

EAD Client Satisfaction Survey 2016 Report

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EXECUTIVE SUMMARY

The Client Satisfaction Survey for 2016 was first distributed on the 3rd of May 2016, to 442 individuals in 185 organisations. Of these organisations, 54 were data providers, 126 data users and 12 internal EUROCONTROL users.

The total number of individual replies was 123, within this 88 replying organisations have been identified. The overall return rate was 47,57%, showing an increasing trend. Within this, the return rate compared to year 2012 for Data Providers increased from 54,9% to 79,63% and the increase of Data User responses was from 13,21% to 31,75%. This year, ANSPs showed the greatest return rate of 89,80%. The lowest return rate was from Airlines with 12%. From Airports, no feedback was received. Generally, in comparison to the previous years, the response rate is showing a significant increase. The complete details are given in Chapter 3.

Total Organisations Surveyed	185
Total Organisations Replied	88
Return Rate (%)	47,57%

Table 1: Return Rate

The EAD Client Satisfaction Survey has been resumed since 2012. The questionnaire has been restructured and reduced to 65 questions. Besides leaving out some question not relevant for the questionnaire performed in 2016, the main differences are related to the evaluation scheme. Despite preserving the evaluation grades consisting of 6 levels, the textual representation of each grade has been changed ranging from “poor” to “extraordinary” or from “never” to “always” as shown in Table 2. This change caused a decrease of the numerical representation of the result. Consequently, the comparison with previous years is not recommended and was therefore excluded from this report.

Verbal representation	Extraordinary	Superior	Very good	Good	Fair	Poor	
	Always	Regularly	Often	Now and again	Rarely	Never	(N/A)
Associated value	6	5	4	3	2	1	0

Table 2 - Evaluation scheme

The general perception of the whole EAD service has been assessed by clients as “very good”. Given the 10 points assessment system where the 10 is the best grade, the EAD was evaluated at 7.14.

The best service, according to the Survey is the INO service, where the overall result reached 5,37 – i.e. “superior”.

Behind every set of questions, clients were invited to provide comments on the system, service or function and to make suggestions for potential improvements. All comments are detailed in the Annex 2 of the document.

1. SURVEY DEFINITION

The intention of this survey was to gather clients' experience from the use of the EAD Service. Areas of improvement are identified from the scores given and clients' comments.

1.1 The Questionnaire

The format of the questionnaire has been changed to fit the online survey tool, and retained the 6 points scale as used in previous surveys. However the verbal representation of the scale was changed, which contributed to lower numerical values of the results. (see Chapter 2, Table 5- Evaluation scheme evolution). The division of questions was reduced, with groupings of General questions, Datasets, EADPro Applications, Support Services, EAD Pro / MyEAD Functionalities, Migration and Development. The training questionnaire and set of questions related to the dedicated applications have been removed.

Questions placed in this questionnaire are only related to services for which developments were made during the reference period, i.e. if no developments were made for a given service during the reference period, no questions were added to the questionnaire (for this service). For the training part of the questionnaire, a separate survey is being produced; therefore this part is also excluded from the questionnaire.

The survey tool allowed also a logical grouping of the questions. If the client presented himself as the DU, questions intended for DP were not shown to him. The same logic was used when a client stated that he never used a specific application.

The questionnaire was delivered and returned by email with an Internet link to the survey as follows:

Initial distribution: 3rd May 2016

First reminder: 1st June 2016

Last call: 12th July 2016

1.2 Cross Reference Matrix

The matrix shows the data and services that are available to Data Providers and Data Users. Some functions are Data Provider only, but all Data User functions are available to Data Providers should they wish to use them. This cross reference matrix covers the whole service provided by the EAD. Not all of the below listed items were used in the questionnaire in 2016.

SERVICE	DEFINITION	DP	DU
EAD Data			
SDO	Full set of aeronautical information data published in AIP: Aerodrome information including Procedures and Obstacles; Enroute information such as Airspaces, Routes, Nav aids and Waypoints; General information such as Organization, Authority and Units. Worldwide minimum set of static data required for NOTAM validation and Pre-flight Information Bulletin (PIB) generation encompassing Aerodromes, identification with associated Runways, Airspaces (FIR, UIR, TMA, P-D-R), Routes, Nav aids and Waypoints. The SDO data set also includes the electronic Route Availability Document (eRAD) and associate Traffic Flow Restrictions.	X	X
INO	Provides consistent, validated worldwide original and processed messages of the following types: NOTAM; SNOWTAM (NOTAM publishing information about ice, snow and standing water on aerodrome movement areas); ASHTAM (NOTAM reporting (volcanic) ash).	X	X
PAMS	Provides a complete library of: Aeronautical Information Publications (AIPs); AIP Amendments; AIP Supplements and Aeronautical Information Circulars (AICs); aeronautical charts for ECAC (European Civil Aviation Conference) states.	X	X
Support Services			
Service Desk	Support tool for clients to report errors, ask questions, and request downloads.	X	X
Knowledge Base	Repository of documents related to all aspects of the EAD.	X	X
EAD Pro Applications			
SDO	Software application to access SDO WW Database	X	X
INO	Software application to access the NOTAM Database	X	X
BF	Software application for AROs to enable generation of flight briefings alongside the submission and initial validation of flight plans.	X	
PAMS	Software application to access the AIP Database	X	X
GR Tool	Software application for Graphical Reporting of SDO data	X	X
Chart Production Tool	Software application for chart creation	X	
AIP Production Tool	Software application for AIP creation	X	
GV Tool	Software application for Graphical Validation of SDO data	X	

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SERVICE	DEFINITION	DP	DU
MyEAD Functionalities			
External Solution	API Interface developed by a 3 rd party developer	X	X
Internal Solution	Support and information provided for in-house development of an API interface.	X	X
Other Services			
AFTN Service	Management of subscription to AFTN NOTAM delivery	X	X
Download Service	Availability of data through the EAD's Internet File Server.	X	X
EAD System	Information on the functions, development, and management of the EAD.	X	X
Training			
	Provided, by a variety of methods at a range of locations on the EAD functionalities	X	X
Migration/Connection			
	Level of support to clients during the migration or connection phase with regards to information provision on subjects including registration procedure, charges and agreements, as well as all technical aspects involved in the clients' migration/connection.	X	X

Table 3: Cross Reference Matrix

1.3 The Clients

The invited respondents were all those listed as having a connection to the EAD during 2016, according to the EAD Migration Matrix of 29 April 2016. Developer clients were included as well as those who receive data by download or delivery rather than a live connection. The distribution did not include clients with Provisional Test Agreements, or who received data under a Test Data Download Agreement.

1.4 Collation of the Replies

The replies were collated as an excel spreadsheet and pdf report as delivered by the online survey tool. After processing, the collated results are presented as graphs. All results are scaled out of a total of six possible evaluation grades; as also done for the previous years, however the scale was linked with the changed verbal representation (see Table 5) of the given grades and thus limiting the possibility of comparing the results to the previous year.

1.5 Comments

Clients were invited to add, as a free text, any comments that they considered of value for this survey or for the EAD service. The comments for every set of questions are provided in the Annex 2 of this report.

2. RECEIPT, VALIDATION AND COMPARISON OF ANSWERS

Until 2008, the validation threshold of surveys had been 60%; when compared to return rates of surveys in the commercial market this return rate is exceptional. An online survey was used in 2011 for the first time, but despite this, and a reminder sent to the clients, the return rate has continued to fall. Therefore the reply rate in year 2016 with an overall increase of 73.68 % in comparison to the year 2012 when the last survey has been performed shows a very positive development in comparison to the previous years. This year two reminders have been sent (First Reminder and a Last Reminder) and the fact the EAD Client Satisfaction Survey was not performed since 2012 might contributed to the fact the return rate was higher.

The replies were consolidated by means of a count of each answer to each question. Each of the results was then graded with the respective associated value and multiplied with number of answers to that individual question, as many respondents replied only to certain sets of questions. The final score given for each service is a weighted average of the scores for each attribute.

The comparison of the answers is limited. The reason for that is, that verbal representation of the possible answers has been changed, in order to align the scheme to the one used by NM. The table below shows the answers evaluation scheme from year 2012 and 2016 and the shift of the verbal representations of the given grades.

Year	Verbal representation					
2012	Excellent	Very Good	Good	OK	Poor	Awful
2016	Extraordinary	Superior	Very good	Good	Fair	Poor
Associated value	6	5	4	3	2	1

Table 4 - Evaluation scheme evolution

3. RESULTS

3.1 Structure

The results are presented in the same order and structure as in the questionnaire. For each groups of questions, results are presented in a graphical form, followed by a text providing further explanations on the raw data.

