

**SADIS COST RECOVERY ADMINISTRATIVE GROUP**

**TENTH MEETING**

(Paris, November 6 2009)

**ESTIMATED SADIS COSTS : 2 to 5 YEARS**

(Presented by the United Kingdom)

**REFERENCES**

SADIS Agreement  
SCRAG Reports 1-9  
SADISOPSG/14 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 2010 to 2013 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. Communications costs and the continued need for the ISDN back-up between the SADIS Gateway and the Met Office will be reviewed in early 2010.
- b. Allowance has been made for increased switching costs of data in GRIB2 format from 2010. 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.
- c. The SADIS FTP Secure Service is expected to lead to increased FTP running costs from 2011.

- d. The current contract for satellite bandwidth runs to the end of 2010. The future requirement will depend on the amount of data and speed of transmission required.
- e. A new SADIS 2G maintenance contract is required from 1/1/2010 following the 2G hardware refresh. A budgetary estimate has been provided.
- f. An annual allowance of £5k is being made for ad-hoc maintenance as requested by the SCRAG/6.
- g. Staff Requirements assume the current level of effort continues. SADISOPSG have requested a full review of Met Office Staff requirements be carried out with effort expressed in terms of man/hours per annum.
- h. FTP enhancements project has an estimated cost of £67,000 +/- £13,000.
- i. A further £3000 has been allowed for completion of the SADIS GRIB2 trial using using compressed data.
- j. See WP/8
- k. See WP/13

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

- 1. The NATS SADIS Gateway Costs are as described in WP/14.

## 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/10 is requested to note these provisional figures for the SADIS Costs.

**TABLE 1: UKMO Cost and manpower resource projections until year 2013 (at 2009 prices)**

| INVENTORY REF: | Note | DESCRIPTION                               | 2010           | 2011           | 2012           | 2013           |
|----------------|------|---|----------------|----------------|----------------|----------------|
| <b>1</b>       |      | <b>UK MET OFFICE COSTS</b>                |                |                |                |                |
|                |      | <b>1. Equipment</b>                       |                |                |                |                |
|                |      | <b>Principally procured for SADIS</b>     |                |                |                |                |
|                | a    | comms between Whitehill & Met Office      | 6,364          | 6,364          | 6,364          | 6,364          |
|                |      | comms link SADIS Gateway & Met Office     | 372            | 372            | 372            | 372            |
|                |      | <b>Not procured principally for SADIS</b> |                |                |                |                |
|                | b    | message switch (FROST/FTP)                | 24,000         | 24,000         | 24,000         | 24,000         |
|                |      | message switch (FROST/2G)                 | 12,500         | 12,500         | 12,500         | 12,500         |
|                |      | internet bandwidth (FTP)                  | 7,000          | 7,000          | 7,000          | 7,000          |
|                | c    | FTP equipment running costs               | 16,000         | 40,000         | 40,000         | 40,000         |
|                |      | Service Desk Equipment Costs              | 15,700         | 15,700         | 15,700         | 15,700         |
|                |      | Serial Comms Costs and maintenance        | 13,600         | 13,600         | 13,600         | 13,600         |
|                |      | <b>sub total</b>                          | <b>95,536</b>  | <b>119,536</b> | <b>119,536</b> | <b>119,536</b> |
|                |      | <b>2. Procured Services</b>               |                |                |                |                |
|                | d    | space segment annual lease                | 91,197         | 91,197         | 91,197         | 91,197         |
|                | e    | annual maintenance                        | 31,616         | 31,616         | 31,616         | 31,616         |
|                |      | 2G Maintenance                            | 4,275          | 4,275          | 4,275          | 4,275          |
|                |      | 2G Facilities Management                  | 15,578         | 15,578         | 15,578         | 15,578         |
|                |      | IT Hall Space                             |                |                |                |                |
|                | f    | ad hoc maintenance                        | 5,000          | 5,000          | 5,000          | 5,000          |
|                |      | <b>sub total</b>                          | <b>147,666</b> | <b>147,666</b> | <b>147,666</b> | <b>147,666</b> |
|                |      | <b>3. Annual Staff Requirements</b>       |                |                |                |                |
|                |      | <b>Help Desk</b>                          |                |                |                |                |
|                | g    | Help Desk 0.5%                            | 5,800          | 5,800          | 5,800          | 5,800          |
|                |      | Technical Team Leader 4%                  | 11,066         | 11,066         | 11,066         | 11,066         |
|                |      | Network Systems Supervisor 7%             | 22,134         | 22,134         | 22,134         | 22,134         |
|                |      | <b>Additional Support</b>                 |                |                |                |                |
|                |      | Systems Integration Team                  |                |                |                |                |
|                |      | Administrator                             | 7,390          | 7,390          | 7,390          | 7,390          |
|                |      | Executive Officer                         | 55,428         | 55,428         | 55,428         | 55,428         |
|                |      | International Aviation Management         |                |                |                |                |
|                |      | Aviation Manager                          | 13,616         | 13,616         | 13,616         | 13,616         |
|                |      | Data Traffic                              |                |                |                |                |
|                |      | Communications Engineer                   | 3,695          | 3,695          | 3,695          | 3,695          |
|                |      | Contract Management                       |                |                |                |                |
|                |      | Senior Procurement Officer                | 3,695          | 3,695          | 3,695          | 3,695          |
|                |      | UNIX Support                              |                |                |                |                |
|                |      | Computer Engineer                         | 7,390          | 7,390          | 7,390          | 7,390          |
|                |      | Web Team Support                          |                |                |                |                |
|                |      | Website Designer                          | 7,390          | 7,390          | 7,390          | 7,390          |
|                |      | Invoice Administration                    |                |                |                |                |
|                |      | Finance Officer                           | 11,086         | 11,086         | 11,086         | 11,086         |
|                |      | CIDA                                      |                |                |                |                |
|                |      | CIDA and Infrastructure Engineer          | 12,500         | 12,500         | 12,500         | 12,500         |
|                | h    | Enhancements to FTP Service               | 67,000         | 0              | 0              | 0              |
|                | i    | GRIB2 data trial                          | 3,000          | 0              | 0              | 0              |
|                |      | <b>Travel Costs</b>                       |                |                |                |                |
|                |      | SADISOPSG & SCRAG                         | 6,000          | 6,000          | 6,000          | 6,000          |
|                |      | <b>sub total</b>                          | <b>237,190</b> | <b>167,190</b> | <b>167,190</b> | <b>167,190</b> |
|                |      | <b>TOTAL</b>                              | <b>480,392</b> | <b>434,392</b> | <b>434,392</b> | <b>434,392</b> |
|                |      | <b>Cost of Depreciated Capital</b>        |                |                |                |                |
|                | j    | SADIS 2G                                  | 19,246         | 19,246         | 14,434         | 0              |
|                |      | FTP enhancements                          | 0              | 0              | 0              | 0              |
|                |      | <b>sub total</b>                          | <b>499,638</b> | <b>453,638</b> | <b>448,826</b> | <b>434,392</b> |
|                | k    | Cost of Capital                           | 26,000         | 26,000         | 26,000         | 26,000         |
|                |      | <b>Total UKMO Costs</b>                   | <b>525,638</b> | <b>479,638</b> | <b>474,826</b> | <b>460,392</b> |

