	SL	W	
19790	LQLS	27	1535	EOT	SL	W	
19790	LQLS	27	1535	TOB	AN	SAN	AN
19790	ZCUY	657	1548	C1M	CA	HK	XX
19790	ZCUY	657	1548	EOH	S	W	
19790	ZCUY	657	1548	EOT	S	W	
19790	ZCUY	657	1548	SIM	C	BU	
19790	ZCUY	657	1548	TOB	AN	DA	
19800	5XSG	2419	7227	C1M	KE	TZ	XX
19800	FNJF	583	917	C1M	CA	FR	XX
19800	FNJF	583	917	EOH	SL	W	
19800	FNJF	583	917	EOT	SL	W	
19800	FNJF	583	917	TOB	SAN	AN	AN
19800	HBDD	2581	3577	C1M	NL	CH	XX
19800	LDMR	617	2993	C1M	CA	NO	XX
19810	HBDD	2691	3701	C1M	NL	CH	XX
19820	HBDD	2800	3816	C1M	NL	CH	XX
19830	SGQL	1965	3853	C1M	IS	SE	XX
19840	PGEF	883	3173	HOP	19	20	
19840	PGEF	883	3173	C1M	CA	NL	XX
19840	PGEF	883	3173	EOT	SL	W	
19850	HBDD	1938	3970	C1M	DE	CH	XX
19850	HBDR	1939	3971	C1M	DE	CH	XX
19850	HBFC	1940	3972	C1M	DE	CH	XX
19850	HBFD	1941	3973	C1M	DE	CH	XX
19850	HBFY	1944	3976	C1M	DE	CH	XX
19850	HBLB	1945	3977	C1M	DE	CH	XX
19850	PGEF	896	3168	HOP	19	20	
19850	PGEF	896	3168	C1M	CA	NL	XX
19850	PGEF	896	3168	EOT	SL	W	
19850	S6EJ	169	3760	C1M	AU	SG	XX
19860	HBDR	1908	3891	C1M	DE	CH	XX
19860	HBFC	1909	3892	C1M	DE	CH	XX
19860	HBFD	1910	3893	C1M	DE	CH	XX

Source metadata file (SMF)	Callsign	Source metadata element (SME) 1	Source metadata element (SME) 2	Field	value 1	value 2	new value
19860	HBFS	1911	3894	C1M	DE	CH	XX
19860	HBFY	1912	3896	C1M	DE	CH	XX
19860	VWRT	1014	2371	C1M	CA	IN	XX
19870	9MTU	1999	3562	HOP	32	23	
19870	9MTU	1999	3562	C1M	HK	SG	XX
19870	9MTU	1999	3562	EOH	VS	S	
19870	9MTU	1999	3562	EOT	VS	S	
19870	9MTU	1999	3562	HOA	50	35	
19870	9MTU	1999	3562	TOB	SAN	AN	AN
19870	9VPQ	2001	3582	HOP	14	15	
19870	9VPQ	2001	3582	C1M	HK	SG	XX
19870	9VPQ	2001	3582	EOH	W	S	
19870	9VPQ	2001	3582	EOT	W	S	
19870	9VPQ	2001	3582	SIM	C	BU	
19870	9VPQ	2001	3582	TOB	DA	AN	AN
19870	DZLI	1935	2802	C1M	HK	NL	XX
19870	HBFC	1805	3759	C1M	DE	CH	XX
19870	HBFY	1807	3763	C1M	DE	CH	XX
19870	HSBX	1957	7140	HOP	16	11	
19870	HSBX	1957	7140	C1M	HK	MY	XX
19870	HSBX	1957	7140	EOT	W	S	
19870	HSBX	1957	7140	TOB	SAN	AN	AN
19870	HSBX	1957	7140	TOT	MER	ALC	
19870	VWRT	955	2288	C1M	CA	IN	XX
19870	ZCSM	1975	3125	C1M	HK	NZ	XX
19880	9MTU	2001	3366	HOP	32	23	
19880	9MTU	2001	3366	C1M	HK	SG	XX
19880	9MTU	2001	3366	EOH	VS	S	
19880	9MTU	2001	3366	EOT	VS	S	
19880	9MTU	2001	3366	HOA	50	35	
19880	9MTU	2001	3366	TOB	SAN	AN	AN
19880	DHVV	1643	4997	HOP	20	22	
19880	DHVV	1643	4997	C1M	DE	GB	XX
19880	DHVV	1643	4997	EOH	SL	S	
19880	DHVV	1643	4997	EOT	SL	S	
19880	DHVV	1643	4997	TOB	AN	DA	
19880	GVMG	2585	6942	C1M	KE	TZ	XX
19880	HBFY	1771	3569	C1M	DE	CH	XX
19880	HSBX	1952	6956	HOP	16	11	
19880	HSBX	1952	6956	C1M	HK	MY	XX
19880	HSBX	1952	6956	EOT	W	S	
19880	HSBX	1952	6956	TOB	SAN	AN	AN
19880	HSBX	1952	6956	TOT	MER	ALC	
19880	ZCSM	1972	2956	C1M	HK	NZ	XX

Source metadata file (SMF)	Callsign	Source metadata element (SME) 1	Source metadata element (SME) 2	Field	value 1	value 2	new value
19890	9MTU	2029	3357	HOP	30	23	
19890	9MTU	2029	3357	C1M	HK	SG	XX
19890	9MTU	2029	3357	EOH	VS	S	
19890	9MTU	2029	3357	EOT	VS	S	
19890	9MTU	2029	3357	HOA	49	35	
19890	9MTU	2029	3357	TOB	SAN	AN	AN
19890	9MYK	1078	2030	HOP	20	21	
19890	9MYK	1078	2030	C1M	CA	HK	XX
19890	9MYK	1078	2030	EOH	SL	W	
19890	9MYK	1078	2030	EOT	SL	W	
19890	9MYK	1078	2030	HOA	30	35	
19890	HBFY	1782	3557	C1M	DE	CH	XX
19890	HSBX	1975	7293	HOP	16	11	
19890	HSBX	1975	7293	C1M	HK	MY	XX
19890	HSBX	1975	7293	EOT	W	S	
19890	HSBX	1975	7293	TOB	SAN	AN	AN
19890	HSBX	1975	7293	TOT	MER	ALC	
19900	6ZNX	1936	7227	HOP	18	15	
19900	6ZNX	1936	7227	C1M	HK	MY	XX
19900	6ZNX	1936	7227	EOH	W	SN	
19900	6ZNX	1936	7227	HOA	24	27	
19900	6ZNX	1936	7227	SIM	BU	C	
19900	6ZNX	1936	7227	TOB	SAN	AN	AN
19900	9MTU	1939	3158	HOP	30	23	
19900	9MTU	1939	3158	C1M	HK	SG	XX
19900	9MTU	1939	3158	EOH	VS	S	
19900	9MTU	1939	3158	EOT	VS	S	
19900	9MTU	1939	3158	HOA	49	35	
19900	9MTU	1939	3158	TOB	SAN	AN	AN
19900	9MYK	1008	1940	HOP	20	21	
19900	9MYK	1008	1940	C1M	CA	HK	XX
19900	9MYK	1008	1940	EOH	SL	W	
19900	9MYK	1008	1940	EOT	SL	W	
19900	9MYK	1008	1940	HOA	30	35	
19900	HSBX	1890	7220	HOP	16	11	
19900	HSBX	1890	7220	C1M	HK	MY	XX
19900	HSBX	1890	7220	EOT	W	S	
19900	HSBX	1890	7220	TOB	SAN	AN	AN
19900	HSBX	1890	7220	TOT	MER	ALC	
19910	9MTU	1812	3047	HOP	30	23	
19910	9MTU	1812	3047	C1M	HK	SG	XX
19910	9MTU	1812	3047	EOH	VS	S	
19910	9MTU	1812	3047	EOT	VS	S	
19910	9MTU	1812	3047	HOA	49	35	

