# CHINA AIRLINES — TASK CARD

| | |
|---|---|
| Print: | 15-Sep-2020 |
| Line No.: | 4 |

| Task Card No: | Task Title: |
|---|---|
| 7E31-35-0024_INSTLR0 | Do the WQAR upgrad from P/N:2243800-364 to P/N:2243800-464 in Boeing 744 Family Aircraft |
| Revision: R1   08-Jun-2020 | |
| Aircraft: | |
| BOEING 747-400 - B-18707 | |

| WORK ORDER NO.: | Check Event: |
|---|---|
| WO - 62448195 | DY |

## AD REFERENCES

| CAA : | | |
|---|---|---|
| FAA : | | |
| EASA: | | |
| Other: | | |

### ENG/APU

ASSY Code:

ASSY POS :

ASSY P/N :

ASSY S/N :

### INVENTORY

## EO REFERENCES

SB: 2234550-39-B747 Ver C

EO: 744-31-35-0024 Ver 0

Other:

AMP Reference:

### REMARKS

| ☐ MAJOR | ☐ RII | ☐ CDCCL | ☐ CPCP | ☐ Inform ME |
|---|---|---|---|---|
| ☐ ETOPS | ☐ MSE | ☐ PBN(RNP) | ☐ RVSM | ☐ EWIS |
| ☐ CAT II/III | ☐ Sampling | ☐ FCS | | |

☐ Inform Flight Crew      ☐ FIRST ON SITE Support

Labor:      ERI

Note : AMP/EO Task Card Includes 4 parts: Cover Page, Tools/Materials List, Record Sheet & Task Instructions

## Instructions:

1. Installation the 4G WQAR P/N:2243800-464.
2. WQAR Health Check and Configuration Test.

*T-2274652-1*

## ROTABLE PARTS ON/OFF RECORD

| P/N OFF | S/N OFF | POS CODE | P/N ON | S/N ON |
|---|---|---|---|---|
| / | / | E/E | 2243800-46V | RA 04858 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

## Action Taken:

PER TASK CARD 7E31-35-0024 WQAR RPLD. AND SYS FUNCTION CHK NML. WORK ACCOMPLISHED

| CERTIFIED BY | DATE(MM/DD/YY) | STATION |
|---|---|---|
| 638797 (signature) | 01 / 15 / 20 | TPE |

# CHINA AIRLINES — Tools/Materials List

| Task Card No: | Task Title: |
|---|---|
| 7E31-35-0024_INSTLR0<br><br>Revision: R1 | Do the WQAR upgrad from P/N:2243800-364 to P/N:2243800-464 in Boeing 744 Family Aircraft |

| Aircraft: | Check Event: |
|---|---|
| BOEING 747-400 - B-18707 | DY |

**PARTS REQUIRE:**

| PART NO. | DESCRIPTION | REQUEST ID | QTY |
|---|---|---|---|
| Group Part<br>2243800-464 | 31-35-02-01A-50A (RECORDER - QUICK ACCESS(POST SB) )<br>RSYC6003BYRW | | 1 |

**TOOLS REQUIRE:**

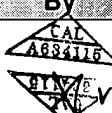| PART NO. | DESCRIPTION |
|---|---|
| | NIL |

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| CHINA AIRLINES | TASK CARD NO:<br>7E31-35-0024_INSTLR0<br><br>Revision    R1 | STATION:    TPE | PAGE: 1 OF 1 |
|---|---|---|---|
| | | CHECK EVENT:  DY | |
| AIRCRAFT:<br>BOEING 747-400 - B-18707 | TASK TITLE:<br>Do the WQAR upgrad from P/N:2243800-364 to P/N:2243800-464 in Boeing 744 Family Aircraft | | |

### RECORD SHEET

### Record the Execution Information

## NOTE: PLEASE FILL OUT THE RESULT IN NORMAL OR ABNORMAL COLUMN.

| Item | Step | Record | Normal "V" | Abnormal "TLB/GLB No." | Recorded By | RII |
|---|---|---|---|---|---|---|
| 1 | 2.B | RECORD THE RESULT :<br><br>ON P/N: 2243800-464<br><br>ON S/N: RA.04858. | V | NIL. | CAL A884116 QTY E void P1520 63V115 0H520 | NIL |

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| CHINA AIRLINES | TASK CARD NO: 7E31-35-0024_INSTLR0 Revision R1 | STATION: TPE | PAGE: 1 OF 10 |
|---|---|---|---|
| | | CHECK EVENT: DY | |
| **AIRCRAFT:** BOEING 747-400 - B-18707 | **TASK TITLE:** Do the WQAR upgrad from P/N:2243800-364 to P/N:2243800-464 in Boeing 744 Family Aircraft | | |

| TASK INSTRUCTION | SIGNOFF |
|---|---|

**1. GENERAL**

A. General
  (1) Affected Aircraft : B744-409 fleets.
  (2) Classification: MINOR MODIFICATION.
  (3) Background:
CAL A330 fleet currently installed P/N:2243800-364 WQAR and due to 3G network will
shut down by NCC policy at the end of 2021. In order to avoid the fleets flight data transmission
interrupt by 3G network shutdown, upgrade the WQAR to 4G LTE configuration,
ME issue this job card to do the WQAR retrofit.
  (4) Weight & Balance: Not change.
  (5) Electrical Load Data: Not change.
  (6) Description: WQAR P/N:2243800-464 install and parameter setting with function test.
  (7) Tool: SPL-1690 , P/N: A27092-84 (Actuator for air/gnd simulation)