**TABLE 2: NATS and other SADIS Cost Projections until 2013**

| <b>INVENTORY REF:</b>            | <b>Note</b> | <b>DESCRIPTION</b>          | <b>2010</b>    | <b>2011</b>    | <b>2012</b>    | <b>2013</b>    |
|----------------------------------|-------------|-----------------------------|----------------|----------------|----------------|----------------|
| <b>2 NATS Gateway Costs</b>      |             |                             |                |                |                |                |
| <b>Staff Costs</b>               |             |                             |                |                |                |                |
| Operational Staff                |             | Air Traffic Services Asst.  | 255,275        | 255,275        | 255,275        | 255,275        |
| Engineering Staff                |             | Systems Engineer            | 11,915         | 11,915         | 11,915         | 11,915         |
| Administration Support           |             | Administration Officer      | 23,830         | 23,830         | 23,830         | 23,830         |
| asset engineering support        |             | asset management activities | 6,851          | 6,851          | 6,851          | 6,851          |
|                                  |             | <b>sub total</b>            | <b>297,871</b> | <b>297,871</b> | <b>297,871</b> | <b>297,871</b> |
| Communications                   |             | ip comms link to ukmo       | 12,040         | 12,040         | 12,040         | 12,040         |
|                                  |             | x25 comms link              | 0              | 0              | 0              | 0              |
| Maintenance                      |             | Systems Maintenance         | 6,264          | 6,264          | 6,264          | 6,264          |
| Cost of Depreciated Capital      |             | Depreciation                | 0              | 0              | 0              | 0              |
|                                  |             | Cost of Capital             | 0              | 0              | 0              | 0              |
| Sadis Backup enhancement         |             | procurement & Installation  | 0              | 0              | 0              | 0              |
|                                  |             | annual support costs        | 1,250          | 1,250          | 1,250          | 1,250          |
| <b>Total NATS Gateway Costs</b>  |             |                             | <b>317,425</b> | <b>317,425</b> | <b>317,425</b> | <b>317,425</b> |
| <b>CAA Administration Costs</b>  |             |                             | <b>5,000</b>   | <b>5,000</b>   | <b>5,000</b>   | <b>5,000</b>   |
| <b>ICAO Administration Costs</b> |             |                             | <b>44,444</b>  | <b>44,444</b>  | <b>44,444</b>  | <b>44,444</b>  |
| <b>TOTAL SADIS COSTS</b>         |             |                             | <b>892,507</b> | <b>846,507</b> | <b>841,695</b> | <b>827,261</b> |