

International Civil Aviation Organization

ICAO

WORKING PAPER

**Asia and Pacific (APAC)
Twenty-first Meeting of the Meteorological Information
Exchange Working Group (MET/IE WG/21)**

Bangkok, Thailand, 27 to 29 March 2023

**Agenda Item 5: Quality control, monitoring and management of meteorological
information exchange**

**ASIA/PAC INTER-REGIONAL OPMET GATEWAY BACKUP EXERCISE BETWEEN
IROG BANGKOK AND IROG SINGAPORE**

(Presented by Thailand)

SUMMARY

This working paper provides the results of the eighteenth real-time Back-up Exercise conducted by IROG Singapore and IROG Bangkok on 14 September 2022.

1. INTRODUCTION

1.1 The OPMET/M TF/3 Meeting in March 2005 established the procedure for dissemination of ASIA/PAC OPMET Data to WAFC London by IROG Bangkok in the event that IROG Singapore experiences technical problems.

1.2 The IROG Backup Exercise will be carried out annually. This IROG Backup Exercise is the seventeenth and the results of 5 previous exercises are listed as follows;

| Year | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-------------|-------------|-------------|-------------|-------------|
| RODB Bangkok Successfully transmitted | 100% | 100% | 100% | 99.70% | 99.83% |

2. DISCUSSION

2.1 Both IROGs evaluated the monitoring result and the findings are listed as follows

| Type of Message | Number of bulletins Rx by RODB Singapore | Number of bulletins Rx by RODB Bangkok | Number of bulletins routed to IROG London by Bangkok | Successful Transmission Rate | Number of bulletins not successfully routed by RODB Bangkok | Bulletin Transit time recorded at RODB Bangkok | | |
|-----------------|--|--|--|------------------------------|---|--|---------|-------------|
| | | | | | | Max min | Min min | Average min |
| SA bulletins | 493 | 492 | 492 | 99.80% | 1 | 05.00 | 0.01 | 0.02 |
| FT bulletins | 91 | 91 | 91 | 100% | 0 | 05.01 | 0.01 | 0.08 |
| Total | 584 | 583 | 583 | 99.83% | 1 | | | 0.05 |

Remark: Duplicated bulletins are excluded from both IROGs

2.2 The backup test results, IROG Singapore received 493, while IROG Bangkok received 492 and transmitted 492 (99.80%) of METAR bulletins to IROG London during the test

2.3 IROG Bangkok successfully received and transmitted 91 of 91 (100%) of TAF bulletins to IROG London during the test.

2.4 The one SA-Bulletins were not reached at IROG Bangkok is SAIR31 OIII 140600 with unknown reasons which affected the transmission percentage of SA-Bulletin to 99.80%

2.5 IROG Bangkok transmission SA-Bulletins and TAFOR Bulletins to IROG London which the successful transmission percentage to 99.83%

2.6 In conclusion, IROG Bangkok received and/relayed METAR and TAF bulletins, with average transit time of 0.02 and 0.08 minutes respectively.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) Discuss the result of the IROG backup exercise
- b) Review and improve the existing procedures, if required

Appendix A : Summary Table of Switching of ASIA/PAC and MID OPMET Bulletins on 14 September 2022

| METAR Bulletins | | | | | | | |
|------------------------|--------------|-------------|---------------|------------|--|--|--|
| | TAAii | CCCC | YYGGgg | BBB | RX Time UTC Recorded by WSSS RODB RX Time UTC (hh:mm) | RX Time UTC Recorded by VTBB RODB RX Time UTC (hh:mm) | TX Time UTC Recorded by VTBB RODB TX Time UTC (hh:mm) |
| 1 | SAAE31 | VTBB | 140200 | | 2:05:03 | - | 2:05:02 |
| 2 | SAAE31 | VTBB | 140230 | | 2:35:03 | - | 2:35:02 |
| 3 | SAAE31 | VTBB | 140300 | | 3:05:03 | - | 3:05:02 |
| 4 | SAAE31 | VTBB | 140330 | | 3:35:03 | - | 3:35:02 |
| 5 | SAAE31 | VTBB | 140400 | RRA | 4:25:23 | - | 4:25:23 |
| 6 | SAAE31 | VTBB | 140400 | | 4:05:03 | - | 4:05:02 |
| 7 | SAAE31 | VTBB | 140430 | | 4:35:03 | - | 4:35:02 |
| 8 | SAAE31 | VTBB | 140500 | | 5:05:03 | - | 5:05:02 |
| 9 | SAAE31 | VTBB | 140530 | | 5:35:03 | - | 5:35:02 |
| 10 | SAAE31 | VTBB | 140600 | | 6:05:02 | - | 6:05:02 |
| 11 | SAAE31 | VTBB | 140630 | | 6:35:03 | - | 6:35:02 |
| 12 | SAAE31 | VTBB | 140700 | | 7:05:03 | - | 7:05:02 |
| 13 | SAAE31 | VTBB | 140730 | | 7:35:03 | - | 7:35:02 |
| 14 | SAAE32 | VTBB | 140200 | | 2:05:08 | - | 2:05:06 |
| 15 | SAAE32 | VTBB | 140230 | RRA | 2:36:21 | - | 2:36:21 |
| 16 | SAAE32 | VTBB | 140230 | | 2:35:06 | - | 2:35:05 |
| 17 | SAAE32 | VTBB | 140300 | | 3:05:06 | - | 3:05:06 |
| 18 | SAAE32 | VTBB | 140330 | | 3:35:06 | - | 3:35:06 |
| 19 | SAAE32 | VTBB | 140400 | | 4:05:07 | - | 4:05:06 |
| 20 | SAAE32 | VTBB | 140430 | | 4:35:06 | - | 4:35:06 |
| 21 | SAAE32 | VTBB | 140430 | RRA | 4:35:04 | - | 4:35:03 |
| 22 | SAAE32 | VTBB | 140500 | | 5:05:07 | - | 5:05:06 |
| 23 | SAAE32 | VTBB | 140530 | | 5:35:07 | - | 5:35:06 |
| 24 | SAAE32 | VTBB | 140600 | CCA | 6:16:22 | - | 6:16:21 |
| 25 | SAAE32 | VTBB | 140600 | RRA | 6:06:20 | - | 6:06:19 |
| 26 | SAAE32 | VTBB | 140600 | | 6:05:07 | - | 6:05:06 |
| 27 | SAAE32 | VTBB | 140630 | | 6:35:06 | - | 6:35:06 |
| 28 | SAAE32 | VTBB | 140700 | RRA | 7:10:45 | - | 7:10:44 |
| 29 | SAAE32 | VTBB | 140700 | | 7:05:07 | - | 7:05:06 |
| 30 | SAAE32 | VTBB | 140730 | RRA | 7:39:10 | - | 7:39:09 |
| 31 | SAAE32 | VTBB | 140730 | | 7:35:06 | - | 7:35:06 |
| 32 | SAAE33 | VTBB | 140200 | | 2:05:10 | - | 2:05:10 |
| 33 | SAAE33 | VTBB | 140300 | | 3:05:09 | - | 3:05:09 |
| 34 | SAAE33 | VTBB | 140400 | | 4:05:10 | - | 4:05:10 |
| 35 | SAAE33 | VTBB | 140500 | | 5:05:11 | - | 5:05:10 |
| 36 | SAAE33 | VTBB | 140600 | | 6:05:10 | - | 6:05:09 |
| 37 | SAAE33 | VTBB | 140700 | | 7:05:10 | - | 7:05:09 |
| 38 | SAAE34 | VTBB | 140200 | | 2:05:14 | - | 2:05:14 |
| 39 | SAAE34 | VTBB | 140230 | | 2:35:10 | - | 2:35:09 |
| 40 | SAAE34 | VTBB | 140300 | | 3:05:13 | - | 3:05:13 |
| 41 | SAAE34 | VTBB | 140330 | | 3:35:09 | - | 3:35:09 |
| 42 | SAAE34 | VTBB | 140400 | | 4:05:14 | - | 4:05:13 |
| 43 | SAAE34 | VTBB | 140430 | | 4:35:10 | - | 4:35:10 |
| 44 | SAAE34 | VTBB | 140500 | | 5:05:14 | - | 5:05:14 |
| 45 | SAAE34 | VTBB | 140530 | RRA | 5:39:50 | - | 5:39:49 |
| 46 | SAAE34 | VTBB | 140530 | | 5:35:48 | - | 5:35:10 |
| 47 | SAAE34 | VTBB | 140600 | | 6:05:13 | - | 6:05:13 |

