



International Civil Aviation Organization

**Sixth Meeting of CNS/MET Sub-Group of APANPIRG**

Bangkok, Thailand, 15-19 July 2002

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**Agenda Item 2: Aeronautical Fixed Service (AFS) Communications**

**AFTN CIRCUIT LOADING STATISTICS AT TOKYO AFTN CENTER**

(Presented by Japan)

**Summary**

This paper presents the latest AFTN circuit statistics of Tokyo. According to this loading statistics, two circuits need some improvement.

**1. INTRODUCTION**

1.1 AFTN circuit loading statistics was investigated in April, May and June at Tokyo center. It was recognized that the loading level of two circuits, namely Tokyo-Singapore and Tokyo-Moscow was high and need some improvement

**2. CONSIDERATION**

2.1 Tokyo-Singapore circuit

The output loadings of Tokyo-Singapore circuit at peak hours were over 10% everyday and input loadings at peak hours were between 20% and 47.5%. The modulation rate of this circuit is 1200 bps. Japan has agreed with Singapore to upgrade this circuit to 9600bps. JCAB are prepared for this upgrade and waiting for the information from Singapore.

## 2.2 Tokyo-Moscow circuit

The output loadings of Tokyo-Moscow circuit at peak hours were between 40% and 70% every month and input loadings at peak hours were between 10% and 25%. The modulation rate of this circuit is 200 bauds. Japan and Russian Federation had discussed on this issue, but the effective solution has not been developed yet.

2.3 There are two circuits between Japan and Russia; One is Tokyo-Moscow and the other is Tokyo-Khavarovsk. Tokyo-Moscow has 200 bauds capacity and Tokyo-Khavarovsk has 2400bps. Each of these two circuits works as an alternate in case of circuit failure of other. However, when Tokyo-Khavarovsk circuit get out of service, it is impossible to take over the Khavarovsk loading to Moscow because of the unbalance of these two circuits. Upgrade of Tokyo-Moscow circuit is needed urgently.

2.4 The details of the circuit loadings are provided in the Attachment.

## 3. ACTION BY THE MEETING

The meeting is invited to note the information provided in this paper.

## AFTN CIRCUIT LOADING STATISTICS

|                                   |                           |                |             |                                |                            |                |             |               |
|-----------------------------------|---------------------------|----------------|-------------|--------------------------------|----------------------------|----------------|-------------|---------------|
| ORIGINATING STATION : Tokyo       |                           |                |             | LOCATION INDICATOR : RJAA      |                            |                |             |               |
| CORRESPONDENT STATION : Salt Lake |                           |                |             | LOCATION INDICATOR : KSLC      |                            |                |             |               |
| MODULATION RATE : 9600 bauds      |                           |                |             | TOTAL NUMBER OF CAHNNELS : One |                            |                |             |               |
| AVERAGE LOADING                   |                           | INPUT : 2.4%   |             |                                | OUTPUT : 0.7%              |                |             |               |
| DATE                              | AFTN CENTER/STATION INPUT |                |             |                                | AFTN CENTER/STATION OUTPUT |                |             |               |
|                                   | PEAK HOURLY               | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY                  | PEAK HOURLY                | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY |
| 1 APRIL 2002                      | 198,674                   | 4.7%           | 2,448,739   | 2.4%                           | 53,797                     | 1.2%           | 746,740     | 0.7%          |
| 2 APRIL 2002                      | 186,568                   | 4.4%           | 2,385,027   | 2.3%                           | 49,039                     | 1.1%           | 709,733     | 0.7%          |
| 3 APRIL 2002                      | 253,731                   | 6.0%           | 2,685,134   | 2.6%                           | 52,844                     | 1.2%           | 757,293     | 0.7%          |
| 4 APRIL 2002                      | 182,447                   | 4.3%           | 2,309,220   | 2.2%                           | 56,903                     | 1.3%           | 721,468     | 0.7%          |
| 5 APRIL 2002                      | 188,927                   | 4.5%           | 2,399,163   | 2.3%                           | 53,321                     | 1.2%           | 750,756     | 0.7%          |
| 6 APRIL 2002                      | 191,324                   | 4.5%           | 2,467,216   | 2.4%                           | 57,790                     | 1.3%           | 677,176     | 0.6%          |
| 7 APRIL 2002                      | 211,516                   | 5.0%           | 2,392,901   | 2.3%                           | 48,760                     | 1.1%           | 660,565     | 0.6%          |

## AFTN CIRCUIT LOADING STATISTICS

|                                   |                           |                |             |                                |                            |                |             |               |
|-----------------------------------|---------------------------|----------------|-------------|--------------------------------|----------------------------|----------------|-------------|---------------|
| ORIGINATING STATION : Tokyo       |                           |                |             | LOCATION INDICATOR : RJAA      |                            |                |             |               |
| CORRESPONDENT STATION : Salt Lake |                           |                |             | LOCATION INDICATOR : KSLC      |                            |                |             |               |
| MODULATION RATE : 9600 bauds      |                           |                |             | TOTAL NUMBER OF CAHNNELS : One |                            |                |             |               |
| AVERAGE LOADING                   |                           | INPUT : 2.5%   |             |                                | OUTPUT : 0.7%              |                |             |               |
| DATE                              | AFTN CENTER/STATION INPUT |                |             |                                | AFTN CENTER/STATION OUTPUT |                |             |               |
|                                   | PEAK HOURLY               | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY                  | PEAK HOURLY                | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY |
| 1 MAY 2002                        | 212,578                   | 5.0%           | 2,816,720   | 2.8%                           | 49,775                     | 1.1%           | 732,108     | 0.7%          |
| 2 MAY 2002                        | 220,701                   | 5.2%           | 2,863,509   | 2.8%                           | 61,497                     | 1.4%           | 868,935     | 0.8%          |
| 3 MAY 2002                        | 192,026                   | 4.5%           | 2,639,057   | 2.6%                           | 115,988                    | 2.7%           | 806,560     | 0.8%          |
| 4 MAY 2002                        | 195,900                   | 4.6%           | 2,329,944   | 2.3%                           | 51,212                     | 1.2%           | 666,898     | 0.6%          |
| 5 MAY 2002                        | 207,707                   | 4.9%           | 2,328,263   | 2.3%                           | 51,473                     | 1.2%           | 635,363     | 0.6%          |
| 6 MAY 2002                        | 242,199                   | 5.7%           | 2,540,798   | 2.5%                           | 54,689                     | 1.3%           | 698,766     | 0.6%          |
| 7 MAY 2002                        | 219,985                   | 5.2%           | 2,606,552   | 2.5%                           | 64,694                     | 1.5%           | 728,159     | 0.7%          |

