

Republic of the Philippines CIVIL AVIATION AUTHORITY OF THE PHILIPPINES

MEMORANDUM CIRCULAR NO.: 18-2021

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FROM : DIRECTOR GENERAL

SUBJECT : AMENDMENT TO PHILIPPINE CIVIL AVIATION REGULATIONS - AIR NAVIGATION SERVICES (CAR-ANS) PART 3 INCORPORATING AMENDMENT 80 TO ICAO ANNEX 3

REFERENCE:

- 1. Philippine Civil Aviation Regulations- Air Navigation Services Part 3, Issue 4 Amendment No. 5
- 2. ICAO Annex 3; Amendment 80
- 3. CAAP Regulations Amendment Procedures
- 4. Board Resolution No. 2012-054 dated 28 September 2012

Pursuant to the powers vested in me under the Republic Act 9497, otherwise known as the Civil Aviation Authority Act of 2008 and in accordance with the Board Resolution No.: 2012-054 dated 28 September 2012, I hereby approve the incorporation of ICAO Annex 3 Amendment No. 80.

ORIGINAL REGULATION SUBJECT FOR REVIEW AND REVISION:

CAR-ANS PART 3 Governing AERONAUTICAL METEOROLOGICAL SERVICE

3.5 AIRCRAFT OBSERVATIONS AND REPORTS

3.5.5 Special aircraft observations

Special observations shall be made by all aircraft whenever the following conditions are encountered or observed:

a) moderate or severe turbulence; or

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h) pre-eruption volcanic activity or a volcanic eruption; or

Note.— Pre-eruption volcanic activity in this context means unusual and/or increasing volcanic activity which could presage a volcanic eruption.

i) as of 4 November 2021, runway braking action encountered is not as good as reported.

Note. Pre-eruption volcanic activity in this context means unusual and/or increasing volcanic activity which could presage a volcanic cruption

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APPENDIX 3.3 TECHNICAL SPECIFICATIONS RELATED TO METEOROLOGICAL OBSERVATIONS AND REPORTS

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4.8 Supplementary information

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4.8.1.5 Until 3 November 2021, 4in METAR and SPECI, the following information shall be included in the supplementary information, in accordance with regional air navigation agreement:

4.8.1.6 As of 4 November 2021, in METAR and SPECI, information on sea-surface temperature, and the state of the sea or the significant wave height, from aeronautical meteorological stations established on offshore structures in support of helicopter operations should be included in the supplementary information, in accordance with regional air navigation agreement.

Note.— The state of the sea is specified in the Manual on Codes (WMO-No. 306), Volume I.1, Part A — Alphanumeric Codes, Code Table 3700.

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Table A3-2. Template for METAR and SPECI (applicable until 3 November 2021)

Key: M = inclusion mandatory, part of every message;

C = inclusion conditional, dependent on meteorological conditions or method of observation;

O = inclusion optional.

Note 1.— The ranges and resolutions for the numerical elements included in METAR and SPECI are shown in Table A3-5 of this appendix.

Note 2.— The explanations for the abbreviations can be found in the PANS-ABC (Doc 8400).

| Element as specified in Chapter 4 | Detailed content | Ter | Examples | |
|---|---|------------------------|-----------------------------|--|
| Identification of the type of report (M) | Type of report (M) | METAR, METAR COR, SPEC | METAR METAR COR SPECI | |
| Location indicator (M) | ICAO location indicator (M) | ดกกก | | YUDO' |
| Time of the observation (M) | Day and actual time of the observation in UTC (M) | nnnnnZ | 221630Z | |
| Identification of an automated or missing report (C) ² | Automated or missing report identifier (C) | AUTO or NIL | AUTO NIL | |
| END OF METAR IF TH | E REPORT IS MISSING. | | | |
| Surface wind (M) | Wind direction (M) | กกก | VRB | 24004MPS VRB01MPS |
| | Wind speed (M) | [P]nn[n] | | (24008KT) (VRB02KT) 19006MPS (19012KT) 00000MPS (00000KT) 140P49MPS (140P99KT) |
| | Significant speed variations (C) ³ | G[P]nn[n] | | |