Source metadata file (SMF)	Callsign	Source metadata element (SME) 1	Source metadata element (SME) 2	Field	value 1	value 2	new value
19910	9MTU	1812	3047	TOB	SAN	AN	AN
19910	9MYK	974	1813	HOP	20	21	
19910	9MYK	974	1813	C1M	CA	HK	XX
19910	9MYK	974	1813	EOH	SL	W	
19910	9MYK	974	1813	EOT	SL	W	
19910	9MYK	974	1813	HOA	30	35	
19920	9MTU	1873	2969	HOP	30	23	
19920	9MTU	1873	2969	C1M	HK	SG	XX
19920	9MTU	1873	2969	EOH	VS	S	
19920	9MTU	1873	2969	EOT	VS	S	
19920	9MTU	1873	2969	HOA	49	35	
19920	9MTU	1873	2969	TOB	SAN	AN	AN
19920	9MYK	984	1874	HOP	20	21	
19920	9MYK	984	1874	C1M	CA	HK	XX
19920	9MYK	984	1874	EOH	SL	W	
19920	9MYK	984	1874	EOT	SL	W	
19920	9MYK	984	1874	HOA	30	35	
19930	9MTU	1850	2987	HOP	34	23	
19930	9MTU	1850	2987	C1M	HK	SG	XX
19930	9MTU	1850	2987	EOH	VS	S	
19930	9MTU	1850	2987	EOT	VS	S	
19930	9MTU	1850	2987	HOA	49	35	
19930	9MTU	1850	2987	TOB	SAN	AN	AN
19930	9MYK	954	1851	HOP	20	21	
19930	9MYK	954	1851	C1M	CA	HK	XX
19930	9MYK	954	1851	EOH	SL	W	
19930	9MYK	954	1851	EOT	SL	W	
19930	9MYK	954	1851	HOA	30	35	
19940	9MTU	1835	3118	HOP	34	23	
19940	9MTU	1835	3118	C1M	HK	SG	XX
19940	9MTU	1835	3118	EOH	VS	S	
19940	9MTU	1835	3118	EOT	VS	S	
19940	9MTU	1835	3118	HOA	49	35	
19940	9MTU	1835	3118	TOB	SAN	AN	AN
19940	9MYK	953	1836	HOP	20	21	
19940	9MYK	953	1836	C1M	CA	HK	XX
19940	9MYK	953	1836	EOH	SL	W	
19940	9MYK	953	1836	EOT	SL	W	
19940	9MYK	953	1836	HOA	30	35	
19940	ELOX5	1779	2748	HOP	18	22	
19940	ELOX5	1779	2748	C1M	HK	HR	XX
19940	ELOX5	1779	2748	EOT	W	S	
19940	ELOX5	1779	2748	TOB	SAN	AN	AN
19950	9MTU	2508	5151	C1M	HK	SG	XX

Source metadata file (SMF)	Callsign	Source metadata element (SME) 1	Source metadata element (SME) 2	Field	value 1	value 2	new value
19950	9MTU	2508	5151	EOH	VS	S	
19950	9MTU	2508	5151	EOT	VS	S	
19950	9MTU	2508	5151	HOA	49	35	
19950	9MTU	2508	5151	HOB	34	23	
19950	9MTU	2508	5151	TOB	SAN	AN	AN
19950	9MYK	596	2509	C1M	CA	HK	XX
19950	9MYK	596	2509	EOH	S	W	
19950	9MYK	596	2509	EOT	S	W	
19950	DUNV	768	3067	C1M	CA	JP	XX
19950	DUNV	768	3067	EOH	S	VS	
19950	DUNV	768	3067	EOT	S	VS	
19950	ELOX5	2546	2620	C1M	HK	HR	XX
19950	ELOX5	2546	2620	EOT	W	S	
19950	ELOX5	2546	2620	HOB	18	22	
19950	ELOX5	2546	2620	TOB	SAN	AN	AN
19960	9MTU	2476	5177	C1M	HK	SG	XX
19960	9MTU	2476	5177	EOH	VS	S	
19960	9MTU	2476	5177	EOT	VS	S	
19960	9MTU	2476	5177	HOA	49	35	
19960	9MTU	2476	5177	HOB	34	23	
19960	9MTU	2476	5177	TOB	SAN	AN	AN
19960	9MYK	580	2477	C1M	CA	HK	XX
19960	9MYK	580	2477	EOH	S	W	
19960	9MYK	580	2477	EOT	S	W	
19960	ELQA8	1447	2052	C1M	DE	GB	XX
19960	ELQA8	1447	2052	EOH	SL	S	
19960	ELQA8	1447	2052	EOT	SL	S	
19960	ELQA8	1447	2052	TOB	AN	DA	
19970	9MTU	2460	5184	C1M	HK	SG	XX
19970	9MTU	2460	5184	EOH	VS	S	
19970	9MTU	2460	5184	EOT	VS	S	
19970	9MTU	2460	5184	HOA	49	35	
19970	9MTU	2460	5184	HOB	34	23	
19970	9MTU	2460	5184	TOB	SAN	AN	AN
19970	S6CY	43	5223	C1M	AU	SG	XX
19970	S6CY	43	5223	HOA	34	36	
19970	S6CY	43	5223	HOB	25	26	
19981	9MTU	2453	5176	C1M	HK	SG	XX
19981	9MTU	2453	5176	EOH	VS	S	
19981	9MTU	2453	5176	EOT	VS	S	
19981	9MTU	2453	5176	HOA	49	35	
19981	9MTU	2453	5176	HOB	34	23	
19981	9MTU	2453	5176	TOB	SAN	AN	AN
19981	9MTU	2453	5176	TOT	ALC	MER	

Source metadata file (SMF)	Callsign	Source metadata element (SME) 1	Source metadata element (SME) 2	Field	value 1	value 2	new value
19981	9MYK	583	2454	C1M	CA	HK	XX
19981	9MYK	583	2454	EOH	S	W	
19981	9MYK	583	2454	EOT	S	W	
19982	9MTU	2453	5166	C1M	HK	SG	XX
19982	9MTU	2453	5166	EOH	VS	S	
19982	9MTU	2453	5166	EOT	VS	S	
19982	9MTU	2453	5166	HOA	49	35	
19982	9MTU	2453	5166	HOB	34	23	
19982	9MTU	2453	5166	TOB	SAN	AN	AN
19982	9MTU	2453	5166	TOT	ALC	MER	
19991	JMLQ	40	3250	C1M	AU	JP	XX
19991	JMLQ	40	3250	TOB	DA	AN	AN
19991	JMLQ	40	3250	TOT	MER	ALC	
19991	S6CY	42	5185	C1M	AU	SG	XX
19991	S6CY	42	5185	HOA	34	36	
19991	S6CY	42	5185	HOB	25	26	
19991	VRRD	95	2482	C1M	AU	HK	XX
19991	VRRD	95	2482	EOH	S	W	
19991	VRRD	95	2482	EOT	S	W	
19991	VRRD	95	2482	TOB	DA	SAN	AN
19991	VRUX3	1866	2489	C1M	FR	HK	XX
19991	VRUX3	1866	2489	DOS	9	6	
19991	VRUX3	1866	2489	HOB	21	20	
19991	VRUX3	1866	2489	KOV	RR	CC	
19991	VRUX3	1866	2489	TOB	AN	SAN	AN
19981	9MTU	2453	5176	C1M	HK	SG	XX
19981	9MTU	2453	5176	EOT	VS	S	
19981	9MTU	2453	5176	HOA	49	35	
19981	9MTU	2453	5176	HOB	34	23	
19981	9MTU	2453	5176	TOB	SAN	AN	AN
19981	9MTU	2453	5176	TOT	ALC	MER	
19981	9MYK	583	2454	C1M	CA	HK	XX
19981	9MYK	583	2454	EOT	S	W	
19982	9MTU	2453	5166	C1M	HK	SG	XX
19982	9MTU	2453	5166	EOT	VS	S	
19982	9MTU	2453	5166	HOA	49	35	
19982	9MTU	2453	5166	HOB	34	23	
19982	9MTU	2453	5166	TOB	SAN	AN	AN
19982	9MTU	2453	5166	TOT	ALC	MER	
19991	JMLQ	40	3250	C1M	AU	JP	XX
19991	JMLQ	40	3250	TOB	DA	AN	
19991	JMLQ	40	3250	TOT	MER	ALC	
19991	VRRD	95	2482	C1M	AU	HK	XX
19991	VRRD	95	2482	EOT	S	W	

Source metadata file (SMF)	Callsign	Source metadata element (SME) 1	Source metadata element (SME) 2	Field	value 1	value 2	new value
19991	VRRD	95	2482	TOB	DA	SAN	
19991	VRUX3	1866	2489	C1M	FR	HK	XX
19991	VRUX3	1866	2489	DOS	9	6	
19991	VRUX3	1866	2489	HOB	21	20	
19991	VRUX3	1866	2489	KOV	RR	CC	
19991	VRUX3	1866	2489	TOB	AN	SAN	AN
19992	VRUX3	1916	2538	C1M	FR	HK	XX
19992	VRUX3	1916	2538	DOS	9	6	
19992	VRUX3	1916	2538	HOB	21	20	
19992	VRUX3	1916	2538	KOV	RR	CC	
19992	VRUX3	1916	2538	SIM	C	BU	
19992	VRUX3	1916	2538	TOB	AN	SAN	AN
19993	VRUX3	1911	2528	C1M	FR	HK	XX
19993	VRUX3	1911	2528	DOS	9	6	
19993	VRUX3	1911	2528	HOB	21	37	
19993	VRUX3	1911	2528	KOV	RR	CC	
19993	VRUX3	1911	2528	SIM	C	BU	
19993	VRUX3	1911	2528	TOB	DA	SAN	
19994	VRUX3	1930	2547	C1M	FR	HK	XX
19994	VRUX3	1930	2547	DOS	9	6	
19994	VRUX3	1930	2547	HOB	21	20	
19994	VRUX3	1930	2547	KOV	RR	CC	
19994	VRUX3	1930	2547	TOB	DA	SAN	
20001	JMLQ	77	3223	C1M	AU	JP	XX
20001	JMLQ	77	3223	TOB	DA	AN	
20001	JMLQ	77	3223	TOT	MER	ALC	
20001	VRUX3	1929	2544	C1M	FR	HK	XX
20001	VRUX3	1929	2544	DOS	9	6	
20001	VRUX3	1929	2544	HOB	21	20	
20001	VRUX3	1929	2544	KOV	RR	CC	
20001	VRUX3	1929	2544	TOB	DA	SAN	
20002	JMLQ	82	3225	C1M	AU	JP	XX
20002	JMLQ	82	3225	TOB	DA	AN	
20002	JMLQ	82	3225	TOT	MER	ALC	
20002	VRUW5	36	2549	C1M	AU	HK	XX
20002	VRUW5	36	2549	HOB	19	20	
20002	VRUW5	36	2549	KOV	GC	CC	
20002	VRUW5	36	2549	TOB	DA	SAN	
20002	VRUX3	1936	2552	C1M	FR	HK	XX
20002	VRUX3	1936	2552	DOS	9	6	
20002	VRUX3	1936	2552	HOB	21	20	
20002	VRUX3	1936	2552	KOV	RR	CC	
20002	VRUX3	1936	2552	TOB	DA	SAN	
20003	JMLQ	81	3226	C1M	AU	JP	XX