## AFTN CIRCUIT LOADING STATISTICS

|                                   |                           |                |             |                                |                            |                |             |               |
|-----------------------------------|---------------------------|----------------|-------------|--------------------------------|----------------------------|----------------|-------------|---------------|
| ORIGINATING STATION : Tokyo       |                           |                |             | LOCATION INDICATOR : RJAA      |                            |                |             |               |
| CORRESPONDENT STATION : Salt Lake |                           |                |             | LOCATION INDICATOR : KSLC      |                            |                |             |               |
| MODULATION RATE : 9600 bauds      |                           |                |             | TOTAL NUMBER OF CAHNNELS : One |                            |                |             |               |
| AVERAGE LOADING                   |                           | INPUT : 2.6%   |             |                                | OUTPUT : 0.7%              |                |             |               |
| DATE                              | AFTN CENTER/STATION INPUT |                |             |                                | AFTN CENTER/STATION OUTPUT |                |             |               |
|                                   | PEAK HOURLY               | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY                  | PEAK HOURLY                | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY |
| 1 JUNE 2002                       | 206,105                   | 4.9%           | 2,487,929   | 2.4%                           | 64,505                     | 1.5%           | 752,435     | 0.7%          |
| 2 JUNE 2002                       | 198,671                   | 4.7%           | 2,415,369   | 2.4%                           | 65,862                     | 1.5%           | 688,518     | 0.6%          |
| 3 JUNE 2002                       | 225,457                   | 5.3%           | 2,644,017   | 2.6%                           | 66,560                     | 1.5%           | 691,662     | 0.6%          |
| 4 JUNE 2002                       | 212,344                   | 5.0%           | 2,682,681   | 2.6%                           | 66,843                     | 1.5%           | 754,384     | 0.7%          |
| 5 JUNE 2002                       | 292,345                   | 6.9%           | 2,996,514   | 2.9%                           | 66,617                     | 1.5%           | 715,820     | 0.7%          |
| 6 JUNE 2002                       | 206,096                   | 4.9%           | 2,789,503   | 2.7%                           | 59,242                     | 1.4%           | 700,847     | 0.6%          |
| 7 JUNE 2002                       | 223,457                   | 5.3%           | 2,674,073   | 2.6%                           | 65,479                     | 1.5%           | 762,355     | 0.7%          |

## AFTN CIRCUIT LOADING STATISTICS

|                                   |                           |                |             |                                |                            |                |             |               |
|-----------------------------------|---------------------------|----------------|-------------|--------------------------------|----------------------------|----------------|-------------|---------------|
| ORIGINATING STATION : Tokyo       |                           |                |             | LOCATION INDICATOR : RJAA      |                            |                |             |               |
| CORRESPONDENT STATION : Singapore |                           |                |             | LOCATION INDICATOR : WSSS      |                            |                |             |               |
| MODULATION RATE : 1200 bauds      |                           |                |             | TOTAL NUMBER OF CAHNNELS : One |                            |                |             |               |
| AVERAGE LOADING                   |                           | INPUT : 15.3%  |             |                                | OUTPUT : 7.6%              |                |             |               |
| DATE                              | AFTN CENTER/STATION INPUT |                |             |                                | AFTN CENTER/STATION OUTPUT |                |             |               |
|                                   | PEAK HOURLY               | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY                  | PEAK HOURLY                | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY |
| 1 APRIL 2002                      | 93,319                    | 23.2%          | 1,486,040   | 15.4%                          | 47,233                     | 11.7%          | 695,815     | 7.2%          |
| 2 APRIL 2002                      | 92,452                    | 23.0%          | 1,480,046   | 15.3%                          | 60,037                     | 14.9%          | 744,825     | 7.7%          |
| 3 APRIL 2002                      | 94,142                    | 23.4%          | 1,521,206   | 15.7%                          | 135,230                    | 33.6%          | 847,729     | 8.7%          |
| 4 APRIL 2002                      | 102,998                   | 25.6%          | 1,510,106   | 15.6%                          | 42,536                     | 10.5%          | 704,452     | 7.3%          |
| 5 APRIL 2002                      | 106,143                   | 26.4%          | 1,609,262   | 16.6%                          | 51,092                     | 12.7%          | 751,279     | 7.7%          |
| 6 APRIL 2002                      | 160,420                   | 39.9%          | 1,442,608   | 14.9%                          | 42,109                     | 10.4%          | 698,322     | 7.2%          |
| 7 APRIL 2002                      | 86,789                    | 21.6%          | 1,337,947   | 13.8%                          | 51,861                     | 12.9%          | 708,497     | 7.3%          |

## AFTN CIRCUIT LOADING STATISTICS

|                                   |                           |                |             |                              |                            |                |             |               |
|-----------------------------------|---------------------------|----------------|-------------|------------------------------|----------------------------|----------------|-------------|---------------|
| ORIGINATING STATION : Tokyo       |                           |                |             | LOCATION INDICATOR : RJAA    |                            |                |             |               |
| CORRESPONDENT STATION : Singapore |                           |                |             | LOCATION INDICATOR : WSSS    |                            |                |             |               |
| MODULATION RATE : 1200 bauds      |                           |                |             | TOTAL NUMBEROF AHNNELS : One |                            |                |             |               |
| AVERAGE LOADING                   |                           | INPUT : 15.7%  |             |                              | OUTPUT : 7.5%              |                |             |               |
| DATE                              | AFTN CENTER/STATION INPUT |                |             |                              | AFTN CENTER/STATION OUTPUT |                |             |               |
|                                   | PEAK HOURLY               | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY                | PEAK HOURLY                | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY |
| 1 MAY 2002                        | 101,025                   | 25.1%          | 1,572,130   | 16.3%                        | 54,788                     | 13.6%          | 735,811     | 7.6%          |
| 2 MAY 2002                        | 190,943                   | 47.5%          | 1,855,546   | 19.2%                        | 59,340                     | 14.7%          | 899,091     | 9.3%          |
| 3 MAY 2002                        | 125,495                   | 31.2%          | 1,674,136   | 17.3%                        | 45,436                     | 11.3%          | 728,212     | 7.5%          |
| 4 MAY 2002                        | 88,105                    | 21.9%          | 1,336,445   | 13.8%                        | 45,334                     | 11.2%          | 693,881     | 7.1%          |
| 5 MAY 2002                        | 84,610                    | 21.0%          | 1,332,041   | 13.8%                        | 42,487                     | 10.5%          | 631,390     | 6.5%          |
| 6 MAY 2002                        | 96,527                    | 24.0%          | 1,440,966   | 14.9%                        | 51,567                     | 12.8%          | 684,144     | 7.0%          |
| 7 MAY 2002                        | 111,726                   | 27.8%          | 1,418,299   | 14.7%                        | 58,238                     | 14.4%          | 740,697     | 7.6%          |

