## SCRAG/17 WP/5 05/10/16

#### SADIS COST RECOVERY & ADMINISTRATIVE GROUP (SCRAG)

#### SEVENTEENTH MEETING

(Toulouse, France, 10<sup>th</sup> November 2016)

Agenda Item 3: Review of actual SADIS costs and cost shares for the period 1 January to 31 December 2015

#### 2015 ACTUAL SADIS COSTS

(Presented by the United Kingdom)

## REFERENCES

SADIS Agreement

SCRAG Reports 1-16

METP WG-MOG/1 and 3 METP WG-MOG/1 Reports

## 1. INTRODUCTION

- 1.1 Article IX of the SADIS Agreement identifies that the United Kingdom shall furnish on or before 30 June of each year, a statement of the actual costs of the SADIS, expressed in pounds sterling, for the previous calendar year. These costs are identified in TABLE 1.
- 1.2 The format of the table is similar to that provided for previous years and is consistent with information provided in the SADIS Inventory.

## 2. DISCUSSION

2.1 Notes to the actual costs for 2015 and forecast costs for 2016

## a. Communications between Whitehill and the Met Office

Terrestrial communications costs between Exeter and the SADIS Uplink site at Whitehill. For 2015 the Vodafone circuit continues to bill at £1569.75 per annum while the BT circuits are billing at £4246 per annum. *These costs will cease in August 2016 with the termination of the SADIS 2G service.* 

### b. NATS Links

Communications costs between the SADIS Gateway, operated by NATS, and the Met Office are provided here. NATS own the links and are billed for the circuits. NATS invoice the Met Office for the Met Office share of the costs. It is anticipated that these costs will continue as a requirement related to SADIS FTP.

### c. Message Switch

In 2015, data feeds were provided to SADIS 2G, SADIS FTP and the MetSwitch SADIS 2G downlink monitoring systems. The SADIS 2G costs will not apply after 31 July 2016.

### d. Internet Bandwidth

It was agreed by the third meeting of the Meteorological Operations Group of the Meteorological Panel (METP WG-MOG/1, 8-11 September 2015, Gatwick, UK) that the bandwidth should be increased from 16Mbit/sec bursting 24 Mbit/sec to 24Mbit/sec bursting 42Mbit/sec in October 2015. The increased bandwidth is charged at an annual rate of GBP10,250. This increase has been applied proportionally for 2015 resulting in a cost of  $\pounds$ 7,135.

## e. Service Desk equipment and Serial Communications

These charges cover equipment costs for the service desk functions and support of serial communications equipment.

## f. Satellite Segment

The SADIS 2G satellite bandwidth lease expired on 31 July 2016 with the cessation of the SADIS 2G service. The full annual charge is applied to 2015, with charges ceasing 31 July 2016 (Note, the 2016 costs were at a slightly reduced rate (pro rata) in comparison to 2015).

#### g. Annual Maintenance

Maintenance comprises:- (i) A Facilities Management charge with Vodafone for the SADIS 2G Equipment at Whitehill. SADIS is the sole user of the facility and the full cost of £6,300 per annum is charged to the SADIS programme, and will not be required after the cessation of SADIS 2G. (ii) A maintenance contract for SADIS 2G with Ultra - AEP Networks for 12 months to 31 Dec 2015 for £35,128; and for 7 months to 31 July 2016 for £23,622; (iii) IT Halls costs are charges made to the SADIS Programme based on floor usage of the IT Halls at Exeter for all SADIS equipment.

#### h. Ad-hoc maintenance

SCRAG/6 proposed that a charge of £5,000 be budgeted for ad-hoc maintenance activity in future years. There were no ad-hoc maintenance charges in 2015.

### 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

Having been unchanged for several years and as notified in WP/10 of the SCRAG/15 meeting (2014), staff day-rates for 2015 were increased. As noted at the SCRAG/15 meeting reductions to the number of days assigned to some functions were applied to offset the increased charges as much as possible.

#### k. Resource costs

This line includes the costs for decommissioning the SADIS 2G service, and will apply only to 2016.