| | Units of measurement (M) | MPS (or KT) | | 12003G09MPS (12006G18KT) 24008G14MPS | | |
|---------------------------------------|---|--|--|---|--------------------------------------|--|
| | Significant directional variations (C) ⁴ | nnnVnnn | | = | | (24008G14MPS (24016G28KT) |
| Visibility (M) | Prevailing or minimum visibility (M) ⁵ | nnn | | | CAVO | 0350 CAVOK 7000 9999 0800 |
| | Minimum visibility and direction of the minimum visibility (C) ⁶ | nnnn[N] or nnn nnnn[S] or nnn | n[NE] or nnnn[E] n[SW] or nnnn[W | ornnn[SE] or ornnn[NW] | к | 2000 1200NW 6000 2800E 6000 2800 |
| Runway visual range | Name of the element (M) | R | | | | R32/0400 |
| (C) ⁷ | Runway (M) | nn[L]/ornn[C]/ornn[R]/ | | | R12R/1700 R10/M0050 R14L/P2000 | |
| | Runway visual range (M) | [P or M]nnnn | | | | R16L/0650 R16C/0500 R16R/0450 R17L/0450 |
| | Runway visual range past tendency (C) ^a | U, D or N | U, D or N | | | R12/1100U R26/0550N R20/0800D R12/0700 |
| Present weather (C) ^{2,9} | Intensity or proximity of present weather (C) ¹⁰ | - or + | *** | VC | | |
| | Characteristics and type of present weather (M) ¹¹ | DZ or RA or SN or SG or PL or DS or SS or FZDZ or FZRA or FZUP ¹² or FC ¹³ or SHGR or SHGS or SHRA or SHSN or SHUP ¹² or TSGR or TSGR or TSGR or TSGR or TSSN or TSSN or TSUP ¹² or UP ¹² | FG or BR or SA or DU or HZ or FU or VA or SQ or PO or TS or BCFG or BLDU or BLSA or BLSN or DRDU or DRSA or DRSN or FZFG or MIFG or PRFG or // ¹² | FG or PO or FC or DS or SS or TS or SH or BLSN or BLSA or BLDU or VA | | RA HZ VCFG +TSRA FG VCSH +DZ VA VCTS -SN MIFG VCBLSA +TSRASN -SNRA DZ FG +SHSN BLSN UP FZUP TSUP FZUP I |
| Cloud (M) ¹⁴ | Cloud amount and height of cloud base or vertical visibility (M) | FEWnnn or SCTnnn or BKNnnn or OVCnnn or FEWIII ¹² or SCTIII ¹² or BKNIII ¹² or OVC/II ¹² or II/innn ¹² or II/inn ¹² or | VVnnn or VVIII ¹⁹ | NSC or NCD ¹² | | FEW015 VV005 OVC030 VV/// NSC SCT010 OVC0 20 BKN/// ///015 |
| | Cloud type (C) ² | CB or TCU or III ¹² | - | | | BKN009TCU NCD SCT008 BKN025CB BKN025/// ///CB BKN025/// |
| Air and dew-point temperature (M) | Air and dew-point temperature (M) | [M]nn/[M]nn | | | | 17/10 02/M08 M01/M10 |
| Pressure values (M) | Name of the element (M) | Q | | | | Q0995 |
| | QNH (M) | nnn | | | | Q1009 Q1022 Q0987 |

