

**SADIS COST RECOVERY ADMINISTRATIVE GROUP**

**THIRTEENTH MEETING**

(Paris, November 2 2012)

**ESTIMATED SADIS COSTS : 2 to 5 YEARS**

(Presented by the United Kingdom)

**REFERENCES**

SADIS Agreement  
SCRAG Reports 1-12  
SADISOPSG/17 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. The SADISOPSG identified potential changes to the SADIS inventory as a result of new requirements and these have been reflected where possible.

**2. DISCUSSION**

2.1 The attached Table 1 identifies expected budgets for the years 2013 to 2016 based on expected trends for expenditure by the United Kingdom Met Office and NATS. A comparison with the 2011 actual costs and 2012 forecast costs is provided, as requested by the SCRAG/12 meeting.

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

- a. Communications costs and the continued need for the ISDN back-up between the SADIS Gateway and the Met Office are subject to on-going review.
- b. Message switching and ISP bandwidth costs are subject to change but have been held constant through the period. Prices per unit of internet bandwidth continue to fall, however the SADISOPSG is reviewing the required download speeds and if improvements are required then increased bandwidth will be required in future years. Costs are therefore held constant to cater for any increase in bandwidth.

- c. The current contract for satellite bandwidth runs to the end of 2015.
- d. The SADIS 2G maintenance contract will be renewed for a further 12 months from 1/1/2013. Quotation for 2013 is £35,172.
- e. An annual allowance of £5k is being made for ad-hoc maintenance as requested by the SCRAG/6.
- f. Staff Requirements assume the current level of effort continues.
- g. The SADIS 2G hub equipment will come to the end of its useful life at the end of 2015. SADISOPSG will make a decision as to whether the satellite service will be continued or switched off. An allowance of £10,000 has been made for resource costs associated with a refresh of the hub infrastructure.
- 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 depreciated over 5 years commencing in 2015.

### 2.3 Notes on SADIS Gateway costs.

- j. The NATS SADIS Gateway Costs are as described in SCRAG10-WP/14.
- k. A mid-life upgrade to the SADIS Gateway Infrastructure is expected to be implemented during 2013/14. Total project costs are expected to be around £900,000 of which 20% is attributable to SADIS. Project Management costs of £36,000 and a capital cost of £144,000 have been used with the capital costs depreciated over 5 years. Cost of capital has been calculated at a rate of 6.75% on the reducing balance in each year.

## 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/13 is requested to note these provisional figures for the SADIS Costs.

TABLE 1: UKMO Cost and manpower resource projections until year 2016 (at 2012 prices)