B. Inform Flight Crew: ☐YES ■NO

C. Materials Information: **WQAR PN:2243800-464, store in AS/AR.**

**2. ACCOMPLISHMENT INSTRUCTION:**

A. WQAR installation and test procedure: (For the Step result tick the PASS or FAIL with "V")

| STEP | Procedure | Pass (V) | Fail (V) |
|---|---|---|---|
| 1 | Verify that electrical power is removed from the aircraft and it is tagged to prevent inadvertent application of power. | √ | |
| 2 | Before proceeding with the following work instructions, the aircraft must already be in its normal configuration. | √ | |
| 3 | Open this circuit breaker and install safety tag: **Power Distribution Center - Right Panel,P415** **Row**  **Col**  **Number**  **Name** L    38    C01926    ACMS-AC | √ | |
| 4 | **Work on E1 Rack (Figure 1 and Figure 2)** | N/A | N/A |
| 5 | Remove the existing QAR (B488) and return to store if one is installed in E1-5 shelf.   Otherwise, put N/A for this step. | N/A | N/A |
| 6 | Remove the ARINC 600 dust cover from the WQAR to be installed. Install and secure the WQAR in the E1-5 Shelf B488 tray location. | √ | |
| 7 | Remove the safety tag and close this circuit breaker **Power Distribution Center - Right Panel,P415** **Row**  **Col**  **Number**  **Name** L    38    C01926    ACMS-AC | √ | |
| 8 | Apply power to the aircraft. | √ | |
| 9 | **WQAR Health Check and Configuration** | N/A | N/A |
| 10 | Verify that the WQAR front panel FAIL LED is extinguished (turned OFF) after unit boot is complete. | √ | |
| 11 | Press the MODE key and then press the + key repeatedly until UNIT INFO is displayed. | √ | |

CAL
A884115
OP 1520

**PARTIAL SIGN OFF STATUS:**

Step: _____ Completed through: _____ Sign: _____

Step: _____ Completed through: _____ Sign: _____

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| | | **TASK CARD NO:** | **STATION:** TPE | **PAGE:** 2 OF 10 |
|---|---|---|---|---|
| **CHINA AIRLINES** | | 7E31-35-0024_INSTLR0 <br> **Revision** R1 | **CHECK EVENT:** DY | |

| **AIRCRAFT:** <br> BOEING 747-400 - B-18707 | **TASK TITLE:** <br> Do the WQAR upgrad from P/N:2243800-364 to P/N:2243800-464 in Boeing 744 Family Aircraft |
|---|---|

| | **TASK INSTRUCTION** | | | **SIGNOFF** |
|---|---|---|---|---|

| STEP | Procedure | Pass (V) | Fail (V) | |
|---|---|---|---|---|
| 12 | Press the SEL key and then press the + key repeatedly until S/W VERSION is displayed. | √ | | |
| 13 | Press the SEL key. | √ | | |
| 14 | Press the + or – key to scroll through the WQAR software components and ensure that they are correctly installed. <br> If the software components are not correctly installed, update these software components in the WQAR by performing Teledyne Service Bulletin SB2243800-31-27. | √ | | |
| 15 | Press the MODE key and then press the + key repeatedly until ADVISORIES is displayed. | √ | | |
| 16 | Press SEL key and verify that the display indicates NO ADVISORIES. | √ | | |
| 17 | Press the MODE key and verify that ADVISORIES is displayed. | √ | | |
| 18 | Press the + key repeatedly until STATUS is displayed. | √ | | |
| 19 | Press SEL key to display ACQUISITION. | √ | | |
| 20 | Press SEL key to display RAW. | √ | | |
| 21 | Press the + key repeatedly until SOURCE is displayed. | √ | | |
| 22 | Press SEL key and verify that BIPOLAR is displayed. | √ | | |
| 23 | Press MODE key repeatedly until STATUS is displayed. | √ | | |
| 24 | Press + key repeatedly until SYSTEM STATE is displayed. | √ | | |
| 25 | Press SEL to review the system state. | √ | | CAL A834115 |
| 26 | Set Override Run Control to **Run Control Off** Mode. | N/A | N/A | |
| 27 | Pressed MODE Button, After pressing MODE, display will show SYSTEM STATE. | √ | | of 15 20 |
| 28 | Pressed + or – Buttons, Press + or – button repeatedly until display shows: UNIT INFO. | √ | | |
| 29 | Pressed SEL Button, After pressing SEL, display will show DATE/TIME. | √ | | |
| 30 | Pressed + Button, Press + button repeatedly until display show: SET RUN CONTROL OVERRIDE. | √ | | |
| 31 | Pressed SEL Button, After pressing SEL, display will show the first of four Run Control modes: <br>     Use All Config <br> **NOTE :** The four modes list as below. On the display, an asterisk(*) will appear next to the active mode. | √ | | |

| Mode | All Value | Description |
|---|---|---|
| **Use All Config** | N/A | WQAR will operate in accordance with the OPC. (Default) |
| **Run Control Off** | 0 | WQAR will operate as if the Run Control feature is not used. |
| **Run Control On** | 1 | WQAR will operate as if the Run Control feature is used. |
| **Record In Air** | 2 | WQAR will operate Run Control in response to RF Interlock status. |

| 31 | **NOTE:** Value 0 =Flight data is recorded at all times. <br>     Value 1 =Flight data is recorded when commanded by the acquisition | | | |
|---|---|---|---|---|