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| Supplementary information (C) | Recent weather (C) ^{2, 9} Wind shear (C) ² | | RERASN or REF. RE[SH]SN or RES RESS or REDS o RETSGS or RETS REFZUP ¹² or RET | ZDZ or REFZR SG or RESHGI Ir RETSRA or F S or REFC or F TSUP ¹² or RES | REFZRA RETSRA | | |
|----------------------------------|---|---|--|---|--|---|---|
| | | | WS Rnn[L] or WS | Rnn[C] or WS | WS R03 WS ALL RWY WS R18C | | |
| | Sea-surface temperature and state of the sea or significant wave height (C) ¹⁵ | | W [M]nn/Sn or W[| M]nn/Hn[n][n] | W15/S2 W12/H75 | | |
| | State Runway designator of the (M) | Runway designator (M) | R nn[L]/ or Rnn[C]/ or Rnn[R]/ | | R/SNOC | | R99/421594 R/SNOCLO R14L/CLRD// |
| | (C) 16 | Runway deposits (M) Extent of runway | n or/ | | CLRD# | | |
| | | contamination(M) | II WEY | | | | |
| | | Depth of deposit (M) | nn or ll | | | | |
| | | Enction coefficient or braking action (M) | nn or // | | | | |
| Trend forecast (O)17 | Change inc | dicator (M) ¹⁸ | NOSIG | BECMG or T | TEMPO | | NOSIG BECMG FEW020 |
| | Period of change (C) ² | | FMnnnn and/or TLnnnn or ATnnnn nnn[P]nn[n][G[P]nn (ornnn[P]nn[G[P]nr | | for | | TEMPO 25018G25MPS (TEMPO 25036G50KT) |
| 1.1 | Wind (C) ² | | | | G[P]nn[n]]MPS G[P]nn]KT) | | |
| | Prevailing | visibility (C) ² | | nnn C | | 0 | BECMG FM1030 TL1130 CAVOK BECMG TL1700 |
| | Weather phenomenon: intensity (C) ¹⁰ | | | - or + | | N S | |
| | Weather pl characteris type (C) ^{2.9,} | nenomenon: utics and | | DZ or RA or SN or SG or PL or DS or SS or FZDZ or FZRA or SHGR or SHGR or SHSN or TSGR or TSGR or TSGR or TSGR or TSGR or TSRA or BKNnn or BKNnn or BKNnn or | r SA or DU or r HZ or FU or VA or SQ or PO or FC or TS or BLDU or BLSA or BLSN or DRSDU or DRSA or DRSN or FZFG or MIFG or PRFG | w | 9000 NSW BECMG FM1900 0500 +SNRA BECMG FM1100 SN TEMPO FM1130 BLSN TEMPO FM0330 TL0430 FZRA TEMPO TL1200 0600 BECMG AT1200 8000 NSW NSC BECMG AT1130 OVC010 TEMPO TL1530 +SHRA BKN012CB |
| | Cloud amo base or ve | ount and height of cloud rtical visibility (C) ^{2,14} | | | | FEWnnn or SCTnnn or BKNnnn or OVCnnn | VVnnn or VVIII |
| | Cloud type (C)2.14 | | CB or TCU | | 10 | | |

Notes .---

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1. Fictitious location.

2. To be included whenever applicable.

3. To be included in accordance with 4.1.5.2 c).

4. To be included in accordance with 4.1.5.2 b) 1).

- 5. To be included in accordance with 4.2.4.4 b).
- 6. To be included in accordance with 4.2.4.4 a).
- To be included if visibility or runway visual range < 1 500 m; for up to a maximum of four runways in accordance with 4.3.6.5 b).
- 8. To be included in accordance with 4.3.6.6.
- One or more, up to a maximum of three groups, in accordance with 4.4.2.9 a), 4.8.1.1 and Appendix 5, 2.2.4.1.
- 10. To be included whenever applicable; no qualifier for moderate intensity in accordance with 4.4.2.8.
- 11. Precipitation types listed under 4.4.2.3 a) may be combined in accordance with 4.4.2.9 c) and Appendix 5, 2.2.4.1. Only moderate or heavy precipitation to be indicated in trend forecasts in accordance with Appendix 5, 2.2.4.1.
- 12. For automated reports only.
- Heavy used to indicate tornado or waterspout; moderate (no qualifier) to indicate funnel cloud not reaching the ground.
- 14. Up to four cloud layers in accordance with 4.5.4.3 e).
- 15. To be included in accordance with 4.8.1.5 a).
- 16. To be included in accordance with 4.8.1.5 b) until 3 November 2021.
- 17. To be included in accordance with Chapter 6, 6.3.2.
- Number of change indicators to be kept to a minimum in accordance with Appendix 5, 2.2.1, normally not exceeding three groups.

