

SADIS COST RECOVERY ADMINISTRATIVE GROUP

NINEEENTH MEETING

(London, UK, 30th October 2018)

Agenda Item 4: Review of estimated SADIS costs and cost shares for the period 1 January to 31 December 2019 and estimated cost for the next 2-5 years

ESTIMATED SADIS COSTS : 2 to 5 YEARS

(Presented by the United Kingdom)

REFERENCES

SADIS Agreement
SCRAG Reports 1-8
METP WG-MOG/3 Report
METP WG-MOG/4 Report
METP WG-MOG/6 Report

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/6 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 2019 to 2022 based on expected trends for expenditure by the Met Office and NATS. 2017 actual costs and 2018 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 the coming years, however overall commitments can be adjusted to mitigate against this.

2.3 Costs attributable to the development of a next generation SADIS system (to come into operation by November 2022) are not included in these projections, as development and operating costs have not yet been determined.

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

- a. **Met Office to NATS link**
Communications costs between the SADIS Gateway, operated by NATS, and the Met Office.
- b. **Message Switch**
These charges relate to the routing of data through into SADIS FTP.
- c. **Internet bandwidth.**
The bandwidth allocated to SADIS is currently 42Mbit/sec bursting 60Mbit/sec at an annual cost of £17,900. This will be increased to 80Mbit/sec bursting 120Mbit/s in November or December 2018 and the annual charge will drop to approximately £8021 (agreed at METP-WG/MOG6). The introduction of larger WAFC hazard data sets, and IWXXM OPMET data in 2020 may require an additional uplift in bandwidth to enable the effective delivery of this extra data.
- d. **Service Desk equipment**
These charges cover equipment costs for the service desk functions.
- e. **Ad-hoc maintenance**
SCRAG/6 proposed that a charge of £5,000 be budgeted for ad-hoc maintenance, primarily on the SADIS 2G equipment. Since the retirement of this system, any future ad-hoc maintenance is expected to be small, so this figure has been reduced accordingly.
- f. **SADIS Test server and IWXXM data feeds**
METP-WG/MOG6 Action 6/10 permitted the set up of a SADIS Test server facility. Costs are as presented in METP-WG/MOG6 SN15. The costs listed for the IWXXM OPMET data feed set up costs are independent of the SADIS Test server, so were not included in METP-WG/MOG6 SN15.
- g. **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.
- h. **Additional Support costs**
Administrative and professional support provided by the specified staff functions to the SADIS service.
- i. **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.

j. 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.

k. 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.

2.5 Notes on SADIS Gateway costs.

l. 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

m. Systems Maintenance

These are reflected in Table 1

n. SADIS Gateway Upgrade

A mid-life upgrade to the SADIS Gateway Infrastructure was undertaken during 2015, and became 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/19 is requested to note these provisional figures for the SADIS Costs.

TABLE 1: UKMO Cost and manpower resource projections until year 2022 (at 2018 prices)

INVENTORY REF:		Note	DESCRIPTION	Actual 2017	FOO 2018	Est 2019	Est 2020	Est 2021	Est 2022
1	UK MET OFFICE COSTS								
	1. Equipment								
	Principally procured for SADIS								
	comms link SADIS Gateway & Met Office	a		3,340	3,340	3,500	3,500	3,500	3,500
	Not procured principally for SADIS								
	message switch (FTP)	b		5,364	5,500	5,600	5,800	6,000	6,000
	internet bandwidth (FTP)	c		15,350	17,100	8,050	8,200	10,000	10,000
	FTP equipment running costs			22,680	23,000	23,500	24,000	24,000	24,000
	Service Desk Equipment Costs	d	Service Desk eqpt	10,307	10,500	10,750	11,000	11,000	11,000
		e	ad hoc maintenance	32	100	500	500	500	500
			Equipment sub total	57,073	59,540	51,900	53,000	55,000	55,000
	2. Development Costs								
	SADIS Test Server	f	Test server set up costs	0	0	10,800	0	0	0
	SADIS Test Server		Server running cost	0	0	3,200	3,200	3,200	3,200
	IWXXM OPMET data		Data feed set up costs	0	0	22,000	4,000	0	0
			Development Costs sub total	0	0	36,000	7,200	3,200	3,200
	3. Annual Staff Requirements								
	Help Desk								
		g	Help Desk 0.3%	5,916	6,000	6,000	6,500	6,500	7,000
			Technical Team Leader 3.5%	12,160	12,500	12,500	13,000	13,000	13,500
			Network Systems Supervisor 7%	24,320	25,000	25,000	25,500	25,500	26,000
	Additional Support								
	Systems Integration Team	h	Network Computer Engineer	5,145	5,400	5,400	5,600	5,600	5,800
	Message Switching Manager		Message Switching Manager	5,145	5,400	5,400	5,600	5,600	5,800
	Administrator		Executive Officer	63,615	64,000	65,000	65,000	66,000	66,000
	International Aviation Management		Aviation Manager	8,156	8,200	8,400	8,400	8,600	8,600
	Data Traffic		Communications Engineer	1,864	1,950	2,000	2,000	2,500	2,500
	Message Switching Team		Technical Officer	5,592	5,600	5,800	5,800	6,000	6,000
	Contract Procurement and Management		Senior Procurement Officer	1,491	1,500	1,600	1,600	1,600	1,600
	Invoice Administration		Finance Officer & Business Acct	13,759	14,000	14,500	15,000	15,000	15,000
	Travel Costs								
		i	METP-WG/MOG meetings & SCRAG	393	1,200	1,000	1,000	1,000	1,000
			Staff Requirement and travel sub total	147,556	150,750	152,600	155,000	156,900	158,800
	Administrative costs	j	Cost of Capital	20,611	20,600	21,000	21,000	21,000	21,000
		k	Admin charges	624	650	650	650	650	650
	Total UKMO Costs			225,864	231,540	262,150	236,850	236,750	238,650

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

INVENTORY REF:		Note	DESCRIPTION	Actual 2017	FOO 2018	Est 2019	Est 2020	Est 2021	Est 2022
2	NATS Gateway Costs								
	Staff Costs								
	Operational Staff	l	Air Traffic Services Asst.	204,042	216,131	221,547	224,891	229,120	235,230
	Engineering Staff		Maintenance Engineer	3,316	7,116	7,052	7,175	7,311	7,458
	Administration Staff		Administration Officer	39,494	23,473	26,946	27,331	27,839	28,489
			Staff Costs sub total	246,852	246,720	255,545	259,397	264,270	271,177
		m	Communications	133	345	345	345	345	345
			Maintenance	7,210	9,430	9,430	9,430	9,430	9,430
			T&RE	2,470	3,623	1,500	3,623	3,623	3,623
	Cost of Depreciated Capital	n	Capital Investments	37,466	37,466	37,466	N/A	N/A	N/A
			Interest at 5.88%	6,590	4,393	2,197	N/A	N/A	N/A
	Total NATS Gateway Costs			300,721	301,977	306,483	272,795	277,668	284,575
3	CAA Administration Costs			4,168	4,000	4,000	4,000	4,000	4,000
4	ICAO Administration Costs			36,385	39,000	39,798	40,000	41,000	42,000
	TOTAL SADIS COSTS			567,138	576,517	612,431	553,645	559,418	569,225