## AFTN CIRCUIT LOADING STATISTICS

|                                   |                           |                |             |                                |                            |                |             |               |
|-----------------------------------|---------------------------|----------------|-------------|--------------------------------|----------------------------|----------------|-------------|---------------|
| ORIGINATING STATION : Tokyo       |                           |                |             | LOCATION INDICATOR : RJAA      |                            |                |             |               |
| CORRESPONDENT STATION : Singapore |                           |                |             | LOCATION INDICATOR : WSSS      |                            |                |             |               |
| MODULATION RATE : 1200 bauds      |                           |                |             | TOTAL NUMBER OF CAHNNELS : One |                            |                |             |               |
| AVERAGE LOADING                   |                           | INPUT : 14.5%  |             |                                | OUTPUT : 7.4%              |                |             |               |
| DATE                              | AFTN CENTER/STATION INPUT |                |             |                                | AFTN CENTER/STATION OUTPUT |                |             |               |
|                                   | PEAK HOURLY               | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY                  | PEAK HOURLY                | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY |
| 1 JUNE 2002                       | 102,413                   | 25.4%          | 1,443,944   | 14.9%                          | 45,846                     | 11.4%          | 726,653     | 7.5%          |
| 2 JUNE 2002                       | 76,916                    | 19.1%          | 1,275,377   | 13.2%                          | 44,473                     | 11.0%          | 632,327     | 6.5%          |
| 3 JUNE 2002                       | 79,839                    | 19.8%          | 1,376,183   | 14.2%                          | 49,340                     | 12.2%          | 668,806     | 6.9%          |
| 4 JUNE 2002                       | 100,634                   | 25.0%          | 1,470,147   | 15.2%                          | 48,405                     | 12.0%          | 756,150     | 7.8%          |
| 5 JUNE 2002                       | 89,476                    | 22.2%          | 1,422,340   | 14.7%                          | 46,268                     | 11.5%          | 698,461     | 7.2%          |
| 6 JUNE 2002                       | 89,792                    | 22.3%          | 1,415,726   | 14.6%                          | 51,297                     | 12.7%          | 757,666     | 7.8%          |
| 7 JUNE 2002                       | 112,938                   | 28.1%          | 1,437,829   | 14.9%                          | 68,186                     | 16.9%          | 794,242     | 8.2%          |

## AFTN CIRCUIT LOADING STATISTICS

|                                   |                           |                |             |                                |                            |                |             |               |
|-----------------------------------|---------------------------|----------------|-------------|--------------------------------|----------------------------|----------------|-------------|---------------|
| ORIGINATING STATION : Tokyo       |                           |                |             | LOCATION INDICATOR : RJAA      |                            |                |             |               |
| CORRESPONDENT STATION : Hong Kong |                           |                |             | LOCATION INDICATOR : VHHH      |                            |                |             |               |
| MODULATION RATE : 9600 bauds      |                           |                |             | TOTAL NUMBER OF CAHNNELS : One |                            |                |             |               |
| AVERAGE LOADING                   |                           | INPUT : 0.5%   |             |                                | OUTPUT : 1.0%              |                |             |               |
| DATE                              | AFTN CENTER/STATION INPUT |                |             |                                | AFTN CENTER/STATION OUTPUT |                |             |               |
|                                   | PEAK HOURLY               | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY                  | PEAK HOURLY                | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY |
| 1 APRIL 2002                      | 41,343                    | 0.9%           | 586,428     | 0.5%                           | 75,603                     | 1.8%           | 1,034,800   | 1.0%          |
| 2 APRIL 2002                      | 38,979                    | 0.9%           | 599,089     | 0.5%                           | 65,439                     | 1.5%           | 1,022,560   | 1.0%          |
| 3 APRIL 2002                      | 37,671                    | 0.8%           | 600,254     | 0.5%                           | 75,368                     | 1.7%           | 1,014,364   | 1.0%          |
| 4 APRIL 2002                      | 39,063                    | 0.9%           | 602,789     | 0.5%                           | 77,080                     | 1.8%           | 1,021,411   | 1.0%          |
| 5 APRIL 2002                      | 37,785                    | 0.9%           | 566,538     | 0.5%                           | 93,631                     | 2.2%           | 1,062,498   | 1.0%          |
| 6 APRIL 2002                      | 40,938                    | 0.9%           | 542,001     | 0.5%                           | 95,308                     | 2.2%           | 953,616     | 0.9%          |
| 7 APRIL 2002                      | 37,692                    | 0.8%           | 535,701     | 0.5%                           | 74,706                     | 1.7%           | 920,990     | 0.9%          |

## AFTN CIRCUIT LOADING STATISTICS

|                                   |                           |                |             |                                |                            |                |             |               |
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| ORIGINATING STATION : Tokyo       |                           |                |             | LOCATION INDICATOR : RJAA      |                            |                |             |               |
| CORRESPONDENT STATION : Hong Kong |                           |                |             | LOCATION INDICATOR : VHHH      |                            |                |             |               |
| MODULATION RATE : 9600 bauds      |                           |                |             | TOTAL NUMBER OF CAHNNELS : One |                            |                |             |               |
| AVERAGE LOADING                   |                           | INPUT : 0.5%   |             |                                | OUTPUT : 0.9%              |                |             |               |
| DATE                              | AFTN CENTER/STATION INPUT |                |             |                                | AFTN CENTER/STATION OUTPUT |                |             |               |
|                                   | PEAK HOURLY               | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY                  | PEAK HOURLY                | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY |
| 1 MAY 2002                        | 43,195                    | 1.0%           | 639,385     | 0.6%                           | 72,292                     | 1.7%           | 1,036,582   | 1.0%          |
| 2 MAY 2002                        | 38,670                    | 0.9%           | 548,960     | 0.5%                           | 135,277                    | 3.2%           | 1,246,635   | 1.2%          |
| 3 MAY 2002                        | 51,710                    | 1.2%           | 596,632     | 0.5%                           | 70,531                     | 1.6%           | 1,053,070   | 1.0%          |
| 4 MAY 2002                        | 38,811                    | 0.9%           | 536,838     | 0.5%                           | 62,810                     | 1.4%           | 851,910     | 0.8%          |
| 5 MAY 2002                        | 36,664                    | 0.8%           | 545,007     | 0.5%                           | 60,085                     | 1.4%           | 869,290     | 0.8%          |
| 6 MAY 2002                        | 42,455                    | 1.0%           | 609,845     | 0.6%                           | 68,786                     | 1.6%           | 968,437     | 0.9%          |
| 7 MAY 2002                        | 41,638                    | 0.9%           | 612,214     | 0.6%                           | 68,529                     | 1.6%           | 1,000,012   | 0.9%          |

## AFTN CIRCUIT LOADING STATISTICS

|                                   |                           |                |             |                                |                            |                |             |               |
|-----------------------------------|---------------------------|----------------|-------------|--------------------------------|----------------------------|----------------|-------------|---------------|
| ORIGINATING STATION : Tokyo       |                           |                |             | LOCATION INDICATOR : RJAA      |                            |                |             |               |
| CORRESPONDENT STATION : Hong Kong |                           |                |             | LOCATION INDICATOR : VHHH      |                            |                |             |               |
| MODULATION RATE : 9600 bauds      |                           |                |             | TOTAL NUMBER OF CAHNNELS : One |                            |                |             |               |
| AVERAGE LOADING                   |                           | INPUT : 0.5%   |             |                                | OUTPUT : 0.9%              |                |             |               |
| DATE                              | AFTN CENTER/STATION INPUT |                |             |                                | AFTN CENTER/STATION OUTPUT |                |             |               |
|                                   | PEAK HOURLY               | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY                  | PEAK HOURLY                | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY |
| 1 JUNE 2002                       | 48,829                    | 1.1%           | 603,088     | 0.5%                           | 60,357                     | 1.4%           | 890,916     | 0.8%          |
| 2 JUNE 2002                       | 45,330                    | 1.0%           | 585,968     | 0.5%                           | 59,392                     | 1.4%           | 812,971     | 0.8%          |
| 3 JUNE 2002                       | 46,703                    | 1.1%           | 597,803     | 0.5%                           | 63,175                     | 1.5%           | 887,134     | 0.8%          |
| 4 JUNE 2002                       | 48,365                    | 1.1%           | 666,282     | 0.6%                           | 66,179                     | 1.5%           | 964,822     | 0.9%          |
| 5 JUNE 2002                       | 42,391                    | 1.0%           | 628,737     | 0.6%                           | 74,840                     | 1.7%           | 1,031,974   | 1.0%          |
| 6 JUNE 2002                       | 35,513                    | 0.8%           | 583,907     | 0.5%                           | 65,748                     | 1.5%           | 958,858     | 0.9%          |
| 7 JUNE 2002                       | 50,746                    | 1.2%           | 644,646     | 0.6%                           | 78,725                     | 1.8%           | 1,028,968   | 1.0%          |