INVENTORY REF:	Note	DESCRIPTION	Actual 2011	FOO 2012	Est 2013	Est 2014	Est 2015	Est 2016
<b>1</b>		<b>UK MET OFFICE COSTS</b>						
		<b>1. Equipment</b>						
		<b>Principally procured for SADIS</b>						
	a	comms between Whitehill & Met Office	5,436	5,436	5,436	5,436	5,436	5,436
		comms link SADIS Gateway & Met Office	3,340	3,340	3,340	3,340	3,340	3,340
		ISDN Back-up	372	372	372	372	372	372
		<b>Not procured principally for SADIS</b>						
	b	message switch (FTP)	15,096	7,387	7,000	7,000	7,000	7,000
		message switch (2G)	10,404	5,466	5,000	5,000	5,000	5,000
		internet bandwidth (FTP)	9,758	9,214	9,000	9,000	9,000	9,000
		FTP equipment running costs	28,077	35,534	30,000	30,000	30,000	30,000
		Service Desk Equipment Costs	10,045	10,290	10,500	10,500	10,500	10,500
		Serial Comms Costs and maintenance	9,247	9,248	9,000	9,000	9,000	9,000
		<b>sub total</b>	<b>91,775</b>	<b>86,287</b>	<b>79,648</b>	<b>79,648</b>	<b>79,648</b>	<b>79,648</b>
		<b>2. Procured Services</b>						
	c	space segment annual lease	54,660	54,660	54,660	54,660	54,660	54,660
	d	annual maintenance	32,414	33,548	35,172	35,172	35,172	35,172
		2G Maintenance	4,275	6,300	6,300	6,300	6,300	6,300
		2G Facilities Management	16,660	15,170	16,000	16,000	16,000	16,000
	e	ad hoc maintenance	3,090	5,000	5,000	5,000	5,000	5,000
		<b>sub total</b>	<b>111,099</b>	<b>114,678</b>	<b>117,132</b>	<b>117,132</b>	<b>117,132</b>	<b>117,132</b>
	f	<b>3. Annual Staff Requirements</b>						
		<b>Help Desk</b>						
		Help Desk 0.5%	5,510	5,510	5,500	5,500	5,500	5,500
		Technical Team Leader 4%	10,045	10,266	10,500	10,500	10,500	10,500
		Network Systems Supervisor 7%	20,090	20,533	21,000	21,000	21,000	21,000
		<b>Additional Support</b>						
		Systems Integration Team	4,866	4,866	4,866	4,866	4,866	4,866
		Message Switching	5,214	5,214	5,214	5,214	5,214	5,214
		Administrator	55,612	55,612	55,612	55,612	55,612	55,612
		International Aviation Management	12,805	12,805	12,805	12,805	12,805	12,805
		Data Traffic	1,738	1,738	1,738	1,738	1,738	1,738
		Contract Management	1,390	1,390	1,390	1,390	1,390	1,390
		Message Switching Team	5,214	5,214	5,214	5,214	5,214	5,214
		Invoice Administration	13,354	13,354	12,165	12,165	12,165	12,165
	g	SADIS Satellite Upgrade/decommissioning					10,000	
		<b>Travel Costs</b>						
		SADISOPSG & SCRAG	812	2,400	5,000	5,000	5,000	5,000
		<b>sub total</b>	<b>136,650</b>	<b>138,902</b>	<b>141,004</b>	<b>141,004</b>	<b>151,004</b>	<b>141,004</b>
		<b>TOTAL</b>	<b>339,524</b>	<b>339,867</b>	<b>337,784</b>	<b>337,784</b>	<b>347,784</b>	<b>337,784</b>
		<b>Cost of Depreciated Capital</b>						
	h	SADIS 2G	11,616	11,616	11,616	8,712	0	0
		FTP enhancements	0	0	0	0	0	0
	i	Satellite Service upgrade	0	0	0	0	12,000	12,000
		<b>sub total</b>	<b>351,140</b>	<b>351,483</b>	<b>349,400</b>	<b>346,496</b>	<b>359,784</b>	<b>349,784</b>
		Cost of Capital	20,316	20,000	20,000	20,000	20,000	20,000
		<b>Total UKMO Costs</b>	<b>371,456</b>	<b>371,483</b>	<b>369,400</b>	<b>366,496</b>	<b>379,784</b>	<b>369,784</b>

**TABLE 2: NATS and other SADIS Cost Projections until 2016**

INVENTORY REF:	Note	DESCRIPTION	Actual 2011	FOO 2012	2013	2014	2015	2016
<b>2 NATS Gateway Costs</b>	j							
<b>Staff Costs</b>								
Operational Staff		Air Traffic Services Asst.	261,410	261,410	261,410	261,410	261,410	261,410
Engineering Staff		Systems Engineer	12,202	12,202	12,202	12,202	12,202	12,202
Administration Support		Administration Officer	24,400	24,400	24,400	24,400	24,400	24,400
asset engineering support		asset management activities	7,016	7,016	7,016	7,016	7,016	7,016
		<b>sub total</b>	<b>305,028</b>	<b>305,028</b>	<b>305,028</b>	<b>305,028</b>	<b>305,028</b>	<b>305,028</b>
Communications		ip comms link to ukmo	12,040	12,040	12,040	12,040	12,040	12,040
		x25 comms link	0	0	0	0	0	0
Maintenance		Systems Maintenance	6,264	6,264	6,264	6,264	6,264	6,264
Sadis Gateway Upgrade	k	Project Management	0	0	0	36,000		
Cost of Depreciated Capital		Depreciation	0	0	0	28,800	28,800	28,800
		Cost of Capital	0	0	0	9,720	7,776	5,832
Sadis Backup enhancement		procurement & Installation	0	0	0	0	0	0
		annual support costs	1250	1250	1,250	1,250	1,250	1,250
<b>Total NATS Gateway Costs</b>			<b>324,582</b>	<b>324,582</b>	<b>324,582</b>	<b>399,102</b>	<b>361,158</b>	<b>359,214</b>
<b>CAA Administration Costs</b>			<b>4,037</b>	<b>5,000</b>	<b>5,000</b>	<b>5,000</b>	<b>5,000</b>	<b>5,000</b>
<b>ICAO Administration Costs</b>			<b>41,775</b>	<b>50,000</b>	<b>53,062</b>	<b>53,062</b>	<b>53,062</b>	<b>53,062</b>
<b>TOTAL SADIS COSTS</b>			<b>741,850</b>	<b>751,065</b>	<b>752,044</b>	<b>823,660</b>	<b>799,004</b>	<b>787,060</b>