



ICAO

International Civil Aviation Organization

**Eighteenth Meeting of the ICAO Aeronautical Information Services – Aeronautical Information Management Implementation Task Force (AAITF/18)**

Bangkok, Thailand, 19 – 23 June 2023

## Agenda Item 4: AIS-AIM Updates

### REGIONAL IMPLEMENTATION STATUS OF AIM PERFORMANCE EXPECTATIONS

(Presented by the Secretariat)

#### SUMMARY

This paper presents a summary of the implementation progress of the regional performance expectations in the Asia/Pacific Regional Plan for Collaborative Aeronautical Information Management (AIM).

## 1. INTRODUCTION

1.1 The Asia/Pacific Regional Plan for Collaborative AIM (Version 2.0) was developed by the Asia/Pacific AIS – AIM Implementation Task Force (AAITF) and approved by the Seventh Meeting of the ATM Sub-Group of APANPIRG (ATM/SG/7, Bangkok, Thailand, 05 to 09 August 2019) under **Conclusion ATM/SG/7-17: Amendment to the Regional Plan for Collaborative AIM**. The plan includes background information and general guidance, and a performance improvement plan. The performance objectives of the Plan are expected to be implemented in phases of *Regional AIM Capability* aligned, where practicable, with the performance objectives of the Asia/Pacific Seamless ANS Plan, as follows:

- **Phase I**, expected to be implemented immediately;
- **Phase II**, expected to be implemented by 7 November 2019, and
- **Phase III**, expected to be implemented by 27 November 2025.

1.2 The Regional AIM Implementation Monitoring and Reporting process measures State implementation of the performance expectations specified in Section 7 of the plan. Asia/Pacific Administrations should report their implementation status to the ICAO Asia/Pacific Regional Office at least once annually, by no later than 28 February each year, in accordance with the following ATM/SG Conclusion:

**Conclusion ATM/SG/10-1: Revised Reporting Date for ATM Regional Plans' Implementation Status Monitoring**

*That,*

1. *States are urged to report their implementation status of the performance expectations of the following regional plans by not later than 28 February each year:*

- Regional ATM Contingency Plan;*
- Regional Framework for Collaborative ATFM;*

c) *Regional Plan for Collaborative AIM; and*

d) *Regional SAR Plan; and*

2. *The implementation reporting forms for each of these regional plans be updated to provide for reporting in percentages of implementation.*

*This Conclusion supersedes the status reporting requirements of Conclusions ATM/SG 5-3, 5-8 and 7-16*

1.3 The Regional AIM Plan Monitoring and Reporting Form is available on the ICAO Asia/Pacific Regional Office website at:

<http://www.icao.int/APAC/Pages/edocs.aspx>

## 2. **DISCUSSION**

### AIM Implementation Monitoring

2.1 In 2023, the following 24 Administrations provided information on the implementation status of AIM to the ICAO Regional Office.

Australia, Bangladesh, Bhutan, Cambodia, China, Hong Kong China, Macao China, DPR Korea, Fiji, French Polynesia, Indonesia, Japan, Malaysia, Mongolia, Nepal, New Zealand, Pakistan, Philippines, Republic of Korea, Singapore, Sri Lanka, Thailand, USA and Viet Nam.

2.2 The number of reporting Administrations increased by 50% over the 16 that reported in 2022. 15 of the reporting Administrations submitted their reports in both 2022 and 2023. While the reporting has improved over the 16 that reported in 2021 and 2022, and the 10 that reported in 2020, it remains less than ideal.

2.3 Japan and Singapore are the only Asia/Pacific States to have now reported completion of Regional AIM Capability Phase I, which was expected to be implemented immediately on approval of the Plan by ATM/SG due to the elements of this Phase relating to ICAO Standards and Recommended Practices (SARPS) that had already been applicable for many years.

2.4 Only Singapore has reported completion of Regional AIM Capability Phase II, expected to be implemented by 07 November 2019.