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|-----|--------|------|--------|-----|---------|---------|---------|
| 48 | SAAE34 | VTBB | 140630 | | 6:35:09 | - | 6:35:09 |
| 49 | SAAE34 | VTBB | 140700 | CCA | 7:07:15 | - | 7:07:14 |
| 50 | SAAE34 | VTBB | 140700 | | 7:05:13 | - | 7:05:13 |
| 51 | SAAE34 | VTBB | 140730 | | 7:35:10 | - | 7:35:10 |
| 52 | SAAU31 | YBBN | 140200 | | 2:05:08 | 2:05:49 | 2:05:52 |
| 53 | SAAU31 | YBBN | 140230 | | 2:35:02 | 2:35:16 | 2:35:18 |
| 54 | SAAU31 | YBBN | 140300 | | 3:05:02 | 3:05:25 | 3:05:27 |
| 55 | SAAU31 | YBBN | 140330 | | 3:35:04 | 3:35:20 | 3:35:23 |
| 56 | SAAU31 | YBBN | 140400 | | 4:05:06 | 4:05:24 | 4:05:27 |
| 57 | SAAU31 | YBBN | 140430 | RRA | 4:45:06 | 4:45:24 | 4:45:26 |
| 58 | SAAU31 | YBBN | 140430 | | 4:35:03 | 4:35:36 | 4:35:39 |
| 59 | SAAU31 | YBBN | 140500 | | 5:05:05 | 5:05:56 | 5:05:58 |
| 60 | SAAU31 | YBBN | 140530 | RRA | 5:45:06 | 5:45:24 | 5:45:26 |
| 61 | SAAU31 | YBBN | 140530 | | 5:35:06 | 5:35:47 | 5:40:26 |
| 62 | SAAU31 | YBBN | 140600 | | 6:05:03 | 6:05:27 | 6:05:30 |
| 63 | SAAU31 | YBBN | 140630 | RRA | 6:45:01 | 6:45:16 | 6:45:18 |
| 64 | SAAU31 | YBBN | 140630 | | 6:35:03 | 6:35:26 | 6:35:29 |
| 65 | SAAU31 | YBBN | 140700 | | 7:05:06 | 7:05:42 | 7:05:44 |
| 66 | SAAU31 | YBBN | 140730 | | 7:35:03 | 7:35:35 | 7:35:37 |
| 67 | SAAU32 | YBBN | 140200 | | 2:05:05 | 2:05:31 | 2:05:33 |
| 68 | SAAU32 | YBBN | 140230 | | 2:35:04 | 2:35:29 | 2:35:31 |
| 69 | SAAU32 | YBBN | 140300 | | 3:05:03 | 3:05:33 | 3:05:36 |
| 70 | SAAU32 | YBBN | 140330 | | 3:35:04 | 3:35:24 | 3:40:24 |
| 71 | SAAU32 | YBBN | 140400 | | 4:05:04 | 4:05:11 | 4:05:14 |
| 72 | SAAU32 | YBBN | 140430 | | 4:35:02 | 4:35:20 | 4:35:24 |
| 73 | SAAU32 | YBBN | 140500 | | 5:05:05 | 5:05:31 | 5:05:34 |
| 74 | SAAU32 | YBBN | 140530 | | 5:35:03 | 5:35:18 | 5:35:21 |
| 75 | SAAU32 | YBBN | 140600 | | 6:05:03 | 6:05:31 | 6:05:34 |
| 76 | SAAU32 | YBBN | 140630 | | 6:35:04 | 6:35:30 | 6:35:32 |
| 77 | SAAU32 | YBBN | 140700 | | 7:05:06 | 7:05:46 | 7:05:48 |
| 78 | SAAU32 | YBBN | 140730 | RRA | 7:45:03 | 7:45:16 | 7:45:18 |
| 79 | SAAU32 | YBBN | 140730 | | 7:35:02 | 7:35:19 | 7:35:22 |
| 80 | SAAU33 | YBBN | 140200 | | 2:05:05 | 2:05:38 | 2:05:40 |
| 81 | SAAU33 | YBBN | 140230 | | 2:35:04 | 2:35:33 | 2:35:35 |
| 82 | SAAU33 | YBBN | 140300 | | 3:05:04 | 3:05:42 | 3:05:44 |
| 83 | SAAU33 | YBBN | 140330 | | 3:35:05 | 3:35:27 | 3:35:29 |
| 84 | SAAU33 | YBBN | 140400 | | 4:05:05 | 4:05:16 | 4:05:18 |
| 85 | SAAU33 | YBBN | 140430 | | 4:35:02 | 4:35:25 | 4:35:27 |
| 86 | SAAU33 | YBBN | 140500 | | 5:05:05 | 5:05:36 | 5:05:38 |
| 87 | SAAU33 | YBBN | 140530 | | 5:35:05 | 5:35:34 | 5:35:36 |
| 88 | SAAU33 | YBBN | 140600 | | 6:05:04 | 6:05:41 | 6:05:43 |
| 89 | SAAU33 | YBBN | 140630 | | 6:35:02 | 6:35:14 | 6:35:16 |
| 90 | SAAU33 | YBBN | 140700 | | 7:05:04 | 7:05:20 | 7:05:22 |
| 91 | SAAU33 | YBBN | 140730 | | 7:35:03 | 7:35:26 | 7:35:28 |
| 92 | SAAU34 | YBBN | 140200 | | 2:05:07 | 2:05:44 | 2:05:46 |
| 93 | SAAU34 | YBBN | 140230 | | 2:35:04 | 2:35:36 | 2:35:37 |
| 94 | SAAU34 | YBBN | 140300 | | 3:05:04 | 3:05:47 | 3:05:49 |
| 95 | SAAU34 | YBBN | 140330 | | 3:35:05 | 3:35:33 | 3:35:35 |
| 96 | SAAU34 | YBBN | 140400 | | 4:05:06 | 4:05:28 | 4:05:30 |
| 97 | SAAU34 | YBBN | 140430 | | 4:35:03 | 4:35:34 | 4:35:36 |
| 98 | SAAU34 | YBBN | 140500 | | 5:05:05 | 5:05:50 | 5:05:52 |
| 99 | SAAU34 | YBBN | 140530 | | 5:35:05 | 5:35:42 | 5:35:43 |
| 100 | SAAU34 | YBBN | 140600 | | 6:05:02 | 6:05:18 | 6:05:20 |
| 101 | SAAU34 | YBBN | 140630 | | 6:35:03 | 6:35:18 | 6:35:20 |
| 102 | SAAU34 | YBBN | 140700 | | 7:05:05 | 7:05:27 | 7:05:29 |
| 103 | SAAU34 | YBBN | 140730 | | 7:35:03 | 7:35:23 | 7:35:25 |
| 104 | SAAU35 | YBBN | 140200 | | 2:05:07 | 2:05:46 | 2:05:48 |
| 105 | SAAU35 | YBBN | 140230 | | 2:35:04 | 2:35:38 | 2:35:40 |
| 106 | SAAU35 | YBBN | 140300 | | 3:05:04 | 3:05:49 | 3:05:51 |