3.2 Demographics

For this survey, 442 individuals were contacted in 185 organisations, of which 123 individuals from 85 organisations provided a response. The table below shows the breakdown of the replies from these organisations, by Client Type and Organisation Activity.

		Surveyed	Replied	Reply Rate (%)
Client Type	DP	54	43	79,63%
	DU	126	40	31,75%
	Other[1]	5	5	100,00%
		185	88	47,57%
Organisation Activity	Aircraft Operators	40	12	30,00%
	Airport	9	0	00,00%
	Commercial	56	19	33,93%
	Military	6	4	66,67%
	CAA	5	4	80,00%
	ANSP	49	44	89,80%
	Other[2]	20	5	25,00%
Totals		185	88	47,57%

Table 5 - Reply rate

The majority of the responses were received from Air Navigation Service Providers.

The responders were invited to provide their details (Company name – compulsory, Name and Email – optional). A question regarding the current EAD agreement, Organisation activity and the Subsystems usage have been asked. The given responses have been further processed in order to avoid duplications in the demographics (from some organisation, multiple responses have been sent). The results shown in the Tables 6 and 7, clearly state that the majority of the responses were received from Air Navigation Service Providers.

		Reply Rate 2009 (%)	Reply Rate 2010 (%)	Reply Rate 2011 (%)	Reply Rate 2012 (%)	Reply Rate 2016 (%)
Client Type	DP	80,49	75,00		56,86	79,63
	DU	25,93	17,33		13,21	31,75
	Internal	42,86	14,29	28,57	28,57	16,67
Organisation Activity	Airline	20,00	23,53	20,93	23,68	30,00
	Airport	25,00	00,00	30,00	00,00	00,00
	Commercial	30,00	09,09	12,69	05,88	33,93
	Internal	42,86	14,29	28,57	28,57	16,67
	Military	66,67	75,00	40,00	20,00	66,67
	National Administration (CAA & ANSP)	78,57	71,11	57,00	53,85	88,89
Totals		50,00	37,30	30,20	27,39	47,57

Table 6: Return rate by client, comparison with past years

3.3 Subsystem and Datasets

For each of the three datasets the dedicated set questions have been asked, including whether the respondent used the SDO, INO or PAMS data as well as a possibility of a free text comments. The graph below shows the results for each of the services.

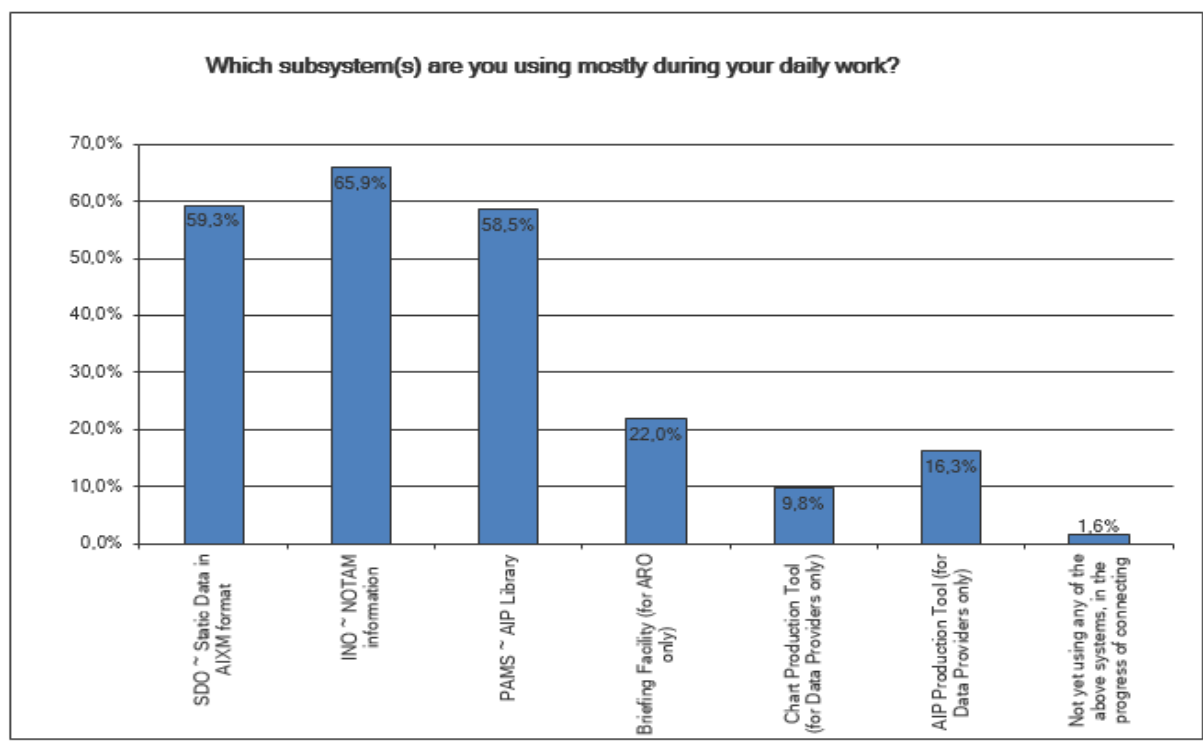


Figure 1 - Subsystem usage

Generally, the most used subsystem was INO followed by the SDO and PAMS. The least used function of the EAD was the Chart Production Tool.

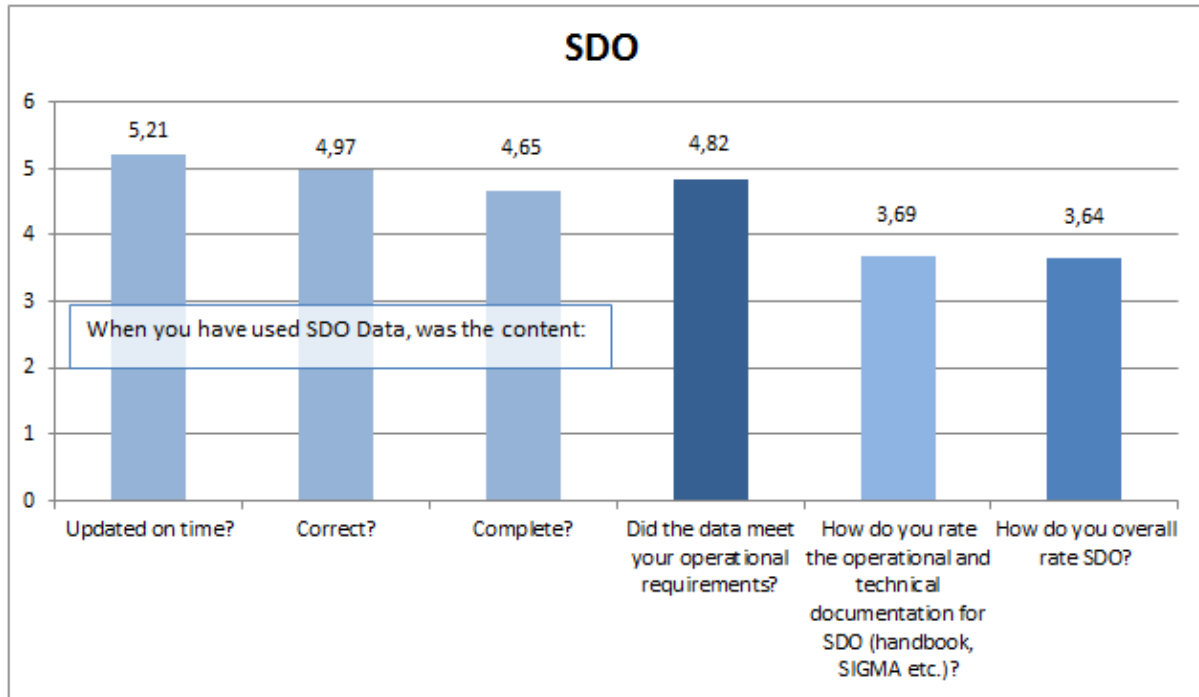


Figure 2 - SDO Data

In the SDO part, the 29,6 % of the respondents claimed never to use the SDO data, whereas 29,1 % uses them occasionally and 45,3% regularly (see Figure 6). The 85,3 % of the clients uses the AIXM 4.5 format and the AIXM 5.1 format is used by 14,7%.

Despite the fact that clients evaluated the data being updated on time with a rate of 5,21 , the general perception of the SDO service is 3,64 points. The lower level of satisfaction in comparison to the other results, can be principally caused by the lower evaluation attributed to the SDO technical documentation.