Source metadata file (SMF)	Callsign	Source metadata element (SME) 1	Source metadata element (SME) 2	Field	value 1	value 2	new value
20003	JMLQ	81	3226	TOB	DA	AN	
20003	JMLQ	81	3226	TOT	MER	ALC	
20003	VRUW5	35	2549	C1M	AU	HK	XX
20003	VRUW5	35	2549	HOB	19	20	
20003	VRUW5	35	2549	KOV	GC	CC	
20003	VRUW5	35	2549	TOB	DA	SAN	
20003	VRUX3	1936	2552	C1M	FR	HK	XX
20003	VRUX3	1936	2552	DOS	9	6	
20003	VRUX3	1936	2552	HOB	21	20	
20003	VRUX3	1936	2552	KOV	RR	CC	
20003	VRUX3	1936	2552	TOB	DA	SAN	
20004	GYYP	85	1064	C1M	AU	CA	XX
20004	GYYP	85	1064	TOB	DA	AN	
20004	GYYP	85	1064	TOH	E	P	
20004	GYYP	85	1064	TOT	ELE	MER	
20004	JMLQ	78	3220	C1M	AU	JP	XX
20004	JMLQ	78	3220	TOB	DA	AN	
20004	JMLQ	78	3220	TOT	MER	ALC	
20004	VRUW5	35	2553	C1M	AU	HK	XX
20004	VRUW5	35	2553	HOB	19	20	
20004	VRUW5	35	2553	KOV	GC	CC	
20004	VRUW5	35	2553	TOB	DA	SAN	
20004	VRUX3	1933	2556	C1M	FR	HK	XX
20004	VRUX3	1933	2556	DOS	9	6	
20004	VRUX3	1933	2556	HOB	21	20	
20004	VRUX3	1933	2556	KOV	RR	CC	
20004	VRUX3	1933	2556	TOB	DA	SAN	
20011	GYYP	83	1065	C1M	AU	CA	XX
20011	GYYP	83	1065	HOB	27	33	
20011	GYYP	83	1065	TOB	DA	AN	
20011	GYYP	83	1065	TOH	E	P	
20011	GYYP	83	1065	TOT	ELE	MER	
20011	JMLQ	75	3215	C1M	AU	JP	XX
20011	JMLQ	75	3215	TOB	DA	AN	
20012	GYYP	83	1065	C1M	AU	CA	XX
20012	GYYP	83	1065	HOB	27	33	
20012	GYYP	83	1065	TOB	DA	AN	
20012	GYYP	83	1065	TOH	E	P	
20012	GYYP	83	1065	TOT	ELE	MER	
20012	JMLQ	75	3205	C1M	AU	JP	XX
20012	JMLQ	75	3205	TOB	DA	AN	
20013	GYYP	83	1065	C1M	AU	CA	XX
20013	GYYP	83	1065	HOB	27	33	
20013	GYYP	83	1065	TOB	DA	AN	

Source metadata file (SMF)	Callsign	Source metadata element (SME) 1	Source metadata element (SME) 2	Field	value 1	value 2	new value
20013	GYYP	83	1065	TOH	E	P	
20013	GYYP	83	1065	TOT	ELE	MER	
20013	JMLQ	75	3206	C1M	AU	JP	XX
20013	JMLQ	75	3206	TOB	DA	AN	
20014	GYYP	87	1069	C1M	AU	CA	XX
20014	GYYP	87	1069	HOB	27	33	
20014	GYYP	87	1069	TOB	DA	AN	
20014	GYYP	87	1069	TOH	E	P	
20014	GYYP	87	1069	TOT	ELE	MER	
20014	JMLQ	79	3200	C1M	AU	JP	XX
20014	JMLQ	79	3200	TOB	DA	AN	
20021	GYYP	79	1054	C1M	AU	CA	XX
20021	GYYP	79	1054	HOB	27	33	
20021	GYYP	79	1054	TOB	DA	AN	
20021	GYYP	79	1054	TOH	E	P	
20021	GYYP	79	1054	TOT	ELE	MER	
20021	JMLQ	73	3206	C1M	AU	JP	XX
20021	JMLQ	73	3206	TOB	DA	AN	
20022	GYYP	81	1056	C1M	AU	CA	XX
20022	GYYP	81	1056	HOB	27	33	
20022	GYYP	81	1056	TOB	DA	AN	
20022	GYYP	81	1056	TOH	E	P	
20022	GYYP	81	1056	TOT	ELE	MER	
20022	JMLQ	75	3191	C1M	AU	JP	XX
20022	JMLQ	75	3191	TOB	DA	AN	
20023	GYYP	83	1058	C1M	AU	CA	XX
20023	GYYP	83	1058	HOB	27	33	
20023	GYYP	83	1058	TOB	DA	AN	
20023	GYYP	83	1058	TOH	E	P	
20023	GYYP	83	1058	TOT	ELE	MER	
20023	JMLQ	77	3171	C1M	AU	JP	XX
20023	JMLQ	77	3171	TOB	DA	AN	
20024	FHZI	64	1940	C1M	AU	FR	XX
20024	FHZI	64	1940	HOB	8.6	25	
20024	FHZI	64	1940	KOV	RV	SV	
20024	FHZI	64	1940	LOV	64	65	
20024	FHZI	64	1940	TOH	P	E	
20024	GYYP	86	1061	C1M	AU	CA	XX
20024	GYYP	86	1061	HOB	27	33	
20024	GYYP	86	1061	TOH	E	P	
20024	GYYP	86	1061	TOT	ELE	MER	
20024	JMLQ	81	3170	C1M	AU	JP	XX
20024	JMLQ	81	3170	TOB	DA	AN	
20031	JMLQ	90	3139	C1M	AU	JP	XX

Source metadata file (SMF)	Callsign	Source metadata element (SME) 1	Source metadata element (SME) 2	Field	value 1	value 2	new value
20031	JMLQ	90	3139	TOB	DA	AN	
20031	GYYP	98	1075	C1M	AU	CA	XX
20031	GYYP	98	1075	HOB	27	33	
20031	GYYP	98	1075	TOT	ELE	MER	
20031	GYYP	98	1075	TOH	E	P	
20031	FHZI	72	1954	C1M	AU	FR	XX
20031	FHZI	72	1954	KOV	RV	SV	
20031	FHZI	72	1954	LOV	65	64	
20031	FHZI	72	1954	HOB	8.6	25	
20031	FHZI	72	1954	TOH	P	E	
20032	JMLQ	93	3139	C1M	AU	JP	XX
20032	JMLQ	93	3139	TOB	DA	AN	
20032	GYYP	101	1081	C1M	AU	CA	XX
20032	GYYP	101	1081	HOB	27	33	
20032	GYYP	101	1081	TOT	ELE	MER	
20032	GYYP	101	1081	TOH	E	P	
20033	JMLQ	83	3374	C1M	AU	JP	XX
20033	JMLQ	83	3374	TOB	DA	AN	
20033	GYYP	91	1069	C1M	AU	CA	XX
20033	GYYP	91	1069	HOB	27	33	
20033	GYYP	91	1069	TOT	ELE	MER	
20033	GYYP	91	1069	TOH	C	P	
20034	JMLQ	83	3500	C1M	AU	JP	XX
20034	JMLQ	83	3500	TOB	DA	SAN	
20034	GYYP	91	1069	C1M	AU	CA	XX
20034	GYYP	91	1069	HOB	27	33	
20034	GYYP	91	1069	TOT	ELE	MER	
20034	GYYP	91	1069	TOH	C	P	
20041	VQAI4	1770	2430	C1M	DE	GB	XX
20041	VQAI4	1770	2430	LOV	188	188.1	
20041	VQAI4	1770	2430	TOB	AN	DA	
20041	VQAI4	1770	2430	EOT	SL	S	
20041	GYYP	89	1068	C1M	AU	CA	XX
20041	GYYP	89	1068	HOB	27	33	
20041	GYYP	89	1068	TOT	ELE	MER	
20041	GYYP	89	1068	TOH	C	P	
20041	JMLQ	80	3353	C1M	AU	JP	XX
20041	JMLQ	80	3353	TOB	DA	SAN	
20041	VRWE9	81	2615	C1M	AU	HK	XX
20041	VRWE9	81	2615	KOV	CC	CS	
20041	VRWE9	81	2615	LOV	274.8	275	
20041	VRWE9	81	2615	TOB	DA	AN	
20041	VRWE9	81	2615	EOT	S	VS	
20041	VRWE9	81	2615	DOS	11	8.5	

