

International Civil Aviation Organization



**THE FIRST MEETING OF AERONAUTICAL
COMMUNICATION SERVICE (ACS)
IMPLEMENTATION CO-ORDINATION GROUP
OF APANPIRG (ACSICG/1)**

Seoul, Republic of Korea, 13 - 16 May 2014



Agenda Item 4: AMHS Implementation Status, Transition and Operational issues

**SITA AFTN LOW SPEED CONNECTIONS REPLACEMENT
AND AMHS INTERCONNECTION**

(Presented by SITA)

SUMMARY

This Working Paper presents a summary of the progress made in defining and developing SITA's AMHS environment in view of its future replacement of AFTN connections in cooperation with ICAO EURNAT region AFSG (Aeronautical Fixed Services Group) and seeks an agreement to define and implement a similar path for SITA's AFTN low speed connections replacement and AMHS interconnection in ICAO APAC region.

1. Introduction

1.1 SITA has been operating an AFTN – Type B gateway for over 40 years. The service is today connected via low speed connections to the AFTN network in several countries. These inter-connections allow ATS organizations and airlines to communicate using AFTN messages on the ATS organizations' side and Type B messages on the airlines' side. The SITA service provides all necessary conversions to enable seamless data exchange between ATS organizations and airlines.

1.2 Several of AFTN low speed connections are reaching End of Life and require a future proof replacement solution based on ICAO AMHS standards.

1.3 This Working Paper presents the abreast of progress made with ICAO EURNAT region for SITA's interconnection to AMHS and replacement of AFTN low speed connections and invites the meeting to make appropriate recommendations for SITA AMHS interconnection and AFTN low speed connections changes within ICAO APAC region.

2. Discussion

2.1 AMHS is being under active deployment by majority of ANSPs in view of AFTN replacement. Additionally the new rich data formats using XML is planned to be used over the next few years to further improve air traffic management effectiveness which requires the use of new generation messaging based on ICAO AMHS standards.

2.2 The move to this new communication path for SITA requires AMHS and appropriate gateway deployment and interconnections to AMHS in most of ICAO regions to continue to support data exchange between ATS Organizations which will use AMHS and airlines using Type B or Type X for XML based information such as digital NOTAMs.

2.3 Type X is an IATA reliable messaging standard based on XML and Web service technologies ratified in September 2009 with addressing and routing capabilities based on IATA codes as well as ICAO AFTN addresses indifferently.

2.4 To this end following the ICAO procedures SITA is allocated the PRMD name SITA as a part of ADMD=ICAO. This PRMD name is registered within AMC.

2.5 Subsequently and following ICAO EURNAT AFSG recommendations SITA worked with ICAO EURNAT AFSG - Operations Group to elaborate a detailed architecture for SITA interconnection to AMHS in a mixed AMHS and AFTN environment which specifies the details of addressing and routing for message exchanges between ATS and SITA users.

2.6 AMHS / SITA Interconnection Version 1.0 document is approved during ICAO EURNAT AFSG/17 meeting which took place in Paris from 22 to 26 April 2013, and communicated to all other ICAO regions on the 21st of June 2013. It is attached to this Working Paper.

2.7 Following the technical and operational recommendations elaborated as a part of the AMHS/SITA Interconnection Architecture document, SITA addressing scheme changed from CAAS to XF scheme as C=XX/A=ICAO/P=SITA/O=AFTN/OU=AFTNADDR, where AFTNADDR is an AFTN address of a SITA user.

2.8 AFTN addresses of SITA users exchanging with EUR COM centers are being published in AMC User Address Look-up Table.

2.9 SITA's AMHS Gateway is planned to be operational late 2014 and ready for AMHS interconnections with ANSPs as necessary in replacement of the current AFTN connections.

2.10 In the meantime, it should be necessary to use an AFTN/IP solution due to supplier end of support for low speed circuits, to be replaced by AMHS connection as from end of 2014.

2.11 An agreement with ICAO APAC region provides similar clarification as with ICAO EURNAT region and an interconnection path with the agreed ANSPs in APAC region to replace the current AFTN low speed connections and to connect to the agreed AMHS countries following AMHS/SITA Interconnection Architecture model.

3. Action by the Meeting

3.1 The meeting is invited to:

- a) note the information contained in this paper.
- b) discuss and provide comments on the presented material.
- c) recommend re-use of the AMHS/SITA Interconnection Architecture Document for SITA interconnection.
- d) propose creation of a SITA AMHS interconnection and AFTN migration plan with the concerned ANSPs in ICAO APAC region.



AMHS / SITA Type X Interconnection Architecture

SITA Type X Gateway in a mixed AFTN/AMHS environment	
Document Reference:	EUR AMHS Documentation, AMHS / SITA Type X Interconnection Architecture
Author:	AFSG Operations Group
Revision Number:	Version 0.8
Date:	09/04/2013
Filename:	AMHS SITA Type X Interconnection Architecture v_0_8.docx

Document Control Log

Edition	Date	Comments	section/pages affected
0.1	22/11/2012	Creation of the document.	all
0.2 - 0.4	Dec - Jan 2013	Commented versions from SITA, UK and France	all
0.5	30/01/2013	Incorporation of the comments and results of the workshop on 16/01/2013, editorial completion	all
0.6	15/02/2013	Incorporation of comments, final preparation of the document for presentation at PG M50 / OG-16-03	all
0.7	22/03/2013	Updated version for the presentation to AFSG/17	all
0.8	09/04/2013	Incorporation of editorial refinements, version for the presentation to AFSG/17	all

Scope of the Document

This document has been developed by a Subgroup of the AFSG Operations Group in order to fulfil Task 26 “Study operational issues and potential solutions for the operation of a SITA Type-X gateway in a mixed AFTN/AMHS environment” assigned by the 16th Meeting of the ICAO EUR Aeronautical Fixed Service Group (AFSG).

It provides a description of the current and future gateway architecture and analyses the different communication scenarios and potential solutions for the required address conversion.

Finally, a preferred solution is proposed and a list of resulting requirements is provided in order to ensure further communication between the AFTN/AMHS and the SITA Network based on modern communication protocols.

Table of contents

1	INTRODUCTION	8
1.1	PURPOSE OF THE DOCUMENT	8
1.2	DOCUMENT STRUCTURE	8
2	PRESENT COMMUNICATION ARCHITECTURE BETWEEN AFTN AND SITA	9
2.1	OVERVIEW	9
2.2	EUROPEAN AFTN/SITA TYPE B GATEWAY CONNECTIONS.....	9
2.3	FUNCTION OF THE AFTN/SITA TYPE B GATEWAY	10
2.4	MESSAGE CONVERSION IN THE AFTN/SITA TYPE B GATEWAY	11
2.4.1	<i>Outgoing conversion methods (from AFTN/SITA Type B Gateway to AFTN)</i>	11
2.4.2	<i>Incoming conversion methods (from AFTN to AFTN/SITA Type B Gateway)</i>	12
2.5	COMMUNICATION SCENARIOS.....	13
2.5.1	<i>Introduction</i>	13
2.5.2	<i>Scenario from SITA to AFTN</i>	14
2.5.3	<i>Scenario from AFTN to SITA</i>	15
2.5.4	<i>Remarks regarding the message flow in the communication scenarios</i>	16
2.6	OTHER EUROPEAN AFTN/SITA CONNECTIONS.....	17
2.6.1	<i>AFTN connections to dedicated systems on SITA sites</i>	17
2.6.2	<i>Non-SITA AFTN/SITA Type B Gateways</i>	17
3	DESCRIPTION OF FUTURE ARCHITECTURE	19
3.1	EVOLUTION OF THE SITA MESSAGING ENVIRONMENT.....	19
3.2	AMHS/SITA TYPE X GATEWAY	20
3.3	MESSAGE AND ADDRESS CONVERSION IN THE AMHS/SITA TYPE X GATEWAY	21
3.4	COMMUNICATION SCENARIOS IN A MIXED AFTN/AMHS ENVIRONMENT	22
3.4.1	<i>Introduction</i>	22
3.4.2	<i>Scenario from SITA Type X to AMHS</i>	22
3.4.3	<i>Scenario from SITA to AFTN via AMHS</i>	24
3.4.4	<i>Scenario from AMHS to SITA</i>	25
3.4.5	<i>Scenario from AFTN via AMHS to SITA</i>	27
3.5	TRANSITIONAL ASPECTS FROM SITA TYPE B TO SITA TYPE X.....	28
4	REPRESENTATION OF SITA TYPE X USERS BY THEIR AFTN ADDRESSES	30
4.1	INTRODUCTION	30
4.2	DISCUSSION OF THE OPTIONS	30
4.2.1	<i>Option 1: Table based identification of SITA Type X users in AFTN</i>	30
4.2.2	<i>Option 2: Use of a unique first letter in the AFTN address for SITA Type X users</i>	32
4.3	PROPOSED SOLUTION	34
4.3.1	<i>First conclusions</i>	34
4.3.2	<i>Principle of the proposed solution</i>	34
5	COMMUNICATION REQUIREMENTS FOR THE AMHS/SITA TYPE X GATEWAY	36
5.1	TECHNICAL REQUIREMENTS.....	36
5.2	OPERATIONAL REQUIREMENTS	36
5.3	SPECIFIC OPERATIONAL REQUIREMENTS	36
6	REQUIREMENTS CONCERNING UNDERLYING IP INFRASTRUCTURE	38
7	MIGRATION SCENARIO	39
8	ROAD MAP	40
	ATTACHMENT A	42
A.1	CONVERSION TABLE AFTN TO SITA TYPE B ADDRESSES (IX TABLE) (DEC 2012)	42
A.2	CONVERSION TABLE SITA TO AFTN ADDRESSES (XA TABLE) (DEC 2012).....	56
A.3	LIST OF AFTN ADDRESSES FOR AFTN ORIGIN VALIDATION (DEC 2012)	57

ATTACHMENT B.....**65**
B.1 LIST OF CURRENT CONFIGURED SITA CUSTOMER AFTN ADDRESSES (DEC 2012)65

References

ICAO Documentation

- [1] ICAO Annex 10 – Aeronautical Telecommunications, Volume II and Volume III
- [2] ICAO Doc 9880-AN/466: Manual on Detailed Technical Specifications for the Aeronautical Telecommunication Network (ATN) using ISO/OSI Standards and Protocols, Part II – Ground-Ground Applications - Air Traffic Services Message Handling Services (ATSMHS), First Edition – 2010
- [3] ICAO Doc 9880-AN/466: Manual on Detailed Technical Specifications for the Aeronautical Telecommunication Network (ATN) using ISO/OSI Standards and Protocols, Part III – Upper Layer Communications Service (ULCS) and Internet Communications Service (ICS), , First Edition – 2010
- [4] ICAO Doc 9880-AN/466: Manual on Detailed Technical Specifications for the Aeronautical Telecommunication Network (ATN) using ISO/OSI Standards and Protocols, Part IV – Directory Services, Security and Systems Management, First Edition – 2010
- [5] ICAO Doc 9896-AN/469: Manual on the Aeronautical Telecommunication Network (ATN) using Internet Protocol Suite (IPS) Standards and Protocols, First Edition – 2010
- [6] ICAO Doc 7910, Location Indicators
- [7] ICAO Doc 8585, Designators for Aircraft Operating Agencies, Aeronautical Authorities and Services
- [8] EUR Doc 020 – EUR AMHS Manual, including Appendices A - G
- [9] EUR Doc 021 – ATS Messaging Management Manual
- [10] EUR Doc 027 (Provisional) – IP Infrastructure Test Guidelines for EUR AMHS
- [11] Air Transport & Travel Industry, “TypeX Messaging Specification”, (System Communications & Reference Volume7), v2.0 First Publication - Sept 2009

Table of Figures

FIGURE 1: TYPICAL INTERCONNECTION OF AFTN AND SITA NETWORK BY AN AFTN/SITA TYPE B GATEWAY ..	10
FIGURE 2: MESSAGE FLOW FROM A SITA TYPE B TO AN AFTN TERMINAL	14
FIGURE 3: MESSAGE FLOW FROM AN AFTN TO A SITA TYPE B TERMINAL.....	15
FIGURE 4: PLANNED INTERCONNECTIONS BETWEEN AFTN, AMHS AND SITA TYPE X NETWORK	21
FIGURE 5: MESSAGE FLOW FROM A SITA TYPE X TERMINAL TO AN AMHS UA.....	23
FIGURE 6: EXAMPLE FOR A MESSAGE FLOW FROM SITA TYPE X TO AFTN VIA AMHS	24
FIGURE 7: EXAMPLE FOR A MESSAGE FLOW FROM SITA TYPE X TO AMHS.....	25
FIGURE 8: EXAMPLE FOR A MESSAGE FLOW FROM AFTN TO SITA TYPE X VIA AMHS	27

Index of Tables

TABLE 1: AVERAGE TRAFFIC EXCHANGED BETWEEN AFTN AND SITA NETWORK.....	9
TABLE 2: ADDRESS CONVERSION PRINCIPLE AFTN INTO SITA TYPE B	16
TABLE 3: ADDRESS CONVERSION PRINCIPLE AMHS INTO SITA TYPE X.....	27
TABLE 4: AFTN ADDRESS STRUCTURE OF A SITA TYPE X USER IN OPTION 2	32
TABLE 5: SITA TYPE X AND AFTN ADDRESSES OF SITA TYPE X USERS IN OPTION 2	33

1 Introduction

1.1 Purpose of the document

1.1.1 The purpose of the document is to “Study operational issues and potential solutions for the operation of a SITA Type-X gateway in a mixed AFTN/AMHS environment” as it was assigned by the 16th Meeting of the ICAO EUR Aeronautical Fixed Service Group (AFSG) to the AFSG Operations Group.

1.1.2 This document will provide information about the current and future gateway architecture, discuss the different communication scenarios and consider potential solutions for the required address conversion.

1.1.3 The target of the document is to provide a baseline for the selection and promotion of the most appropriate solution in order to ensure future communication between the AFTN/AMHS and the SITA Network based on modern communication protocols.

1.2 Document Structure

1.2.1 *Chapter 1* presents the purpose and the structure of the document.

1.2.2 *Chapter 2* contains a description of today’s communication environment between AFTN and SITA Network.

1.2.3 *Chapter 3* describes the future communication environment between AMHS and SITA Type X Network.

1.2.4 *Chapter 4* discusses the options how the representation of the SITA Type X user by its AFTN address could be defined in order to ensure a seamless communication in a mixed AFTN/AMHS environment.

1.2.5 *Chapter 5* contains the communication requirements for the AMHS/SITA Type X Gateway from the view point of AMHS.

1.2.6 *Chapter 6* lists the requirements concerning Underlying IP Infrastructure between the AMHS in EUR and the AMHS/SITA Type X Gateway.

1.2.7 *Chapter 7* describes the migration scenarios from the current AFTN/SITA Type B network interconnections to the future target architecture of interconnected AMHS and SITA Type X networks.

1.2.8 *Chapter 8* contains the road map for the interconnection between AMHS and the SITA Type X network.

1.2.9 Attachment A provides following tables:

- A.1 Conversion Table AFTN to SITA Type B addresses (IX Table) (Dec 2012)
- A.2 Conversion table SITA to AFTN addresses (XA Table) (Dec 2012)
- A.3 List of AFTN addresses for AFTN origin validation (Dec 2012).

1.2.10 Attachment B provides a list of currently configured SITA Customer AFTN Addresses.

2 Present Communication architecture between AFTN and SITA

2.1 Overview

2.1.1 SITA has been operating AFTN/SITA Type B Gateways for over 40 years. The gateways are currently connected via low and medium speed connections to AFTN COM Centres in several States.

2.1.2 These inter-connections allow SITA customers to communicate with the AFS Network (AFTN/CIDIN) using the message type of their network. The AFTN/SITA Type B Gateway provides the necessary message conversion to enable seamless data exchange between both networks.

2.1.3 Currently SITA operates 32 AFTN/SITA Type B Gateway connections. 15 gateway connections are provided in Europe.

2.1.4 Approximately forty thousand messages are exchanged between SITA and the AFS network on a daily basis.

	Received by SITA from AFTN	Transmitted by SITA to AFTN	Total
Worldwide	18,883	16,394	35,277
EUR/NAT Region	12,803	7,089	19,892
One typical AFTN/SITA Type B Gateway connection in EUR	3,788	3,242	7,030

Table 1: Average traffic exchanged between AFTN and SITA network

2.1.5 Globally approximately 1400 SITA addresses, including their allocated AFTN addresses, are configured in the AFTN/SITA Type B Gateways. These pair entries are used for the address translation SITA to AFTN and vice versa in the gateways for the messages sent to and/or received from the AFTN.

2.1.6 An AFTN address table was implemented in the AFTN/SITA Type B Gateways which should provide AFTN originator validation for messages issued by SITA customers. The usage of this function is currently not sufficient.

2.2 European AFTN/SITA Type B Gateway connections

2.2.1 The AFTN/SITA Type B Gateway connections in the EUR/NAT Region are provided with COM Centres in:

- Belgium
- Denmark
- France (2)

- Germany
- Greece
- The Netherlands (2)
- Portugal
- Russian Federation (2)
- Switzerland (2)
- Ukraine (2)

2.2.2 The SITA customers with their dedicated AFTN addresses which are served by the AFTN/SITA Type B Gateways are listed in Attachment B.

2.2.3 The AFTN/SITA Type B Gateways and their respective connections (X.25, low speed) are reaching the end of their lifetime.

2.3 Function of the AFTN/SITA Type B Gateway

2.3.1 A typical interconnection of AFTN and SITA Network by an AFTN/SITA Type B Gateway is shown in Figure 1.

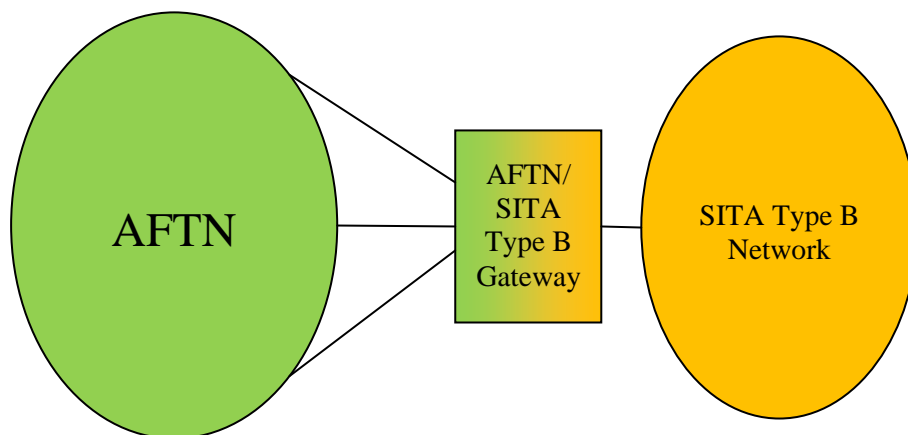


Figure 1: Typical interconnection of AFTN and SITA Network by an AFTN/SITA Type B Gateway

2.3.2 Within the SITA Type B Network the SITA users transmit and receive messages in IATA Type B format.

2.3.3 Within the AFTN the AFS users transmit and receive messages in AFTN format.

2.3.4 The AFTN/SITA Type B Gateways allow SITA users to communicate to the AFTN and convert the messages into the correct format for the respective network.

2.3.5 The function of the AFTN/SITA Type B Gateway is the conversion of addresses and message header from AFTN to SITA Type B and vice versa.

2.4 Message conversion in the AFTN/SITA Type B Gateway

2.4.1 Outgoing conversion methods (from AFTN/SITA Type B Gateway to AFTN)

2.4.1.1 Envelope method

2.4.1.1.1 A SITA customer creates a message which is intended to be sent to an AFS user in AFTN format. This message is sent to the AFTN/SITA Type B Gateway directly by means of a SITA Type B message-envelope. The embedded AFTN message is formally the “text” of the SITA Type B message.

2.4.1.1.2 The AFTN/SITA Type B Gateway strips the SITA Type B envelope before the embedded AFTN message is transmitted from the SITA side to AFTN.

2.4.1.1.3 The embedded AFTN message is routed to the “most appropriate” AFTN/SITA Type B Gateway connection. This means that the routing is performed according the “Routing on Origin” principle to the “nearest” COM Centre related to the AFTN originator address of the embedded AFTN message.

2.4.1.1.4 The following example illustrates the “envelope method”:

Message generated by an SITA customer:

QU HDQYFXS	}	SITA Type B header with HDQYFXS as AFTN/SITA Type B Gateway address
.ZRHKKAF 220834		
FF LSSSYFYX	}	Embedded AFTN Message
220834 LSAZAFRK		
text		
=		

Message sent to AFTN:

FF LSSSYFYX	}	AFTN Message
220834 LSAZAFRK		
text		

Example 1: “Conversion” of a message from SITA network to AFTN

Note.– The appropriate Heading and Ending parts of the AFTN message are not shown in the examples.

2.4.1.1.5 In case of Example 1 the “most appropriate” AFTN/SITA Type B Gateway is the gateway in Geneva; the AFTN originator address belongs to LSAZ – Zurich Area, ICAO Nationality Letter: LS, Switzerland.

