SADIS COST RECOVERY ADMINISTRATIVE GROUP

EIGHTEENTH MEETING

(Gatwick, UK, 8th November 2017)

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

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REFERENCES

SADIS Agreement

SCRAG Reports 1-16

METP WG-MOG/3 Report
METP WG-MOG/4 Report

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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. Where the METP WG-MOG/4 has identified potential changes to the SADIS inventory, these will be reflected as appropriate.

2.   DISCUSSION

2.1   The attached Table 1 identifies expected budgets for the years 2018 to 2021 based on expected trends for expenditure by the Met Office and NATS. 2016 actual costs and 2017 forecast costs are provided for comparison, as requested by the SCRAG/12 meeting.

2.2   An additional increase in staff day-rates is expected in 2017. With a view to offset some of this increase, and recognising the cessation of SADIS 2G, it is feasible to reduce the Administrator function commitment to offset this increase.

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

a. **Communications costs between Whitehill and the Met Office.**
These costs ceased when the SADIS 2G service is withdrawn on 31 July 2016.

b. **NATS Links**
Communications costs between the SADIS Gateway, operated by NATS, and the Met Office.

c. **Message Switch**
SADIS FTP costs will continue to be charged following the cessation of SADIS 2G.

d. **Internet bandwidth.**
On 27 April 2017, the bandwidth provided was increased from 24Mbit/sec bursting 42Mbit/sec at an annual cost of £10,250; to 42Mbit/sec bursting 60Mbit/sec at an annual cost of £17,900.

e. **Service Desk equipment**
These charges cover equipment costs for the service desk functions.

f. **Satellite lease**
No longer applicable from 1 August 2016.

g. **Annual Maintenance**
Annual maintenance for SADIS 2G is no longer applicable from 1 August 2016.
IT Hall Space at the Met Office as part of the SADIS FTP service. Considering the withdrawal of the SADIS 2G service, this line is proposed to be re-titled in future years.

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

i. **Help Desk and Other staff costs**
The cost rates have been updated using the latest available figures. The percentage attribution rates can be found in the SADIS Inventory.

j. **Additional Support costs**
Please note detailed explanation regarding changes to day rates to be applied from 2017 in section **Error! Reference source not found.** above.

k. **Resource costs**
Only applicable for the decommissioning the SADIS 2G service in 2016.

l.   Travel Costs
Travel and subsistence costs for Met Office staff to attend appropriate Meteorological Panel Working Groups (Meteorological Operations Group, WG-MOG, in relation to SADIS) and SCRAG meetings are included here.

m.   Cost of depreciated capital
See WP/8. As of 2017, all Met Office capital projects will have been fully depreciated.

n.   Cost of Capital
Cost of capital for future years has been estimated using the revised methodology applied in 2008 and described in SCRAG/10 WP/13.

o.   Administrative costs (bank charges, couriered invoices etc)
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.

2.4   Notes on SADIS Gateway costs.

p.   Staff Costs – Systems Engineers
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.

These are reflected in Table 1

q.   Systems Maintenance

These are reflected in Table 1

r.   SADIS Gateway Upgrade
A mid-life upgrade to the SADIS Gateway Infrastructure was undertaken during 2015, and becoming fully operational on 6 January 2016. Total project costs are £1,018,601.   The following component costs are attributable to SADIS: Capitalised staff costs of £77,520 and hardware costs of £109,810 will be depreciated over 5 years. Cost of capital has been calculated at a rate of 5.88% 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	187,330	149,864	112,398	74,932	37,466
Depreciation	37,466	37,466	37,466	37,466	37,466
Value at end of year	149,864	112,398	74,932	37,466	0
Average value in year	168,597	131,131	93,665	56,199	18,733
Interest at 5.88%	10,983	8,786	6,590	4,393	2,197

3. CONCLUSIONS

3.1   The annual running costs are subject to change. Costs may change as a result of changes in internet bandwidth, maintenance and internal and external communication costs, new requirements and technological developments agreed by the PIRGS and by the working groups under the METP.

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/18 is requested to note these provisional figures for the SADIS Costs.

TABLE 1: UKMO Cost and manpower resource projections until year 2021 (at 2017 prices)