- END -

NEW/AMENDED REGULATION AFTER REVISION:

CAR-ANS PART 3: Governing AERONAUTICAL METEOROLOGICAL SERVICE

3.5 AIRCRAFT OBSERVATIONS AND REPORTS

3.5.5 Special aircraft observations

Special observations shall be made by all aircraft whenever the following conditions are encountered or observed:

a) moderate or severe turbulence; or

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h) pre-eruption volcanic activity or a volcanic eruption; or

Note.— Pre-eruption volcanic activity in this context means unusual and/or increasing volcanic activity which could presage a volcanic eruption.

i) as of 4 November 2021, runway braking action encountered is not as good as reported.

APPENDIX 3.3 TECHNICAL SPECIFICATIONS RELATED TO METEOROLOGICAL OBSERVATIONS AND REPORTS

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4.8.1.5 Until 3 November 2021, in METAR and SPECI, the following information shall be included in the supplementary information, in accordance with regional air navigation agreement:

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4.8.1.6 As of 4 November 2021, in METAR and SPECI, information on sea-surface temperature, and the state of the sea or the significant wave height, from aeronautical meteorological stations established on offshore structures in support of helicopter operations should be included in the supplementary information, in accordance with regional air navigation agreement.

Note.— The state of the sea is specified in the Manual on Codes (WMO-No. 306), Volume I.1, Part A — Alphanumeric Codes, Code Table 3700.

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Table A3-2. Template for METAR and SPECI (applicable until 3 November 2021)

Key: M = inclusion mandatory, part of every message;

C = inclusion conditional, dependent on meteorological conditions or method of observation;

O = inclusion optional.

Note 1.— The ranges and resolutions for the numerical elements included in METAR and SPECI are shown in Table A3-5 of this appendix.

Note 2.— The explanations for the abbreviations can be found in the PANS-ABC (Doc 8400).

| Element as specified in Chapter 4 | Detailed content | Temp | Examples | |
|---|---|-------------------------|-----------------------------|--|
| Identification of the type of report (M) | Type of report (M) | METAR, METAR COR, SPECI | METAR METAR COR SPECI | |
| Location indicator (M) | ICAO location indicator (M) | nnnn | | YUDO' |
| Time of the observation (M) | Day and actual time of the observation in UTC (M) | nnnnnZ | 221630Z | |
| Identification of an automated or missing report (C) ² | Automated or missing report identifier (C) | AUTO or NIL | AUTO NIL | |
| END OF METAR IF THE REPORT IS MISSING. | | | | |
| Surface wind (M) | Wind direction (M) | nnn | VRB | 24004MPS VRB01MPS |
| | Wind speed (M) | [P]nn[n] | | (24008K1) (VRB02K1) 19006MPS (19012KT) 00000MPS (00000KT) 140P49MPS (140P99KT) |
| | Significant speed variations (C) ³ | G[P]nn[n] | | 12003G09MPS |
| | Units of measurement (M) | MPS (or KT) | | (12006G18KT) 24008G14MPS (24016G28KT) |
| | Significant directional * variations (C) ⁴ | nnn∨nnn | - | 02005MPS 350V070 (02010KT 350V070) |