2.4.1.1.6 The relation between the AFTN originator address of the embedded AFTN message and the origin in the SITA Type B header is not checked (no consistency check). This is under the responsibility of the SITA customer itself.

2.4.1.1.7 However, the gateway checks the syntax of AFTN addresses and compares on SITA Type B site the addresses with specific lists in terms of address and access validity (which should means that the address is allowed as an originator indicator).

2.4.1.2 Message conversion method

2.4.1.2.1 A SITA customer creates a message which is intended to be sent to an AFS user in AFTN format. In the SITA network this message is routed to an AFTN/SITA Type B Gateway because the SITA Type B address is known as an AFS user outside the SITA Type B network.

2.4.1.2.2 In this case a mapping table (XA Table – mapping SITA to AFTN addresses, see Attachment A, A.2) is used in the AFTN/SITA Type B Gateway to derive the related AFTN Destination addresses. As Originator address, the AFTN address of the respective gateway is used. The AFTN/SITA Type B Gateway creates the AFTN message header and attaches the SITA Type B message as message text.

2.4.1.2.3 A typical message looks like:

Message generated by an SITA customer:

<pre>QN ATLXTNW .JAOXTXS 123456 FREE TEXT</pre>	}	SITA Type B header with ATLXTNW as Destination address routed to the AFTN/SITA Type B Gateway plus message text (FREE TEXT)
---	---	---

Message sent to AFTN:

<pre>GG KATLNMAZ 123456 WSSSSITX QN ATLXTNW .JAOXTXS 123456 FREE TEXT</pre>	}	AFTN Message header
	}	attached SITA Message

Example 2: Message conversion from SITA to AFTN

Note.– The appropriate Heading and Ending parts of the AFTN message are not shown in the examples.

2.4.2 Incoming conversion methods (from AFTN to AFTN/SITA Type B Gateway)

2.4.2.1 Envelope method

2.4.2.1.1 A message received from AFTN will be embedded into a SITA Type B envelope by the AFTN/SITA Type B Gateway.

2.4.2.1.2 The SITA address line is deduced from the ICAO priority and the AFTN Destination Address(es) found in the incoming AFTN message.

2.4.2.1.3 The SITA origin line is composed of:

- the SITA Service Address of the AFTN/SITA Type B Gateway connection from where the message has been received,
- the date/time group corresponding to the reception time of the AFTN message, and
- the information “AFTN” to indicate origin of the message.

Message received from AFTN:

GG LFPSSITE 100525 LOOOYFYX text	}	AFTN Message
--	---	--------------

Note.– The appropriate Heading and Ending parts of the AFTN message are not shown in the examples.

Message sent to an airline (SITA customer):

QN PARAEXS .PARYFXS 100530/AFTN	}	generated SITA Type B header
GG LFPSSITE 100525 LOOOYFYX text = =	}	Embedded AFTN Message

Example 3: “Conversion” of a message from AFTN to SITA network

2.4.2.1.4 The AFTN Destination Addresses are converted by means of the IX Table (mapping AFTN to SITA addresses) (see Attachment A, A.1).

2.4.2.1.5 AFTN Destination Addresses which cannot be converted are intercepted as unknown AFTN addresses. The related AFTN COM Centre is informed by an AFTN SVC “ADS UNKNOWN” in order to make corrections or purge.

2.4.2.2 Message conversion method

2.4.2.2.1 In the direction from AFTN to SITA this method is not applied in the AFTN/SITA Type B Gateway.

2.5 Communication scenarios

2.5.1 Introduction

2.5.1.1 The following communication scenarios describe the typical message flows in the current AFTN/SITA Type B environment.

2.5.1.2 The descriptions should help to identify future potential communication requirements.

2.5.1.3 In the scenarios the following communication partners are involved:

- SITA Type B user: The Operations manager of Lufthansa in Frankfurt. His SITA Type B address is FRA2OLH.
- AFTN (AFS) user: The Operator in Tower Heathrow. Its AFTN Address is EGLLZTZX.

2.5.1.4 A fictive message exchange between both communication partners is the base of the following scenarios:

2.5.2 Scenario from SITA to AFTN

2.5.2.1 Message flow

2.5.2.1.1 The SITA Type B user wishes to send a message from his SITA Terminal to the Tower in Heathrow in order to inform them about an event which is not related to IFPS. Figure 2 shows the expected message flow.

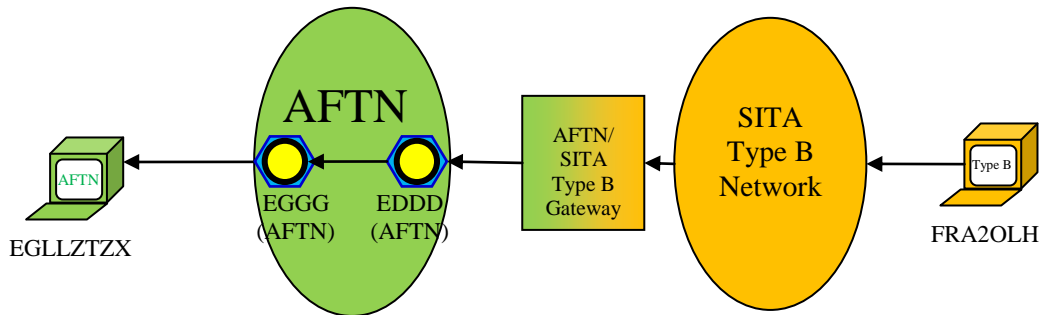


Figure 2: Message flow from a SITA Type B to an AFTN Terminal

2.5.2.2 Generation of the message

2.5.2.2.1 The following message is generated by the Operations manager of Lufthansa in Frankfurt:

QU HDQYFXS .FRA2OLH 220944	} SITA Type B header
GG EGLLZTX 220944 EDDFDLHO PLEASE CONFIRM THE FOLLOWING TEXT text =	} Embedded AFTN Message

Example 4: Embedded AFTN message

2.5.2.2.2 The message is routed within the SITA Type B network to the AFTN/SITA Type B Gateway.

2.5.2.3 Conversion of the message in the AFTN/SITA Type B Gateway

2.5.2.3.1 The AFTN/SITA Type B Gateway removes the SITA envelope, identifies the appropriate Gateway connection following the principle "Routing by Originator" and finally sends the following AFTN message to the COM Centre Frankfurt:

GG EGLLZTX 220944 EDDFDLHO PLEASE CONFIRM THE FOLLOWING TEXT text	} AFTN Message
--	----------------

Example 5: Converted AFTN message

Note.– The appropriate Heading and Ending parts of the AFTN message are not shown in the examples.

2.5.2.4 Switching of the AFTN message by COM Centres EDDD and EGGG

2.5.2.4.1 The COM Centre Frankfurt receives the above message and delivers it via the AFS (COM Centre London) finally to the AFTN Terminal of the Tower of Heathrow EGLLZTZX.

2.5.3 Scenario from AFTN to SITA

2.5.3.1 Message flow

2.5.3.1.1 Due to the content of the AFTN message received, the Operator in the Heathrow Tower will send back to the origin the requested confirmation. Figure 3 shows the expected message flow.

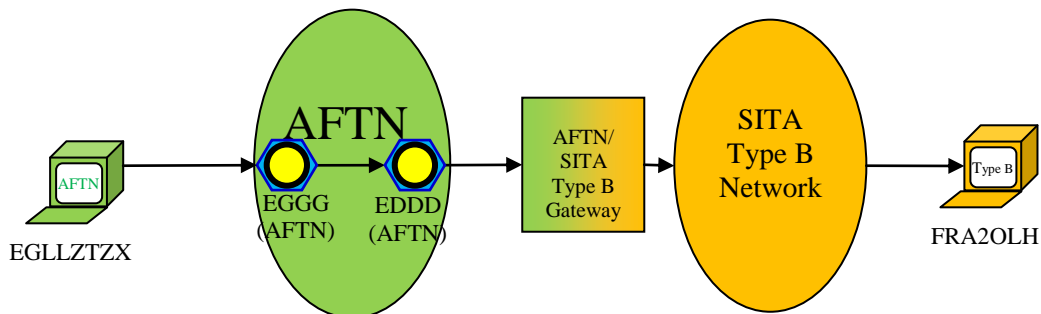


Figure 3: Message flow from an AFTN to a SITA Type B terminal

2.5.3.2 Generation of the message

2.5.3.2.1 The Operator in the Heathrow Tower generates the following AFTN message:

```

ZCZC ...
GG EDDFDLHO
220954 EGLLZTZX
CONFIRM RECEPTION OF YR 220944 EDDFDLHO
BRGDS EGLLZTZX
NNNN
  
```

} AFTN Message

Example 6: Generated reply AFTN message

2.5.3.3 Switching of the AFTN message by the COM Centre EGGG and EDDD

2.5.3.3.1 The COM Centre Frankfurt receives the above message via the AFS (COM Centre London) from the AFTN Terminal of the Tower of Heathrow EGLLZTZX.

2.5.3.3.2 Due to the fact that the COM Centre Frankfurt knows the AFTN address EDDFDLHO as a SITA Type B user, the above message is routed to the AFTN/SITA Type B Gateway interconnected with Frankfurt.

2.5.3.3.3 Within the AFTN Routing Table of COM Centre Frankfurt approximately 15 different AFTN Addresses for SITA Type B users are currently configured and routed to the AFTN/SITA Type B Gateway.

2.5.3.4 Conversion of the message in the AFTN/SITA Type B Gateway

2.5.3.4.1 The AFTN/SITA Type B Gateway derives the necessary attributes for the SITA envelope from the AFTN message and generates the respective SITA Type B message.

2.5.3.4.2 The AFTN address EDDFDLHO is known in the Gateway and the equivalent SITA Type B address FRA2OLH is derived (table oriented address conversion, see IX Table Attachment A, A.1).

2.5.3.4.3 The SITA Type B network will deliver the message to the addressed SITA Type B user.

2.5.3.4.4 The addressed SITA Type B user receives the following SITA Type B message:

QN FRA2OLH	}	SITA Type B header
.FRAYFXS 220956/AFTN		
FF EDDFDLHO	}	embedded AFTN Message
220954 EGLLZTZX		
CONFIRM RECEPTION OF YR 220944 EDDFDLHO		
BRGDS EGLLZTZX		
=		

Example 7: Embedded AFTN message (Reply)

2.5.3.5 Address conversion principle in the AFTN/SITA Type B Gateway

2.5.3.5.1 In the AFTN/SITA Type B Gateway the following address conversion principle within message conversion from AFTN to SITA Type B is used:

AFTN Address (8 letter)	into	SITA Type B address (7 letter)
Location indicator (4 letter, position 1-4)	→	IATA Location code (3 letter, position 1-3)
Three letter designator (3 letter, position 5-7)	→	IATA Airline code (2 letter, position 6-7)
Filler letter "X" or letter representing a department or division within the organization addressed (1 letter, position 8)	→	Department code (2 letter, position 4-5)

Table 2: Address conversion principle AFTN into SITA Type B

2.5.3.5.2 The address conversion tables for both directions of the AFTN/SITA Type B Gateway as of December 2012 are provided in Attachment A.

2.5.4 Remarks regarding the message flow in the communication scenarios

2.5.4.1 For the message flow from AFTN to SITA, the AFTN COM Centres with interconnection to a SITA Type B Gateway have configured in their AFTN Routing Tables only the AFTN addresses of those SITA Type B users which are served locally.

2.5.4.2 AFTN addresses for SITA Type B users served by other COM Centres are not known and therefore not configured. Today, there is no specific indication in an AFTN address identifying a SITA Type B user in the AFTN.

2.5.4.3 For handling of exceptional cases, some COM Centres agreed special procedures bilaterally with adjacent COM Centres to ensure a coordinated routing of AFTN addresses for “other local” SITA Type B users.

2.6 Other European AFTN/SITA connections

Besides the AFTN/SITA Type B Gateways operated by SITA, two other kinds of interconnection between AFTN and SITA exist:

- AFTN connections to dedicated systems on SITA sites; and
- AFTN/SITA Type B Gateways operated by ANSPs or Organisations

2.6.1 AFTN connections to dedicated systems on SITA sites

2.6.1.1 As an example for this kind of AFTN connections, the AFTN low speed connection between the UK message switch of COM Centre London and the SITA MET data servers is mentioned. On this connection circa 40,000 messages are transmitted daily.

2.6.1.2 The AFTN addresses used for sending data to the SITA MET system are UK addresses configured in the COM Centre London to be routed to SITA. These addresses represent SITA users, which have to be taken into account in exceptional situations as well as if this connection is migrated to AMHS.

2.6.1.3 Currently no other connection of this kind exists in Europe. A second one is established to the COM Centre operated by NAV Canada.

2.6.1.4 Even if such connections are separated from the current Type B messaging environment and not used for exchanges between SITA Type B users and AFS users, it is extremely important to be aware of any AFTN links that are in place, regardless of whether they are connected directly to systems or via gateways.

2.6.1.5 Due to the global nature of the interconnections between AFS and SITA these connections have to be known and taken into account in the planning of any future migration.

2.6.2 Non-SITA AFTN/SITA Type B Gateways

2.6.2.1 Additionally to the AFTN/SITA Type B Gateways operated by SITA as mentioned in the previous Sections 2.1 to 2.5, a number of AFTN/SITA Type B Gateways are operated under the responsibility of ANSPs, Organisations and/or State COM Centres.

2.6.2.2 The functions of these gateways are identical to the functions described in Section 2.3.

2.6.2.3 These Gateways are connected directly to the SITA Type B messaging environment using the SITA Type B messaging format.

2.6.2.4 The AFTN routing to the Gateway is a local matter and transparent for the international network. The AFTN addresses used for the message exchange (AFTN addresses representing SITA users and the AFTN addresses of AFS users) are locally known and configured.

2.6.2.5 The number of existing Gateways in Europe and worldwide is not documented at the AFS side. However, due to the global nature of the interconnections between AFS and SITA these gateway connections have to be respected in the planning of any future migration.

2.6.2.6 A special case is the Access Node to the SITA Type B network operated by EUROCONTROL, Network Manager (NM).

2.6.2.7 Currently it is ensured that between the both networks, AFTN and SITA Type B, no interconnection is established. The concerned applications (IFPS¹ and ATFMS²) are operating independently with the separated networks.

2.6.2.8 This separation shall be continued from the AFS point of view when the AFTN/CIDIN communication of the EUROCONTROL, Network Manager (NM) applications is migrating to AMHS.

¹ Integrated Initial Flight Plan Processing System

² Advanced Tactical Flow Management System

3 Description of future architecture

3.1 Evolution of the SITA messaging environment

3.1.1 The evolution of the SITA messaging environment is based on the IATA Type X Messaging Specification [11], which is a messaging standard based on XML and Web service technologies ratified by IATA in September 2009.

3.1.2 IATA Type X standard supports message delivery between SITA Type X users.

3.1.3 The communication between SITA Type X users and users outside of the Type X environment is ensured via dedicated Type X Gateways. In case of AMHS, the dedicated gateway is called for the purpose of this document “AMHS/SITA Type X Gateway”.

3.1.4 All addresses in the Type X Messaging environment (Destination and Originator addresses) are of *TXM_Address* type composed of three elements according to [11], 4.5:

- One TypeX_address,
- Zero or one *SubAddress*,
- Zero or one FreeFormName.

3.1.5 The *TypeX_address* is the logical address of a specific user. The *SubAddress* is specified for nodes that are not addressable directly by a Type X address (the *SubAddress* carries the actual originator or receiver address in its own messaging environment). The *FreeFormName* associates an optional name. ([11], 4.5)

3.1.6 In the context of AMHS only the *TypeX_address* is relevant which consists of:

- one *City* field to identify a city code (or location code),
- one *Department* field to identify a department code,
- one *Airline* field to identify an airline or more generally an organisation code,
- *Auxiliary* field (to identify an organisation using a shared airline code).
This field is not used for AMHS communication.

3.1.7 The relevant fields of the Type X address itself consists of:

- City Code: on 3 or 4 alphabetic characters (IATA or ICAO code)
- Department Code: on 1 to 3 alphanumeric characters
- Airline Code on 2 or 3 alphanumeric characters (IATA or ICAO code)

3.1.8 Type X City, Department and Airline codes correspond to the current Type B address city, department and airline codes, keeping the possibility to increase each field by 1 character. ([11], 14.1)

3.1.9 A Type X Address (*TypeX_address*) is defined in XML as:

```
<TYPEX_Address>
  <Airline>airlinecode</Airline>
  <City>citycode</City>
  <Department>departmentcode</Department>
</TYPEX_Address>
```

3.1.10 From the above Type X Address (*TypeX_address*) other address elements are derived to ensure an optimal routing of the messages in the Type X environment (e.g. the Type X gateway address used in the transport header for identifying the target Type X node). The full address of the end user is composed of the Type X gateway address completed by the end user address in its own messaging environment. (see [11], 14.1)

3.1.11 The routing of the message is performed according to the Type X gateway address up to the gateway. (see 4.3 and 4.4 of [11])

3.1.12 In the context of communication to and from AMHS, the Type X addresses always represents AFTN Addresses both as Destination and as Originator. Therefore in a message sent to AMHS the originator address consists of the Type X address representing the AFTN address of the SITA user, which could be the same as used today in the SITA Type B environment.

3.1.13 To ensure the correct routing within the SITA Type X network, all Type X addresses with 4 letters in the address attribute “City” (ICAO code) are listed in tables in which for the full qualified AFTN address the corresponding target Type X node (Type X gateway address) is assigned. Such a target Type X node (Type X gateway address) can be either the AMHS/SITA Type X Gateway (if AFS users are addressed) or the Type X node serving the SITA user.

3.1.14 More comprehensive details could be found in [11].

3.2 AMHS/SITA Type X Gateway

3.2.1 The AMHS/SITA Type X Gateway is the “bridge” between AMHS and the SITA Type X messaging environment. The typical interconnection between the existing and future networks is shown in Figure 4.

3.2.2 The AMHS/SITA Type X Gateway can be connected to an AMHS COM Centre which also provides, during the transition, AFTN/AMHS Gateway services for AFTN/CIDIN users. In such a configuration the AMHS/SITA Type X Gateway is not only connected to the AMHS - it is connected to an AFTN/AMHS Gateway as well.

3.2.3 SITA plans to establish two AMHS/SITA Type X Gateways with one connection to Europe and one to Asia (see Figure 4).

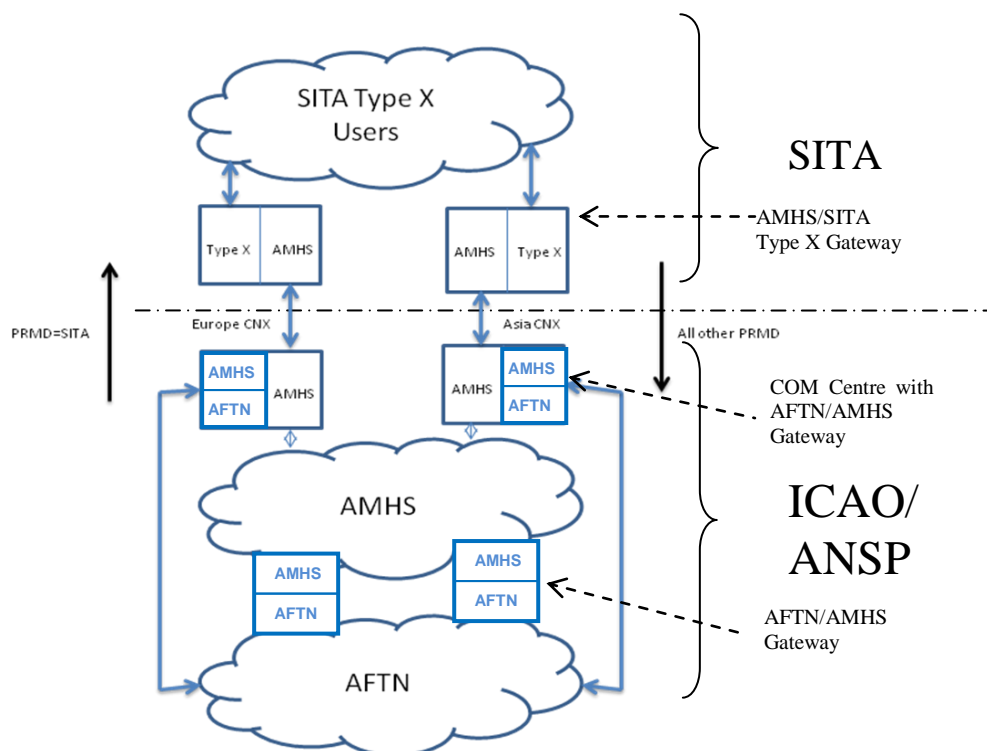


Figure 4: Planned interconnections between AFTN, AMHS and SITA Type X Network

3.3 Message and address conversion in the AMHS/SITA Type X Gateway

3.3.1 The move to the new communication environment at SITA side (Type X) requires interconnection to AMHS in the near future to enable continued support of data exchange between ATS Organizations using AMHS and SITA customers using Type X communication.

