

SADIS COST RECOVERY ADMINISTRATIVE GROUP

FOURTEENTH MEETING

(Paris, October 25 2013)

ESTIMATED SADIS COSTS : 2 to 5 YEARS

(Presented by the United Kingdom)

REFERENCES

SADIS Agreement
SCRAG Reports 1-13
SADISOPSG/18 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 2014 to 2017 based on expected trends for expenditure by the United Kingdom Met Office and NATS. A comparison with the 2012 actual costs and 2013 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 from 2014. Prices per unit of internet bandwidth continue to fall, and new costs were applied from September 2013. Increased download speeds will require increased bandwidth which could lead to higher charges 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. A small increase is catered for from 2016.
- d. The current SADIS 2G maintenance runs to 31/12/2014. A small increase is catered for from contract renewal in 2015.
- 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 (conclusion 18/16) has recommended that the satellite service be continued until November 2019 with a view to withdrawing the service from that date. An allowance of £10,000 has been made for resource costs associated with a refresh of the hub infrastructure in 2015.
- 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. Staff costs and communications costs have been updated in line with the latest available data.
- k. A mid-life upgrade to the SADIS Gateway Infrastructure is expected to be implemented during 2014. Total project costs are £908,925 of which 20% is attributable to SADIS. Capitalised staff costs of £79,495 and hardware costs of £102,290 will be depreciated over 5 years. Cost of capital has been calculated at a rate of 6.75% on the reducing balance in each year.

Depreciation schedule for SADIS Gateway mid-life upgrade.

| | 2014 | 2015 | 2016 | 2017 | 2018 |
|------------------------|---------|---------|---------|--------|--------|
| Value at start of year | 181,785 | 145,428 | 109,071 | 72,714 | 36,357 |
| Depreciation | 36,357 | 36,357 | 36,357 | 36,357 | 36,357 |
| Value at end of year | 145,428 | 109,071 | 72,714 | 36,357 | 0 |
| Average value in year | 163,607 | 127,250 | 90,893 | 54,536 | 18,179 |
| Interest at 6.75% | 11,043 | 8,589 | 6,135 | 3,681 | 1,227 |

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/14 is requested to note these provisional figures for the SADIS Costs.

TABLE 1: UKMO Cost and manpower resource projections until year 2017 (at 2013 prices)