## AFTN CIRCUIT LOADING STATISTICS

|                               |                           |                |             |                                |                            |                |             |               |
|-------------------------------|---------------------------|----------------|-------------|--------------------------------|----------------------------|----------------|-------------|---------------|
| ORIGINATING STATION : Tokyo   |                           |                |             | LOCATION INDICATOR : RJAA      |                            |                |             |               |
| CORRESPONDENT STATION : Seoul |                           |                |             | LOCATION INDICATOR : RKSS      |                            |                |             |               |
| MODULATION RATE : 9600 bauds  |                           |                |             | TOTAL NUMBER OF CAHNNELS : One |                            |                |             |               |
| AVERAGE LOADING               |                           | INPUT : 0.0%   |             |                                | OUTPUT : 1.1%              |                |             |               |
| DATE                          | AFTN CENTER/STATION INPUT |                |             |                                | AFTN CENTER/STATION OUTPUT |                |             |               |
|                               | PEAK HOURLY               | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY                  | PEAK HOURLY                | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY |
| 1 APRIL 2002                  | 8,961                     | 0.2%           | 63,510      | 0.0%                           | 82,663                     | 1.9%           | 1,180,251   | 1.1%          |
| 2 APRIL 2002                  | 32,619                    | 0.7%           | 75,498      | 0.0%                           | 83,169                     | 1.9%           | 1,115,100   | 1.1%          |
| 3 APRIL 2002                  | 7,608                     | 0.1%           | 60,294      | 0.0%                           | 90,909                     | 2.1%           | 1,241,426   | 1.2%          |
| 4 APRIL 2002                  | 5,611                     | 0.1%           | 47,739      | 0.0%                           | 86,440                     | 2.0%           | 1,123,608   | 1.1%          |
| 5 APRIL 2002                  | 4,456                     | 0.1%           | 53,197      | 0.0%                           | 81,227                     | 1.9%           | 1,147,944   | 1.1%          |
| 6 APRIL 2002                  | 5,372                     | 0.1%           | 65,995      | 0.0%                           | 84,854                     | 2.0%           | 1,098,468   | 1.0%          |
| 7 APRIL 2002                  | 5,048                     | 0.1%           | 63,741      | 0.0%                           | 82,082                     | 1.9%           | 1,100,453   | 1.0%          |

## AFTN CIRCUIT LOADING STATISTICS

|                               |                           |                |             |               |                                |                |             |               |
|-------------------------------|---------------------------|----------------|-------------|---------------|--------------------------------|----------------|-------------|---------------|
| ORIGINATING STATION : Tokyo   |                           |                |             |               | LOCATION INDICATOR : RJAA      |                |             |               |
| CORRESPONDENT STATION : Seoul |                           |                |             |               | LOCATION INDICATOR : RKSS      |                |             |               |
| MODULATION RATE : 9600 bauds  |                           |                |             |               | TOTAL NUMBER OF CAHNNELS : One |                |             |               |
| AVERAGE LOADING               |                           | INPUT : 0.0%   |             |               | OUTPUT : 1.2%                  |                |             |               |
| DATE                          | AFTN CENTER/STATION INPUT |                |             |               | AFTN CENTER/STATION OUTPUT     |                |             |               |
|                               | PEAK HOURLY               | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY | PEAK HOURLY                    | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY |
| 1 MAY 2002                    | 10,212                    | 0.2%           | 61,041      | 0.0%          | 106,901                        | 2.5%           | 1,381,210   | 1.3%          |
| 2 MAY 2002                    | 8,872                     | 0.2%           | 57,602      | 0.0%          | 102,879                        | 2.4%           | 1,407,475   | 1.3%          |
| 3 MAY 2002                    | 6,494                     | 0.1%           | 73,546      | 0.0%          | 77,437                         | 1.8%           | 1,206,955   | 1.2%          |
| 4 MAY 2002                    | 5,218                     | 0.1%           | 49,419      | 0.0%          | 77,562                         | 1.8%           | 1,049,371   | 1.0%          |
| 5 MAY 2002                    | 5,068                     | 0.1%           | 46,652      | 0.0%          | 85,407                         | 2.0%           | 1,081,694   | 1.0%          |
| 6 MAY 2002                    | 7,805                     | 0.1%           | 63,434      | 0.0%          | 101,794                        | 2.4%           | 1,237,273   | 1.2%          |
| 7 MAY 2002                    | 18,523                    | 0.4%           | 106,746     | 0.1%          | 84,794                         | 2.0%           | 1,223,936   | 1.2%          |

## AFTN CIRCUIT LOADING STATISTICS

|                               |                           |                |             |                                |                            |                |             |               |
|-------------------------------|---------------------------|----------------|-------------|--------------------------------|----------------------------|----------------|-------------|---------------|
| ORIGINATING STATION : Tokyo   |                           |                |             | LOCATION INDICATOR : RJAA      |                            |                |             |               |
| CORRESPONDENT STATION : Seoul |                           |                |             | LOCATION INDICATOR : RKSS      |                            |                |             |               |
| MODULATION RATE : 9600 bauds  |                           |                |             | TOTAL NUMBER OF CAHNNELS : One |                            |                |             |               |
| AVERAGE LOADING               |                           | INPUT : 0.0%   |             |                                | OUTPUT : 1.2%              |                |             |               |
| DATE                          | AFTN CENTER/STATION INPUT |                |             |                                | AFTN CENTER/STATION OUTPUT |                |             |               |
|                               | PEAK HOURLY               | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY                  | PEAK HOURLY                | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY |
| 1 JUNE 2002                   | 6,838                     | 0.1%           | 70,418      | 0.0%                           | 104,157                    | 2.4%           | 1,261,494   | 1.2%          |
| 2 JUNE 2002                   | 9,131                     | 0.2%           | 61,404      | 0.0%                           | 82,615                     | 1.9%           | 1,174,944   | 1.1%          |
| 3 JUNE 2002                   | 5,252                     | 0.1%           | 55,865      | 0.0%                           | 92,134                     | 2.1%           | 1,231,416   | 1.2%          |
| 4 JUNE 2002                   | 22,612                    | 0.5%           | 79,408      | 0.0%                           | 82,943                     | 1.9%           | 1,237,446   | 1.2%          |
| 5 JUNE 2002                   | 6,849                     | 0.1%           | 64,810      | 0.0%                           | 111,007                    | 2.6%           | 1,422,692   | 1.4%          |
| 6 JUNE 2002                   | 4,269                     | 0.1%           | 47,206      | 0.0%                           | 86,668                     | 2.0%           | 1,315,367   | 1.3%          |
| 7 JUNE 2002                   | 6,046                     | 0.1%           | 51,839      | 0.0%                           | 84,577                     | 2.0%           | 1,203,113   | 1.1%          |