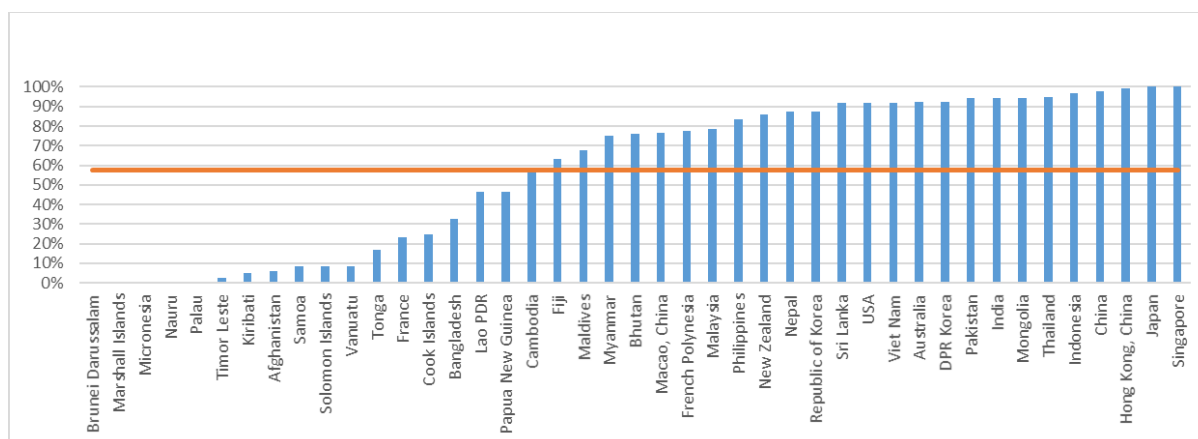
2.5 The latest update of reported Regional implementation of AIM performance expectations is provided at **Attachment A**. Any further updates received during or in the week immediately following AAITF/18 will be included in the updated implementation table appended to the final version of the meeting report.

### Overall Progress

2.6 Regional implementation of **Regional AIM Capability Phase I** is summarized as follows:

- 2 Administrations ( $\approx 5\%$ ) have completed implementation of Phase I (no change from 2022);
- 36 Administrations ( $\approx 84\%$ ) have partly implemented Phase I (increased by 1 Administration);
- 5 Administrations ( $\approx 11\%$ ) have not reported implementation of any Phase I Performance Expectations (no change from 2022); and
- Overall Regional implementation of Phase I  $\approx 58\%$ . (54% in 2021, 55% in 2022).

2.7 **Figure 1** illustrates current Asia/Pacific Region progress towards completion of Phase I.

