SADIS COST RECOVERY ADMINISTRATIVE GROUP

FIFTEENTH MEETING

(Frankfurt, 4 November 2014)

ESTIMATED SADIS COSTS : 2 to 5 YEARS
(Presented by the United Kingdom)

REFERENCES
SADIS Agreement
SCRAG Reports 1-14
SADISOPSG/19 Executive Summary

1.   INTRODUCTION

1.1   The medium term (two to five years) forecast of the expected costs of operating the SADIS Services are provided in this Working Paper. Resource requirements will vary due to changing demand and these have been anticipated where possible and identified in the tables presented. Where the SADISOPSG has identified potential changes to the SADIS inventory, these will be reflected where possible.

2.   DISCUSSION

2.1   The attached Table 1 identifies expected budgets for the years 2015 to 2018 based on expected trends for expenditure by the Met Office and NATS. 2013 actual costs and 2014 forecast costs are provided for comparison, as requested by the SCRAG/12 meeting.

2.2   With regard to Met Office staff costs, the rates have remained static for several years. From 2015 it will be necessary to apply increased day rates to some staff functions. However, it is feasible to reduce the overall time assigned to SADIS for some functions to offset the increase in day rates. This is primarily due the SADIS Service being under a period of relative stability (i.e. no major Met Office projects relating to SADIS), and some efficiencies.

2.3   The following notes should be read in conjunction with Table 1.

a.   Communications costs. This includes the ISDN back-up between the SADIS Gateway and the Met Office which became operational from 2013).

b.   Message switching and ISP bandwidth costs are subject to future change but have been held constant from 2014 on the basis that there are currently no requirements for increased bandwidth. Although in the longer term prices per unit of internet capacity are expected to fall, over the period in question prices are expected to remain fairly static.

c.   The current contract for satellite bandwidth runs to the end of 2015. A small increase is catered for from 2016.

d.   The current SADIS 2G maintenance runs to 31/12/2014. A small increase is catered for from contract renewal to cover 2015.

e.   An annual allowance of £5,000 is being made for ad-hoc maintenance as requested by the SCRAG/6.

f.   Please note detailed explanation regarding changes to day rates to be applied from 2015 in section 2.2 above.

g.   The SADIS 2G hub equipment will come to the end of its useful life at the end of 2015. The MET Divisional meeting (7-18 July 2014, Montréal, Canada) recommended that that the satellite service be extended beyond 2015, but not beyond November 2019. An allowance of £10,000 has been made for resource costs associated with a refresh of the hub infrastructure in 2015.

h.   Depreciation of equipment purchased for the SADIS2G hardware refresh in 2009 will become fully depreciated at the end of September 2014.

i.   An allowance of £60,000 has been made for new hardware associated with a refresh of the hub infrastructure (see g above) depreciated over 5 years commencing in 2015.

j.   Following SCRAG Conclusion 14/7, this item includes costs relating to the processing of invoices (usually when administration charges reduce the amount actually received by the SADIS Provider by a small amount), or the cost of couriered invoices where normal surface mail is unreliable. For 2013 some costs relating to prior years have been included. For future years those administrative costs applicable to the relevant year will be listed.

2.4   Notes on SADIS Gateway costs.

k.   The NATS SADIS Gateway Costs are as described in SCRAG10-WP/14. Staff costs and communications costs have been updated in line with the latest available data.

Note, staff roles have been redefined since the last SCRAG report, although the overall impact on the provision of the service is trivial. As such the titles of operational staff have been modified:

Staff roles identified for 2013:

Operational Staff	Air Traffic Services Asst.
Engineering Staff	Systems Engineer
Administration Support	Administration Officer
Asset Engineering Support	Asset Management Activities

For 2014 onwards, these roles are identified as:

Operational Staff
Engineering Staff
Administration Staff

These are now reflected in Table 1

1. The 'Systems Maintenance' section has also undergone some re-definition.

For 2013, the different contributions were identified as:

IP Comms link to UKMO
X.25 Comms link to UKMO
Systems Maintenance

For 2014 onwards, the contributions were identified as:

Communications
Maintenance
T&RE

These are also now reflected in Table 1

m. A mid-life upgrade to the SADIS Gateway Infrastructure is expected to be implemented during 2015. Total project costs are £1,018,601. The following component costs are attributable to SADIS: Capitalised staff costs of £101,503 and hardware costs of £102,217 will be depreciated over 5 years. Cost of capital has been calculated at a rate of 9.75% on the reducing balance in each year.