## AFTN CIRCUIT LOADING STATISTICS

|                                    |                           |                |             |                                |                            |                |             |               |
|------------------------------------|---------------------------|----------------|-------------|--------------------------------|----------------------------|----------------|-------------|---------------|
| ORIGINATING STATION : Tokyo        |                           |                |             | LOCATION INDICATOR : RJAA      |                            |                |             |               |
| CORRESPONDENT STATION : Khavarovsk |                           |                |             | LOCATION INDICATOR : UHHH      |                            |                |             |               |
| MODULATION RATE : 2400 bauds       |                           |                |             | TOTAL NUMBER OF CAHNNELS : One |                            |                |             |               |
| AVERAGE LOADING                    |                           | INPUT : 0.6%   |             |                                | OUTPUT : 1.4%              |                |             |               |
| DATE                               | AFTN CENTER/STATION INPUT |                |             |                                | AFTN CENTER/STATION OUTPUT |                |             |               |
|                                    | PEAK HOURLY               | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY                  | PEAK HOURLY                | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY |
| 1 APRIL 2002                       | 27,149                    | 3.1%           | 159,316     | 0.7%                           | 20,138                     | 2.3%           | 247,358     | 1.1%          |
| 2 APRIL 2002                       | 25,097                    | 2.9%           | 131,117     | 0.6%                           | 18,752                     | 2.1%           | 276,841     | 1.3%          |
| 3 APRIL 2002                       | 29,873                    | 3.4%           | 157,044     | 0.7%                           | 21,830                     | 2.5%           | 301,626     | 1.4%          |
| 4 APRIL 2002                       | 27,963                    | 3.2%           | 143,884     | 0.6%                           | 23,295                     | 2.6%           | 283,024     | 1.3%          |
| 5 APRIL 2002                       | 31,559                    | 3.6%           | 165,004     | 0.7%                           | 21,012                     | 2.4%           | 323,760     | 1.5%          |
| 6 APRIL 2002                       | 26,818                    | 3.1%           | 118,566     | 0.5%                           | 21,392                     | 2.4%           | 322,946     | 1.5%          |
| 7 APRIL 2002                       | 23,515                    | 2.7%           | 111,280     | 0.5%                           | 20,428                     | 2.3%           | 307,937     | 1.4%          |

## AFTN CIRCUIT LOADING STATISTICS

|                                    |                           |                |             |                                |                            |                |             |               |
|------------------------------------|---------------------------|----------------|-------------|--------------------------------|----------------------------|----------------|-------------|---------------|
| ORIGINATING STATION : Tokyo        |                           |                |             | LOCATION INDICATOR : RJAA      |                            |                |             |               |
| CORRESPONDENT STATION : Khavarovsk |                           |                |             | LOCATION INDICATOR : UHHH      |                            |                |             |               |
| MODULATION RATE : 2400 bauds       |                           |                |             | TOTAL NUMBER OF CAHNNELS : One |                            |                |             |               |
| AVERAGE LOADING                    |                           | INPUT : 0.5%   |             |                                | OUTPUT : 1.6%              |                |             |               |
| DATE                               | AFTN CENTER/STATION INPUT |                |             |                                | AFTN CENTER/STATION OUTPUT |                |             |               |
|                                    | PEAK HOURLY               | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY                  | PEAK HOURLY                | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY |
| 1 MAY 2002                         | 24,577                    | 2.8%           | 111,612     | 0.5%                           | 30,039                     | 3.4%           | 431,510     | 2.0%          |
| 2 MAY 2002                         | 22,965                    | 2.6%           | 109,586     | 0.5%                           | 29,460                     | 3.4%           | 380,651     | 1.8%          |
| 3 MAY 2002                         | 24,534                    | 2.8%           | 110,789     | 0.5%                           | 23,895                     | 2.7%           | 307,600     | 1.4%          |
| 4 MAY 2002                         | 24,239                    | 2.8%           | 112,404     | 0.5%                           | 31,562                     | 3.6%           | 311,884     | 1.5%          |
| 5 MAY 2002                         | 26,563                    | 3.0%           | 104,760     | 0.5%                           | 23,488                     | 2.7%           | 288,126     | 1.3%          |
| 6 MAY 2002                         | 25,545                    | 2.9%           | 116,949     | 0.5%                           | 27,254                     | 3.1%           | 315,563     | 1.5%          |
| 7 MAY 2002                         | 24,865                    | 2.8%           | 133,077     | 0.6%                           | 30,366                     | 3.5%           | 350,213     | 1.6%          |

## AFTN CIRCUIT LOADING STATISTICS

|                                    |                           |                |             |                                |                            |                |             |               |
|------------------------------------|---------------------------|----------------|-------------|--------------------------------|----------------------------|----------------|-------------|---------------|
| ORIGINATING STATION : Tokyo        |                           |                |             | LOCATION INDICATOR : RJAA      |                            |                |             |               |
| CORRESPONDENT STATION : Khavarovsk |                           |                |             | LOCATION INDICATOR : UHHH      |                            |                |             |               |
| MODULATION RATE : 2400 bauds       |                           |                |             | TOTAL NUMBER OF CAHNNELS : One |                            |                |             |               |
| AVERAGE LOADING                    |                           | INPUT : 0.5%   |             |                                | OUTPUT: 1.9%               |                |             |               |
| DATE                               | AFTN CENTER/STATION INPUT |                |             |                                | AFTN CENTER/STATION OUTPUT |                |             |               |
|                                    | PEAK HOURLY               | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY                  | PEAK HOURLY                | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY |
| 1 JUNE 2002                        | 22,777                    | 2.6%           | 103,880     | 0.5%                           | 30,217                     | 3.4%           | 418,400     | 2.0%          |
| 2 JUNE 2002                        | 26,174                    | 3.0%           | 109,047     | 0.5%                           | 36,516                     | 4.2%           | 428,376     | 2.0%          |
| 3 JUNE 2002                        | 24,727                    | 2.8%           | 108,943     | 0.5%                           | 30,262                     | 3.5%           | 410,265     | 1.9%          |
| 4 JUNE 2002                        | 23,975                    | 2.7%           | 115,059     | 0.5%                           | 28,240                     | 3.2%           | 412,643     | 1.9%          |
| 5 JUNE 2002                        | 23,212                    | 2.6%           | 106,809     | 0.5%                           | 34,515                     | 3.9%           | 420,556     | 2.0%          |
| 6 JUNE 2002                        | 26,114                    | 3.0%           | 113,497     | 0.5%                           | 31,180                     | 3.6%           | 378,740     | 1.8%          |
| 7 JUNE 2002                        | 23,854                    | 2.7%           | 116,897     | 0.5%                           | 30,643                     | 3.5%           | 332,919     | 1.6%          |