3.3.2 The guiding principle should be to provide address transparency to both kind of users (AMHS and SITA Type X).

3.3.3 An AMHS user within the AMHS network should be able to address a SITA Type X user using its AMHS address (SITA Type X users are being seen as AMHS user with PRMD=SITA).

3.3.4 A SITA Type X user within the SITA Type X network should be able to address an AMHS user using the corresponding Type X address (AMHS users are being seen in the SITA Type X environment as SITA Type X users in principle, with an ICAO code in the Type X address element “City”. All Type X address elements are derived from the AFTN address within the O/R address – either common-name or organisational-unit-name-1 depending on the addressing scheme).

3.3.5 The AMHS originator address of a SITA Type X user will be created in the AMHS/SITA Type X Gateway. In accordance with the addressing scheme declared by SITA, the generic resulting O/R address representing the SITA Management Domain (PRMD=SITA) will look like:

CAAS: /C=XX/A=ICAO/P= SITA/O= TYPE-X/OU1=<LOC1>/CN=<AFTNADDR>

Where <AFTNADDR> – AFTN address representing the SITA Type X user and
<LOC1> – first four letters of the <AFTNADDR>

3.3.6 The AMHS/SITA Type X Gateway supports the conversion of message delivery reports which could be mapped to equivalent AMHS delivery reports and vice versa, facilitating end to end delivery assurance and tracking in an interconnected environment.

3.4 Communication scenarios in a mixed AFTN/AMHS environment

3.4.1 Introduction

3.4.1.1 The following communication scenarios describe typical expected message flows between a SITA Type X Gateway and two different AFS environments:

1. a pure AMHS communication environment,
2. a mixed AFTN/AMHS communication environment.

3.4.1.2 Resulting potential requirements for future communication will be summarised in Chapter 5.

3.4.1.3 In the scenarios following communication partners are involved:

- SITA Type X user: The Station manager of Air France in Paris Charles de Gaulle airport. His SITA Type X address in XML format (TypeX_address – Type X Address) is:
<Airline>AFR</Airline>
<City>LFPG</City>
<Department>X</Department>
which is equivalent to the AFTN address LFPGAFRX representing the SITA user in the AFTN environment.
- Direct AMHS User: The Operator of Tower in Madrid
His AMHS O/R address is /C=XX/A=ICAO/P=SPAIN
/O=LECM/OU1=LEMA/CN=LEMAZTZX.
His AFTN Address is LEMAZTZX.
- AFTN (AFS) user: The Operator of Tower in Ibiza. His AFTN Address is LEIBZTZX.
His indirect AMHS user address (O/R address) is:
/C=XX/A=ICAO/P=SPAIN /O=LECM/OU1=LEIB/CN=LEIBZTZX.

3.4.1.4 A fictive message exchange among them is the base of the following scenarios:

3.4.2 Scenario from SITA Type X to AMHS

3.4.2.1 Message flow

3.4.2.1.1 The SITA Type X user wishes to send a message from its SITA Type X Terminal to the Direct AMHS User in order to inform him about a special event which requires an active answer.

3.4.2.1.2 Figure 5 shows the Message flow from a SITA Type X terminal to an AMHS User Agent (UA) via the involved network elements. The switching nodes within the AMHS are the MTAs (Message transfer agents) while at SITA side Type X nodes are used.

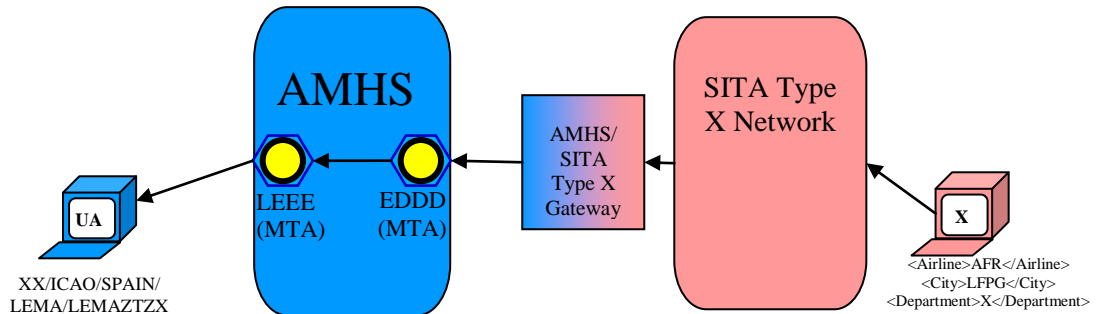


Figure 5: Message flow from a SITA Type X terminal to an AMHS UA

3.4.2.2 Generation of the message

3.4.2.2.1 The following message is generated by the Station manager of Air France in Paris Charles de Gaulle airport (SITA Type X user).

<Airline>AFR</Airline>	}	SITA Type X Originator address
<City>LFPG</City>		
<Department>X</Department>		
<Airline>ZTZ</Airline>	}	SITA Type X Destination Address
<City>LEMA</City>		
<Department>X</Department>		
PLEASE CONFIRM THE FOLLOWING TEXT	}	Message text
text		
=		

Example 8: Type X message

Note.– In this example only a part of the Type X message schema is shown. For the full Type X message schema see [11].

3.4.2.2.2 The SITA Type X Destination Address (*TypeX_address*) defines the targeted receiver.

3.4.2.2.3 In this example the SITA Type X message is routed within the SITA Type X network to the AMHS/SITA Type X Gateway, due to the ICAO code in the Type X address attribute “City” and the resulting mapping of the full Type X address.

3.4.2.3 Conversion of the message in the AMHS/SITA Type X Gateway

3.4.2.3.1 The AMHS/SITA Type X Gateway converts the Type X message and its attributes into an AMHS (X.400) message.

3.4.2.3.2 The following main AMHS attributes / X.400 message elements form the AMHS Message:

/C=XX/A=ICAO/P=SPAIN/O=LECM/OU1=LEMA/CN=LEMAZTZX	- X.400 Recipient address
/C=XX/A=ICAO/P=SITA/O=TYPE-X/OU1=LFPG/CN=LFPGAFRX	- X.400 Originator address
GG	- Message Priority
220944	- Filing time
PLEASE CONFIRM THE FOLLOWING TEXT	} Message text
text	

Example 9: Main attributes of an AMHS message

Note.– LFPGAFRX represents the AFTN address of the SITA Type X user.

3.4.2.3.3 The converted message (AMHS) is sent from the AMHS/SITA Type X Gateway MTA to the MTA of the adjacent COM Centre; in this scenario MTA-EDDD-1.

Note.– The AMHS/SITA Type X Gateway needs to include an MTA in order to be able to communicate with AMHS COM Centres.

3.4.2.4 Switching of the AMHS message by the MTA of the involved COM Centres EDDD and LEEE

Note.– In AMHS a COM Centre will be represented technically by its MTA.

3.4.2.4.1 The MTA-EDDD-1 will receive the above message and forward the message to MTA-LEEE-1 (PRMD=SPAIN) which will deliver the message to the User Agent (UA) of the Madrid Tower – /C=XX/A=ICAO/P=SPAIN/O=LECM/OU1=LEMA/CN=LEMAZTZX.

3.4.3 Scenario from SITA to AFTN via AMHS

3.4.3.1 Message flow

3.4.3.1.1 Assume that the above SITA Type X user (Station manager of Air France in Paris Charles de Gaulle airport) has addressed the Tower of Ibiza equipped with an AFTN Terminal (LEIBZTZX) instead of the Direct AMHS User “Madrid Tower”. Figure 6 shows the expected message flow.

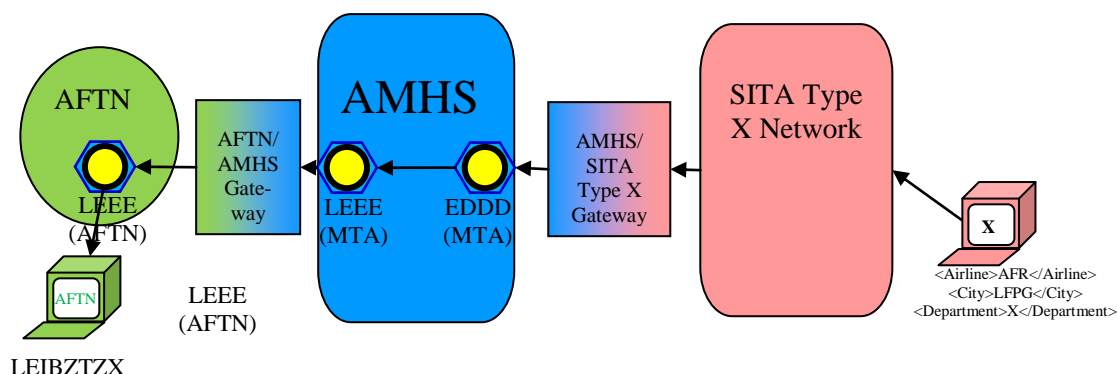


Figure 6: Example for a Message flow from SITA Type X to AFTN via AMHS

3.4.3.1.2 In this case, the message flow is the same till MTA-LEEE-1 as described in the previous flow, but the MTA-LEEE-1 will route the message to the MTCU of the AFTN/AMHS Gateway of COM Centre LEEE.

3.4.3.2 Conversion of the message in the AFTN/AMHS Gateway

3.4.3.2.1 The AFTN/AMHS Gateway of COM Centre LEEE converts the message to an AFTN message using the described AMHS message attributes:

/C=XX/A=ICAO/P=SPAIN/O=LECM/OU1=LEIB/CN=LEIBZTZX	- X.400 Recipient address
/C=XX/A=ICAO/P=SITA/O=TYPE-X/OU1=LFPG/CN=LFPGAFRX	- X.400 Originator address
GG	- Message Priority
220944	- Filing time
PLEASE CONFIRM THE FOLLOWING TEXT	} Message text
text	

Example 10: Main attributes of the AMHS message to "Ibiza Tower"

3.4.3.2.2 The following AFTN message is generated by the AFTN/AMHS Gateway of COM Centre LEEE:

ZCZC	} AFTN Message
GG LEIBZTZX	
220944 LFPGAFRX	
PLEASE CONFIRM THE FOLLOWING TEXT	
text	
NNNN	

Example 11: Converted AFTN message to "Ibiza Tower"

3.4.3.2.3 The AFTN part of the COM Centre LEEE receiving the above message from the AFTN/AMHS Gateway forwards it to the AFTN Terminal of the Tower of Ibiza LEIBZTZX.

3.4.4 Scenario from AMHS to SITA

3.4.4.1 Message flow

3.4.4.1.1 Due to the content of the AMHS message received, the Operator in the Madrid Tower sends back to the originator the requested confirmation. Figure 7 shows the expected message flow.

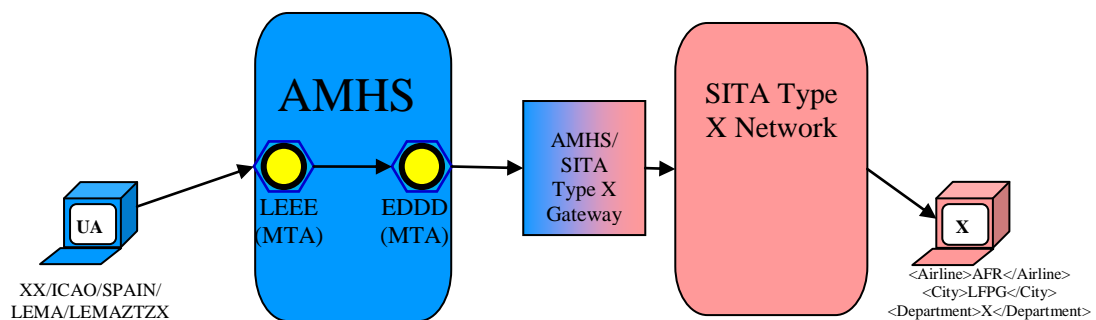


Figure 7: Example for a Message flow from SITA Type X to AMHS

3.4.4.2 Generation of the message from a UA

3.4.4.2.1 The Operator in the Madrid Tower creates an AMHS message with following AMHS/X.400 attributes at his User Agent (UA):

/C=XX/A=ICAO/P=SITA/O=TYPE-X/OU1=LFPG/CN=LFPGAFRX	- X.400 Recipient address
/C=XX/A=ICAO/P=SPAIN/O=LECM/OU1=LEMA/CN=LEMAZTZX	- X.400 Originator address
GG	- Message Priority
220954	- Filing time
CONFIRM RECEPTION OF YR 220944 LFPGAFRX	} Message text
BRGDS LEMAZTZX	

Example 12: Main attributes of the AMHS message from UA

3.4.4.2.2 The User Agent (UA) submits the AMHS message to MTA-LEEE-1.

3.4.4.3 Switching of the AMHS message by the COM Centre MTAs (LEEE, EDDD)

3.4.4.3.1 The MTA-LEEE-1 routes PRMD=SITA to MTA-EDDD-1 while MTA-EDDD-1 routes PRMD=SITA to the MTA of the AMHS/SITA Type X Gateway.

3.4.4.3.2 In the X.400 Routing Tables of all MTAs a routing entry for PRMD=SITA is provided. This is also valid for each other PRMD name.

3.4.4.4 Conversion of the message in the AMHS/SITA Type X Gateway

3.4.4.4.1 The AMHS/SITA Type X Gateway derives all necessary information for the SITA Type X message from the AMHS message attributes.

3.4.4.4.2 The addressed SITA Type X user receives the following SITA Type X message:

<Airline>ZTZ</Airline>	} SITA Type X Originator address
<City>LEMA</City>	
<Department>X</Department>	
<Airline>AFR</Airline>	} SITA Type X Recipient address
<City>LFPG</City>	
<Department>X</Department>	
CONFIRM RECEPTION OF YR 220944 LFPGAFRX	} Message text
BRGDS LEMAZTZX	
=	

Example 13: Converted Type X message

3.4.4.5 Address conversion principle in the AMHS/SITA Type X Gateway

3.4.4.5.1 In the AMHS/SITA Type X Gateway following mapping for the address conversion from AMHS to SITA Type X is used:

AFTN address (example: LEMAZTZX)	→	SITA Type X address (8 letter)
-------------------------------------	---	--------------------------------

Location indicator (4 letters)	→	<City>LEMA</City>
Three letter designator (3 letters)	→	<Airline>ZTZ</Airline>
Filler letter "X" or letter representing a department or division within the organization addressed (1 letter)	→	<Department>X</Department>

Table 3: Address conversion principle AMHS into SITA Type X

3.4.4.5.2 In the AMHS/SITA Type X Gateway the validity and access rights of the converted addresses are checked using the table based approach.

3.4.5 Scenario from AFTN via AMHS to SITA

3.4.5.1 Message flow

3.4.5.1.1 Different to the above scenario, the Tower of Ibiza (Indirect AMHS User) replies to the message provided in 3.4.3 from its AFTN Terminal (LEIBZTZX). Figure 8 shows the expected message flow.

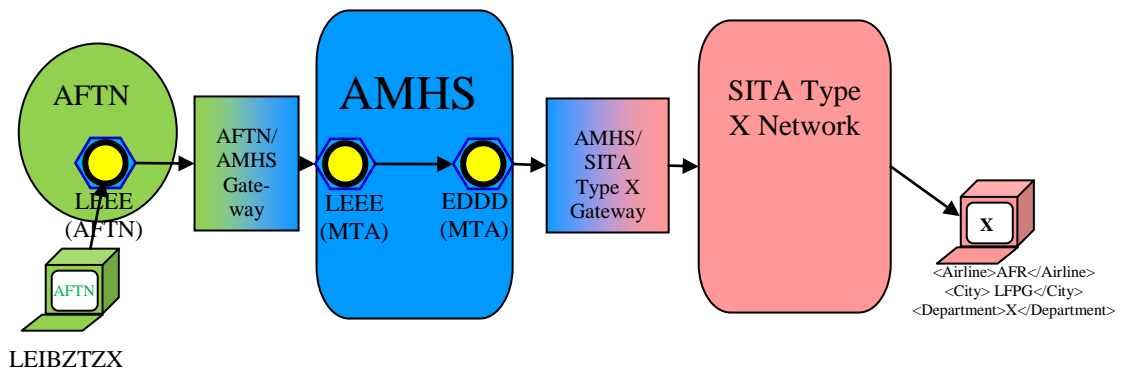


Figure 8: Example for a Message flow from AFTN to SITA Type X via AMHS

3.4.5.2 Generation of the message from an AFTN terminal

3.4.5.2.1 The Tower Operator of Ibiza (Indirect AMHS User) creates from its AFTN Terminal following responding AFTN message:

```
ZCZC ...
GG LFPGAFRX
220954 LEIBZTZX
CONFIRM RECEPTION OF YR 220944
LFPGAFRX
BRGDS LEIBZTZX
NNNN
```

} AFTN Message

Example 14: Generated AFTN message from "Ibiza Tower"

3.4.5.3 Switching of the AFTN message by the COM Centre serving LEIBZTZX

3.4.5.3.1 The AFTN part of the COM Centre in Madrid receiving the above message from the AFTN Terminal of the Tower of Ibiza LEIBZTZX forwards the message to the AFTN/AMHS Gateway.

3.4.5.3.2 **Attention:** The above AFTN message with Destination Address LFPGAFRX is only routed to the AFTN/AMHS Gateway in Madrid, if a full qualified entry for LFPGAFRX in the AFTN Routing Table exists pointing to the AFTN/AMHS Gateway. In all other cases the message will be routed in accordance with the routing of the Nationality Letters LF to the COM Centre of France in Bordeaux.

3.4.5.4 Message conversion in the AFTN/AMHS Gateway

3.4.5.4.1 The AFTN/AMHS Gateway converts the AFTN message into an AMHS message with following AMHS message attributes:

/C=XX/A=ICAO/P=SITA/O=TYPE-X/OU1=LOC1/CN=LFPGAFRX	- X.400 Recipient address
/C=XX/A=ICAO/P=SPAIN/O=LECM/OU1=LEIB/CN=LEIBZTZX	- X.400 Originator address
GG	- Message Priority
220954	- Filing time
CONFIRM RECEPTION OF YR 220944 LFPGAFRX	} Message text
BRGDS LEIBZTZX	

Example 15: Main attributes of the AMHS message from “Ibiza Tower”

3.4.5.4.2 **Attention:** The address conversion of the AFTN Address “LFPGAFRX” into an O/R address of PRMD=SITA is only possible if the AFTN/AMHS Gateway is able to identify this address as an address representing a SITA Type X user. Otherwise this address would be converted into a “national” (French) O/R address and routed accordingly. In that case the message would never reach the AMHS/SITA Type X Gateway and so never reach the intended SITA Type X user.

3.4.5.5 Switching of the AMHS message by the involved COM Centre MTAs

3.4.5.5.1 In the positive case that the AFTN/AMHS Gateway has converted the AFTN message correctly in an AMHS message, the MTA-LEEE-1 routes PRMD=SITA to MTA-EDDD-1 while MTA-EDDD-1 routes PRMD=SITA to the MTA of the AMHS/SITA Type X Gateway.

3.4.5.6 Conversion of the message in the AMHS/SITA Type X Gateway

3.4.5.6.1 The message is converted as described in 3.4.4.4 and finally delivered to the addressed SITA Type X user.

3.5 Transitional aspects from SITA Type B to SITA Type X

3.5.1 With the evolution of the SITA messaging environment by creating the SITA Type X network, a Type B/Type X Gateway is in operation on SITA side in order to ensure the reachability of former Type B users migrated to Type X capabilities.

3.5.2 There are two migration scenarios in the SITA messaging environment:

- migration of the end users from Type B to Type X capabilities; and
- migration from AFTN Type B to AMHS Type X gateways.

3.5.3 The Type B/Type X Gateway will be used during both migration scenarios on SITA side which is seen as a longer process.

3.5.4 From the view point of the AFS (either AFTN or AMHS) the Type B/Type X Gateway ensures that a SITA user remains reachable independent of an AFTN/SITA Type B Gateway or an AMHS/SITA Type X Gateway being used for communication.

3.5.5 This configuration matter is under the responsibility of SITA and will be ensured in line with the progress of the different migration scenarios.

4 Representation of SITA Type X users by their AFTN addresses

4.1 Introduction

4.1.1 In a mixed AFTN/AMHS environment it is essential – as described in 3.4.5.3.2 (AFTN Routing) and 3.4.5.4.2 (Address Conversion) – that all AFTN addresses representing SITA Type X users can be identified as such.

4.1.2 In the following Section the options will be discussed how an AFTN Address could be identified to represent a SITA Type X user. Two principle options are seen:

- Table based identification of SITA Type X users
- Use of a unique first letter in the AFTN address for SITA Type X users

4.2 Discussion of the options

4.2.1 Option 1: Table based identification of SITA Type X users in AFTN

4.2.1.1 Principle

4.2.1.1.1 All SITA Type X users are listed with their AFTN addresses and O/R addresses (PRMD=SITA) in a special table.

4.2.1.1.2 This table will be used in:

- AFTN COM Centres to configure the exceptional AFTN Routing for all AFTN addresses representing SITA Type X users, and
- AFTN/AMHS gateways to configure the respective User address look-up table.

4.2.1.2 Exceptional routing of AFTN addresses representing SITA Type X users

4.2.1.2.1 In the AFS all messages with AFTN addresses representing SITA Type X users have to be routed towards the nearest AMHS island with a AMHS/SITA Type X connection (either in Europe or in Asia).