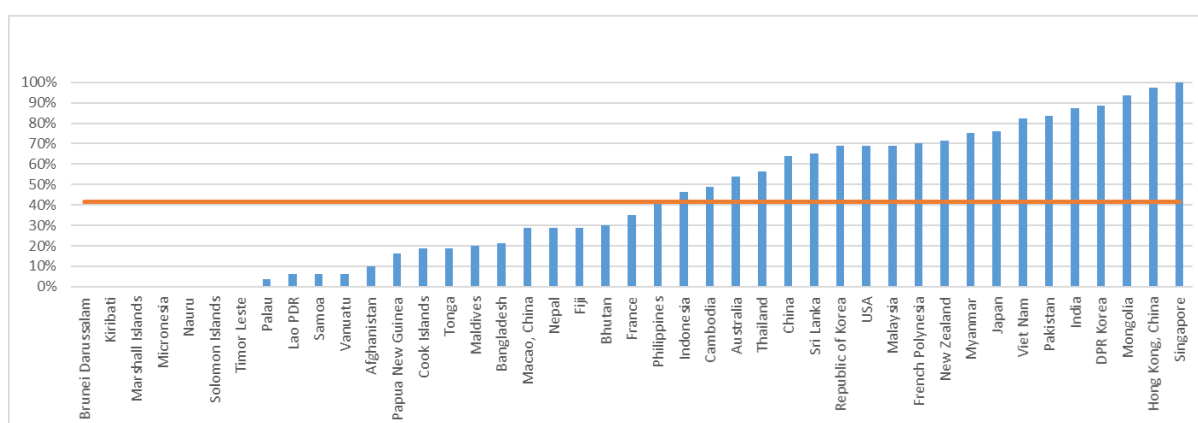


**Figure 1: Regional Phase I Implementation Progress (updated on 07 June 2023)**

2.8 Regional implementation of **Regional AIM Capability Phase II** is summarized as follows:

- 1 Administration ( $\approx 2\%$ ) has completed implementation of Phase II (no change from 2022);
- 35 Administrations ( $\approx 81\%$ ) have partly implemented Phase II (increased by 1 Administration);
- 7 Administrations ( $\approx 17\%$ ) have not reported implementation of any Phase II Performance Expectations (no change from 2022); and
- Overall Regional implementation of Phase II  $\approx 42\%$ . (40% in 2022, 38% in 2021).

2.9 **Figure 2** illustrates current Asia/Pacific Region progress towards completion of Phase II



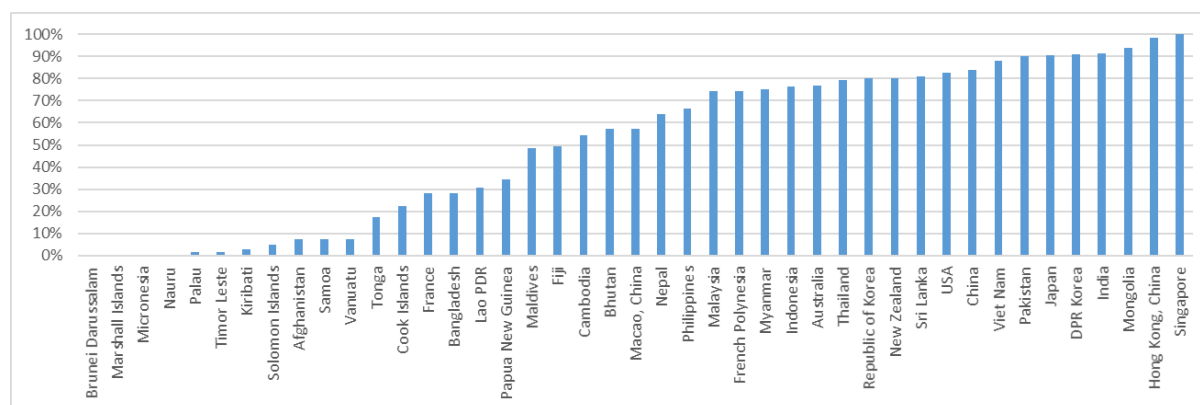
**Figure 2: Regional Phase II Implementation Progress (updated on 07 June 2023)**

2.10 Overall regional implementation of Regional AIM Capability Phases I&II is summarized as follows:

- 1 Administration ( $\approx 2\%$ ) has completed implementation of Phases I&II (no change from 2022);
- 38 Administrations ( $\approx 89\%$ ) have partly implemented Phases I&II (increased by 1 Administration);

- 4 Administrations (≈9%) have not reported implementation of any Phase I or Phase II Performance Expectations (no change from 2022); and
- Overall Regional implementation of Phases I&II ≈ **51%**. (48% in 2022).

2.11 **Figure 3** illustrates current Asia/Pacific Region progress towards completion of Phases I & II.