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|-----|--------|------|--------|-----|---------|---------|---------|
| 107 | SAAU35 | YBBN | 140330 | | 3:35:04 | 3:35:18 | 3:35:20 |
| 108 | SAAU35 | YBBN | 140400 | | 4:05:05 | 4:05:22 | 4:05:24 |
| 109 | SAAU35 | YBBN | 140430 | | 4:35:03 | 4:35:31 | 4:35:33 |
| 110 | SAAU35 | YBBN | 140500 | | 5:05:05 | 5:05:53 | 5:05:55 |
| 111 | SAAU35 | YBBN | 140530 | | 5:35:05 | 5:35:40 | 5:35:41 |
| 112 | SAAU35 | YBBN | 140600 | | 6:05:03 | 6:05:25 | 6:05:27 |
| 113 | SAAU35 | YBBN | 140630 | | 6:35:03 | 6:35:24 | 6:35:25 |
| 114 | SAAU35 | YBBN | 140700 | | 7:05:06 | 7:05:35 | 7:05:37 |
| 115 | SAAU35 | YBBN | 140730 | | 7:35:03 | 7:35:32 | 7:35:34 |
| 116 | SAAU36 | YBBN | 140200 | | 2:05:06 | 2:05:41 | 2:05:43 |
| 117 | SAAU36 | YBBN | 140230 | RRA | 2:45:06 | 2:45:16 | 2:45:18 |
| 118 | SAAU36 | YBBN | 140230 | | 2:35:04 | 2:35:26 | 2:35:28 |
| 119 | SAAU36 | YBBN | 140300 | | 3:05:04 | 3:05:45 | 3:05:47 |
| 120 | SAAU36 | YBBN | 140330 | | 3:35:05 | 3:35:30 | 3:35:33 |
| 121 | SAAU36 | YBBN | 140400 | | 4:05:05 | 4:05:19 | 4:05:21 |
| 122 | SAAU36 | YBBN | 140430 | RRA | 4:45:05 | 4:45:22 | 4:45:24 |
| 123 | SAAU36 | YBBN | 140430 | | 4:35:00 | 4:35:28 | 4:35:30 |
| 124 | SAAU36 | YBBN | 140500 | | 5:05:05 | 5:05:41 | 5:05:43 |
| 125 | SAAU36 | YBBN | 140530 | RRA | 5:45:05 | 5:45:22 | 5:45:24 |
| 126 | SAAU36 | YBBN | 140530 | | 5:35:05 | 5:35:37 | 5:35:39 |
| 127 | SAAU36 | YBBN | 140600 | | 6:05:02 | 6:05:22 | 6:05:24 |
| 128 | SAAU36 | YBBN | 140630 | RRA | 6:45:01 | 6:45:14 | 6:45:16 |
| 129 | SAAU36 | YBBN | 140630 | | 6:35:03 | 6:35:21 | 6:35:23 |
| 130 | SAAU36 | YBBN | 140700 | | 7:05:06 | 7:05:32 | 7:05:34 |
| 131 | SAAU36 | YBBN | 140730 | | 7:35:03 | 7:35:29 | 7:35:31 |
| 132 | SABN31 | OBBI | 140200 | | 2:00:18 | 2:00:16 | 2:00:18 |
| 133 | SABN31 | OBBI | 140230 | | 2:30:46 | 2:30:48 | 2:30:49 |
| 134 | SABN31 | OBBI | 140300 | | 2:56:08 | 2:56:17 | 2:56:18 |
| 135 | SABN31 | OBBI | 140330 | | 3:29:11 | 3:29:18 | 3:29:20 |
| 136 | SABN31 | OBBI | 140400 | | 3:57:12 | 3:57:10 | 3:57:11 |
| 137 | SABN31 | OBBI | 140430 | | 4:27:46 | 4:27:50 | 4:27:52 |
| 138 | SABN31 | OBBI | 140500 | | 4:57:45 | 4:57:45 | 4:57:47 |
| 139 | SABN31 | OBBI | 140530 | | 5:29:04 | 5:29:04 | 5:29:05 |
| 140 | SABN31 | OBBI | 140600 | CCA | 6:05:57 | 6:05:56 | 6:05:57 |
| 141 | SABN31 | OBBI | 140600 | | 5:57:48 | 5:57:55 | 5:57:56 |
| 142 | SABN31 | OBBI | 140630 | | 6:27:39 | 6:27:43 | 6:27:45 |
| 143 | SABN31 | OBBI | 140700 | | 6:58:35 | 6:58:45 | 6:58:46 |
| 144 | SABN31 | OBBI | 140730 | | 7:27:22 | 7:27:27 | 7:27:29 |
| 145 | SABN31 | OBBI | 140800 | | 7:57:38 | 7:57:47 | 7:57:48 |
| 146 | SACI31 | ZBBB | 140200 | | 2:05:29 | 2:06:35 | 2:06:38 |
| 147 | SACI31 | ZBBB | 140230 | | 2:35:10 | 2:35:40 | 2:35:43 |
| 148 | SACI31 | ZBBB | 140300 | | 3:05:28 | 3:06:05 | 3:06:07 |
| 149 | SACI31 | ZBBB | 140330 | | 3:35:08 | 3:35:36 | 3:35:39 |
| 150 | SACI31 | ZBBB | 140400 | | 4:05:27 | 4:06:09 | 4:06:12 |
| 151 | SACI31 | ZBBB | 140430 | | 4:35:08 | 4:36:54 | 4:36:57 |
| 152 | SACI31 | ZBBB | 140500 | | 5:05:28 | 5:06:07 | 5:06:09 |
| 153 | SACI31 | ZBBB | 140530 | | 5:35:09 | 5:39:05 | 5:39:07 |
| 154 | SACI31 | ZBBB | 140600 | | 6:05:14 | 6:06:02 | 6:06:05 |
| 155 | SACI31 | ZBBB | 140630 | | 6:35:13 | 6:35:34 | 6:35:37 |
| 156 | SACI31 | ZBBB | 140700 | | 7:05:28 | 7:05:52 | 7:05:55 |
| 157 | SACI31 | ZBBB | 140730 | | 7:35:10 | 7:35:39 | 7:35:41 |
| 158 | SACI32 | ZBBB | 140200 | | 2:05:30 | 2:06:39 | 2:06:42 |
| 159 | SACI32 | ZBBB | 140300 | | 3:05:28 | 3:06:41 | 3:06:44 |
| 160 | SACI32 | ZBBB | 140400 | | 4:05:28 | 4:06:13 | 4:06:16 |
| 161 | SACI32 | ZBBB | 140500 | | 5:05:28 | 5:06:50 | 5:06:53 |
| 162 | SACI32 | ZBBB | 140600 | | 6:05:20 | 6:06:17 | 6:06:20 |
| 163 | SACI32 | ZBBB | 140700 | | 7:05:28 | 7:06:12 | 7:06:14 |
| 164 | SACI41 | ZBBB | 140200 | | 2:05:31 | 2:06:44 | 2:06:47 |
| 165 | SACI41 | ZBBB | 140300 | | 3:05:29 | 3:06:45 | 3:06:48 |

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|-----|--------|------|--------|-----|---------|---------|---------|
| 166 | SACI41 | ZBBB | 140400 | | 4:05:28 | 4:06:18 | 4:06:20 |
| 167 | SACI41 | ZBBB | 140500 | | 5:05:29 | 5:06:55 | 5:06:58 |
| 168 | SACI41 | ZBBB | 140600 | | 6:05:25 | 6:06:25 | 6:06:28 |
| 169 | SACI41 | ZBBB | 140700 | | 7:05:29 | 7:06:25 | 7:06:28 |
| 170 | SAHK31 | VHHH | 140200 | | 2:06:08 | 2:06:20 | 2:06:23 |
| 171 | SAHK31 | VHHH | 140230 | | 2:36:12 | 2:36:41 | 2:36:43 |
| 172 | SAHK31 | VHHH | 140300 | | 3:06:18 | 3:06:37 | 3:06:39 |
| 173 | SAHK31 | VHHH | 140330 | | 3:36:12 | 3:36:57 | 3:36:59 |
| 174 | SAHK31 | VHHH | 140400 | | 4:06:12 | 4:06:40 | 4:06:43 |
| 175 | SAHK31 | VHHH | 140430 | | 4:36:14 | 4:36:58 | 4:37:01 |
| 176 | SAHK31 | VHHH | 140500 | CCA | 5:11:39 | 5:11:51 | 5:11:53 |
| 177 | SAHK31 | VHHH | 140500 | | 5:06:12 | 5:06:45 | 5:06:49 |
| 178 | SAHK31 | VHHH | 140530 | | 5:36:18 | 5:39:12 | 5:39:14 |
| 179 | SAHK31 | VHHH | 140600 | | 6:06:23 | 6:06:37 | 6:06:39 |
| 180 | SAHK31 | VHHH | 140630 | | 6:36:13 | 6:36:17 | 6:36:19 |
| 181 | SAHK31 | VHHH | 140700 | | 7:07:40 | 7:07:55 | 7:07:58 |
| 182 | SAHK31 | VHHH | 140730 | | 7:36:10 | 7:36:24 | 7:36:26 |
| 183 | SAID31 | WIII | 140200 | | 2:09:59 | 2:10:06 | 2:10:08 |
| 184 | SAID31 | WIII | 140230 | | 2:40:07 | 2:40:18 | 2:40:21 |
| 185 | SAID31 | WIII | 140300 | | 3:10:07 | 3:10:08 | 3:10:10 |
| 186 | SAID31 | WIII | 140330 | | 3:40:09 | 3:40:20 | 3:40:23 |
| 187 | SAID31 | WIII | 140400 | | 4:10:05 | 4:10:16 | 4:10:18 |
| 188 | SAID31 | WIII | 140430 | | 4:40:09 | 4:40:20 | 4:40:22 |
| 189 | SAID31 | WIII | 140500 | | 5:10:07 | 5:10:28 | 5:10:30 |
| 190 | SAID31 | WIII | 140530 | | 5:40:05 | 5:40:27 | 5:40:29 |
| 191 | SAID31 | WIII | 140600 | | 6:10:06 | 6:10:19 | 6:10:21 |
| 192 | SAID31 | WIII | 140630 | | 6:40:11 | 6:40:24 | 6:40:26 |
| 193 | SAID31 | WIII | 140700 | | 7:10:08 | 7:10:25 | 7:10:27 |
| 194 | SAID31 | WIII | 140730 | | 7:40:08 | 7:40:26 | 7:40:28 |
| 195 | SAID32 | WIII | 140200 | | 2:10:09 | 2:10:25 | 2:10:27 |
| 196 | SAID32 | WIII | 140230 | | 2:40:13 | 2:40:25 | 2:40:27 |
| 197 | SAID32 | WIII | 140300 | | 3:10:08 | 3:10:27 | 3:10:29 |
| 198 | SAID32 | WIII | 140330 | | 3:40:16 | 3:40:26 | 3:40:29 |
| 199 | SAID32 | WIII | 140400 | | 4:10:11 | 4:10:22 | 4:10:25 |
| 200 | SAID32 | WIII | 140430 | | 4:40:13 | 4:40:26 | 4:40:29 |
| 201 | SAID32 | WIII | 140500 | | 5:10:16 | 5:10:34 | 5:10:36 |
| 202 | SAID32 | WIII | 140530 | | 5:40:13 | 5:40:35 | 5:40:37 |
| 203 | SAID32 | WIII | 140600 | | 6:10:13 | 6:10:25 | 6:10:27 |
| 204 | SAID32 | WIII | 140630 | | 6:40:17 | 6:40:30 | 6:40:32 |
| 205 | SAID32 | WIII | 140700 | | 7:10:12 | 7:10:31 | 7:10:34 |
| 206 | SAID32 | WIII | 140730 | | 7:40:17 | 7:40:33 | 7:40:35 |
| 207 | SAID33 | WIII | 140200 | | 2:10:00 | 2:10:09 | 2:10:11 |
| 208 | SAID33 | WIII | 140230 | | 2:40:10 | 2:40:22 | 2:40:24 |
| 209 | SAID33 | WIII | 140300 | | 3:10:13 | 3:10:30 | 3:10:32 |
| 210 | SAID33 | WIII | 140330 | | 3:40:13 | 3:40:24 | 3:40:26 |
| 211 | SAID33 | WIII | 140400 | | 4:10:10 | 4:10:19 | 4:10:21 |
| 212 | SAID33 | WIII | 140430 | | 4:40:10 | 4:40:23 | 4:40:26 |
| 213 | SAID33 | WIII | 140500 | | 5:10:11 | 5:10:31 | 5:10:33 |
| 214 | SAID33 | WIII | 140530 | | 5:40:11 | 5:40:32 | 5:40:34 |
| 215 | SAID33 | WIII | 140600 | | 6:10:08 | 6:10:22 | 6:10:24 |
| 216 | SAID33 | WIII | 140630 | | 6:40:16 | 6:40:27 | 6:40:29 |
| 217 | SAID33 | WIII | 140700 | | 7:10:09 | 7:10:28 | 7:10:31 |
| 218 | SAID33 | WIII | 140730 | | 7:40:14 | 7:40:29 | 7:40:32 |
| 219 | SAIN31 | VABB | 140200 | | 2:14:51 | 2:14:46 | 2:14:48 |
| 220 | SAIN31 | VABB | 140230 | | 2:44:05 | 2:44:48 | 2:44:50 |
| 221 | SAIN31 | VABB | 140300 | | 3:10:10 | 3:10:06 | 3:10:07 |
| 222 | SAIN31 | VABB | 140330 | | 3:44:40 | 3:44:36 | 3:44:38 |
| 223 | SAIN31 | VABB | 140400 | | 4:16:22 | 4:16:39 | 4:16:42 |
| 224 | SAIN31 | VABB | 140430 | | 4:46:22 | 4:46:33 | 4:46:37 |