Source metadata file (SMF)	Callsign	Source metadata element (SME) 1	Source metadata element (SME) 2	Field	value 1	value 2	new value
20042	GYYP	82	1067	C1M	AU	CA	XX
20042	GYYP	82	1067	HOB	27.4	33	
20042	GYYP	82	1067	TOT	ELE	MER	
20042	GYYP	82	1067	TOH	C	P	
20042	GYYP	82	1067	SIM	C	BU	
20042	VRWE9	79	2596	C1M	AU	HK	XX
20042	VRWE9	79	2596	KOV	CC	CS	
20042	VRWE9	79	2596	LOV	274.8	275	
20042	VRWE9	79	2596	TOB	DA	AN	
20042	VRWE9	79	2596	EOT	S	VS	
20042	VRWE9	79	2596	DOS	11	8.5	
20042	VQAI4	1765	2415	C1M	DE	GB	XX
20042	VQAI4	1765	2415	LOV	188	188.1	
20042	VQAI4	1765	2415	TOB	AN	DA	
20042	VQAI4	1765	2415	EOT	SL	S	
20043	VRWE9	79	2588	C1M	AU	HK	XX
20043	VRWE9	79	2588	KOV	CC	CS	
20043	VRWE9	79	2588	LOV	274.8	275	
20043	VRWE9	79	2588	TOB	DA	AN	
20043	VRWE9	79	2588	EOT	S	VS	
20043	VRWE9	79	2588	DOS	11	8.5	
20043	VQAI4	1770	2408	C1M	DE	GB	XX
20043	VQAI4	1770	2408	LOV	188	188.1	
20043	VQAI4	1770	2408	TOB	AN	DA	
20043	VQAI4	1770	2408	EOT	SL	S	
20043	GYYP	82	1067	C1M	AU	CA	XX
20043	GYYP	82	1067	HOB	27.4	33	
20043	GYYP	82	1067	TOT	ELE	MER	
20043	GYYP	82	1067	TOH	C	P	
20043	GYYP	82	1067	SIM	C	BU	
20044	GYYP	82	1067	C1M	AU	CA	XX
20044	GYYP	82	1067	HOB	27.4	33	
20044	GYYP	82	1067	TOT	ELE	MER	
20044	GYYP	82	1067	TOH	C	P	
20044	GYYP	82	1067	SIM	C	BU	
20044	VRWE9	79	2583	C1M	AU	HK	XX
20044	VRWE9	79	2583	KOV	CC	CS	
20044	VRWE9	79	2583	LOV	274.8	275	
20044	VRWE9	79	2583	TOB	DA	AN	
20044	VRWE9	79	2583	EOT	S	VS	
20044	VRWE9	79	2583	DOS	11	8.5	
20052	VRVN6	2539	5276	C1M	HK	US	XX
20052	VRVN6	2539	5276	KOV	CS	CC	
20052	HZZD	4564	5402	C1M	SA	US	XX

Source metadata file (SMF)	Callsign	Source metadata element (SME) 1	Source metadata element (SME) 2	Field	value 1	value 2	new value
20052	HZZD	4564	5402	TOB	DA	AN	
20052	GYYP	75	1061	C1M	AU	CA	XX
20052	GYYP	75	1061	HOB	27.4	33	
20052	GYYP	75	1061	TOT	ELE	MER	
20052	GYYP	75	1061	TOH	C	P	
20052	GYYP	75	1061	SIM	C	BU	
20052	PFR0	3875	5134	C1M	NL	US	XX
20052	PFR0	3875	5134	TOB	SAN	AN	AN
20052	PHSG	3955	5495	C1M	NL	US	XX
20052	PHFV	3931	5383	C1M	NL	US	XX
20052	HZRX	4552	5399	C1M	SA	US	XX
20052	HZRX	4552	5399	TOB	DA	AN	
20052	VRWE9	72	2528	C1M	AU	HK	XX
20052	VRWE9	72	2528	KOV	CC	CS	
20052	VRWE9	72	2528	LOV	274.8	275	
20052	VRWE9	72	2528	TOB	DA	AN	
20052	VRWE9	72	2528	EOT	S	VS	
20052	VRWE9	72	2528	DOS	11	8.5	
20052	HZZC	4558	5401	C1M	SA	US	XX
20052	HZZC	4558	5401	TOB	DA	AN	
20052	V2AF5	1460	2071	C1M	DE	FR	XX
20052	V2AF5	1460	2071	KOV	GC	CC	
20052	V2AF5	1460	2071	EOT	SL	W	
20052	VRAR6	2524	5271	C1M	HK	US	XX
20052	VRAR6	2524	5271	KOV	CS	CC	
20052	VRAR6	2524	5271	TOB	SAN	AN	AN
20052	PDGS	3933	5378	C1M	NL	US	XX
20052	PDGS	3933	5378	KOV	PV	Y	
20052	PDGS	3933	5378	TOB	SAN	AN	AN
20052	LMWO3	2550	5516	C1M	HK	US	XX
20052	LMWO3	2550	5516	TOB	SAN	AN	AN
20053	V2AF5	1466	2065	C1M	DE	FR	XX
20053	V2AF5	1466	2065	KOV	GC	CC	
20053	V2AF5	1466	2065	EOT	SL	W	
20053	VRVN6	2568	5300	C1M	HK	US	XX
20053	VRVN6	2568	5300	KOV	CS	CC	
20053	GYYP	74	1060	C1M	AU	CA	XX
20053	GYYP	74	1060	HOB	27.4	33	
20053	GYYP	74	1060	TOT	ELE	MER	
20053	GYYP	74	1060	TOH	C	P	
20053	GYYP	74	1060	SIM	C	BU	
20053	VRWE9	71	2557	C1M	AU	HK	XX
20053	VRWE9	71	2557	KOV	CC	CS	
20053	VRWE9	71	2557	LOV	274.8	275	

Source metadata file (SMF)	Callsign	Source metadata element (SME) 1	Source metadata element (SME) 2	Field	value 1	value 2	new value
20053	VRWE9	71	2557	TOB	DA	AN	
20053	VRWE9	71	2557	EOT	S	VS	
20053	VRWE9	71	2557	DOS	11	8.5	
20053	VRAR6	2553	5295	C1M	HK	US	XX
20053	VRAR6	2553	5295	KOV	CS	CC	
20053	VRAR6	2553	5295	TOB	SAN	AN	AN
20053	PDGS	3956	5402	C1M	NL	US	XX
20053	PDGS	3956	5402	KOV	PV	Y	
20053	PDGS	3956	5402	TOB	SAN	AN	AN
20053	HZZC	4582	5425	C1M	SA	US	XX
20053	HZZC	4582	5425	TOB	DA	AN	
20053	LMWO3	2578	5540	C1M	HK	US	XX
20053	LMWO3	2578	5540	TOB	SAN	AN	AN
20053	HZRX	4576	5423	C1M	SA	US	XX
20053	HZRX	4576	5423	TOB	DA	AN	
20053	HZZD	4588	5426	C1M	SA	US	XX
20053	HZZD	4588	5426	TOB	DA	AN	
20054	PDGS	3630	5070	C1M	NL	US	XX
20054	PDGS	3630	5070	KOV	PV	Y	
20054	PDGS	3630	5070	TOB	SAN	AN	AN
20054	9VBA	4354	4438	C1M	SG	US	XX
20054	9VBA	4354	4438	TOB	SAN	AN	AN
20054	VRVN6	2572	4965	C1M	HK	US	XX
20054	VRVN6	2572	4965	KOV	CS	CC	
20054	GYYP	71	1057	C1M	AU	CA	XX
20054	GYYP	71	1057	HOB	27.4	33	
20054	GYYP	71	1057	TOT	ELE	MER	
20054	GYYP	71	1057	TOH	C	P	
20054	GYYP	71	1057	SIM	C	BU	
20054	HZZC	4256	5092	C1M	SA	US	XX
20054	HZZC	4256	5092	TOB	DA	AN	
20054	V2AF5	1469	2074	C1M	DE	FR	XX
20054	V2AF5	1469	2074	KOV	GC	CC	
20054	V2AF5	1469	2074	EOT	SL	W	
20054	HOKP	3242	5234	C1M	JP	US	XX
20054	HOKP	3242	5234	TOB	SAN	AN	AN
20054	HZZD	4262	5093	C1M	SA	US	XX
20054	HZZD	4262	5093	TOB	DA	AN	
20054	LMWO3	2582	5206	C1M	HK	US	XX
20054	LMWO3	2582	5206	TOB	SAN	AN	AN
20054	HZRX	4250	5090	C1M	SA	US	XX
20054	HZRX	4250	5090	TOB	DA	AN	
20061	3EZF5	3176	5177	C1M	JP	US	XX
20061	3EZF5	3176	5177	KOV	BC	GC	