Depreciation schedule for SADIS Gateway mid-life upgrade.

	2015	2016	2017	2018	2019
Value at start of year	203,720	162,976	122,232	81,488	40,744
Depreciation	40,744	40,744	40,744	40,744	40,744
Value at end of year	162,976	122,232	81,488	40,744	0
Average value in year	183,348	142,604	101,860	61,116	20,372
Interest at 9.75%	17,876	13,904	9,931	5,959	1,986

3. CONCLUSIONS

3.1   The annual running costs are subject to change. Costs may change as a result of changes in satellite bandwidth, maintenance and communication costs, new requirements and technological developments agreed by the PIRGS and SADISOPSG.

3.2   These figures should therefore be treated as an initial estimate of costs for the planning period and are subject to change.

4. ACTION

4.1   The SCRAG/15 is requested to note these provisional figures for the SADIS Costs.

TABLE 1: UKMO Cost and manpower resource projections until year 2018 (at 2014 prices)

INVENTORY REF:	Note	DESCRIPTION	Actual 2013	FOO 2014 (SCRAG15)	Est 2015	Est 2016	Est 2017	Est 2018
1		**UK MET OFFICE COSTS**						
		1. Equipment						
		Principally procured for SADIS						
comms between Whitehill & Met Office	a	SADIS 2G	5,816	5,816	5,816	5,816	5,816	5,816
comms link SADIS Gateway & Met Office		SADIS 2G	3,340	3,340	3,340	3,340	3,340	3,340
		ISDN Back-up	372	372	372	372	372	372
Not procured principally for SADIS								
message switch (FTP)	b	Secure SADIS FTP	7,380	7,380	7,500	7,500	7,500	7,500
message switch (2G)		SADIS 2G	5,461	5,461	5,500	5,500	5,500	5,500
internet bandwidth (FTP)		FTP	7,362	6,512	6,500	6,500	6,500	6,500
FTP equipment running costs		FTP	33,805	13,061	13,000	13,000	13,000	13,000
Service Desk Equipment Costs		Service Desk eqpt	12,042	12,473	12,500	12,500	12,500	12,500
Serial Comms Costs and maintenance		Serial Comms	9,848	10,601	11,000	11,000	11,000	11,000
		sub total	**85,426**	**65,016**	**65,528**	**65,528**	**65,528**	**65,528**
2. Procured Services								
space segment annual lease	c	Satellite Segment	54,660	54,660	54,660	60,000	60,000	60,000
annual maintenance	d	2G Maintenance	35,172	36,228	36,500	36,500	36,500	36,500
		2G Facilities Management	6,300	6,300	6,300	6,300	6,300	6,300
		IT Hall Space	14,824	14,863	15,000	15,000	15,000	15,000
	e	ad hoc maintenance	1,366	5,000	5,000	5,000	5,000	5,000
		sub total	**112,322**	**117,051**	**117,460**	**122,800**	**122,800**	**122,800**
3. Annual Staff Requirements	f							
Help Desk		Help Desk 0.3%	5,510	5,916	6,000	6,000	6,000	6,000
		Technical Team Leader 3.5%	12,471	12,647	12,700	12,700	12,700	12,700
		Network Systems Supervisor 7%	24,943	25,295	25,300	25,300	25,300	25,300
Additional Support								
Systems Integration Team		Network Computer Engineer	4,866	4,866	5,292	5,292	5,292	5,292
Message Switching		Message Switching Manager	5,214	5,214	5,670	5,670	5,670	5,670
Administrator		Executive Officer	55,612	55,612	62,850	62,850	62,850	62,850
International Aviation Management		Aviation Manager	12,805	12,805	7,290	7,290	7,290	7,290
Data Traffic		Communications Engineer	1,738	1,738	1,890	1,890	1,890	1,890
Contract Management		Senior Procurement Officer	1,390	1,390	1,512	1,512	1,512	1,512
Message Switching Team		Technical Officer	5,214	5,214	5,670	5,670	5,670	5,670
Invoice Administration		Finance Officer & Business Acct	13,354	13,354	14,850	14,850	14,850	14,850
SADIS Satellite Upgrade/decomissioning	g	Resource costs			10,000			
Travel Costs		SADISOPSG & SCRAG	1,990	2,000	3,000	3,000	3,000	3,000
		sub total	**145,107**	**146,051**	**162,024**	**152,024**	**152,024**	**152,024**
		TOTAL	**342,855**	**328,118**	**345,012**	**340,352**	**340,352**	**340,352**
Cost of Depreciated Capital								
	h	SADIS 2G	11,616	8,712	0	0	0	0
		FTP enhancements	0	0	0	0	0	0
	i	SADIS 2G ground segment Refresh	0	0	12,000	12,000	12,000	12,000
		sub total	**354,471**	**336,830**	**357,012**	**352,352**	**352,352**	**352,352**
		Cost of Capital	19,348	20,000	20,000	20,000	20,000	20,000
Administrative costs	j	Financing costs	271	100	100	100	100	100
		Total UKMO Costs	**374,090**	**356,930**	**377,112**	**372,452**	**372,452**	**372,452**