**PARTIAL SIGN OFF STATUS:**

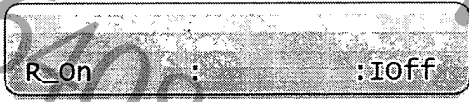Step: _____ Completed through: _____ Sign: _____

Step: _____ Completed through: _____ Sign: _____

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| | TASK CARD NO: | STATION: TPE | PAGE: 3 OF 10 |
|---|---|---|---|
| **CHINA AIRLINES** | 7E31-35-0024_INSTLR0 Revision R1 | CHECK EVENT: DY | |

| AIRCRAFT: BOEING 747-400 - B-18707 | TASK TITLE: Do the WQAR upgrad from P/N:2243800-364 to P/N:2243800-464 in Boeing 744 Family Aircraft |
|---|---|

| | TASK INSTRUCTION | | | SIGNOFF |
|---|---|---|---|---|

| STEP | Procedure | Pass (V) | Fail (V) | |
|---|---|---|---|---|
| | unit. Value 2 =Flight data is recorded only when the RF interlocks are engaged. | √ | | |
| 32 | Pressed + or – Buttons, Press the + and – buttons to advance through all four modes until the **Run Control Off** mode is displayed. | √ | | |
| 33 | Pressed SEL Button, Press SEL button to select the **Run Control Off** mode. Display will show: + To Confirm MODE to Cancel The MODE button cancels this operation. | √ | | |
| 34 | Pressed + Button, After pressing +, display will momentarily show: SYSTEM WILL NOW REBOOT The WQAR will reboot and will operate as configured. | √ | | |
| 35 | The post-boot up status will show below:, when Run Control is set to **OFF** (Run control feature not in use). R_On : :Ioff | √ | | |
| 36 | Adjust the **Time, Date and Tail Number** on WQAR | N/A | N/A | |
| 37 | **Adjust the Time and Date on WQAR (Using UTC date & time)** Proceed to the next Steps to enter the Registration Number. | √ | | |
| 38 | Push the MODE key to display the SYSTEM STATE. | √ | | |
| 39 | The SYSTEM STATE menu comes into view. | √ | | |
| 40 | Push the + or - key until the DATE:TIME menu comes into view. | √ | | |
| 41 | DATE:TIME menu comes into view. | √ | | |
| 42 | Push the SEL key to enter the DATE:TIME menu. | √ | | |
| 43 | The message "DISPLAY" comes into view. | √ | | |
| 44 | Push the + or - key until the message "SET" comes into view. | √ | | |
| 45 | The message "SET" comes into view. | √ | | |
| 46 | Push the SEL key to display the current values of date and time as follows: L1> YYYY:MM:DD L2> HH:MM:SS. **NOTE:** The WGL-DAR clock is a 24-hour clock. | √ | | |
| 47 | The year field on the display flashes. **NOTE:** After the selection of each field to change, it flashes. | √ | | |
| 48 | Push the + or - key to select the correct calendar year (YYYY). | √ | | |
| 49 | The selected digits show in the year field (YYYY). | √ | | |
| 50 | Push the SEL key on the front panel of the WGLDAR. | √ | | |
| 51 | The calendar month field (MM) on the display flashes. | √ | | |
| 52 | Push the + or - key select the correct calendar month (MM). | √ | | |

**PARTIAL SIGN OFF STATUS:**

Step: _____ Completed through: _____ Sign: _____

Step: _____ Completed through: _____ Sign: _____

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| CHINA AIRLINES | TASK CARD NO:<br>7E31-35-0024_INSTLR0<br>Revision R1 | STATION: TPE | PAGE: 4 OF 10 |
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| | | CHECK EVENT: DY | |

| AIRCRAFT:<br>BOEING 747-400 - B-18707 | TASK TITLE:<br>Do the WQAR upgrad from P/N:2243800-364 to P/N:2243800-464 in Boeing 744 Family Aircraft |
|---|---|