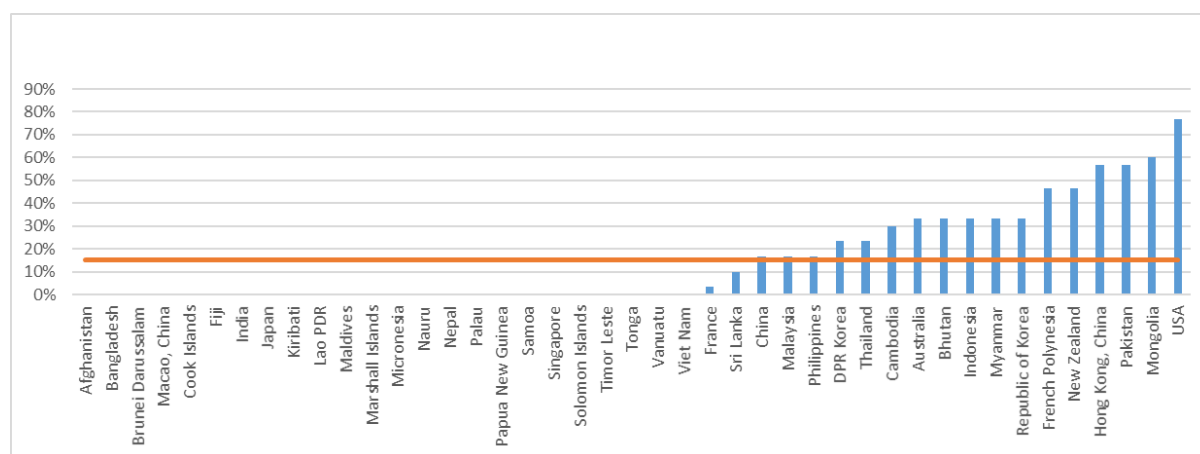


**Figure 3:** Regional Phase I & II Implementation Progress (updated on 07 June 2023)

2.12 Regional implementation of **Regional AIM Capability Phase III** (expected implementation **27 November 2025**) is summarized as follows (unchanged from 2021):

- No Administrations has completed implementation of Phase III;
- 19 Administrations (≈ 44%) have partly implemented Phase III (increased by 3 Administrations);
- 24 Administrations (≈ 56%) have not reported implementation of any Phase III Performance Expectations (decreased by 2 Administrations); and
- Overall Regional implementation of Phase III ≈ **15%**. (12% in 2022).

2.13 **Figure 4** illustrates current Asia/Pacific Region progress towards completion of Phase III



**Figure 4:** Regional Phase III Implementation Progress (updated on 07 June 2023)

**3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) note the continuing poor progress, particularly in Phase 1 which consolidates implementation of key SARPS that have been in existence for many years;
- c) note *Conclusion ATM/SG/10-1*, and ensure the Regional AIM Plan Monitoring and Reporting Form is used for all future reporting of AIM implementation progress; and
- d) discuss any relevant matters as appropriate.

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## Regional Implementation Status of AIM Performance Expectations