## AFTN CIRCUIT LOADING STATISTICS

|                                |                           |                |             |               |                                |                |             |               |
|--------------------------------|---------------------------|----------------|-------------|---------------|--------------------------------|----------------|-------------|---------------|
| ORIGINATING STATION : Tokyo    |                           |                |             |               | LOCATION INDICATOR : RJAA      |                |             |               |
| CORRESPONDENT STATION : Moscow |                           |                |             |               | LOCATION INDICATOR : UUUU      |                |             |               |
| MODULATION RATE : 200 bauds    |                           |                |             |               | TOTAL NUMBER OF CAHNNELS : One |                |             |               |
| AVERAGE LOADING INPUT : 6.8%   |                           |                |             |               | OUTPUT : 27.5%                 |                |             |               |
| DATE                           | AFTN CENTER/STATION INPUT |                |             |               | AFTN CENTER/STATION OUTPUT     |                |             |               |
|                                | PEAK HOURLY               | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY | PEAK HOURLY                    | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY |
| 1 APRIL 2002                   | 13,880                    | 19.2%          | 131,933     | 7.6%          | 48,694                         | 67.6%          | 470,839     | 27.2%         |
| 2 APRIL 2002                   | 10,750                    | 14.9%          | 111,132     | 6.4%          | 34,497                         | 47.9%          | 448,689     | 25.9%         |
| 3 APRIL 2002                   | 11,710                    | 16.2%          | 117,868     | 6.8%          | 41,414                         | 57.5%          | 529,732     | 30.6%         |
| 4 APRIL 2002                   | 10,142                    | 14.0%          | 126,172     | 7.3%          | 28,337                         | 39.3%          | 448,637     | 25.9%         |
| 5 APRIL 2002                   | 9,894                     | 13.7%          | 112,671     | 6.5%          | 33,202                         | 46.1%          | 494,310     | 28.6%         |
| 6 APRIL 2002                   | 11,841                    | 16.4%          | 101,686     | 5.8%          | 29,866                         | 41.4%          | 481,168     | 27.8%         |
| 7 APRIL 2002                   | 16,000                    | 22.2%          | 129,292     | 7.4%          | 28,774                         | 39.9%          | 453,570     | 26.2%         |

## AFTN CIRCUIT LOADING STATISTICS

|                                |                           |                |             |                               |                            |                |             |               |
|--------------------------------|---------------------------|----------------|-------------|-------------------------------|----------------------------|----------------|-------------|---------------|
| ORIGINATING STATION : Tokyo    |                           |                |             | LOCATION INDICATOR :RJAA      |                            |                |             |               |
| CORRESPONDENT STATION : Moscow |                           |                |             | LOCATION INDICATOR :UUUU      |                            |                |             |               |
| MODULATION RATE : 200 bauds    |                           |                |             | TOTAL NUMBER OF CAHNNELS :One |                            |                |             |               |
| AVERAGE LOADING                |                           | INPUT : 5.2%   |             |                               | OUTPUT : 29.8%             |                |             |               |
| DATE                           | AFTN CENTER/STATION INPUT |                |             |                               | AFTN CENTER/STATION OUTPUT |                |             |               |
|                                | PEAK HOURLY               | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY                 | PEAK HOURLY                | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY |
| 1 MAY 2002                     | 13,486                    | 18.7%          | 108,763     | 6.2%                          | 46,864                     | 65.0%          | 657,720     | 38.0%         |
| 2 MAY 2002                     | 10,768                    | 14.9%          | 102,280     | 5.9%                          | 41,745                     | 57.9%          | 564,947     | 32.6%         |
| 3 MAY 2002                     | 8,319                     | 11.5%          | 93,081      | 5.3%                          | 38,404                     | 53.3%          | 514,737     | 29.7%         |
| 4 MAY 2002                     | 5,548                     | 7.7%           | 65,342      | 3.7%                          | 37,175                     | 51.6%          | 449,612     | 26.0%         |
| 5 MAY 2002                     | 6,741                     | 9.3%           | 73,468      | 4.2%                          | 29,663                     | 41.1%          | 421,105     | 24.3%         |
| 6 MAY 2002                     | 8,708                     | 12.0%          | 86,467      | 5.0%                          | 39,986                     | 55.5%          | 478,280     | 27.6%         |
| 7 MAY 2002                     | 9,820                     | 13.6%          | 104,673     | 6.0%                          | 38,879                     | 53.9%          | 532,047     | 30.7%         |

## AFTN CIRCUIT LOADING STATISTICS

|                                |                           |                   |                |                                |                            |                   |                |                  |
|--------------------------------|---------------------------|-------------------|----------------|--------------------------------|----------------------------|-------------------|----------------|------------------|
| ORIGINATING STATION : Tokyo    |                           |                   |                | LOCATION INDICATOR : RJAA      |                            |                   |                |                  |
| CORRESPONDENT STATION : Moscow |                           |                   |                | LOCATION INDICATOR : UUUU      |                            |                   |                |                  |
| MODULATION RATE : 200 bauds    |                           |                   |                | TOTAL NUMBER OF CAHNNELS : One |                            |                   |                |                  |
| AVERAGE LOADING                |                           |                   | INPUT : 4.6%   |                                |                            | OUTPUT : 34.5%    |                |                  |
| DATE                           | AFTN CENTER/STATION INPUT |                   |                |                                | AFTN CENTER/STATION OUTPUT |                   |                |                  |
|                                | PEAK<br>HOURLY            | PERCENT<br>HOURLY | TOTAL<br>DAILY | PERCENT<br>DAILY               | PEAK<br>HOURLY             | PERCENT<br>HOURLY | TOTAL<br>DAILY | PERCENT<br>DAILY |
| 1 JUNE 2002                    | 6,019                     | 8.3%              | 67,834         | 3.9%                           | 50,921                     | 70.7%             | 603,817        | 34.9%            |
| 2 JUNE 2002                    | 5,147                     | 7.1%              | 59,695         | 3.4%                           | 37,845                     | 52.5%             | 556,184        | 32.1%            |
| 3 JUNE 2002                    | 8,601                     | 11.9%             | 87,143         | 5.0%                           | 52,084                     | 72.3%             | 622,529        | 36.0%            |
| 4 JUNE 2002                    | 6,970                     | 9.6%              | 70,447         | 4.0%                           | 41,456                     | 57.5%             | 647,910        | 37.4%            |
| 5 JUNE 2002                    | 18,060                    | 25.0%             | 102,469        | 5.9%                           | 43,437                     | 60.3%             | 598,712        | 34.6%            |
| 6 JUNE 2002                    | 17,480                    | 24.2%             | 91,317         | 5.2%                           | 42,358                     | 58.8%             | 558,282        | 32.3%            |
| 7 JUNE 2002                    | 7,083                     | 9.8%              | 81,288         | 4.7%                           | 45,643                     | 63.3%             | 595,064        | 34.4%            |