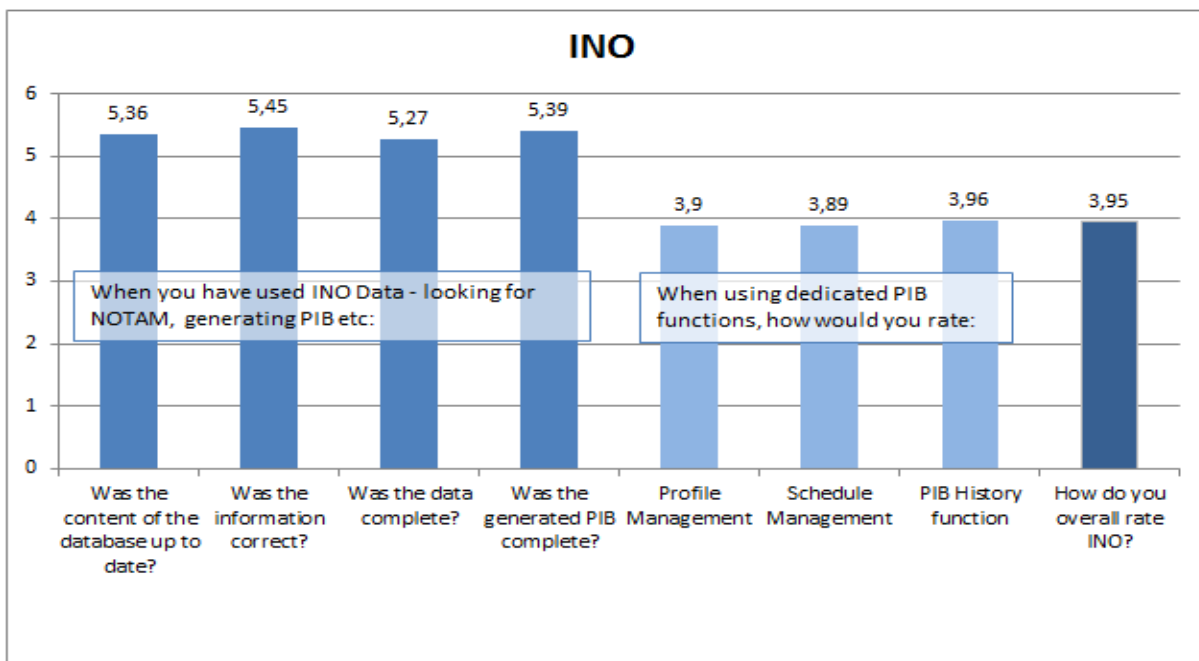


Figure 3 - INO Data

In the INO part, the 32,4 % of respondents claimed never using INO data, whereas 14,1 % use them occasionally and 53,3% regularly (see Figure 6). The PIB usage by type is shown in the Figure 4. The INO results show altogether satisfying result regarding the correctness, completeness and timeliness of the data; however the evaluation related to the functionalities of the INO application was generally lower.

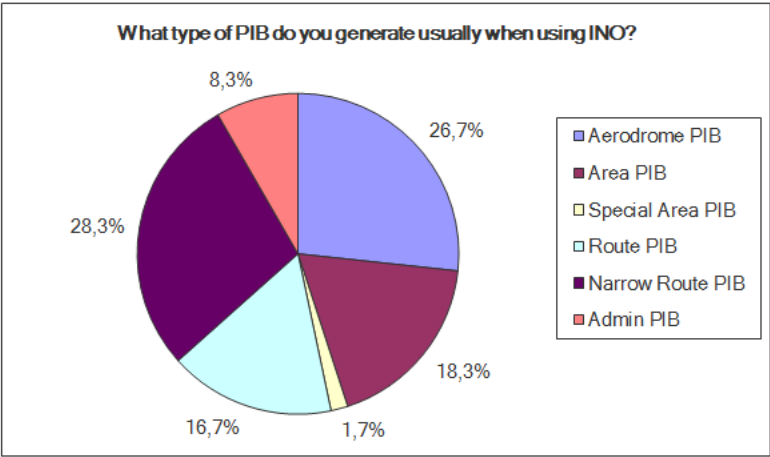


Figure 4 - PIB Usage by type

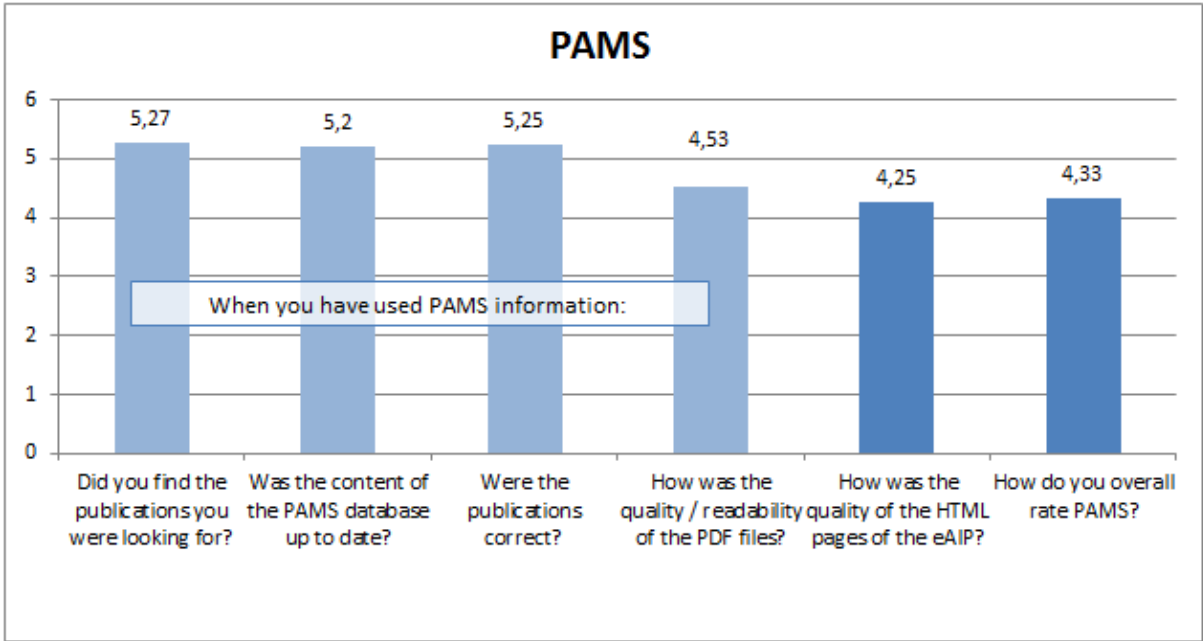


Figure 5 - PAMS Data

For PAMS, the 23,2 % of the respondents claimed using PAMS data, whereas 28,3 % use them occasionally and 48,5% regularly (see Figure 6).

The highest satisfaction rate for PAMS is for the correctness of publications, the lowest values were for the readability of the PDF and HTML pages.

As a conclusion to this section, PAMS provided the highest satisfaction with an overall rating this year of 4,33. The SDO satisfaction is the lowest at 3,64. A total number of 54 comments were recorded. The comments highlighted the need to improve the data coverage, completeness, and consistency.

The graph below shows the information usage by sub-system. The INO service is the most used service, followed by PAMS and finally SDO.

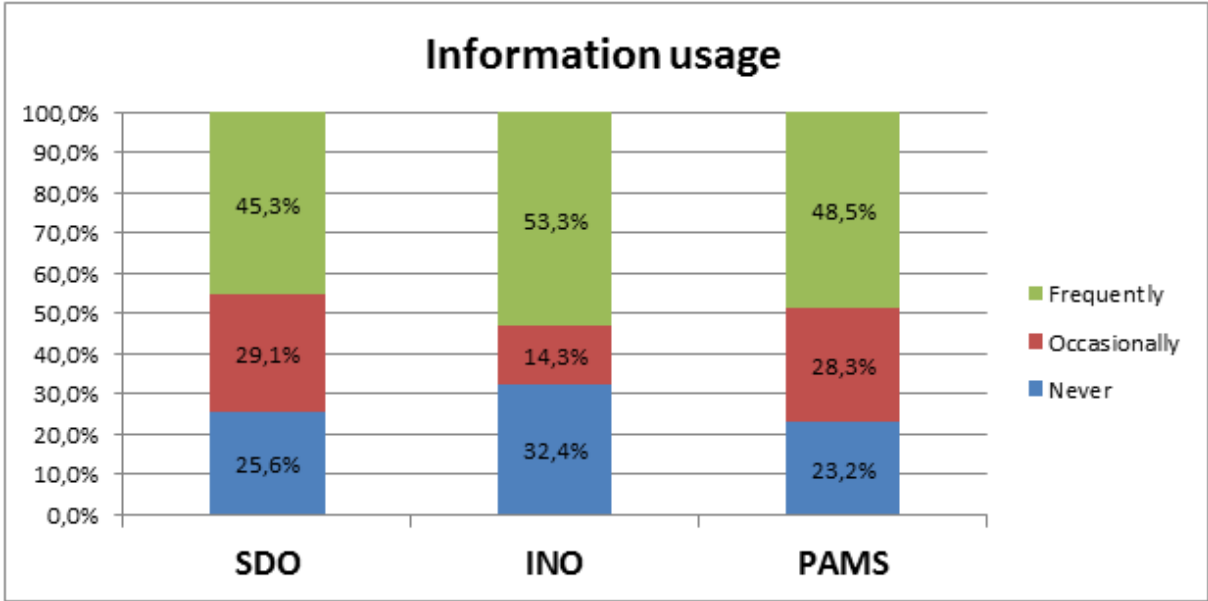


Figure 6 - Information usage per dataset

3.4 EAD Pro Applications

This set of questions has been divided into three subsets related to the following services: The Briefing facility for ARO, EAD AIP Production Tool and EAD Chart Production Tool.