Date Last Amended: June 7, 2023																							
	Phase 1											Phase 2						Phase 3					
	1				2	3	4	5	6	7	8	9	10	11	12	13	14			15	16	17	18
	1a	1b	1c	1d													14a	14b	14c				
Afghanistan	0%	0%	0%	0%	0%	0%	40%	0%	30%	0%	0%	0%	0%	0%	30%	0%	0%	0%	50%	0%	0%	0%	
Australia	100%	100%	100%	100%	50%	100%	100%	60%	100%	100%	100%	100%	100%	70%	100%	60%	0%	100%	0%	0%	100%	0%	0%
Bangladesh	70%	30%	0%	0%	0%	50%	0%	30%	0%	30%	80%	100%	50%	0%	0%	0%	0%	90%	0%	0%	30%	0%	0%
Bhutan	100%	100%	100%	100%	0%	100%	40%	20%	50%	100%	100%	100%	50%	50%	50%	40%	10%	10%	20%	10%	100%	0%	0%
Brunei Darussalam	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Cambodia	50%	100%	50%	70%	10%	90%	50%	30%	50%	50%	50%	100%	50%	50%	30%	80%	50%	50%	10%	70%	10%	30%	50%
China	100%	100%	100%	80%	100%	100%	100%	100%	100%	100%	100%	90%	40%	70%	100%	100%	0%	50%	70%	100%	30%	10%	10%
Hong Kong, China	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	90%	100%	100%	100%	100%	100%	100%	100%	80%	100%	70%	50%	50%
Macao, China	100%	100%	100%	100%	0%	100%	100%	100%	50%	0%	100%	70%	0%	50%	50%	50%	0%	0%	0%	80%	0%	0%	0%
Cook Islands	0%	100%	0%	0%	0%	0%	100%	0%	30%	0%	0%	70%	0%	0%	100%	0%	0%	0%	50%	0%	0%	0%	0%
DPR Korea	100%	100%	100%	100%	60%	50%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	50%	70%	100%	90%	20%	20%	30%
Fiji	100%	100%	30%	0%	30%	100%	10%	100%	100%	30%	100%	60%	100%	50%	70%	10%	0%	0%	0%	0%	0%	0%	0%
French Polynesia	100%	100%	80%	100%	50%	0%	80%	80%	100%	100%	60%	100%	80%	100%	80%	50%	50%	0%	100%	60%	60%	20%	0%
India	100%	100%	100%	100%	30%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%	100%	0%	0%	0%	0%
Indonesia	100%	100%	100%	100%	80%	80%	100%	100%	100%	100%	100%	100%	70%	70%	100%	50%	10%	10%	10%	50%	50%	50%	0%
Japan	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	80%	80%	100%	80%	80%	90%	0%	100%	0%	0%	0%
Kiribati	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Lao PDR	100%	100%	100%	100%	0%	100%	0%	0%	0%	30%	0%	30%	0%	0%	20%	0%	0%	30%	0%	0%	0%	0%	0%
Malaysia	100%	100%	100%	70%	0%	100%	50%	50%	100%	100%	100%	70%	0%	50%	100%	100%	70%	70%	70%	90%	0%	0%	50%
Maldives	100%	80%	50%	100%	0%	100%	50%	50%	60%	50%	100%	70%	0%	50%	60%	0%	0%	0%	50%	0%	0%	0%	0%
Marshall Islands	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Micronesia	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Mongolia	100%	100%	100%	100%	30%	100%	100%	100%	100%	100%	100%	100%	50%	100%	100%	100%	100%	100%	100%	100%	50%	30%	0%
Myanmar	100%	100%	100%	100%	0%	100%	0%	100%	30%	100%	100%	70%	0%	50%	50%	100%	100%	100%	100%	100%	0%	0%	100%
Nauru	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Nepal	100%	100%	100%	100%	20%	100%	70%	100%	70%	90%	100%	100%	30%	0%	70%	0%	50%	50%	30%	0%	0%	0%	0%
New Zealand	100%	100%	100%	100%	0%	100%	50%	100%	80%	100%	100%	100%	0%	80%	100%	90%	100%	80%	40%	80%	0%	60%	80%
Pakistan	100%	100%	100%	100%	100%	100%	70%	100%	100%	60%	100%	100%	70%	70%	100%	100%	70%	100%	60%	100%	70%	50%	50%
Palau	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	30%	0%	0%	0%	0%
Papua New Guinea	50%	100%	50%	50%	0%	100%	50%	50%	30%	50%	0%	30%	0%	50%	50%	30%	0%	0%	0%	0%	0%	0%	0%
Philippines	100%	100%	100%	100%	0%	50%	100%	100%	50%	100%	100%	100%	0%	100%	100%	0%	0%	0%	0%	30%	50%	0%	0%
Republic of Korea	100%	100%	100%	100%	50%	0%	100%	100%	100%	100%	100%	100%	100%	0%	100%	50%	50%	100%	100%	100%	0%	0%	0%
Samoa	0%	0%	0%	0%	0%	0%	0%	0%	30%	0%	0%	70%	0%	0%	0%	0%	0%	0%	50%	0%	0%	0%	0%
Singapore	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%	0%	0%
Solomon Islands	0%	0%	0%	0%	0%	0%	0%	30%	0%	0%	70%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Sri Lanka	100%	100%	100%	100%	100%	100%	70%	60%	100%	100%	100%	100%	100%	70%	90%	40%	40%	20%	90%	10%	10%	10%	10%
Thailand	100%	100%	100%	100%	80%	100%	90%	100%	100%	80%	100%	90%	100%	100%	100%	30%	20%	0%	0%	100%	30%	20%	20%
Timor Leste	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Tonga	0%	100%	0%	0%	0%	0%	0%	0%	30%	0%	0%	70%	0%	0%	100%	0%	0%	0%	50%	0%	0%	0%	0%
Vanuatu	0%	0%	0%	0%	0%	0%	0%	0%	30%	0%	0%	70%	0%	0%	0%	0%	0%	0%	50%	0%	0%	0%	0%
Viet Nam	100%	100%	100%	100%	70%	100%	100%	70%	80%	100%	100%	100%	80%	100%	80%	80%	80%	70%	70%	80%	0%	0%	0%
USA	100%	100%	100%	70%	70%	100%	90%	100%	100%	100%	100%	70%	70%	50%	100%	100%	0%	80%	60%	90%	70%	90%	70%
France	0%	100%	0%	0%	0%	0%	0%	0%	80%	0%	0%	100%	0%	0%	100%	100%	0%	0%	0%	80%	0%	0%	10%