| TASK INSTRUCTION | | | | SIGNOFF |
|---|---|---|---|---|

| STEP | Procedure | Pass (V) | Fail (V) | |
|---|---|---|---|---|
| 53 | The selected digits show in the month (MM) field. | √ | | |
| 54 | Push the SEL key on the front panel of the WGLDAR. | √ | | |
| 55 | The calendar day (DD) field on the display flashes. | √ | | |
| 56 | Push the + or - key to select the correct calendar day (DD). | √ | | |
| 57 | The selected digits show in the day (DD) field. | √ | | |
| 58 | Push the SEL key on the front panel of the WGLDAR. | √ | | |
| 59 | The calendar hour (HH) field on the display flashes. | √ | | |
| 60 | Push the + or - key to select the correct hour (HH). | √ | | |
| 61 | The selected digits show in the hour (HH) field. | √ | | |
| 62 | Push the SEL key on the front panel of the WGLDAR. | √ | | |
| 63 | The minutes (MM) field on the display flashes. | √ | | |
| 64 | Push the + or - key to select the minutes (MM). | √ | | |
| 65 | The selected digits show in the minutes (MM) field. | √ | | |
| 66 | Push the SEL key on the front panel of the WGLDAR. | √ | | |
| 67 | The seconds (SS) field on the display flashes. | √ | | |
| 68 | Push the + or - key to select the correct seconds (SS). | √ | | |
| 69 | The selected digits show in the seconds (SS) field. | √ | | |
| 70 | Push the SEL key on the front panel of the WGLDAR. | √ | | |
| 71 | The WGL-DAR reboots. | √ | | |
| 72 | Push the MODE key to display the SYSTEM STATE. | √ | | |
| 73 | The SYSTEM STATE menu comes into view. | √ | | |
| 74 | Push the + or - key to until the DATE:TIME menu comes into view. | √ | | |
| 75 | The DATE:TIME menu comes into view. | √ | | |
| 76 | Push the SEL key until "DISPLAY" message comes into view. | √ | | |
| 77 | The "DISPLAY" message comes into view. | √ | | |
| 78 | Push the SEL key to display the current values of date and time. | √ | | |
| 79 | The current date and time comes into view as follows:<br>L1> YYYY:MM:DD<br>L2> HH:MM:SS. | √ | | |
| 80 | Push the MODE key until the DATE:TIME menu comes into view. | √ | | |
| 81 | The DATE:TIME menu comes into view. | √ | | |
| 82 | Push the + or - key until the SYSTEM STATE menu comes into view. | √ | | |
| 83 | The SYSTEM STATE menu comes into view. | √ | | |
| 84 | **Entry of Aircraft Registration Number:**<br><br>**The tail number format must be B18xxx, no "-" between B and numbers.**<br><br>Proceed to the next Steps to enter the Registration Number. | √ | | |
| 85 | Press the MODE key to make sure you are in the main menu. | √ | | |
| 86 | Press the + key repeatedly until UNIT INFO is displayed. | √ | | |
| 87 | Press the SEL key and then press the + key repeatedly until UPDATE TAIL | √ | | |

**PARTIAL SIGN OFF STATUS:**

Step: _____ Completed through: _____ Sign: _____

Step: _____ Completed through: _____ Sign: _____

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|---|---|---|---|
| **CHINA AIRLINES** | **TASK CARD NO:** 7E31-35-0024_INSTLR0 <br> **Revision** R1 | **STATION:** TPE | **PAGE:** 5 OF 10 |
| | | **CHECK EVENT:** DY | |

| **AIRCRAFT:** BOEING 747-400 - B-18707 | **TASK TITLE:** Do the WQAR upgrad from P/N:2243800-364 to P/N:2243800-464 in Boeing 744 Family Aircraft |
|---|---|

| | TASK INSTRUCTION | | | SIGNOFF |
|---|---|---|---|---|

| STEP | Procedure | Pass (V) | Fail (V) | CAL A834115 |
|---|---|---|---|---|
| | NUMBER is displayed. | ✓ | | OP(S 20 |
| 88 88 | Press the SEL key. The display will be blank or show the current tail number. If the displayed value matches this aircraft registration number, the configuration is correct. Check mark the Pass/Fail entry for Steps 88 thru 103 as N/A and skip to Step 104. <br><br> If the displayed value does not match this aircraft registration number, registration number has to be entered. Continue to next step below. | N/A | | |
| 89 | Press the SEL key. The cursor on the first character of the aircraft tail number will flash. | | | |
| 90 | Press the + or – keys repeatedly until the first character of the aircraft tail number is set and then press the SEL key. The cursor will display again. | | | |
| 91 | Press the + key to move to the next character and then press the SEL key. | | | |
| 92 | Press the + or – keys repeatedly until this character of the aircraft tail number is set and then press the SEL key. The cursor will display again. | | | |
| 93 | Repeat Steps 91 and 92 until all characters of the aircraft registration number have been entered and then proceed to Step 94 | | | |
| 94 | If there are any characters displayed after the last entered character of the aircraft registration number, press the + key to move to the next character and then press the SEL key. Press the + and/or – keys repeatedly until the character is <Blank> and then press the SEL key. All characters after this character will be removed. <br><br> If there are no characters displayed after the last entered character, put N/A for this step and proceed to the next step in this procedure. | | | CAL A834115 OP(S 20 NOT AFFECT |
| 95 | Press the MODE key repeatedly until the front panel displays: <br><br> L1> **+ Confirm Update** <br> L2> **- Discard Update** | | | |
| 96 | Press the + key to confirm the tail number change. | | | |
| 97 | The WQAR will now reboot automatically. | | | |
| 98 | Wait (about 1 minute) for the reboot to complete and the System State display is shown. | | | |
| 99 | Verify that the front Panel FAIL LED is extinguished. | | | |
| 100 | Press the MODE key to go to the main menu. | | | |
| 101 | Press the + key repeatedly until UNIT INFO is displayed. | | | |
| 102 | Press the SEL key and then press the + key repeatedly until UPDATE TAIL NUMBER is displayed. | | | |
| 103 | Press the SEL key. | | | |
| 104 | Verify that the correct aircraft registration number is displayed and enter in the space provide below: <br><br> Aircraft Registration Number: *B18707* | ✓ | | CAL A834115 |
| 105 | Press the MODE key repeatedly until UNIT INFO is displayed and then press the – key until SYSTEM STATE is displayed | ✓ | | OP(S 20 |