## AFTN CIRCUIT LOADING STATISTICS

|                                 |                           |                |              |                                |                            |                |             |               |
|---------------------------------|---------------------------|----------------|--------------|--------------------------------|----------------------------|----------------|-------------|---------------|
| ORIGINATING STATION : Tokyo     |                           |                |              | LOCATION INDICATOR : RJAA      |                            |                |             |               |
| CORRESPONDENT STATION : Beijing |                           |                |              | LOCATION INDICATOR : ZBBB      |                            |                |             |               |
| MODULATION RATE : 9600 bauds    |                           |                |              | TOTAL NUMBER OF CAHNNELS : One |                            |                |             |               |
| AVERAGE LOADING                 |                           |                | INPUT : 0.3% |                                |                            | OUTPUT : 0.8%  |             |               |
| DATE                            | AFTN CENTER/STATION INPUT |                |              |                                | AFTN CENTER/STATION OUTPUT |                |             |               |
|                                 | PEAK HOURLY               | PERCENT HOURLY | TOTAL DAILY  | PERCENT DAILY                  | PEAK HOURLY                | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY |
| 1 APRIL 2002                    | 28,843                    | 0.6%           | 332,221      | 0.3%                           | 58,631                     | 1.3%           | 846,445     | 0.8%          |
| 2 APRIL 2002                    | 41,677                    | 0.9%           | 388,291      | 0.3%                           | 56,491                     | 1.3%           | 863,606     | 0.8%          |
| 3 APRIL 2002                    | 44,670                    | 1.0%           | 383,076      | 0.3%                           | 68,074                     | 1.6%           | 874,252     | 0.8%          |
| 4 APRIL 2002                    | 32,081                    | 0.7%           | 323,408      | 0.3%                           | 60,739                     | 1.4%           | 836,728     | 0.8%          |
| 5 APRIL 2002                    | 45,537                    | 1.0%           | 376,626      | 0.3%                           | 55,804                     | 1.3%           | 893,016     | 0.8%          |
| 6 APRIL 2002                    | 26,341                    | 0.6%           | 323,715      | 0.3%                           | 75,222                     | 1.7%           | 788,483     | 0.7%          |
| 7 APRIL 2002                    | 32,952                    | 0.7%           | 350,944      | 0.3%                           | 60,416                     | 1.4%           | 746,887     | 0.7%          |

## AFTN CIRCUIT LOADING STATISTICS

|                                 |                          |                   |                |                                |                            |                   |                |                  |
|---------------------------------|--------------------------|-------------------|----------------|--------------------------------|----------------------------|-------------------|----------------|------------------|
| ORIGINATING STATION : Tokyo     |                          |                   |                | LOCATION INDICATOR : RJAA      |                            |                   |                |                  |
| CORRESPONDENT STATION : Beijing |                          |                   |                | LOCATION INDICATOR : ZBBB      |                            |                   |                |                  |
| MODULATION RATE : 9600 bauds    |                          |                   |                | TOTAL NUMBER OF CAHNNELS : One |                            |                   |                |                  |
| AVERAGE LOADING                 |                          |                   | INPUT : 0.3%   |                                |                            | OUTPUT : 0.8%     |                |                  |
| DATE                            | AFTN CENTER/STATIONINPUT |                   |                |                                | AFTN CENTER/STATION OUTPUT |                   |                |                  |
|                                 | PEAK<br>HOURLY           | PERCENT<br>HOURLY | TOTAL<br>DAILY | PERCENT<br>DAILY               | PEAK<br>HOURLY             | PERCENT<br>HOURLY | TOTAL<br>DAILY | PERCENT<br>DAILY |
| 1 MAY 2002                      | 40,077                   | 0.9%              | 369,113        | 0.3%                           | 60,079                     | 1.4%              | 879,803        | 0.8%             |
| 2 MAY 2002                      | 44,372                   | 1.0%              | 367,158        | 0.3%                           | 71,443                     | 1.7%              | 1,043,275      | 1.0%             |
| 3 MAY 2002                      | 38,458                   | 0.9%              | 387,021        | 0.3%                           | 54,954                     | 1.3%              | 909,437        | 0.9%             |
| 4 MAY 2002                      | 40,120                   | 0.9%              | 348,909        | 0.3%                           | 55,549                     | 1.3%              | 748,957        | 0.7%             |
| 5 MAY 2002                      | 35,230                   | 0.8%              | 344,395        | 0.3%                           | 59,041                     | 1.4%              | 762,332        | 0.7%             |
| 6 MAY 2002                      | 34,590                   | 0.8%              | 363,221        | 0.3%                           | 78,468                     | 1.8%              | 883,951        | 0.8%             |
| 7 MAY 2002                      | 38,987                   | 0.9%              | 348,637        | 0.3%                           | 54,545                     | 1.3%              | 827,849        | 0.8%             |

## AFTN CIRCUIT LOADING STATISTICS

|                                 |                           |                |              |                                |                            |                |             |               |
|---------------------------------|---------------------------|----------------|--------------|--------------------------------|----------------------------|----------------|-------------|---------------|
| ORIGINATING STATION : Tokyo     |                           |                |              | LOCATION INDICATOR : RJAA      |                            |                |             |               |
| CORRESPONDENT STATION : Beijing |                           |                |              | LOCATION INDICATOR : ZBBB      |                            |                |             |               |
| MODULATION RATE : 9600 bauds    |                           |                |              | TOTAL NUMBER OF CAHNNELS : One |                            |                |             |               |
| AVERAGE LOADING                 |                           |                | INPUT : 0.3% |                                |                            | OUTPUT : 0.7%  |             |               |
| DATE                            | AFTN CENTER/STATION INPUT |                |              |                                | AFTN CENTER/STATION OUTPUT |                |             |               |
|                                 | PEAK HOURLY               | PERCENT HOURLY | TOTAL DAILY  | PERCENT DAILY                  | PEAK HOURLY                | PERCENT HOURLY | TOTAL DAILY | PERCENT DAILY |
| 1 JUNE 2002                     | 38,596                    | 0.9%           | 403,189      | 0.4%                           | 60,340                     | 1.4%           | 715,657     | 0.7%          |
| 2 JUNE 2002                     | 33,814                    | 0.8%           | 342,140      | 0.3%                           | 53,060                     | 1.2%           | 632,288     | 0.6%          |
| 3 JUNE 2002                     | 38,945                    | 0.9%           | 362,547      | 0.3%                           | 115,852                    | 2.7%           | 839,806     | 0.8%          |
| 4 JUNE 2002                     | 40,865                    | 0.9%           | 411,444      | 0.4%                           | 54,676                     | 1.3%           | 771,897     | 0.7%          |
| 5 JUNE 2002                     | 38,066                    | 0.9%           | 361,818      | 0.3%                           | 64,991                     | 1.5%           | 795,355     | 0.7%          |
| 6 JUNE 2002                     | 43,214                    | 1.0%           | 376,939      | 0.3%                           | 63,718                     | 1.5%           | 791,627     | 0.7%          |
| 7 JUNE 2002                     | 34,679                    | 0.8%           | 385,591      | 0.3%                           | 52,467                     | 1.2%           | 832,120     | 0.8%          |