For these applications, the highest rate of 3,73 has been achieved by the ARO Briefing Facility tool that is used by 25,8 % of the respondents. The lowest satisfaction rate of 3,27 has been noted for the EAD Chart Production Tool. A correlation between the client satisfaction and the usage of the dedicated application can be observed, i.e. the higher the application is evaluated, the more it is used. The usage of these applications is shown in the Figures 7, 8 and 9.

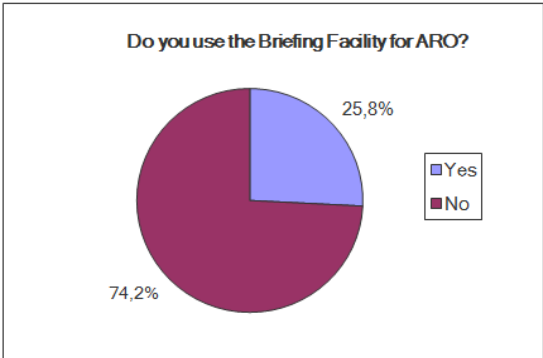


Figure 7 - BF Usage

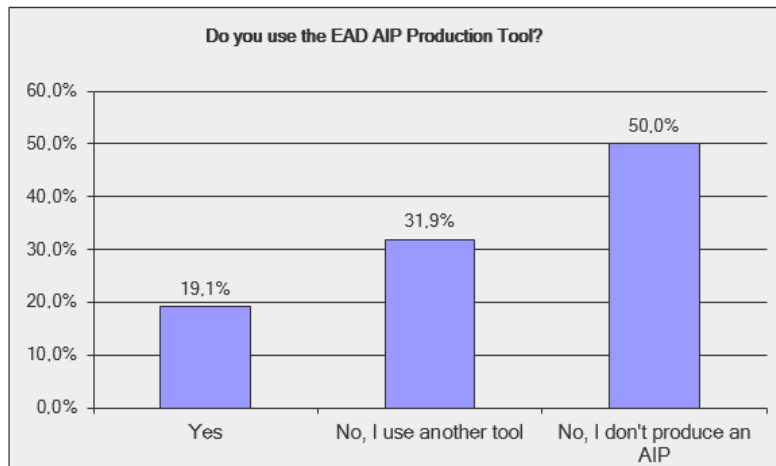


Figure 8 - AIP Production Tool Usage

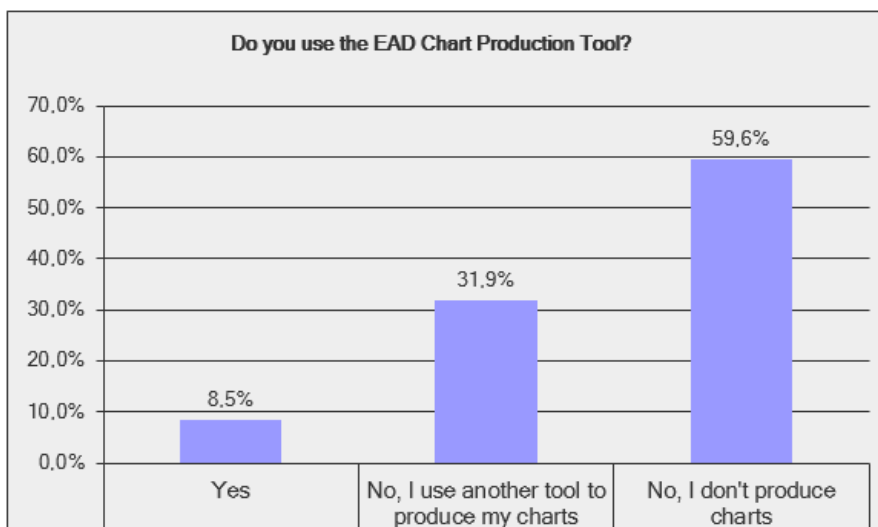


Figure 9 - Chart Production Tool Usage

As shown in the Figure 10, within the ARO BF, clients showed the lowest satisfaction for the Route proposal function; however they showed the highest satisfaction with the correctness of the data.

In the “AIP Production Tool” subset of the questions, the clients have been asked about the format in which their AIP is published, with the possibility of multiple choices. The vast majority of the answers (80%) confirmed the PDF as the most readable format, followed by HTML for eAIP which is used by 57,8% of the respondents.

The clients that do not use the EAD AIP Production Tool have been invited to specify in a form of a free text, what alternate tool is used by them. The given answers are shown in Annex 2 of this report. (ref.: Question 31.)

The same question has been asked regarding the EAD Chart Production Tool. (ref.: Question 35.), where the clients were invited to specify which tool they use for the production of the charts (see Annex 2 for the results).

EAD Pro Applications

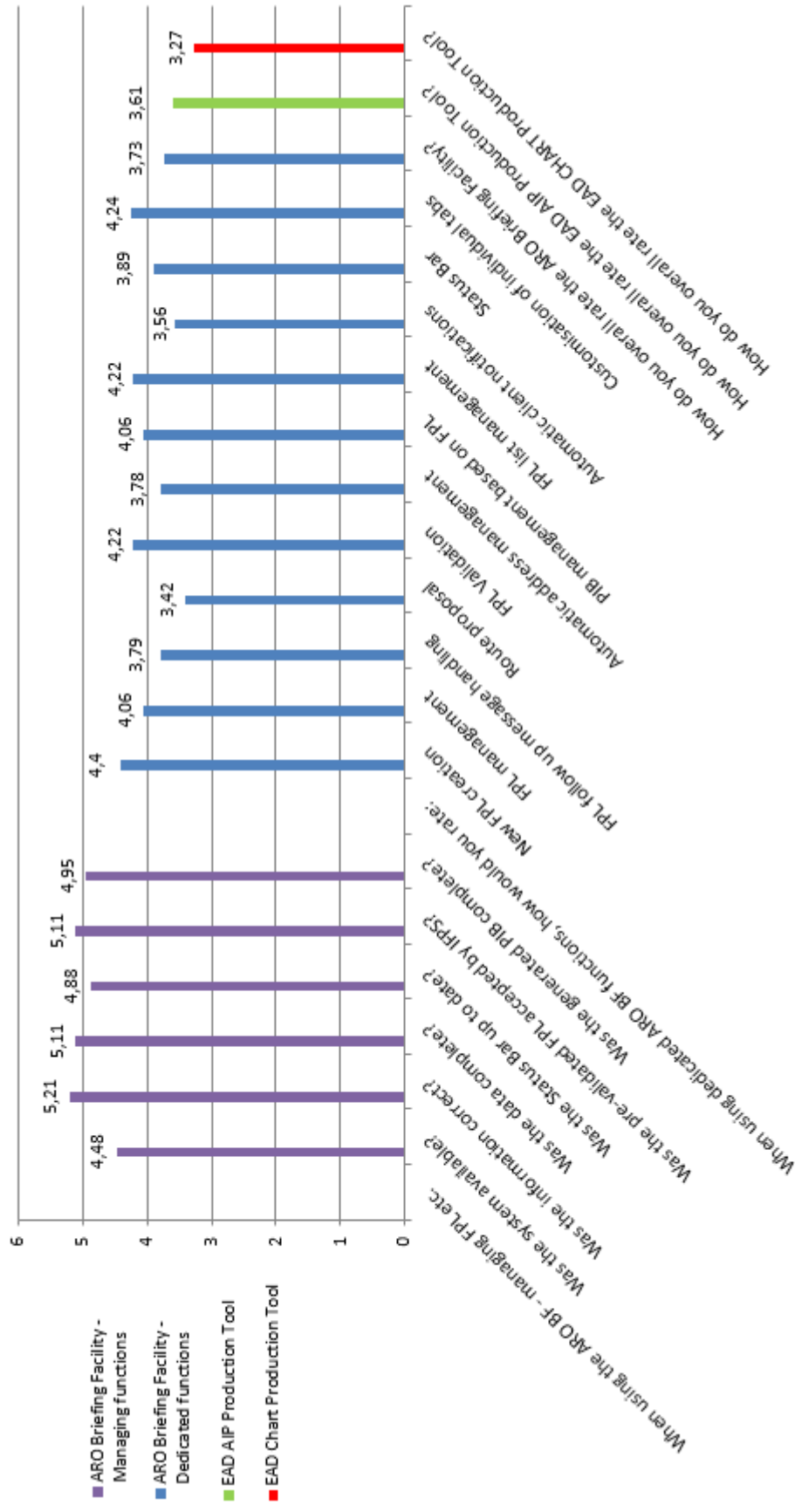


Figure 10: EAD Pro Applications

3.5 Support Services

The questions on the EAD support services were divided into 2 broad sections covering the human aspects of the Service Desk and technical ones for the Knowledge Base.