**PARTIAL SIGN OFF STATUS:**

Step: _____ Completed through: _____ Sign: _____

Step: _____ Completed through: _____ Sign: _____

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| CHINA AIRLINES | TASK CARD NO:<br>7E31-35-0024_INSTLR0<br>Revision    R1 | STATION:    TPE | PAGE: 6 OF 10 |
|---|---|---|---|
| | | CHECK EVENT:  DY | |

| AIRCRAFT:<br>BOEING 747-400 - B-18707 | TASK TITLE:<br>Do the WQAR upgrad from P/N:2243800-364 to P/N:2243800-464 in Boeing 744 Family Aircraft |
|---|---|

| | TASK INSTRUCTION | | | SIGNOFF |
|---|---|---|---|---|

| STEP | Procedure | Pass (V) | Fail (V) | |
|---|---|---|---|---|
| 106 | Press the SEL key to display the system state. | √ | | |
| 107 | **RF Interlock Test** | N/A | N/A | |
| 108 | With the Engine 4 Fuel Control Switch in the CUTOFF position and the aircraft on the ground (Air/Ground indicating Ground), verify that the WQAR display's 2nd line right side displays:    **IOff**<br><br>**NOTE:** It may take up to 6 minutes before **IOn** changes to **IOff**. | √ | | |
| 109 | Open these circuit breakers:<br>**Main Power Distribution Panel , P6**<br>**Row   Col   Number   Name**<br>F      4      C00401      ENG 4 IGNITION 1<br>G     22     C10582      STBY IGN ENG4<br>K     22     C00400      ENG 4 IGNITION 2<br>Put the Engine 4 Fuel Control Switch in the **RUN** position. | √ | | A634115 op15zo |
| 110 | Verify that the right side of the second line of WQAR front panel display has changed to:   **IOn** | √ | | |
| 111 | Put the Engine 4 Fuel Control Switch in the **CUTOFF** position.<br>Close these circuit breakers:<br>**Main Power Distribution Panel , P6**<br>**Row   Col   Number   Name**<br>F      4      C00401      ENG 4 IGNITION 1<br>G     22     C10582      STBY IGN ENG4<br>K     22     C00400      ENG 4 IGNITION 2 | √ | | |
| 112 | Verify that the right side of the second line of WQAR front panel display has changed to:   **IOff**<br><br>**NOTE:** It may take up to 6 minutes before **IOn** changes to **IOff**. | √ | | |
| 113 | Simulate the aircraft "AIR/GROUND" to indicate "AIR" state.<br>(Using Tool SPL-1690 , P/N: A27092-84)<br>**NOTE:**    Precaution should be taken before the aircraft is put in the "AIR" state.    Use the Aircraft Maintenance Manual (AMM) to:<br>First prepare the aircraft for going to the "AIR" state by performing AMM procedure place the Airplane in the Air Mode, TASK 32-09-02-842-002 | √ | | |
| 114 | Verify that the right side of the second line of WQAR front panel display has changed to:   **IOn** | √ | | |
| 115 | Restore the aircraft "AIR/GROUND" state to indicate "Ground" state.<br><br>**NOTE:** Use the Aircraft Maintenance Manual (AMM) to:<br>Restore the aircraft to its normal on ground condition by performing AMM procedure to return the Airplane Systems Back to Their Normal On Ground Condition, TASK 32-09-02-862-006. | √ | | |
| 116 | Verify that the right side of the second line of WQAR front panel display has changed to:   **IOff**<br><br>**NOTE:** It may take up to 6 minutes before **IOn** changes to **IOff**. | √ | | |

**PARTIAL SIGN OFF STATUS:**

Step: _____ Completed through: _____ Sign: _____

Step: _____ Completed through: _____ Sign: _____

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| CHINA AIRLINES | TASK CARD NO:<br>7E31-35-0024_INSTLR0<br>Revision  R1 | STATION:  TPE | PAGE: 7 OF 10 |
|---|---|---|---|
| | | CHECK EVENT:  DY | |
| **AIRCRAFT:**<br>BOEING 747-400 - B-18707 | **TASK TITLE:**<br>Do the WQAR upgrad from P/N:2243800-364 to P/N:2243800-464 in Boeing 744 Family Aircraft | | |

| | TASK INSTRUCTION | | SIGNOFF |
|---|---|---|---|

| STEP | Procedure | Pass (V) | Fail (V) |
|---|---|---|---|
| 117 | **Radio Test:** | N/A | N/A |
| 118 | Verify that the Engine 4 Fuel Control Switch in the CUTOFF position and the aircraft is On the Ground by checking that the WQAR display 2nd row, right side, displays:  **IOff**<br><br>**NOTE:** It may take up to 6 minutes before **IOn** changes to **IOff**. | √ | |
| 119 | Press the MODE key to return to SYSTEM STATE menu. | √ | |
| 120 | Press the + key repeatedly until DIAGNOSTICS is displayed. | √ | |
| 121 | Press SEL and then press the + key repeatedly until DOWNLOAD TEST is displayed. | √ | |
| 122 | Press SEL and TEST FILE is displayed. | √ | |
| 123 | Press SEL and then press + key repeatedly (if necessary) until 128MB is displayed. | √ | |
| 124 | Press SEL to initiate the download test. | √ | |
| 125 | Press MODE key repeatedly until DIAGNOSTICS is displayed. | √ | |
| 126 | Press the + key repeatedly until STATUS is displayed. | √ | |
| 127 | Press SEL and then press the + key repeatedly until WIRELESS is displayed. | √ | |
| 128 | Press SEL and then press the + key repeatedly until RADIO STATUS is displayed. | √ | |
| 129 | Press SEL and the display will show the following:<br>For WQAR with four Radios (-364/-464 Configuration)<br><br>| 1:S | 2:S | 3:S | 4:S | SL=Signal Level (Range:0-31) |<br>| SL | SL | SL | SL | S=Radio Connection Phase |<br><br>| Radio Connection Phase (S) | Description |<br>|---|---|<br>| X | Radio Unknown Stage (-464 only) |<br>| 0 | Radio is not connected to the cellular network |<br>| 1 | Radio is registered to a cellular network |<br>| 2 | Radio is connected to the internet |<br>| 3 | Radio is connected to the WGCM Server | | √ | CAL A63-115<br>of1530 |
| 130 | Wait until the displayed signal level for each configured radio is a value between 01 and 31 (inclusive).<br><br>Record the observed signal level below for each radio (record the higher observed signal level):<br><br>| 1: | 2: | 3:N/A | 4:N/A | Write down the value for |<br>| 6 | 13 . | N/A | N/A | SIM slot 1 and 2 |<br><br>If this test is not successful after a few minutes of waiting, repeat the test several times before Failing the test. | √ | |
| 130 | As long as each radio has had a value of 01 or higher in any of the tests, this test has passed. | | |

