



INFORMATION PAPER

SATELLITE DISTRIBUTION SYSTEM OPERATIONS GROUP (SADISOPSG)

THIRTEENTH MEETING

Dakar, Senegal, 27 to 29 May 2008

Agenda Item 6: Development of the SADIS

6.1: Report of the SADISOPSG Gateway Development Team

SADIS PERFORMANCE INDICES

(Presented by SADIS Provider State)

SUMMARY

This paper presents the latest Performance Indices calculated for scheduled OPMET distribution on SADIS. It also examines the trends of these measurements since December 2003.

1. INTRODUCTION

1.1 The Performance Indices are produced by the BMG to indicate the performance of the SADIS OPMET broadcasts in regards to coverage and regularity of the scheduled OPMET data. The BMG produces two indices

- The Availability Index; and
- The Regularity Index.

The results of the SADIS performance indices generated during February 2008 are presented in this paper. These indices have been generated for the entire SUG Annex1. The version of SUG Annex 1 employed was 7.1.

2. METHODOLOGY

2.1 The methodology for generating both indices is given in Attachment 1 to this paper. It should be noted that further indices being developed by the BMG, not yet applied to the SADIS broadcast, are included in this paper. These are described in more detail in section 5 of this paper.

3. RESULTS

3.1 The following graphs show the average of the two indices during the fourteen day monitoring period undertaken from 1st February 2007 to 14th February 2007 for SADIS data monitored at both the SADIS Gateway and EHDB

3.2 It has been confirmed that the results of the SADIS Gateway and EHDB are identical for the availability and regularity metric.

3.3 The results are taken from global data and presented on a regional basis for each data type. In addition trend information for the global indices, taken from December 2003 until February 2008, has been produced.

3.4 The availability indices, illustrated in Figures 1, 2 and 3, show that most regions show well above 50% availability for all data types, with the possible exception of short TAFs. The availability of METARS and Long TAFs is now similar in most regions. This shows that METAR availability has improved. The availability metrics are fairly consistent across all three mediums and for all data types, the notable exceptions being AFI data and NAT/NAM data.

3.5 Against the threshold values for the metric, AFI METARs and ASI/PAC short TAFs are below the 0.6 threshold and should be subject to further investigation.

3.6 The regularity indices, illustrated in Figures 4, 5 and 6 follow a similar pattern to the availability indices. The regularity metrics are fairly consistent across all three mediums and for all data types, although the consistency is not as good as the availabilities. The notable exceptions are: AFI data, CAR/SAM data, NAT/NAM data and MID FTs

3.7 Against the threshold values for the metric, AFI short TAFs (terrestrial only) and NAT/NAM METARs and long TAFs (terrestrial only) are below the 0.6 threshold and should be subject to further investigation.

4. TRENDS

4.1 Both the availability and the regularity trends appear to have stabilised around the 70-80% mark. It is hoped that by focusing investigations on problem areas and resolving any issues to meet the various targets that these trends should start to show an increase in the future.

5. FURTHER DEVELOPMENTS IN PERFORMANCE INDICES BY THE BMG

5.1 The BMG have continued to develop their sets of performance indices and 2 further extensions are worth noting

5.2 The first of these is the introduction of targets for availability. In the attachment it states that 'The user will usually expect perfect availability, however this is difficult to achieve with OPMET data where requirements undergo frequent change and the delivery system encompasses multiple regions and systems. Therefore, the targets for the availability have been set to levels at 10% above the September 2007 SADIS metrics' A similar philosophy has also been applied to the Regularity metrics. An example

of the presentation of targets is provided below .The table shows how each region is performing against the availability metric targets. The colour coding is as follows:

GREEN – Target is being met or exceeded;

AMBER – Target is missed by less than 10%;

RED – Target is missed by more than 10%.

| Region | SA | | | FC | | | FT | | |
|---------|--------|-------|-------|--------|-------|-------|--------|-------|-------|
| | Target | Avail | Diff | Target | Avail | Diff | Target | Avail | Diff |
| AFI | 0.65 | 0.61 | -.04 | 0.93 | 0.81 | -0.12 | 0.77 | 0.73 | -0.04 |
| ASI/PAC | 0.86 | 0.79 | -.07 | 0.57 | 0.53 | -0.04 | 0.97 | 0.88 | -0.09 |
| CAR/SAM | 0.92 | 0.86 | -0.05 | 0.00 | 0.00 | 0.00 | 0.84 | 0.77 | -0.06 |
| EUR | 0.99 | 0.89 | -0.10 | 0.99 | 0.89 | -0.10 | 0.94 | 0.81 | -0.12 |
| MID | 0.95 | 0.87 | -0.08 | 0.66 | 0.60 | -0.06 | 1.01 | 0.91 | -0.10 |
| NAT/NAM | 0.99 | 0.89 | -0.09 | 1.0 | 1.00 | 0.00 | 0.81 | 0.74 | -0.07 |
| Global | 0.93 | 0.84 | -0.08 | 0.98 | 0.88 | -0.11 | 0.86 | 0.78 | -0.08 |