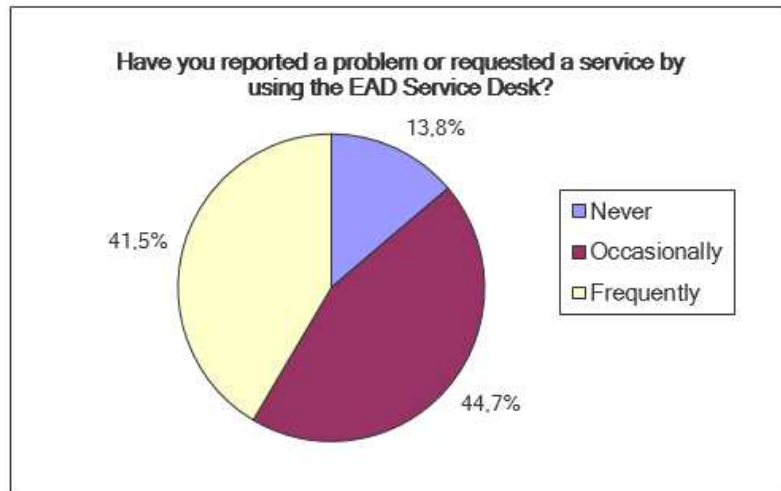


Figure 11 - SD Usage

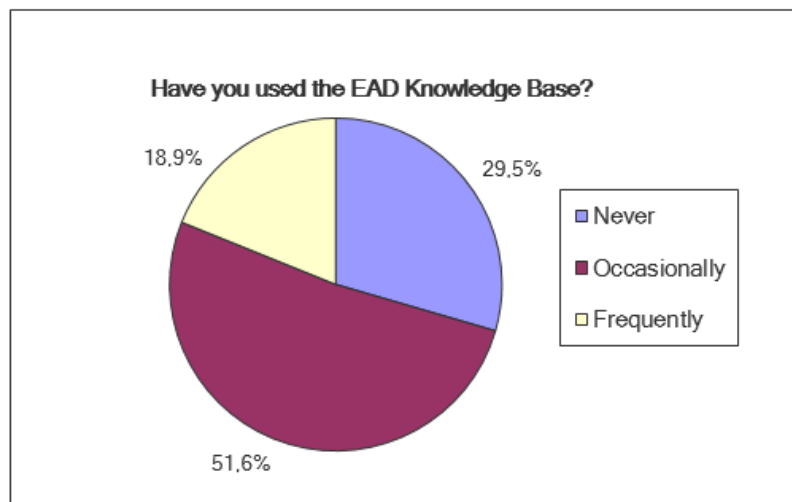


Figure 12 - KB Usage

The overall results show a satisfactory level for both support services, whereas the Service Desk was rated superior with 4,44 points. The overall perception of the Knowledge Base is 3,73 points.

The 33 comments were mainly positive in the case of the Service desk whereas regarding the Knowledge Base, the clients are still commenting about the difficulties in searching and finding the desired information in the Knowledge Base (for comments see Annex 2).

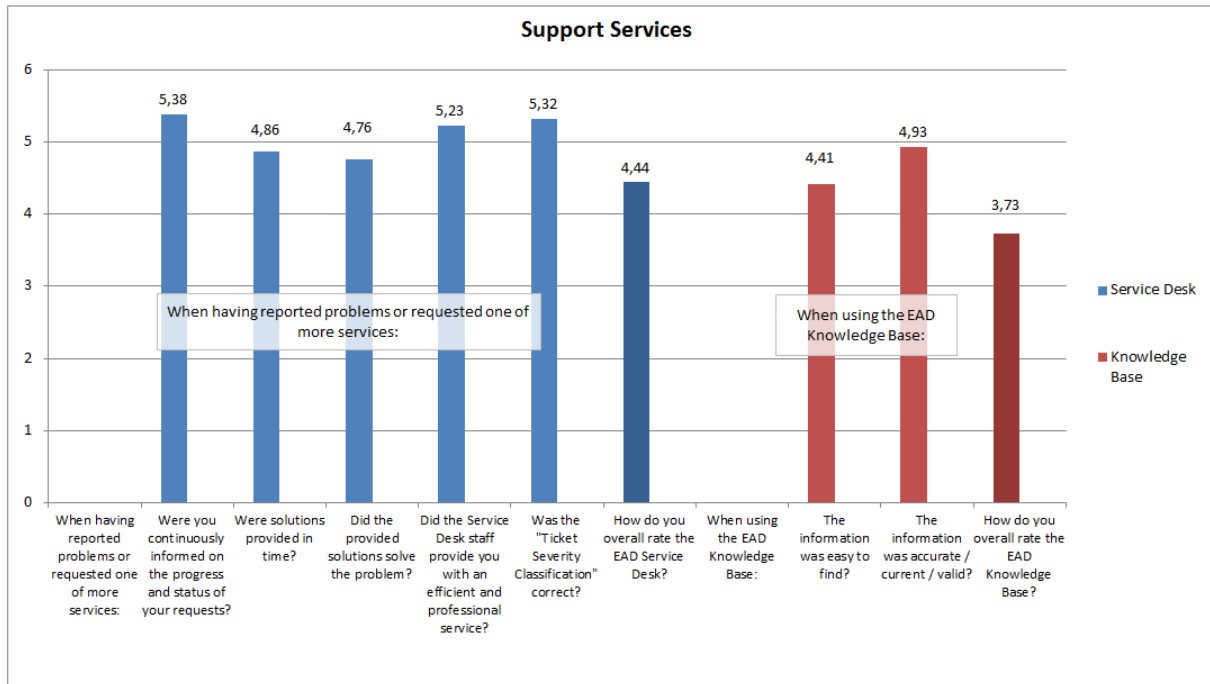


Figure 13: EAD Support Services

3.6 MyEAD and EAD Pro Functionalities

The opening question for the set of questions related to the MyEAD and EAD Pro Functionalities divided the responders into DP and DU (a possibility to choose both was also available). This allowed the survey tool to direct clients to the dedicated subset of questions based on their selected status. In accordance with the Demographic showed in Chapter 3.2 of this report, the majority of the responders claimed being DP.

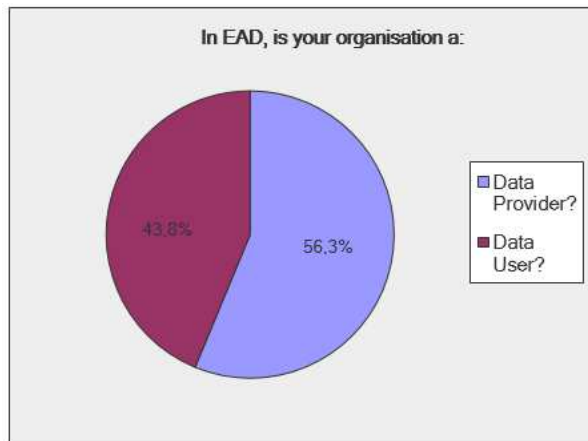


Figure 14 - Proportion of DP and DU

What are you using to connect to which subsystem in the EAD? Multiple replies possible.