**PARTIAL SIGN OFF STATUS:**

Step: _____ Completed through: _____ Sign: _____

Step: _____ Completed through: _____ Sign: _____

| | | | | |
|---|---|---|---|---|
| **CHINA AIRLINES** | **TASK CARD NO:** 7E31-35-0024_INSTLR0 **Revision** R1 | **STATION:** TPE | **PAGE:** 8 OF 10 | |
| | | **CHECK EVENT:** DY | | |
| **AIRCRAFT:** BOEING 747-400 - B-18707 | **TASK TITLE:** Do the WQAR upgrad from P/N:2243800-364 to P/N:2243800-464 in Boeing 744 Family Aircraft | | | |

| STEP | Procedure | Pass (V) | Fail (V) | SIGNOFF |
|---|---|---|---|---|
| | To repeat this test: Press the MODE key until RADIO STATUS is displayed. Press the SEL key to repeat this test. | V | | |
| 131 | Press the MODE key until STATUS is displayed. | √ | | |
| 132 | **Recording Test:** | N/A | N/A | |
| 133 | Press the WQAR MODE key repeatedly to return to the main menu. | V | | |
| 134 | Press the + key repeatedly until SYSTEM STATE is displayed. | V | | |
| 135 | Press the SEL key to see the system state. | V | | |
| 136 | On the CDU front panel, start WQAR raw data recording by changing QAR SELECT ON to indicate QAR ON under the ACMS menu. | V | | |
| 137 | Wait for the top line of WQAR front panel to display: **RawIn:SyncIn:** [display may be scrolling] Observe that the message does not change for approximately 2 minutes. | V | | |
| 138 | Press the MODE repeatedly until SYSTEM STATE is displayed | V | | |
| 139 | Press the + key repeatedly until STATUS is displayed. | V | | |
| 140 | Press SEL key to display ACQUISITION. | V | | |
| 141 | Press SEL key to display RAW | V | | |
| 142 | Press the + key once to display RATE | V | | A684115 |
| 143 | Press SEL and record the DFDAC rate is displayed . The DFDAC rate : >56 . wps | V | | |
| 144 | On the CDU front panel, stop WQAR raw data recording by changing QAR SELECT ON to indicate QAR OFF under the ACMS menu. | V | | |
| 145 | **Aircraft Installation and Test Procedure is Complete.** | V | | |

B. Record the install WQAR P/N and S/N in record sheet.
C.Close-UP
  (1) Remove electrical power (PAGEBLOCK 24-22-00/201).
  (2) If access is no longer required, close this access door:
    **Number  Name/Location**
    117A    Electronic Equipment Access Door

D.PCC
  (1) Please copy or scan all page (include cover page) and send or mail to ME_AV for recording.
  ( wei-ting.liu@china-airlines.com )

645376
0915'20

**PARTIAL SIGN OFF STATUS:**
Step: _____ Completed through: _____ Sign: _____
Step: _____ Completed through: _____ Sign: _____