5.3

5.4 The second is the introduction of timeliness metrics. The procedure for the calculation of timeliness is included in section 4 of the attachment. It is expected that the usefulness of the index will be assessed by the BMG over the next year or so and once some operational experience has been gained consideration can be given to its usefulness in the context of the SADISOPSG.

6. ACTION BY THE SADISOPSG

6.1 The group is invited to note the information in this paper.

APPENDIX

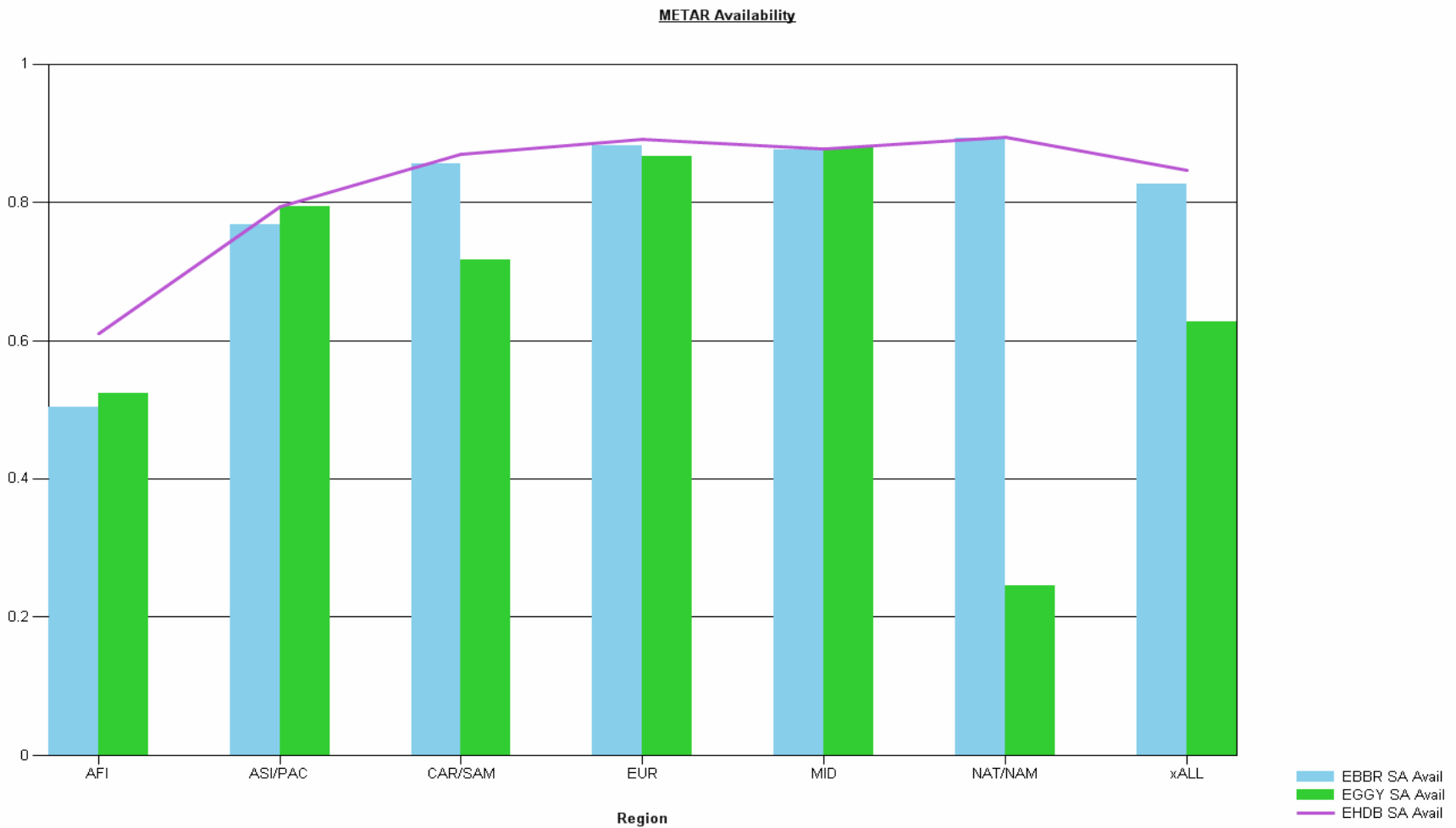


Figure 1: February 2008 METAR Availability

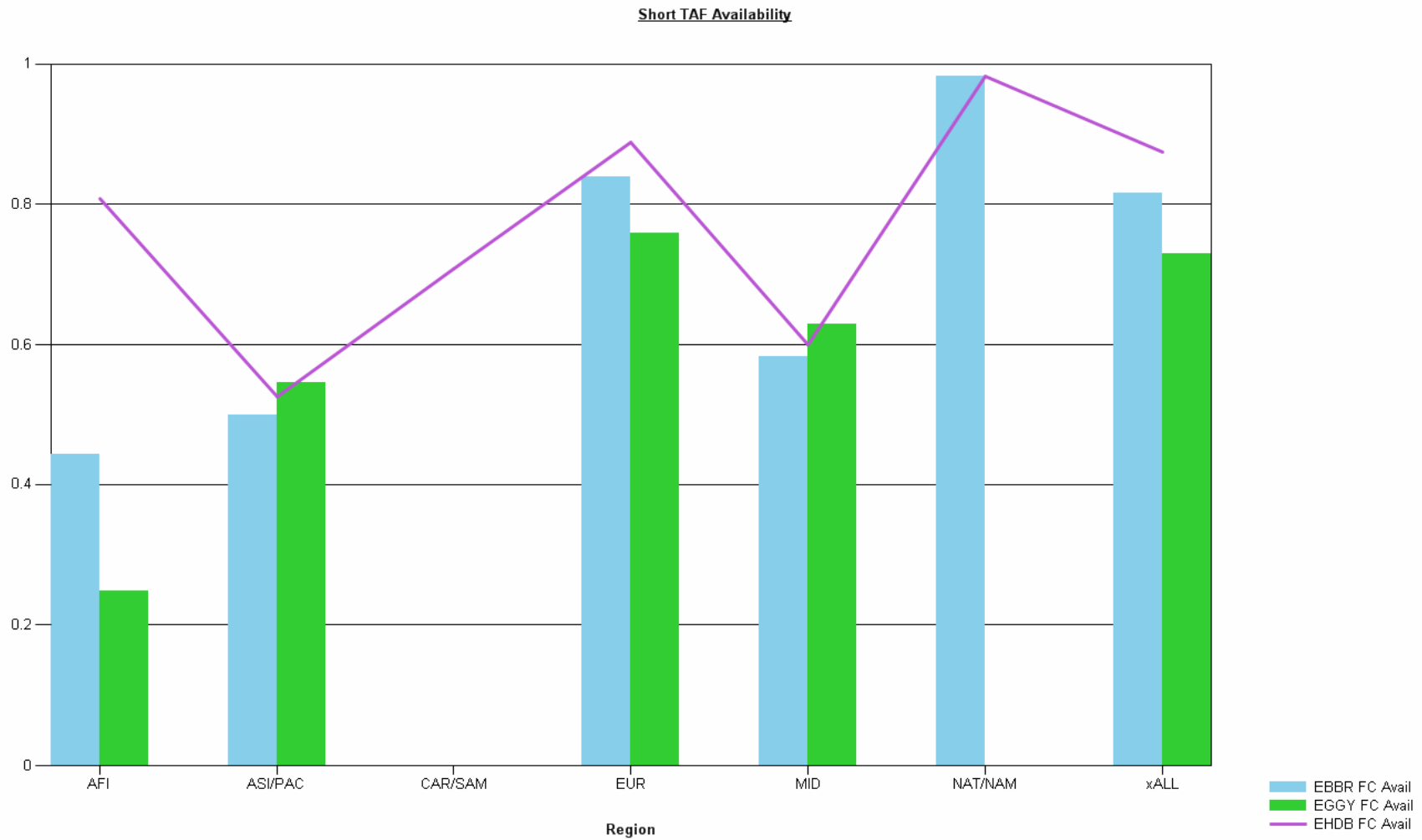
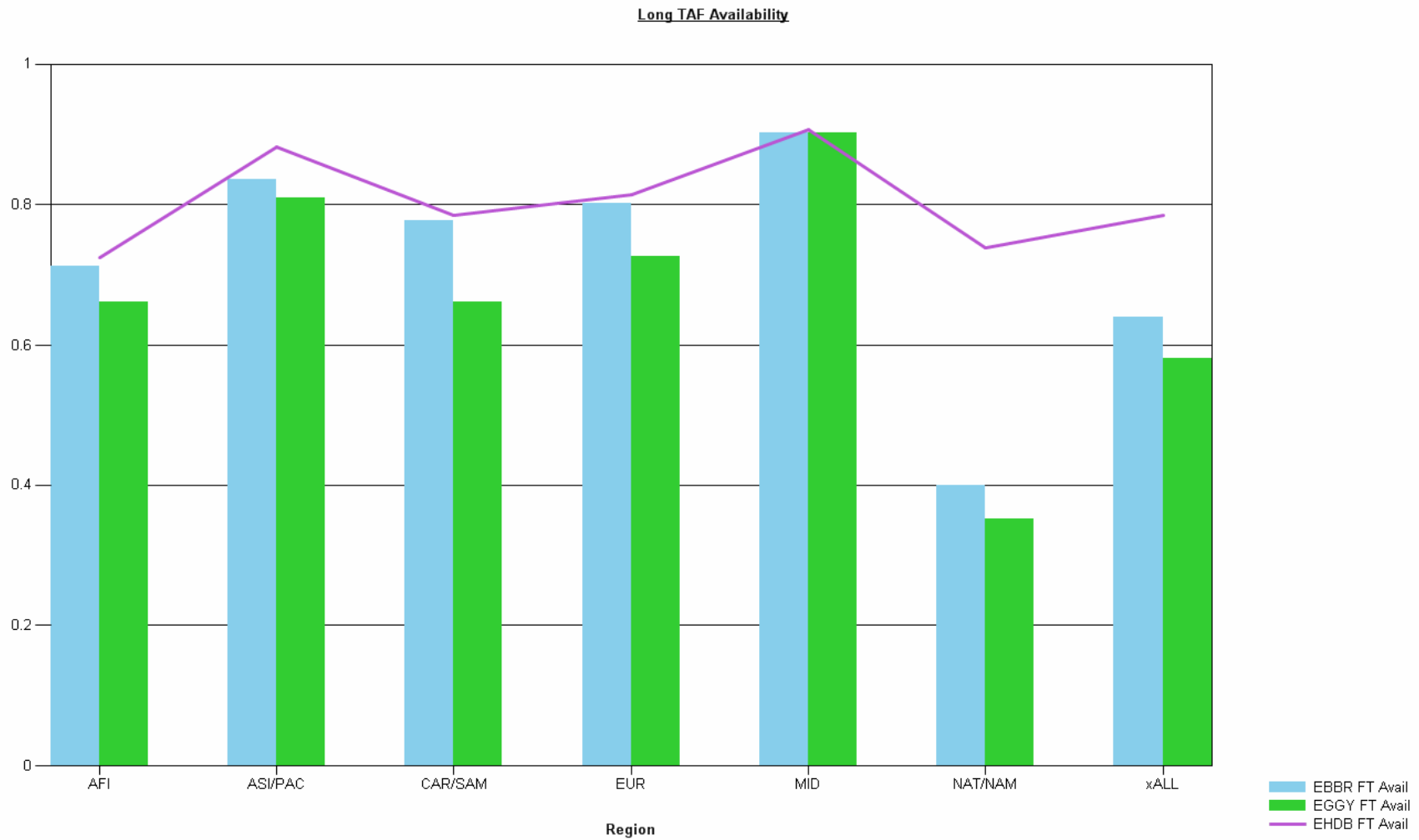