### I. Travel Costs

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

#### m. Cost of depreciated capital

In 2015 it became necessary to replace essential hardware at the SADIS 2G uplink facility at Whitehill. This was authorised through electronic correspondence with the SADISOPSG Secretary. The capital costs were £28,220, to be depreciated over 2 years -  $\pounds 21,165$  in 2015 and  $\pounds 7,055$  in 2016.

#### n. Cost of Capital

Cost of capital for 2015 has been calculated 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.

2.2 Notes on SADIS Gateway Costs

#### p. Staff Costs – Systems Engineers

SADIS Gateway costs were detailed in SCRAG10 WP/14 and the revised basis of calculation was applied from January 1<sup>st</sup> 2009.

#### q. Systems Maintenance

These are reflected in Table 1

#### r. SADIS Gateway Upgrade

These are reflected in Table 1. A detailed description of the depreciation schedule is provided in Working Paper 10.

## 2.3 Notes on CAA and ICAO Administration Costs

# s. CAA Administration Costs for 2015 comprise the following:

Met Authority Regulatory oversight	£3,743
Travel costs	£70
Total	£3,813

## t. ICAO Administration costs are detailed in WP/4.

## 3 ACTION

3.1 The SCRAG/17 is requested to note the cost information provided by the United Kingdom and approve for these costs to be recovered from States within the Cost Recovery Scheme.