| Visibility (M) | Prevailing or minimum visibility (M) ⁵ | nnnn C A V O | | | | 0350 CAVOK 7000 9999 0800 | |
|---------------------------------------|---|--|---|---|--|---|--|
| | Minimum visibility and direction of the minimum visibility (C) ⁶ | nnnn[N] or nnnr nnnn[S] or nnnr | n(NE) or nnnn(E) o n(SW) or nnnn(W) | к | 2000 1200NW 6000 2800E 6000 2800 | | |
| Runway visual range | Name of the element (M) | R | | R32/0400 | | | |
| (C) ⁷ | Runway (M) | nn[L]/ornn[C]/ornn[R]/ | | | | R12R/1700 R10/M0050 R14L/P2000 | |
| | Runway visual range (M) | [P or M]nnnn | | | | R16L/0650 R16C/0500 R16R/0450 R17L/0450 | |
| | Runway visual range past tendency (C) ^s | U, D or N | | | | R12/1100U R26/0550N R20/0800D R12/0700 | |
| Present weather (C) ^{2,9} | Intensity or proximity of present weather (C) ¹⁰ | - or + | - | VC | | | |
| | Characteristics and type of present weather (M) ¹¹ | DZ or RA or SN or SG or PL or DS or SS or FZDZ or FZRA or FZUP ¹² or FC ¹³ or SHGR or SHGR or SHGS or SHRA or SHUP ¹² or TSGR or TSGS or TSRA or TSUP ¹² or UP ¹² | FG or BR or SA or DU or HZ or FU or VA or SQ or PO or TS or BLDU or BLSA or BLSN or DRDU or DRSA or DRSN or FZFG or MIFG or PRFG or //12 | FG or PO or FC or DS or SS or TS or SH or BLSN or BLSA or BLDU or VA | | RA HZ VCFG +TSRA FG VCSH +DZ VA VCTS -SN MIFG VCBLSA +TSRASN -SNRA DZ FG +SHSN BLSN UP FZUP TSUP FZUP | |
| Cloud (M) ¹⁴ | Cloud amount and height of cloud base or vertical visibility (M) | FEWnnn or SCTnnn or BKNnnn or OVCnnn or FEW/// ¹² or SCT/// ¹² or BKN/// ¹² or OVC/// ¹² or ///nnn ¹² or ////inn ¹² or | VVnnn or VVIII ¹² | NSC or NCD12 | | FEW015 VV005 OVC030 VV/// NSC SCT010 OVC020 | |
| | Cloud type (C) ² | CB or TCU or III ¹² | - | | | BKN009TCU NCD SCT008 BKN025CB BKN025/// ///CB | |
| Air and dew-point temperature (M) | Air and dew-point temperature (M) | [M]nn/[M]nn | | | | 17/10 02/M08 M01/M10 | |
| Pressure values (M) | Name of the element (M) | Q | | | | Q0995 | |
| | QNH (M) | nnn | | | | Q1009 Q1022 Q0987 | |
| | 1 | | | | | 1 | |
| Supplementary information (C) | Recent weather (C) ^{2,9} | RERASN or REFZDZ or REFZRA or REDZ or RE[SH]RA or RE[SH]SN or RESG or RESHGR or RESHGS or REBLSN or RESS or REDS or RETSRA or RETSSN or RETSGR or RETSGS or RETS or REFC or REVA or REPL or REUP ¹² or REFZUP ¹² or RETSUP ¹² or RESHUP ¹² | | | | REFZRA RETSRA | |

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| Wind shear (C) ² | | WS Rnn[L] or WS | Rnn[C] or WS | WS R03 WS ALL RWY WS R18C | | | |
|--|--|---|---|---|--|---------------------|--|
| | Sea-surface temperature and state of the sea or significant wave height (C) ¹⁵ | | | M]nn/Hn[n][n] | W15/S2 W12/H75 | | |
| State of the runway (C) ¹⁶ | State of the | Runway designator (M) | R nn[L]/ or Rnn[C |) or Rnn(R) | | R/SNOCLO | R99/421594 R/SNOCLO |
| | (C) 16 | Runway deposits (M) | n or / | | CLRD// | | R14L/CLRD// |
| | | Extent of runway contamination(M) | n or l | | | | |
| | | Depth of deposit (M) | nn or II | | | | |
| | | Friction coefficient or braking action (M) | | nn or // | | | |
| Trend forecast (O)17 | Change ind | licator (M)18 | NOSIG | BECMG or TI | EMPO | | NOSIG BECMG |
| | Period of change (C) ² | | FMnnnn and/or TLnnnn or ATnnnn | | lor | | FEW020 TEMPO 25018G25MPS (TEMPO |
| Wind (C) ² | | nnn[P]nn[n][G[P]nn[n]]MPS (ornnn[P]nn[G[P]nn]KT) | | 25036G50KT) | | | |
| | Prevailing visibility (C) ² Weather phenomenon: intensity (C) ¹⁰ Weather phenomenon: characteristics and type (C) ^{2, 9, 11} | | nnnn C | | BECMG FM1030 TL1130 | | |
| | | | | - or + | - | N A V S O W K | A CAVOK BECMG TL1700 |
| | | | | DZ or RA or SN or SG or PL or DS or SS or FZDZ or FZRA or | FG or BR or SA or DU or HZ or FU or VA or SQ or PO or FC or TS or | | 9000 NSW BECMG FM1900 0500 +SNRA BECMG FM1100 SN TEMPO FM1130 BLSN |
| | | | | SHGK OF SHGS OF SHRA OF SHSN OF TSGR OF TSGS OF TSRA OF TSSN | BLDU or BLSA or BLSN or DRDU or DRSA or DRSN or FZFG or MIFG or PRFG | | TEMPO FM0330 TL0430 FZRA TEMPO TL1200 0600 BECMG AT1200 8000 NSW NSC BECMG AT1130 OVC010 TEMPO TL1530 +SHRA BKN012CB |
| | Cloud amount and height of cloud base or vertical visibility (C) ^{2, 14} | | | FEWnnn or SCTnnn or BKNnnn or OVCnnn | VVnnn or VVIII | N S C | |
| | Cloud type | (C) ^{2,14} | | CB or TCU | - | | |