Source metadata file (SMF)	Callsign	Source metadata element (SME) 1	Source metadata element (SME) 2	Field	value 1	value 2	new value
20061	3EZF5	3176	5177	TOB	SAN	AN	AN
20061	3FDN9	2904	4553	C1M	JP	US	XX
20061	3FDN9	2904	4553	KOV	BC	GC	
20061	3FDN9	2904	4553	TOB	SAN	AN	AN
20061	9VBA	4329	4413	C1M	SG	US	XX
20061	9VBA	4329	4413	TOB	SAN	AN	AN
20061	9VYY5	1191	4426	C1M	DE	US	XX
20061	A8CF2	4820	1615	C1M	US	DE	XX
20061	A8CF2	4820	1615	KOV	CC	CS	
20061	A8CG6	1181	4417	C1M	DE	US	XX
20061	A8FU7	1940	5242	C1M	DE	US	XX
20061	A8GX4	4904	1723	C1M	US	DE	XX
20061	C6JG8	2370	931	C1M	GB	CA	XX
20061	C6JG8	2370	931	TOB	DA	AN	
20061	C6JG8	2370	931	SIM	C	BU	
20061	C6KB2	2091	533	C1M	GB	CA	XX
20061	C6KB2	2091	533	TOB	DA	SAN	
20061	C6KB2	2091	533	HOB	24.4	22	
20061	C6KB3	543	2097	C1M	CA	GB	XX
20061	C6KB3	543	2097	TOB	AN	DA	
20061	C6KB3	543	2097	HOB	24	22.4	
20061	C6KB3	543	2097	SIM	BU	C	
20061	DAPG	1632	4832	C1M	DE	US	XX
20061	DAPG	1632	4832	KOV	CS	CC	
20061	DHHI	1493	4671	C1M	DE	US	XX
20061	DHHI	1493	4671	KOV	CS	CC	
20061	DHHI	1493	4671	TOB	SAN	AN	AN
20061	ELVX2	1931	5237	C1M	DE	US	XX
20061	ELVX2	1931	5237	KOV	GC	CC	
20061	GYYP	68	987	C1M	AU	CA	XX
20061	GYYP	68	987	HOB	27.4	33	
20061	GYYP	68	987	TOT	ELE	MER	
20061	GYYP	68	987	TOH	C	P	
20061	GYYP	68	987	SIM	C	BU	
20061	HOKP	5209	3208	C1M	US	JP	XX
20061	HOKP	5209	3208	TOB	AN	SAN	AN
20061	HOMQ	904	3178	C1M	CA	JP	XX
20061	HOMQ	904	3178	TOB	AN	SAN	AN
20061	HOMQ	904	3178	HOB	20	28	
20061	HOMQ	904	3178	TOT	MER	ALC	
20061	HOMQ	904	3178	EOT	SN	S	
20061	HOUU	3204	5204	C1M	JP	US	XX
20061	HOUU	3204	5204	TOB	SAN	AN	AN
20061	HZRX	5065	4225	C1M	US	SA	XX

Source metadata file (SMF)	Callsign	Source metadata element (SME) 1	Source metadata element (SME) 2	Field	value 1	value 2	new value
20061	HZRX	5065	4225	TOB	AN	DA	
20061	HZZB	4228	5066	C1M	SA	US	XX
20061	HZZB	4228	5066	TOB	SAN	AN	AN
20061	HZZC	5067	4231	C1M	US	SA	XX
20061	HZZC	5067	4231	TOB	AN	DA	
20061	HZZD	5068	4237	C1M	US	SA	XX
20061	HZZD	5068	4237	TOB	AN	DA	
20061	JKES	4805	3012	C1M	US	JP	XX
20061	LAOT4	942	4461	C1M	CA	US	XX
20061	LAOT4	942	4461	TOB	SAN	AN	AN
20061	LMWO3	5181	2504	C1M	US	HK	XX
20061	LMWO3	5181	2504	TOB	AN	SAN	AN
20061	MSQQ8	2440	5193	C1M	GB	US	XX
20061	MSQQ8	2440	5193	TOB	DA	AN	
20061	P3DM4	3270	2048	C1M	LK	FR	XX
20061	P3DM4	3270	2048	TOB	AN	DA	
20061	P3DM4	3270	2048	TOT	MER	ELE	
20061	PDGS	5045	3601	C1M	US	NL	XX
20061	PDGS	5045	3601	KOV	Y	PV	
20061	PDGS	5045	3601	TOB	AN	SAN	AN
20061	S6TV	2308	4834	C1M	GB	US	XX
20061	S6TV	2308	4834	KOV	OT	RR	
20061	S6TV	2308	4834	TOB	DA	AN	
20061	UGWJ	88	4119	C1M	AU	RU	XX
20061	UGWJ	88	4119	KOV	OT	GT	
20061	UGWJ	88	4119	LOV	159.8	160	
20061	UGWJ	88	4119	TOB	DA	AN	
20061	UGWJ	88	4119	HOB	17	18	
20061	UGWJ	88	4119	TOT	MER	ALC	
20061	UGWJ	88	4119	EOT	S	US	
20061	V2OE3	1584	4813	C1M	DE	US	XX
20061	V7DS3	5038	1806	C1M	US	DE	XX
20061	VRVN6	2494	4940	C1M	HK	US	XX
20061	VRVN6	2494	4940	KOV	CS	CC	
20061	VRWB8	2485	4937	C1M	HK	US	XX
20061	VRWC8	2481	4936	C1M	HK	US	XX
20061	VRWC8	2481	4936	TOB	SAN	AN	AN
20061	VRWD3	4939	65	C1M	US	AU	XX
20061	VRWG5	4938	2487	C1M	US	HK	XX
20062	3EZF5	4897	2767	C1M	US	JP	XX
20062	3EZF5	4897	2767	KOV	GC	BC	
20062	3EZF5	4897	2767	TOB	AN	SAN	AN
20062	3FDN9	4179	2472	C1M	US	JP	XX
20062	3FDN9	4179	2472	KOV	GC	BC	

Source metadata file (SMF)	Callsign	Source metadata element (SME) 1	Source metadata element (SME) 2	Field	value 1	value 2	new value
20062	3FDN9	4179	2472	TOB	AN	SAN	AN
20062	8PSH	4362	580	C1M	US	CA	XX
20062	8PSH	4362	580	TOB	AN	DA	
20062	9VBA	3925	4022	C1M	SG	US	XX
20062	9VBA	3925	4022	TOB	SAN	AN	AN
20062	9VYY5	736	4038	C1M	DE	US	XX
20062	A8CE9	4756	1382	C1M	US	DE	XX
20062	A8CF2	1175	4496	C1M	DE	US	XX
20062	A8CF2	1175	4496	KOV	CS	CC	
20062	A8CG6	725	4026	C1M	DE	US	XX
20062	A8FK5	713	4013	C1M	DE	US	XX
20062	A8FK5	713	4013	KOV	GC	CS	
20062	A8FK5	713	4013	SIM	BU	HT	
20062	A8FU7	1497	4977	C1M	DE	US	XX
20062	A8FU7	1497	4977	KOV	CS	CC	
20062	A8GQ8	4156	917	C1M	US	DE	XX
20062	A8GQ8	4156	917	KOV	GC	CS	
20062	A8GX4	1284	4593	C1M	DE	US	XX
20062	DANM	1041	4309	C1M	DE	US	XX
20062	DANM	1041	4309	KOV	CS	CC	
20062	DAPG	1191	4508	C1M	DE	US	XX
20062	DAPG	1191	4508	KOV	CS	CC	
20062	HOKP	4939	2801	C1M	US	JP	XX
20062	HOKP	4939	2801	TOB	AN	SAN	AN
20062	HOUU	2796	4933	C1M	JP	US	XX
20062	HOUU	2796	4933	TOB	SAN	AN	AN
20062	HZRX	4767	3821	C1M	US	SA	XX
20062	HZRX	4767	3821	TOB	AN	DA	
20062	HZZB	4768	3824	C1M	US	SA	XX
20062	HZZB	4768	3824	TOB	AN	SAN	AN
20062	HZZC	3827	4769	C1M	SA	US	XX
20062	HZZC	3827	4769	TOB	DA	AN	
20062	HZZD	3833	4770	C1M	SA	US	XX
20062	HZZD	3833	4770	TOB	DA	AN	
20062	JKES	2589	4469	C1M	JP	US	XX
20062	LAOT4	557	4079	C1M	CA	US	XX
20062	LAOT4	557	4079	TOB	SAN	AN	AN
20062	LMWO3	2067	4902	C1M	HK	US	XX
20062	LMWO3	2067	4902	TOB	SAN	AN	AN
20062	MSQQ8	4915	2003	C1M	US	GB	XX
20062	MSQQ8	4915	2003	TOB	AN	DA	
20062	MYSU5	4497	1861	C1M	US	GB	XX
20062	MYSU5	4497	1861	TOB	AN	DA	
20062	OYYK2	4394	1813	C1M	US	GB	XX

