SADIS COST RECOVERY ADMINISTRATIVE GROUP

SEVENTH MEETING

(Bangkok, 1st and 2nd November 2006)

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

REFERENCES

SADIS Agreement

SCRAG/1/2/3/4/5/6 Reports

SADISOPSG/11 Executive Summary

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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 2007, 2008, 2009 and 2010 based on expected trends for expenditure by the United Kingdom Met Office and NATS.

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

a.   SADIS 1G will be disbanded at the end of 2008. Costs are therefore nil for 2009 and 2010.
b.   Some allowance has been made for increased switching costs of Gridded Icing, Turbulence and CB data from 2007 and for the additional cost of switching data in GRIB2 format from 2009.
c.   ISP bandwidth costs are subject to change. Prices per unit bandwidth are expected to fall in the short term but are likely to be balanced by demand for faster access for an increasing number of users.
d.   Equipment running costs include infrastructure and service delivery costs (server hall usage, network connection, WAN costs) and

platform support team costs. Enhancements to the service are itemised separately.

e.   A new contract for the satellite bandwidth will be required from January 2007 and will run till the end of 2008. Some allowance has been made for reduced bandwidth when the SADIS 1G broadcast ceases at the end of 2008.

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

g.   FTP enhancements costs are as presented to the SCRAG/6. Work has not yet started so the figures are subject to change and slippage.

h   The SADIS 2G operational equipment will become fully depreciated at the end of 2008.

i.   A rate of return of 10% has been applied as the cost of capital.

2.3   Notes on SADIS Gateway costs and UK CAA and UK Met Office administration costs

l.   The costs of operational, engineering and support staff have been increased by 3.6% (RPI +1.5%).

m.   The full annual cost of software maintenance is £31,323.75. 20% of this cost (£6,264 per annum) is allocated to SADIS.

n.   The full capital cost of the project was £1,137k. 20% of this (£227.4k) was allocated to SADIS. This cost is to be depreciated over a five year period, using the straight line method. Depreciation charges are therefore £45.5k per annum.

o.   A rate of 7.75% has been applied to the average net book value of the asset to determine the cost of capital. In 2007 the average net book value will be £35,744 (*7.75% = £2,770).

p.   Costs of implementing a SADIS back-up of WAFC services as discussed at SADISOPSG/11 (see also SCRAG/7 WP14).

q.   CAA administration costs of £5,000 represent the technical support provided by the CAA Met Authority (Mr A Wells), who will continue to attend the annual SCRAG meetings. Billing and other administration functions will transfer to the UK Met Office in 2007 (see item r)

r.   Cost for administration of invoicing formerly carried out by UK CAA but carried out by the UK Met Office as of 1 January 2007.

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/7 is requested to note these provisional figures for the SADIS Costs.

TABLE 1: UKMO Cost and manpower resource projections until year 2010 (at 2006 prices)

INVENTORY REF:	Note	DESCRIPTION	2007	2008	2009	2010
1 **UK MET OFFICE COSTS**						
1. Equipment						
Principally procured for SADIS						
comms between Whitehill & Met Office	a	SADIS 1G	3,139	3,139	0	0
		SADIS 2G	6,364	6,364	6,364	6,364
comms link SADIS Gateway & Met Office	a	SADIS 1G	3,340	3,340	0	0
		SADIS 2G	0	0	0	0
		ISDN back up	0	0	0	0
Not procured principally for SADIS						
message switch (FROST/SADIS)	a	SADIS 1G	37,800	37,800	0	0
message switch (FROST/FTP)	b	SADIS FTP	12,000	12,000	20,000	20,000
message switch (FROST/2G)		SADIS 2G	21,840	21,840	21,840	21,840
internet bandwidth (FTP)	c	FTP	13,532	13,532	13,532	13,532
FTP equipment running costs	d	FTP	12,300	12,300	12,300	12,300
		sub total	**110,315**	**110,315**	**74,036**	**74,036**
2. Procured Services						
space segment annual lease	e	Satellite Segment	90,000	90,000	80,000	80,000
annual maintenance	a	SADIS 1G C&W	9,816	9,816	0	0
	a	1G Facilities Mgmt	6,300	6,300	0	0
		2G Maintenance	24,000	24,000	24,000	24,000
		2G Facilities Mgmt	3,150	3,150	3,150	3,150
		IT Hall Space	11,000	11,000	11,000	11,000
	f	ad hoc maintenance	5,000	5,000	5,000	5,000
		sub total	**149,266**	**149,266**	**123,150**	**123,150**
3. Annual Staff Requirements						
Help Desk		Help Desk	17,500	17,500	17,500	17,500
Additional Support						
Systems Integration Team		Network Comp Eng.	6,658	6,658	6,658	6,658
Administrator		Executive Officer	49,934	49,934	49,934	49,934
International Aviation Management		Aviation Manager	12,773	12,773	12,773	12,773
Data Traffic		Communications Engineer	3,604	3,604	3,604	3,604
Contract Management		Senior Procurement Officer	3,604	3,604	3,604	3,604
UNIX Support		Computer Engineer	6,658	6,658	6,658	6,658
Web Team Support		Website Designer	6,658	6,658	6,658	6,659
Enhancements to FTP Service	g		32,000	17,000	0	0
Travel Costs		SADISOPSG & SCRAG	6,000	6,000	6,000	6,000
		sub total	**145,389**	**130,389**	**113,389**	**113,390**
		TOTAL	**404,970**	**389,970**	**310,575**	**310,576**
Cost of Depreciated Capital						
	h	SADIS 2G	17,485	17,485	0	0
	g	FTP enhancements	11,000	13,000	13,000	13,000
		sub total	**433,455**	**420,455**	**323,575**	**323,576**
	i	Cost of Capital	43,346	42,046	32,358	32,358
		Total UKMO Costs	**476,801**	**462,501**	**355,933**	**355,934**

TABLE 2: NATS and other SADIS Cost Projections until 2010

INVENTORY REF:	Note	DESCRIPTION	2007	2008	2009	2010
2 **NATS Gateway Costs**						
Staff Costs						
Operational Staff	l.	Air Traffic Services Asst.	52,066	52,066	52,066	52,066
Engineering Staff	l.	Systems Engineer	21,043	21,043	21,043	21,043
Administration Support	l.	Administration Officer	14,178	14,178	14,178	14,178
		sub total	**87,287**	**87,287**	**87,287**	**87,287**
Communications		link to UKMO	0	0	0	0
Maintenance	m.	Systems Maintenance	6,264	6,264	6,264	6,264
Cost of Depreciated Capital	n.	Depreciation	45,492	12,997	0	0
	o.	Cost of Capital	2,770	504	0	0
SADIS Backup Enhancement	p.	Procurement & Installation	29,141			
	p.	Annual support costs		1,250	1,250	1,250
Total NATS Gateway Costs			**170,954**	**108,302**	**94,801**	**94,801**
UK CAA Administration Costs	q.		**5,000**	**5,000**	**5,000**	**5,000**
UK MET Office Administration Costs	r.		**15,000**	**15,000**	**15,000**	**15,000**
ICAO Administration Costs			**33,579**	**33,579**	**33,579**	**33,579**
TOTAL SADIS COSTS			**701,334**	**624,382**	**504,313**	**504,314**