## AFTN CIRCUIT LOADING STATISTICS

|                              |                           |                   |                |                                |                            |                   |                |                  |
|------------------------------|---------------------------|-------------------|----------------|--------------------------------|----------------------------|-------------------|----------------|------------------|
| ORIGINATING STATION : Tokyo  |                           |                   |                | LOCATION INDICATOR : RJAA      |                            |                   |                |                  |
| CORRESPONDENT STATION : Naha |                           |                   |                | LOCATION INDICATOR : ROAH      |                            |                   |                |                  |
| MODULATION RATE : 9600 bauds |                           |                   |                | TOTAL NUMBER OF CAHNNELS : One |                            |                   |                |                  |
| AVERAGE LOADING              |                           |                   | INPUT : 0.0%   |                                |                            | OUTPUT : 0.8%     |                |                  |
| DATE                         | AFTN CENTER/STATION INPUT |                   |                |                                | AFTN CENTER/STATION OUTPUT |                   |                |                  |
|                              | PEAK<br>HOURLY            | PERCENT<br>HOURLY | TOTAL<br>DAILY | PERCENT<br>DAILY               | PEAK<br>HOURLY             | PERCENT<br>HOURLY | TOTAL<br>DAILY | PERCENT<br>DAILY |
| 1 APRIL 2002                 | 4,964                     | 0.1%              | 27,722         | 0.0%                           | 49,192                     | 1.1%              | 850,693        | 0.8%             |
| 2 APRIL 2002                 | 2,365                     | 0.0%              | 26,114         | 0.0%                           | 68,793                     | 1.6%              | 837,199        | 0.8%             |
| 3 APRIL 2002                 | 3,170                     | 0.0%              | 24,374         | 0.0%                           | 61,158                     | 1.4%              | 872,530        | 0.8%             |
| 4 APRIL 2002                 | 3,446                     | 0.0%              | 28,143         | 0.0%                           | 46,957                     | 1.1%              | 826,597        | 0.8%             |
| 5 APRIL 2002                 | 2,668                     | 0.0%              | 25,567         | 0.0%                           | 62,699                     | 1.4%              | 908,746        | 0.9%             |
| 6 APRIL 2002                 | 3,078                     | 0.0%              | 24,106         | 0.0%                           | 76,878                     | 1.8%              | 891,290        | 0.8%             |
| 7 APRIL 2002                 | 3,060                     | 0.0%              | 23,096         | 0.0%                           | 55,353                     | 1.3%              | 819,566        | 0.8%             |

## AFTN CIRCUIT LOADING STATISTICS

|                              |                           |                   |                |                                |                            |                   |                |                  |
|------------------------------|---------------------------|-------------------|----------------|--------------------------------|----------------------------|-------------------|----------------|------------------|
| ORIGINATING STATION : Tokyo  |                           |                   |                | LOCATION INDICATOR : RJAA      |                            |                   |                |                  |
| CORRESPONDENT STATION : Naha |                           |                   |                | LOCATION INDICATOR : ROAH      |                            |                   |                |                  |
| MODULATION RATE : 9600 bauds |                           |                   |                | TOTAL NUMBER OF CAHNNELS : One |                            |                   |                |                  |
| AVERAGE LOADING              |                           |                   | INPUT : 0.0%   |                                |                            | OUTPUT : 0.9%     |                |                  |
| DATE                         | AFTN CENTER/STATION INPUT |                   |                |                                | AFTN CENTER/STATION OUTPUT |                   |                |                  |
|                              | PEAK<br>HOURLY            | PERCENT<br>HOURLY | TOTAL<br>DAILY | PERCENT<br>DAILY               | PEAK<br>HOURLY             | PERCENT<br>HOURLY | TOTAL<br>DAILY | PERCENT<br>DAILY |
| 1 MAY 2002                   | 3,755                     | 0.0%              | 32,595         | 0.0%                           | 66,422                     | 1.5%              | 958,996        | 0.9%             |
| 2 MAY 2002                   | 3,802                     | 0.0%              | 27,184         | 0.0%                           | 94,127                     | 2.2%              | 1,117,004      | 1.1%             |
| 3 MAY 2002                   | 2,241                     | 0.0%              | 22,605         | 0.0%                           | 70,296                     | 1.6%              | 944,844        | 0.9%             |
| 4 MAY 2002                   | 3,029                     | 0.0%              | 19,528         | 0.0%                           | 60,598                     | 1.4%              | 812,577        | 0.8%             |
| 5 MAY 2002                   | 2,435                     | 0.0%              | 24,201         | 0.0%                           | 56,460                     | 1.3%              | 839,004        | 0.8%             |
| 6 MAY 2002                   | 5,379                     | 0.1%              | 34,837         | 0.0%                           | 57,701                     | 1.3%              | 904,507        | 0.8%             |
| 7 MAY 2002                   | 3,078                     | 0.0%              | 31,991         | 0.0%                           | 59,944                     | 1.4%              | 897,304        | 0.8%             |

## AFTN CIRCUIT LOADING STATISTICS

|                              |                           |                   |                |                                |                            |                   |                |                  |
|------------------------------|---------------------------|-------------------|----------------|--------------------------------|----------------------------|-------------------|----------------|------------------|
| ORIGINATING STATION : Tokyo  |                           |                   |                | LOCATION INDICATOR : RJAA      |                            |                   |                |                  |
| CORRESPONDENT STATION : Naha |                           |                   |                | LOCATION INDICATOR : ROAH      |                            |                   |                |                  |
| MODULATION RATE : 9600 bauds |                           |                   |                | TOTAL NUMBER OF CAHNNELS : One |                            |                   |                |                  |
| AVERAGE LOADING              |                           |                   | INPUT : 0.0%   |                                |                            | OUTPUT : 0.8%     |                |                  |
| DATE                         | AFTN CENTER/STATION INPUT |                   |                |                                | AFTN CENTER/STATION OUTPUT |                   |                |                  |
|                              | PEAK<br>HOURLY            | PERCENT<br>HOURLY | TOTAL<br>DAILY | PERCENT<br>DAILY               | PEAK<br>HOURLY             | PERCENT<br>HOURLY | TOTAL<br>DAILY | PERCENT<br>DAILY |
| 1 JUNE 2002                  | 4,924                     | 0.1%              | 27,747         | 0.0%                           | 59,177                     | 1.4%              | 818,592        | 0.8%             |
| 2 JUNE 2002                  | 3,331                     | 0.0%              | 29,032         | 0.0%                           | 54,659                     | 1.3%              | 727,454        | 0.7%             |
| 3 JUNE 2002                  | 3,151                     | 0.0%              | 26,557         | 0.0%                           | 54,211                     | 1.2%              | 791,115        | 0.7%             |
| 4 JUNE 2002                  | 2,803                     | 0.0%              | 27,488         | 0.0%                           | 55,401                     | 1.3%              | 832,554        | 0.8%             |
| 5 JUNE 2002                  | 6,962                     | 0.1%              | 48,554         | 0.0%                           | 80,770                     | 1.9%              | 876,018        | 0.8%             |
| 6 JUNE 2002                  | 3,390                     | 0.0%              | 31,305         | 0.0%                           | 60,219                     | 1.4%              | 880,136        | 0.8%             |
| 7 JUNE 2002                  | 4,152                     | 0.0%              | 38,054         | 0.0%                           | 59,093                     | 1.4%              | 876,706        | 0.8%             |