INVENTORY REF:	Note	DESCRIPTION	Actual 2016	FOO 2017	Est 2018	Est 2019	Est 2020	Est 2021
1		**UK MET OFFICE COSTS**						
		1. Equipment						
		Principally procured for SADIS						
comms between Whitehill & Met Office	a	SADIS 2G	3,393	0	0	0	0	0
comms link SADIS Gateway & Met Office	b	SADIS 2G/SADIS FTP	3,340	3,340	3,340	3,340	3,340	3,340
		ISDN Back-up	0	0	0	0	0	0
		Not procured principally for SADIS						
message switch (FTP)	c	SADIS FTP	6,274	6,220	6,220	6,220	6,220	6,220
message switch (2G)		SADIS 2G	2,708	0	0	0	0	0
internet bandwidth (FTP)	d	FTP	15,664	17,900	17,900	17,900	17,900	17,900
FTP equipment running costs		FTP	20,085	27,800	27,800	27,800	27,800	27,800
Service Desk Equipment Costs	e	Service Desk eqpt	12,472	12,750	12,750	12,750	12,750	12,750
Serial Comms Costs and maintenance		Serial Comms	6,184	0	0	0	0	0
		sub total	**70,120**	**68,010**	**68,010**	**68,010**	**68,010**	**68,010**
		2. Procured Services						
space segment annual lease	f	Satellite Segment	27,981	0	0	0	0	0
annual maintenance	g	2G Maintenance	23,662	0	0	0	0	0
		2G Facilities Management	3,675	0	0	0	0	0
		IT Hall Space	8,667	0	0	0	0	0
	h	ad hoc maintenance	0	1,000	5,000	5,000	5,000	5,000
		sub total	**63,985**	**1,000**	**5,000**	**5,000**	**5,000**	**5,000**
		3. Annual Staff Requirements						
Help Desk	i	Help Desk 0.3%	5,916	6,000	6,000	6,000	6,000	6,000
		Technical Team Leader 3.5%	12,135	12,520	12,520	12,520	12,520	12,520
		Network Systems Supervisor 7%	24,270	25,040	25,040	25,040	25,040	25,040
Additional Support								
Systems Integration Team	j	Network Computer Engineer	5,345	5,460	5,460	5,460	5,460	5,460
Message Switching Manager		Message Switching Manager	5,727	5,850	5,850	5,850	5,850	5,850
Administrator		Executive Officer	63,478	64,235	64,235	64,235	64,235	64,235
International Aviation Management		Aviation Manager	7,363	7,665	7,665	7,665	7,665	7,665
Data Traffic		Communications Engineer	1,909	1,950	1,950	1,950	1,950	1,950
Contract Procurement and Management		Senior Procurement Officer	1,527	1,560	1,560	1,560	1,560	1,560
Message Switching Team		Technical Officer	5,727	5,850	5,850	5,850	5,850	5,850
Invoice Administration		Finance Officer & Business Acct	14,998	15,465	15,465	15,465	15,465	15,465
SADIS 2G decomissioning	k	Resource costs	1,017	0	0	0	0	0
Travel Costs	l	SADISOPSG, METP meetings & SCR	1,303	800	1,000	1,000	1,000	1,000
		sub total	**150,715**	**152,395**	**152,595**	**152,595**	**152,595**	**152,595**
		TOTAL	**284,820**	**221,405**	**225,605**	**225,605**	**225,605**	**225,605**
Cost of Depreciated Capital								
		SADIS 2G	0	0	0	0	0	0
		FTP enhancements	0	0	0	0	0	0
	m	SADIS 2G CP6000 replacement	7,055	0	0	0	0	0
		sub total	**291,875**	**221,405**	**225,605**	**225,605**	**225,605**	**225,605**
	n	Cost of Capital	18,968	19,350	19,350	19,350	19,350	19,350
Administrative costs	o	Admin charges	335	350	350	350	350	350
		Total UKMO Costs	**311,178**	**241,105**	**245,305**	**245,305**	**245,305**	**245,305**

TABLE 2: NATS and other SADIS Cost Projections until 2020 (at 2016 prices)

INVENTORY REF:	Note	DESCRIPTION	Actual 2016	FOO 2017	Est 2018	Est 2019	Est 2020	Est 2021
2	**NATS Gateway Costs**	p							
Staff Costs								
Operational Staff		Air Traffic Services Asst.	216,857	214,908	220,111	221,547	224,891	229,120
Engineering Staff		Maintenance Engineer	6,388	5,611	6,977	7,052	7,175	7,311
Administration Staff		Administration Officer	35,151	30,526	26,793	26,946	27,331	27,839
Engineering Staff		Asset Management		N/A	N/A	N/A	N/A	N/A
		sub total	**258,396**	**251,045**	**253,881**	**255,545**	**259,397**	**264,270**
Systems Maintenance	q	IP Comms link to UKMO	N/A	N/A	N/A	N/A	N/A	N/A
		X.25 Comms link to UKMO	N/A	N/A	N/A	N/A	N/A	N/A
		Systems Maintenance	N/A	N/A	N/A	N/A	N/A	N/A
		Communications	760	319	345	345	345	345
		Maintenance	4,583	7,210	9,430	9,430	9,430	9,430
		T&RE	870	2,798	3,623	3,623	3,623	3,623
Sadis Gateway Upgrade (Capital Project)	r							
Cost of Depreciated Capital		Capital Investments	37,466	37,466	37,466	37,466	N/A	N/A
		Interest at 5.88%	8,786	6,590	4,393	2,197	N/A	N/A
Sadis Backup enhancement		procurement & Installation	0	0	0	0	0	0
		annual support costs	0	0	0	0	0	0
Total NATS Gateway Costs			**310,861**	**305,428**	**309,138**	**308,606**	**272,795**	**277,668**
CAA Administration Costs			**4,087**	**4,000**	**4,000**	**4,000**	**4,000**	**4,000**
ICAO Administration Costs			**42,477**	**45,176**	**40,327**	**40,327**	**40,327**	**40,327**
TOTAL SADIS COSTS			**668,603**	**595,709**	**598,770**	**598,238**	**562,427**	**567,300**