Source metadata file (SMF)	Callsign	Source metadata element (SME) 1	Source metadata element (SME) 2	Field	value 1	value 2	new value
20062	OYYK2	4394	1813	TOB	AN	DA	
20062	PDGS	4744	3197	C1M	US	NL	XX
20062	PDGS	4744	3197	KOV	Y	PV	
20062	PDGS	4744	3197	TOB	AN	SAN	AN
20062	S6TV	1872	4511	C1M	GB	US	XX
20062	S6TV	1872	4511	KOV	OT	RR	
20062	S6TV	1872	4511	TOB	DA	AN	
20062	V2OE1	1154	4483	C1M	DE	US	XX
20062	V2OE3	4477	1138	C1M	US	DE	XX
20062	V2RE	4259	1021	C1M	US	DE	XX
20062	V2RE	4259	1021	KOV	RR	BS	
20062	V7DS3	1362	4736	C1M	DE	US	XX
20062	VRAR7	4635	2065	C1M	US	HK	XX
20062	VRAR7	4635	2065	KOV	CC	CS	
20062	VRAR7	4635	2065	TOB	AN	SAN	AN
20062	VRVN6	2058	4634	C1M	HK	US	XX
20062	VRVN6	2058	4634	KOV	CS	CC	
20062	VRWB8	4631	2050	C1M	US	HK	XX
20062	VRWC8	2046	4630	C1M	HK	US	XX
20062	VRWC8	2046	4630	TOB	SAN	AN	AN
20062	VRWD3	70	4633	C1M	AU	US	XX
20062	VRWG5	4632	2052	C1M	US	HK	XX
20062	VRZO2	4370	1803	C1M	US	GB	XX
20062	VRZO2	4370	1803	KOV	BC	GC	
20062	VRZO2	4370	1803	TOB	AN	DA	
20062	ZCDN9	4623	1905	C1M	US	GB	XX
20063	3EZF5	2748	4847	C1M	JP	US	XX
20063	3EZF5	2748	4847	KOV	BC	GC	
20063	3EZF5	2748	4847	TOB	SAN	AN	AN
20063	3FDN9	4112	2452	C1M	US	JP	XX
20063	3FDN9	4112	2452	KOV	GC	BC	
20063	3FDN9	4112	2452	TOB	AN	SAN	AN
20063	8PSH	512	4306	C1M	CA	US	XX
20063	8PSH	512	4306	TOB	DA	AN	
20063	9VBA	3960	3855	C1M	US	SG	XX
20063	9VBA	3960	3855	TOB	AN	SAN	AN
20063	9VYY5	3976	667	C1M	US	DE	XX
20063	A8CE9	1322	4704	C1M	DE	US	XX
20063	A8CG6	3964	656	C1M	US	DE	XX
20063	A8CL6	885	4110	C1M	DE	US	XX
20063	A8GQ8	847	4091	C1M	DE	US	XX
20063	A8GQ8	847	4091	KOV	CS	GC	
20063	A8GX4	910	4155	C1M	DE	US	XX
20063	A8IP9	736	4029	C1M	DE	US	XX

Source metadata file (SMF)	Callsign	Source metadata element (SME) 1	Source metadata element (SME) 2	Field	value 1	value 2	new value
20063	DANM	4250	969	C1M	US	DE	XX
20063	DANM	4250	969	KOV	CC	CS	
20063	DAPG	1124	4451	C1M	DE	US	XX
20063	DAPG	1124	4451	KOV	CS	CC	
20063	HOKP	2782	4892	C1M	JP	US	XX
20063	HOKP	2782	4892	TOB	SAN	AN	AN
20063	HOUU	4885	2777	C1M	US	JP	XX
20063	HOUU	4885	2777	TOB	AN	SAN	AN
20063	HZRX	4715	3793	C1M	US	SA	XX
20063	HZRX	4715	3793	TOB	AN	DA	
20063	HZZB	4716	3796	C1M	US	SA	XX
20063	HZZB	4716	3796	TOB	AN	SAN	AN
20063	HZZC	4717	3799	C1M	US	SA	XX
20063	HZZC	4717	3799	TOB	AN	DA	
20063	HZZD	3805	4718	C1M	SA	US	XX
20063	HZZD	3805	4718	TOB	DA	AN	
20063	JKES	4411	2570	C1M	US	JP	XX
20063	LMWO3	4852	2042	C1M	US	HK	XX
20063	LMWO3	4852	2042	TOB	AN	SAN	AN
20063	MSQQ8	4866	1977	C1M	US	GB	XX
20063	MSQQ8	4866	1977	TOB	AN	DA	
20063	MYSU5	1833	4440	C1M	GB	US	XX
20063	MYSU5	1833	4440	TOB	DA	AN	
20063	OVPB2	1486	1487	KOV	RR	RF	
20063	OVPB2	1486	1487	LOV	197.5	195	
20063	OYYK2	4336	1783	C1M	US	GB	XX
20063	OYYK2	4336	1783	TOB	AN	DA	
20063	PDGS	4694	3173	C1M	US	NL	XX
20063	PDGS	4694	3173	KOV	Y	PV	
20063	PDGS	4694	3173	TOB	AN	SAN	AN
20063	S6TV	1842	4454	C1M	GB	US	XX
20063	S6TV	1842	4454	KOV	OT	RR	
20063	S6TV	1842	4454	TOB	DA	AN	
20063	V2BN9	4202	928	C1M	US	DE	XX
20063	V2BN9	4202	928	KOV	RR	BC	
20063	V2OE1	4424	1085	C1M	US	DE	XX
20063	V2OE3	4417	1069	C1M	US	DE	XX
20063	V2OO7	1102	4434	C1M	DE	US	XX
20063	V2OO7	1102	4434	KOV	CS	CC	
20063	V2OU9	4441	1112	C1M	US	DE	XX
20063	V2OU9	4441	1112	KOV	CC	CS	
20063	V2OU9	4441	1112	TOB	MER	AN	
20063	V2RE	4229	949	C1M	US	DE	XX
20063	V2RE	4229	949	KOV	GC	BS	

Source metadata file (SMF)	Callsign	Source metadata element (SME) 1	Source metadata element (SME) 2	Field	value 1	value 2	new value
20063	V7DS3	1302	4686	C1M	DE	US	XX
20063	VRAR7	2040	4582	C1M	HK	US	XX
20063	VRAR7	2040	4582	KOV	CS	CC	
20063	VRAR7	2040	4582	TOB	SAN	AN	AN
20063	VRVN6	2033	4581	C1M	HK	US	XX
20063	VRVN6	2033	4581	KOV	CS	CC	
20063	VRWB8	2025	4578	C1M	HK	US	XX
20063	VRWC8	4576	2022	C1M	US	HK	XX
20063	VRWC8	4576	2022	TOB	AN	SAN	AN
20063	VRWD3	4580	71	C1M	US	AU	XX
20063	VRWE7	4577	2024	C1M	US	HK	XX
20063	VRWG5	4579	2027	C1M	US	HK	XX
20063	VRZO2	1772	4616	C1M	GB	US	XX
20063	VRZO2	1772	4616	KOV	GC	BC	
20063	VRZO2	1772	4616	TOB	DA	AN	
20063	VSUA5	1991	4904	C1M	GB	US	XX
20063	VSUA5	1991	4904	TOB	DA	AN	
20063	ZCDM6	1688	4105	C1M	GB	US	XX
20063	ZCDM6	1688	4105	TOB	DA	AN	
20063	ZCDN9	4569	1876	C1M	US	GB	XX
20064	3EFX5	2354	3952	C1M	JP	US	XX
20064	3EFX5	2354	3952	TOB	SAN	AN	AN
20064	3EPI6	41	2473	C1M	AU	JP	XX
20064	3EPI6	41	2473	LOV	289.5	299	
20064	3EPI6	41	2473	TOB	DA	SAN	
20064	3EPI6	41	2473	HOB	32	26.7	
20064	3EPI6	41	2473	TOT	MER	ALC	
20064	3EPI6	41	2473	EOT	S	W	
20064	3EPI6	41	2473	EOH	S	W	
20064	3FDN9	2395	4032	C1M	JP	US	XX
20064	3FDN9	2395	4032	KOV	BC	GC	
20064	3FDN9	2395	4032	TOB	SAN	AN	AN
20064	8PSH	507	4229	C1M	CA	US	XX
20064	8PSH	507	4229	TOB	DA	AN	
20064	9VBA	3880	3789	C1M	US	SG	XX
20064	9VBA	3880	3789	TOB	AN	SAN	AN
20064	A8AC4	3958	764	C1M	US	DE	XX
20064	A8CE9	4632	1332	C1M	US	DE	XX
20064	A8CF2	4366	1117	C1M	US	DE	XX
20064	A8CF2	4366	1117	KOV	CC	CS	
20064	A8CG6	652	3884	C1M	DE	US	XX
20064	A8CL6	4030	887	C1M	US	DE	XX
20064	A8FU7	1437	4868	C1M	DE	US	XX
20064	A8FU7	1437	4868	KOV	CS	CC	