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| 225 | SAIN31 | VABB | 140500 | | 5:16:17 | 5:16:38 | 5:16:41 |
| 226 | SAIN31 | VABB | 140530 | | 5:50:08 | 5:50:04 | 5:50:05 |
| 227 | SAIN31 | VABB | 140600 | | 6:16:19 | 6:16:33 | 6:16:36 |
| 228 | SAIN31 | VABB | 140630 | RRA | 6:48:44 | 6:48:57 | 6:48:59 |
| 229 | SAIN31 | VABB | 140630 | | 6:46:23 | 6:46:44 | 6:46:47 |
| 230 | SAIN31 | VABB | 140700 | | 7:16:21 | 7:16:26 | 7:16:29 |
| 231 | SAIN31 | VABB | 140730 | CCA | 7:55:22 | 7:55:27 | 7:55:30 |
| 232 | SAIN31 | VABB | 140730 | | 7:46:19 | 7:46:36 | 7:46:39 |
| 233 | SAIN32 | VIDP | 140200 | | 2:07:06 | 2:07:29 | 2:07:31 |
| 234 | SAIN32 | VIDP | 140230 | RRA | 2:41:56 | 2:42:16 | 2:42:18 |
| 235 | SAIN32 | VIDP | 140230 | | 2:36:56 | 2:37:38 | 2:37:40 |
| 236 | SAIN32 | VIDP | 140300 | | 3:07:03 | 3:07:17 | 3:07:19 |
| 237 | SAIN32 | VIDP | 140330 | RRA | 3:42:03 | 3:42:10 | 3:42:12 |
| 238 | SAIN32 | VIDP | 140330 | | 3:37:03 | 3:37:48 | 3:37:50 |
| 239 | SAIN32 | VIDP | 140400 | RRA | 4:12:00 | 4:12:29 | 4:12:31 |
| 240 | SAIN32 | VIDP | 140400 | | 4:07:01 | 4:09:19 | 4:09:21 |
| 241 | SAIN32 | VIDP | 140430 | | 4:37:01 | 4:37:07 | 4:37:10 |
| 242 | SAIN32 | VIDP | 140500 | RRB | 5:18:12 | 5:18:33 | 5:18:35 |
| 243 | SAIN32 | VIDP | 140500 | RRA | 5:12:42 | 5:13:01 | 5:13:03 |
| 244 | SAIN32 | VIDP | 140500 | | 5:09:27 | 5:09:41 | 5:09:43 |
| 245 | SAIN32 | VIDP | 140530 | RRA | 5:42:03 | 5:42:22 | 5:42:24 |
| 246 | SAIN32 | VIDP | 140530 | | 5:37:16 | 5:39:10 | 5:39:11 |
| 247 | SAIN32 | VIDP | 140600 | RRA | 6:11:56 | 6:12:05 | 6:12:07 |
| 248 | SAIN32 | VIDP | 140600 | | 6:08:30 | 6:08:35 | 6:08:37 |
| 249 | SAIN32 | VIDP | 140630 | RRA | 6:42:01 | 6:42:06 | 6:42:08 |
| 250 | SAIN32 | VIDP | 140630 | | 6:37:10 | 6:37:30 | 6:37:32 |
| 251 | SAIN32 | VIDP | 140700 | RRA | 7:16:56 | 7:17:15 | 7:17:17 |
| 252 | SAIN32 | VIDP | 140700 | | 7:07:14 | 7:07:23 | 7:07:25 |
| 253 | SAIN32 | VIDP | 140730 | | 7:39:19 | 7:39:36 | 7:39:38 |
| 254 | SAIN33 | VECC | 140200 | | 2:05:56 | 2:06:12 | 2:06:15 |
| 255 | SAIN33 | VECC | 140230 | | 2:35:05 | 2:36:38 | 2:36:40 |
| 256 | SAIN33 | VECC | 140300 | RRB | 3:26:22 | 3:26:20 | 3:26:21 |
| 257 | SAIN33 | VECC | 140300 | RRB | 3:25:58 | 3:26:17 | 3:26:19 |
| 258 | SAIN33 | VECC | 140300 | RRA | 3:16:13 | 3:16:11 | 3:16:13 |
| 259 | SAIN33 | VECC | 140300 | RRA | 3:15:58 | 3:16:09 | 3:16:11 |
| 260 | SAIN33 | VECC | 140300 | | 3:05:57 | 3:06:11 | 3:06:13 |
| 261 | SAIN33 | VECC | 140330 | | 3:35:57 | 3:36:49 | 3:36:52 |
| 262 | SAIN33 | VECC | 140400 | | 4:05:05 | 4:06:32 | 4:06:35 |
| 263 | SAIN33 | VECC | 140430 | | 4:35:58 | 4:36:45 | 4:36:48 |
| 264 | SAIN33 | VECC | 140500 | RRA | 5:16:24 | 5:16:26 | 5:16:27 |
| 265 | SAIN33 | VECC | 140500 | RRA | 5:16:00 | 5:16:21 | 5:16:23 |
| 266 | SAIN33 | VECC | 140500 | CCA | 5:07:04 | 5:07:01 | 5:07:03 |
| 267 | SAIN33 | VECC | 140500 | CCA | 5:06:41 | 5:06:59 | 5:07:01 |
| 268 | SAIN33 | VECC | 140500 | | 5:06:01 | 5:06:30 | 5:06:33 |
| 269 | SAIN33 | VECC | 140530 | RRA | 5:46:17 | 5:46:16 | 5:46:18 |
| 270 | SAIN33 | VECC | 140530 | RRA | 5:46:01 | 5:46:14 | 5:46:15 |
| 271 | SAIN33 | VECC | 140530 | | 5:36:02 | 5:38:43 | 5:38:46 |
| 272 | SAIN33 | VECC | 140600 | RRA | 6:16:16 | 6:16:15 | 6:16:17 |
| 273 | SAIN33 | VECC | 140600 | RRA | 6:16:02 | 6:16:13 | 6:16:15 |
| 274 | SAIN33 | VECC | 140600 | | 6:06:01 | 6:06:30 | 6:06:32 |
| 275 | SAIN33 | VECC | 140630 | | 6:36:01 | 6:36:07 | 6:36:10 |
| 276 | SAIN33 | VECC | 140700 | | 7:06:00 | 7:06:30 | 7:06:32 |
| 277 | SAIN33 | VECC | 140730 | | 7:58:36 | 7:58:47 | 7:58:49 |
| 278 | SAIN33 | VECC | 140730 | RRA | 7:46:02 | 7:46:16 | 7:46:18 |
| 279 | SAIN33 | VECC | 140730 | | 7:36:04 | 7:36:16 | 7:36:19 |
| 280 | SAIR31 | OIII | 140200 | | 2:03:04 | 2:03:28 | 2:03:30 |
| 281 | SAIR31 | OIII | 140230 | | 2:33:07 | 2:33:20 | 2:33:22 |
| 282 | SAIR31 | OIII | 140300 | RRA | 3:04:44 | 3:04:57 | 3:04:58 |
| 283 | SAIR31 | OIII | 140300 | | 3:03:05 | 3:03:31 | 3:03:33 |