Figure 2: February 2008 Short TAF Availability

**Figure 3: February 2008 Long TAF Availability**

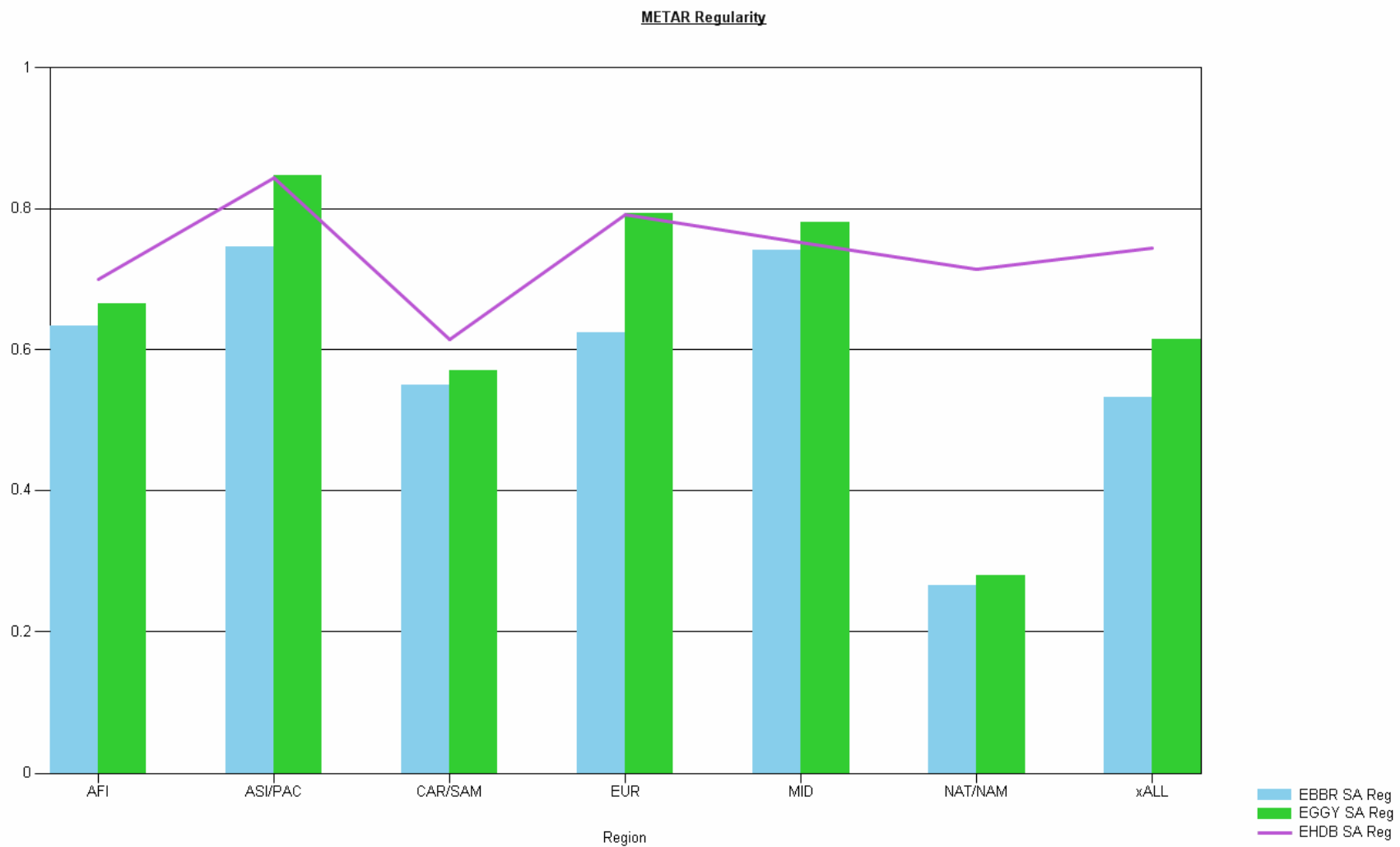
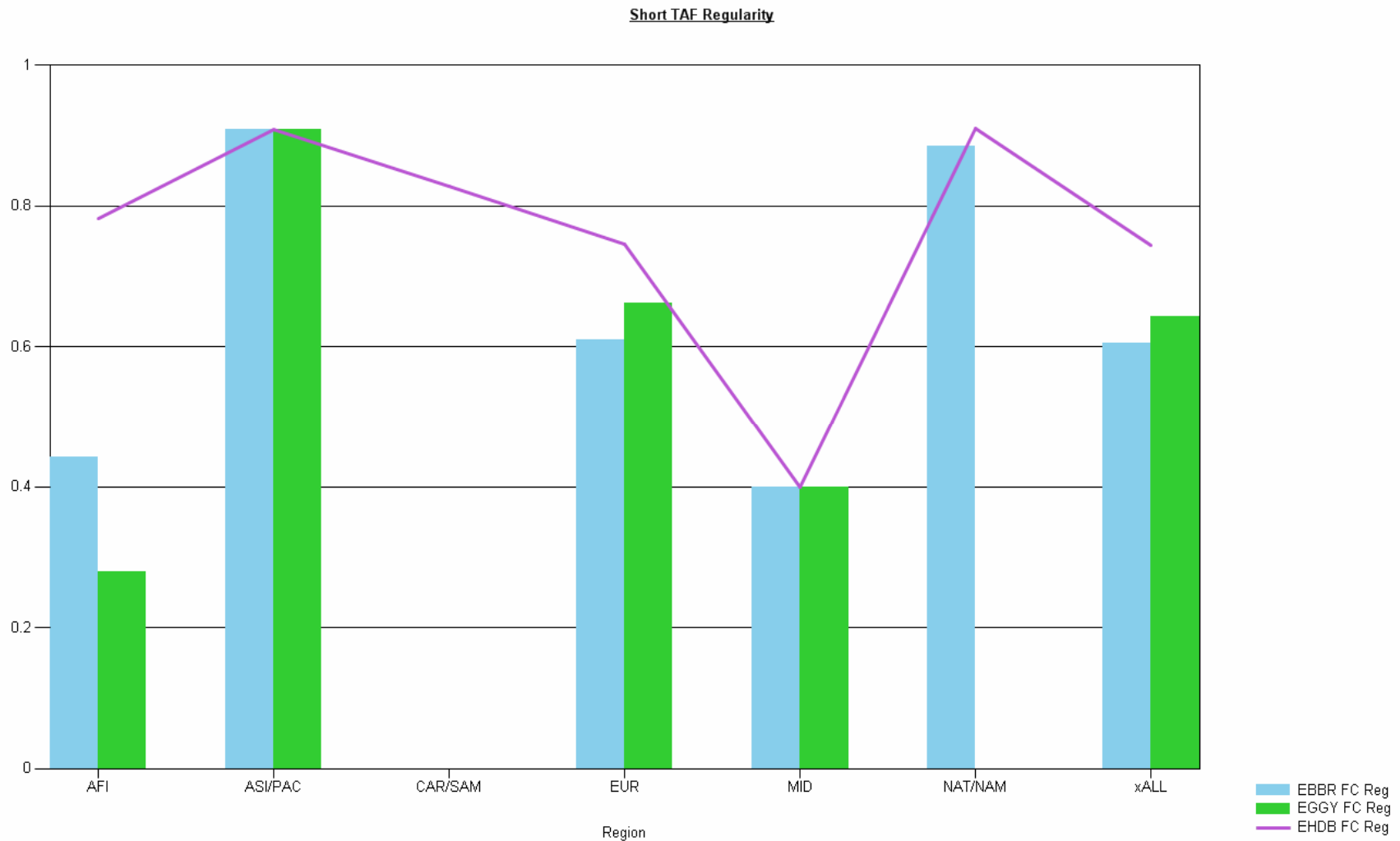