4.2.1.2.2 In order to fulfil this AFTN Routing requirement, certain AFTN COM Centres need additional entries in their AFTN Routing table for SITA Type X users. These entries are required in the AFTN COM Centre to ensure that the messages addressed to SITA are forwarded to an AFTN/AMHS Gateway.

4.2.1.2.3 The exceptional AFTN Routing must be configured in the following categories of AFTN COM Centres:

- a) AFTN COM Centres of States with AFTN addresses of SITA users;
- b) COM Centres with AFTN/AMHS Gateways;
- c) AFTN COM Centres which are in the routing path between an AFTN COM Centre corresponding to case a) above, and the nearest COM Centre corresponding to case b) above.

4.2.1.2.4 In an environment with few AFTN/AMHS Gateways, it could be needed to configure the exceptional routing in all AFTN Centres. Conversely, category c) is not required, if all COM Centres of category a) above either include an AFTN/AMHS Gateway or are adjacent to a COM Centre with an AFTN/AMHS Gateway.

4.2.1.3 Address conversion of AFTN addresses representing SITA Type X users

4.2.1.3.1 In the table based option the table mentioned in 4.2.1 provides the mapping of AFTN addresses of SITA Type X users to the O/R address with PRMD=SITA.

4.2.1.3.2 In the AFTN/AMHS Gateways the table based address conversion is done by means of the User address look-up table.

4.2.1.3.3 The mapping of AFTN addresses of SITA Type X users to the PRMD=SITA can only ensure that those messages are routed correctly to the AMHS/SITA Type X Gateway within the AMHS network.

4.2.1.3.4 As an example, if not contained in the User address look-up table, the AFTN address LFPSSITN would be converted in the AFTN/AMHS gateway according to standard conversion rule for French AFTN addresses to :
/C=XX/A=ICAO/P=FRANCE/O=LFFF/OU1=LFPSSITN.

4.2.1.3.5 However LFPSSITN is actually an AFTN address associated with a SITA Type X user so that it shall be routed to the AMHS/SITA Type X Gateway. Therefore, considering the above SITA – AMHS addressing scheme, LFPSSITN must be converted to /C=XX/A=ICAO/P=SITA/O=TYPE-X/OU1=LFPSSITN by use of the respective User address look-up table entry.

4.2.1.3.6 The same User address look-up table entries must be configured in all AFTN/AMHS gateways worldwide.

4.2.1.4 Pros

- No change of AFTN addresses representing SITA Type X users is required; all current SITA users can maintain their AFTN addresses.
- The principle of the address conversion option is described in the AMHS documentation (Doc 9880) and implemented in the AFTN/AMHS Gateways.
- This option is aligned with a fully transitioned AMHS solution.
- No update of any ICAO documentation (i.e. Doc 9880, Doc 7910) is required.
- This option is a solution which could be introduced quickly and without any risk.
- In a later stage, the big amount of information used in the User address look-up tables could be provided automatically via the European Directory Service (EDS), if available.

4.2.1.5 Cons

- The option will require the maintenance of a large User address look-up table in each AMHS COM Centre operating an AFTN/AMHS Gateway.

- Those AMHS COM Centres have to configure in their AFTN Routing tables the exceptional routing for all AFTN addresses present in the User address look-up table in direction to their MTCU.
- Other AFTN COM Centres may also have to configure an exceptional routing but in direction to a COM Centre nearby or related to an AFTN/AMHS Gateway to ensure that SITA Type X user related AFTN addresses are finally routed to a Gateway correctly.
- The EDS is not yet available.

4.2.2 Option 2: Use of a unique first letter in the AFTN address for SITA Type X users

4.2.2.1 Principle

4.2.2.1.1 The AFTN Address representing a SITA Type X will start with a unique first letter, e.g. “X” which means de facto the allocation of an AFS Routing Area “X”.

4.2.2.1.2 The AFTN addresses with a unique first letter have the following structure:

AFTN Address (8 letter)	derived from	SITA Type X address (7 letter)
“X” first letter of Location indicator		
2 nd -4 th letter of Location indicator	←	IATA Airport code (3 letter)
Three letter designator (3 letter)	←	ICAO Airline code (3 letter)
Filler letter "X" or letter representing a department or division within the organization addressed (1 letter)	←	Department code (1 letter)

Table 4: AFTN address structure of a SITA Type X user in option 2

4.2.2.1.3 The AFTN Address representing a SITA Type X could be assigned easily in the AMHS/SITA Type X Gateway as follows:

SITA Type X user	SITA Type X address	Assigned AFTN address
Operations manager of Lufthansa in Frankfurt	<Airline>DLH</Airline> <City>FRA</City> <Department>O</Department>	XFRADLHO
Station manager of Air France in Paris Charles de Gaulle airport	<Airline>AFR</Airline> <City>CDG</City> <Department>T</Department>	XCDGAFRT

Table 5: SITA Type X and AFTN addresses of SITA Type X users in option 2

4.2.2.2 Routing of AFTN addresses representing SITA Type X users

4.2.2.2.1 All AFTN addresses representing SITA Type X users can be routed towards the nearest AMHS island with an AMHS/SITA Type X connection by the routing indicator “X”.

4.2.2.2.2 In order to fulfil this AFTN routing requirement in all AFTN COM Centres only one additional entry (X for routing to the next AFTN/AMHS Gateway) is required.

4.2.2.3 Address conversion of AFTN addresses representing SITA Type X users

4.2.2.3.1 In the AFTN/AMHS Gateway the address conversion would be done as for other AFTN addresses.

4.2.2.3.2 Only one additional entry needs to be inserted into the MD Look-up table and in the CAAS table. No entries are required in the **User address look-up table**.

4.2.2.3.3 All SITA Type X users communicating with the AFTN are identified by the AFTN address starting with “X”. The address conversion is done with one general rule in the AFTN/AMHS Gateway. All AFTN addresses belonging to the AFS Routing Area “X” are converted to /C=XX/A=ICAO/P=SITA/O=TYPE-X/OU1= .../CN=... with the Location indicator in OU1 and the AFTN address in CN.

AFTN address	O/R address
XFRADLHO	/C=XX/A=ICAO/P=SITA/O=TYPE-X/OU1=XFRA/CN=XFRADLHO

Example 16: Conversion of XFRADLHO into O/R address

4.2.2.4 Pros

- The AFTN/AMHS address conversion could be employed for either XF or CAAS addressing as it is done for all other AFTN addresses.
- Each user from outside the AFTN and reachable via a dedicated Gateway is uniquely (one-to-one) identified within the AFTN.
- The routing tables in all AFTN COM Centres worldwide require only one additional entry (to route ‘X’...).

- Traditional AFTN routing could be employed, no exceptional routing entries required.

4.2.2.5 Cons

- A general change of all AFTN addresses for SITA users (currently used and locally known AFTN addresses become invalid).
- This option needs to be discussed in ICAO level. It has to be taken into account that this option has already been rejected by ICAO once.
- An update of Doc 7910 is required to introduce the new AFS Routing Area (the SITA “locations” are listed yet – IATA code) and to introduce the resulting new AFTN address structure.
- The institutional changes could take too much time with unknown result and might not meet the time constraints for the replacement of X.25, low speed lines and other equipment.

4.3 Proposed solution

4.3.1 First conclusions

4.3.1.1 The option to use of a unique first letter in the AFTN address for SITA Type X users (allocation of a Routing area) seems to be too complicated to meet the time constraints mentioned above.

4.3.1.2 Especially the administrative problems in ICAO level are not calculable.

4.3.1.3 Therefore the Group discussed another approach based in principle on option 1 in order to limit the drawbacks to all COM Centres worldwide.

4.3.2 Principle of the proposed solution

4.3.2.1 The table based approach (use of User address look-up table) is the preferred option but with a number of slight modifications to the plan initially presented by SITA.

4.3.2.2 **First**, the current topology of the interconnections between AFTN and SITA should remain in the first phase of the migration to AMHS. That means that the migration from the AFTN/SITA Type B Gateways to the AMHS/SITA Type X Gateways should be done step by step, starting with the most needed replacement of an existing AFTN/SITA Type B Gateway connection by an AMHS/SITA Type X one.

4.3.2.3 The advantage of such an approach is that in this stage only one COM Centre is involved and an urgent need could be satisfied. Only minor drawbacks to others could occur.

4.3.2.4 Due to the fact that most of the EUR COM Centres today serving a SITA Type B Gateway have proven AMHS capabilities, such a replacement could be continued.

4.3.2.5 One precondition is that the AFTN/SITA Type B Gateways and the AMHS/SITA Type X Gateways can operate in parallel for a longer time during which the possible target topology could be defined.

4.3.2.6 **Second**, the former planned two AMHS/SITA Type X connections have to be expanded to a larger number so that all ICAO Regions are served sufficiently and independently. It has to be clarified how many Regional interconnections AMHS/SITA Type X will be required.

4.3.2.7 Multiple inter-Regional connections would allow limiting the exceptional routing to Regional level. In consequence, not all SITA Type X user AFTN addresses have to be configured everywhere (not in all AFTN COM Centres worldwide).

4.3.2.8 The target topology should be discussed on Regional level. So the potential AFTN routing issues remain under Regional responsibility. On Regional level it could be decided how many connections would be sufficient.

4.3.2.9 In parallel to the stepwise replacement of the AFTN/SITA Type B Gateways, the target architecture could be discussed between the Regions not affecting the deployment of the AMHS/SITA Type X rollout. This global coordination should be seen as an optimisation process.

4.3.2.10 **Third**, SITA had chosen to use a CAAS addressing scheme. In this sense the request for allocation of a PRMD named SITA under the ADMD of ICAO was made at ICAO HQ level. However, if the table based approach is used for identifying of SITA Type X users in AFTN, the selection of the addressing scheme CAAS or XF has no relevance.

4.3.2.11 It doesn't really matter in the User address look-up table, if the corresponding O/R address for a SITA Type X user is in accordance with XF or CAAS. Within the AMHS the routing will be performed by the PRMD=SITA only. No other attribute has routing relevance.

4.3.2.12 In the User address look-up table more attributes have to be maintained correctly if the CAAS addressing scheme is used in the future. The XF addressing scheme needs the minimum required attributes only:

XF: /C=XX/A=ICAO/P=SITA/O=AFTN/OU1=<AFTNADDR>

Where <AFTNADDR> – AFTN address representing the SITA Type X user

4.3.2.13 **Therefore**, it is recommended that the XF schema shall be used for the O/R addresses of the SITA Type X users. The User address look-up table entries can be created easier compared to CAAS.

4.3.2.14 Once address mapping information became available through Directory services such as the European Directory Service (EDS), a Directory-based solution would ease distribution of address mapping information.

5 Communication requirements for the AMHS/SITA Type X Gateway

5.1 Technical requirements

5.1.1 Requirement 1: The AMHS/SITA Type X Gateway shall be interconnected to AMHS COM Centres by use of the X.400 Message Transfer Protocol (P1) over IPv4 or IPv6.

5.1.2 Requirement 2: Based on the requirements for long-term logging at the AFTN/AMHS Gateway, the AMHS/SITA Type X Gateway shall perform traffic logging as per ICAO Doc 9880, Part II, section 4.3.1.

5.1.3 Requirement 3: Before the AMHS/SITA Type X Gateway will be interconnected to an AMHS COM Centre in the EUR Region, the gateway system shall pass an AMHS Conformance Tests based on the EUR AMHS Manual, Appendix D provisions.

5.1.4 Requirement 4: Any further operational testing shall be based on the AMHS Interoperability and AMHS Pre-operational Tests laid down in the EUR AMHS Manual, Appendices E and F.

5.2 Operational requirements

5.2.1 Requirement 5: At minimum two AMHS/SITA Type X Gateway operators (main and backup) shall participate in AMC (ATS Messaging Managements Centre) Operations. They will be registered in AMC as External COM Operators.

5.2.2 Requirement 6: SITA has to ensure that qualified Operators are nominated as External COM Operator participating and acting actively in order to ensure an up-to-date data base in the AMC and resulting in the AMHS/SITA Type X Gateways.

5.2.3 Requirement 7: The address conversion in the AMHS/SITA Type X Gateway shall be based on the actual AMHS Address Managements Tables provided by the AMC on regular basis (AIRAC cycle). Later on, the Address Management data should be downloaded from EDS (European Directory Service) when operational.

5.3 Specific operational requirements

5.3.1 Requirement 8: The AMHS/SITA Type X Gateways shall ensure that only those SITA Type X users communicate with the AMHS which are registered, trained and published as indirect AMHS users.

5.3.2 Requirement 9: The AMHS/SITA Type X Gateways shall ensure that each generated AMHS messages contains as originator address only those SITA Type X users addresses listed in the User address look-up table. All messages with SITA Type X users addresses not listed in the User address look-up table shall be suppressed and never reach the AMHS.

5.3.3 Requirement 10: The responsible AMHS/SITA Type X Gateway operator shall maintain the User address look-up table in the AMC with all SITA Type X users allowed to communicate with AMHS containing their SITA Type X address as AFTN address and the corresponding O/R address with PRMD=SITA.

5.3.4 Requirement 11: The responsible AMHS/SITA Type X Gateway operator shall maintain the User Capabilities of the SITA Type X users communicating with AMHS via the AMHS/SITA Type X Gateways in the AMC (AMHS User Capabilities Table).

5.3.5 Requirement 12: The responsible AMHS/SITA Type X Gateway operator shall ensure that the tables in the AMHS/SITA Type X Gateways are consistent with the tables maintained in AMC at any time of operations.

5.3.6 Requirement 13: For this purpose, the AMHS/SITA Type X Gateways shall support the “versioning” of the operational tables as provided by AMC and later on by EDS.

6 Requirements concerning Underlying IP Infrastructure

6.1 Requirement 14: The IPv4 connection between an AMHS/SITA Type X Gateway and an AMHS COM Centre shall be redundant. That means that such an IP connection will not be interrupted by single hardware faults. Any SPOFs (single point of failure) have to be avoided.

6.2 Requirement 15: The final acceptance tests of the IP infrastructure between an AMHS/SITA Type X Gateway and an AMHS COM Centre have to be performed in line with the principles laid down in provisional EUR Doc 027 – IP Infrastructure Test Guidelines for EUR AMHS.

6.3 Requirement 16: Especially the recovery time after single outages of one component of a redundant connection (router, firewall or others) shall be measured and should be in a range of 10 seconds.

6.4 Requirement 17: The dimensioning of the connection (bandwidth) has to be done based on the real traffic figures. Potential growing of the traffic as well as additional bandwidth for recover scenarios has to be taken into account.

7 Migration scenario

7.1 Precondition for the start of the migration is completion of the AMHS/SITA Type X Gateway specification and the successful implementation documented by the Acceptance Tests and the AMHS Conformance Tests.

7.2 The migration should be started by defined pilot connections in close cooperation with the foreseen first COM Centre(s) in the EUR Region.

7.3 It is recommended to agree on a schedule of the required steps as there are:

- Completion and test of the IP infrastructure;
- Planning of the AMHS Interoperability Tests;
- Coordination of the Operational procedures between the AMHS COM Centres and the SITA Type X Gateways;
- Planning of the Pre-operational Tests;
- Date of operation.

7.4 In parallel the SITA Type X Gateway operators shall setup the required tables in the AMC as there are:

- User address look-up table, and
- AMHS user Capabilities Table.

7.5 From the very beginning the complete tables shall be maintained by the SITA Type X Gateway operators (not tailored or shortened tables) in order to ensure the setup of the required AFTN/AMHS Gateway tables and the X.400 and AFTN routing tables in the COM Centres worldwide.

7.6 If the pilot implementation is finished successfully the next connections should be replaced.

7.7 In line with the discussions with the other ICAO Regions and their results the replacement of AFTN/SITA Type B Gateway connections by AMHS/SITA Type X Gateway connections should be performed.

7.8 The AMC Operator will assist and monitor the progress in cooperation with the assigned SITA Type X Gateway Operator.

7.9 The AFSG Operations Group will monitor the migration and offer support.

8 Road map

8.1 The replacement of the current AFTN/SITA Type B connections by AMHS/SITA Type X ones has become very urgent in the last months due to the announced decommissioning of low speed links by the telecom providers in several European States by end of 2014.

8.2 A further driving factor is the need to be prepared for XML based information exchange such as digital NOTAMs (AIXM), Flight plans (FIXM) and meteorological messages (WXXM).

8.3 The following road map coordinated with SITA should be envisaged in order to meet the above mentioned communication requirements:

Adoption of the AMHS/SITA Type X concept by AFSG/17	2013 April
Completion of AMHS/SITA Type X Gateway Specification	2013
Definition of the pilot replacements of AFTN/SITA Type B by AMHS/SITA Type X connections in EUR	2013
Definition of the target topology	2013
Discussion of the AMHS/SITA Type X concept with other ICAO Regions	2013
Factory Acceptance testing including AMHS Conformance Tests	2013
First AMHS Interoperability Test in the EUR Region	2014
Completion of the Operational procedures (Cooperation of the AMHS COM Centres and SITA Type X Gateways)	2014
Initial data entry in AMC (User address look-up table)	2014
Definition of the replacements of AFTN/SITA Type B by AMHS/SITA Type X connections in other ICAO Regions	2014

First Pre-operational Tests in the EUR Region	2014
Date of operation in the EUR Region	2014/2015
Continued replacement of AFTN/SITA Type B by AMHS/SITA Type X connections in EUR and other ICAO Regions	2015

Attachment A

A.1 Conversion Table AFTN to SITA Type B addresses (IX Table) (Dec 2012)

	AFTN Address	SITA Customer	Remark
1	AYPYANGM	POMOPPX	
2	AYPYANGO	POMOOPX	
3	AYPYANGW	POMOWPX	
4	CSINXMXS	SINXTXS	
5	CYYCCOIX	YYCCCXH	
6	DAAGDAHO	ALGOOAH	
7	DIAPYKYN	ABJOWXH	
8	DIAVSITX	SINXTXS	
9	DIAVYKYX	ABJOWXH	
10	DTTAYAYX	TUNXYYA	
11	DTTAYFYX	TUNBPYF	
12	DTTAZPZX	TUNBPYF	
13	DTTJYDYX	DJEXYYF	
14	DTTJYFYX	DJEXYYF	
15	DTTJYOYX	DJEXYYF	
16	DTTJZTZX	DJEXYYF	
17	DTTOYNYX	TUNXYXF	
18	DTTTZQZX	TUNXYXF	
19	DTTVSITX	SINXTXS	
20	DTTVYAYX	TUNXYYA	
21	DTTXYAO	SFADTFS	
22	EBBDCEUW	BRUEC7X	
23	EBBDYFCO	BRUEA7X	
24	EBBDYFYX	BRUXTYF	
25	EBBDZMFP	BRUEP7X	
26	EBBDZMTA	BRUEA7X	
27	EBBISITL	QIFWNXS	
28	EBBRDHLA	BRUAAER	
29	EBBRSABA	BRUXZSN	
30	EBBRSABB	BRUICSN	
31	EBBRSABC	BRUICSN	
32	EBBRSABD	BRUXZSN	
33	EBBRSABE	BRUXZSN	
34	EBBRSABF	BRUXZSN	
35	EBBRSABG	BRUXZSN	
36	EBBRSABH	BRUXZSN	
37	EBBRSABI	BRUOWSN	
38	EBBRSABJ	BRUXZSN	
39	EBBRSABK	BRUXZSN	
40	EBBRSABL	BRUXZSN	
41	EBBRSABM	BRUXZSN	

	AFTN Address	SITA Customer	Remark
42	EBBRSABN	BRUXZSN	
43	EBBRSABO	BRUXZSN	
44	EBBRSABP	BRUOWSN	
45	EBBRSABQ	BRUXZSN	
46	EBBRSABR	BRUXZSN	
47	EBBRSABS	BRUXZSN	
48	EBBRSABT	BRUXZSN	
49	EBBRSABU	BRUOWSN	
50	EBBRSABV	BRUXZSN	
51	EBBRSABW	BRUXZSN	
52	EBBRSABX	BRUOWSN	
53	EBBRSABY	BRUXZSN	
54	EBBRSABZ	BRUXZSN	
55	EDDFCFGO	FRAOODE	
56	EDDFCFGX	FRAXYDE	
57	EDDFDLHB	FRANOLH	
58	EDDFDLHC	FRAYKLH	
59	EDDFDLHD	FRA2DLH	
60	EDDFDLHF	FRAFFLH	
61	EDDFDLHH	FRA2HLH	
62	EDDFDLHL	FRAQLLH	
63	EDDFDLHN	FRANLH	
64	EDDFDLHO	FRA2OLH	
65	EDDFDLHQ	FRAQKLH	
66	EDDFDLHT	FRATTLH	
67	EDDFDLHW	FRA2WLH	
68	EDDFDLHX	FRA2XLH	
69	EDDFDLHZ	FRAXCLH	
70	EDDFKALO	FRAOKE	
71	EDDFSITX	SINXTXS	
72	EDDFSITY	FRAXMXS	
73	EDDGEBFX	DTMATXH	
74	EDDHAYA	HAMOOHK	
75	EDDKCLHX	CGNOXCL	
76	EDDMBOBX	MUCAOXH	
77	EDDMKSTX	MUCAOXH	
78	EDDNIFAX	NUEFAXH	
79	EDDRRUSA	SCNGWXH	
80	EDSDCSA	STRDAXH	
81	EDSDCSC	STRDCXH	
82	EDSDCSO	STRXYXF	