Source metadata file (SMF)	Callsign	Source metadata element (SME) 1	Source metadata element (SME) 2	Field	value 1	value 2	new value
20064	A8GQ8	4013	847	C1M	US	DE	XX
20064	A8GQ8	4013	847	KOV	GC	CS	
20064	A8GX4	913	4074	C1M	DE	US	XX
20064	A8IP9	3994	811	C1M	US	DE	XX
20064	A8JC8	1428	4863	C1M	DE	US	XX
20064	A8JC8	1428	4863	KOV	GC	CC	
20064	A8JX8	664	3897	C1M	DE	US	XX
20064	DANM	974	4171	C1M	DE	US	XX
20064	DANM	974	4171	KOV	CS	CC	
20064	DAPG	4377	1133	C1M	US	DE	XX
20064	DAPG	4377	1133	KOV	CC	CS	
20064	HOKP	2723	4829	C1M	JP	US	XX
20064	HOKP	2723	4829	TOB	SAN	AN	AN
20064	HOUU	2718	4820	C1M	JP	US	XX
20064	HOUU	2718	4820	TOB	SAN	AN	AN
20064	HZRX	3727	4643	C1M	SA	US	XX
20064	HZRX	3727	4643	TOB	DA	AN	
20064	HZZB	3730	4644	C1M	SA	US	XX
20064	HZZB	3730	4644	TOB	SAN	AN	AN
20064	HZZC	3733	4645	C1M	SA	US	XX
20064	HZZC	3733	4645	TOB	DA	AN	
20064	HZZD	4646	3739	C1M	US	SA	XX
20064	HZZD	4646	3739	TOB	AN	DA	
20064	JKES	4334	2513	C1M	US	JP	XX
20064	LMWO3	3773	1986	C1M	SE	HK	XX
20064	LMWO3	3773	1986	KOV	RF	RR	
20064	LMWO3	3773	1986	TOB	DA	SAN	
20064	LMWO3	3773	1986	TOT	ALC	MER	
20064	LMWO3	3773	1986	EOT	A	US	
20064	LMWR3	1988	3774	C1M	HK	SE	XX
20064	LMWR3	1988	3774	KOV	RR	RF	
20064	LMWR3	1988	3774	TOB	SAN	DA	
20064	LMWR3	1988	3774	TOT	MER	ALC	
20064	LMWR3	1988	3774	EOT	VS	A	
20064	MSQQ8	1926	4798	C1M	GB	US	XX
20064	MSQQ8	1926	4798	TOB	DA	AN	
20064	MYSU5	4367	1796	C1M	US	GB	XX
20064	MYSU5	4367	1796	TOB	AN	DA	
20064	OYYK2	1750	4258	C1M	GB	US	XX
20064	OYYK2	1750	4258	TOB	DA	AN	
20064	PDGS	4621	3109	C1M	US	NL	XX
20064	PDGS	4621	3109	KOV	Y	PV	
20064	PDGS	4621	3109	TOB	AN	SAN	AN
20064	S6TV	1805	4380	C1M	GB	US	XX

Source metadata file (SMF)	Callsign	Source metadata element (SME) 1	Source metadata element (SME) 2	Field	value 1	value 2	new value
20064	S6TV	1805	4380	KOV	OT	RR	
20064	S6TV	1805	4380	TOB	DA	AN	
20064	V2BN9	933	4120	C1M	DE	US	XX
20064	V2BN9	933	4120	KOV	BC	RR	
20064	V2OE3	1075	4340	C1M	DE	US	XX
20064	V2OO7	1111	4361	C1M	DE	US	XX
20064	V2OO7	1111	4361	KOV	CS	CC	
20064	V2OU9	4368	1122	C1M	US	DE	XX
20064	V2OU9	4368	1122	KOV	CC	CS	
20064	V2OU9	4368	1122	TOB	MER	AN	
20064	V2RE	953	4147	C1M	DE	US	XX
20064	V2RE	953	4147	KOV	BS	GC	
20064	V7DS3	4613	1313	C1M	US	DE	XX
20064	VRAR7	4504	1984	C1M	US	HK	XX
20064	VRAR7	4504	1984	KOV	CC	CS	
20064	VRAR7	4504	1984	TOB	AN	SAN	AN
20064	VRVN6	1977	4503	C1M	HK	US	XX
20064	VRVN6	1977	4503	KOV	CS	CC	
20064	VRWB8	1969	4500	C1M	HK	US	XX
20064	VRWC8	4498	1966	C1M	US	HK	XX
20064	VRWC8	4498	1966	TOB	AN	SAN	AN
20064	VRWD3	4502	66	C1M	US	AU	XX
20064	VRWE7	4499	1968	C1M	US	HK	XX
20064	VRWG5	4501	1971	C1M	US	HK	XX
20064	VRZO2	4539	1842	C1M	US	GB	XX
20064	VRZO2	4539	1842	KOV	BC	GC	
20064	VRZO2	4539	1842	TOB	AN	DA	
20064	VSUA5	1940	4842	C1M	GB	US	XX
20064	VSUA5	1940	4842	TOB	DA	AN	
20064	ZCDM6	1672	4024	C1M	GB	US	XX
20064	ZCDM6	1672	4024	TOB	DA	AN	
20064	ZCDN9	1832	4492	C1M	GB	US	XX

Table 4. Changes made to the Pub. 47 files due to poorly coded data. Column 1 gives the source metadata file (SMF), column 2 the ships call sign, column 3 the record number (SME) of the poorly coded data, column 4 the field containing the bad entry (see Table 1 for abbreviations). Column 5 gives the value given in the file and column 6 the new value for the field.

Source metadata file (SMF)	Callsign	Source metadata element (SME)	Field	Old value	New value
19730	ZSAE	3202	SIM	ELE	
19740	ZSAE	3284	SIM	ELE	
19750	ZSAE	3329	SIM	ELE	
19760	ZSAE	3284	SIM	ELE	
19770	ZSAE	3311	SIM	ELE	
19780	ZSAE	3299	SIM	ELE	
19790	ZSAE	3299	SIM	ELE	
19800	ZSAE	3436	SIM	ELE	
19950	PCSV	3583	TOB	SS	
19950	PEBP	3614	EOT	AL	SL
19950	UBSB	4193	SIM	'	
19950	UBSO	4194	TOB	A	AN
19950	UFOJ	4266	TOB	SA	SAN
19950	USRS	4709	TOB	A	AN
19960	UBSB	4219	SIM	'	
19960	UBSO	4220	TOB	A	AN
19960	USRS	4735	TOB	A	AN
19970	UBSO	4227	TOB	A	AN
19982	UBSB	4208	SIM	'	
19982	UBSO	4209	TOB	A	AN
19983	UBSO	4206	TOB	A	AN
19984	JHPO	3191	EOT	V	VS
19984	UBSB	4175	SIM	'	
19984	UBSO	4176	TOB	A	AN
19991	JHPO	3208	EOT	V	VS
19991	UBSO	4189	TOB	A	AN
20001	VRVA	35	LOV	1660	166
20052	OUEW	2040	LOV	1125	112.5
20052	OWFU2	2020	LOV	1764	176.4
20052	OZTS2	2032	LOV	1972	197.2
20052	OZQS2	2005	LOV	1529	152.9
20052	OZZE2	2033	LOV	1831	183.1
20052	C6TC2	3329	DOS	43	
20052	JPBY	3170	DOS	43	
20052	OXYH2	2016	LOV	13292	132.92
20052	OUEV	2037	LOV	1125	112.5
20052	OXRA6	2002	LOV	1694	169.4
20052	OXTS2	2010	LOV	1087	108.7

Source metadata file (SMF)	Callsign	Source metadata element (SME)	Field	Old value	New value
20052	OWEN2	2021	LOV	18235	182.35
20052	OUVU2	1999	LOV	17105	171.05
20052	JMLQ	3267	DOS	40.5	
20052	JHHU	2880	DOS	43	
20052	OXVH2	2014	LOV	13292	132.92
20052	HOMF	3035	DOS	36	
20052	OYZC	2019	LOV	5323	53.23
20053	C6TC2	3355	DOS	43	
20053	JPBY	3196	DOS	43	
20053	JMLQ	3293	DOS	40.5	
20053	HOMF	3061	DOS	36	
20053	JHHU	2906	DOS	43	
20054	HOMF	2998	DOS	36	

Table 5. List of countries, their ISO3166 country codes and the ITU call sign prefixes associated with those countries.