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|-----|--------|------|--------|-----|---------|--------------|---------|
| 284 | SAIR31 | OIII | 140330 | | 3:33:02 | 3:33:15 | 3:33:17 |
| 285 | SAIR31 | OIII | 140400 | | 4:03:07 | 4:03:34 | 4:03:36 |
| 286 | SAIR31 | OIII | 140430 | | 4:33:03 | 4:33:23 | 4:33:26 |
| 287 | SAIR31 | OIII | 140500 | | 5:03:08 | 5:03:42 | 5:03:44 |
| 288 | SAIR31 | OIII | 140530 | | 5:33:05 | 5:33:17 | 5:33:18 |
| 289 | SAIR31 | OIII | 140600 | | 6:03:02 | 6:03:15 | 6:03:17 |
| 290 | SAIR31 | OIII | 140600 | RRA | 6:11:08 | not received | |
| 291 | SAIR31 | OIII | 140630 | | 6:33:05 | 6:33:17 | 6:33:19 |
| 292 | SAIR31 | OIII | 140700 | | 7:03:03 | 7:03:28 | 7:03:30 |
| 293 | SAIR31 | OIII | 140730 | RRA | 7:42:02 | 7:42:19 | 7:42:20 |
| 294 | SAIR31 | OIII | 140730 | | 7:33:09 | 7:33:23 | 7:33:26 |
| 295 | SAJP31 | RJTD | 140200 | | 2:06:44 | 2:07:05 | 2:07:07 |
| 296 | SAJP31 | RJTD | 140300 | | 3:06:43 | 3:06:49 | 3:06:52 |
| 297 | SAJP31 | RJTD | 140400 | | 4:06:43 | 4:06:59 | 4:07:01 |
| 298 | SAJP31 | RJTD | 140500 | | 5:06:43 | 5:07:06 | 5:07:08 |
| 299 | SAJP31 | RJTD | 140600 | | 6:06:43 | 6:07:03 | 6:07:05 |
| 300 | SAJP31 | RJTD | 140700 | | 7:06:44 | 7:06:55 | 7:06:57 |
| 301 | SAJP32 | RJTD | 140200 | | 2:06:44 | 2:07:11 | 2:07:13 |
| 302 | SAJP32 | RJTD | 140200 | RRA | 2:06:45 | 2:07:08 | 2:07:10 |
| 303 | SAJP32 | RJTD | 140300 | RRA | 3:06:46 | 3:06:56 | 3:06:58 |
| 304 | SAJP32 | RJTD | 140300 | | 3:06:45 | 3:06:53 | 3:06:55 |
| 305 | SAJP32 | RJTD | 140400 | | 4:06:44 | 4:07:04 | 4:07:07 |
| 306 | SAJP32 | RJTD | 140400 | RRA | 4:06:44 | 4:07:02 | 4:07:04 |
| 307 | SAJP32 | RJTD | 140500 | RRA | 5:06:44 | 5:07:14 | 5:07:16 |
| 308 | SAJP32 | RJTD | 140500 | | 5:06:44 | 5:07:11 | 5:07:13 |
| 309 | SAJP32 | RJTD | 140600 | RRA | 6:06:45 | 6:07:09 | 6:07:11 |
| 310 | SAJP32 | RJTD | 140600 | | 6:06:45 | 6:07:06 | 6:07:08 |
| 311 | SAJP32 | RJTD | 140700 | RRA | 7:06:45 | 7:07:02 | 7:07:04 |
| 312 | SAJP32 | RJTD | 140700 | | 7:06:45 | 7:06:58 | 7:07:01 |
| 313 | SAJP38 | RJTD | 140200 | RRA | 2:06:46 | 2:07:18 | 2:07:21 |
| 314 | SAJP38 | RJTD | 140200 | | 2:06:45 | 2:07:15 | 2:07:17 |
| 315 | SAJP38 | RJTD | 140300 | RRA | 3:06:46 | 3:07:02 | 3:07:04 |
| 316 | SAJP38 | RJTD | 140300 | | 3:06:46 | 3:06:58 | 3:07:01 |
| 317 | SAJP38 | RJTD | 140400 | RRA | 4:06:45 | 4:07:12 | 4:07:14 |
| 318 | SAJP38 | RJTD | 140400 | | 4:06:45 | 4:07:08 | 4:07:11 |
| 319 | SAJP38 | RJTD | 140500 | RRA | 5:06:46 | 5:07:21 | 5:07:23 |
| 320 | SAJP38 | RJTD | 140500 | | 5:06:46 | 5:07:17 | 5:07:19 |
| 321 | SAJP38 | RJTD | 140600 | RRA | 6:06:46 | 6:07:16 | 6:07:19 |
| 322 | SAJP38 | RJTD | 140600 | | 6:06:45 | 6:07:13 | 6:07:15 |
| 323 | SAJP38 | RJTD | 140700 | RRA | 7:06:47 | 7:07:08 | 7:07:10 |
| 324 | SAJP38 | RJTD | 140700 | | 7:06:46 | 7:07:04 | 7:07:06 |
| 325 | SAKO31 | RKSI | 140200 | | 2:04:22 | 2:04:35 | 2:04:37 |
| 326 | SAKO31 | RKSI | 140230 | | 2:34:15 | 2:34:27 | 2:34:28 |
| 327 | SAKO31 | RKSI | 140300 | | 3:04:23 | 3:04:39 | 3:04:41 |
| 328 | SAKO31 | RKSI | 140330 | | 3:34:15 | 3:34:28 | 3:34:29 |
| 329 | SAKO31 | RKSI | 140400 | | 4:04:19 | 4:04:39 | 4:04:41 |
| 330 | SAKO31 | RKSI | 140430 | | 4:34:15 | 4:34:30 | 4:34:32 |
| 331 | SAKO31 | RKSI | 140500 | | 5:04:18 | 5:04:31 | 5:04:33 |
| 332 | SAKO31 | RKSI | 140530 | | 5:34:22 | 5:34:32 | 5:34:34 |
| 333 | SAKO31 | RKSI | 140600 | | 6:04:21 | 6:04:33 | 6:04:35 |
| 334 | SAKO31 | RKSI | 140630 | | 6:34:14 | 6:34:34 | 6:34:35 |
| 335 | SAKO31 | RKSI | 140700 | | 7:04:23 | 7:04:41 | 7:04:44 |
| 336 | SAKO31 | RKSI | 140730 | | 7:34:14 | 7:34:16 | 7:34:18 |
| 337 | SAMS31 | WMKK | 140200 | RRA | 2:16:07 | 2:16:25 | 2:16:27 |
| 338 | SAMS31 | WMKK | 140200 | | 2:08:05 | 2:08:19 | 2:08:22 |
| 339 | SAMS31 | WMKK | 140230 | RRA | 2:44:05 | 2:44:18 | 2:44:20 |
| 340 | SAMS31 | WMKK | 140230 | | 2:38:01 | 2:38:16 | 2:38:18 |
| 341 | SAMS31 | WMKK | 140300 | CCA | 3:20:01 | 3:20:09 | 3:20:11 |
| 342 | SAMS31 | WMKK | 140300 | RRA | 3:12:04 | 3:12:25 | 3:12:27 |