	AFTN Address	SITA Customer	Remark
83	EDDSDCSX	STRXYF	
84	EDDTBERA	TXLFSAB	
85	EDDTBERX	TXLFPAB	
86	EDDTGBQW	TXLOWST	
87	EDDTGMIW	TXLOWST	
88	EDDTGMQW	TXLOWST	
89	EDHIAIBX	XFWO07X	
90	EGCCMONO	MANOOZB	
91	EGGWBALO	LTNOOBY	
92	EGGWMONO	LTNOOZB	
93	EGKKFCAY	MANSPPD	
94	EGKKJPNX	LGWJD7X	
95	EGKKPGFO	LGWPG7X	
96	EGKKPGFX	LGWPG7X	
97	EGKKVIRG	LGWORVS	
98	EGKKVIRS	LGWKSVS	
99	EGKKVIRW	LGWODVS	
100	EGKKYEYF	LGWCF7X	
101	EGLISITM	QIFMMXS	
102	EGLLAFRO	LHROOAF	
103	EGLLBAWB	LHRBBBA	
104	EGLLBAWD	LHRDDBA	
105	EGLLBAWL	LHRLBBA	
106	EGLLBAWO	LHROOBA	
107	EGLLBBCX	LHRXYBG	
108	EGLLIJOB	LHRIJCR	
109	EGLLIRAX	LHRXYIR	
110	EGLLKACX	LHRXYKU	
111	EGLLOXBA	LHROXBA	
112	EGLLSITX	SINXTXS	
113	EGLLWCBA	LHRWCBA	
114	EGNMEXSO	LBA01XS	
115	EGNXBMAO	EMAOOBD	
116	EGNXBMAX	EMAXYBD	
117	EGSSAWCX	STNTACR	
118	EGSSUVAO	STNOOUV	
119	EHAASITX	SINXTXS	
120	EHAMCKSX	AMSFSK4	
121	EHAMHLRX	AMSHAXH	
122	EHAMJALO	AMSOOJL	
123	EHAMJXAS	DXBJX7X	
124	EHAMKLCR	QHZZVKL	
125	EHAMKLMA	SPLOBKL	
126	EHAMKLMB	SPLKFKL	
127	EHAMKLMC	QHZZGKL	
128	EHAMKLMD	OCCFDKL	
129	EHAMKLME	SPLKFKL	
130	EHAMKLMH	SPLWHKL	

	AFTN Address	SITA Customer	Remark
131	EHAMKLMI	AMSI I KL	
132	EHAMKLMJ	SPLOKKL	
133	EHAMKLMK	SPLOVKL	
134	EHAMKLMO	AMSI I KL	
135	EHAMKLMR	QHZZZKL	
136	EHAMKLMU	SPLXUKL	
137	EHAMKLMW	OCCOWKL	
138	EHAMMPHO	SPLOWMP	
139	EHAMMPHP	SPLONMP	
140	EHAMMPHX	SPLLPMP	
141	EHAMPIAW	SPLOWPK	
142	EHAMSITE	SPLNGXS	
143	EHAMTFLC	SPLCCOR	
144	EHAMTFLO	SPLOPOR	
145	EHAMTRAC	SPLCCHV	
146	EHAMTRAK	SPLOCHV	
147	EHAMYAYL	HAGRLXH	
148	EHAMYIAG	HDQAGXH	
149	EHAMYI JN	SPLJN8X	
150	EHAMYIOA	AMSOOXH	
151	EHAMYIWF	AMSOCCR	
152	EHAMYIWU	SPLWUXH	
153	EBKXHAO	MSTAPXH	
154	EHEHYXYH	EINLCXH	
155	EHGVYAYW	HAGRLXH	
156	EHGVYAYX	HAGRLXH	
157	EHRDSHEX	RTMSHUV	
158	EHXXYIAO	ULNA1XH	
159	EHXXYIAV	OSTAVCR	
160	EHXXYIMA	DXBMA7X	
161	EKCHA FRK	CPHKKAF	
162	EKCHA FRX	CPHXYAF	
163	EKCHSASX	CPHXYSK	
164	EKCHSITX	SINXTXS	
165	EKCHSRRO	CPHONS6	
166	EKCHSRRX	CPHONS6	
167	EKCHVKGI	CPHIIDK	
168	EKCHVKGO	CPHOPDK	
169	EKCHVKGW	CPHOWDK	
170	ELLXCLXO	LUXOOCV	
171	ELLXYDPP	LUXXYF	
172	ELLXYMYP	LUXXYF	
173	ELLXZPZX	LUXXYF	
174	ELLXZTZX	LUXXYF	
175	EPWALOTO	WAWOULO	
176	ETNLYDYX	RLGKOXH	
177	EVR RB JCX	LONBJXH	
178	EVR RZDZX	OTPOWRO	

	AFTN Address	SITA Customer	Remark
179	EVRRZQZX	OTPOWRO	
180	FACTBAWK	CPTKZBA	
181	FACTBAWX	CPTXYBA	
182	FADNYFYR	JNBRMYF	
183	FAHQSAAX	JNBXYSA	
184	FAITYFYR	JNBRMYF	
185	FAJBSITN	JNBXEXS	
186	FAJBSITR	JNBXEXS	
187	FAJFSAAO	JNBOOSA	
188	FAJSAFRK	JNBKLAF	
189	FAJSAFRL	JNBLLAF	
190	FAJSAMLK	JNBKDKQ	
191	FAJSBAWJ	JNBJJBA	
192	FAJSBAWK	JNBKLBA	
193	FAJSBAWX	JNBXYBA	
194	FAJSCPAK	JNBKOXH	
195	FAJSDLHF	JNBFFLH	
196	FAJSDLHJ	JNBJJLH	
197	FAJSDLHK	JNBYKLH	
198	FAJSDTAK	JNBK KDT	
199	FAJSEXYO	JNBERSA	
200	FAJSIBEK	JNBKPIB	
201	FAJSKLMK	JNBK KKL	
202	FAJSKLML	JNBLLKL	
203	FAJSKLMO	JNBOOKL	
204	FAJSKPVS	JNBK PVS	
205	FAJSKQAK	JNBK K KQ	
206	FAJSMASK	JNBK KMH	
207	FAJSODVS	JNBODVS	
208	FAJSQFAK	JNBK DQF	
209	FAJSQFAO	JNBOOQF	
210	FAJSQTRK	JNBK OXH	
211	FAJSSAAM	JNBCMSA	
212	FAJSSAAN	JNBONSA	
213	FAJSSAAO	JNBCKSA	
214	FAJSSAAP	JNBPPSA	
215	FAJSSAAR	JNBCASA	
216	FAJSSAAW	JNBOWSA	
217	FAJSSAAX	JNBXYSA	
218	FAJSSAAZ	JNBWMSA	
219	FAJSSWPO	JNBOSXH	
220	FAJSUAEK	JNBKKEK	
221	FAJSVIRK	JNBK KVS	
222	FAJSXBYF	JNBXBYF	
223	FAJSXCYF	JNBXCYF	
224	FAJSXTYF	JNBXTYF	
225	FAJSYFYF	JNBFFYF	
226	FAJSYFYL	JNBLLYF	

	AFTN Address	SITA Customer	Remark
227	FAJSYFYM	JNBMMYF	
228	FAJSYTYX	JNBXTYF	
229	FAJSZTXX	UNKXMXS	
230	FAKSSAAO	JNBOOSA	
231	FAPRYMYX	PRYXMYF	
232	FARSSAAO	JNBOOSA	
233	FBBRZXIM	JNBPA7X	
234	FBCVYKYX	JNBOWXH	
235	FBSKBOTK	GBEOSBP	
236	FCBBYKYX	BZVOWXH	
237	FCBVYKYC	BZVOWXH	
238	FCBVYKYX	BZVOWXH	
239	FCFVYKYX	BZVOWXH	
240	FDDVYKYX	JNBOWXH	
241	FDLFDLHP	JNBKPLH	
242	FIMPSAAO	MRUOOSA	
243	FKKDAFRK	DLAKKAF	
244	FKKDYKYX	DLAOWXH	
245	FMMDMDGA	TNRJDMD	
246	FMMDMDGB	TNRBNMD	
247	FMMDMDGC	TNRTOMD	
248	FMMDMDGG	TNRDDMD	
249	FMMDMDGJ	TNRJDMD	
250	FMMDMDGP	TNRGDMD	
251	FMMDMDGR	TNRTOMD	
252	FMMIMDGE	TNRIDMD	
253	FMMIMDGH	TNRIHMD	
254	FMMIMDGI	TNROUMD	
255	FMMIMDGM	TNRMFMD	
256	FMMIMDGO	TNRODMD	
257	FMMIMDGT	TNRDMD	
258	FMMIMDGU	TNROUMD	
259	FMMIMDGZ	TNRYCMD	
260	FNLUAFRK	LADKKAF	
261	FNLUAFRX	LADXYAF	
262	FNLUDTAX	LADXYDT	
263	FQMALAMW	MPMOWTM	
264	FSIASEYX	SEZXYHM	
265	FVHAZW	HREOUM	
266	FVHAZW	HRETTUM	
267	FVHABAWX	HREXYBA	
268	FYWHNMBO	WDHOOSW	
269	FZAASABX	FIHXYSN	
270	GABSAFRK	BKOKKAF	
271	GCLPIBED	LPAOXIB	
272	GDDFGECO	FRAQOLH	
273	GMMCSITX	SINXTXS	
274	GMMERAMK	RBAKKAT	

	AFTN Address	SITA Customer	Remark
275	GMMNAFRO	CMNOOAF	
276	GMMNRAMH	CMNHAT	
277	GMMNRAMO	CMNOOAT	
278	GMMNRAMW	CMNOWAT	
279	GMMNSVAO	CMNOOSV	
280	GOEAFRX	DKRXYAF	
281	GOOHAFRX	DKRXYAF	
282	GOOSAFRX	DKRXYAF	
283	GOOVIATX	DKREDXB	
284	GOOVSITX	SINXTXS	
285	GOOYAFRB	DKRHKAF	
286	GOOYAFRC	DKRPOAF	
287	GOOYAFRK	DKRKKAF	
288	GOOYAFRM	DKRXYAF	
289	GOOYAFRO	DKROOAF	
290	GOOYAFRX	DKRXYAF	
291	GOOYAFRY	DKRXYAF	
292	GOOYAZAX	DKRXYAZ	
293	GOOYDLHX	DKR2XLH	
294	GOOYSABX	DKRXYSN	
295	GOOYSNEX	DKROPDN	
296	HAABDLHX	ADD2XLH	
297	HAABETHO	ADDODET	
298	HAABETKK	ADDXYFY	
299	HAABIYEX	ADDXYIY	
300	HAABKKSX	ADDXYFY	
301	HAABKQAX	ADDXYKQ	
302	HAABMSRX	ADDXYMS	
303	HAABSITX	ADDXTXS	
304	HAABSVAX	ADDXYSV	
305	HAAOSITX	ADDXTXS	
306	HAZBDLHX	ADD2XLH	
307	HCMMYFYX	NBOTCYA	
308	HCMMYMYX	NBOTCYA	
309	HCMMYNYX	NBOTCYA	
310	HCMMZIZX	NBOTCYA	
311	HCMMZQZX	NBOTCYA	
312	HDAMZPZX	JIBAAXH	
313	HECAAFRK	CAIKKAF	
314	HECAMHSX	CAIAOCR	
315	HECAMSRK	CAIKKMS	
316	HECAMSRO	CAIOOMS	
317	HKJKAZAX	NBOXYAZ	
318	HKJJKQAO	NBOOOKQ	
319	HKJJKQAW	NBOOWKQ	
320	HKJJKQAX	NBOXYKQ	
321	HKJKYMYX	UNKXMXS	
322	HKJKYNYX	UNKXMXS	

	AFTN Address	SITA Customer	Remark
323	HKJKZPZX	UNKXMXS	
324	HKJKZQZX	UNKXMXS	
325	HKJKZTZX	UNKXMXS	
326	HKNAAZAX	NBOXYAZ	
327	HKNAKQAW	NBOOWKQ	
328	HKNASITA	SINAAXS	
329	HKNAYFYF	NBOFFYF	
330	HKNAYFYS	NBOSSYF	
331	HLLTAB8U	TIPAB8U	
332	KATLDALW	ATLOWDL	
333	KATLYTAA	MKCOOYF	
334	KBDLTCFD	HDQDDRP	
335	KCMHSOOD	CMHDD9S	
336	KDENXLDU	TSTJD7X	
337	KDHQQHYK	ISTTO8Q	
338	KHDQJBUD	HDQOQB6	
339	KHDQJBUO	HDQOQB6	
340	KHLSSITC	HLSCCXS	
341	KHOUCXHX	HOUCCXH	
342	KHOUPTXH	TEXOPXH	
343	KHOUVVAR	HOUMUV	
344	KHOUVVAX	HOUXYUV	
345	KINDRPAY	HDQDDRP	
346	KINDUSAY	HDQDDRP	
347	KJFKAICO	JFKOOAI	
348	KJFKAZAW	JFKOOAZ	
349	KJFKGDI	JFKGAXH	
350	KJFKIBED	JFKOXIB	
351	KJFKJBUD	HDQOQB6	
352	KJFKPIAW	JFKOWPK	
353	KKJKAICW	NYCOWAI	
354	KLGAJNJX	ATHDDCR	
355	KLGBDACX	LGBBOCR	
356	KLITATND	LITDD8C	
357	KMGESITX	MGEZZXS	
358	KMGESITY	MGEYYXS	
359	KMGESITZ	MGEZZXS	
360	KMIAGTIW	MIADG5Y	
361	KMIAIBED	MIAOXIB	
362	KMKCSITY	MKCYFXS	
363	KNYCAIEH	YULOP3H	
364	KORDIBED	ORDOXIB	
365	KORDXORD	ORDSSCR	
366	KORQSOOD	CMHDD9S	
367	KTGASITB	TGABBXS	
368	KTGASITY	NYCXMXS	
369	KTGASTIA	TGAAAXS	
370	LEBLIBED	BCNOXIB	

	AFTN Address	SITA Customer	Remark
371	LELLKLMK	MADKKKL	
372	LEMDAEAO	MADOOUX	
373	LEMDAFRK	MADKKAF	
374	LEMDAVAO	MADOOAV	
375	LEMDAZAW	MADOWAZ	
376	LEMDBAWK	MADKKBA	
377	LEMDCSAK	MADKKOK	
378	LEMDCUBW	MADOWCU	
379	LEMDDAHK	MADKKAH	
380	LEMDDAHX	MADXYAH	
381	LEMDDLHD	MAD2DLH	
382	LEMDEOXH	MADEOXH	
383	LEMDIBED	MADOXIB	
384	LEMDIBEK	MADKKIB	
385	LEMDIBEO	MADOOIB	
386	LEMDIBET	MADCRIB	
387	LEMDIBEW	MADWOIB	
388	LEMDIBEX	MADXTIB	
389	LEMDRAMK	MADKKAT	
390	LEMDRAMO	MADOOAT	
391	LEMSABK	MADKKSJ	
392	LEMDYFYA	MADAPYF	
393	LEMLBAWO	MADOOBA	
394	LEPAEAO	PMIOUX	
395	LEPATQYX	PMIXYF	
396	LEPAYDPP	PMIXYF	
397	LEPAYFYA	PMIAAYF	
398	LEPAYFYX	PMIXYF	
399	LEPAYQYX	PMIXYF	
400	LFBBYWYX	CQFYCR	
401	LFBCYXYH	CQFYCR	
402	LFBCYXYS	CQFYCR	
403	LFBCYXYX	CQFYCR	
404	LFBCYXYZ	CQFYCR	
405	LFBCZPZX	CQFYCR	
406	LFBCZTZX	CQFYCR	
407	LFBDAFRK	BODKKAF	
408	LFDBAWL	BODLLBA	
409	LFDBAWO	BODOOBA	
410	LFBDCTMA	ZAOPYCR	
411	LFBDDBAO	BODDACR	
412	LFBDXHAF	BODFOCR	
413	LFBDYXYE	CQFYCR	
414	LFBDYXYH	CQFYCR	
415	LFBDYXYX	CQFYCR	
416	LFBFYXYH	CQFYCR	
417	LFBFYXYS	CQFYCR	
418	LFBFYXYX	CQFYCR	

	AFTN Address	SITA Customer	Remark
419	LFBFYXYX	CQFYCR	
420	LFBFZPZX	CQFYCR	
421	LFBFZTZX	CQFYCR	
422	LFBGYXYH	CQFYCR	
423	LFBGYXYS	CQFYCR	
424	LFBGZPZX	CQFYCR	
425	LFBGZTZX	CQFYCR	
426	LFBMYXYE	CQFYCR	
427	LFBMYXYF	CQFYCR	
428	LFBMYXYH	CQFYCR	
429	LFBMYXYI	CQFYCR	
430	LFBMYXYS	CQFYCR	
431	LFBMYXYX	CQFYCR	
432	LFBMZPZX	CQFYCR	
433	LFBMZTZX	CQFYCR	
434	LFBOAFRA	TLKAAF	
435	LFBOAFRK	TLKCAF	
436	LFBOAIBK	TLKOW7X	
437	LFBOAIBN	TLKOW7X	
438	LFBOAIBO	TLKBN7X	
439	LFBOAIBY	TLKBH7X	
440	LFBTBIEO	PUFAMCR	
441	LFBWYCYX	MTMYCR	
442	LFBWYWYS	CQFYCR	
443	LFBWYWYX	CQFYCR	
444	LFCCCTMY	ZAOPYCR	
445	LFDNZPZX	CQFYCR	
446	LFEEYWYX	CQFYCR	
447	LFAYAYC	CQFYCR	
448	LFAYXVN	CQFYCR	
449	LFFFFLYM	CQFYCR	
450	LFFFYWYX	CQFYCR	
451	LFAXHAX	HDQEOXH	
452	LFIOAIBO	XYTBH7X	
453	LFKBAFRK	BIKAF	
454	LFKBXHAA	BIAAXH	
455	LFKXKAK	CLYKXK	
456	LFKJAFRK	AJKAF	
457	LFKJAFRO	AJAOAF	
458	LFKJCCMK	AJKKXK	
459	LFKJCCMX	AJAXYK	
460	LFKJXKAK	AJKKXK	
461	LFKSYXYE	CQFYCR	
462	LFKSYXYH	CQFYCR	
463	LFKSZPZX	CQFYCR	
464	LFKSZTZX	CQFYCR	
465	LFCAFRK	CFEKAF	
466	LFKXHAM	CFEMI8X	

	AFTN Address	SITA Customer	Remark
467	LFLDCTMY	BOUYPCR	
468	LFLGYXYV	CQFYPCR	
469	LFLLAFFRA	LYSKAAF	
470	LFLLAFFRK	LYSKHAF	
471	LFLLAFFRO	LYSOOAF	
472	LFLLBAWO	LYSOOBA	
473	LFLLBZHK	LYSKKDB	
474	LFLLPBBO	LYSKKYS	
475	LFL LXHAA	LYSAAXH	
476	LFLXCTMY	CHRYPCR	
477	LFLXXHAX	CHRXTXH	
478	LFLYCTMY	LYNYPCR	
479	LFMATJTX	MRSOPT7	
480	LFMICTMA	QIEYPCR	
481	LFMICTMB	CEQYPCR	
482	LFMICTMC	MRSYPCR	
483	LFMICTMD	AVNYPCR	
484	LFMICTMY	QIEYPCR	
485	LFMIYXYE	CQFYPCR	
486	LFMIYXYH	CQFYPCR	
487	LFMIYXYR	CQFYPCR	
488	LFMIYXYX	CQFYPCR	
489	LFMIZPZX	CQFYPCR	
490	LFMIZTZX	CQFYPCR	
491	LFMJYWYX	CQFYPCR	
492	LFMLAFRH	MRSHHAF	
493	LFMLAFRO	MRSOAF	
494	LFMLAZAK	MRSKKAZ	
495	LFMLCCMO	MRSOXXK	
496	LFMLCTMY	MRSYPCR	
497	LFMLDAHK	MRSKKAH	
498	LFMLELYK	MRSKKLY	
499	LFMLXHAP	MRSKPXH	
500	LFMMYWYX	CQFYPCR	
501	LFMNAFRA	NCEKAAF	
502	LFMNAFRC	NCEPOAF	
503	LFMNAFRK	NCEKKAF	
504	LFMNAFRO	NCEOAF	
505	LFMNBABK	NCEKKBA	
506	LFMNBABO	NCEOBA	
507	LFMNCMK	NCEKKXK	
508	LFMNLITO	NCEOOFU	
509	LFMOYXYH	CQFYPCR	
510	LFMOZPZX	CQFYPCR	
511	LFMOZTZX	CQFYPCR	
512	LFMTAFRK	MPLKKAF	
513	LFMTYAYO	MPLOOYA	
514	LFMVCTMY	AVNYPCR	