Notes.-

- 1. Fictitious location.
- 2. To be included whenever applicable.
- 3. To be included in accordance with 4.1.5.2 c).
- 4. To be included in accordance with 4.1.5.2 b) 1).
- 5. To be included in accordance with 4.2.4.4 b).
- 6. To be included in accordance with 4.2.4.4 a).
- 7. To be included if visibility or runway visual range < 1 500 m; for up to a maximum of four runways in accordance with 4.3.6.5 b).
- 8. To be included in accordance with 4.3.6.6.

- 9. One or more, up to a maximum of three groups, in accordance with 4.4.2.9 a), 4.8.1.1 and Appendix 5, 2.2.4.1.
- 10. To be included whenever applicable; no qualifier for moderate intensity in accordance with 4.4.2.8.
- 11. Precipitation types listed under 4.4.2.3 a) may be combined in accordance with 4.4.2.9 c) and Appendix 5, 2.2.4.1. Only moderate or heavy precipitation to be indicated in trend forecasts in accordance with Appendix 5, 2.2.4.1.
- 12. For automated reports only.
- 13. Heavy used to indicate tornado or waterspout; moderate (no qualifier) to indicate funnel cloud not reaching the ground.
- 14. Up to four cloud layers in accordance with 4.5.4.3 e).
- 15. To be included in accordance with 4.8.1.5 a).
- 16. To be included in accordance with 4.8.1.5 b) until 3 November 2021.
- 17. To be included in accordance with Chapter 6, 6.3.2.
- 18. Number of change indicators to be kept to a minimum in accordance with Appendix 5, 2.2.1, normally not exceeding three groups.

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"End of Amendment"

- i. *Separability Clause.* If, for any reason, any provision of this Memorandum Circular is declared invalid or unconstitutional, the other part or parts thereof which are not affected thereby shall continue to be in full force and effect.
- ii. *Repealing Clause.* All orders, rules, regulations and issuances, or parts thereof which are inconsistent with this Memorandum Circular are hereby repealed, superseded or modified accordingly.
- iii. Determination of changes. To highlight the amendments and/or revisions in the Memorandum Circular, the deleted text shall be shown with strikethrough and the new inserted text shall be highlighted with grey shading, as illustrated below:
 - 1. Text deleted: Text to be deleted is shown with a line through it.
 - 2. New text inserted: New text is highlighted with grey shading.
 - 3. New text replacing existing text: Text to be deleted is shown with a line through it followed by the replacement text which is highlighted with grey shading.
- iv. Effectivity Clause. This Memorandum Circular shall take effect fifteen (15) days following completion of its publication in a newspaper of general circulation or the Official Gazette and a copy filed with the U.P. Law Center Office of the National Administrative Register. The amendment shall be incorporated to Philippine CAR-ANS in the next regular Amendment Cycle.

So Ordered. Signed this <u>21</u> day of <u>MAY</u> 2021, at the Civil Aviation Authority of the Philippines, MIA Road, Pasay City, Metro Manila, 1301.

. STDIONGCO CAPTAIN Director Genera