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|-----|--------|------|--------|-----|---------|---------|---------|
| 343 | SAMS31 | WMKK | 140300 | | 3:08:00 | 3:08:23 | 3:08:25 |
| 344 | SAMS31 | WMKK | 140330 | RRB | 3:58:05 | 3:58:19 | 3:58:20 |
| 345 | SAMS31 | WMKK | 140330 | RRA | 3:52:04 | 3:52:18 | 3:52:20 |
| 346 | SAMS31 | WMKK | 140330 | RRA | 3:40:05 | 3:40:18 | 3:40:20 |
| 347 | SAMS31 | WMKK | 140330 | | 3:38:02 | 3:38:14 | 3:38:16 |
| 348 | SAMS31 | WMKK | 140400 | RRA | 4:14:03 | 4:14:23 | 4:14:26 |
| 349 | SAMS31 | WMKK | 140400 | | 4:08:04 | 4:08:11 | 4:08:13 |
| 350 | SAMS31 | WMKK | 140430 | RRA | 4:48:02 | 4:48:20 | 4:48:22 |
| 351 | SAMS31 | WMKK | 140430 | | 4:38:01 | 4:38:16 | 4:38:18 |
| 352 | SAMS31 | WMKK | 140500 | RRA | 5:16:04 | 5:16:23 | 5:16:25 |
| 353 | SAMS31 | WMKK | 140500 | | 5:08:07 | 5:08:15 | 5:08:17 |
| 354 | SAMS31 | WMKK | 140530 | RRA | 5:56:02 | 5:56:22 | 5:56:24 |
| 355 | SAMS31 | WMKK | 140530 | | 5:38:05 | 5:39:27 | 5:39:29 |
| 356 | SAMS31 | WMKK | 140600 | RRA | 6:18:08 | 6:18:23 | 6:18:25 |
| 357 | SAMS31 | WMKK | 140600 | | 6:08:03 | 6:08:21 | 6:08:23 |
| 358 | SAMS31 | WMKK | 140630 | RRA | 6:46:00 | 6:46:24 | 6:46:26 |
| 359 | SAMS31 | WMKK | 140630 | | 6:38:02 | 6:38:14 | 6:38:16 |
| 360 | SAMS31 | WMKK | 140700 | RRA | 7:14:05 | 7:14:13 | 7:14:15 |
| 361 | SAMS31 | WMKK | 140700 | | 7:08:04 | 7:08:19 | 7:08:21 |
| 362 | SAMS31 | WMKK | 140730 | RRA | 7:42:03 | 7:42:16 | 7:42:18 |
| 363 | SAMS31 | WMKK | 140730 | | 7:38:04 | 7:38:12 | 7:38:15 |
| 364 | SAMS38 | WMKK | 140200 | RRA | 2:16:07 | 2:16:34 | 2:16:37 |
| 365 | SAMS38 | WMKK | 140200 | | 2:08:05 | 2:08:26 | 2:08:29 |
| 366 | SAMS38 | WMKK | 140300 | RRB | 3:18:05 | 3:18:14 | 3:18:15 |
| 367 | SAMS38 | WMKK | 140300 | RRA | 3:12:04 | 3:12:30 | 3:12:33 |
| 368 | SAMS38 | WMKK | 140300 | RRA | 3:12:01 | 3:12:19 | 3:12:20 |
| 369 | SAMS38 | WMKK | 140300 | | 3:08:04 | 3:08:30 | 3:08:40 |
| 370 | SAMS38 | WMKK | 140400 | RRA | 4:14:04 | 4:14:29 | 4:14:32 |
| 371 | SAMS38 | WMKK | 140400 | | 4:08:04 | 4:08:31 | 4:08:34 |
| 372 | SAMS38 | WMKK | 140500 | RRA | 5:16:04 | 5:16:35 | 5:16:37 |
| 373 | SAMS38 | WMKK | 140500 | | 5:08:08 | 5:08:22 | 5:08:25 |
| 374 | SAMS38 | WMKK | 140600 | RRA | 6:18:08 | 6:18:33 | 6:18:36 |
| 375 | SAMS38 | WMKK | 140600 | | 6:08:04 | 6:08:24 | 6:08:26 |
| 376 | SAMS38 | WMKK | 140700 | RRA | 7:14:05 | 7:14:18 | 7:14:22 |
| 377 | SAMS38 | WMKK | 140700 | | 7:08:05 | 7:08:34 | 7:08:36 |
| 378 | SANG31 | YBBN | 140200 | RRA | 2:15:00 | 2:15:19 | 2:15:21 |
| 379 | SANG31 | YBBN | 140200 | | 2:05:05 | 2:05:24 | 2:05:27 |
| 380 | SANG31 | YBBN | 140300 | | 3:05:03 | 3:05:30 | 3:05:32 |
| 381 | SANG31 | YBBN | 140400 | RRA | 4:15:02 | 4:15:19 | 4:15:21 |
| 382 | SANG31 | YBBN | 140400 | | 4:05:06 | 4:05:31 | 4:05:33 |
| 383 | SANG31 | YBBN | 140500 | RRA | 5:15:05 | 5:15:15 | 5:15:17 |
| 384 | SANG31 | YBBN | 140500 | | 5:05:06 | 5:05:47 | 5:05:49 |
| 385 | SANG31 | YBBN | 140600 | RRA | 6:15:18 | 6:15:15 | 6:15:17 |
| 386 | SANG31 | YBBN | 140600 | | 6:05:03 | 6:05:37 | 6:05:40 |
| 387 | SANG31 | YBBN | 140700 | | 7:05:04 | 7:05:23 | 7:05:26 |
| 388 | SANZ31 | NZKL | 140200 | | 2:07:03 | 2:07:24 | 2:07:26 |
| 389 | SANZ31 | NZKL | 140230 | | 2:37:16 | 2:37:42 | 2:37:44 |
| 390 | SANZ31 | NZKL | 140300 | | 3:07:03 | 3:07:20 | 3:07:21 |
| 391 | SANZ31 | NZKL | 140330 | | 3:37:57 | 3:38:08 | 3:38:10 |
| 392 | SANZ31 | NZKL | 140400 | | 4:07:03 | 4:07:15 | 4:07:17 |
| 393 | SANZ31 | NZKL | 140430 | | 4:37:54 | 4:38:10 | 4:38:12 |
| 394 | SANZ31 | NZKL | 140500 | | 5:07:02 | 5:07:26 | 5:07:28 |
| 395 | SANZ31 | NZKL | 140530 | | 5:37:37 | 5:39:20 | 5:39:21 |
| 396 | SANZ31 | NZKL | 140600 | | 6:07:02 | 6:07:22 | 6:07:24 |
| 397 | SANZ31 | NZKL | 140630 | | 6:37:06 | 6:37:26 | 6:37:27 |
| 398 | SANZ31 | NZKL | 140700 | | 7:07:03 | 7:07:18 | 7:07:20 |
| 399 | SANZ31 | NZKL | 140730 | | 7:37:53 | 7:38:06 | 7:38:08 |
| 400 | SANZ32 | NZKL | 140200 | | 2:07:04 | 2:07:22 | 2:07:24 |
| 401 | SANZ32 | NZKL | 140230 | | 2:37:16 | 2:37:36 | 2:37:37 |

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|-----|--------|------|--------|-----|----------|---------|---------|
| 402 | SANZ32 | NZKL | 140300 | | 3:07:03 | 3:07:24 | 3:07:25 |
| 403 | SANZ32 | NZKL | 140330 | | 3:37:57 | 3:38:12 | 3:38:13 |
| 404 | SANZ32 | NZKL | 140400 | | 4:07:03 | 4:07:18 | 4:07:19 |
| 405 | SANZ32 | NZKL | 140430 | | 4:37:54 | 4:38:14 | 4:38:16 |
| 406 | SANZ32 | NZKL | 140500 | | 5:07:02 | 5:07:24 | 5:07:26 |
| 407 | SANZ32 | NZKL | 140530 | | 5:37:37 | 5:39:24 | 5:39:25 |
| 408 | SANZ32 | NZKL | 140600 | | 6:07:03 | 6:07:20 | 6:07:22 |
| 409 | SANZ32 | NZKL | 140630 | | 6:37:07 | 6:37:24 | 6:37:25 |
| 410 | SANZ32 | NZKL | 140700 | | 7:07:03 | 7:07:16 | 7:07:18 |
| 411 | SANZ32 | NZKL | 140730 | | 7:37:53 | 7:38:09 | 7:38:10 |
| 412 | SAPK31 | OPKC | 140200 | RRA | 2:02:42 | 2:02:56 | 2:02:58 |
| 413 | SAPK31 | OPKC | 140200 | | 2:01:27 | 2:02:50 | 2:02:52 |
| 414 | SAPK31 | OPKC | 140230 | RRB | 2:37:09 | 2:37:40 | 2:37:42 |
| 415 | SAPK31 | OPKC | 140230 | RRA | 2:36:18 | 2:36:54 | 2:36:56 |
| 416 | SAPK31 | OPKC | 140230 | | 2:31:23 | 2:31:30 | 2:31:33 |
| 417 | SAPK31 | OPKC | 140300 | RRA | 3:02:10 | 3:02:21 | 3:02:22 |
| 418 | SAPK31 | OPKC | 140300 | | 3:01:23 | 3:02:14 | 3:02:16 |
| 419 | SAPK31 | OPKC | 140330 | | 3:31:21 | 3:31:34 | 3:31:36 |
| 420 | SAPK31 | OPKC | 140400 | RRA | 4:08:01 | 4:09:22 | 4:09:24 |
| 421 | SAPK31 | OPKC | 140400 | | 4:01:14 | 4:02:29 | 4:02:31 |
| 422 | SAPK31 | OPKC | 140430 | RRA | 4:46:21 | 4:46:38 | 4:46:40 |
| 423 | SAPK31 | OPKC | 140430 | | 4:31:15 | 4:31:33 | 4:31:36 |
| 424 | SAPK31 | OPKC | 140500 | | 5:01:15 | 5:05:19 | 5:05:21 |
| 425 | SAPK31 | OPKC | 140530 | | 5:31:18 | 5:31:30 | 5:31:32 |
| 426 | SAPK31 | OPKC | 140600 | | 6:01:16 | 6:05:13 | 6:05:14 |
| 427 | SAPK31 | OPKC | 140630 | RRA | 6:32:14 | 6:32:25 | 6:32:27 |
| 428 | SAPK31 | OPKC | 140630 | | 6:31:14 | 6:31:34 | 6:31:36 |
| 429 | SAPK31 | OPKC | 140700 | RRB | 7:06:10 | 7:06:37 | 7:06:39 |
| 430 | SAPK31 | OPKC | 140700 | RRA | 7:03:22 | 7:04:37 | 7:04:39 |
| 431 | SAPK31 | OPKC | 140700 | | 7:01:10 | 7:03:48 | 7:03:50 |
| 432 | SAPK31 | OPKC | 140730 | | 7:31:15 | 7:31:36 | 7:31:38 |
| 433 | SAPS31 | NFFN | 140200 | | 2:15:09 | 2:15:24 | 2:15:27 |
| 434 | SAPS31 | NFFN | 140300 | | 3:15:10 | 3:15:26 | 3:15:29 |
| 435 | SAPS31 | NFFN | 140400 | | 4:15:11 | 4:15:32 | 4:15:35 |
| 436 | SAPS31 | NFFN | 140500 | | 5:15:07 | 5:15:20 | 5:15:22 |
| 437 | SAPS31 | NFFN | 140600 | | 6:15:08 | 6:15:19 | 6:15:21 |
| 438 | SAPS31 | NFFN | 140700 | | 7:15:04 | 7:15:21 | 7:15:24 |
| 439 | SAPS32 | NFFN | 140200 | | 2:03:34 | 2:03:55 | 2:03:57 |
| 440 | SAPS32 | NFFN | 140300 | | 3:03:40 | 3:04:28 | 3:04:30 |
| 441 | SAPS32 | NFFN | 140400 | | 4:03:46 | 4:04:12 | 4:04:14 |
| 442 | SAPS32 | NFFN | 140500 | | 5:03:27 | 5:04:05 | 5:04:06 |
| 443 | SAPS32 | NFFN | 140600 | | 6:03:13 | 6:03:45 | 6:03:47 |
| 444 | SAPS32 | NFFN | 140700 | | 7:03:14 | 7:04:29 | 7:04:30 |
| 445 | SAPS33 | NFFN | 140200 | | 2:03:24 | 2:03:53 | 2:03:55 |
| 446 | SAPS33 | NFFN | 140300 | | 3:02:20 | 3:02:38 | 3:02:39 |
| 447 | SAPS33 | NFFN | 140400 | | 4:02:16 | 4:02:22 | 4:02:23 |
| 448 | SAPS33 | NFFN | 140500 | | 5:02:42 | 5:03:01 | 5:03:04 |
| 449 | SAPS33 | NFFN | 140600 | | 6:04:23 | 6:04:36 | 6:04:37 |
| 450 | SAPS33 | NFFN | 140700 | | 7:02:19 | 7:02:35 | 7:02:36 |
| 451 | SASB31 | VCCC | 140200 | | 2:04:43 | 2:04:41 | 2:04:42 |
| 452 | SASB31 | VCCC | 140210 | | 2:20:18 | 2:20:27 | 2:20:29 |
| 453 | SASB31 | VCCC | 140310 | | 3:20:11 | 3:20:27 | 3:20:29 |
| 454 | SASB31 | VCCC | 140400 | | 04:09:20 | 4:09:17 | 4:09:19 |
| 455 | SASB31 | VCCC | 140410 | | 04:20:04 | 4:20:13 | 4:20:15 |
| 456 | SASB31 | VCCC | 140510 | | 5:20:59 | 5:21:11 | 5:21:13 |
| 457 | SASB31 | VCCC | 140610 | RRA | 6:23:00 | 6:23:15 | 6:23:16 |
| 458 | SASB31 | VCCC | 140610 | | 6:20:51 | 6:21:05 | 6:21:07 |
| 459 | SASB31 | VCCC | 140710 | | 7:20:46 | 7:21:05 | 7:21:08 |
| 460 | SASD31 | OEJD | 140200 | | 2:00:08 | 2:00:22 | 2:00:24 |