	AFTN Address	SITA Customer	Remark
515	LFMYXYH	CQFYPCR	
516	LFMYXYP	CQFYPCR	
517	LFMYXYX	CQFYPCR	
518	LFMYXYX	CQFYPCR	
519	LFMYZPZX	CQFYPCR	
520	LFMYZTZX	CQFYPCR	
521	LFOACTMA	BOUYPCR	
522	LFOACTMB	CHRYPCR	
523	LFOAYWYA	CQFYPCR	
524	LFOAYXYH	CQFYPCR	
525	LFOAYXYS	CQFYPCR	
526	LFOAZPZX	CQFYPCR	
527	LFOAZTZX	CQFYPCR	
528	LFOBAFRK	BVAKKAF	
529	LFOBXHAK	BVAKKXH	
530	LFOCYXYE	CQFYPCR	
531	LFOCYXYH	CQFYPCR	
532	LFOECTMH	LEHYPCR	
533	LFOEYXYE	CQFYPCR	
534	LFOEYXYF	CQFYPCR	
535	LFOEYXYG	CQFYPCR	
536	LFOEYXYH	CQFYPCR	
537	LFOEYXYS	CQFYPCR	
538	LFOEZPZX	CQFYPCR	
539	LFOEZTZX	CQFYPCR	
540	LFOJCIEL	CQFYPCR	
541	LFOJXYE	CQFYPCR	
542	LFOJXYF	CQFYPCR	
543	LFOJXYG	CQFYPCR	
544	LFOJXYH	CQFYPCR	
545	LFOJXYX	CQFYPCR	
546	LFOJZPZX	CQFYPCR	
547	LFOJZTZX	CQFYPCR	
548	LFOKXHAO	XCRAPXH	
549	LFOXPXAX	UROAPXH	
550	LFOTYXYF	CQFYPCR	
551	LFOTYXYH	CQFYPCR	
552	LFOTYXYS	CQFYPCR	
553	LFOTZPZX	CQFYPCR	
554	LFOTZTZX	CQFYPCR	
555	LFPBBBLO	LBGKOCR	
556	LFPBBYGY	LBGBGCR	
557	LFPBCTMY	LBGYPCR	
558	LFPBDSOO	LBGDFXH	
559	LFPBIXRO	PARIXXH	
560	LFPBLEAK	LBGFECR	
561	LFPBLEAO	LBGFECR	
562	LFPBLXRO	LBGLXCR	

	AFTN Address	SITA Customer	Remark
563	LFPBTSAX	LBGAPXH	
564	LFPCCIEL	CQFYCR	
565	LFPCTMB	CSFYCR	
566	LFPCTMY	CSFYCR	
567	LFPCYXYE	CQFYCR	
568	LFPCYXYF	CQFYCR	
569	LFPCYXYH	CQFYCR	
570	LFPCZPZX	CQFYCR	
571	LFPCZTZX	CQFYCR	
572	LFPGACAW	CDGOWAC	
573	LFPGACAX	CDGXAC	
574	LFPGAFLK	CDGKKSU	
575	LFPGAFRI	CDGIIAF	
576	LFPGAFRJ	CDGJJAF	
577	LFPGAFRK	CDGKKAF	
578	LFPGAFRM	CDGXAF	
579	LFPGAFRN	CDGNNAF	
580	LFPGAFRO	CDGOOAF	
581	LFPGAFRW	PAR03XS	
582	LFPGAFRX	CDGXAF	
583	LFPGAICO	CDGOOAI	
584	LFPGARGO	CDGOOAR	
585	LFPGAZAK	CDGKKAZ	
586	LFPGBAWE	CDGEEBA	
587	LFPGBAWH	CDGHHBA	
588	LFPGBAWO	CDGOOBA	
589	LFPGBAWX	CDGXIBA	
590	LFPGBLEO	CDGBLXH	
591	LFPGCOAO	CDGOOCO	
592	LFPGCPAO	CDGOWCX	
593	LFPGDAHO	CDGOOAH	
594	LFPGLLHE	CDGEELH	
595	LFPGFDXO	CDGOOFX	
596	LFPGFPOG	RSYPGCR	
597	LFPGFPOO	RSYOOCR	
598	LFPGJALO	CDGOOJL	
599	LFPGKALO	CDGOOKE	
600	LFPGKLMK	CDGKKKL	
601	LFPGMASK	CDGKKMH	
602	LFPGPIAK	CDGKKPK	
603	LFPGPIAW	CDGOWPK	
604	LFPGSASO	CDGOOSK	
605	LFPGSVAO	CDGOOSV	
606	LFPGTHAK	CDGKKTG	
607	LFPGUALD	CDGDDUA	
608	LFPGUALK	CDGKKUA	
609	LFPGXHAK	CDGKKXH	
610	LFPGXHAL	CDGLLXH	

	AFTN Address	SITA Customer	Remark
611	LFPGXHAO	CDGOWXH	
612	LFPGXHAU	CDGSPXH	
613	LFPGXHCO	CDGCF7X	
614	LFPGXLFO	PAROOSE	
615	LFPGYXYX	CQFYCR	
616	LFPGZPZX	CDGSJXH	
617	LFPJYWZS	CQFYCR	
618	LFPJZXVS	CQFYCR	
619	LFPJZXVD	CQFYCR	
620	LFPNXHAD	TNFJDCR	
621	LFPOAFRA	ORYKAAF	
622	LFPOAFRB	ORYHKAF	
623	LFPOAFRC	ORYPOAF	
624	LFPOAFRE	ORYLIAF	
625	LFPOAFRI	ORYIIAF	
626	LFPOAFRL	ORYLLAF	
627	LFPOAFRM	ORYXYAF	
628	LFPOAFRO	ORYOOAF	
629	LFPOAFRS	ORYOAAF	
630	LFPOAFRT	ORYXYAF	
631	LFPOAFRV	ORYVVAF	
632	LFPOAFRX	ORYXYAF	
633	LFPOCAJX	ORYAFTX	
634	LFPOCRLO	ORYOOSS	
635	LFPOCRLS	ORYSSSS	
636	LFPOCTMY	ORYYYCR	
637	LFPODAHO	ORYTTAH	
638	LFPOELYK	ORYKKLY	
639	LFPOIBEK	ORYKKIB	
640	LFPOIRAO	ORYOOIR	
641	LFPORAMK	ORYKKAT	
642	LFPOTAPO	ORYOOTP	
643	LFPOTARK	ORYKKTU	
644	LFPOTVFO	ORYOOTO	
645	LFPOXHAK	ORYKKXH	
646	LFPSAFRK	PAR04XS	
647	LFPSAFRO	PAROOAF	
648	LFPSAFRW	PAR01XS	
649	LFPSAFRX	PARXYAF	
650	LFPSAMCW	PAROWKM	
651	LFPSBAWO	PAROABA	
652	LFPSGAMY	PARGACR	
653	LFPSKACX	PARXYKU	
654	LFPSMEAX	PARXYME	
655	LFPSSEUO	PAROOSE	
656	LFPSSITE	PARAEXS	
657	LFPSSITEF	PARFFXS	
658	LFPSITX	SINXTXS	

	AFTN Address	SITA Customer	Remark
659	LFPSSYRX	PARXYRB	
660	LFPSTAPX	PARXYTP	
661	LFPSTHYT	PARTTTK	
662	LFPSUVAO	PAROOUV	
663	LFPTCTMY	POXYYCR	
664	LFPVCTMI	TNFYYCR	
665	LFPVCTMJ	POXYYCR	
666	LFPVCTMK	ORYYYCR	
667	LFPVCTMN	DIJYYCR	
668	LFPVCTMP	LMEYYCR	
669	LFPVCTMQ	LBGYYCR	
670	LFPVYXYC	CQFYYCR	
671	LFPVYXYE	CQFYYCR	
672	LFPVYXYH	CQFYYCR	
673	LFPVZPZX	CQFYYCR	
674	LFPVZTZX	CQFYYCR	
675	LFPYAFRK	PARKKAF	
676	LFPYYFCO	PAREP7X	
677	LFPYYLYX	CQFYYCR	
678	LFPYZMFP	PAREP7X	
679	LFQIYXYH	CQFYYCR	
680	LFQIZPZX	CQFYYCR	
681	LFQIZTZX	CQFYYCR	
682	LFQQAFRK	LILKKAF	
683	LFQQAFRV	LILVVAF	
684	LFQQXHAA	LILCHXH	
685	LFRKCLGO	CFRKKCR	
686	LFRMCTMY	LMEYYCR	
687	LFRRYWYX	CQFYYCR	
688	LFRSAFRK	NTEKKAF	
689	LFRSITFK	PAR02XS	
690	LFRSRGIO	NTEONYS	
691	LFRTYOYX	SBKAPXH	
692	LFRTZPZX	SBKAPXH	
693	LFRTZTZX	SBKAPXH	
694	LFRUBZHO	MXNOODB	
695	LFRUBZHX	MXNXYDB	
696	LFSBAFRK	MLHKKAF	
697	LFSCYXYH	CQFYYCR	
698	LFSCZPZX	CQFYYCR	
699	LFSCZTZX	CQFYYCR	
700	LFSDCTMY	DIJYYCR	
701	LFSDYXYH	CQFYYCR	
702	LFSDZPZX	CQFYYCR	
703	LFSDZTZX	CQFYYCR	
704	LFSFCTMA	LYNYYCR	
705	LFSFYIYA	CQFYYCR	
706	LFSFYWYA	CQFYYCR	

	AFTN Address	SITA Customer	Remark
707	LFSFYXYE	CQFYYCR	
708	LFSFYXYF	CQFYYCR	
709	LFSFYXYS	CQFYYCR	
710	LFSFYXYX	CQFYYCR	
711	LFSFZPZX	CQFYYCR	
712	LFSFZTZX	CQFYYCR	
713	LFSGXHAK	EPLKKXH	
714	LFSIYXYH	CQFYYCR	
715	LFSIZPZX	CQFYYCR	
716	LFSIZTZX	CQFYYCR	
717	LFSOYXYH	CQFYYCR	
718	LFSOXYYS	CQFYYCR	
719	LFSOZPZX	CQFYYCR	
720	LFSOZTZX	CQFYYCR	
721	LFSRYXYH	CQFYYCR	
722	LFSRYXYX	CQFYYCR	
723	LFSRZPZX	CQFYYCR	
724	LFSRZTZX	CQFYYCR	
725	LFSTAFRK	SXBKKAF	
726	LFSXYXYE	CQFYYCR	
727	LFSXYXYF	CQFYYCR	
728	LFSXYXYH	CQFYYCR	
729	LFSXYXYS	CQFYYCR	
730	LFSXZPZX	CQFYYCR	
731	LFSXZTZX	CQFYYCR	
732	LFTHXHAX	TLNAPXH	
733	LFTWDEFO	FNIAXXH	
734	LFTZXHAX	LTTAPXH	
735	LFWBYWYX	CQFYYCR	
736	LFXAYXYH	CQFYYCR	
737	LFXCYXYX	CQFYYCR	
738	LFXKYXYX	CQFYYCR	
739	LFXOYCYX	CQMYYCR	
740	LFXOYWYX	CQFYYCR	
741	LFXOYWZQ	CQFYYCR	
742	LFXRYXYX	CQFYYCR	
743	LFXVYCYX	LYNYYCR	
744	LFXVYWYX	CQFYYCR	
745	LFXVYWZQ	CQFYYCR	
746	LFXVYXYM	CQFYYCR	
747	LFXVZXVS	CQFYYCR	
748	LFYAYCYX	DRAYYCR	
749	LFYAYWYX	CQFYYCR	
750	LFYRYXYV	CQFYYCR	
751	LFYUYXYX	CQFYYCR	
752	LFYXCIEL	CQFYYCR	
753	LFYXYXYD	CQFYYCR	
754	LGATAEEX	ATHOWA3	

	AFTN Address	SITA Customer	Remark
755	LGATAFRK	ATHKKAF	
756	LGATCPAX	ATH15XS	
757	LGATCRLO	ATHXXXS	
758	LGATNOAX	ATH90XS	
759	LGATOALT	ATHXTOA	
760	LGATOALX	ATHXYOA	
761	LGATQMYX	ATHXXXS	
762	LGATSITA	ATH01XS	
763	LGATSITB	ATH01XS	
764	LGATSITD	ATH01XS	
765	LGATSITF	ATH02XS	
766	LGATSITN	ATH03XS	
767	LGATSITT	ATH04XS	
768	LGATSITX	ATH86XS	
769	LGATTMHM	ATHXXXS	
770	LGATXMYX	ATHXXXS	
771	LGATYNYX	ATHXXXS	
772	LGATZRZX	ATHXXXS	
773	LGATZXAV	ATHXXXS	
774	LGATZXZV	ATHXXXS	
775	LGAVAEEX	ATHOWA3	
776	LGAVAFIX	ATH46XS	
777	LGAVAVWF	ATHARXH	
778	LGAVBERF	ATHAPAB	
779	LGAVCPAX	ATH15XS	
780	LGAVINJX	ATHDDCR	
781	LGAVMONF	ATHAPZB	
782	LGAVNOAX	ATH90XS	
783	LGAVOALT	ATHXTOA	
784	LGAVSITA	ATH01XS	
785	LGAVSITB	ATH01XS	
786	LGAVSITD	ATH01XS	
787	LGAVSITF	ATH02XS	
788	LGAVSITN	ATH03XS	
789	LGAVSITT	ATH04XS	
790	LGAVSITX	ATH86XS	
791	LGAVTRAF	ATHAPHV	
792	LGAVWEOA	ATHXXXS	
793	LIIDEEZV	MXPGW8X	
794	LIRFAZAW	F00WAZ	
795	LLAEROHL	TLVAHXH	
796	LLBGGHIA	TLVFZXH	
797	LMMLAMCW	MLAOWKM	
798	LOOOAUAO	VIEOOOS	
799	LOOOLDAX	VIEXYNG	
800	LOOYIEYX	VIEXBYA	
801	LOWWAUAO	VIEOOOS	
802	LOWWLDAX	VIEXYNG	

	AFTN Address	SITA Customer	Remark
803	LOWWYIEYX	VIEXBYA	
804	LPAZSATA	SMAKLSP	
805	LPCRSATW	CVUSAXH	
806	LPFGUALD	LISDDUA	
807	LPFSSEUO	PARODSE	
808	LPGRSATW	GRWSAXH	
809	LPPIISATW	PIXSAXH	
810	LPPTAFRK	LISKKAF	
811	LPPTBAWK	LISKKBA	
812	LPPTDLHK	LISYKLH	
813	LPPTHEOW	LISKOXH	
814	LPPTHFYO	LISOZ5K	
815	LPPTKLMK	LISKKKL	
816	LPPTLAMK	LISKKTM	
817	LPPTMMZW	LISOWYU	
818	LPPTNJEW	LISOW1I	
819	LPPTPEFO	GVAPA7X	
820	LPPTPGAO	LISOWNI	
821	LPPTSATW	LISOWSP	
822	LPPTTAPA	FAOETP	
823	LPPTTAPB	GIGOWTP	
824	LPPTTAPC	LISCHTP	
825	LPPTTAPD	GRUOWTP	
826	LPPTTAPE	RECKKTP	
827	LPPTTAPF	FNCKOTP	
828	LPPTTAPG	FORKPTP	
829	LPPTTAPH	SSAKPTP	
830	LPPTTAPI	EWKKTTP	
831	LPPTTAPJ	OXBKKTP	
832	LPPTTAPK	LADKKTP	
833	LPPTTAPL	CCSKKTP	
834	LPPTTAPM	LISKUTP	
835	LPPTTAPN	MPMKKTP	
836	LPPTTAPO	LISYOTP	
837	LPPTTAPP	OPOOETP	
838	LPPTTAPQ	ORYKLTP	
839	LPPTTAPR	HREKKTP	
840	LPPTTAPT	LADOWTP	
841	LPPTTAPU	SIDKKTP	
842	LPPTTAPV	HORKKTP	
843	LPPTTAPW	TERKZTP	
844	LPPTTAPX	LISXVTP	
845	LPPTTAPY	LISKUTP	
846	LPPTTAPZ	DKRKKTP	
847	LPPTYAYC	LISCAYA	
848	LPPTYDYA	LISOWXH	
849	LPPTYKYF	LISOWXH	
850	LPPTYKYX	LISOWXH	

	AFTN Address	SITA Customer	Remark
851	LPSJSATW	SJZSAXH	
852	LROPROTO	OTPOORO	
853	LSGGDGXX	GVADAXH	
854	LSGGEAVX	LJUEAXH	
855	LSGGGJCX	GVAGJCR	
856	LSGGIATA	GVALDXB	
857	LSGGIATX	GVAXYXB	
858	LSGGPJSX	GVAPJPP	
859	LSGSAJSX	SIRAJXH	
860	LSGSYDYX	SIRAPXH	
861	LSZBNUMX	BRNNMXH	
862	LSZHCLCX	ZRHOAXH	
863	LSZHCLXA	ZRHCL8X	
864	LSZHEDWX	ZRHEOWK	
865	LSZHEXHX	ZRHEXXH	
866	LSZHJLXX	ZRHJKXH	
867	LSZHNFX	ZRHNFCR	
868	LSZHOAWX	ZRHOC2L	
869	LSZHPJSP	ZRHPPPP	
870	LSZHPJSX	ZRHPPPP	
871	LSZHPJZX	ZRHPJXH	
872	LSZHVCNX	ZRHAV8X	
873	LSZHVPZA	ZRHAAYF	
874	LSZMCRXX	GVAKKLX	
875	LSZMCRXR	BSLFXLX	
876	LSZMFHEX	BSLOOXH	
877	LSZMYYYX	ZRHA8X	
878	LTBAGASX	ISTGSXH	
879	LTBAIRAK	ISTKKIR	
880	LTBAIRAX	ISTKKIR	
881	LTBATHYW	ISTOWTK	
882	LTBAYYYX	ISTUSXH	
883	LTBSSBAX	DLMSBXH	
884	MDSIDIBED	SDQOXIB	
885	MMMXLAFX	MEXALXH	
886	MUFHYCYX	HAVYVCU	
887	MUHAYFYA	HAVXTCU	
888	MUHAYSYA	HAVXGCU	
889	MULHYAYX	HAVYACU	
890	MULHYFYX	HAVXVCU	
891	NTAAAFRO	PPTXYFF	
892	NTAATHTE	PPTOWTN	
893	NTAATHTO	PPTOOTN	
894	NTAAVTAO	PPTOWVT	
895	NWWNACIX	NOUXYSB	
896	NWWNAFRK	NOUKKAF	
897	NWWNANZX	NOUXYNZ	
898	NWWNQFAX	NOUXYQF	

	AFTN Address	SITA Customer	Remark
899	NWWNSITX	SINXTXS	
900	NWWNTPCX	NOUTYSB	
901	NWWNXHKL	NOUKLXH	
902	NWWWACIX	NOUXYSB	
903	NWWWAFRK	NOUKKAF	
904	NWWWQFAX	NOUXYQF	
905	NZAAJALO	AKLOOJL	
906	NZAAJALX	AKLXYJL	
907	NZAKARGG	AKLXGAR	
908	NZAKSITX	SINXTXS	
909	NZCHYFYX	CHCXYYF	
910	NZCHYNYX	CHCXYYF	
911	NZCHZPZX	CHCXYYF	
912	NZPMREGX	PMRKKQF	
913	NZWBREGX	BHEKKQF	
914	NZWNREGX	WLGXYQF	
915	NZWNZQRX	WLGXYQF	
916	OBBIYFYX	BAHXYYF	
917	OBBIYMYX	BAHXYYF	
918	OBBIZPZX	BAHXYYF	
919	OEJDSVAY	JEDYFSV	
920	OEJNSVAN	JEDNNSV	
921	OIIIAFRK	THRKKAF	
922	OIIIAFRX	THRXYAF	
923	OIIIAUAK	THRKKOS	
924	OIIIAZAK	THRKKAZ	
925	OIIIAZAX	THRXYAZ	
926	OIIDLHS	THRSSLH	
927	OIIDLHX	THR2XLH	
928	OIIIGFAX	THRXYGF	
929	OIIIRAA	THRAAIR	
930	OIIIRAC	THRCCIR	
931	OIIIRAD	THRDDIR	
932	OIIIRAG	THRXCIR	
933	OIIIRAI	THRIIR	
934	OIIIRAN	THRNIR	
935	OIIIKACT	THRTTKU	
936	OIIIKLMK	THRKKKL	
937	OIIIKLMX	THRXYKL	
938	OIIPIAU	THRUUPK	
939	OIIISITY	THRYFXS	
940	OIIISVAX	THRXXSV	
941	OIIISYRT	THRTTRB	
942	OIIISYRX	THRXYRB	
943	OIIITHYT	THRTTK	
944	OIIITHYX	THRXYTK	
945	OIIIUAEK	THRKKEK	
946	OIIYFYX	THRXYTF	