TABLE 2: NATS and other SADIS Cost Projections until 2018

INVENTORY REF:	Note	DESCRIPTION	Actual 2013	FOO 2014 (SCRAG15)	Est 2015	Est 2016	Est 2017	Est 2018
2 NATS Gateway Costs	k							
Staff Costs								
Operational Staff		Air Traffic Services Asst.	252,917	270,739	276,968	284,043	294,223	301,008
Engineering Staff		Maintenance Engineer	2,397	10,210	9,430	9,660	10,009	10,242
Engineering Staff		Asset Management	2,512	N/A	N/A	N/A	N/A	N/A
Administration Staff		Administration Officer	24,732	801	1,099	1,122	1,161	1,188
		sub total	**282,558**	**281,750**	**287,497**	**294,825**	**305,393**	**312,438**
Systems Maintenance	l	IP Comms link to UKMO	18,128	N/A	N/A	N/A	N/A	N/A
		X.25 Comms link to UKMO	0	N/A	N/A	N/A	N/A	N/A
		Systems Maintenance	6,264	N/A	N/A	N/A	N/A	N/A
		Communications	N/A	4,000	7,500	7,652	7,801	7,957
		Maintenance	N/A	1,250	6,500	6,632	6,761	6,896
		T&RE	N/A	471	4,750	4,846	4,941	5,039
Sadis Gateway Upgrade (Capital Project)	m	Capitalised Staff Costs	0	0	20,301	20,301	20,301	20,301
Cost of Depreciated Capital		Hardware Depreciation	0	0	20,443	20,443	20,443	20,443
		Interest at 9.75%	0	0	17,876	13,904	9,931	5,959
Sadis Backup enhancement		procurement & Installation	0	0	0	0	0	0
		annual support costs	1250	0	0	0	0	0
Total NATS Gateway Costs			**308,200**	**287,471**	**364,867**	**368,603**	**375,571**	**379,033**
CAA Administration Costs			**5,180**	**5,000**	**5,000**	**5,000**	**5,000**	**5,000**
ICAO Administration Costs			**52,369**	**51,686**	**50,229**	**50,229**	**50,229**	**50,229**
TOTAL SADIS COSTS			**739,839**	**701,087**	**797,208**	**796,284**	**803,252**	**806,714**