| | | | | | | | |
|-----|--------|------|--------|-----|---------|---------|---------|
| 461 | SASD31 | OEJD | 140300 | | 3:00:07 | 3:00:11 | 3:00:13 |
| 462 | SASD31 | OEJD | 140400 | | 4:00:08 | 4:00:12 | 4:00:14 |
| 463 | SASD31 | OEJD | 140500 | | 5:00:06 | 5:00:21 | 5:00:23 |
| 464 | SASD31 | OEJD | 140600 | CCA | 6:05:07 | 6:05:48 | 6:05:50 |
| 465 | SASD31 | OEJD | 140600 | | 6:00:10 | 6:00:14 | 6:00:16 |
| 466 | SASD31 | OEJD | 140700 | | 7:00:09 | 7:00:25 | 7:00:27 |
| 467 | SASD31 | OEJD | 140800 | | 8:00:14 | 8:00:14 | 8:00:17 |
| 468 | SASD31 | OEJD | 140800 | | 8:00:10 | 8:00:10 | 8:00:13 |
| 469 | SASD31 | OEJD | 140800 | | 8:00:05 | 8:00:08 | 8:00:10 |
| 470 | SATH31 | VTBB | 140200 | | 2:05:18 | - | 2:05:18 |
| 471 | SATH31 | VTBB | 140300 | | 3:05:16 | - | 3:05:16 |
| 472 | SATH31 | VTBB | 140400 | | 4:05:18 | - | 4:05:18 |
| 473 | SATH31 | VTBB | 140500 | | 5:05:19 | - | 5:05:18 |
| 474 | SATH31 | VTBB | 140600 | | 6:05:17 | - | 6:05:17 |
| 475 | SATH31 | VTBB | 140700 | | 7:05:17 | - | 7:05:16 |
| 476 | SATH32 | VTBB | 140200 | | 2:05:22 | - | 2:05:22 |
| 477 | SATH32 | VTBB | 140300 | | 3:05:21 | - | 3:05:20 |
| 478 | SATH32 | VTBB | 140400 | | 4:05:22 | - | 4:05:22 |
| 479 | SATH32 | VTBB | 140500 | | 5:05:22 | - | 5:05:22 |
| 480 | SATH32 | VTBB | 140600 | | 6:05:21 | - | 6:05:20 |
| 481 | SATH32 | VTBB | 140600 | CCA | 6:05:17 | - | 6:05:16 |
| 482 | SATH32 | VTBB | 140700 | | 7:05:20 | - | 7:05:20 |
| 483 | SATH33 | VTBB | 140200 | | 2:05:26 | - | 2:05:26 |
| 484 | SATH33 | VTBB | 140300 | | 3:05:25 | - | 3:05:24 |
| 485 | SATH33 | VTBB | 140300 | RRA | 3:05:21 | - | 3:05:20 |
| 486 | SATH33 | VTBB | 140400 | RRB | 4:39:55 | - | 4:39:55 |
| 487 | SATH33 | VTBB | 140400 | RRA | 4:07:42 | - | 4:07:42 |
| 488 | SATH33 | VTBB | 140400 | | 4:05:26 | - | 4:05:26 |
| 489 | SATH33 | VTBB | 140500 | RRA | 5:09:49 | - | 5:09:48 |
| 490 | SATH33 | VTBB | 140500 | | 5:05:27 | - | 5:05:26 |
| 491 | SATH33 | VTBB | 140600 | | 6:05:24 | - | 6:05:24 |
| 492 | SATH33 | VTBB | 140700 | CCA | 7:06:21 | - | 7:06:21 |
| 493 | SATH33 | VTBB | 140700 | | 7:05:24 | - | 7:05:24 |

Appendix A : Summary Table of Switching of ASIA/PAC and MID OPMET Bulletins on 14 September 2022