#### SCRAG/17 WP/5 Annex 1.

#### TABLE 1: 2015 and 2016 SADIS Costs

JK MET OFFICE COSTS I. Equipment Principally procured for SADIS comms between Whitehill & Met Office comms link SADIS Gateway & Met Office SDN back-up link Not procured principally for SADIS message switch (FTP) message switch (2G) nternet bandwidth (FTP) TP equipment running costs Service Desk Equipment costs Service Desk Equipment costs Serial Comms Costs and maintenance 2. Procured Services space segment annual lease annual maintenance	a b d e f g	SADIS 2G SADIS 2G/SADIS FTP ISDN Back-up SADIS FTP SADIS 2G FTP FTP Service Desk eqpt Serial Comms sub total Satellite Segment 2G Maintenance 2G Facilities Mgmt IT Halls	5,816 3,340 0 6,549 4,846 7,135 19,264 12,520 10,614 <b>70,084</b> - 56,570 35,128	5,816 3,340 0 3,131 7,135 19,024 12,750 11,000 <b>66,386</b> 54,660	5,816 3,340 372 7,500 5,500 6,500 13,000 12,500 11,000 <b>65,528</b> 54,660	3,393 3,340 0 2,685 10,250 19,264 12,750 10,601 <b>68,503</b> 27,981	3,393 3,340 0 1,000 800 10,250 19,024 12,750 11,000 <b>61,557</b> 25,295
Equipment Principally procured for SADIS comms between Whitehill & Met Office comms link SADIS Gateway & Met Office SDN back-up link Not procured principally for SADIS message switch (FTP) message switch (2G) nternet bandwidth (FTP) FTP equipment running costs Service Desk Equipment costs Serial Comms Costs and maintenance 2. Procured Services space segment annual lease	b c d e f g	SADIS 2G/SADIS FTP ISDN Back-up SADIS FTP SADIS 2G FTP FTP Service Desk eqpt Serial Comms sub total Satellite Segment 2G Maintenance 2G Facilities Mgmt	3,340 0 6,549 4,846 7,135 19,264 12,520 10,614 <b>70,084</b>	3,340 0 3,131 7,135 19,024 12,750 11,000 <b>66,386</b>	3,340 372 7,500 5,500 6,500 13,000 12,500 11,000 <b>65,528</b>	3,340 0 2,685 10,250 19,264 12,750 10,601 <b>68,503</b>	3,340 0 1,000 800 10,250 19,024 12,750 11,000 <b>61,557</b>
Principally procured for SADIS comms between Whitehill & Met Office comms link SADIS Gateway & Met Office SDN back-up link Not procured principally for SADIS message switch (FTP) message switch (2G) nternet bandwidth (FTP) TP equipment running costs Service Desk Equipment costs Serial Comms Costs and maintenance 2. Procured Services space segment annual lease	b c d e f g	SADIS 2G/SADIS FTP ISDN Back-up SADIS FTP SADIS 2G FTP FTP Service Desk eqpt Serial Comms sub total Satellite Segment 2G Maintenance 2G Facilities Mgmt	3,340 0 6,549 4,846 7,135 19,264 12,520 10,614 <b>70,084</b>	3,340 0 3,131 7,135 19,024 12,750 11,000 <b>66,386</b>	3,340 372 7,500 5,500 6,500 13,000 12,500 11,000 <b>65,528</b>	3,340 0 2,685 10,250 19,264 12,750 10,601 <b>68,503</b>	3,340 0 1,000 800 10,250 19,024 12,750 11,000 <b>61,557</b>
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SDN back-up link Not procured principally for SADIS message switch (FTP) message switch (2G) nternet bandwidth (FTP) TP equipment running costs Service Desk Equipment costs Serial Comms Costs and maintenance 2. Procured Services space segment annual lease	c d e f g	ISDN Back-up SADIS FTP SADIS 2G FTP FTP Service Desk eqpt Serial Comms sub total Satellite Segment 2G Maintenance 2G Facilities Mgmt	0 6,549 4,846 7,135 19,264 12,520 10,614 <b>70,084</b>	4,190 3,131 7,135 19,024 12,750 11,000 <b>66,386</b>	7,500 5,500 6,500 13,000 12,500 11,000 <b>65,528</b>	6,220 2,685 10,250 19,264 12,750 10,601 <b>68,503</b>	1,000 800 10,250 19,024 12,750 11,000 <b>61,557</b>
message switch (FTP) message switch (2G) nternet bandwidth (FTP) FTP equipment running costs Service Desk Equipment costs Serial Comms Costs and maintenance 2. Procured Services space segment annual lease	d e f g	SADIS 2G FTP FTP Service Desk eqpt Serial Comms sub total Satellite Segment 2G Maintenance 2G Facilities Mgmt	4,846 7,135 19,264 12,520 10,614 <b>70,084</b>	3,131 7,135 19,024 12,750 11,000 <b>66,386</b>	5,500 6,500 13,000 12,500 11,000 <b>65,528</b>	2,685 10,250 19,264 12,750 10,601 <b>68,503</b>	800 10,250 19,024 12,750 11,000 <b>61,557</b>
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nternet bandwidth (FTP) FTP equipment running costs Service Desk Equipment costs Serial Comms Costs and maintenance 2. Procured Services space segment annual lease	e f g	FTP FTP Service Desk eqpt Serial Comms sub total Satellite Segment 2G Maintenance 2G Facilities Mgmt	7,135 19,264 12,520 10,614 <b>70,084</b>	7,135 19,024 12,750 11,000 <b>66,386</b>	6,500 13,000 12,500 11,000 <b>65,528</b>	10,250 19,264 12,750 10,601 <b>68,503</b>	10,250 19,024 12,750 11,000 <b>61,557</b>
TP equipment running costs Service Desk Equipment costs Serial Comms Costs and maintenance 2. Procured Services space segment annual lease	f g	Service Desk eqpt Serial Comms sub total Satellite Segment 2G Maintenance 2G Facilities Mgmt	19,264 12,520 10,614 <b>70,084</b> -	19,024 12,750 11,000 <b>66,386</b>	13,000 12,500 11,000 <b>65,528</b>	19,264 12,750 10,601 <b>68,503</b>	12,750 11,000 <b>61,557</b>
Serial Comms Costs and maintenance 2. Procured Services space segment annual lease	f g	Serial Comms sub total Satellite Segment 2G Maintenance 2G Facilities Mgmt	10,614 <b>70,084</b> - 56,570	11,000 <b>66,386</b>	11,000 <b>65,528</b>	10,601 68,503	11,000 <b>61,557</b>
2. Procured Services space segment annual lease	g	sub total Satellite Segment 2G Maintenance 2G Facilities Mgmt	<b>70,084</b> - 56,570	66,386	65,528	68,503	61,557
space segment annual lease	g	Satellite Segment 2G Maintenance 2G Facilities Mgmt	- 56,570				
space segment annual lease	g	2G Maintenance 2G Facilities Mgmt		54,660	54,660	27.981	25,295
	g	2G Maintenance 2G Facilities Mgmt		54,660	54,660	27.981	25,295
annual maintenance	-	2G Facilities Mgmt	35,128			,	
	-	•		33,670	36,500	23,662	20,411
	h	IT Halls	6,300	6,300	6,300	3,675	3,675
	h		14,639	14,500	15,000	14,873	8,458
h		ad hoc maintenance	0	5,000	5,000	5,000	5,000
		sub total	112,637	114,130	117,460	75,191	62,839
3. Annual Staff Requirements			-				
Help Desk	i	Help Desk	5,916	6,000	6,000	6,000	6,000
		Technical Team Leader	12,520	12,297	12,700	12,520	12,297
		Network Systems Supervisor	25,040	24,593	25,300	25,040	24,593
Additional Support							
Systems Integration Team	j	Network Computer Engineer	5,292	5,292	5,292	5,292	5,292
Message Switching		Message Switching Manager	5,670	5,670	5,670	5,670	5,670
Administrator		Executive Officer	62,850	62,850	62,850	62,850	62,850
nternational Aviation Management		Aviation Manager	7,290	7,290	7,290	7,290	7,290
Data Traffic		Communications Engineer	1,890	1,890	1,890	1,890	1,890
Contract Management		Senior Procurement Officer Technical Officer	1,512	1,512	1,512	1,512	1,512
Message Switching Team nvoice Administration			5,670	5,670	5,670	5,670	5,670
CIDA		Invoice Officer & Business Acct CIDA & Infrastructure Engineer	14,850 0	14,850 0	14,850 0	14,850 0	14,850 0
SADIS 2G decomissioning	k	Resource costs	N/A	N/A	10,000	2,000	2,000
Travel Costs	Ι	SADISOPSG & SCRAG	1,479	1,000	3,000	1,000	1,000
		sub total	149,979	148,914	162,024	151,584	150,914
		TOTAL	332,700	329,430	345,012	295,278	275,310
Cost of Depreciated Capital		SADIS 2G	0	0	0	0	0
		FTP enhancements	0	0	0 0	0	0
	m	SADIS 2G CP6000 replacement (with CP70	21,165	21,165	12,000	7,055	7,055
		sub total	353,865	350,595	357,012	302,333	282,365
	n	Cost of Capital	17,960	13,630	20,000	17,960	13,630
Administrative costs	n O	Admin charges	375	200	20,000	300	13,630
		Total UKMO Costs	372,200	364,425	377,112	320,593	296,195