Figure 4: February 2008 METAR Regularity

**Figure 5: February 2008 Short TAF Regularity**

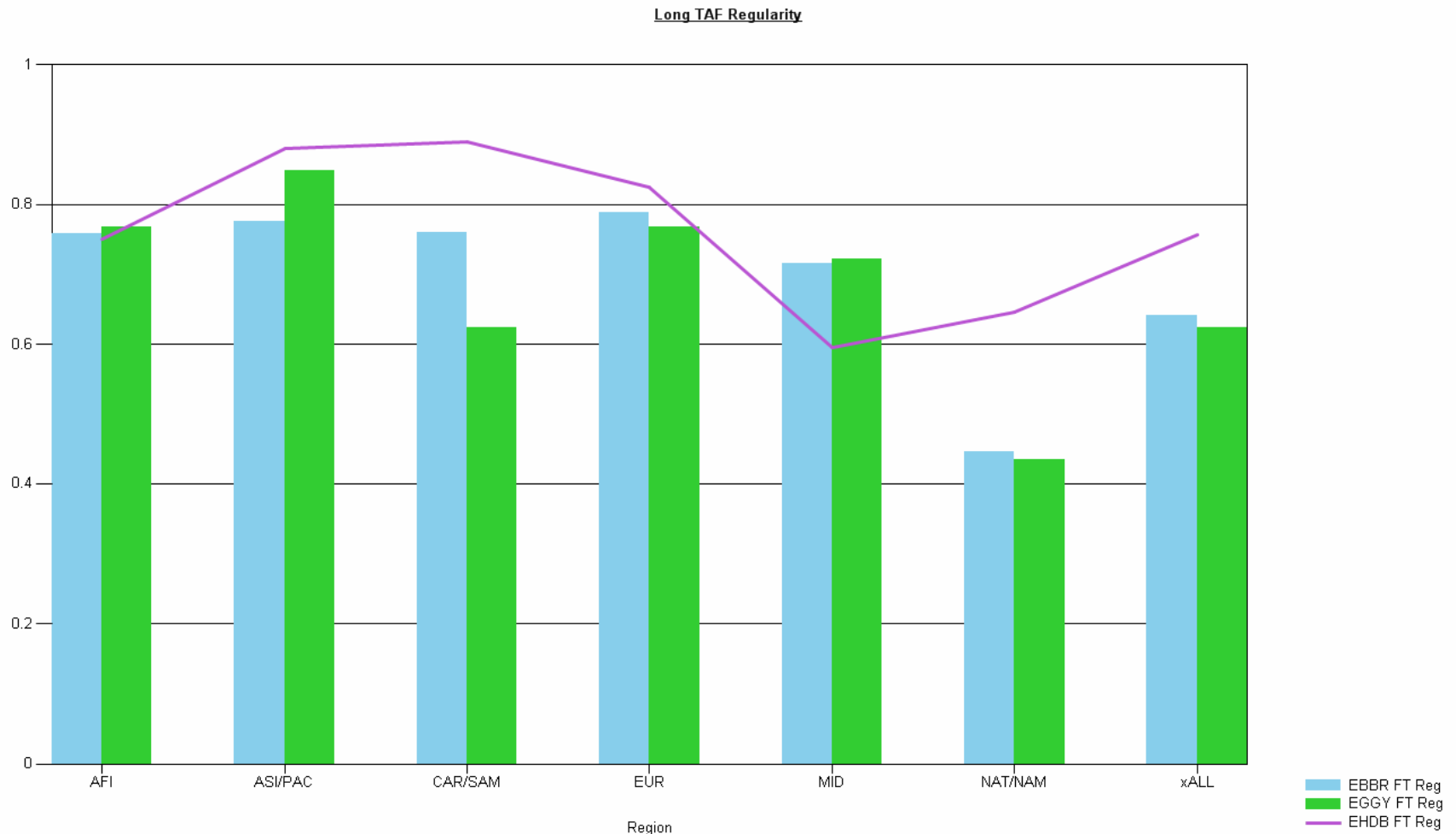
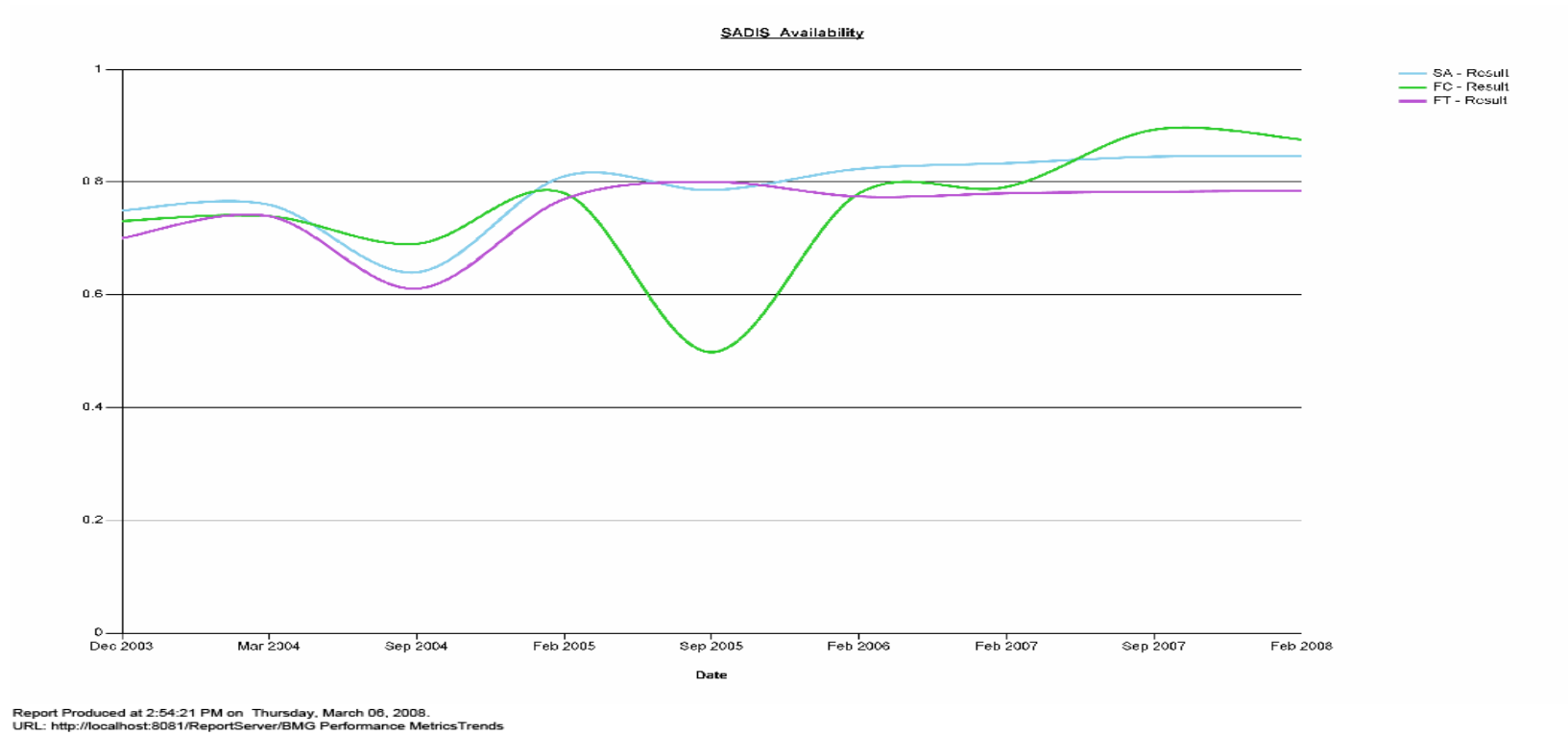