TAF Bulletins

| | TTAAii | CCCC | YYGGgg | BBB | RX Time UTC Recorded by WSSS RODB RX Time UTC (hh:mm) | RX Time UTC Recorded by VTBB RODB RX Time UTC (hh:mm) | TX Time UTC Recorded by VTBB RODB TX Time UTC (hh:mm) |
|----|---------------|-------------|---------------|------------|--|--|--|
| 1 | FTAE31 | VTBB | 140500 | | 5:35:03 | - | 5:35:02 |
| 2 | FTAE32 | VTBB | 140500 | | 5:35:07 | - | 5:35:06 |
| 3 | FTAE33 | VTBB | 140500 | | 5:35:48 | - | 5:35:10 |
| 4 | FTAE34 | VTBB | 140500 | AAA | 8:38:06 | - | 8:38:06 |
| 5 | FTAE34 | VTBB | 140500 | | 5:35:48 | - | 5:35:13 |
| 6 | FTAU31 | YBBN | 140200 | | 2:04:54 | 2:05:15 | 2:05:17 |
| 7 | FTAU31 | YBBN | 140300 | | 3:20:25 | 3:20:30 | 3:20:31 |
| 8 | FTAU31 | YBBN | 140500 | RRA | 5:35:06 | 5:35:55 | 5:35:57 |
| 9 | FTAU31 | YBBN | 140500 | | 5:35:06 | 5:35:52 | 5:35:54 |
| 10 | FTAU31 | YBBN | 140600 | | 6:35:29 | 6:35:51 | 6:35:53 |
| 11 | FTAU32 | YBBN | 140500 | RRA | 5:45:05 | 5:45:26 | 5:45:28 |
| 12 | FTAU32 | YBBN | 140500 | RRA | 5:35:03 | 5:35:29 | 5:35:30 |
| 13 | FTAU32 | YBBN | 140500 | | 5:35:03 | 5:35:25 | 5:35:27 |
| 14 | FTAU32 | YBBN | 140500 | | 5:22:03 | 5:22:21 | 5:22:23 |
| 15 | FTAU32 | YBBN | 140500 | | 5:13:17 | 5:13:24 | 5:13:26 |
| 16 | FTAU32 | YBBN | 140600 | | 6:31:48 | 6:32:04 | 6:32:05 |
| 17 | FTAU32 | YBBN | 140700 | | 7:27:33 | 7:27:46 | 7:27:48 |
| 18 | FTAU33 | YBBN | 140500 | | 5:35:04 | 5:35:31 | 5:35:33 |
| 19 | FTAU33 | YBBN | 140500 | | 5:30:24 | 5:30:35 | 5:30:37 |
| 20 | FTAU33 | YBBN | 140700 | | 7:29:14 | 7:29:17 | 7:29:18 |
| 21 | FTAU34 | YBBN | 140500 | RRA | 5:20:04 | 5:20:13 | 5:20:15 |
| 22 | FTAU35 | YBBN | 140700 | RRA | 7:30:05 | 7:30:06 | 7:30:08 |
| 23 | FTAU35 | YBBN | 140700 | RRA | 7:20:03 | 7:20:07 | 7:20:09 |
| 24 | FTAU36 | YBBN | 140200 | | 2:35:03 | 2:35:19 | 2:35:22 |
| 25 | FTAU36 | YBBN | 140300 | | 3:08:19 | 3:08:44 | 3:08:46 |
| 26 | FTAU36 | YBBN | 140500 | | 5:35:06 | 5:35:44 | 5:35:46 |
| 27 | FTAU36 | YBBN | 140500 | | 5:08:26 | 5:08:34 | 5:08:36 |
| 28 | FTBN31 | OBBI | 140500 | | 4:53:04 | 4:54:52 | 4:58:53 |
| 29 | FTCI31 | ZBBB | 140400 | | 4:00:11 | 4:00:33 | 4:00:36 |
| 30 | FTCI32 | ZBBB | 140331 | AAB | 3:31:33 | 3:31:40 | 3:31:42 |
| 31 | FTCI32 | ZBBB | 140400 | | 4:00:17 | 4:01:46 | 4:01:49 |
| 32 | FTCI32 | ZBBB | 140456 | RRA | 4:56:28 | 4:56:41 | 4:56:43 |
| 33 | FTCI41 | ZBBB | 140400 | | 4:00:24 | 4:01:42 | 4:01:45 |
| 34 | FTHK31 | VHHH | 140200 | | 2:02:28 | 2:02:35 | 2:02:37 |
| 35 | FTHK31 | VHHH | 140500 | | 5:00:40 | 5:00:53 | 5:00:55 |
| 36 | FTHK31 | VHHH | 140800 | | 8:01:30 | 8:01:47 | 8:01:49 |
| 37 | FTHK32 | VHHH | 132300 | CCA | 3:36:02 | 3:37:00 | 3:37:03 |
| 38 | FTHK32 | VHHH | 140500 | | 5:20:12 | 5:20:41 | 5:20:43 |
| 39 | FTHK33 | VHHH | 140500 | | 5:20:11 | 5:20:45 | 5:20:47 |
| 40 | FTIN31 | VABB | 140500 | RRD | 6:54:05 | 6:54:16 | 6:54:18 |
| 41 | FTIN31 | VABB | 140500 | RRC | 6:47:55 | 6:48:14 | 6:48:16 |
| 42 | FTIN31 | VABB | 140500 | RRB | 6:47:24 | 6:47:44 | 6:47:46 |
| 43 | FTIN31 | VABB | 140500 | RRA | 5:58:48 | 5:59:02 | 5:59:04 |
| 44 | FTIN31 | VABB | 140500 | | 5:46:30 | 5:46:48 | 5:46:52 |
| 45 | FTIN31 | VABB | 140500 | | 5:46:28 | 5:46:45 | 5:46:47 |
| 46 | FTIN32 | VABB | 140500 | RRA | 7:12:08 | 7:14:02 | 7:14:04 |
| 47 | FTIN32 | VABB | 140500 | RRA | 7:12:08 | 7:13:53 | 7:13:55 |
| 48 | FTIN32 | VABB | 140500 | RRC | 6:48:22 | 6:48:40 | 6:48:42 |
| 49 | FTIN32 | VABB | 140500 | RRC | 6:48:22 | 6:48:38 | 6:48:40 |

| | | | | | | | |
|----|--------|------|--------|-----|---------|---------|---------|
| 50 | FTIN32 | VABB | 140500 | RRB | 6:46:52 | 6:47:06 | 6:47:08 |
| 51 | FTIN32 | VABB | 140500 | RRB | 6:46:52 | 6:47:04 | 6:47:06 |
| 52 | FTIN32 | VABB | 140500 | RRA | 6:46:24 | 6:46:50 | 6:46:52 |
| 53 | FTIN32 | VABB | 140500 | RRA | 6:46:24 | 6:46:48 | 6:46:50 |
| 54 | FTIN32 | VABB | 140500 | | 5:46:40 | 5:47:54 | 5:47:55 |
| 55 | FTIN32 | VABB | 140500 | | 5:46:37 | 5:47:45 | 5:47:47 |
| 56 | FTIN32 | VABB | 140500 | | 5:46:39 | 5:47:35 | 5:47:37 |
| 57 | FTIN32 | VABB | 140500 | | 5:46:35 | 5:47:16 | 5:47:18 |
| 58 | FTIR31 | OIII | 140500 | RRA | 5:57:48 | 5:57:57 | 5:57:59 |
| 59 | FTIR32 | OIII | 140500 | RRA | 5:58:08 | 5:58:14 | 5:58:15 |
| 60 | FTIR33 | OIII | 140500 | RRA | 5:58:32 | 5:58:42 | 5:58:44 |
| 61 | FTJP31 | RJTD | 140500 | | 5:27:31 | 5:27:42 | 5:27:44 |
| 62 | FTJP32 | RJTD | 140500 | RRA | 5:27:32 | 5:27:49 | 5:27:50 |
| 63 | FTJP32 | RJTD | 140500 | | 5:27:31 | 5:27:45 | 5:27:47 |
| 64 | FTJP38 | RJTD | 132300 | AAA | 2:11:31 | 2:11:50 | 2:11:51 |
| 65 | FTJP38 | RJTD | 140500 | AAA | 6:33:41 | 6:33:54 | 6:33:55 |
| 66 | FTJP38 | RJTD | 140500 | RRA | 5:27:33 | 5:27:54 | 5:27:56 |
| 67 | FTJP38 | RJTD | 140500 | | 5:27:33 | 5:27:51 | 5:27:53 |
| 68 | FTKO31 | RKSI | 140050 | AAA | 2:21:46 | 2:22:05 | 2:22:07 |
| 69 | FTKO31 | RKSI | 140218 | AAB | 2:19:07 | 2:19:17 | 2:19:19 |
| 70 | FTKO31 | RKSI | 140220 | AAA | 2:16:59 | 2:17:28 | 2:22:29 |
| 71 | FTKO31 | RKSI | 140233 | AAC | 2:33:49 | 2:34:06 | 2:34:07 |
| 72 | FTKO31 | RKSI | 140500 | | 5:05:21 | 5:06:25 | 5:06:27 |
| 73 | FTNG31 | YBBN | 140500 | RRA | 5:15:05 | 5:15:13 | 5:15:15 |
| 74 | FTNZ31 | NZKL | 140500 | | 5:10:19 | 5:10:45 | 5:10:47 |
| 75 | FTNZ31 | NZKL | 140500 | | 5:10:19 | 5:10:43 | 5:10:44 |
| 76 | FTPK31 | OPKC | 132200 | RRA | 3:19:55 | 3:20:07 | 3:20:09 |
| 77 | FTPK31 | OPKC | 140400 | | 4:00:14 | 4:00:40 | 4:00:42 |
| 78 | FTPS31 | NFFN | 140500 | | 5:23:23 | 5:23:41 | 5:23:44 |
| 79 | FTPS32 | NFFN | 140500 | | 5:38:33 | 5:39:38 | 5:39:40 |
| 80 | FTPS33 | NFFN | 140500 | | 5:06:02 | 5:06:38 | 5:06:40 |
| 81 | FTSD31 | OEJD | 140500 | | 5:30:27 | 5:30:27 | 5:30:29 |
| 82 | FTSD31 | OEJD | 140500 | | 5:30:09 | 5:30:25 | 5:30:26 |
| 83 | FTSR31 | WSSS | 140500 | AAA | 8:01:04 | 8:01:27 | 8:01:30 |
| 84 | FTSR31 | WSSS | 140500 | | 5:07:04 | 5:07:31 | 5:07:33 |
| 85 | FTSR32 | WSSS | 140500 | | 5:08:30 | 5:08:52 | 5:08:55 |
| 86 | FTSR33 | WSSS | 140500 | AAA | 6:54:56 | 6:55:14 | 6:55:17 |
| 87 | FTSR33 | WSSS | 140500 | | 5:09:48 | 5:10:05 | 5:10:08 |
| 88 | FTTH31 | VTBB | 140500 | | 5:35:49 | - | 5:35:17 |
| 89 | FTTH32 | VTBB | 140500 | | 5:35:49 | - | 5:35:21 |
| 90 | FTTH33 | VTBB | 140500 | | 5:35:50 | - | 5:35:25 |
| 91 | FTTM31 | YBBN | 140500 | | 5:35:03 | 5:35:16 | 5:35:18 |