INVENTORY REF:	Note	DESCRIPTION	2015 Actual (Jan-Dec)	2015 FOO (SCRAG16)	2015 Estimate (SCRAG15)	2016 FOO (SCRAG17)	2016 Estimate (SCRAG16)
NATS Gateway Costs							
Staff Costs	р						
Operational Staff		Air Traffic Services Asst.	250,860	258,907	276,968	266,738	266,738
Engineering Staff		Maintenance Engineer	4,048	2,349	9,430	9,660	9,660
Administration Staff		Administration Officer	93	274	1,099	1,122	1,122
Engineering Staff		Asset Management	N/A	N/A	N/A	N/A	N/A
		sub total	255,001	261,530	287,497	277,520	277,520
Systems Maintenance	q	IP Comms link to UKMO	0	N/A	N/A	N/A	N/A
		X25 Comms link to UKMO	0	N/A	N/A	N/A	N/A
		Systems Maintenance	0	N/A	N/A	N/A	N/A
		Communications	1,720	822	7,500	1,567	1,567
		Maintenance	9,599	8,987	6,500	9,169	9,169
		T&RE	721	2,815	4,750	3,200	3,200
Sadis Gateway Upgrade (Capital Project)	r	Capitalised Staff Costs	N/A	0	20,301	N/A	N/A
Cost of Depreciated Capital		Capital Investments	37,466	37,466	20,443	37,466	37,466
		Interest @ 5.88%	10,983	10,983	10,983	8,786	8,786
SADIS Backup Enhancement		Procurement & Installation	0	0	0	0	(
		Annual support costs	0	0	0	0	0
Total NATS Gateway Costs			315,490	322,603	357,974	337,708	337,708
CAA Administration Costs	s		3,813	4,000	5,000	4,000	4,000
ICAO Administration Costs	t		36,711	40,338	50,229	36,711	39,892
TOTAL SADIS COSTS			728,214	731,366	790,315	699,012	677,795

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