QP08MN082F5R1

TS3RJ009EU19

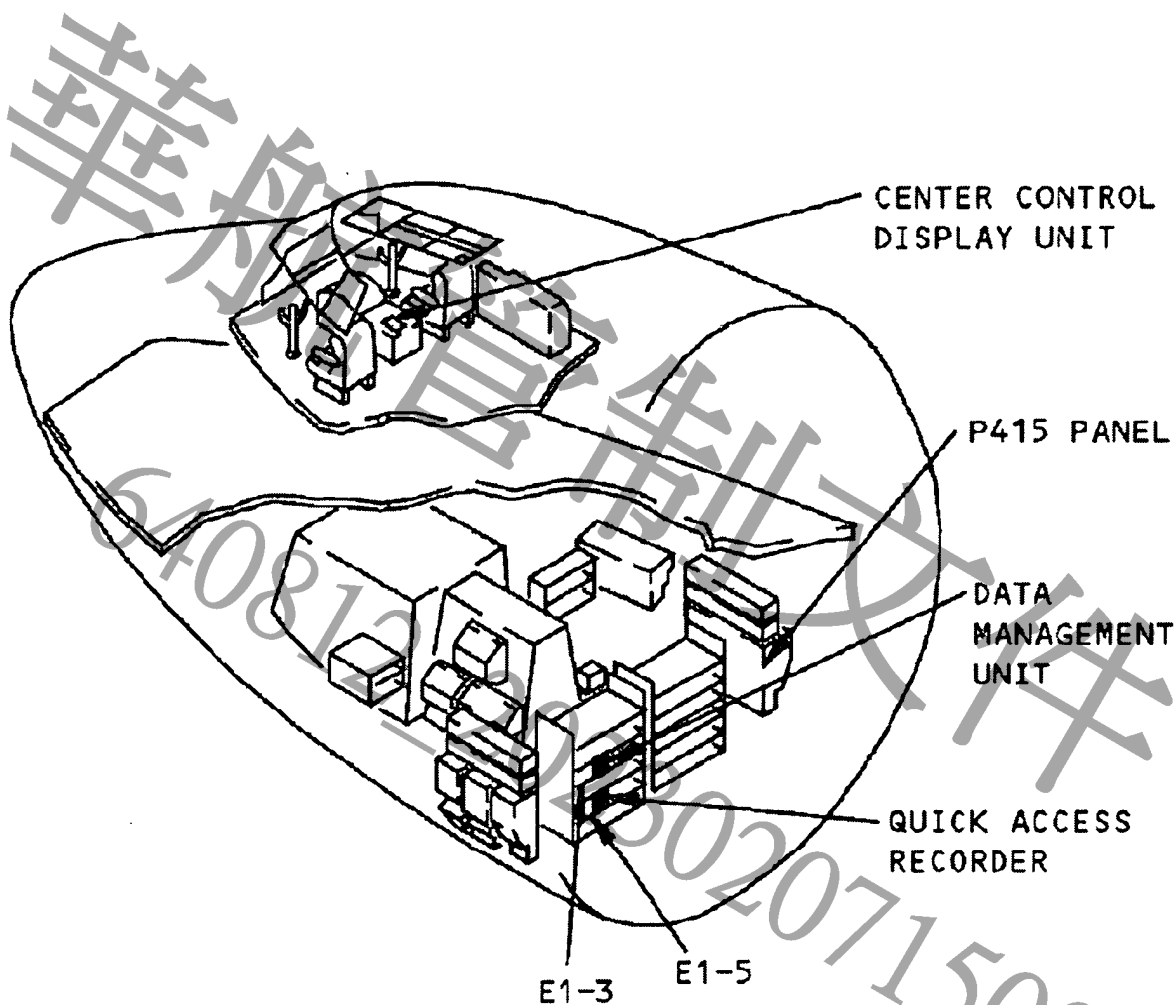| CHINA AIRLINES | TASK CARD NO:<br>7E31-35-0024_INSTLR0<br><br>Revision    R1 | STATION:    TPE | PAGE: 9 OF 10 |
|---|---|---|---|
| | | CHECK EVENT:  DY | |
| AIRCRAFT:<br>BOEING 747-400 - B-18707 | TASK TITLE:<br>Do the WQAR upgrad from P/N:2243800-364 to P/N:2243800-464 in Boeing 744<br>Family Aircraft | | |