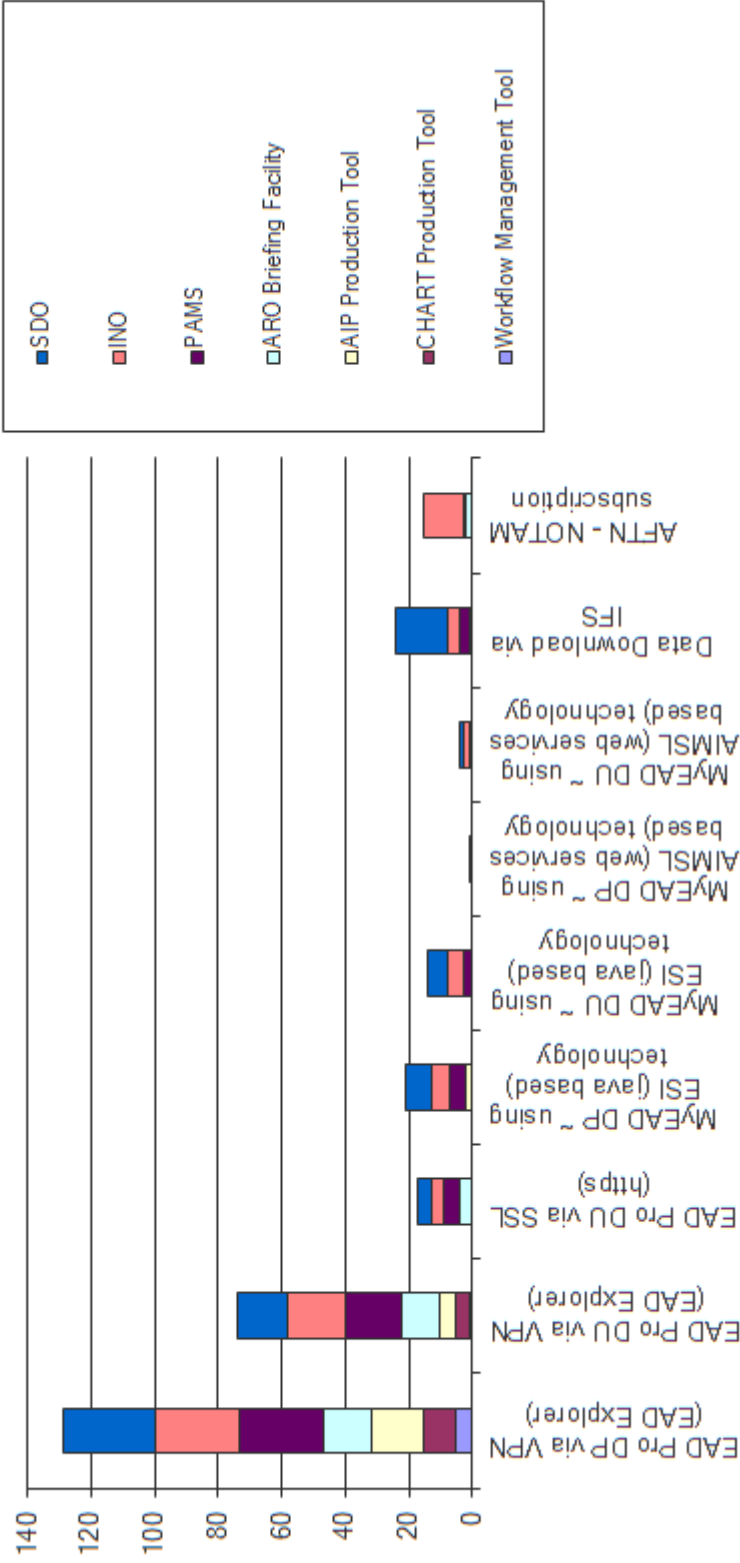


Figure 15 - DP - Connection to subsystems

Note: The vertical axis is showing the total sum of the individual responses to the given choices.

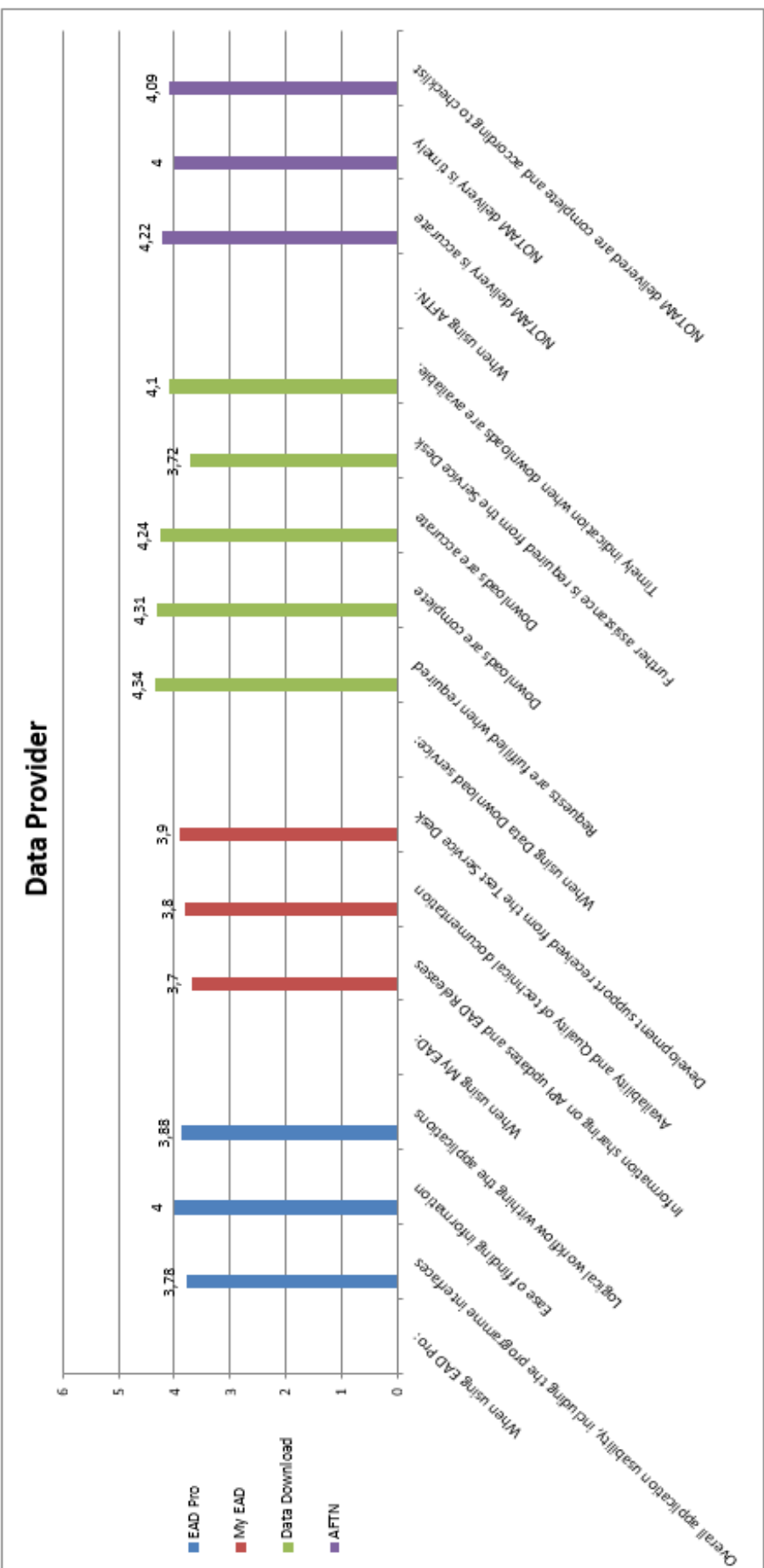


Figure 16 - EAD Functionalities for DP

As shown in Figure 15, the preferred access to EAD used by the DP is the EAD Pro access via VPN. The most used systems to which the DP providers are connection are the INO, SDO and PAMS subsystems. The least used ways of accessing are the AIMSL interfaces.