64% 72% 60% 59% 29% 59% 51% 53% 60% 53% 60% 71% 42% 39% 62% 47% 29% 37% 24% 53% 20% 12% 13%

## Phase 1

- 1 Developed policy and enacted primary legislation and supporting regulations for Annex 4 and Annex 15 SARPS, and PANS-AIM Procedures including:
  - 1a establishment of an organizational structure for the safety oversight of aeronautical information service providers;
  - 1b requirements for monitoring of differences from Annex 4 and Annex 15 SARPS;
  - 1c Requirements for aeronautical information/data originators;
  - 1d Requirement for AIS quality management systems and processes to be established by all entities in the end-to-end AIS data chain.
- 2 Ensured National ATM Plans include implementation planning for each of the performance expectations of the Regional Plan for Collaborative AIM.
  - 3 Established AIS either as a separate entity within, or separated from the civil aviation administration.
- 4 Developed competency requirements for AIS personnel, including English language proficiency requirements, supported by a program of regular performance assessment.
- 5 Established regular programs of engagement with all stakeholders.
- 6 Established quality management processes for aeronautical information.
- 7 Established formal agreements between AIS providers and aeronautical data originators.
  - 8 Provided full access to relevant ICAO Annexes and Documents to all personnel having responsibility for the reception, management, publication and/or distribution of aeronautical information and aeronautical data.
- 9 Ensured compliance of all aeronautical products with common reference systems WGS-84, MSL/EGM-96 and UTC

## Phase 2

- 10 Adapted policy, primary legislation and supporting regulations to support digital data sets of aeronautical information and associated products
- 11 Adapted training, competency and performance assessment of AIS personnel for digital data sets and eAIP
- 12 Implemented and maintained quality management systems encompassing all functions of the AIS
- 13 Established and maintained digital databases of aeronautical information (PANS-AIM Appendix 1)
- 14 Managed terrain, obstacle and aerodrome mapping data through the establishment of:
  - 14a a terrain database, from which terrain data sets conforming with Annex 15 Section 5.3.3.3 may be generated
  - 14b an obstacle database, from which obstacle data sets conforming with Annex 15 Section 5.3.3.4 may be generated
  - 14c an aerodrome mapping database, from which aerodrome mapping data sets conforming with Annex 15 Section 5.3.4 may be generated
- 15 Implemented internet-accessible electronic AIP generated from digital database of aeronautical information

## Phase 3

- 16 Adapted policy, primary legislation and supporting regulations to support automated exchange of aeronautical data
- 17 Adapted competency development and performance assessment of AIS personnel to support the automated exchange of aeronautical data and production of electronic charts and digital NOTAM.
- 18 Commenced aeronautical information exchange through digital data sets, digital NOTAM, integrated briefing and electronic charts

Color Code:

Green - Increased implementation

Red - Decreased implementation

Blue - No Change