**FIGURE**



CENTER CONTROL DISPLAY UNIT

P415 PANEL

DATA MANAGEMENT UNIT

QUICK ACCESS RECORDER

E1-3    E1-5

**Figure .1 Panel Locations and WQAR Access**

QP08MN082F6R1

T S 3 R J 0 0 9 E U 1 9

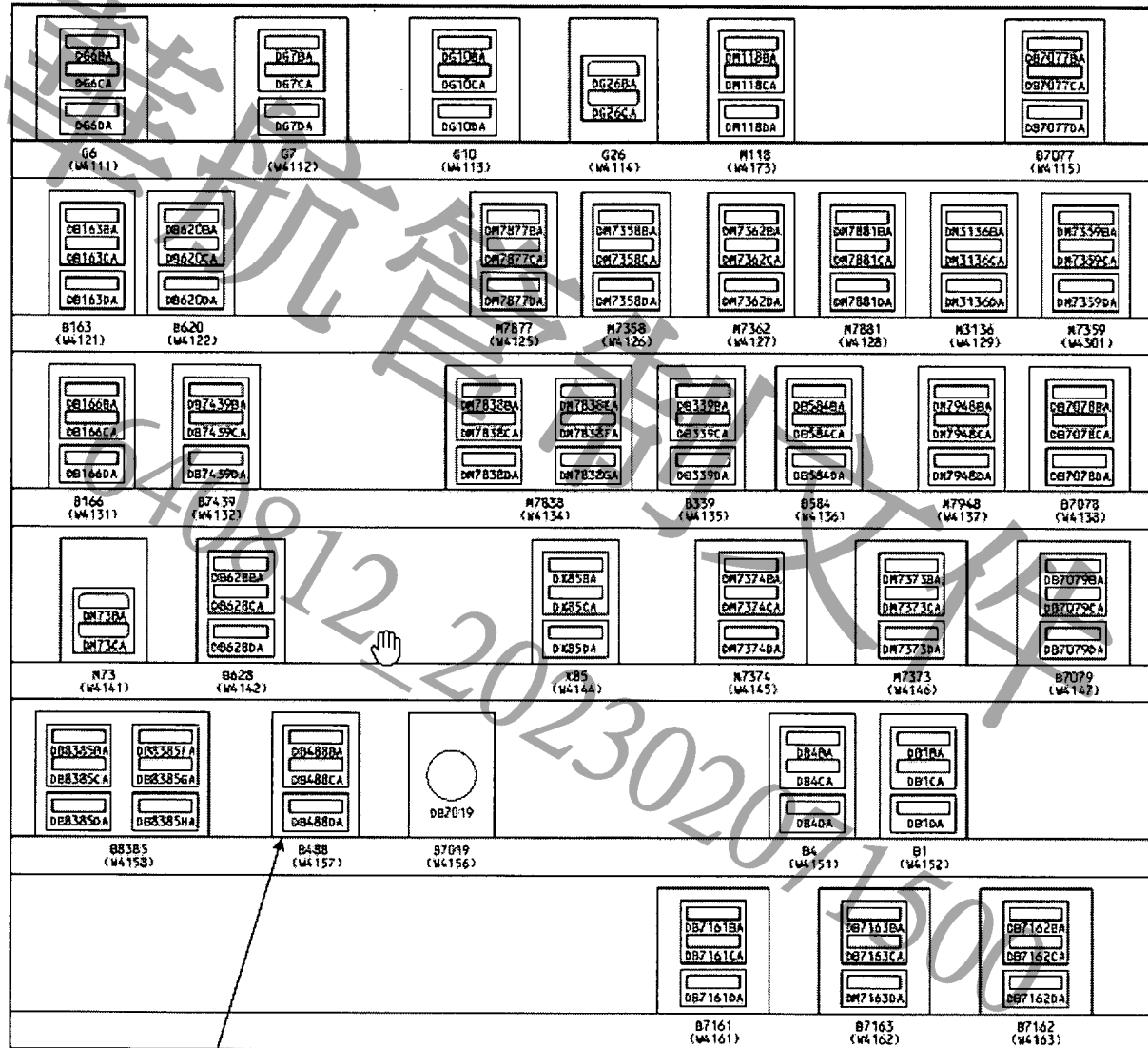| CHINA AIRLINES | TASK CARD NO: 7E31-35-0024_INSTLR0 Revision R1 | STATION: TPE | PAGE: 10 OF 10 |
|---|---|---|---|
| | | CHECK EVENT: DY | |
| AIRCRAFT: BOEING 747-400 - B-18707 | TASK TITLE: Do the WQAR upgrad from P/N:2243800-364 to P/N:2243800-464 in Boeing 744 Family Aircraft | | |

**FIGURE**



REAR VIEW

WQAR
E1-5 Shelf

Figure 2 WQAR Location E1-5 Shelf , E/E Bay

QP08MN082F6R1

TS3RJ009EU19

| | |
|---|---|
| IS3RJ001QDQW | 中華航空公司可用／識別掛籤<br>CHINA AIRLINES LTD.<br>SERVICEABLE PARTS/TRACKING TAG |

| 廠商件號 MFR. PART NO.<br>2243800-464 | 名稱 NOMENCLATURE<br>RECORDER - QUICK |
|---|---|
| PART GROUP<br>31-31-24-05-005J | STOCK NO.<br>31_2243800-364 |
| 主修工場／位置 REPAIR LOCATION<br>VENDOR | SMCC:<br>B |
| 品質文件編號 RELEASE NBR<br>WO-00162194 | 購案／交修案號碼 PO / RO NBR<br>U0520397 |
| 廠商序號 MFR. SERIAL NO.<br>RA04858 | 授權者簽章 AUTHORIZED SIGNATURE<br>CAL X-01 |
| 日期 DATE<br>2020/08/06 | 存儲到期日期 STORAGE DUE DATE<br>NIL |

| 庫存位置 STORAGE BIN LOCATION |
|---|
| TPE/MS/SERVICEABLE STORE |

| TOTAL HOUR<br>6576.81 | TOTAL CYCLE<br>2212 |
|---|---|

| ETOPS<br>NA | PMA<br>NO | INVENTORY CLASS<br>TRK |
|---|---|---|

REMOVED FROM BELOW AIRCRAFT OR SPARE UNIT IN SERVICEABLE CONDITION

| 飛機/發動機/APU/組合件件號<br>A/C/ENGINE/APU/ASSY NO. | 位置代號/序號<br>POSITION CODE/SERIAL NO. | 機械員簽章/日期<br>MECHANIC SIGNATURE/DATE |
|---|---|---|
| B-18907 | E/E | 638007<br>王文龍 09.15 20 |

QP10MS050F1R5

OFF: 2243800-364
RA 07972

63X115
OF 15 20

☐ 本掛籤所標示之飛機零件及/或組成件。業經按照最新民航法規予以修理及檢驗,並認定其適合裝用於航空器上。 有關本件之詳細修理資料均保存於本公司工作單檔卷之內,單號如掛籤正面所載。

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簽名SIGNATURE _____ 日期DATE _____

民航局核定修理廠檢定證書修廠字第001號。
CCAA APPROVED REPAIR STATION NO. CAA-RS-001.

☑ 本掛籤所標示之飛機零件及/或組成件,業經送至合格之

☐ CCAA 修理廠　　☑ FAR-145 修理廠　　☑ EASA PART-145 修理廠

修理及檢驗,並認定其適合裝用於航空器上。 有關本件之詳細修理資料均保存於本公司接收單檔卷之內,單號如掛籤正面所載。

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TAIWAN TAOYUAN INTERNATIONAL AIRPORT