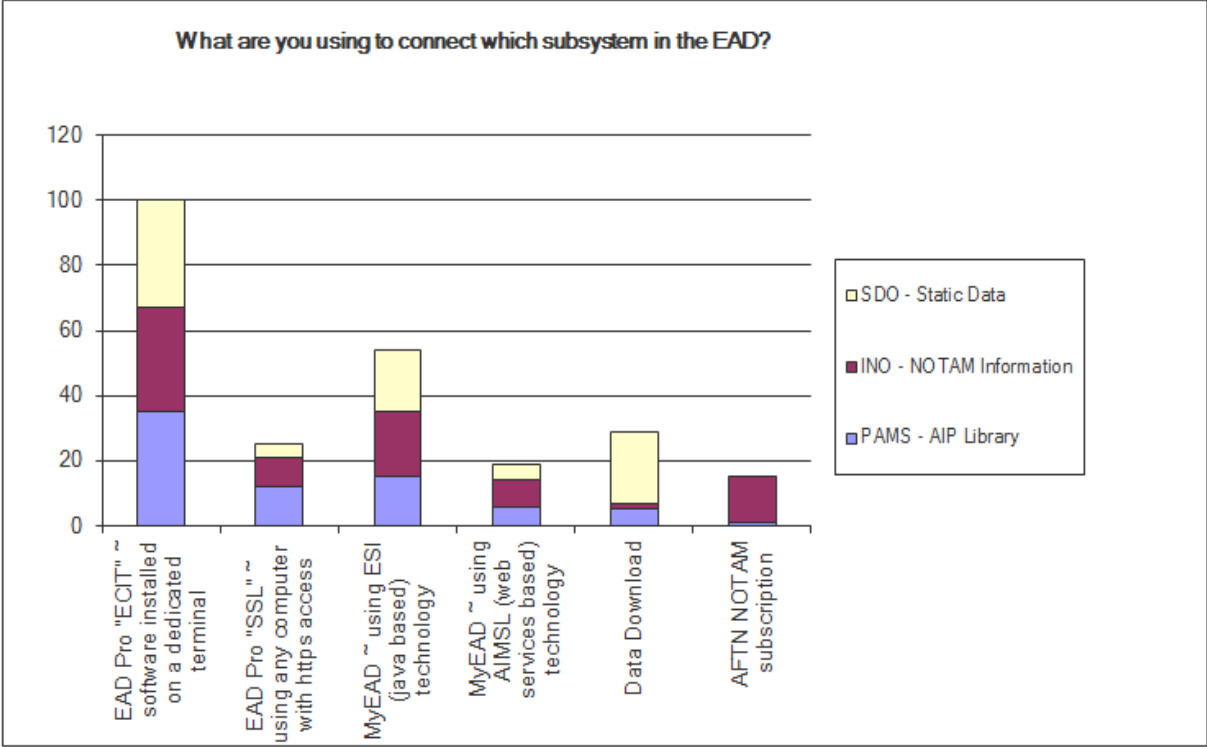


Figure 17 - DU - Connection to the subsystems

Note: The vertical axis is showing the total sum of individual responses for a given choices.

For the Data Users the preferred way of accessing the EAD is the EAD Client Interface Terminal, where all the subsystems have been accessed with approximately the same frequency. The least used ones were the AFTN NOTAM subscription and MyEAD AIMSL. The majority of the data downloads were from the SDO subsystem.

Figures 16 and 18 are showing the breakdown evaluation of the different accesses to the EAD from DP and DU perspectives. The results, both for the DP and the DU ranged from 3,41 to 4,34, i.e. respectively from “very good” to “excellent”.

The free text comments that have been captured are shown in the Annex 2.

Data User

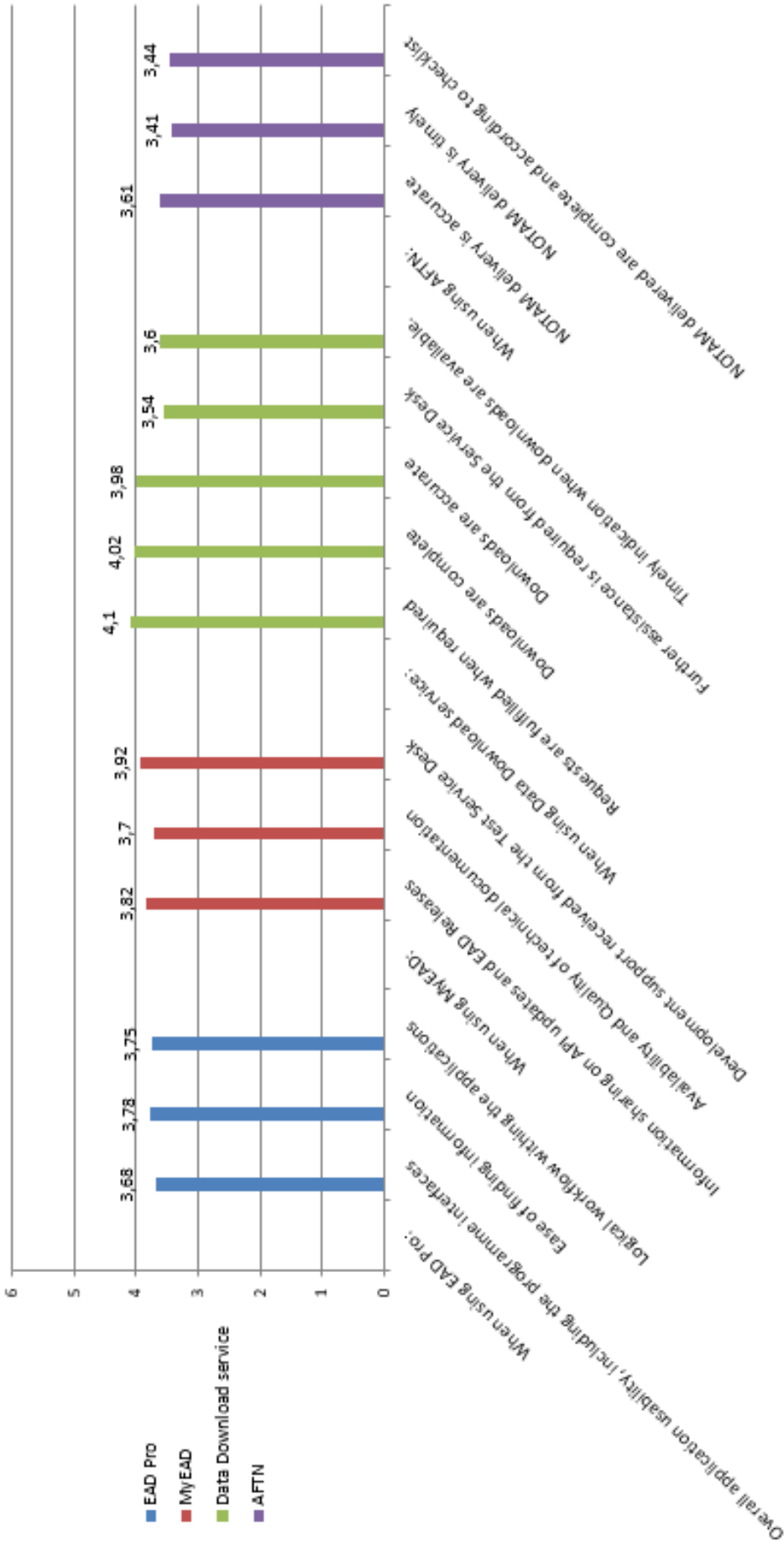


Figure 18 - EAD Functionalities for the DU

3.7 Migration - Connection

The set of questions regarding the migration was addressed only to those clients that migrated to the EAD within the last 2 years. The portion of such clients was 12,5 %.

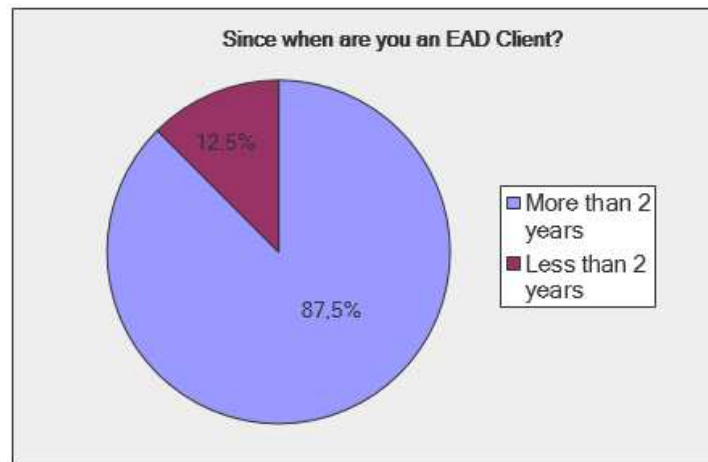


Figure 19 - Contract length

The migration aspects to EAD were rated on average as “very good”, with lowest rate given to the cost related aspects (3.0).