| INVENTORY REF: | Note | DESCRIPTION | Actual 2012 | FOO 2013 | Est 2014 | Est 2015 | Est 2016 | Est 2017 | |
|----------------|------|-------------------------------------------|----------------|--------------------------|----------------|----------------|----------------|----------------|----------------|
| 1 | | UK MET OFFICE COSTS | | | | | | | |
| | | 1. Equipment | | | | | | | |
| | | Principally procured for SADIS | | | | | | | |
| | | comms between Whitehill & Met Office | a | SADIS 2G | 5,436 | 5,436 | 5,436 | 5,436 | 5,436 |
| | | comms link SADIS Gateway & Met Office | | SADIS 2G | 3,340 | 3,340 | 3,340 | 3,340 | 3,340 |
| | | | | ISDN Back-up | 372 | 372 | 372 | 372 | 372 |
| | | Not procured principally for SADIS | | | | | | | |
| | | message switch (FTP) | b | SADIS FTP | 7,387 | 6,154 | 6,000 | 6,000 | 6,000 |
| | | message switch (2G) | | SADIS 2G | 5,466 | 4,554 | 4,500 | 4,500 | 4,500 |
| | | internet bandwidth (FTP) | | FTP | 9,214 | 7,362 | 3,720 | 3,720 | 3,720 |
| | | FTP equipment running costs | | FTP | 35,534 | 33,805 | 34,000 | 34,000 | 34,000 |
| | | Service Desk Equipment Costs | | Service Desk eqpt | 10,290 | 12,040 | 12,000 | 12,000 | 12,000 |
| | | Serial Comms Costs and maintenance | | Serial Comms | 9,248 | 9,848 | 10,000 | 10,000 | 10,000 |
| | | sub total | | | 86,287 | 82,911 | 79,368 | 79,368 | 79,368 |
| | | 2. Procured Services | | | | | | | |
| | | space segment annual lease | c | Satellite Segment | 54,660 | 54,660 | 54,660 | 54,660 | 60,000 |
| | | annual maintenance | d | 2G Maintenance | 33,548 | 35,172 | 35,172 | 36,000 | 36,000 |
| | | | | 2G Facilities Management | 6,300 | 6,300 | 6,300 | 6,300 | 6,300 |
| | | | | IT Hall Space | 15,170 | 14,824 | 15,000 | 15,000 | 15,000 |
| | | | e | ad hoc maintenance | 6,555 | 1,500 | 5,000 | 5,000 | 5,000 |
| | | sub total | | | 116,233 | 112,456 | 116,132 | 116,960 | 122,300 |
| | | 3. Annual Staff Requirements | f | | | | | | |
| | | Help Desk | | | | | | | |
| | | Help Desk 0.5% | | | 5,510 | 5,510 | 5,500 | 5,500 | 5,500 |
| | | Technical Team Leader 4% | | | 10,266 | 12,098 | 12,000 | 12,000 | 12,000 |
| | | Network Systems Supervisor 7% | | | 20,533 | 24,196 | 24,000 | 24,000 | 24,000 |
| | | Additional Support | | | | | | | |
| | | Systems Integration Team | | | 4,866 | 4,866 | 4,866 | 4,866 | 4,866 |
| | | Message Switching | | | 5,214 | 5,214 | 5,214 | 5,214 | 5,214 |
| | | Administrator | | | 55,612 | 55,612 | 55,612 | 55,612 | 55,612 |
| | | International Aviation Management | | | 12,805 | 12,805 | 12,805 | 12,805 | 12,805 |
| | | Data Traffic | | | 1,738 | 1,738 | 1,738 | 1,738 | 1,738 |
| | | Contract Management | | | 1,390 | 1,390 | 1,390 | 1,390 | 1,390 |
| | | Message Switching Team | | | 5,214 | 5,214 | 5,214 | 5,214 | 5,214 |
| | | Invoice Administration | | | 13,354 | 13,354 | 12,165 | 12,165 | 12,165 |
| | | SADIS Satellite Upgrade/decommissioning | g | Resource costs | | | 10,000 | | |
| | | Travel Costs | | | | | | | |
| | | SADISOPSG & SCRAG | | | 2,349 | 2,000 | 5,000 | 5,000 | 5,000 |
| | | sub total | | | 138,851 | 143,997 | 145,504 | 155,504 | 145,504 |
| | | TOTAL | | | 341,371 | 339,364 | 341,004 | 351,832 | 347,172 |
| | | Cost of Depreciated Capital | | | | | | | |
| | | SADIS 2G | h | | 11,616 | 11,616 | 8,712 | 0 | 0 |
| | | FTP enhancements | | | 0 | 0 | 0 | 0 | 0 |
| | | Satellite Service upgrade | i | | 0 | 0 | 0 | 12,000 | 12,000 |
| | | sub total | | | 352,987 | 350,980 | 349,716 | 363,832 | 359,172 |
| | | Cost of Capital | | | 19,348 | 20,000 | 20,000 | 20,000 | 20,000 |
| | | Total UKMO Costs | | | 372,335 | 370,980 | 369,716 | 383,832 | 379,172 |

TABLE 2: NATS and other SADIS Cost Projections until 2016

| INVENTORY REF: | Note | DESCRIPTION | Actual 2012 | FOO 2013 | 2014 | 2015 | 2016 | 2017 |
|----------------|------|-----------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 2 | | NATS Gateway Costs | | | | | | |
| | | Staff Costs | | | | | | |
| | | Operational Staff | 258,527 | 250,759 | 255,164 | 255,164 | 255,164 | 255,164 |
| | | Engineering Staff | 12,067 | 11,209 | 11,639 | 11,639 | 11,639 | 11,639 |
| | | Administration Support | 24,134 | 27,348 | 28,472 | 28,472 | 28,472 | 28,472 |
| | | asset engineering support | 6,936 | 3,331 | 3,454 | 3,454 | 3,454 | 3,454 |
| | | sub total | 301,664 | 292,647 | 298,729 | 298,729 | 298,729 | 298,729 |
| | | Communications | 12,040 | 18,128 | 18,672 | 18,672 | 18,672 | 18,672 |
| | | x25 comms link | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Maintenance | 6,261 | 6,264 | 8,610 | 8,610 | 6,458 | 6,458 |
| | | Sadis Gateway Upgrade (Capital Project) | 0 | 0 | 15,899 | 15,899 | 15,899 | 15,899 |
| | | Cost of Depreciated Capital | 0 | 0 | 20,458 | 20,458 | 20,458 | 20,458 |
| | | Interest @ 6.75% | 0 | 0 | 11,043 | 8,589 | 6,135 | 3,681 |
| | | Sadis Backup enhancement | 0 | 0 | 0 | 0 | 0 | 0 |
| | | annual support costs | 1250 | 1250 | 1,250 | 1,250 | 1,250 | 1,250 |
| | | Total NATS Gateway Costs | 321,215 | 318,289 | 374,661 | 372,207 | 367,601 | 365,147 |
| | | CAA Administration Costs | 5,574 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 |
| | | ICAO Administration Costs | 47,183 | 53,062 | 51,686 | 53,062 | 53,062 | 53,062 |
| | | TOTAL SADIS COSTS | 746,307 | 747,331 | 801,063 | 814,101 | 804,835 | 802,381 |