	AFTN Address	SITA Customer	Remark
947	OIIITYYE	THRXTYF	
948	OIITSITN	THRNMXS	
949	OIITSYRT	THRTTRB	
950	OJAILRSO	AMMOPRZ	
951	OLBAAFRK	BEYKCAF	
952	OLBAAFRX	BEYXYAF	
953	OLBAAICX	BEYXYAI	
954	OLBAALKX	BEYXYUL	
955	OLBAAZAX	BEYXYAZ	
956	OLBADLHX	BEY2XLH	
957	OLBAESMX	BEYEAXH	
958	OLBAGFAP	BEYPPGF	
959	OLBAGFAX	BEYXYGF	
960	OLBAKACX	BEYXYKU	
961	OLBAKKAZ	BEYKKAZ	
962	OLBAKKRJ	BEYKKRJ	
963	OLBAKZRJ	BEYKZRJ	
964	OLBAMEAE	BEYEEME	
965	OLBAMEAO	BEYOOME	
966	OLBAMEAW	BEYOWME	
967	OLBAMEAX	BEYXYME	
968	OLBASITX	SINXTXS	
969	OLBASVAK	BEYKKSX	
970	OLBASVAS	BEYSSSV	
971	OLBASVAX	BEYXYSV	
972	OLBATHYX	BEYXYTK	
973	OLBAUPAZ	BEYUPAZ	
974	OLBAUVAZ	BEYUVAZ	
975	OLBAXHAP	BEYKPxH	
976	OMAEYNYX	DXBXYFF	
977	OMAEZQZX	DXBXYFF	
978	OMDBKQAX	DXBXYKQ	
979	OMDBMASD	DXBDDMH	
980	OMDBUAEK	DXBKKEK	
981	OMDBYAYX	DXBAPYF	
982	OMDBYMYX	DXBXYFF	
983	OMDBZPZX	DXBXYFF	
984	OMDBZTZX	DXBXYFF	
985	OMDMZTZX	DXBXYFF	
986	OMFJZTZX	DXBXYFF	
987	OMRKRJET	RKTRJXH	
988	OMSJDVNX	DXBXYFF	
989	OMSJJTLX	DXBXYFF	
990	OMSJLFRX	DXBXYFF	
991	OMSJUASX	SHJWZ7X	
992	OMSJYOYX	DXBXYFF	
993	OMSJZPZX	DXBXYFF	
994	OMSJZQZX	DXBXYFF	

	AFTN Address	SITA Customer	Remark
995	OMSJZTZX	DXBXYFF	
996	OMZZNGXX	DXBXYFF	
997	OPKCAAX	KHIAVXH	
998	OPKCPAV	KHIVTPK	
999	OPLAPIAW	LHEOVPK	
1000	OPRNPIAW	ISBOVPK	
1001	OSDIAFRK	DAMKKAF	
1002	OSDIAFRX	DAMXYAF	
1003	OSDIAZAK	DAMKKAZ	
1004	OSDICPAX	DAMXXCX	
1005	OSDIDAHU	DAMUUAH	
1006	OSDIFASD	DXBPAXH	
1007	OSDIFASX	DAMFAXH	
1008	OSDIFPGX	DAMXYFP	
1009	OSDIGFAO	DAMOOGF	
1010	OSDIGFAS	DAMSSGF	
1011	OSDIHISX	DAMID7X	
1012	OSDI IAWX	DAMTOIA	
1013	OSDI IRAK	DAMKKIR	
1014	OSDI IRAL	DAMLLIR	
1015	OSDI IYEO	DAMOOIY	
1016	OSDI IYEZ	DAMXCIY	
1017	OSDIJXSX	DXBJX7X	
1018	OSDIKACA	KWIOSKU	
1019	OSDIKACB	KWIOSKU	
1020	OSDIKACC	KWIOSKU	
1021	OSDIKACD	KWIOSKU	
1022	OSDIKACE	KWIOSKU	
1023	OSDIKACF	KWIOSKU	
1024	OSDIKACG	KWIOSKU	
1025	OSDIKACH	KWIOSKU	
1026	OSDIKACI	KWIOSKU	
1027	OSDIKACJ	KWIOSKU	
1028	OSDIKACK	DAMKKKU	
1029	OSDIKACL	KWIOSKU	
1030	OSDIKACM	KWIOSKU	
1031	OSDIKACN	KWIOSKU	
1032	OSDIKACO	KWIOSKU	
1033	OSDIKACP	KWIOSKU	
1034	OSDIKACQ	KWIOSKU	
1035	OSDIKACR	DAMRMKU	
1036	OSDIKACS	KWIOSKU	
1037	OSDIKACT	KWIOSKU	
1038	OSDIKACU	KWIOSKU	
1039	OSDIKACV	KWIOSKU	
1040	OSDIKACW	KWIOSKU	
1041	OSDIKACX	KWIOSKU	
1042	OSDIKACY	KWIOSKU	

	AFTN Address	SITA Customer	Remark
1043	OSDIKACZ	KWIOSKU	
1044	OSDIMS RD	DAMDDMS	
1045	OSDIMSRO	DAMOOMS	
1046	OSDIPJSX	DAMXYPP	
1047	OSDISITX	SINXTXS	
1048	OSDISSXH	DAMSSXH	
1049	OSDISVAO	DAMSDSV	
1050	OSDISVAS	DAMSSSV	
1051	OSDISVAX	DAMXYSV	
1052	OSDISYRC	DAMCTRB	
1053	OSDISYRO	DAMOORB	
1054	OSDISYRT	DAMTTRB	
1055	OSDITARC	DAMCCTU	
1056	OSDITHYX	DAMXYTK	
1057	OSDIUA EK	DAMKKEK	
1058	OSDIUASX	DAMWZ7X	
1059	OTBDYAAF	DOHXYYF	
1060	OYSNHMYX	SAHOPIY	
1061	OYSNOOIY	SAHXTIY	
1062	PAENYFYA	ENAAAYF	
1063	PANCNACX	ANCNAXH	
1064	PANCOCBR	ANCOCBR	
1065	PGUMCOAX	GUMXYCO	
1066	RCTPCALC	TPECCCI	
1067	RCTPCALN	TPENNCI	
1068	RCTPCALO	TPEOOCI	
1069	RCTPCALY	TPEYYCI	
1070	RCTPEVAO	TPEOBR	
1071	RCTPSITC	PARADX	
1072	RCTPSITT	PARAEXS	
1073	RCTPSITX	SINXTXS	
1074	RCTPYAYX	TPEXYA	
1075	RCTPYFYX	TPEXYF	
1076	RCTPZRZX	TPEXYF	
1077	RFPOARFO	ORYALXH	
1078	RPLBFDXX	MNLXYFX	
1079	RPLLJALO	MNLOOJL	
1080	RPLLSITA	MNLAAYF	
1081	RPLLSITS	MNL SHXS	
1082	RPLLSITX	MNLXTXS	
1083	RPLLTHAO	MNLOOTG	
1084	RPLLYAYX	MNLXYA	
1085	SAEZIBED	EZE OXIB	
1086	SBGLIBED	GIGOXIB	
1087	SCALLANW	SCLOWLA	
1088	SCEDLANO	SCLOOLA	
1089	SCEDLANW	SCLOWLA	
1090	SCELIBED	SCLOXIB	

	AFTN Address	SITA Customer	Remark
1091	SCCELLANG	SCLXGLA	
1092	SCCELLANO	SCLXFLA	
1093	SCCELLANW	SCLOWLA	
1094	SCCELLCOO	SCLOALA	
1095	SCELSITX	SINXTXS	
1096	SCELXHAA	SCLACXH	
1097	SITASITA	SINMSXS	
1098	SITXYFYX	SINXTXS	
1099	TTPPBWAO	POSOOBW	
1100	UAAA BMKX	ALAXYYF	
1101	UAAACCAR	ALARMCA	
1102	UAAAOZUX	ALAXYYF	
1103	UGEABPXX	MOWXYF	
1104	UGEUXZXZ	MOWXYF	
1105	UGGGZTZ	TBSXYF	
1106	UHMLYMYX	MOWXYF	
1107	UKBBUIRX	KBPIN7X	
1108	UKBBYDPP	KBPXYF	
1109	UKBBYDYU	KBPXYF	
1110	UKBBYDYX	KBPXYF	
1111	UKBBYFYX	KBPXYF	
1112	UKBBYWJJ	KBPXYF	
1113	UKKACGXX	IEVCGPS	
1114	UKKKSITX	SINXTXS	
1115	UKKKYFYX	IEVXYF	
1116	UKKKYNYX	IEVXYF	
1117	UMMMSITX	SINXTXS	
1118	UMMTX CX	MOWXYAL	
1119	UNKLZXZX	MOWXYF	
1120	UNNTBFDU	OVBBFXH	
1121	UTDDSMRX	DYUTO4J	
1122	UTTAUZBL	MOWLLHY	
1123	UUEEYMYX	SVOXYF	
1124	UUEEZTZ	SVOXYF	
1125	UUEUXZXZ	MOWXYF	
1126	UUUUSITX	SINXTXS	
1127	UUUUTSOD	MOWDDUN	
1128	UUUUTSOJ	MOWJJUN	
1129	UUUUYEYX	MOWXYF	
1130	UUUUYFYX	MOWXYF	
1131	UUUUYFYZ	MOWXC YF	
1132	UUUUYMYX	MOWXYF	
1133	UUUUYN YX	MOWXYF	
1134	UUWVZQZX	MOWXYF	
1135	UUZZYFYX	MOWXYF	
1136	UUZZYNYX	MOWXYF	
1137	UWLWIEBF	MOWXYF	
1138	VABBAICO	BOMOOAI	

	AFTN Address	SITA Customer	Remark
1139	VABBAICX	BOMXYAI	
1140	VABBKFRX	TULAF1S	
1141	VABBSITX	BOMXNXS	
1142	VABBSVAO	BOMOCSV	
1143	VCBIZQZX	CMBXYFYF	
1144	VCCCYPYX	CMBXYFYF	
1145	VCCZQZX	CMBXYFYF	
1146	VDPPYAYC	PNHCAYA	
1147	VGHQYFYX	DACXYFYF	
1148	VHHHCPAC	HKGXXCX	
1149	VHHHCPAD	HKGXXCX	
1150	VHHHCPAH	HKGHHCX	
1151	VHHHCPAI	HKGXXCX	
1152	VHHHCPAO	HKGOWCX	
1153	VHHHCPAP	HKGKCCX	
1154	VHHHCPAQ	HDQOMCX	
1155	VHHHCPAV	HKGVOCX	
1156	VHHHCPAW	HKGOWCX	
1157	VHHHCPAX	HKGXXCX	
1158	VHHHCPAY	HKGYYCX	
1159	VHHHNMCP	HDQOOCX	
1160	VHHHPJSX	HKGPJPP	
1161	VHHHSITX	SINXTXS	
1162	VHHHYMYX	HKGXYUA	
1163	VHHHYNYR	HDQOOCX	
1164	VHHHYQYX	HKGXQUA	
1165	VHHHYUYX	HKGXUUA	
1166	VHZZCPAY	HKGOWCX	
1167	VHZZNMXX	HDQOOCX	
1168	VIDPAICO	DELOOAI	
1169	VQPRDRKX	QJCDDKB	
1170	VTBBAARK	BKKKKOZ	
1171	VTBBAARX	BKKXYOZ	
1172	VTBBAFLX	BKKXYSU	
1173	VTBBAFRR	BKKRMAF	
1174	VTBBAFRX	BKKXYAF	
1175	VTBBAICK	BKKKKAI	
1176	VTBBAICO	BKKOOAI	
1177	VTBBAICR	BKKRMAI	
1178	VTBBAICX	BKKXYAI	
1179	VTBBAIOW	BKKXYFYF	
1180	VTBBAPDU	BKKXYFYF	
1181	VTBBAZAX	BKKXYAZ	
1182	VTBBBBCX	BKKXYBG	
1183	VTBBCALX	BKKXYCI	
1184	VTBBCLXX	BKKXYCV	
1185	VTBBCPAX	BKKXXCX	
1186	VTBBDLHD	BKK2DLH	

	AFTN Address	SITA Customer	Remark
1187	VTBBDLHX	BKK2XLH	
1188	VTBBFDXX	BKKXYFX	
1189	VTBBFINK	BKKKKAY	
1190	VTBBFINX	BKKXYAY	
1191	VTBBGIAX	BKKXYGA	
1192	VTBBJALO	BKKOOJL	
1193	VTBBKACS	BKKSSKU	
1194	VTBBKALX	BKKXYKE	
1195	VTBBKLMK	BKKKKKL	
1196	VTBBMASX	BKKXYMH	
1197	VTBBMSRX	BKKXYMS	
1198	VTBBRBAS	BKKSSBI	
1199	VTBBSASX	BKKXYSK	
1200	VTBBSIAX	BKKXYSQ	
1201	VTBBSITB	BKKBBXS	
1202	VTBBSITX	BKKXTXS	
1203	VTBDADMA	BKKAAXH	
1204	VTBDAZAW	BKKOWAZ	
1205	VTBDAZAX	BKKXYAZ	
1206	VTBDGFAO	BKKOOGF	
1207	VTBDHANK	BKKHAXH	
1208	VTBDKACO	BKKOOKU	
1209	VTBDTHAW	BKKOWTG	
1210	VTBDYMYX	SINYJXS	
1211	VTBSTHAW	HDQOWTG	
1212	VTSPTHAU	BKKUUTG	
1213	VVVVYAAN	HANXYYA	
1214	VVVVZGZX	HANXYFYF	
1215	VYYYYAYX	RGNXYYA	
1216	VYYYYNYX	RGNXYYF	
1217	WIIIDPP	CGKXYFYF	
1218	WIIINYNYX	CGKXYFYF	
1219	WIIIZQZX	CGKXYFYF	
1220	WIIIZRZX	CGKXYFYF	
1221	WMKKCALO	KULOOCI	
1222	WMKKCALX	KULXYCI	
1223	WMKKCPAX	KULXXCX	
1224	WMKKFOFX	SINFFXH	
1225	WMKKJALO	KULOOJL	
1226	WMKKMASD	DPCNMMH	
1227	WMKKMASF	DPCCFMH	
1228	WMKKMASU	KULUUMH	
1229	WMKKSIAO	SINOC SQ	
1230	WMKKSITN	SINNMXS	
1231	WMKKTHAO	KULOOTG	
1232	WMLLMASD	KULDDMH	
1233	WMSATHTX	KULXTTH	
1234	WSSLCMPL	SINOPXH	

	AFTN Address	SITA Customer	Remark
1235	WSSLPJSX	XSPJPJP	
1236	WSSLUVAO	XSPPOUV	
1237	WSSSACAX	SINOJSQ	
1238	WSSSANZX	SINOJSQ	
1239	WSSSCCAX	SINOJSQ	
1240	WSSSCLXX	SINOJSQ	
1241	WSSSEVAX	SINOJSQ	
1242	WSSSFFOX	SINFFXH	
1243	WSSSIATA	SINESXB	
1244	WSSSJALJ	SINJJJL	
1245	WSSSJALO	SINOOJL	
1246	WSSSJALQ	SINQQJL	
1247	WSSSPALX	SINOJSQ	
1248	WSSSPFAX	SINPFCR	
1249	WSSSRJAX	SINOJSQ	
1250	WSSSRNAX	SINOJSQ	
1251	WSSSSIAA	SINOOSQ	
1252	WSSSSIAB	SINOOSQ	
1253	WSSSSIAC	SINOOSQ	
1254	WSSSSIAD	SINOOSQ	
1255	WSSSSIAE	SINOOSQ	
1256	WSSSSIAF	SINOBSQ	
1257	WSSSSIAG	SINOOSQ	
1258	WSSSSIAH	SINOOSQ	
1259	WSSSSIAI	SINWISQ	
1260	WSSSSIAJ	SINOJSQ	
1261	WSSSSIAK	SINOOSQ	
1262	WSSSSIAL	SINOOSQ	
1263	WSSSSIAM	SINOOSQ	
1264	WSSSSIAN	SINOOSQ	
1265	WSSSSIAO	SINOOSQ	
1266	WSSSSIAP	SINOOSQ	
1267	WSSSSIAQ	SINOOSQ	
1268	WSSSSIAR	SINOOSQ	
1269	WSSSSIAS	SINOOSQ	
1270	WSSSSIAT	SINOOSQ	
1271	WSSSSIAU	SINOOSQ	
1272	WSSSSIAV	SINOOSQ	
1273	WSSSSIAW	SINOOSQ	
1274	WSSSSIAX	SINOBSQ	
1275	WSSSSIAY	SINOOSQ	
1276	WSSSSIAZ	SINOOSQ	
1277	WSSSSITB	QXT05XS	
1278	WSSSSITW	SINXWXS	
1279	WSSSSITX	SINXTXS	
1280	WSSSSITY	SINXMXS	
1281	WSSSSITZ	SINXTXS	
1282	WSSSSLKO	SINOOMI	

	AFTN Address	SITA Customer	Remark
1283	WSSSSVAX	SINOJSQ	
1284	WSSSXBOA	SINOO3Y	
1285	YBBBYFYS	BNEXSYF	
1286	YMMCXYX	MELXYFF	
1287	YMLLYDPP	MELXYFF	
1288	YMLLYFYX	MELXYFF	
1289	YMMZOX	MELXYFF	
1290	YMMZQZA	MELXYFF	
1291	YMMZQZX	MELXYFF	
1292	YPPHYDPP	PERXYFF	
1293	YPPHRZA	PERXYFF	
1294	YPPHZTZ	PERXYFF	
1295	YPRFMYX	PERXYFF	
1296	YSSSZDZX	SYDAPYF	
1297	YSSYAZAX	SYDXYAZ	
1298	YSSYCPAK	SYDKKCX	
1299	YSSYCPAX	SYDXXCX	
1300	YSSYKLMK	SYDKKKL	
1301	YSSYQFAA	SYDXJQF	
1302	YSSYQFAB	SYDXJQF	
1303	YSSYQFAC	SYDXJQF	
1304	YSSYQFAD	SYDXJQF	
1305	YSSYQFAE	SYDXJQF	
1306	YSSYQFAF	SYDXJQF	
1307	YSSYQFAG	SYDXJQF	
1308	YSSYQFAH	SYDXJQF	
1309	YSSYQFAI	SYDXJQF	
1310	YSSYQFAJ	SYDXJQF	
1311	YSSYQFAK	SYDXJQF	
1312	YSSYQFAL	SYDXJQF	
1313	YSSYQFAM	SYDXJQF	
1314	YSSYQFAN	SYDXJQF	
1315	YSSYQFAO	SYDXJQF	
1316	YSSYQFAP	SYDXJQF	
1317	YSSYQFAQ	SYDXJQF	
1318	YSSYQFAR	SYDXJQF	
1319	YSSYQFAS	SYDXJQF	
1320	YSSYQFAT	SYDXJQF	
1321	YSSYQFAU	SYDXJQF	
1322	YSSYQFAV	SYDXJQF	
1323	YSSYQFAW	SYDXJQF	
1324	YSSYQFAX	SYDXJQF	
1325	YSSYQFAY	SYDXJQF	
1326	YSSYQFAZ	SYDXJQF	
1327	YSSYSITB	SINXTXS	
1328	YSSYTHAW	SYDOWTG	

A.2 Conversion table SITA to AFTN addresses (XA Table) (Dec 2012)

	SITA Address	AFTN Address	Remark
1	BREXYF	EDDWYFYX	
2	CGNXYYF	EDDKYFYX	
3	DRSXYYF	EDDCYFYX	
4	DUSXYYF	EDDLYFYX	
5	ERFXYYF	EDDEYFYX	
6	FMOXYYF	EDDGYFYX	
7	FRAJYYF	EDDDYFYJ	
8	FRAXYF	EDDFYFYX	
9	FRAYGYF	EDDAYGCD	
10	HAJXYYF	EDDVZPZX	
11	HAMXYYF	EDDHYFYX	
12	HAMZYYF	EDDHZPZX	
13	LEJXYYF	EDDPYFYX	
14	MUCXYYF	EDDMZPZX	
15	NUEXYYF	EDDNYFYX	
16	SCNXYYF	EDDRYFYX	
17	STRXYYF	EDDSYFYX	
18	SFXYYF	EDDBYFYX	
19	TXLXYYF	EDDTYFYX	
20	ENAAAYF	PAENYFYA	
21	MKCOOYF	KATLYTAA	
22	AKLXYYF	NZCHYFYX	
23	BNEXSUF	YBBBYFYS	
24	BNEXYF	YBBBYFYX	
25	MELXYYF	YMMLYFYX	
26	PERXYF	YPPHYFYX	
27	SYDAPYF	YSSSYFYA	
28	SYDXJYF	YSSYSITB	
29	SYDXSYF	YSSSYFYX	
30	SYDXYYF	YSSSYFYX	
31	AMSXTYF	EHAMYFYX	
32	AMSXYF	EHAMYFYX	
33	THRXYF	OIIIFYX	
34	EBBXYYF	HUENXYF	
35	NBOXYYF	HKNAYFYX	
36	MOWTOV8	UUUUVAST	
37	MOWXCYP	UUUUYFYZ	
38	MOWXTYF	UUUUYFYX	
39	DAMXYYF	OSDIYFYX	
40	DAMYAYF	OSDIYAYF	
41	IEVCAPS	UKKACAXX	
42	IEVCBPS	UKKACBXX	
43	IEVCGPS	UKKACGXX	
44	IEVXTYF	UKKKYFYX	
45	IEVYAPS	UKKAYAYF	
46	KBPIN7X	UKBBUIRX	