Country	ISO3166 - 2 Country code	ITU Call sign Prefix
Afghanistan	AF	YA, T6
Albania	AL	ZA
Algeria	DZ	7R, 7T – 7Y
Andorra	AD	C3
Angola	AO	D2 - D3
Antigua and Barbuda	AG	V2
Argentina	AR	AY, AZ, L2 – L9, LO – LW
Armenia	AM	EK
Aruba	AW	P4
Australia	AU	VH – VN, VZ, AX
Austria	AT	OE
Azerbaijan	AZ	4J – 4K
Bahamas	BS	C6
Bahrain	BH	A9
Bangladesh	BD	S2, S3
Barbados	BB	8P
Belarus	BY	EU – EW
Belgium	BE	ON – OT
Belize	BZ	V3
Benin	BJ	TY
Bhutan	BT	A5
Bolivia	BO	CP
Bosnia and Herzegovina	BA	T9
Botswana	BW	A2, 8O

Country	ISO3166 - 2 Country code	ITU Call sign Prefix
Brazil	BR	PP – PY, ZV – ZZ
Brunei Darussalam	BN	V8
Bulgaria	BG	LZ
Burkina Faso	BF	XT
Burundi	BI	9U
Cambodia	KH	XU
Cameroon	CM	TJ
Canada	CA	CF – CK, CY, CZ, VA – VG, VO, VX – VY, XJ – XO
Cape Verde	CV	D4
Central African Republic	CF	TL
Chad	TD	TT
Chile	CL	CA – CE, XQ, XR, 3G
China	CN	B0 – BZ, B, XS, 3H – 3U
Columbia	CO	HJ – HK, 5J – 5K
Comoros	KM	D6
Congo	CG	TN
Congo, The Democratic Republic of the	CD	9O – 9T
Costa Rica	CR	TE, TI
Côte d'Ivoire	CI	TU
Croatia	HR	9A
Cuba	CU	CL, CM, CO, T4
Cyprus	CY	C4, P3, 5B, H2
Czech Republic	CZ	OK – OL
Denmark	DK	OU – OZ, 5P – 5Q, XP
Djibouti	DJ	J2
Dominica	DM	J7
Dominican Republic	DO	HI
Ecuador	EC	HC – HD
Egypt	EG	SU, 6A – 6B, SSA – SSM
El Salvador	SV	HU, YS
Equatorial Guinea	GQ	3C
Eritrea	ER	E3
Estonia	EE	ES
Ethiopia	ET	ET, 9E – 9F
Fiji	FJ	3DN – 3DZ
Finland	FI	OF – OJ
France	FR	TH, TK, TM, TO – TQ, TV – TX, F, F0 – FZ, HW – HY
Gabon	GA	TR
Gambia	GM	C5
Georgia	GE	4L

Country	ISO3166 - 2 Country code	ITU Call sign Prefix
Germany	DE	DA – DR, Y2 – Y9
Ghana	GH	9G
Greece	GR	J4, SV – SZ
Grenada	GD	J3
Guatemala	GT	TD, TG
Guinea	GN	3X
Guinea Bissau	GW	J5
Guyana	GY	8R
Haiti	HT	HH, 4V
Honduras	HN	HQ, HR
Hong Kong	HK	VR
Hungary	HU	HA, HG
Iceland	IS	TF
India	IN	AT – AW, VT – VW, 8T – 8Y
Indonesia	ID	JZ, PK – PO, YB – YH, 7A – 7I, 8A – 8I
Iran, Islamic Republic of	IR	EP – EQ, 9B – 9D
Iraq	IQ	HN, YI
Ireland	IE	EI – EJ
Israel	IL	4X, 4Z
Italy	IT	I0 – IZ, I
Jamaica	JM	6Y
Japan	JP	7J – 7N, 8J – 8N, JA – JS
Jordan	JO	JY
Kazakhstan	KZ	UN – UQ
Kenya	KE	5Y, 5Z
Kiribati	KI	T3
Korea, Republic of	KR	DS – DT, D7 – D9, HL, 6K – 6N
Kuwait	KW	9K
Kyrgyzstan	KG	EX
Lao Peoples Democratic Republic	LA	XW
Latvia	LV	YL
Lebanon	LB	OD
Lesotho	LS	7P
Liberia	LR	5L – 5M, 6Z, A8, D5, EL
Libyan Arab Jamahiriya	LY	5A
Lithuania	LT	LY
Luxembourg	LU	LX
Macedonia, The Former Yugoslav Republic of	MK	Z3
Madagascar	MG	5R – 5S, 6X
Malawi	MW	7Q

Country	ISO3166 - 2 Country code	ITU Call sign Prefix
Malaysia	MY	9M, 9W
Maldives	MV	8Q
Mali	ML	TZ
Malta	MT	9H
Marshal Islands	MH	V7
Mauritania	MR	5T
Mauritius	MU	3B
Mexico	MX	XA – XI, 4A – 4C, 6D – 6J
Micronesia, Federated States of	FM	V6
Moldova, Republic of	MD	ER
Monaco	MC	3A
Mongolia	MN	JT – JV
Morocco	MA	CN, 5C – 5G
Mozambique	MZ	C8 – C9
Myanmar	MM	XY – XZ
Namibia	NA	V5
Nauru	NR	C2
Nepal	NP	9N
Netherlands	NL	PA – PI
Netherlands Antilles	AN	PJ
New Zealand	NZ	ZK – ZM
Nicaragua	NI	HT, H6 – H7, YN
Niger	NE	5U
Nigeria	NG	5N, 5O
Korea, Democratic People’s Republic of	KP	P5 – P9, HM
Norway	NO	JW – JX, LA – LN, 3Y
Oman	OM	A4
Pakistan	PK	6P – 6S, AP – AS
Palau	PW	T8
Palestinian Territory, Occupied	PS	E4
Panama	PA	3E – 3F, H3, H8 – H9, HO – HP
Papua New Guinea	PG	P2
Paraguay	PY	ZP
Peru	PE	OA – OC, 4T
Philippines	PH	DU – DZ, 4D – 4I
Poland	PL	HF, SN – SR, 3Z
Portugal	PT	CQ – CU
Qatar	QA	A7
Romania	RO	YO – YR
Russian Federation	RU	R0 – RZ, R, UA – UI

Country	ISO3166 - 2 Country code	ITU Call sign Prefix
Rwanda	RW	9X
Saint Kitts and Nevis	KN	V4
Saint Lucia	LC	J6
Saint Vincent and the Grenadines	VC	J8
Samoa	WS	5W
San Marino	SM	T7
Sao Tome And Principe	ST	S9
Saudi Arabia	SA	7Z, 8Z, HZ
Senegal	SN	6V – 6W
Serbia and Montenegro	CS	YT – YU, YZ, 4O, 4N
Seychelles	SC	S7
Sierra Leone	SL	9L
Singapore	SG	S6, 9V
Slovakia	SK	OM
Slovenia	SI	S5
Solomon Islands	SB	H4
Somalia	SO	T5, 6O
South Africa	ZA	ZR – ZU, S8
Spain	ES	EA – EH, AM – AO
Sri Lanka	LK	4P – 4S
Sudan	SD	SSN – SSZ, ST, 6T – 6U
Surinam	SR	PZ
Swaziland	SZ	3DA – 3DM
Sweden	SE	8S, SA – SM, 7S
Switzerland	CH	HB, HE
Syrian Arab Republic	SY	YK, 6C
Tajikistan	TJ	EY
Tanzania, United Republic of	TZ	5H – 5I
Thailand	TH	E2, HS
Timor – Leste	TL	4W
Togo	TG	5V
Tonga	TO	A3
Trinidad and Tobago	TT	9Y – 9Z
Tunisia	TN	3V, TS
Turkey	TR	TA – TC, YM
Turkmenistan	TM	EZ
Tuvalu	TV	T2
Uganda	UG	5X
Ukraine	UA	EM – EO, UR – UZ

Country	ISO3166 - 2 Country code	ITU Call sign Prefix
United Arab Emirates	AE	A6
United Kingdom	GB	20 – 2Z, G0 – GZ, M0 – MZ, 2, G, M, VP, VQ, VS, ZB – ZJ, ZN, ZO, ZQ
United States	US	AA – AL, K0 – KZ, N0 – NZ, W0 – WZ, W, K, N
Uruguay	UY	CV – CX
Uzbekistan	UZ	UJ – UM
Vanuatu	VU	YJ
Vatican City	VA	HV
Venezuela	VE	YV – YY, 4M
Viet Nam	VN	XV, 3W
Yemen	YE	7O
Zambia	ZM	9I – 9J
Zimbabwe	ZW	Z2

Table 6. List of countries which no longer exist which contributed to the Pub. 47 in the period 1973 to 1997 and the country codes used to represent them.

Country	Code
East Germany	DD (no longer in use)
Yugoslavia	CS (code for Serbia and Montenegro)
Soviet Union	RU (code for Russian Federation)