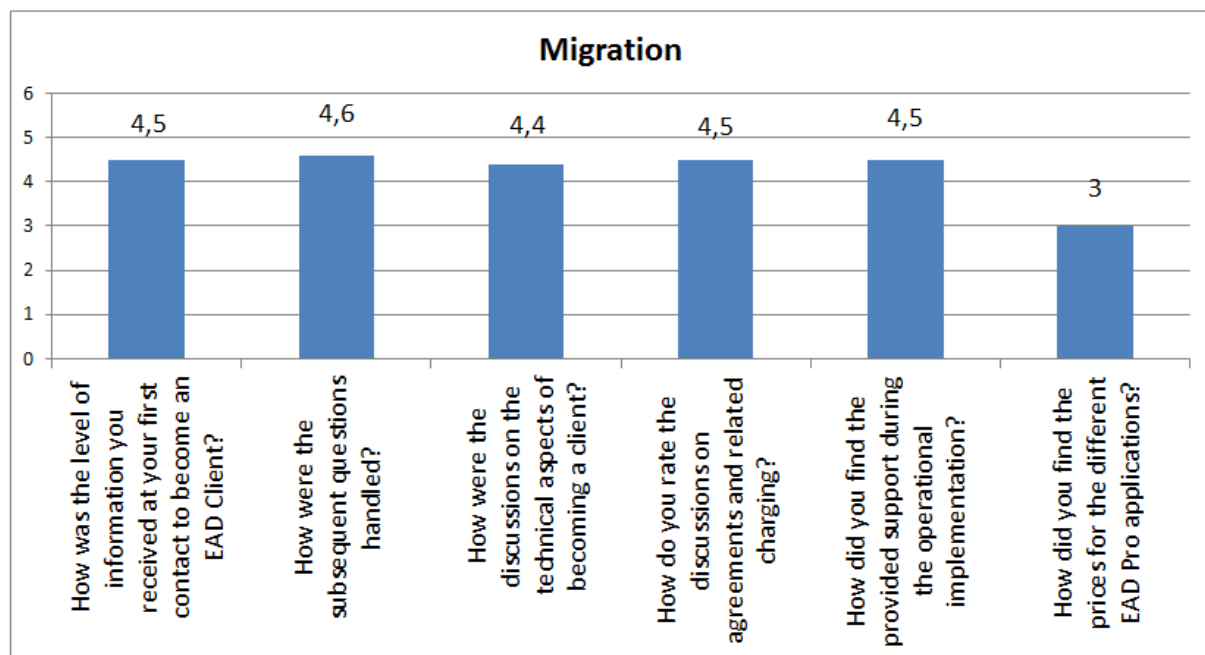


Figure 20 - Migration process

3.8 Overall EAD and Development

The overall assessment rate of EAD 3,8, i.e. almost “very good” (i.e. nearly 4,0) and for the specific question rating the service on a 10 points scale the score was 7,14 (see Figure 22, below).

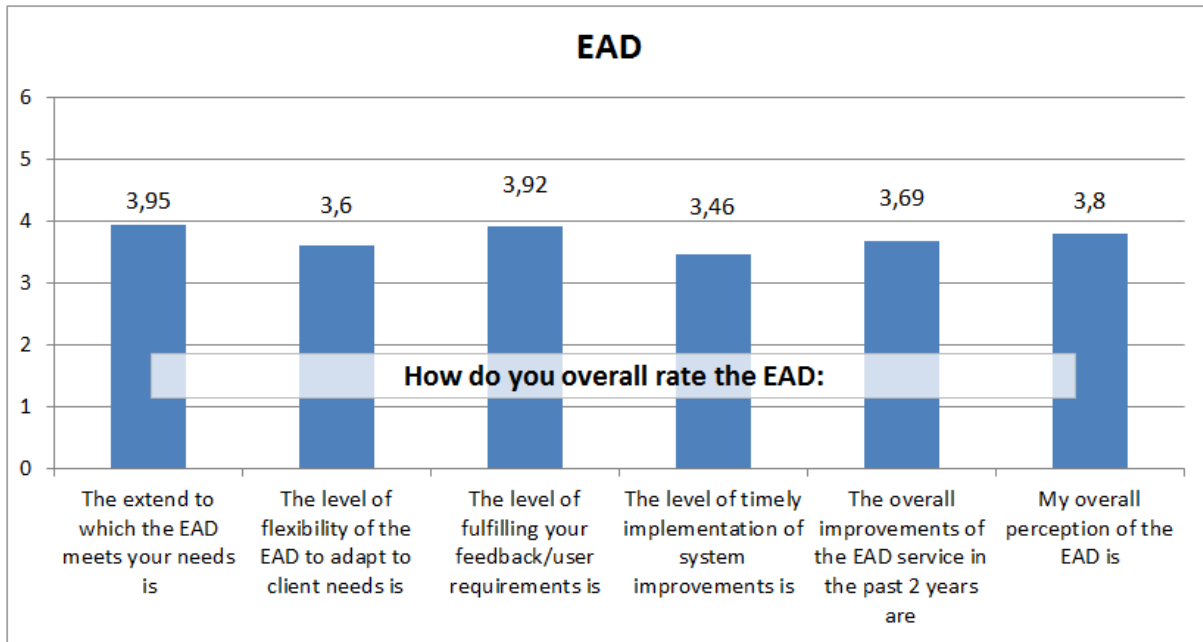


Figure 21 - Overall perception of the EAD

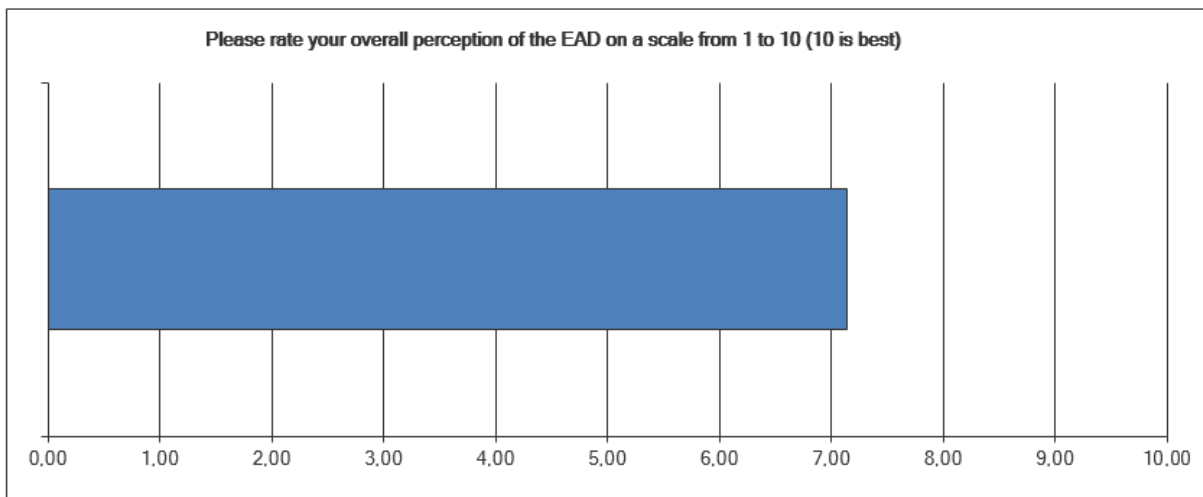


Figure 22 - Overall perception of the EAD on the 10 points scale

The last question invited clients to propose EAD improvements and future expectations. The comments are captured in the Annex 2 and are mostly related to the improvement of the system performance, service simplification and higher user friendliness.

4. CLIENT FEEDBACK

The table of the feedback received from clients is available in Annex 2. For confidentiality reasons, the names of the organisations have not been included. This applies also for comments where the content allowed the identification of the client. The comments are grouped by service or function. The assigned reference number has been added for the easier identification in the list.

5. REFERENCES AND DEFINITIONS

5.1 References

Migration Matrix for Clients FRLG49

5.2 Definitions

AFTN	Aeronautical Fixed Telecommunications Network
AIM	Aeronautical Information Management
AIMSL	AIM Service Layer
AIP	Aeronautical Information Publication
ASHTAM	NOTAM covering Ash related information
CBT	Computer Based Training
DL	Download
DOP	Data Operations Provider - GroupEAD Europe S.L. (GEAD)
DP	Data Provider
DU	Data User
EAD	European AIS Database
ECIT	EAD Client Interface Terminal
EADPro	Bespoke software suite for access to the EAD
eRAD	electronic Route Availability Document
FAA	Federal Aviation Authority
GR	Graphical Reporting
GV	Graphical Validation
ICAO	International Civil Aviation Organisation
INO	International NOTAM Operation
ISO	International Standardisation Organisation
ITP	Information Technology Provider - Frequentis
KB	Knowledge Base
MyEAD	API based, client developed, interface to the EAD
NMD	Network Manager
NOTAM	Notice To AirMen
OJT	On the Job Training
PAMS	Published AIP Management System
PIB	Pre-flight Information Briefing
SD	Service Desk
SDO	Static Data Operations
SLS	Service Level Specifications
SNOWTAM	NOTAM covering snow and ice related information
TID	Test Item Discrepancy
WBT	Web Based Training
WW	World Wide