Figure 6: February 2008 Long TAF Regularity

**Figure 7: SADIS Availability Trends**

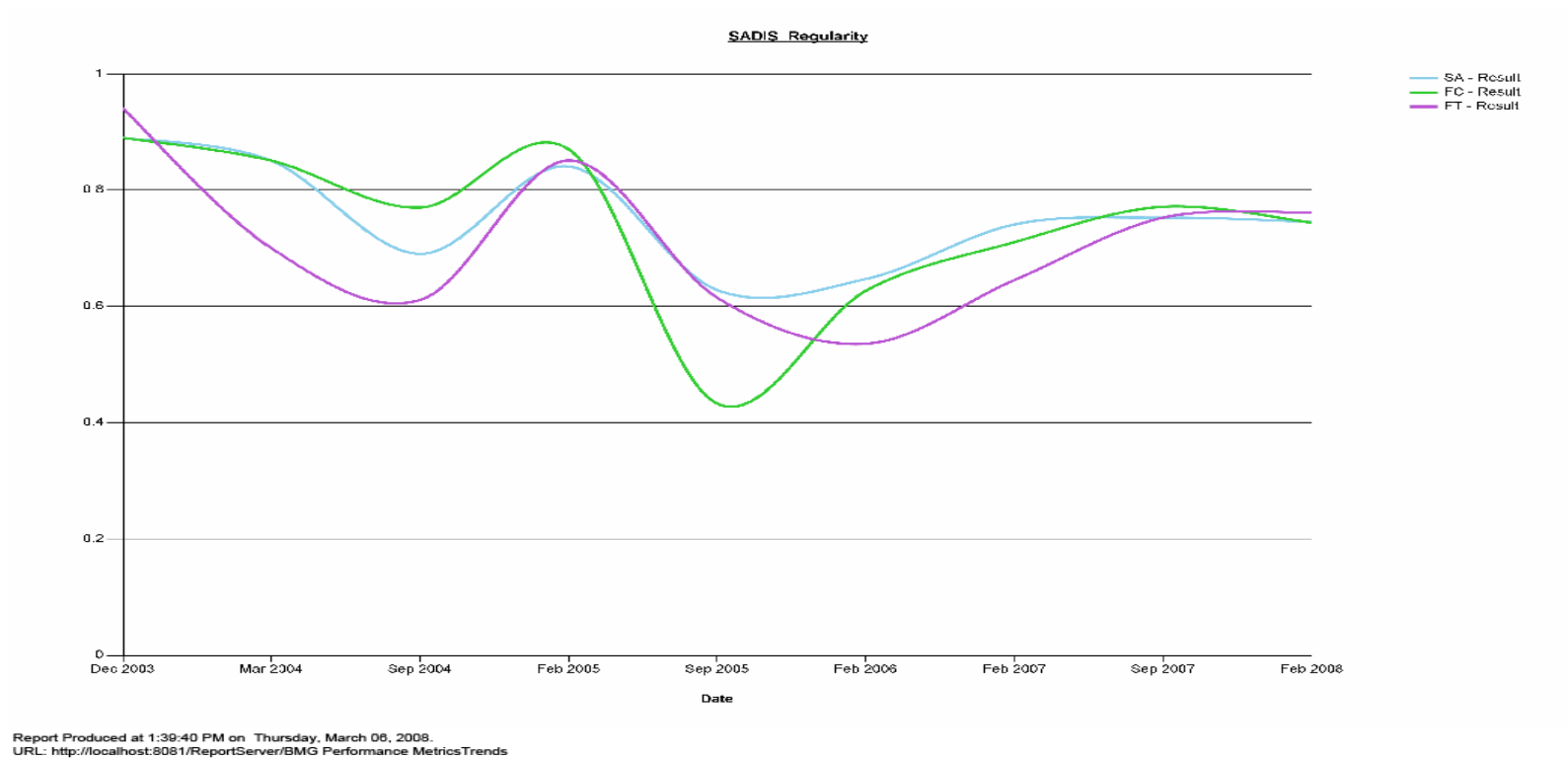


Figure 8: SADIS Regularity Trends