	SITA Address	AFTN Address	Remark
47	KBPTR7X	UKBBYFAX	
48	KBPXTYF	UKBBYFYX	
49	LWOARPS	UKLLBFXX	
50	BRUXTYF	EBBRYFYX	
51	BRUXYYF	EBBRYFYX	
52	MNLXSYF	RPHIYFYX	
53	MNLXYA	RPHIYAYX	
54	MNLXYF	RPHIYFYX	
55	TPEXYA	RCTPYAYX	
56	TPEXYF	RCTPYFYX	
57	KULXYYF	WMKKYFYX	
58	JNBXYF	FAJSYNYX	
59	PRYXMYF	FAPRYMYX	
60	TUNXYYF	DTTCYFYX	
61	CPHXTYF	EKCHYFYX	
62	BEYXYF	OLBAYFYX	
63	ALAXTYF	UAAAYFYX	
64	ANCAFYA	PAZAZQZX	
65	BOMFFYF	VABBYFYF	
66	BOMXSYF	VABBYFYX	
67	BOMXYF	VABBYFYX	
68	CMBAFYA	VCCCZRZQ	
69	CMBXYF	VCBIYFYX	
70	HANXYA	VVVVYAYX	
71	HANXYF	VVVVYFYX	
72	MADAPYF	LEMDYFYA	
73	MADXYYF	LEMDYFYX	
74	NYCAFYA	KZNYZQZX	
75	OAKAFYA	KZOAZQZX	
76	PMIAPYF	LEPAYFYA	
77	SINAAYA	WSSSYAYA	
78	SINXYF	WSSSYFYX	
79	TYOAFYA	RJTGZQZX	
80	GVAAAYF	LSSSYFYA	
81	GVABBYF	LSSSYFYB	
82	GVAXTYF	LSSSYFYX	
83	GVAXYYF	LSZZYNYX	
84	ZRHAAFY	LSZHYPZA	
85	ZRHBBYF	LSZHYPZB	
86	ZRHCCYF	LSAZAMUX	
87	ORYXYF	LFPOYFYX	
88	VIEXBYA	LOWWYEYX	
89	LISBAYA	LPPTYAYB	
90	LISTTYA	LPPTYAYT	
91	LISXYF	LPPTYFYX	

	SITA Address	AFTN Address	Remark
92	OXBDLAH	GGOVDAHD	not used (stat from Jan 2011)
93	OXBKFDT	GGOVDTAK	not used (stat from Jan 2011)
94	SMAAPAC	LPAZACAA	not used (stat from Jan 2011)
95	SMAAPLT	LPAZLTUA	14. Mai 12
96	SMAAPP	LPAZPJSA	not used (stat from Jan 2011)

	SITA Address	AFTN Address	Remark
97	SMAAPXH	LPAZXHAA	05. Aug 12
98	SMAOWAA	LPAZAALW	not used (stat from Jan 2011)
99	SMAXYF	LPAZZZZA	
100	ADDXTYF	HAABYFYX	
101	ADDXYF	HAABYFYX	
102	NOUAAYA	NWWNYAYA	
103	NOUDDYA	NWWNYAYD	
104	NOUNNYA	NWWNYAYN	
105	NOUXYF	NWWNYFYX	

A.3 List of AFTN addresses for AFTN origin validation (Dec 2012)

	AFTN Address	Remark
1	CYHQYNYX	
2	CZQXZQZX	
3	CZVRTMUW	
4	DAALAHTU	
5	DTMBLBTO	
6	DTMBTARO	
7	DTNHLBTO	
8	DTNHTARO	
9	DTNZTARO	
10	DTTAEDFK	
11	DTTAKARS	
12	DTTAKZRJ	
13	DTTALNXH	
14	DTTAPHAK	
15	DTTASITX	
16	DTTASTXH	
17	DTTASVAK	
18	DTTATAJK	
19	DTTATARO	
20	DTTGZTZX	
21	DTTJKARS	
22	DTTJLBTO	
23	DTTJTARO	
24	DTTVYAYF	
25	DTTVYAYX	
26	DTTVYYAX	

	AFTN Address	Remark
27	DTTXSYAO	
28	EDDFDLHD	
29	EDDFDLHI	
30	EDDFDLHU	
31	EDDFGECO	
32	EDDFSXSX	
33	EDDFTAIX	
34	EDDFXHAX	
35	EDDFXLFX	
36	EDDMKSTX	
37	EDDMZPZX	
38	EDDNZPZX	
39	EDDTBERA	
40	EDDVTUIO	
41	EDHIAIBX	
42	EFSSVDAX	
43	EGGWMONO	
44	EGGXZOZX	
45	EGKKAFSX	
46	EGKKPGFX	
47	EGKKVIRW	
48	EGLISITX	
49	EGLLAALO	
50	EGLLBAWC	
51	EGLLBAWH	
52	EGLLSITA	

	AFTN Address	Remark
53	EGLLSITX	
54	EGLLZPZX	
55	EGSSGSSX	
56	EGSSVDAX	
57	EHAMCKSX	
58	EHAMKLMF	
59	EHAMMPHO	
60	EHAMMPHP	
61	EHAMMPHX	
62	EHAMTRAC	
63	EHAMTRAK	
64	EHAMYIAG	
65	EIDWRYRX	
66	EKCHYFAA	
67	ELLXCLXO	
68	EPWALOTO	
69	EPWALOTU	
70	ETARYXYX	
71	EUCBZMFP	
72	EUCHCEUW	
73	EUCHZMFP	
74	EUECYIYN	
75	EVRABTIO	
76	FACTZPZX	
77	FAJSSAAO	
78	FAJSYFYX	
79	FAJSZPZX	
80	FCBBZPZX	
81	FEFFZPZX	
82	FKKDZPZX	
83	FLLSZPZX	
84	FMEEREUO	
85	FMMYNYX	
86	FNLUDTAX	
87	FNLUYFUX	
88	FNLUYFYX	
89	FNLUZPZX	
90	FNLUZTZX	
91	FPSTZPZX	
92	FVHAZPZX	
93	FYWHZPZX	
94	GGOVZPZX	
95	GGOYZPZX	

	AFTN Address	Remark
96	GMADMAIO	
97	GMADRAMO	
98	GMGULMIM	
99	GMMLRAMO	
100	GMMNRAMK	
101	GMMNRAMO	
102	GMMNRAMW	
103	GMMNSVAO	
104	GMTARAMO	
105	GMTTRAMO	
106	GOOYZPZX	
107	GVACSAAO	
108	GVACTCVK	
109	GVACZPZX	
110	GVBAZPZX	
111	GVNPTCVO	
112	GVNPZPZX	
113	GVSVTCVK	
114	GVSVPZPX	
115	HAABZPZX	
116	HCMMYFYX	
117	HECASITX	
118	HECASVAO	
119	HEGNZIZX	
120	HEGNZPZX	
121	HELXZIZX	
122	HKJKAWKQ	
123	HKJKKQAW	
124	HKJKZPZX	
125	HLLTZPZX	
126	HSSSZPZX	
127	KATLYTAA	
128	KATYXAAX	
129	KCMHGOOD	
130	KDXBJXSX	
131	KDXBUASX	
132	KDZZNAXX	
133	KEWRFOID	
134	KHDQHISX	
135	KHDQREIA	
136	KHOPTXX	
137	KISTKZUX	
138	KJFKGDIA	

	AFTN Address	Remark
139	KJFKIBEO	
140	KJFKSAAO	
141	KJFKSWRW	
142	KKOOCAXX	
143	KLGBPACO	
144	KLXRANXH	
145	KMEMFDXR	
146	KMIAGTIW	
147	KMIAIBEO	
148	KMSJCJSX	
149	KORDXORD	
150	KSDFUPSB	
151	KSDFUPSI	
152	KSDFUPSQ	
153	KSDFUPSY	
154	KSFOVRDX	
155	KSNAXAAX	
156	KTRIRUNI	
157	KZBWZQZX	
158	KZCNZQZX	
159	KZMAZQZX	
160	KZNYZRZC	
161	LCLKCYOC	
162	LEMDDLHD	
163	LEMDIBED	
164	LEMDIBEW	
165	LEMDRAMK	
166	LEMDWEIB	
167	LEVCANSO	
168	LFBCZPZX	
169	LFBDXHAF	
170	LFBDZPZX	
171	LFBGZPZX	
172	LFBMZPZX	
173	LFBOAFMI	
174	LFBOAIBK	
175	LFBOAIBN	
176	LFBOAIBY	
177	LFBTBIEO	
178	LFBWYWYX	
179	LFFAYNYX	
180	LFFAZXVN	
181	LFKSZPZX	

	AFTN Address	Remark
182	LFLCXHAM	
183	LFMATJTX	
184	LFMICTMA	
185	LFMICTMC	
186	LFMIZPZX	
187	LFMMZRZX	
188	LFMOZPZX	
189	LFMUYWYX	
190	LFMYZPZX	
191	LFOACTMA	
192	LFOAZPZX	
193	LFOEZPZX	
194	LFOJZPZX	
195	LFOTZPZX	
196	LFPBDSOO	
197	LFPBIXRO	
198	LFPBLEAO	
199	LFPBTSAX	
200	LFPCZPZX	
201	LFPGAFNI	
202	LFPGAFRO	
203	LFPGAFRP	
204	LFPGAFRW	
205	LFPGCPAO	
206	LFPGYEYX	
207	LFPOCAJX	
208	LFPOCRLO	
209	LFPSAFRW	
210	LFPSSEUO	
211	LFSSITX	
212	LPVCTMK	
213	LPVZPZX	
214	LFKCLGO	
215	LFRRGIO	
216	LFRTZPZX	
217	LFSDZPZX	
218	LFSGXHAK	
219	LFSIZPZX	
220	LFSoZPZX	
221	LFSXYWYX	
222	LFSXZPZX	
223	LFVXYWYX	
224	LFXOYWYX	

	AFTN Address	Remark
225	LFXVYWYX	
226	LFXVYXYX	
227	LFYAYWYX	
228	LGATBERX	
229	LGGGYNYX	
230	LGGGZDZX	
231	LGIRZPZX	
232	LGITZPZX	
233	LGKRZPZX	
234	LGRPZPZX	
235	LIIDEZEW	
236	LIRFAZAW	
237	LJLJADRX	
238	LKPRYNYX	
239	LLBGELYW	
240	LLBGYDYF	
241	LLBGYDYX	
242	LMMLZPZX	
243	LOWITYWX	
244	LOWWAUAO	
245	LPAMYMYX	
246	LPAZYMYM	
247	LPZZZZZX	
248	LPFLYMYM	
249	LPFRYMYM	
250	LPHRYMYM	
251	LPLAZPZX	
252	LPMAYMYM	
253	LPMGYMYN	
254	LPPGAFRW	
255	LPPOZOZX	
256	LPPOZQZX	
257	LPPRYMYM	
258	LPPTHFYO	
259	LPPTMMZW	
260	LPPTNJEW	
261	LPPTPEFO	
262	LPPTPGAO	
263	LPPTSITX	
264	LPPTTAPO	
265	LPPTYFYX	
266	LPPTYMYM	
267	LROPROTO	

	AFTN Address	Remark
268	LSGGGJCX	
269	LSGGPTIX	
270	LSZBNUMX	
271	LSZHCAZX	
272	LSZHCLXA	
273	LSZHEXHX	
274	LSZHJLXX	
275	LSZHPJSX	
276	LSZHPJXH	
277	LSZHPJZX	
278	LSZHVCNX	
279	LSZMYYYX	
280	LTAISKEYO	
281	LTBAFHXY	
282	LTBAGASX	
283	LTBATHYF	
284	LTBATHYR	
285	LTBATHYT	
286	LTBATHYW	
287	LUKKNBLX	
288	LUKKTDMX	
289	MKJKZPZX	
290	MKJKZQZX	
291	MKJPAJMW	
292	MPTOYFYX	
293	MROCSPSX	
294	MROCYFYX	
295	MUFHZQZX	
296	MUHACUBW	
297	MUHAYNYX	
298	MUHAZPZX	
299	MYNNZQZX	
300	NTAATHTO	
301	NTAAYMYX	
302	NTAAZPZX	
303	NWWNACIX	
304	NWWWZPZX	
305	NZAAZTZX	
306	NZCHYNYX	
307	OAKBYNYX	
308	OBBIKZX	
309	OEDFYFYX	
310	OEDFZPZA	

	AFTN Address	Remark
311	OEJDYNYX	
312	OEJNSVAO	
313	OEJNSVAX	
314	OEJNZPZA	
315	OEJNZPZR	
316	OEJNZPZX	
317	OEJNZQZX	
318	OEJNZTZX	
319	OEMASVAO	
320	OERKACSV	
321	OERKNHXX	
322	OERKSVAC	
323	OERKYFYX	
324	OERKZPZA	
325	OERKZPZE	
326	OERKZPZX	
327	OERKZQZX	
328	OIIIEIRAO	
329	OIIIHANX	
330	OIIIIRAO	
331	OIIIIIRAX	
332	OIIIIIRAZ	
333	OIIIIIRBX	
334	OIIIIIRMX	
335	OIIISVAX	
336	OIIIXTYF	
337	OIIIIFYC	
338	OIIIIYNYX	
339	OIIIZQZX	
340	OIIIZRZX	
341	OIIIZTYF	
342	OIIIXZQZX	
343	OIMSZTZX	
344	OJACZQZX	
345	OJAIRJDP	
346	OJAIZPZX	
347	OKBKYFYX	
348	OLBAMEAW	
349	OLBASVKK	
350	OLBAZRZX	
351	OLDDYAYX	
352	OMAAETDX	
353	OMAAZAZX	

	AFTN Address	Remark
354	OMAAZPZX	
355	OMAEZPZX	
356	OMAEZRZX	
357	OMDBALKW	
358	OMDBBBCO	
359	OMDBFDBO	
360	OMDBUAEK	
361	OMDBUAEX	
362	OMDBYKYX	
363	OMDBZGZX	
364	OMDBZJZX	
365	OMDBZPZX	
366	OMDWZPZX	
367	OMSJYFYX	
368	OOMSOASO	
369	OOMSZPZX	
370	OPKCABQX	
371	OPKCGDNX	
372	OPKCPIAV	
373	OPKCSVAO	
374	ORBIZQZX	
375	ORERYNYX	
376	ORNIYNYX	
377	OSAPZPZX	
378	OSDIFASX	
379	OSDIHISX	
380	OSDIIRAP	
381	OSDIJXSX	
382	OSDIMIXH	
383	OSDIMSRD	
384	OSDISRYO	
385	OSDISYRF	
386	OSDISYRO	
387	OSDIUASX	
388	OSDIYAYF	
389	OSDIYDYX	
390	OSDIZPZX	
391	OTBDYAAF	
392	OTBDZPZX	
393	PANCCALO	
394	PHNLHALO	
395	RCAAZRZX	
396	RCSSMDAX	

	AFTN Address	Remark
397	RCSSUIAO	
398	RCTPCALO	
399	RCTPCALC	
400	RCTPCALO	
401	RCTPCALY	
402	RCTPEVAO	
403	RCTPFDXX	
404	RCTPYFYX	
405	RCTPYNYX	
406	RCTPZPZX	
407	RJAAZPZX	
408	RJAAZZZX	
409	RJCCZPZX	
410	RJJJZOZD	
411	RJJJZQZX	
412	RJTTJALQ	
413	RKRRYNYX	
414	RKSIZPZX	
415	RKSSABLO	
416	RKSSJJAO	
417	RKTNZTZX	
418	RPLLDNWI	
419	RPLLSZSX	
420	RPLLPALD	
421	RPLLPALI	
422	RPLLSOXH	
423	RPLLSVAO	
424	SBCWZQZX	
425	SBFZZTZX	
426	SBGRYOYX	
427	SBRJYNYX	
428	SBSPGLOX	
429	SBSPTAMO	
430	SCELLANW	
431	SKEDZQZX	
432	SPSPTAMO	
433	TBPBATOM	
434	TBPBZQZX	
435	TGPYZPZX	
436	TTPPBWAO	
437	TTPPZTZX	
438	UAAAZTZX	
439	UAAKZDZK	

	AFTN Address	Remark
440	UAFMBFXX	
441	UAFMYFYX	
442	UBBAZRZX	
443	UBBBAHYX	
444	UBBBYMWO	
445	UBBBZPZX	
446	UBBGMYX	
447	UBBGZPZX	
448	UBBLZPZX	
449	UBBNYMYX	
450	UBBQZPZX	
451	UHWBFX	
452	UHWZTZX	
453	UKBBAEWN	
454	UKBBAEWX	
455	UKDDUMKX	
456	UKKCBSX	
457	UKKKURAX	
458	UKKMADB	
459	UKOOCAX	
460	UKOEIX	
461	ULLITSOX	
462	ULLLTSOX	
463	UMMSZTZX	
464	UNKLZTZX	
465	UNNTS	
466	UNNTZTZX	
467	UNTTZTZX	
468	URKKZTZX	
469	USCCZTZX	
470	USNNZTZX	
471	USSSVRZ	
472	USSSZTZX	
473	UTAAZDZX	
474	UTAAZTZX	
475	UTDDZTZX	
476	UTTAUZBL	
477	UTTAUZBU	
478	UTTAUZKR	
479	UTTTUMSX	
480	UTTTZTZX	
481	UTTUYAYX	
482	UUDDTSOM	

	AFTN Address	Remark
483	UUDDTSOO	
484	UUDDZTZX	
485	UUEEZTZX	
486	UUEUYRYA	
487	UUEUZXZX	
488	UUMOGZPM	
489	UUMOPNXX	
490	UUMOYOYX	
491	UUUUCABH	
492	UUUUYFYX	
493	UUUUYNYX	
494	UUUWZDZX	
495	UUWIPNXX	
496	UWGGZTZX	
497	UWKDZTZX	
498	UWLWIEBF	
499	UWWWPOTX	
500	VABBAICO	
501	VABBJETX	
502	VABBSVAO	
503	VABBSVAX	
504	VABBYFYF	
505	VABBZPZX	
506	VABBZTZX	
507	VABIALKW	
508	VCBIALKW	
509	VCBILAKW	
510	VCBIMLRX	
511	VCBIYFYX	
512	VCBIYOYX	
513	VGEGZTZX	
514	VGHSARLX	
515	VGHSSVAO	
516	VGZRSVAO	
517	VHHHCPAO	
518	VIDPAICO	
519	VIDPZPZX	
520	VOMFZRZX	
521	VOMMYNYX	
522	VOMMZIZX	
523	VOTVZRZX	
524	VTBBFDMC	
525	VTBBHHCX	

	AFTN Address	Remark
526	VTBBTHAU	
527	VTBBYFYX	
528	VTBDADMA	
529	VTBDTHAK	
530	VTBDTHAW	
531	VTBDYNYX	
532	VTBSBFSX	
533	VTBSCALX	
534	VTBSCPAO	
535	VTBSCPAZ	
536	VTBSDLHX	
537	VTBSJALO	
538	VTBSMASX	
539	VTBSASX	
540	VTBSTHAO	
541	VTBSTHAT	
542	VTBSTHAW	
543	VTBSXXXX	
544	VTBUTHAO	
545	VTCCTHAW	
546	VTSPBKPY	
547	VTSPTHAW	
548	VVNBZPZX	
549	VVTSZPZX	
550	WBKKYMYM	
551	WBKLYWYX	
552	WBSBRBAO	
553	WMATHTXW	
554	WMFPYFYX	
555	WMKKMASD	
556	WMKKMASU	
557	WMKKOOXH	
558	WMKKSIAO	
559	WMKKTHAO	
560	WMKKYMYX	
561	WMKKYNYX	
562	WMKKYOYX	
563	WMSATHTX	
564	WMSAYFYX	
565	WRRRYNYX	
566	WSSSFFOX	
567	WSSSSI AF	
568	WSSSSIAI	

	AFTN Address	Remark
569	WSSSSIAJ	
570	WSSSSIAX	
571	WSSSSIMX	
572	WSSSSIOX	
573	WSSSSITX	
574	WSSSYFYX	
575	WSSSZQZX	
576	YBBBZEZX	
577	YMMMZQZD	
578	YSSYQFAL	
579	YSSYQFAO	
580	YSSYQFAW	
581	ZBBBYNYX	

	AFTN Address	Remark
582	ZBBBZGZX	
583	ZGGGUOXX	
584	ZGGGYDZX	
585	ZGGGZPZX	
586	ZGSZPZX	
587	ZMUBMGLX	
588	ZMUBMMLX	
589	ZMUBZGZX	
590	ZMUBZPZX	
591	ZSCNZRZX	
592	ZSHCOMXX	
593	ZSNBZXZX	
594	ZYJMZPZX	

Attachment B

B.1 List of current configured SITA Customer AFTN Addresses (Dec 2012)

List not available

	AFTN Address	SITA Customer	Remark
1			
2			
3			

	AFTN Address	SITA Customer	Remark
4			
5			

End of document